

# The evolution of the minimum wage in Poland and its consequences on labour market

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## Abstract

Poland is one of the 22 European Union members with national minimum wage legislation. The minimum wage level in Poland is legislated by the Minimum Wage Act of 2002 as amended. The aim of the study is twofold: first, to show the evolution of the minimum wage level in Poland with respect to other EU countries in the period of 2003–2023, second, to use the review of the literature as a research tool to find out whether there is a consensus on the impact of minimum wage changes on various labour market outcomes in Poland, i.e. the level of employment, wages, profits, or prices. To the best of our knowledge it is the first study of this kind for Poland.

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**Keywords:** minimum wage, minimum wage policy, employment, wages, prices

**JEL:** J31, J38, J21, R23

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## 1. Introduction

Poland is one of the 22 European Union members with national minimum wage legislation. Directive (EU) 2022/2041 of the European Parliament and of the Council of 19 October 2022 on adequate minimum wages in the European Union, focuses minimum wage policy on questions regarding, firstly, the level at which the minimum wage should be set, and secondly, the effects of increasing the minimum wage on the economy. The Directive itself does not define a specific level at which the minimum wage should be set. It lays down certain guidelines that Member States of the European Union should follow.

In particular, the Directive mentions four criteria that the Member States shall define in accordance with their national practices in relevant national law, in decisions of their competent bodies or in tripartite agreements.<sup>1</sup> These criteria should include at least the following elements: (a) the purchasing power of statutory minimum wages, taking into account the cost of living; (b) the general level of wages and their distribution; (c) the growth rate of wages; (d) long-term national productivity levels and developments. Moreover, the Directive states that Member States should use indicative reference values to guide their assessment of adequacy of statutory minimum wages such as 60% of the gross median wage and 50% of the gross average wage.<sup>2</sup>

The minimum wage level in Poland is legislated by the Minimum Wage Act of 2002 as amended. After 20 years, it is worth evaluating how the minimum wage level in Poland has evolved and analyse its consequences. The aim of the study is twofold: first, to show the evolution of the minimum wage level in Poland with respect to other EU countries in the period of 2003–2023 using available data, second, we use the review of the literature as our research tool to find out whether there is a consensus on the impact of minimum wage changes on various labour market outcomes in Poland, i.e. the level of employment, wages, profits, and prices. To the best of our knowledge it is the first study of this kind.

The study is divided into five parts. In the second part, we present the current institutional settings and the legislation regarding the minimum wage in Poland. The third part presents the evolution of minimum wage rates in Poland in 2003–2023. We also show available data on minimum wage earners across different groups of workers. The fourth part contains a comprehensive review of the literature on the impact of the minimum wage on labour market outcomes in Poland. The last part contains a summary of the study.

## 2. Institutional settings of minimum wage in Poland

Minimum wage legislation in Poland has a long history. The national monthly minimum wage was first introduced in 1956. Currently, it is legislated by the Minimum Wage Act of 2002.<sup>3</sup> The gross minimum wage level is established at the monthly rate. Additionally, in 2017, an hourly minimum wage rate was introduced.

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<sup>1</sup> Article 5 points 1–2 of the Directive (EU) 2022/2041 of the European Parliament and of the Council of 19 October 2022 on adequate minimum wages in the European Union, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32022L2041>.

<sup>2</sup> Article 5 point 4 of the Directive.

<sup>3</sup> Act of 10 October 2002 on the Minimum Wage, as amended, <https://isap.sejm.gov.pl/isap.nsf/download.xsp/WDU20022001679/U/D20021679Lj.pdf>.

The minimum wage in Poland is set in collaboration with social partners. The level is proposed by the Council of Ministers by June 15th every year and discussed through negotiations within the Social Dialogue Council, which comprises representatives from the government, employers' organisations, and trade unions. If the Council is unable to reach a consensus by July 15th, the minimum wage level for the following calendar year is decided solely by the Council of Ministers no later than September 15th. Unlike in Germany and the United Kingdom, for instance, there is no minimum wage commission.

The annual minimum wage increase is guaranteed to at least match the price level rise projected for the coming year. Additionally, in 2005, the Polish government introduced an automatic annual increase in the minimum wage, reflecting two-thirds of the forecasted gross domestic product (GDP) growth rate. This rule is set until the minimum wage reaches half of the average monthly wage in the national economy. The number of minimum wage increases during the calendar year depends on the projected inflation rate. If the forecasted inflation rate for the next year is less than 5%, the minimum wage level should be increased once during the year: on January 1st. However, if the projected inflation rate is higher than 5%, the minimum wage level should be increased twice during the calendar year: on January 1st and July 1st.

The minimum wage in Poland is established at the national level; it is not differentiated by region, sector, or occupation. The coverage of minimum wage legislation depends on the sector. In the private sector, all workers are subject to minimum wage legislation, but the legislation does not cover several public sector services (e.g. teachers or health and uniformed services) where wages are determined by separate regulations.

The minimum wage not only increases the wages of workers, but also impacts several other payments in Poland, such as night work allowances (which are set at 20% of the hourly minimum wage), the amount of severance pay for collective redundancies (they cannot exceed 15 times the minimum wage), the level of minimum compensation for unequal treatment in employment and for the termination of the contract due to mobbing, the level of minimum benefits for standby time or downtime, and the amount of social and health insurance contributions.

### **3. The evolution of the minimum wage in Poland in 2003–2023**

#### **3.1. The minimum wage in Poland and other EU countries**

Poland is one of the 22 EU member states (out of 27) with a minimum wage established at the national level. Those without a national minimum wage are Denmark, Italy, Austria, Finland, and Sweden.

Monthly minimum wages vary widely across the EU Member States. In January 2023, Luxembourg had the highest minimum wage of EUR 2387, while the lowest (EUR 399) was in Bulgaria. Comparing Poland's minimum wage with other EU countries, we can see that at EUR 746, it lies in the lower half of the ranking (see Figure 1). However, when differences in purchasing power are taken into account, the level of the minimum wage in Poland is much higher. Poland is among the EU countries with a relatively high minimum wage (with a national minimum wage above 1000 in Purchasing Power Standard (PPS); see Figure 1).

Poland also ranks high when minimum-to-average gross earnings are compared. In 2022, Poland was one of four EU countries with the highest values of this indicator (reaching almost 50%; see Figure 2).

