

Article

COVID-19 Pandemic as a Change Factor in the Labour Market in Poland

Mieczysław Adamowicz 

Faculty of Economics, John Paul II University of Applied Sciences in Biala Podlaska,
21-500 Biala Podlaska, Poland; adamowicz.mieczyslaw@gmail.com

Abstract: The COVID-19 pandemic started in late 2019 in China. and At the beginning of 2020 it spread to all countries of the world, causing damage in all aspects of economic and social lives, including the labour market. The impact of the COVID-19 pandemic on the labour market throughout its course so far has become an important topic of research in various countries, including Poland. Research is conducted in four main areas concerning: the situation of employees and employers on the labour market; unemployment and professional activity; remote work; and anti-crisis measures undertaken by the state. The paper refers to all these aspects of the labour market in Poland, in some cases against the background of other countries. Based on the source literature, the pandemic is presented from different perspectives: as a cause of the global crisis; the implications of the pandemic on the labour market; its impact on employers and employees and on the economy and society more broadly; government programmes aimed at preventing and combating the pandemic in the form of so-called anti-crisis shields and financial shields; and the spread of remote work and its effects. The paper also presents the results of its own survey research on a sample of 170 respondents, representing people active in the labour market in April 2022. The pandemic has caused disruptive, immediate and long-term effects on the labour market in Poland. The anti-crisis policy of the state mitigated quite effectively the negative economic and social effects, noticeably more so and additionally more appreciated by employers than by employees. The case of Poland, where broad anti-pandemic and anti-crisis measures were undertaken, may be partly applicable to other, mainly European, countries. Further research on the crisis resulting from the COVID-19 pandemic in different aspects of socio-economic areas in national and international economies are recommended. The pandemic, in causing a general economic crisis, has left a permanent mark on the labour market in Poland, which will be structurally important for its functioning in the future.

Keywords: COVID-19 pandemic; labour market; remote work; anti-crisis shield; effects of the pandemic



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1. Introduction

The COVID-19 (Coronavirus Disease 2019) infectious disease caused by the SARS-CoV-2 coronavirus began as an epidemic on 17 November 2019 in the city of Wuhan, Hubei province, Central China, and was and was declared a pandemic by the World Health Organisation on 11 March 2020 [1]. By mid-January 2020, the virus had spread throughout China. In the second half of February, outbreaks of infection were reported in South Korea, Italy and Iran. In Poland, the disease emerged on 4 March 2020, in the same month that Europe became the centre of the coronavirus pandemic. By 24 May 2022, more than 529 million SARS-CoV-2 virus cases had been reported worldwide in 192 countries, resulting in 6.30 million deaths. When the end of the state of the pandemic was announced in European countries at the end of May 2022, a large number of infections with the disease were reported in North Korea, the Falkland Islands, Martinique and Taiwan. In addition to the health effects and the huge burden on health services, the pandemic has caused global disruption in every area of life. The adverse social, economic, political and cultural effects continue even after the disease has subsided. A global recession, border closures in many

cases, travel restrictions, limited face-to-face interactions within and across countries, the cancellation or curtailment of sporting, cultural and political events, the collapse of financial markets, the school and university closures, the reduction of public services, the collapse of tourism, changes in domestic and foreign trade, corporate bankruptcies, and increased unemployment are the most visible, direct effects of the pandemic. The pandemic also triggered changes in people's moods and behaviour in the spheres of consumption, saving, shopping and interpersonal relationships. Undoubtedly, the great and long-term impact of the pandemic is observed in the labour market, as clearly demonstrated by the rise in unemployment, the development of remote work and the interference in the relationship between employers and employees. In this area, beyond the immediate economic and social impact, the pandemic may prove to be a game-changer for the way the employee is connected to the workplace in the future.

The effect of the pandemic on the labour market has become an interesting object of research. Based on the work published to date in Poland, four main research streams in this area can be distinguished: 1. the behaviour of employees and employers during the pandemic and its effect on the economic situation of the population [2–4]; 2. unemployment and professional activity of different groups of the population in the labour market [5–8]; 3. remote work, new technologies and new forms of its performance [9–12]; 4. the influence of the state on the labour market as an instrument for mitigating social effects and sustaining economic growth [9,13,14]. This paper will address some aspects of all the above-mentioned research areas.

