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THE IMPACT OF THE ECONOMIC CRISIS ON SALARIES IN POLAND

Abstract. The aim of the article is to assess the situation in terms of wage inequality and identify factors influencing changes in the levels, dynamics and relations of wages in voivodeships in Poland in 2012–2021. In Poland, during the analyzed period, an economic crisis occurred in 2012 as a consequence of the crisis of 2008–2009 and since 2020. Average monthly gross wages in Poland will be used for this purpose. Based on this data, deviations, relationships, and rates of change will be calculated. To carry out the analysis and evaluation, I will use statistical data published in the Statistical Yearbooks of the Central Statistical Office in Warsaw for the years 2012–2021. In this article, the region will be identified with the voivodeship, according to the administrative division.

Keywords: differentiation, remuneration, wages, voivodship, region.

1. Introduction

A situation in which the economy of a country or region records a significant decrease in economic activity is called economic crisis. Then fewer people work, productivity drops, and companies make less profits or incur losses. The economic crisis can have many causes, such as a decrease in demand for products, an increase in production costs or changes in international markets. The economic crisis has a negative impact on people's lives as it often leads to higher unemployment, lower living standards, poverty and increased social inequalities. Governments often take measures to stimulate the economy, such as investment programs, subsidies for companies, changes in tax policy or unemployment assistance programs. The occurrence of an economic crisis is difficult to predict in the longer term. Nevertheless, there are indications that such a crisis is imminent. In the era of the early phase of the recession, a fairly large group of enterprises is getting worse and worse. Some of them declare bankruptcy.

Others, in turn, reduce jobs and cut employee costs, including salaries. This results in redundancies of a significant number of employees. This is not the only reason for the economic crisis. In Poland, in the analyzed period, an economic crisis occurred in 2012 as a consequence of the crisis of 2008–2009 and since 2020. Remuneration of employees is one of the basic and important issues of the modern economy and economy. They concern the human factor and the work it provides, as well as employees' expectations related to this work in the form of pay. The attitudes and behaviors of people who engage their activities, skills and knowledge "translate" into specific inputs and measurable effects both in the economy as a whole system and in its individual departments or economic organizations (Jarmołowicz, Strużyna, 2003: 58). Among the various aspects of wage formation in a market economy, wage differentiation deserves special attention. It is the result of various factors: demographic, social and economic (Jarmołowicz, Knapieńska, 2007: 110). On the other hand, knowledge about the level and differentiation of remuneration for work can be used in the Polish economy (both on a micro- and macroeconomic scale) for activities aimed at increasing work efficiency and improving the competitive position of enterprises, and for more rational management of human resources in the region and in the country. The level, dynamics and relations of wages in economic organizations depend on the situation on the labor market, therefore they also require detailed and constant monitoring as well as analysis and evaluation. The differentiation of wages indicates, among other things, how much should be paid in different positions in order to obtain, among others, employees with desirable qualifications (Listwan, 2002: 65). Remuneration is the total of cash expenses and benefits in kind paid to employees for employment in a business entity and calculated according to employment and remuneration statistics. Remuneration is one of the essential determinants of the human resource management function (Pocztowski, 1998: 23). Remuneration – on the one hand – is an element of employee income, and on the other – labor costs incurred by the enterprise (Borkowska, 1992: 53). The above approach seems to be the most general and comprehensive. Income from work – apart from salaries – also includes non-wage income, understood as company social benefits and part of living expenses (subsidies to canteens, flats, means of transport). In Western European countries, remuneration for work in the broad sense also usually includes all personnel costs, and thus also insurance, sickness benefits, etc. social benefits, the cost of purchasing and using a company car, training costs, etc., and sometimes even income from shares or bonds (Jarmołowicz, Knapieńska, 2007: 110). Pay also includes