Permanent increases in the minimum wage in Poland in recent years have led to a significant increase in the minimum-to-average wage ratio. In 2008, it was below 40%. Poland had had one of the highest increases in this ratio in recent years among the EU countries.

Poland also has one of the highest shares of minimum-wage workers. In 2018,<sup>4</sup> the proportion of employees paid less than 105% of the national minimum wage was 12.1% (see Figure 3).

### 3.2. Minimum wage changes in Poland from 2003 to 2023

In this section, we analyse the changes in the minimum wage level in Poland in the last 20 years, i.e. since the current minimum wage legislation was established. The minimum wage has constantly risen. Between 2003 and 2023, the nominal minimum wage in Poland increased by 384% (from PLN 800<sup>5</sup> in 2003 to PLN 3490 in January 2023<sup>6</sup>).

The average rate of growth was 8.3%, although in some years it reached 15% or even 20% (see Figure 4). Since 2010, the Social Dialogue Council has not reached an agreement, and for the last 14 years (2010–2023), the decisions on minimum wage growth were taken solely by the government. In most of the analysed period, the growth in the nominal minimum wage was much higher than the inflation rate (see Figure 4). As a result, the real minimum wage grew. This trend reversed in 2022 when the inflation rate exceeded 14%, and the minimum wage increased only by 7.5%. In 2023, the minimum wage is set to increase twice due to the projected inflation rate being higher than 5%.

The growth rate of the minimum wage in Poland was also higher than the growth rate of average wages in the national economy during most of the analysed period. As a consequence, the minimum-to-average wage ratio significantly increased from 36% in 2003 to 50% in 2020 (see Figure 5).

### 3.3. Minimum wage workers in Poland

According to the Ministry of Finance data, around 2.7 million of those employed in 2023 are expected to be minimum wage workers.<sup>7</sup> Unfortunately, no detailed information about the structure of minimum wage workers in the national economy is available. The only comprehensive information about minimum wage workers can be calculated from the Structure of Earnings Survey (SES) published by Statistics Poland every two years. However, data from SES concern only entities with more than nine workers. Below we present data on minimum wage workers from the SES data having in mind that the numbers might be underestimated. The overwhelming majority of minimum wage workers<sup>8</sup> employed in firms with at least ten employees are employed in the private sector (see Figure 5). Between 2006 and 2020,<sup>9</sup> the share of minimum wage workers in the public sector did not reach 1.5%, while in the private sector, it varied between 11% and 16%.

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<sup>4</sup> The data on minimum wage earners are from the Structure of Earning Survey Data, published by Eurostat every four years. The most recent data were available for the reference year of 2018 ([https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Minimum\\_wage\\_statistics](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Minimum_wage_statistics)).

<sup>5</sup> Approximately EUR 189 and PPS 336.

<sup>6</sup> Approximately EUR 746 and PPS 1274.

<sup>7</sup> <https://legislacja.gov.pl/projekt/12362401/katalog/12898045#12898045>.

<sup>8</sup> Following Eurostat, we treat minimum wage workers as those earning not more than 105% of the minimum wage. Due to data availability, the data concern only workers in enterprises with ten workers and more.

<sup>9</sup> Most recent data were available for the reference year 2020.

It is not only young people who are minimum wage workers in Poland; they are also distributed almost equally across age groups (see Figure 6). As in other countries, they are concentrated in particular NACE sections. The highest shares include Accommodation and food service activities (I), Administrative and support service activities (N), and Other service activities (S). In those sections, more than 30% of workers earned no more than minimum wage. A high proportion of minimum wage workers is also recorded in Construction (F) and Transportation and storage (H), with more than 20% of workers earning not more than the minimum wage.

Poland is a country with considerable and enduring regional differences. Due to differences in both personal and firm characteristics, the share of minimum wage workers employed in firms with at least ten workers differs across regions. The lowest numbers are observed in regions with big agglomerations (Warsaw, Wrocław, Katowice). The share of minimum wage workers is the highest in the poorly developed regions of eastern Poland. In 2020, it reached 15% of all employees in those regions.

The differences in the distribution of employers and employees lead to differences in productivity and average wages across regions. With a national minimum wage, it leads to differences in the minimum-to-average wage ratio<sup>10</sup> across regions (see Figure 7). In 2021,<sup>11</sup> Mazowieckie (the capital region) was the only area with a minimum-to-average wage ratio below 40%. In ten out of the 16 NUTS2 regions, the minimum-to-average wage ratio was above 50%.

There are even more visible differences within the regional labour markets in Poland (see Figure 8). In 2021, 44 (out of 380) local labour markets had a minimum-to-average wage ratio that exceeded 60%; in 317 units, the ratio was higher than 50%.

## **4. Evaluation of the empirical analyses for Poland**

This section presents a comprehensive review of the empirical research on the impact of the minimum wage on labour market outcomes in Poland. To compare the results with those for other countries, we set some limitations. First, we focus on research published in English, in both international and Polish journals. Second, we analyse the studies which used data that cover the long post-accession period to the EU. The last limitation is due to the fact that before Poland joined the EU, the country's economy was in a transition period from a centrally planned economy to a market one. The restructuring was accompanied by a strong reduction in state employment and the rapid growth of the private sector.

The evaluation of empirical analyses is divided into two parts. In the first part, we show the impact of minimum wage changes on employment and unemployment in Poland. In the second part, the focus is on the impact on wages, profits, and prices.

### **4.1. The impact of the minimum wage on employment**

Due to the relatively short period which could be used for the analyses, a significant part of the research used regional data to increase the number of observations in the sample. This approach additionally

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<sup>10</sup> Unfortunately, data on average wages at the regional and local level are available only for entities of the national economy with ten or more employed persons and budgetary sphere units, regardless of the number of employed persons.

<sup>11</sup> More recent data were not available.

made it possible to analyse the effects across groups of regions. Majchrowska and Żółkiewski (2012), Majchrowska, Broniatowska, Żółkiewski (2016), Fialová and Mysiková (2021), and Majchrowska and Strawiński (2022) analysed the impact of the minimum wage on employment using data on the 16 NUTS2 regions in Poland. In all the studies, the negative employment effects of minimum wage increases are found in the groups of young workers, although the effect was limited to specific periods or selected regions.

