Structural Determinants of Changes in Unemployment in Poland during the COVID-19 Pandemic

Strukturalne determinanty zmian bezrobocia w Polsce w okresie pandemii COVID-19

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A B S T R A C T

Objective: The study analyses the determinants of the level and dynamics of unemployment in Poland in the years 2018–2021. The general hypothesis explored is: the level and structure of unemployment are influenced by the economic situation, the number of job offers reported by employers, migration and border movements, and social attitudes to employment. The article presents an analysis of whether these factors had an impact on the unemployment level in Poland during the COVID-19 pandemic by presenting the development of these measures in the Polish economy.

Research Design & Methods: The determinants were presented in the form of quantitative measures available for the quarters of the 2018–2021 period (sometimes the scope and availability of data resulted in a different time range). The data were obtained from public databases of the Central Statistical Office (GUS) and the results of surveys carried out by the Center for Public Opinion Research (CBOS) were used. To achieve the study's aims, descriptive statistics, analysis, including logical analysis of cause-and-effect influences were used.

Findings: The results of the analysis of the presented research material led to conclusions confirming the relationship between the successive waves of disease and the introduction of economic restrictions and the shaping of measures of the economic situation, the number of job offers reported to labour, migration and border traffic offices, as well as social moods regarding employment and opportunities of finding a job. Further research on the causality and determinants of the unemployment situation could lead to the diagnosis of monthly data, or to search for the strength of the tested relationships using more advanced econometric methods.

Implications/Recommendations: The analysis included in this paper is an enrichment of the empirical explanation of the economic consequences of the COVID-19 pandemic. This pandemic is an interesting phenomenon not only in the medical sphere, but also carries a number of consequences affecting the world of the economy, which should be investigated with the greatest possible detail.

Contribution: This article deepens the understanding the pandemic period and its implication on the labour market and its influence on the unemployment in 2018–2021.

Article type: original article.

Keywords: labour market, unemployment, COVID-19 pandemic, economic prosperity.

JEL Classification: J64.

STRESZCZENIE

Cel: Celem artykułu jest wstępna diagnoza determinant poziomu i dynamiki bezrobocia w Polsce w latach 2018–2021. Sformułowano hipotezę, zgodnie z którą na poziom i strukturę bezrobocia ma wpływ kształtowanie się sytuacji gospodarczej, liczba ofert pracy zgłaszanych przez pracodawców, migracje i ruch graniczny, a także nastroje społeczne związane z zatrudnieniem. Głównym problemem jest zatem przeanalizowanie, czy te czynniki mogły mieć wpływ na poziom bezrobocia, poprzez przedstawienie kształtowania się tych miar w polskiej gospodarce w okresie pandemii.

Metodyka badań: Tak zdiagnozowane determinanty ujęto w postaci mierników ilościowych dostępnych dla kwartałów okresu 2018–2021 (niekiedy zakres i dostępność danych wpłynęła na wybór innego zakresu czasowego). Dane pozyskano z ogólnodostępnych baz danych Głównego Urzędu Statystycznego oraz posłużono się wynikami badań ankietowych prowadzonych przez Centrum Badania Opinii Społecznej. By zrealizować cel opracowania, wykorzystano metody statystyki opisowej, analizę dynamiki zjawisk, a także logiczną analizę wpływów przyczynowo--skutkowych.

Wyniki badań: Wyniki analizy zaprezentowanego materiału badawczego potwierdziły związek między następowaniem po sobie fal zachorowań i wprowadzaniem obostrzeń gospodarczych a kształtowaniem się mierników opisujących sytuację gospodarczą, liczby ofert pracy zgłaszanych do urzędów pracy, migracji i ruchu granicznego, a także nastrojów społecznych dotyczących zatrudnienia i możliwości znalezienia pracy.

Wnioski: Dalsze badania nad przyczynowością i determinantami sytuacji dotyczącej bezrobocia mogłyby prowadzić do diagnozy danych miesięcznych bądź do poszukiwania siły badanych związków za pomocą bardziej zaawansowanych metod ekonometrycznych.