other colloquially used terms, such as salary, salary, emolument. According to this author, wages are therefore cash payments and the value of benefits in kind for work performed under an employment relationship, apart from profit sharing and pure surplus in cooperatives. However, the very concept of remuneration has a broader scope for it, as it covers all cash payments and the value of benefits in kind for work performed under this relationship or on the basis of a contract of mandate, as well as fees and other charges related to work (Jacukowicz, 2000: 188). Wages and wages are used interchangeably. These terms mean, in his opinion, monetary and material expenses incurred by the organization to pay for the work performed by its members (Kownacki, 1996: 111). Wage is a term used in at least two senses: broad, meaning income obtained in connection with the employment relationship, and narrow, referring to the part of this income related to the amount of work performed. In the broad sense, “wage” can therefore be used interchangeably with the term “remuneration”. S. Borkowska also points to three features of the wage policy in the enterprise itself. The first is that wages are remuneration for work done in proportion to its quantity and quality. Quantity and quality are measured here using special techniques used at the enterprise level (including those related to the valuation and evaluation of work results). This is also the second feature. The third one is the fact that the determinants of the level and differentiation of wages, in addition to the above-mentioned quantity and quality of work, are: the company’s financial capabilities and its development strategy, the situation on the labor market, the cost of living, the role and cooperation of social partners (Jarmołowicz, Knapińska, 2005: 38–39).

2. Remuneration in provinces in Poland

First, an assessment of the situation in terms of wage inequality will be carried out and the factors influencing changes in wage levels in voivodeships in Poland in 2012–2021 will be identified. The results of the conducted analyzes reveal that there was a large differentiation of salaries between voivodeships (Table 1). The average salary in Poland in 2012 was PLN 3530,47, in 2014 it increased to PLN 3777,10, in 2016 to PLN 4052,19, in 2018 to PLN 4589,91, and in 2020 to PLN 5226,00 PLN, and in 2021 they increased to PLN 5682,97. Let us also note here that the highest average wages in the entire analyzed period were recorded in the Mazowieckie voivodeship. In 2012, wages amounted to PLN 4375,97, in 2014 they increased

Table 1

Average monthly gross salaries in voivodships in Poland in 2012–2021 (in PLN)

Itemization	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Poland	3530,47	3659,40	3777,10	3907,85	4052,19	4283,73	4589,91	4920,09	5226,00	5682,97
Dolnośląskie	3503,59	3654,57	3814,42	3960,48	4140,76	4400,05	4685,86	5040,29	5365,79	5883,69
Kujawsko-Pomorski	3032,09	3163,57	3273,13	3369,85	3506,02	3717,21	3961,76	4301,08	4601,76	5045,26
Lubelskie	3203,68	3306,12	3412,78	3497,98	3652,04	3824,28	4061,28	4358,82	4668,66	5069,14
Lubuskie	3034,01	3114,69	3247,04	3375,72	3541,91	3754,54	4029,14	4333,15	4576,02	5020,57
Łódzkie	3194,30	3315,58	3418,12	3574,28	3712,34	3925,97	4216,62	4549,00	4865,49	5326,06
Małopolskie	3260,87	3372,60	3485,33	3667,02	3839,56	4097,35	4418,06	4808,56	5186,34	5672,84
Mazowieckie	4375,97	4514,42	4657,07	4801,53	4948,13	5219,09	5601,44	5942,59	6247,60	6735,13
Opolskie	3172,23	3281,48	3425,56	3565,04	3708,24	3923,58	4157,44	4476,84	4799,76	5210,78
Podkarpackie	3024,50	3147,18	3266,17	3371,47	3501,68	3684,71	3933,60	4224,70	4511,63	4960,13
Podlaskie	3143,64	3258,66	3348,38	3455,57	3583,38	3815,23	4066,29	4367,14	4686,47	5153,91
Pomorskie	3455,09	3595,98	3746,69	3851,68	3995,39	4211,69	4506,18	4838,67	5140,75	5622,34
Śląskie	3629,57	3796,14	3862,32	3969,67	4059,14	4247,44	4586,55	4922,79	5172,42	5610,85
Świętokrzyskie	3070,29	3165,93	3244,84	3374,56	3472,53	3705,65	3954,13	4259,60	4538,11	4988,53
Warmińsko-Mazurskie	2996,24	3106,89	3223,04	3324,04	3456,95	3641,32	3855,79	4136,26	4471,69	4884,89
Wielkopolskie	3218,67	3335,93	3421,43	3543,24	3711,14	3937,71	4201,16	4499,63	4775,79	5163,86
Zachodniopomorskie	3179,33	3298,99	3402,10	3526,96	3681,90	3890,86	4155,94	4479,46	4764,69	5202,47