Majchrowska and Żółkiewski (2012) analysed the impact of the minimum wage on total employment (15–64 years old) and additionally among 15–24- and 25–34-year old workers. They used data on the 16 NUTS2 regions in Poland from 1999–2010. The results indicated negative employment effects on 15–24-year old workers in the 2005–2010 subperiod. Majchrowska, Broniatowska and Żółkiewski (2016) analysed the effect of the minimum wage increase on youth employment in regional labour markets in Poland to determine in which regions the effect is significant. The analysis was based on 16 NUTS2 level regions in Poland between 1999 and 2012. The results point to statistically insignificant effects of the minimum wage for the whole sample. However, after allowing the minimum wage parameter to vary across regions and time, they found that the relatively high minimum-to-average wage ratio could be the factor that limits youth employment growth in less-developed regions in the southeast of Poland (i.e. Lubelskie, Podkarpackie, and Warmińsko-Mazurskie) in the 1999–2003 period of economic slowdown. In two regions (Lubelskie and Podkarpackie), the negative employment effects were also noted in the 2004–2008 period of economic boom. In one region (Wielkopolskie), positive employment effects among young workers in that period were found.

Fialová and Mysiková (2021) analysed the impact of minimum wages on youth employment in the four Visegrád countries, i.e. Czechia, Hungary, Poland, and Slovakia. Their analysis was based on a regional panel dataset for the period 2003–2016. The results indicate that at the aggregate, national level, the changes in minimum-to-average wages did not negatively affect youth employment rates. When the period was subdivided, they found a positive impact of changes in the ratio on youth employment in Poland in the high economic growth subperiod of 2003–2007. They relaxed the restriction of identical slope coefficients in all regions to check whether the effect of the minimum wage varies across regions. The results indicated that negative employment effects were found in three Polish regions (Lubelskie, Warmińsko-Mazurskie, and Pomorskie). However, both FGLS and PCSE estimations confirmed the significance of the negative coefficient only for Lubelskie. Lubelskie and Warmińsko-Mazurskie are largely rural regions in the less-developed eastern part of Poland, with relatively low average wages and a high minimum-to-average wage ratio.

Majchrowska and Strawiński (2022) also used regional data on the NUTS2 level to explain the variations in the employment effects for the minimum wage not only across regions, but also within regions among different groups of workers. They proposed a multidimensional panel data approach to simultaneously analyse the heterogeneous employment effects of minimum wage changes across age groups, economic sectors, and regions over time. The findings show that the employment reaction to changes in the minimum wage differs strongly across age groups and is related to regional labour market features. Negative employment effects are observed mostly among the youngest groups of workers; they are more likely in regions with a larger proportion of workers in the private sector, in industries where it is more difficult to increase the prices of goods produced, and where small firms are widespread. Conversely, positive employment effects were observed mainly in the groups of workers aged 50 and more; moreover, the effects are more probable in regions with a high share of workers in the public sector and with a large share of people employed in large enterprises.

Albinowski and Lewandowski (2022) analysed the heterogeneous regional effects of minimum wages in Poland between 2004 and 2018 across 73 Polish sub-regions (at the NUTS3 level). They found that minimum wage hikes had a significant positive effect on wage growth and a significant negative effect on employment growth only in regions in the first tercile of the regional wage distribution in 2007. These effects were moderate and were more relevant for wages. Specifically, the results showed that if the ratio of minimum wage to average wage had remained constant after 2007, by 2018 the average wages in these regions would have been 3.4% lower, while employment would have been 1.2% higher. On the other hand, in the remaining regions, no significant effects of minimum wage hikes on average wages or employment were found. Additionally, evidence was found that the effects on employment growth differ between groups of workers. The effects were negative for men and workers in industry, but positive for women and workers in services.

Apart from analyses conducted at the regional (voivodship) and sub-regional levels, there are studies which used data at the local (powiat) level. This is the lowest and most basic level in the labour market hierarchy in Poland. These studies confirm no impact of minimum wage increases on the total unemployment rate, but there was an increase in youth unemployment. In this strand, Ciżkowicz, Kowalczyk and Rzońca (2016) analysed the impact of minimum wage on unemployment rates in local labour markets in Poland from 2000–2010. They found no significant relationship between the minimum-to-average wage ratio and the total unemployment rate.

Analysis of the impact of the minimum wage increases on youth unemployment was undertaken by Broniatowska, Majchrowska and Żółkiewski (2015). They examined the unemployment rates among workers under 25 years old in a panel of 379 local labour markets in Poland between 2003 and 2013. The results show that the higher the minimum-to-average wage ratio in the local labour market, the higher the share of youth unemployment in total unemployment. This relationship was not confirmed for other, older groups of the unemployed.

Majchrowska and Strawiński (2021) analysed spatial dependencies in the relationship between employment and the minimum wage. They used data for local Polish labour markets from 2006–2018. The results revealed a significant spatial relationship between local employment and the minimum-to-average-wage ratio in neighbouring regions. Local minimum wage effects, insignificant at the beginning of the analysed period, become significant and negative towards the end of the period.

Few studies have analysed the impact of the minimum wage on employment using data not at the regional but at the aggregate level. Studies have also confirmed a decline in youth employment, but not in the number of hours worked. Baranowska-Rataj and Magda (2015) investigated the impact of the minimum wage on the risk of job separation and changes in working hours among young people in Poland. They used longitudinal data from Labour Force Surveys from 2003–2011 and a difference-in-differences method based on the changes in the individual position in the wage distribution. Specifically, they tested the impact of the minimum wage by distinguishing between individuals who experienced a transition to the below-the-minimum-wage regime. The results indicated that when the minimum wage was increased, employment levels, but not the number of hours worked, declined among young people. Additionally, the number of hours worked actually increased among those young people who remained employed after the minimum wage was raised. However, these effects of a hike in the minimum wage were found to have differed across various groups of workers, with men, students, and individuals who were working under a fixed-term contract being most likely to have either lost a job or increased their working hours.

Kamińska and Lewandowski (2015) investigated the impact of minimum wage hikes on labour market outcomes in Poland from 2002–2013 using propensity score matching and the difference-in-differences estimation. Their study focused on job separations, adjustments of hours worked, the share of full-time jobs, and real wages. Their findings show that, on the one hand, the minimum wage increases in Poland were associated with higher wages and better working time standards for workers who retained their jobs. On the other hand, there were more job separations, especially among temporary workers, and higher flows from permanent to temporary jobs. After the significant increase in the minimum wage in 2008, the number of separations attributed to the minimum wage hikes rose, and between 2008 and 2013, it amounted to 1% of the total employment of people aged 15–54. Women with temporary jobs constituted more than 50% of workers who suffered from these separations.