Wkład w rozwój dyscypliny: Zawarte w opracowaniu analizy stanowią wzbogacenie sposobów empirycznego wyjaśniania skutków ekonomicznych pandemii COVID-19. Pandemia ta jest zjawiskiem interesującym nie tylko w sferze medycznej, także jej konsekwencje dla świata gospodarki powinny zostać możliwie szczegółowo zbadane.

Typ artykułu: oryginalny artykuł naukowy.

Słowa kluczowe: rynek pracy, bezrobocie, pandemia COVID-19, koniunktura gospodarcza.

1. Introduction

The study investigates the determinants of the level and dynamics of unemployment in Poland during the COVID-19 pandemic. The main problem discussed is the determinants which influenced the unemployment rate in Poland during the pandemic. Studies on economic changes caused by the pandemic constitute a very important strand of contemporary research. It is therefore important to investigate the determinants that caused unemployment to rise during the pandemic. The research hypothesis adopted in the article is that the increase in unemployment was influenced by the economic situation, the dynamics of the labour market, migration movements and sociological changes.

The paper starts by looking at unemployment in Poland by quarter in the years 2018–2021. This part presents the number of registered unemployed, reasons for their registration, their age structure, the number of newly registered unemployed and the number of de-registered unemployed in a given quarter. The unemployment rates recorded in the research period are also presented here. The second section presents the development of potential determinants that influenced the level of unemployment, particularly the number of job offers reported to labour offices. The next section reports on selected measures describing the economic situation, including domestic demand, fixed capital formation, consumption and GDP in constant prices. This is followed by an examination of the development of migration for permanent residence and border traffic among foreigners during the years 2018–2021. The final section looks at selected results of the questionnaire surveys, where the respondents described their attitude to employment and job seeking during the pandemic. The subject of the analyses are statistical data obtained from the Central Statistical Office (GUS) and the results of research conducted by the Center for Public Opinion Research (CBOS) were used in the analyses. Conclusions from the analyses and further directions of research on the determinants of unemployment are formulated in the final section.

2. Unemployment and Its Determinants in Theoretical Context

The labour market in a market economy is usually not balanced, in either the short or long term. Moreover, there is rarely a total or even partial equilibrium on individual segments of this market. Although the problem of adjusting supply and demand in the labour market occurs as a result of the market mechanism, it is compounded by factors in the state of the economy, institutions that have "established themselves" in this market, and human factors – those related to the behavioral aspect of individuals who make decisions in this market.

Thus, market imbalance may take the form of a supply imbalance, where there is a quantitative predominance of labour supply, or a demand imbalance, where there is a quantitative predominance of the demand for labour. However, these situations occur at different frequencies. That is partially because in market economies, there is a relatively permanent supply imbalance, while centrally managed economies tend towards demand imbalances, or, in other words, a lack of labour. The Polish economy today is mainly characterised by a supply imbalance, though in partial segments of the labour market a demand imbalance can be observed.

At the end of the 1800s, the English economist J. A. Hobson defined unemployment as involuntary inactivity (Hobson 1904, pp. 2, 93–97; cit. after Kwiatkowski 2002, p. 13). Thus understood, the unemployed are people of working age, able and ready to work, are looking for a job, but not working (Kotlorz 2007, p. 25; Kwiatkowski 2002, p. 13; Jarmołowicz & Knapińska 2005, p. 59; Borjas 2013, p. 504). In neoclassical economic theory, unemployment is defined as a supply imbalance on the labour market, with wages higher than the equilibrium wages (see Fig. 1).
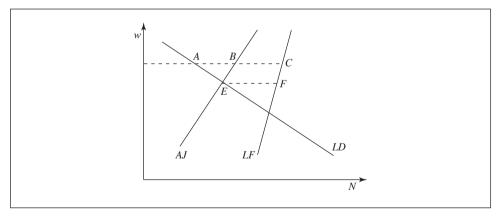

Fig. 1. Supply Imbalance – Unemployment in Labour Market

Explanations: *LD* – labour demand, *AJ* – number of people accepting jobs conditions, *LF* – labour force, *E* – equilibrium in the labour market, *N* – number of people, *w* – real wage.