The subject of analysis in this study is the impact of the pandemic on the labour market, broadly understood as the economic and social relations between firms and employees (households), within the framework of the systemic, normative and political influence of the state. The main objective of this paper is to present the changes taking place in the labour market in Poland during the pandemic in comparison with other countries, and the overall impact of the pandemic on the economy and the functioning of enterprises, as well as the attitudes and social behaviour of employees. The study presents the pandemic as a crisis-generating factor, destructive to the labour market, causing unemployment and reducing the labour force participation of the population, its impact on the main forms of work and relations between labour market actors during the pandemic, including the positive and negative aspects of remote work, and an overview of state intervention in the labour market during the pandemic, its actual effects on employers and employees, and employees' opinions on their situation before and after the pandemic.

The paper draws on the literature on the subject, statistical data, reports and opinions of institutions involved in the analysis and evaluation of the course of the pandemic, as well as the results of our own research by means of a diagnostic survey conducted between 1 April 2022 and 7 April 2022 on a sample of 170 respondents. This was a group of people active in the labour market aged 21–65 years. During the study, an auditory survey method was used, using the CAWI (Computer Assisted Web Interviews) method, which involves filling in a questionnaire via the Internet and sharing the survey questionnaire with random people. Data collection and preliminary data processing was carried out by Adrian Derlukiewicz [15].

2. The COVID-19 Pandemic as a Cause of the Global Crisis

Infectious diseases are present on all continents and are mostly controlled by national and international health and sanitary services. However, there are times when there is an exacerbation of a disease that takes the form of an epidemic. An epidemic is 'the occurrence in a given area of infections or cases of infectious disease in numbers markedly greater than in at any previous time, or the outbreak of infections or infectious diseases not previously present' [16]. Individual countries generally define legal norms for when an epidemic may be declared. In Poland, the legal definition and administrative procedure of an epidemic is regulated by the Act of 5 December 2008 on preventing and combating infections and infectious diseases in humans. The declaration of an epidemic state allows bans and orders

to be imposed administratively [17]. A pandemic is a type of epidemic that is not limited by its area of occurrence and is global in nature. Moreover, it is characterised by a lack of biological immunity of the entire population, a long period of susceptibility to infection and the appearance of symptoms, the difficulty of recognising symptoms and establishing a diagnosis. Outbreaks occur spontaneously, often at the same time in different countries despite the lack of recognition of disease transmission routes, and may disappear and reappear. The occurrence of pandemics is declared by the World Health Organisation. Epidemics and pandemics can be caused by various pathogens, especially bacteria and viruses. Bacteria were the source of plague and cholera in previous centuries. Today, the pathogens of diseases such as influenza, AIDS and COVID-19 are viruses. Viruses, unlike bacteria, attack specific parts of the body and quickly form an epidemiological chain of infection that has three links: the source and agent of infection, the routes and mechanisms of spread and the susceptible individuals. Viruses have the ability to mutate rapidly and adapt to hosts and environmental conditions.

Most people who contract COVID-19 and have been severely ill recover fully within a few weeks after the abatement of symptoms. However, some, even after a mild course of the disease, suffer negative health effects for weeks or months such as shortness of breath, coughing, heart and lung damage, chest and headaches, fatigue, muscle and joint pain, loss of taste and smell, tachycardia, mental disorders and other disorders and ailments. However, it is not uncommon for organ damage to occur, with effects extending over a long period of time. It is estimated that complications and long-term effects occur in about 15% of those infected [18]. The health and psychological effects undoubtedly have an impact on the overall ability to work and the work performance which translates into economy and managerial efficiency [19].

The infectious disease caused by the SARS-CoV-2 coronavirus is not the largest epidemic (pandemic) in Europe or the world. According to statistics, it directly affected 530 million people between November 2019 and the end of May 2022 and took more than 6.3 million lives from this world (Table 1).