(Ważniejsze dane o województwach i regionach, *Przeciętne miesięczne wynagrodzenia brutto*, Rocznik Statystyczny Województw 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022. Wydawnictwo GUS Warszawa 2013: 334–335, 2014: 322–323, 2015: 320–321, 2016: 316–317, 2017: 296–297, 2018: 56–57, 2019: 56–57, 2020: 53, 2021: 53, 2022: 57)

to PLN 4657,07, in 2016 to PLN 4948,13, in 2018 to PLN 5601,44, and in 2020 to PLN 6247,60, and in 2021, they increased to PLN 6735,13. High wages in the Mazowieckie Voivodship were mainly the result of wage developments in Warsaw. In this market, many companies had their headquarters and headquarters in Warsaw, especially when it came to financial, insurance and banking activities. These enterprises needed highly skilled and educated staff. Such employees had to be highly remunerated. In the Mazowieckie region, disproportions between salaries in and around the capital are much more clearly observed than in other regions of Poland. High salaries also resulted from relatively high economic development and a large number of domestic and foreign enterprises. And companies with a majority of foreign capital generally paid more than Polish companies. It was also important that Warsaw is the capital of Poland, which also has consequences in terms of salaries. High salaries were also observed in the Śląskie Voivodeship. In 2012, wages amounted to PLN 3629,57, in 2014 they increased to PLN 3862,32, in 2016 to PLN 4059,14, in 2018 to PLN 4586,55, and in 2020 to PLN 5172,42, and in 2021 they increased to PLN 5610,85. In the Śląskie Voivodeship, the location of mines had a significant impact on the level of remuneration. Along with the progress of the Polish economic transformation and structural changes, mining and metallurgy ceased to play the most important role, but mines were still attractive for wage reasons. Foreign investors, especially due to environmental degradation, did not want to invest in this region. However, thanks to the conditions created by the Katowice Special Economic Zone, some of the investors decided to start their business there. In these companies, employees received high salaries. In Silesia, the level of remuneration was significantly influenced by the location of the plants, and therefore whether you work in the largest cities in this region, i.e. Katowice, Chorzów, Gliwice, Zabrze or Bytom. Relatively high salaries were also observed in the Dolnośląskie Voivodship. In 2012, wages amounted to PLN 3503,59, in 2014 they increased to PLN 3814,42, in 2016 to PLN 4140,76, in 2018 to PLN 4685,86, and in 2020 to PLN 5365,79, and in 2021 they increased to PLN 5883,69. High salaries result from the fact that the Lower Silesian labor market is attractive. The salaries of high- and middle-level managers are delimited by special economic zones: Wałbrzych and Legnica. Thanks to foreign investments made here, wages in these zones have increased. High salaries were also recorded in the Pomeranian Voivodeship. In 2012, wages amounted to PLN 3455,09, in 2014 they increased to PLN 3746,69, in 2016 to PLN 3995,39, in 2018 to PLN 4506,18, and in 2020 to PLN 5140,75, and in 2021 they increased to PLN 5622,34. In

Pomerania, the highest salaries were offered by the Tri-City. State-owned companies are among the best-paid jobs in the region. In this voivodship, an increase in salaries was noticed in enterprises from the technical, banking and financial sectors. In the Łódź region, salaries stood at PLN 3194,30 in 2009 and increased to PLN 5326,06 in 2021. They have been more or less in line with inflation, especially in managerial and senior management positions. On the other hand, the wages of lower-level employees do not “keep up” with inflation. In the Lodz voivodeship there is an interest in unqualified manual workers, despite the fact that they are offered the lowest possible wage rates. As a result of the collapse of the construction market, wages in the construction industry are falling in this region. A similar situation applies to gastronomy. The lowest wages were in the Warmińsko-Mazurskie voivodeship. In 2012, wages amounted to PLN 2996,24, in 2014 they increased to PLN 3323,04, in 2016 to PLN 3456,95, in 2018 to PLN 3855,79, and in 2020 to PLN 4471,69, and in 2021 they increased to PLN 4884,89. The main determinant of such low wages in the Warmińsko-Mazurskie region was unemployment, which is also the highest in the country. Suwałki economic zones were created, whose task is to encourage investors to start business activity by creating appropriate motivation, in the form of, among others, the possibility of not increasing the local level of wages. Low salaries were also observed in the Podkarpackie voivodeship. In 2012, wages amounted to PLN 3024,50, in 2014 they increased to PLN 3266,17, in 2016 to PLN 3501,68, in 2018 to PLN 3933,60, and in 2020 to PLN 4511,63, and in 2021 they increased to PLN 4960,13. Such a low level of remuneration was due to the fact that the voivodeship is mainly agricultural. The impact of the economic crisis on the situation in terms of wage inequality in voivodeships in Poland in 2012–2021 was not felt.