Source: (Begg *et al*. 2014, p. 312).

In the classic form of unemployment, the unemployed are defined as the resource of size *AB* in Figure 1, and defined as voluntarily unemployed, because some "voluntary" part of the potential labour pool starts to look for a job – with wages having clearly increased from the level of equilibrium at point *E*. On the other hand, with higher wages inducing them to do so, employers lower the demand for labour, thus creating a supply imbalance. At the same time, the resource of global and total unemployment is additionally comprises individuals in the *BC* section, who are unemployed because they do not accept the prevailing conditions on the labour market (i.e. wages are still too low to start looking for a paid job). Thus, the total stock of unemployment in this economy is section *AC* (Begg *et al*. 2014, p. 312; Kwiatkowski 2001, pp. 541–542).

However, this simple approach hardly covers all the important aspects of unemployment in the economy. Another important aspect is the search for the causes of unemployment, which has become a key issue in economic theory on employment. The concept that comes out of mainstream neoclassical theory, but supplemented with the issue of natural unemployment (in Fig. 1 it is the *EF* segment), also referred to in the literature as "equilibrium unemployment". This form of unemployment is characteristic of economic equilibrium and does not disappear even in periods of economic recovery (Woźniak 2008, p. 10). Therefore, even when the prevailing economic conditions are positive, there is a certain amount of "natural" or "equilibrium" unemployment, as there will always be people who do not accept the market's existing wage conditions. This phenomenon occurs due to other factors, including the effectiveness of the labour market and the goods market, the degree of development of the network of labour offices, information about jobs and the unemployed, the degree of development of vocational training, and the level of labour mobility (Kwiatkowski 2009, p. 15).

The second area in understanding the causes of unemployment comes to us thanks to Keynesianism and the concepts considered to be derived from this trend. According to Keynes, unemployment is a forced phenomenon and jobseekers cannot find it without failing – due to recession or economic depression. Keynes therefore referred to forced unemployment as cyclical unemployment. Thus, unemployment occurs mainly due to a shortage of global demand, which employers combat by reducing their demand for labour, or even making it independent of the level of remuneration. Even if workers will work for a rate of 0, business operators do not want to hire employees because they will not sell sufficient manufactured products or services in a crisis or recession (Kwiatkowski 2009, pp. 11–12; Kryńska & Kwiatkowski 2013, pp. 85–87).

The determinants of unemployment have been widely researched and are presented in the literature. Some authors emphasise the role of economic growth and ecenomic productivity and the structure of GDP (Bal-Domańska 2022, p. 1143;

Panaite, Prohozescu & Pintilescu 2022, p. 3). They find that Okun's law holds true. Identified in 1962 on the basis of data from the United States, Okun's law says that a 1% decrease in the cyclical unemployment rate is associated with a 2% increase in the real level of output. Bean and Pissarides (1993) were the first to introduce frictional unemployment into a model of economic growth. They estimated a model based on the production function, where new players in the labour market must be compatible with existing job vacancies. Thus, an increase in the share of factors of production favours economic growth and the creation of new jobs, which leads to a decrease in the unemployment rate (Panaite, Prohozescu & Pintililescu 2022, p. 2).

Contemporary views on unemployment indicate the presence of two groups of factors. Unemployment depends on structural or institutional factors: the strength of trade unions, the extent of unemployment benefits, the degree of protection of the employment relationship, the role of long-term unemployment, the intensity of the job search, and work productivity. The second group of factors determines the actual unemployment, and there are temporary supply and demand shocks (Kwiatkowski 2022, p. 205). Negative shocks increase the level of actual unemployment above the equilibrium unemployment. Finally, the hypothesis of unemployment hysteresis says that, after shocks, the level of unemployment in equilibrium is still higher than it was before the crisis (Snowdon, Vane & Wynarczyk 1998, pp. 340–341).