Albinowski (2018) used anonymised Polish tax data for 24 million individuals in the period 2004–2016 to analyse the employment effects of the minimum wage. In contrast to most studies, the longitudinal dimension of the dataset allowed him to control for unobserved characteristics of employees and to assess the long-term effects of minimum wage hikes. He used a simple regression model and a fixed effect model, and the results indicated that the minimum wage has a moderate impact on job separations in the long run, while the short-term, the effects are negligible. An important contribution of his study is that it showed that employment effects of the minimum wage change can materialise with a delay. Another important result is that young workers earning around the level of the minimum wage have a significantly lower probability of returning to employment after a job loss than their peers from a higher part of the income distribution. This effect has been in place since 2008, when there was a substantial increase in the minimum wage in Poland.

## 4.2. Impact on wages, profits, and prices

There are fewer studies on the impact of minimum wage on wages, profits and prices than on employment and unemployment. Pereira and Galego (2019) analysed the role of the minimum wage and worker and firm characteristics in diverging trends in wage inequality. They used the RIF regression approach and data from EU-SILC for the 2006–2014 period for Poland and other European countries and found decreasing wage inequalities in Poland. Minimum wage changes seem to have an important influence on these findings, explaining about 29% of the decrease in wage inequality.

Two studies analysed the impact of the minimum wage on gender wage gaps. Majchrowska and Strawiński (2018) considered the effect of an increase in the minimum wage on the gender wage gap. To check the potentially differentiated effects throughout wage distribution, they analysed the impact of a minimum wage increase separately for different age and educational groups. They used an innovative methodological approach that combines the non-parametric approach of DiNardo et al. (1996) with the Oaxaca–Blinder decomposition (Oaxaca 1973; Blinder 1973). The results indicate that the significant decrease in gender wage gaps observed among younger workers in Poland from 2006–2010 could be attributed to an increase in the minimum wage. The effects of the minimum wage increases were negligible for middle-aged workers. Changes in gender wage gaps among educational groups were much smaller.

Chorna and Van der Velde (2020) studied how the large and unexpected increase in the minimum wage in Poland impacted the gender wage gap. They employed a distribution regression model coupled



with a difference-in-differences estimator that recovers changes in the gender wage gap with minimal assumptions regarding the counterfactual wage distribution. The most important finding is that the increase in minimum wage closed the gender wage gap by almost four percentage points at the bottom of the wage distribution, with a small spill-over effect around the minimum wage. By contrast, at the top of the wage distribution, gender inequality continued to grow.

Two studies deal with the minimum wage impact on firms' profitability, and both confirm the negative relationship. Babiak and Chorna (2019) focused on firm-level panel data in Poland, implementing a difference-in-differences approach. They found that the minimum wage increase contributed positively to average wages and negatively to company profitability. Intuitively, the increased labour costs due to a higher wage floor directly reduce profits in the absence of labour demand adjustments. They formally tested and confirmed the validity of these empirical predictions in a simple theoretical model of a profit-maximising firm.

In the second study, Chorna (2021) investigated how increases in the minimum wage affect various firm-level characteristics. The study used firm-level data from Poland, where the minimum wage experienced a large and persistent increase in 2008 and 2009. The results show that firms which were more exposed to the minimum wage increase faced higher increases in total labour costs and larger reductions in profitability. Intuitively, higher total labour costs driven by higher minimum wages directly reduce company profits in the absence of price adjustments. She also showed that the sharp increases in the minimum wage increased capital and decreased overall labour productivity and employment.

Bodnár et al. (2018) studied the transmission channels for rises in the minimum wage using a unique firm-level dataset from Poland and other Central and Eastern European countries. Representative samples of firms in each country were asked to evaluate the relevance of a wide range of adjustment channels following specific instances of rises in the minimum wage. The findings suggest that the most popular adjustment channels are cuts in non-labour costs, rises in product prices, and improvements in productivity. Cuts in employment are less popular and occur mostly through reduced hiring rather than direct layoffs. The study also provides evidence of the potential spill-over effects that rises in the minimum wage can have on firms without minimum wage workers.

The findings that the firms increase prices rather than cut employment were confirmed by Majchrowska (2022), who analysed the pass-through effect of the minimum wage on inflation in Poland. Data on the 16 NUTS2 regions between 2003 and 2020 and the Minimum Wage Augmented Phillips Curve approach were used. The results show that the minimum wage effect on inflation is statistically significant and positive, and it is higher when food inflation is the dependent variable. Minimum wage effects also vary in time and across regions. Minimum wage increases are more significant during times of high inflation than in low-inflation periods. As for regional differences, inflationary pressure is greater in regions with strong labour markets and relatively high wages, i.e. regions where companies can pass on more of their increased labour costs to consumers.

Rycx and Kampelman (2013) provided a comprehensive, evidence-based assessment of minimum wages in nine European labour markets, including Poland. The results of a logistic regression that modelled the likelihood of receiving minimum wages in each country in the sample suggest that the underlying effects work in the same direction in Poland and the other European countries. In other words, the relationships between individual and job characteristics and the likelihood of receiving minimum wages have the same signs in most countries. Temporary workers, blue-collar workers, women, youth, and low education are associated with higher odds of receiving minimum wages.

## 5. Summary and conclusions

Poland is one of the EU countries with a nationally legislated minimum wage. Over the last twenty years, the level of minimum wage in Poland has significantly increased. Also the relation of the minimum wages to other indicators has increased, with the minimum-to-average wage ratio reaching 50%. However, due to enduring significant regional differences, it exceeded 60% in ten per cent of Polish local labour markets.

The literature review showed that the employment effects of a minimum wage increase in Poland are similar to those found in the literature for other countries. Moreover, the results of the literature review demonstrated that regardless of the set of data, time period, and research method, we can find a consensus. Negative employment effects are observed for young workers and are stronger in less developed regions. Positive employment effects are observed mainly in the groups of workers aged 50 and over; moreover, they are more likely in regions with a high share of workers in the public sector and with a large share of people employed in large enterprises. The results also reveal a spatial relationship between local employment and the minimum-to-average-wage ratio in neighbouring regions. Analysis of aggregate data seems to confirm most of the results found with micro or regional-level data used.