Table 1. SARS-CoV-2 coronavirus worldwide: State of the Pandemic as of 25 May 2022 [20]. Open access source, there is no copyright issue.

| Continents | Number of Infected People | Deaths | Number of Recoveries |
|-----------------------|---------------------------|-----------|----------------------|
| World | 529,242,921 | 6,304,457 | 49,980,060 |
| Europe | 195,752,186 | 1,838,352 | 184,391,638 |
| Asa | 154,634,502 | 1,430,253 | 147,223,896 |
| North America | 100,793,781 | 1,471,280 | 95,439,779 |
| South America | 57,443,619 | 1,297,909 | 53,398,469 |
| Africa | 12,114,888 | 254,691 | 11,303,137 |
| Australia and Oceania | 8,503,224 | 11,957 | 8,043,175 |

Europe has been the most affected by the pandemic so far, with 195.7 million people infected, of whom 1.84 million have died, accounting for respectively 37% of the number infected and 29% of the deaths worldwide. Asia accounted for about 29% of the infected and just under 23% of deaths. North America and South America account for 19% and 11% of the infected respectively, and death rates on both continents are at approximately 23%. This means that the proportion of deaths related to infections is much higher in South America than in North America. In Africa, the death rate is almost twice as high as the infection rate. A lower death-to-infection rate is found in Asia, Europe and Australia-Oceania, which in the former case can be attributed to the greater immunity of the Asian population to SARS-CoV-2 and in the case of other two continents to better health care efficiency. Data on infections and deaths by country with more than 5 million infections are shown in Table 2.

Table 2. COVID-19 infections and deaths by country as of 25.05.2022 [20]. Open access source, there is no copyright issue.

| | No. | Number of Infected People | Number of Deaths | % of Deaths to Infected |
|-----|----------------|---------------------------|------------------|-------------------------|
| 1. | USA | 85,304,169 | 1,029,524 | 1.21 |
| 2. | India | 43,144,260 | 524,507 | 1.22 |
| 3. | Brazil | 30,846,602 | 666,037 | 2.16 |
| 4. | France | 29,413,371 | 148,056 | 0.50 |
| 5. | Germany | 26,205,002 | 139,026 | 0.53 |
| 6. | United Kingdom | 22,276,975 | 178,313 | 0.80 |
| 7. | Russia | 18,305,973 | 378,609 | 2.07 |
| 8. | South Korea | 18,017,923 | 24,029 | 0.13 |
| 9. | Italy | 17,312,432 | 166,264 | 0.96 |
| 10. | Turkey | 15,065,767 | 98,939 | 0.66 |
| 11. | Spain | 12,280,345 | 106,105 | 0.86 |
| 12. | Vietnam | 10,712,733 | 43,078 | 0.40 |
| 13. | Argentina | 9,178,795 | 128,825 | 1.40 |
| 14. | Japan | 8,671,121 | 30,369 | 0.35 |
| 15. | Netherlands | 8,080,032 | 22,314 | 0.28 |
| 16. | Iran | 7,230,882 | 141,293 | 1.95 |
| 17. | Australia | 7,071,580 | 8218 | 0.12 |
| 18. | Colombia | 6,099,111 | 139,883 | 2.29 |
| 19. | Indonesia | 6,053,424 | 156,533 | 2.59 |
| 20. | Poland | 6,006,298 | 116,290 | 1.94 |
| 21. | Mexico | 5,759,770 | 324,768 | 5.64 |
| 22. | Ukraine | 5,011,433 | 108,538 | 2.17 |

By 25 May 2022, 22 countries had more than 5 million infected individuals. The largest number of infected people was in the United States, where more than one million people died as a result of the pandemic. Two large countries, Brazil (666,000) and India (525,000), also had more than half a million deaths. The proportion of deaths in relation to the number of the infections in this group of countries ranges from 0.12–0.13% in Australia and South Korea to 5.64% in Mexico. High death rates of over 2% were found in Indonesia, Colombia, Brazil, as well as in Ukraine and Russia. Death rates are therefore correlated with the level of economic and social development and with the condition and efficiency of health services. Indeed, the fight against a pandemic is not only a health problem, but is also embedded in the economic and social realities of a country.

The pandemic has caused global social and economic, cultural and political upheaval. It has resulted in a global recession, border closures, restrictions on international travel and movement, massive changes in education, a collapse of tourism, a decrease in the production of goods and services, corporate bankruptcies, and restrictions on international and domestic financial flows. Wearing masks, remote teaching and remote working are becoming widespread as well. The impact of the pandemic is a large increase in health care costs, disruption in logistics processes, reduction in the scale and scope of services, and unrest in public mood. The forms and effects of these new phenomena await further investigation. The greatest direct losses caused by the pandemic are undoubtedly the premature deaths of young people, people of working age, individuals working and providing for households. The fight against the pandemic and the mitigation of its impact is being carried out by international organisations and pharmaceutical companies, but the core activities are being implemented in national programmes.