According to Kalinowska-Sufinowicz and Knapińska (2022) and others authors (Standing 2021, Forsythe *et al.* 2020), temporary changes observed in labour relations, the emergence of the precariat, and the difficult situation young people face on the labour market are the reasons for unemployment. These changes in society can influence the social moods and attitudes on employment, which are created during temporary supply-demand shocks, among other circumstances.

Migrations are also a determinant of unemployment. Well-known theories on migrations have been put forward by Lee, Zielinsky, Stark and Todaro, and Harris, Lewis and others (de Hass 2021, Knapińska 2012). The relations between migration and local unemployment have been explored by Ciżkowicz, Kowalczuk and Rzońca (2014). The main results from these studies show that large disparities in local unemployment in Poland are more related to differences in structural factors, such as local demographics, education and sectoral employment composition than to local demand factors such as GDP or investment dynamics (Ciżkowicz, Kowalczuk & Rzońca 2014, p. 1). Therefore, it can be assumed that demographic factors such as migration may have an impact on unemployment.

However, the problem is not so simple, as there are also studies that show an entirely different picture. For example, from their analysis of data from 27 EU countries in 2000–2017 Gündoğmuş and Bayir (2021) concluded that international migration does not have a statistically significant effect on unemployment.

In addition, an increase in GDP, public expenditures, education expenditures and wages rises reduce unemployment rates.

Further, the literature also offers classifications of unemployment, including frictional, structural, long-term, transformative or institutional unemployment. These are types of unemployment that are identified in Poland and elsewhere in Europe.

Measuring unemployment and the ways of presenting it in national and international statistics is another relevant topic in this context. The simplest method is to specify the size of unemployment by determining the number of unemployed (or the unemployment rate) calculated on the basis of people registered as unemployed in labour offices. Such registration takes place under the provisions of the Act of April 20, 2004 on employment promotion and labour market institutions, as amended (Ustawa… 2019, items 1482, 1622). Article 2, point 2 defines the understanding of an unemployed person, which in Poland is one of working age who has worked continuously in the territory of the Republic of Poland for a period of at least 6 months, has not acquired the right to a disability or old-age pension, does not operate a business him or herself, is not serving a sentence of imprisonment, is not the owner of a farm, does not earn income in the amount of half the minimum monthly wage, and does not receive permanent social benefits. Labour offices in Poland register unemployed people using the criteria defined above, and on this basis the unemployment rate is also calculated. The unemployment rate can be understood as the ratio of the number of unemployed people to the number of people who are labour resources, with the result being expressed as a percentage (Kwiatkowski 2002, p. 40).

A different approach is adopted by the Central Statistical Office in conducting the Labour Force Survey, where the number of unemployed is estimated on the basis of survey data. And this estimate is used to calculate the unemployment rate according to LFS. Proposed by the International Labour Organization, this method of determining unemployment is particularly useful in international comparisons. Many countries conduct surveys on a quarterly basis and with the adoption of a sample rotation (one quarter of the surveyed households are mentioned). According to the methodology used for this study, an unemployed person one aged 15–74, who is not working during the week surveyed, has in the past four weeks been actively looking for a job and is ready to take up a job within 2 weeks of the week's tests. The unemployed also include people who are waiting to start work in the next 3 months (GUS 2019).

3. Methodological Methods and Procedure

Taking into account theoretical findings and current aspects, the following research hypothesis can be formulated: the unemployment level during a pandemic may be influenced by economic growth or crisis, labour market dynamics, demo-

graphic processes and social changes (see Fig. 2). Which measures should be used to describe these phenomena remains a problem. What is more, the economic, demographic and social changes observed were caused by external factors in the form of the COVID-19 pandemic.
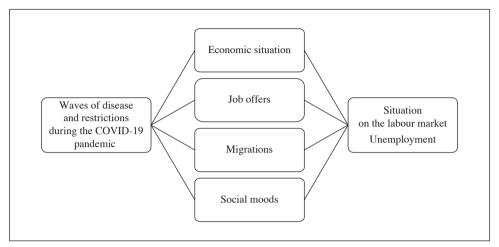

Fig. 2. Determinants of Unemployment during the COVID-19 Pandemic
Source: the author.