3. Growth dynamics of the average salary in individual voivodeships

In the course of further research, the growth dynamics of average monthly gross nominal wages and salaries in Poland by voivodeships in 2012–2021 was analyzed, assuming the previous year = 100 (Table 2). And so, the data contained in this table shows that in the years 2012–2021 there was quite a significant differentiation in the growth rate of average gross monthly salaries. In 2012, average wages in Poland increased by 3,73%, in some voivodeships they increased by only 2,14% (Śląskie) and 3,12%

Table 2

Dynamics of changes in average monthly gross wages and salaries in voivodeships in Poland
in 2012–2021 (previous year = 100 (in %))

Itemization	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Inflation	3,7%	0,9%	0,0%	− 0,9%	− 0,6%	2,0%	1,6%	2,3%	3,4%	5,1%
Poland	103,73	103,65	103,22	103,46	103,69	105,71	107,15	107,19	106,22	108,74
Dolnośląskie	103,83	104,31	104,37	103,83	104,55	106,26	106,50	107,56	106,46	109,65
Kujawsko-Pomorskie	104,33	104,34	103,46	102,95	104,04	106,02	106,58	108,56	106,99	109,64
Lubelskie	104,48	103,20	103,23	102,50	103,63	105,50	106,20	107,33	107,11	108,58
Lubuskie	104,49	102,66	104,25	103,96	104,92	106,00	107,31	107,55	105,60	109,71
Łódzkie	104,62	103,80	103,09	104,58	103,86	105,75	107,40	107,88	106,96	109,47
Małopolskie	104,05	103,43	103,34	105,21	104,71	106,71	107,83	108,84	107,86	109,38
Mazowieckie	103,12	103,16	103,16	103,10	103,05	105,48	107,33	106,09	105,13	107,80
Opolskie	104,05	103,44	104,39	104,07	104,02	105,81	105,96	107,68	107,21	108,56
Podkarpackie	104,73	104,06	103,78	103,22	103,86	105,23	106,75	107,40	106,79	109,94
Podlaskie	104,71	103,66	102,75	103,20	103,70	106,47	106,58	107,40	107,31	106,97
Pomorskie	104,24	104,08	104,19	102,80	103,73	105,41	106,99	107,38	106,24	109,37
Śląskie	102,14	104,59	101,74	102,78	102,25	104,64	107,98	107,33	105,07	108,48
Świętokrzyskie	104,38	103,12	102,49	104,00	102,90	106,71	106,71	107,73	106,54	109,93
Warmińsko-Mazurskie	104,64	103,69	103,74	103,13	104,00	105,33	105,89	107,27	108,11	109,24
Wielkopolskie	103,78	103,64	102,56	103,56	104,74	106,11	106,69	107,10	106,14	109,24
Zachodniopomorskie	104,56	103,76	103,13	103,68	104,39	105,68	107,81	107,78	106,37	109,19

(Own elaboration based on Table 1)