In Poland, the first COVID-19 coronavirus infections appeared in March 2020, when 2311 infections were reported, resulting in 33 deaths. Between April and July, the monthly number of cases was between 10,000 and 11,000 people, rising to 22,000–24,000 in August and September. The number of deaths initially decreased from 610 in April to 252 in July to rise again to 473 in August and September. After this initial period of the pandemic, Poland witnessed two waves of large increases in infections and deaths, the first occurring between October 2020 and May 2021, followed by a new wave of intense infections occurring between October 2021 and March 2022 after a decline between June and September, when the number of infections ranged between 3000 and 18,000 people per month. At the peak of the first large wave, the number of monthly infections exceeded 600,000 people, reaching 780,000 people in the second wave. In the peak months of the first wave, there were 14,448 monthly deaths and 13,467 in the second wave. By May 2022, the number of SARS-CoV-2 cases in Poland had dropped to about 6000 and the number of deaths to 120. The government at that time changed the restrictions and procedures for a state of pandemic to procedures for a state of pandemic emergency.

The basic anti-pandemic measures included: expanding and retrofitting the hospital treatment base, introducing a sanitary regime in public places and in transport, restricting the freedom of assembly and movement of people, limiting the operation of a number of production and service establishments and institutions, and implementing universal repeated vaccination of adults and then of adolescents and children. A separate sphere of measures taken by the public authorities was represented by various economic and financial anti-crisis programmes, enabling enterprises in endangered areas and activities to survive the revealed crisis. The pandemic also gave rise to the mobilisation of various forms of support for families and individuals who lost income or suffered other severe consequences of the pandemic. One of these areas was the labour market.

3. Implications of the COVID-19 Pandemic for the Labour Market

The COVID-19 pandemic and its course constituted a kind of external shock to the economies of individual countries and their labour markets [4]. After the WHO declared the pandemic, national governments, in response to the rapid increase in infections, introduced administrative decisions to maintain the sanitary regime limiting economic activity, direct relations and population mobility, which disrupted labour markets. The effects of the pandemic on the labour market were multifaceted. Standard indicators that could be used to assess the labour market situation included participation and inactivity rates, the number of employed and unemployed, the unemployment rate, job offer rates or remote work rates. Increased unemployment and reduced labour force participation were common phenomena in many countries of the world during the pandemic. In most EU member states, the average unemployment rate exceeded 5% (Figure 1)