The further part of the article presents statistical data on the Polish labour market on a quarterly basis for the years 2018–2021. Descriptive statistics and an analysis of the dynamics and structure of registered unemployment were used to understand relevant trends. An attempt is also made to identify the causes of changes in unemployment. These are mainly macroeconomic reasons, and include a decline in economic activity associated with periodic restrictions in some industries, changes in external migrations, and changes in global demand, including consumption and investment. Additionally, a number of microeconomic and sociological--psychological explain the individual decisions and moods employees dismissed from work demonstrated. Many chose to register with the poviat labour office, or to return from emigration (also short-term), or needed to have health insurance during the COVID-19 pandemic.

The source material for the research was public statistics from the Central Statistical Office and public opinion polls conducted by various national research centers.

4. Results of Research

Figure 3 shows the number of registered unemployed recorded for individual quarters of the 2018–2021 period. As can be seen, the number of registered unemployed is seasonal, but in 2018 it was on the decline. A similar trend continued in 2019, though the number rose slightly in both years in the fourth quarter and in the first quarter of the following year. However, a significant increase in the number of registered unemployed was observed in 2020 through the first quarter of 2021. During this period, the COVID-19 pandemic worsened in Poland and prompted numerous restrictions to be imposed, including periodic downtimes in numerous industries. Studies have been done to investigate the short-term impact of a pandemic on unemployment, economic activity and employment rates and show that the introduction of pandemic restrictions irrevocably deteriorates these measures (Guven, Sotirakopoulos & Ulker 2020, Andersson & Wadensjo 2022).
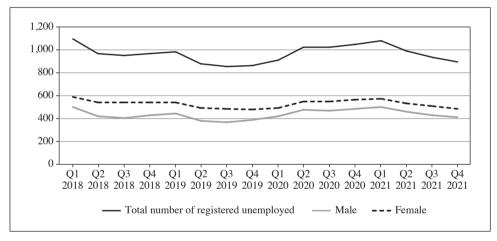

Fig. 3. Number of Registered Unemployed in 2018–2021 (Thousands of People)
Source: the author, based on statistical data (BDM 2022).

The population of the registered unemployed in May 2020 exceeded one million people and stay similarly elevated in the months that followed. At the end of 2020, there were 20.8% more registered unemployed than there had been in December 2019. It should be noted here that in the years of economic prosperity, the 2nd and 3rd quarters of the year were usually characterised by a decrease in unemployment compared to the 1st and 4th quarters, while in 2020 this seasonal cyclicality was not maintained (GUS 2021d, p. 35).

A decrease in the number of registered unemployed was observed from the 2nd quarter of 2021 and continued until the year's end. It too was not the result of seasonal changes. Comparing the inflow and outflow from unemployment registers in poviat labour offices in 2020 and 2019, a lower number of new registrations can be noticed, but at the same time there were many fewer leaving the ranks of the unemployed than in 2019. Throughout 2020, 1,340.7 thousand people were registered as new unemployed (10.4% less than in 2019) and at the same time 1,160.7 thousand people were removed from the register of the unemployed (27.4% less than the year before) (GUS 2021d, p. 35).
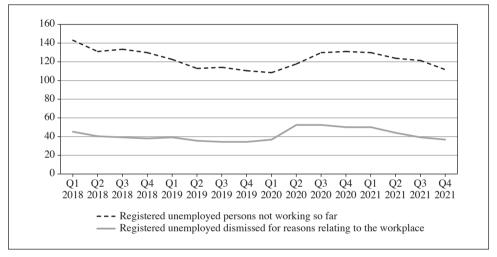

Fig. 4. Reason for Registering the Unemployed in 2018–2021 (Thousands of People)
Source: the same as for Figure 3.