We can also find a consensus when analysing the impact of the minimum wage on wages and wage distribution. The minimum wage hikes had a significant positive effect on wage growth in Poland. The research also shows that minimum wage growth reduced gender wage gaps at the lower end of the wage distribution. It also revealed a positive impact on prices and a negative impact on company profitability. This negative impact is not a major concern, the labour share in the gross value added in Poland is among the lowest in the EU. These results are again in line with findings from other countries.

Summing up briefly the major findings, we should underline that during the last 20 years the minimum wage in Poland has increased significantly. However, the average share of wages in the gross value added or gross domestic product in Poland is still low. In some low-wage sectors or some less-developed regions the minimum wage policy has started to negatively impact employment. Having in mind that one of the milestones of the EU Recovery and Resilience Plan for Poland is that almost all workers will become contract workers at the end of 2024, the continuation of the current minimum wage policy may cause problems in low-wage sectors. However, to analyse the effects of the increase in the minimum wage on individual segments of the labour market, the availability of data on employees earning the minimum wage is very important.

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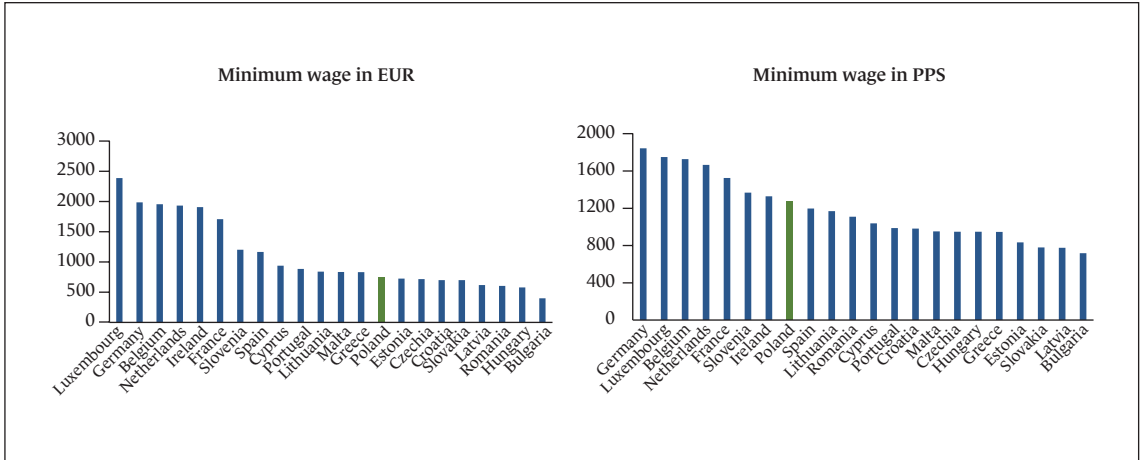
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## Appendix

Figure 1

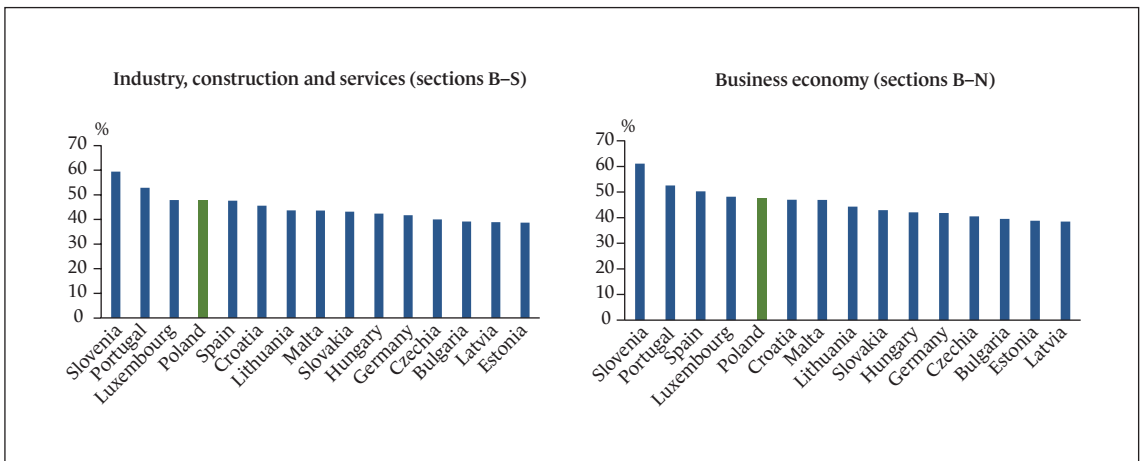
The national minimum wage in Poland and other EU countries in January 2023



Source: Eurostat.

Figure 2

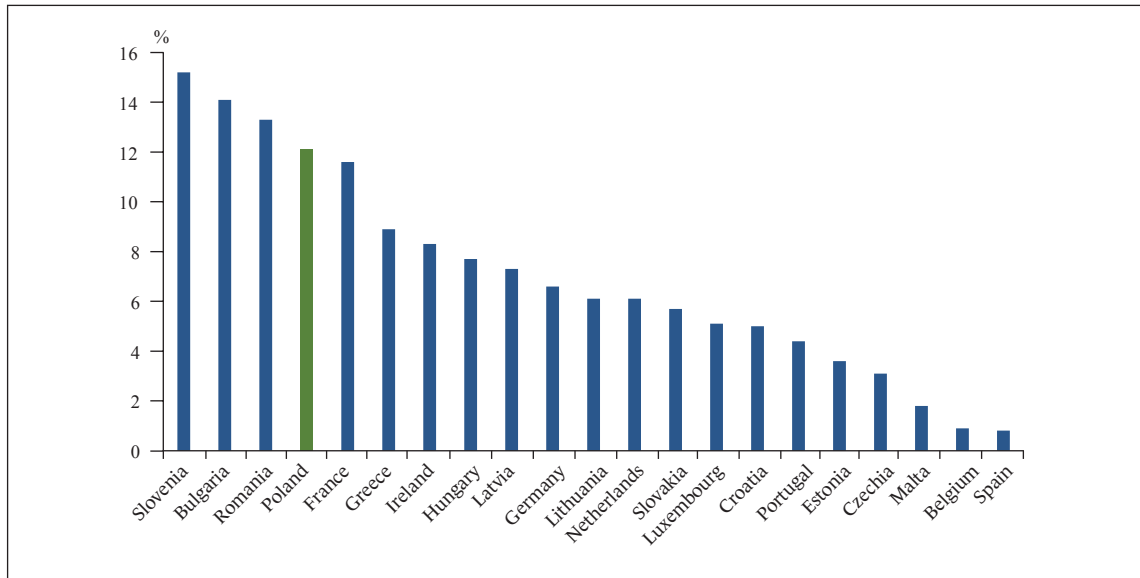
Minimum-to-average wage ratio in Poland and other EU countries in 2022



Note: data for Ireland, Greece, France, Netherlands, and Romania are missing.