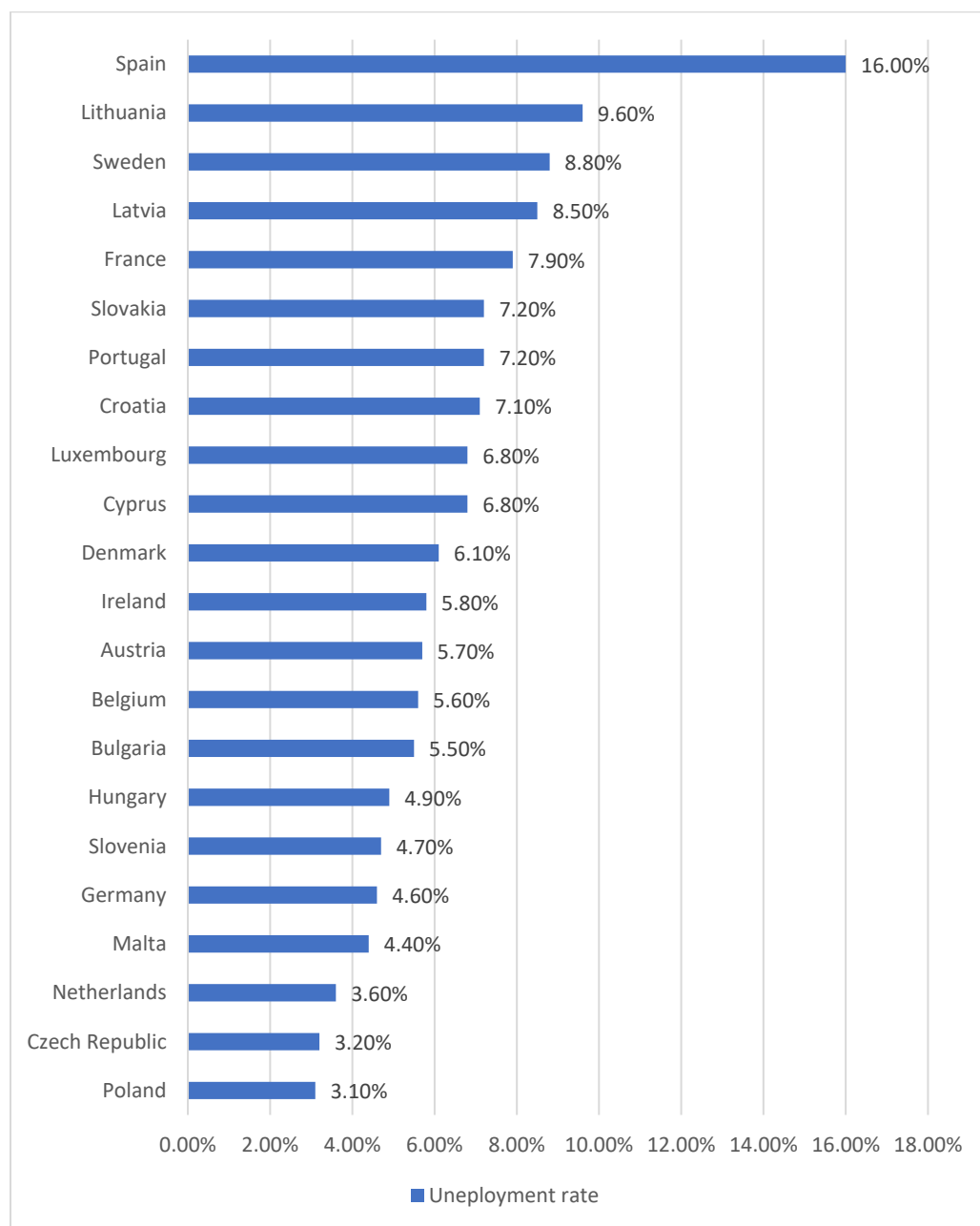


Figure 1. Unemployment rate in 2020 in EU countries [21]. Open access source, there is no copyright issue.

In Poland, the pandemic caused a decrease in the labour force participation rate and an increase in the inactivity rate. In the second quarter of 2020, the economically active population in Poland was 16 801 000, 230,000 lower than in the second quarter of 2019. The labour force participation rate in the second quarter of 2020 was 55.5%, 0.7 percentage points lower than the previous year. At the same time, there was an increase in the number of economically inactive people by 217,000 people, by 1.6%, during this period [4]. The decrease in the number of economically active population in Poland was mainly due to changes in the number of employed people, as the number of unemployed people as of 2018 was at a relatively low level of less than 4%. According to Eurostat, in 2020, during the peak of the pandemic, Poland belonged to the group of countries with the lowest levels of unemployment [21]. However, between April and December 2020, the unemployment rate in Poland rose to between 5.8 and 6.3%.

The number of employed people in the second quarter of 2020 in Poland amounted to 16,247,000 people, representing 53.8% of the population aged 15 and over, and was 210,000 lower than in the second quarter of 2019. Thus, it can be concluded that the reduction in the number of employed people was related more to an increase in the number of economically inactive people than to an increase in unemployment. Some employees of establishments experiencing difficulties due to the pandemic and benefiting from government's anti-crisis shields were looking forward to returning to work once administrative restrictions were lifted. Struggling factories which refused to lose employees offered to reduce their wages for a period of time, to limit their working hours or offered to switch to remote work. It is estimated that in 2020, around 625,000 people, or 34.4 per cent of the total workforce, will be temporarily out of work due to workplace disruptions [21]. The increase in inactivity was also due to the imposition of general protective restrictions, as well as the introduction of distance education in schools, which created the need for a significant portion of parents of school-age children to stay at home. The pandemic also resulted in a widespread reduction in job vacancies. In some countries, the decline reached 35–36% in April 2020 compared to the previous year (Figure 2) [21].