In the total number of newly registered unemployed in 2020, 672,300 were women, 153,200 were not working, and 74,500 had been dismissed for reasons related to the workplace (GUS 2021a, p. 256). Of those deregistered (gained employment) in 2020, 590,200 were women, and 713,500 started work (hence their deregistration) (GUS 2021a, p. 256). At the same time, an increasing number of people were dismissed for reasons related to the workplace. In fact, in 2020 there was a 40.7% increase over 2019, mainly due to a twofold increase those let go for workplace-related dismissals in Q2 (GUS 2021d, p. 38). The data on the reasons for the registration of the unemployed are presented in detail and in the full research period (Fig. 4), which shows that in the 2nd quarter of 2020 there was an increase in both the registration of unemployed persons that had never worked so far, and those dismissed for reasons attributable to the workplace.

In turn, the data in Figure 5 show the structure of the registered unemployed by age. The largest share comprised people aged 35–54, a number that increased significantly in the second quarter of 2020, as well as in the first quarter of 2021. A high increase was also recorded in the 18–34 age group, especially in the 2nd quarter of 2020, while in the 1st quarter of 2021 the increase was not as pronounced as in the 35–54 age group. Relatively low dynamics characterised the registered unemployed aged 55–60 and above.
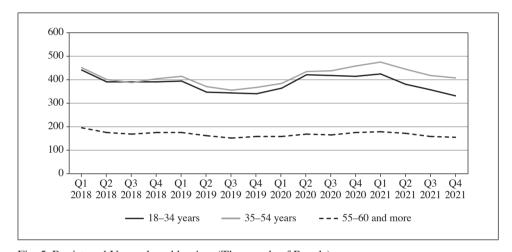

Fig. 5. Registered Unemployed by Age (Thousands of People)

Source: the author, based on statistical data: http://swaid.stat.gov.pl/RynekPracy_dashboards/Raporty_predefiniowane/RAP_DBD_RPRA_16.aspx (accessed: 21.03.2022).

Turning to Figure 6, we will now look at the rates of registered unemployment in 2018–2021. Unemployment fell in these quarters: Q2 and Q3 2018, Q2 and Q3 2019 and Q2, Q3 and Q4 of 2021, while it rose in Q4 2018, Q1 2019, from Q1 2020 to Q1 2021. Seasonality accounts for some of the increases (Q4 2018, Q1 2019), while the pandemic and the decline in economic activity accounted for the increases in 2020, when no seasonality was observed.

Changes in the number of registered unemployed may be influenced by job offers recorded and reported in labour offices. The number of such offers in particular quarters of the 2018–2021 period is shown in Figure 7. A decrease in the number of offers submitted to poviat labour offices was recorded in the 4th quarter of each year surveyed. This was undoubtedly attributable to the seasonality of economic activity, unemployment and employment.
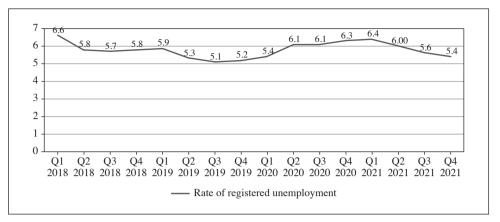
Fig. 6. Rate of Registered Unemployment in 2018–2021 (in Percent)
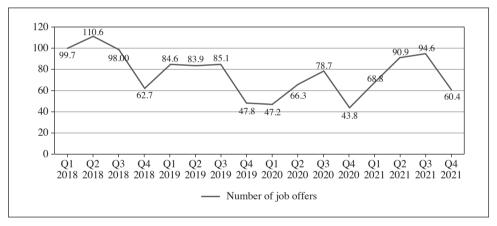
Source: the same as for Figure 3.

Fig. 7. Number of Job Offers in 2018–2021 (in Thousands)

Source: the same as for Figure 3.

The number of job offers may also be related to the attitude of employers to hiring new employees, though at the same time employers are not obliged to report all job offers to the labour office. It therefore stands to reason that this number does not reflect the total demand for work. The mood of entrepreneurs and employers can be assessed, in a way, using measures of general economic activity. Thus, Figure 8 shows the evolution of GDP, fixed capital formation and domestic demand during the period under analysis.