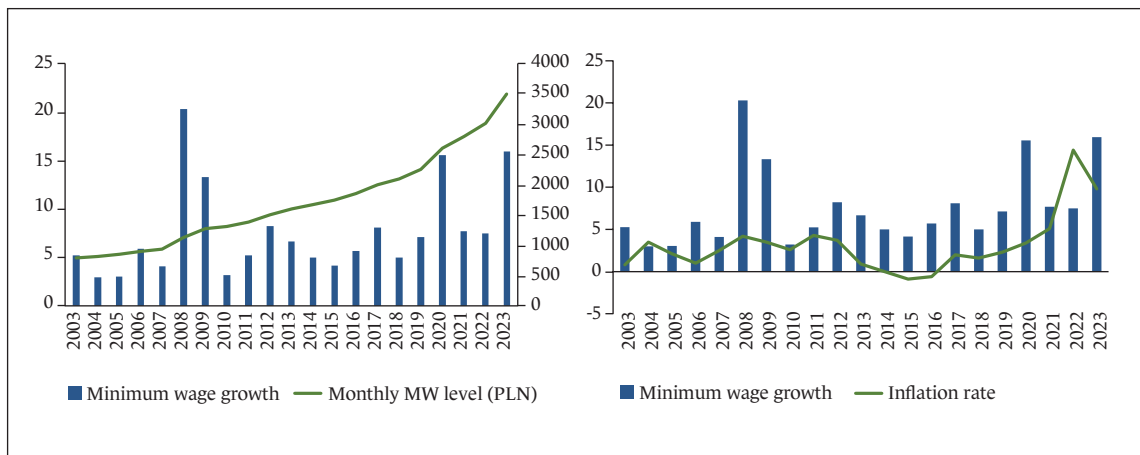
Source: Eurostat.

Figure 3  
Minimum wage workers in Poland and other EU countries in 2018



Source: [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Minimum\\_wage\\_statistics](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Minimum_wage_statistics).

Figure 4  
The minimum wage in Poland (PLN) and its growth rate (y/y, %, left figure) and the minimum wage growth compared to the inflation rate (%) (right figure)

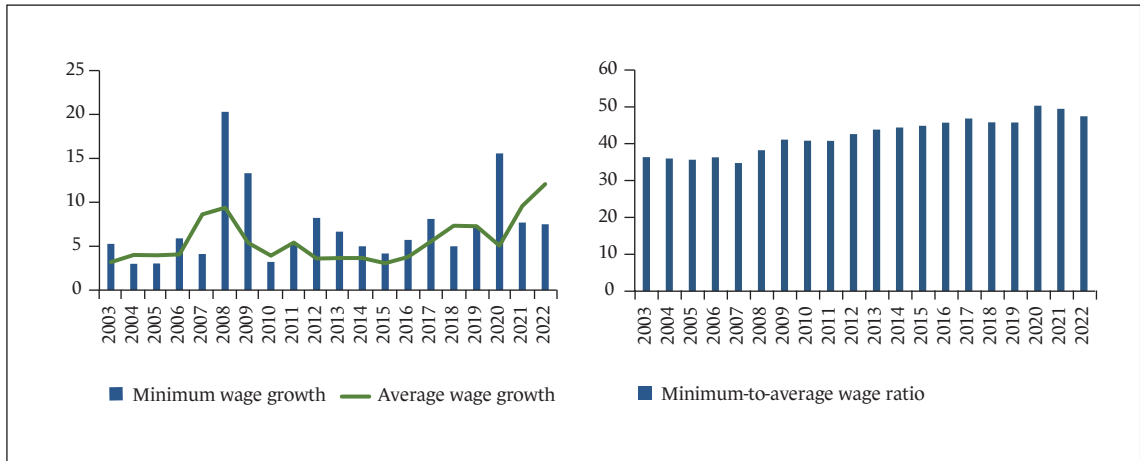


Notes: In 2023, data for January. Data on inflation in 2023 is the projected inflation rate.

Source: Statistics Poland, own calculations.

Figure 5

Minimum and average wage growth (y/y, %, left figure) and the minimum-to-average wage ratio (%) in Poland in 2003–2022