(Mazowieckie), while in others by 4,73 in Podkarpackie and 4,71% in Podlaskie. Inflation in 2012 amounted to 3,7%. In 2014, however, there were slightly larger differences, with the growth dynamics of average monthly gross wages and salaries in Poland. In 2014, average salaries increased by 3,23%, in some voivodeships they increased by only 1,74% (Śląskie Voivodeship), and in others by 4,39% (Opolskie Voivodeship). Inflation in 2014 amounted to 0,0%. In 2016, average salaries increased by 3,69%, in some voivodeships they increased by only 2,25% (Śląskie Voivodeship), and in others by 4,92% (Lubuskie Voivodeship). Inflation in 2016 was – 0,6%. Larger differences were noted in 2017–2021. Thus, if average salaries in Poland in 2017 increased by 5,71%, in some voivodeships they increased by only 5,23% (Podkarpackie), and in others by 6,71% (Małopolskie and Świętokrzyskie). Inflation in 2017 was 2,0%. In 2019, average salaries in Poland increased by 7,19%, in the Małopolskie voivodeship the increase was 8,84%, and in the Mazowieckie voivodeship 6,09%. In 2021, average wages in Poland increased by 8,74%, in the Podlaskie voivodeship the increase was 9,97%, in the Podkarpackie voivodeship 9,94%, in the Mazowieckie voivodeship the increase was lower than in Poland, as it amounted to 7,80%, and in the Wielkopolskie voivodeship 8,13%. Comparing the growth dynamics of average wages by voivodeships in Poland in 2012–2021, it is easy to see that in many voivodeships the growth achieved in 2012–2016 was lower than in 2017–2021. The scale of acceleration in the growth rate of average wages in this period was evidenced by the fact that in 2018, in 2019 and in 2021, high growth dynamics was achieved in all voivodeships. Comparison of the annual growth rate of average wages in Poland by voivodeships shows an increase in the dynamics of changes in voivodeships and smaller and smaller spreads in growth from period to period.

4. Deviations from the average salary in Poland

The conducted analyzes also prove that in the years 2012–2021 there was also a significant differentiation of average salaries in voivodeships in relation to the average salary in Poland (Table 3).

Throughout the analyzed period, the highest average wages in comparison to the average wage in Poland were recorded in the Mazowieckie voivodeship. Remuneration in this voivodeship compared to the average remuneration in Poland was higher in 2012 by PLN 845,50, in 2014 by PLN 879,97, in 2016 by PLN 895,64, in 2018 by PLN 1011,53, in 2020

Table 3
Deviations from the average gross monthly salary in voivodeships in Poland in 2012–2021 (in PLN)

Itemization	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Poland	–	–	–	–	–	–	–	–	–	–
Dolnośląskie	– 26,88	– 4,83	+ 37,32	+ 52,63	+ 88,57	+ 116,32	+ 95,95	+ 120,20	+ 139,79	+ 200,72
Kujawsko-Pomorskie	– 498,38	– 495,83	– 503,97	– 538,00	– 546,19	– 566,52	– 628,15	– 619,01	– 624,24	– 637,71
Lubelskie	– 326,79	– 353,28	– 364,32	– 409,87	– 427,15	– 459,45	– 528,63	– 561,27	– 557,34	– 613,83
Lubuskie	– 496,46	– 544,71	– 530,06	– 532,13	– 510,28	– 529,19	– 560,77	– 586,94	– 649,98	– 662,40
Łódzkie	– 336,17	– 343,82	– 358,98	– 333,57	– 339,85	– 357,76	– 373,29	– 371,09	– 360,51	– 356,91
Małopolskie	– 269,60	– 286,80	– 291,77	– 240,83	– 212,63	– 186,38	– 171,85	– 111,53	– 39,66	– 10,13
Mazowieckie	+ 845,50	+ 855,20	+ 879,97	+ 893,08	+ 895,64	+ 953,36	+ 1011,53	+ 1022,50	+ 1021,60	+ 1052,16
Opolskie	– 358,24	– 377,92	– 351,54	– 342,81	– 343,95	– 360,15	– 432,47	– 443,25	– 426,40	– 472,19
Podkarpackie	– 505,97	– 512,21	– 510,93	– 536,38	– 550,51	– 599,02	– 656,31	– 695,39	– 714,37	– 722,84
Podlaskie	– 386,83	– 400,74	– 428,72	– 452,28	– 468,81	– 468,50	– 523,62	– 552,95	– 539,53	– 529,06
Pomorskie	– 75,38	– 63,42	– 30,41	– 56,17	– 56,80	– 72,04	– 83,73	– 81,42	– 85,25	– 60,63
Śląskie	+ 99,10	+ 136,74	+ 85,22	+ 61,82	+ 6,95	– 36,29	– 3,36	+ 2,70	– 53,58	– 72,12
Świętokrzyskie	– 460,18	– 493,47	– 532,26	– 533,29	– 579,66	– 578,08	– 635,78	– 660,49	– 687,89	– 694,44
Warmińsko-Mazurskie	– 534,23	– 552,51	– 554,06	– 583,81	– 595,24	– 642,41	– 734,12	– 783,83	– 754,31	– 798,08
Wielkopolskie	– 311,80	– 323,47	– 355,67	– 364,61	– 341,05	– 346,02	– 388,75	– 420,46	– 450,21	– 519,11
Zachodniopomorskie	– 351,14	– 360,41	– 375,00	– 380,89	– 370,29	– 392,87	– 433,97	– 440,63	– 461,31	– 480,50