The data presented in Figure 8 show that three variables – domestic demand, GDP in constant prices and household consumption – followed a very similar

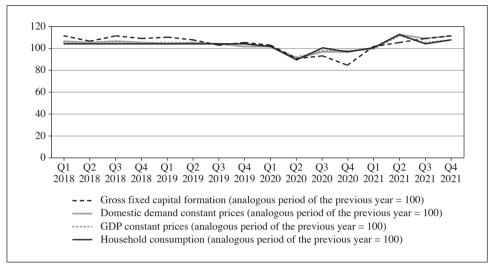course throughout the period (all values were presented in relation to the value from the previous year).

Fig. 8. Selected Measures of Economic Activity in 2018–2021
Source: the same as for Figure 3.

Figure 8 also shows that fixed capital formation was characterised by slightly more visible fluctuations than the other variables. In particular, there was a decrease in these outlays in the 2nd, 3rd and 4th quarters of 2020, while the decrease in the growth dynamics of these outlays occurred in: Q1 and Q4 2018, Q2 and Q3 2019, and from Q1 2020 to Q1 2021. Certainly, such a development in outlays is also related to the number of submitted job offers (though it is worth noting that these are not all the job offers in the economy).

Among the reasons for changes in unemployment, there are also changes in the size of the workforce resulting from external migrations. The numbers of emigrants, immigrants and the balance of external migrations are presented in Figure 9. Unfortunately, the data are on an annual basis and end in 2020, which is why in this case the research period was extended back to 2017. As the figure illustrates, emigration for permanent residence from Poland decreased, while immigration increased until 2019, and in 2020 the number of immigrants and emigrants decreased significantly due to restrictions in travelling and the COVID-19 pandemic. Similar conclusions were reached in analyses conducted for other countries, including the US, Canada, Australia and the European Union (Cassidy 2022), where a decrease in migration was observed in April and May 2020. Earlier analyses confirmed a significant reduction in immigration in the labour markets of many countries, again due to

the pandemic (Borjas & Cassidy 2020). The balance of migration during the entire period was positive, but in 2020 decreased for the reasons discussed above.
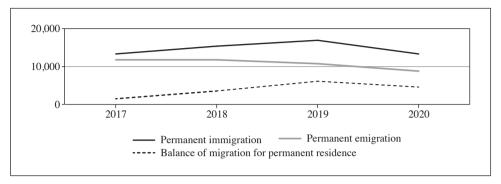

Fig. 9. External Migrations in 2017–2020

Source: the author, based on statistical data: http://swaid.stat.gov.pl/Demografia_dashboards/ Raporty_predefiniowane/RAP_DBD_DEM_13.aspx (accessed: 21.03.2022).

On the other hand, selected data on border traffic are also available. These may also provide information on the impact on human resources in the national economy, because data on migration only concern immigration/emigration for permanent residence, i.e. for a period of more than 1 year. Figure 10 therefore presents data on the border traffic of foreigners in 2020 and in the 3rd quarter of 2021, including to and from Poland.

As Figure 10 shows, a decrease in the number of border crossings by foreigners was recorded in the 2nd and 4th quarters of 2020, while there was an increase in the 3rd quarters of 2020 and 2021. The data does not cover the full research period, but it can be noted here that the decreases in border crossings followed successive waves of COVID-19 and the subsequent introduction of restrictions. Overall, however, in the 3rd quarter of 2021 there was a 10.9% increase in the number of crossings of the Polish border over the number that occurred in the 3rd quarter of 2020. Of that overall increase, foreigners crossing accounted for 8.8%, while Poles accounted for 13.6%.