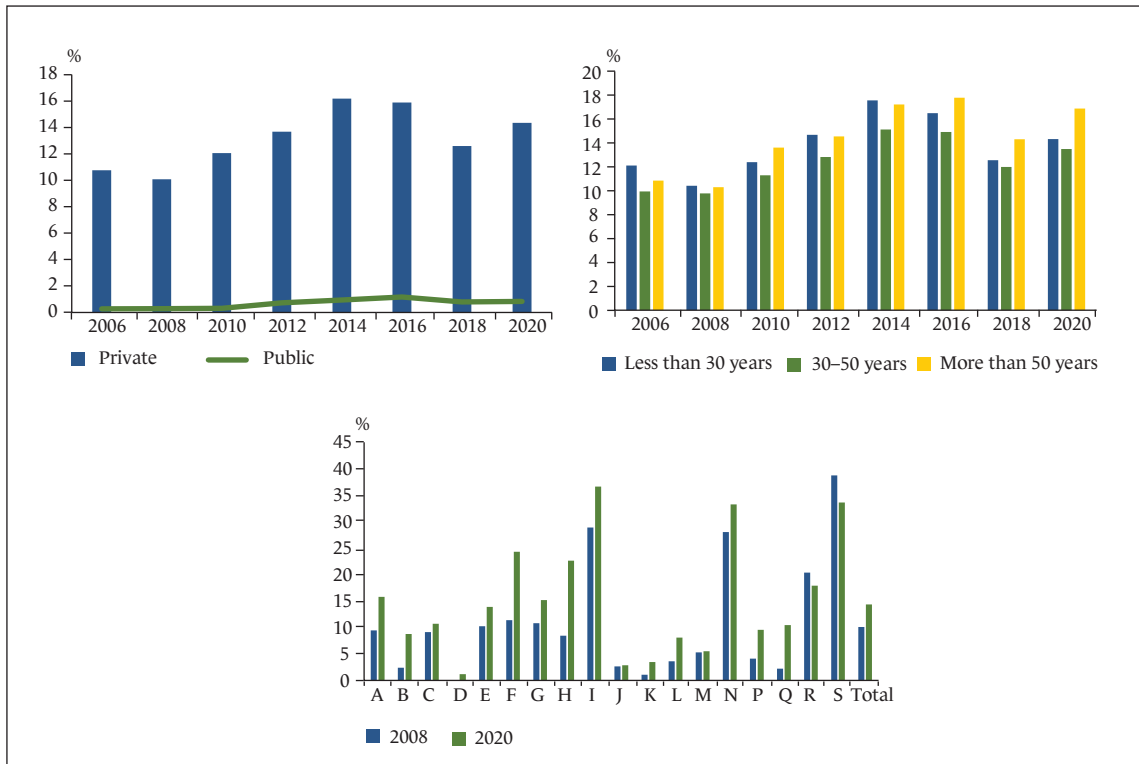


Note: average wages in the national economy.

Source: Statistics Poland, own calculations.

Figure 6

The share of minimum wage workers across ownership sectors, age groups, and NACE sections in the private sector in Poland between 2006 and 2020

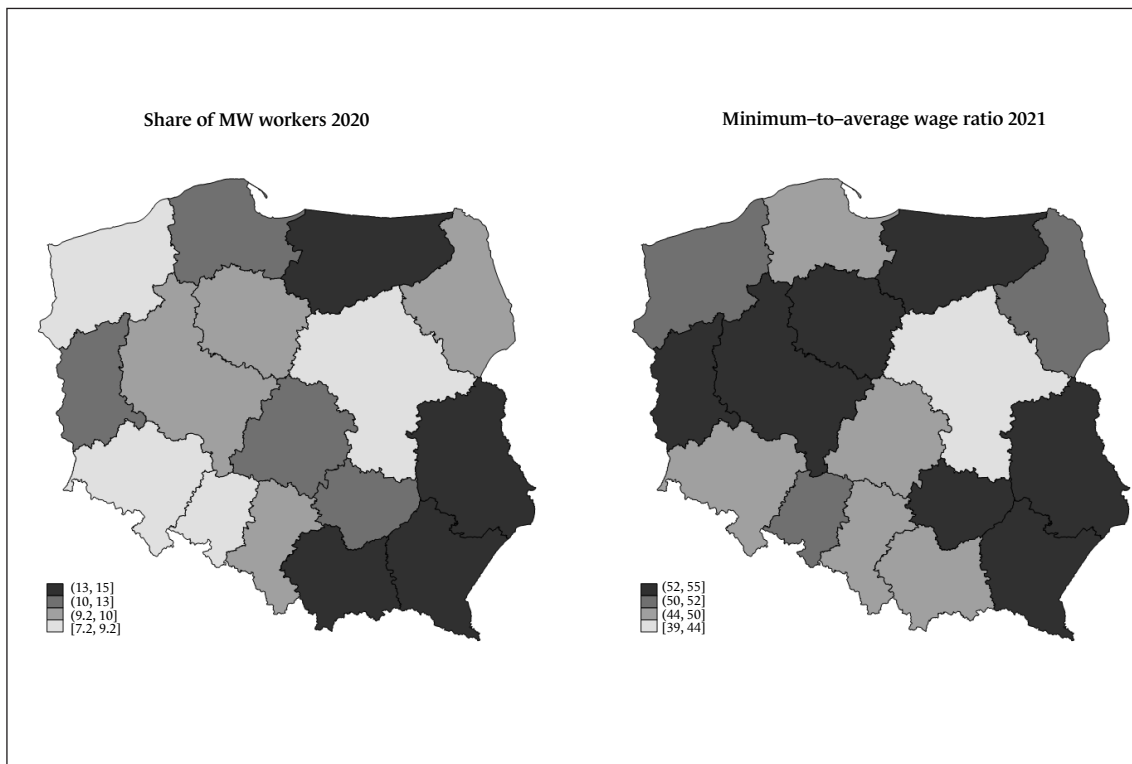


Note: workers earning not more than 105% of the minimum wage in enterprises with ten workers and more.

Source: Structure of Earnings Survey in Poland, various editions, own calculations.

Figure 7

Regional differences in the share of minimum wage workers and the minimum-to-average wage ratio in Poland in 2021 (in %)



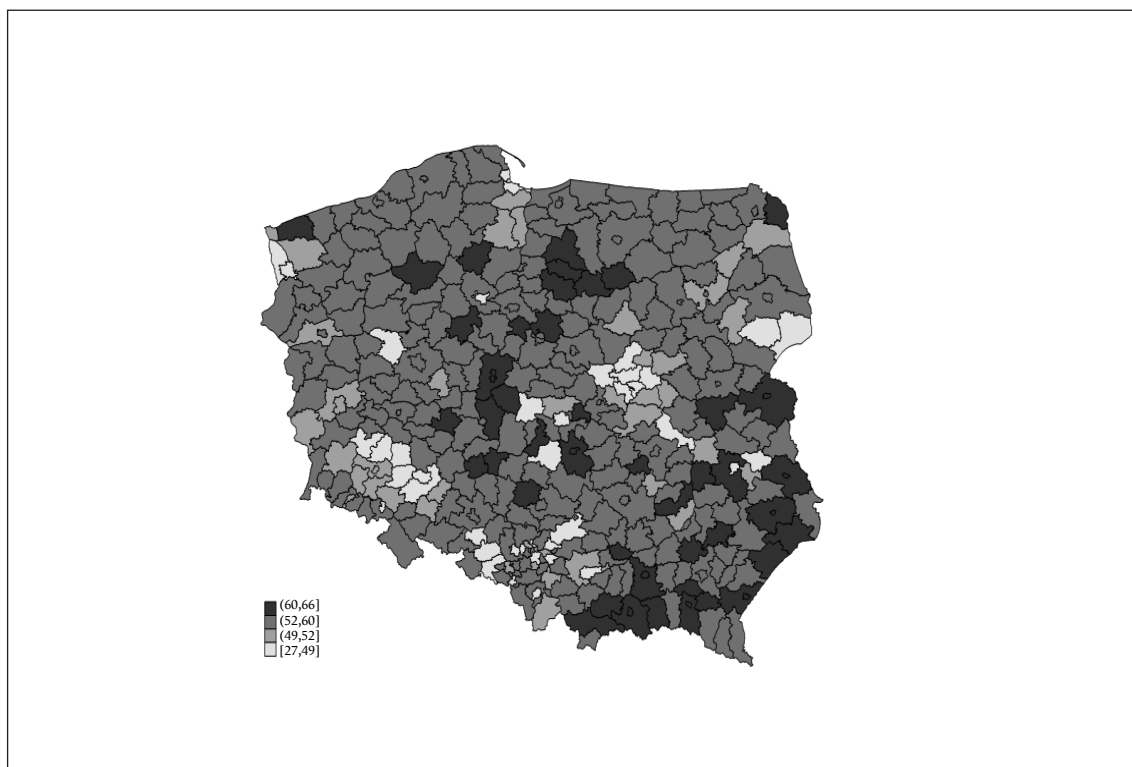
Note: average wages are calculated only for entities of the national economy with ten or more employed persons and budgetary sphere units, regardless of the number of employed persons.