(Own elaboration based on Table 1)

by PLN 1021,60, and in 2021 by PLN 1052,16. Large differences were also observed in the Śląskie Voivodeship. Remuneration in this voivodeship compared to the average remuneration in Poland was higher in 2012 by PLN 99,10, in 2014 by PLN 85,22, in 2016 by PLN 6,95, in 2018 it was lower by PLN 3,36, in 2020 they were lower by PLN 53,58, and in 2021 they were lower by PLN 72,12. Relatively high salaries were also observed in the Dolnośląskie Voivodeship. Remuneration in this voivodeship in relation to the average remuneration in Poland was lower in 2012 by PLN 26,88, in 2014 it was higher by PLN 37,32, in 2016 it was higher by PLN 88,57, in 2018 it was higher by PLN 95,95, in 2020 they were higher by PLN 139,79, and in 2021 they were higher by PLN 200,72. On the other hand, in the Warmińsko-Mazurskie voivodeship, the lowest average remuneration was recorded in comparison to the national average remuneration. Remuneration in this voivodeship compared to the average remuneration in Poland was lower in 2012 by PLN 534,23, in 2014 it was lower by PLN 554,06, in 2016 it was lower by PLN 595,24, in 2018 it was lower by PLN 734,12, in 2020 they were lower by PLN 754,31, and in 2021 they were lower by PLN 798,08. Low salaries were also observed in the Podkarpackie voivodeship. Remuneration in this voivodeship compared to the average remuneration in Poland was lower in 2012 by PLN 505,97, in 2014 it was lower by PLN 510,93, in 2016 it was lower by PLN 550,51, in 2018 it was lower by PLN 656,31, in 2020 they were lower by PLN 714,37, and in 2021 they were lower by PLN 722,84. In other voivodeships, the average remuneration in relation to the national average remuneration was at a similar level.

5. Conclusions

The economic crisis in Poland has had a very strong impact on the level and differentiation of wages in Poland. The Masovian Voivodeship was one of the voivodeships with a high level of remuneration, which was due to the location of state administration bodies. High salaries were also recorded in the Silesian Voivodeship. This region is characterized by a high degree of concentration of non-agricultural economic activities, mainly mining. However, in typically agricultural voivodeships such as Warmian-Masurian and Podkarpackie, wages are much lower. Wage differentiation is largely justified by the autonomous functioning of the market. Wages depend on the situation in the economy and the level of competitiveness of the regions. The attractiveness of regions is often dictated by the advantages resulting from their geographical location. A region with high salaries is not com-

petitive for possible investment in this area. A higher level of wages means higher costs of running a business for enterprises. With high concentration of industry, a situation may arise where a specific economic entity becomes the decision-maker in shaping the remuneration policy, the so-called a leader setting the market level of wages. There were large differences in wages between voivodeships. This was influenced by economic attractiveness, the situation on the labor market and the educational situation. Wage levels in individual regions in Poland varied quite significantly. This applies to both regions and enterprises that run business in these voivodeships. However, it should be noted that the wage dispersion in Poland is decreasing, which means that from year to year there were smaller and smaller changes in wages. The impact of the economic crisis on the situation in terms of wage inequality in voivodeships in Poland in 2012–2021 was not felt.

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