The majority of foreigners crossing individual sections of the Polish land border were citizens of countries that neighbour Poland, including Ukraine (92.6%), Belarus (81.1%), and on the border with Russia – citizens of Russia (59.1%) (GUS 2021b, p. 1). However, the reasons for crossing the border in 2020 included: to go shopping (70.9%), visit relatives and friends (12.1%), and to vacation and pursue recreation (9.9%). Interestingly, in 2020, 36.0% of foreigners' trips to Poland by plane were for business/professional purposes (this accounted for the largest share from among the three types of border crossing). Visits by non-residents in Poland (crossing the

border at airports) largely concerned (apart from transit) visits to relatives or friends (20.6%) and rest, recreation, and holidays (16.9%) (GUS 2021c, p. 23). Such statistics do not indicate that the inflow of foreigners played a significant role for the labour market, although the declaration of the purpose of crossing the border could have changed after crossing (for example, a person who had come to Poland not to work could try to find a job).
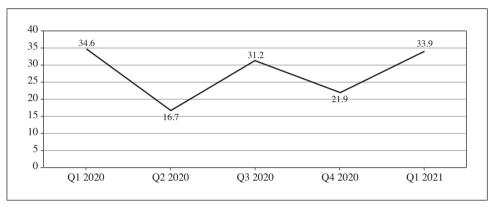

Fig. 10. Border Traffic of Foreigners (Movement of People from Poland and to Poland in Millions of People)

Source: the author, based on statistical data (GUS 2021b, p. 3).

Moreover, the opinion polls on the labour market, the threat of unemployment and the prospects of finding employment in the local labour market during the ongoing COVID-19 pandemic are interesting. Respondents' opinions – notably, their pessimism – are summarised in Figure 11, which clearly shows them in relation to the rising or falling tide of COVID-19 cases.

Regarding responses to the question of a potential deterioration in the situation of the workplace, three increases in the percent of affirmative responses were recorded: from March to June 2020, from September to December 2020, and from June 2021 to February 2022. In the latter case, the course of the number of cases was not increasing at that time, but the moods were nevertheless pessimistic, which may be associated with more permanent manifestations of social mood.

As concerns responses to the question about the threat of job loss, a positive answer was given by a growing percent of respondents in four periods: March and June 2020, December 2020, September 2021 and February 2022. An increase in positive responses to the question about the difficulties and inability to find a job in the local labour market was also recorded for four periods: June 2020, December 2020, March 2021 and December 2021. As concerns the last question, on the
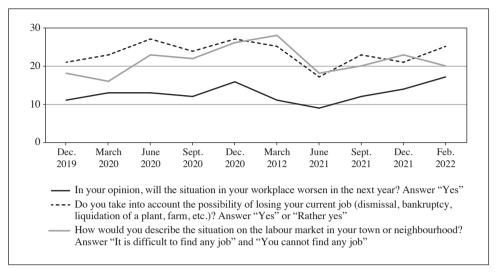
Fig. 11. Opinions of the Employed and Unemployed on the Prospects for the Labour Market
in the Light of CBOS Research in 2019–2022 (Percent of Respondents)

Source: the author, based on data (CBOS 2020, 2021, 2022).

respondents' moods, answers coincided with the course of the seasonality of unemployment and the economic situation. Only in June 2020 can they be associated with the influence of an external factor such as the pandemic.

5. Conclusion

Summarising the foregoing analyses and statistical data, it is difficult to clearly indicate how much the COVID-19 pandemic impacted on the situation on the labour market. Undoubtedly, however, the successive waves of both disease and restrictions introduced in economic and social life contributed to changes in the current trends in shaping the economic situation, unemployment and migration.

A particularly noteworthy economic aspect resulting from the waves of virus was a decline in GDP in 2020. This drop was accompanied by a reduction in outlays on fixed assets and a decline in investment demand. The progressing waves of the pandemic were also behind the reduced number of job offers and reductions in both immigration and emigration, as well as in border traffic (by land and air). The impact of the pandemic was also visible in the responses of the respondents, whose pessimism grew when they were asked about continuing employment and the possibility of finding employment on the local labour market. These changes in the areas presented in the article contributed to the changes in the level and rate of

registered unemployment observed, its structure and detailed measures describing this phenomenon.

Further and more in-depth studies of the impact of the pandemic can be carried out using monthly rather than quarterly data. Further, having full time series of variables would make it possible to measure the strength of this impact on the level of unemployment. In this study, only an attempt was made to diagnose the direction of this impact and logical justification based on a cause-and-effect analysis. The subject matter discussed here certainly requires deeper analysis and further quantification based on statistical and econometric methods.

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