Source: Statistics Poland, own calculations.



Figure 8

The minimum-to-average wage ratio in local labour markets in Poland in 2021 (%)



Note: average wages are calculated only for entities of the national economy with ten or more employed persons and budgetary sphere units, regardless of the number of employed persons.

Source: Statistics Poland, own calculations.

## Zmiany płacy minimalnej w Polsce i ich konsekwencje dla rynku pracy

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### Streszczenie

Polska jest jednym z 22 krajów członkowskich Unii Europejskiej, w których wynagrodzenie minimalne ustala się na poziomie krajowym. Jego poziom w Polsce reguluje Ustawa o płacy minimalnej z 2002 r. ze zmianami. W artykule skoncentrowano się na omówieniu zmian i skutków wzrostu płacy minimalnej w Polsce przez ostatnie 20 lat. Cel badania jest dwojaki. Po pierwsze, chodziło o pokazanie zmian poziomu płacy minimalnej w Polsce na tle innych krajów UE w latach 2003–2023. Po drugie, wykorzystano przegląd literatury jako narzędzie badawcze w celu weryfikacji, czy istnieje konsensus co do wpływu zmian płacy minimalnej na różne aspekty rynku pracy w Polsce, tj. poziom zatrudnienia, płace, zyski czy ceny. Według naszej wiedzy jest to pierwsze tego typu badanie w Polsce.

Silny wzrost wynagrodzenia minimalnego, który nastąpił w analizowanym okresie, spowodował, że w porównaniu z innymi krajami UE relatywny poziom płacy minimalnej w Polsce jest na dość wysokim poziomie. Relacja wynagrodzenia minimalnego do wynagrodzenia przeciętnego osiągnęła 50% w skali kraju. Jednocześnie, silne zróżnicowanie przeciętnych wynagrodzeń zarówno w przekroju według sektorów, jak i według regionów powoduje, że wpływ jednolitej w skali kraju płacy minimalnej na poszczególne segmenty rynku pracy jest różny. W niektórych regionach relacja płacy minimalnej do średniego wynagrodzenia przekroczyła 60%.

Przeprowadzone pogłębione studia literaturowe wskazują, że wnioski dotyczące wpływu wzrostu wynagrodzenia minimalnego w Polsce na poszczególne aspekty rynku pracy są zbliżone do tych, które są prezentowane dla innych państw. Co ważne, niezależnie od zbioru danych wykorzystywanych do badań, okresu i metody badawczej z wyników prowadzonych analiz płyną podobne wnioski. Negatywne skutki dla zatrudnienia w Polsce obserwuje się w przypadku młodych pracowników i są one silniejsze w regionach słabiej rozwiniętych. Co ciekawe, badania pokazują, że w grupie pracowników w wieku 50 lat i powyżej wzrostowi płacy minimalnej towarzyszył wzrost zatrudnienia. Był on bardziej prawdopodobny w regionach z wysokim odsetkiem pracujących w sektorze publicznym i w dużych firmach. Wyniki badań pokazują także występowanie przestrzennych zależności pomiędzy zatrudnieniem na lokalnych rynkach pracy a relacją płacy minimalnej do średniego wynagrodzenia w sąsiednich regionach. Analizy prowadzone na danych zagregowanych wydają się potwierdzać wyniki uzyskane na podstawie danych indywidualnych lub regionalnych.

Podobną zależność możemy także zauważyć, analizując wpływ płacy minimalnej na płace i rozkład wynagrodzeń. Wzrost płacy minimalnej miał istotny dodatni wpływ na dynamikę wynagrodzeń w Polsce, a także przełożył się na zmniejszenie różnic między wynagrodzeniami kobiet i mężczyzn o niskich wynagrodzeniach. Badanie pokazuje również negatywny wpływ wzrostu płacy minimalnej na rentowność firm i pojawiającą się presję na wzrost cen. Wyniki te są ponownie zgodne z rezultatami osiąganymi dla innych krajów.

Podsumowując, należy podkreślić, że w ciągu ostatnich 20 lat wynagrodzenie minimalne w Polsce znacznie wzrosło. Średni udział wynagrodzeń w wartości dodanej brutto lub produkcji krajowym brutto w Polsce nadal jest jednak niski. W niektórych sektorach o niskich płacach lub w niektórych słabiej rozwiniętych regionach silny wzrost płacy minimalnej zaczął negatywnie oddziaływać na zatrud-

nienie. Zgodnie z jednym z kamieni milowych Planu Odbudowy i Zwiększania Odporności dla Polski pod koniec 2024 r. prawie wszyscy pracownicy staną się pracownikami kontraktowymi. Spowoduje to, że kontynuacja obecnej polityki płacy minimalnej może wywołać problemy w sektorach o niskich płacach. Do pełnej analizy wpływu wzrostu płacy minimalnej na poszczególne segmenty rynku pracy niezbędna jest dostępność danych dotyczących pracowników otrzymujących wynagrodzenie minimalne.

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**Słowa kluczowe:** płaca minimalna, polityka płacy minimalnej, zatrudnienie, płace, ceny