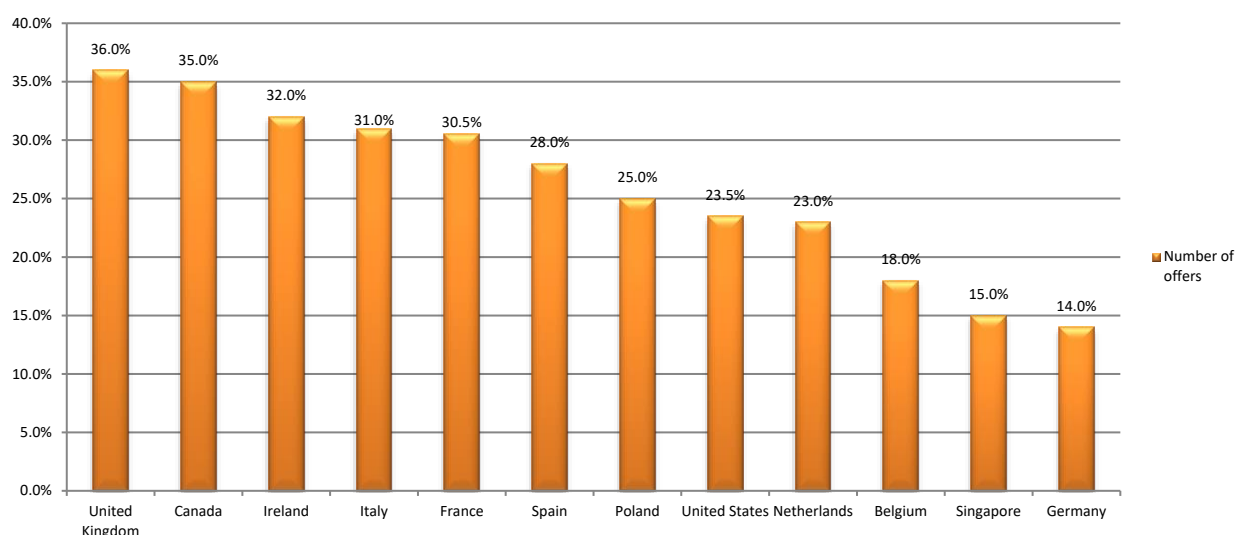


Figure 2. Decrease in the number of job offers from April 2020 compared to the previous year (in %) [21]. Open access source, there is no copyright issue.

In Poland, the number of official job offer notifications in April 2020 decreased by 25% compared to the corresponding period of the previous year. New regulations and extraordinary precautions caused an increase in unemployment and inactivity and the formation of new forms of employee-employer relations. All of this led to rapid socio-economic changes [22], slowing down and even stopping production and changes in the forms and structure of consumption [23]. The disruption of labour markets created tensions and unrest among workers [24]. An important feature of the changes resulting from pandemics is that they are abrupt, which does not allow enough time for smooth adjustments [25], and there is strong variation in the forms and effects of the occurrence of pandemics in different sectors [22,26]. The main sectors affected by a pandemic are health care, education, retail, transport, hospitality, catering, human services, sports and cultural institutions and events, scientific conferences and religious and family celebrations.

4. Instruments for Supporting the Labour Market during the Pandemic

The natural response of labour markets to the onset of the COVID-19 pandemic was supported by policies of international organisations and interventions of national governments. Labour markets were one of the most important elements of the anti-pandemic and anti-crisis measures. The labour market support instruments introduced by European Union countries depended on the specific characteristics of each country, although some

similarities in the instruments used and the sequence of their use can be observed in the actions taken by all countries [4,6,9].

The increase in the unemployment rate, the collapse of more and more companies and other disruptions, and the decline in GDP growth rates necessitated the introduction of protective programmes aimed at preventing and limiting the effects of the pandemic by, for example, providing public assistance to companies and employees. In Poland, the first action taken by the government was the adoption on 2 March 2020 of the Act on special solutions related to the prevention, prevention and control of COVID-19, and other infectious diseases and crisis situations [27,28]. Following the amendment to this act on 31 March 2020, the scope of intervention was expanded with the introduction of further versions of the so-called ‘anti-crisis shield’, which were intended to protect companies from bankruptcy and to provide social assistance to employees in order to survive a difficult period of unemployment or salary reduction. In the period up to the end of April 2021, nine further additions to the anti-crisis shield were announced [29]. The COVID-19 Act introduced a number of forms of support for employers to protect employees from collective redundancies, such as a reduced wages subsidy, exemptions from social and health insurance contributions, rights to negotiate employee remuneration, tax credits, childcare allowances and others. Entrepreneurs whose turnover had decreased by 15–25% were entitled, among others, to reduce their employees’ salaries by 50% during the layoff period and to obtain a subsidy for the reduced wages amounting to 50% of the statutory minimum wage. They also had the right to reduce the working time of their employees by up to 20% and obtain a subsidy of up to 40% of the average wage in the national economy. From June 2020, they were further able to apply for a wage subsidy for employees not covered by a work layoff or working time reduction plan. Employers also had the right to order employees to take outstanding leave. Overall, the First Anti-Crisis Shield package included regulations covering:

- Possibilities for certain entities (micro-enterprises, small companies, self-employed people, clergy, etc.) to obtain exemptions from paying social security contributions for two or three months (March–May);
- Provision of financial support of approximately PLN 2000 for service providers directly related to sudden layoff at workplaces;
- Offering a subsidy to employees for reduced wages in companies in a difficult financial situation [28].
- The entire content of the anti-crisis shield was based on five assumptions: 1. job security and protection of employees; 2. sponsorship of entrepreneurs; 3. protection of the population’s health; 4. strengthening of the financial system; 5. social investment.

The second anti-crisis financial shield offered institutional support to enterprises at market conditions through repayable financial instruments in the form of loans, loan guarantees, sureties and others. It was available for business financing by companies excluding those in the financial and insurance sectors. Anti-Crisis Shield 3.0, also aimed at enterprises, was intended to protect the labour market, in particular by extending exemptions from social security contributions and the so-called solidarity levy and making standstill benefits more widely available. Anti-Crisis Shield 4.0 expanded the list of potential beneficiaries and introduced new solutions to help sustain economic activity and maintain jobs. An important instrument was the creation of an interest subsidy fund for working capital loans and the increase in the liquidity loan fund for the needs of micro, small and medium-sized enterprises. The government provided the possibility of minimum wage subsidies and the possibility of suspending loan repayments for a period of three months. Anti-Crisis Shield 5.0, introduced from October 2020, was mainly aimed at supporting companies from the tourism, stage and exhibition industries. Introduced in December 2020 Anti-Crisis Shield 6.0 extended these forms of assistance to other industries most affected by the pandemic. Subsequent shields announced in February, April and May 2021 also included other affected industries. In each case, support was provided using four basic instruments; idle

time benefits, wage subsidies, grants for ongoing business costs and temporary exemptions from social security contributions [28,29].

To combat the effects of the epidemic, the government allocated a sum of more than PLN 312 billion, which accounted for around 15% of the value of the country's entire annual GDP. The value of the financial anti-crisis shield in itself amounted to PLN 100 billion. The anti-crisis shield can be defined as a package of solutions prepared by the government to protect the state and citizens from the crisis caused by the coronavirus pandemic [18]. The anti-crisis shield introduced in Poland was based on six pillars. The names of these pillars and the amounts allocated to them are presented in Table 3.

Table 3. Anti-crisis shield and financial shield in Poland during the pandemic [28]. Open access source, there is no copyright issue.

| Pillars of Support | Amount in Billion PLN |
|------------------------------------|-----------------------|
| Healthcare | 7.5 |
| Work safety | 30.0 |
| Public investment programme | 30.0 |
| Strengthening the financial system | 70.3 |
| Financing enterprises | 74.2 |
| Financial shield | 100.0 |

Source: <https://www.gov.pl/web/tarczaantykrzysowa> (accessed on 21 June 2022).

Actions within all pillars had if not direct then indirect effects on the labour market. The general restrictions on movement, the need to maintain social distance, the temporary suspension or reduction of activities of many companies and industries including lockdowns for all levels of education which were also of great importance. These regulations affected the internal changes within individual companies and organisations as well as the functioning of entire communities and territorial systems. The number of working and non-working people who had not formally lost their jobs changed, absenteeism for health and social reasons increased, including mainly the need to care for school-age children who had switched to remote learning. The highest number of absenteeism (1,878,000) was recorded during the first wave of the pandemic in the second quarter of 2020. Attendance allowances for the closure of school and childcare facilities for children under the age of eight played an important role in the relatively smooth transition. In the first quarter of 2021, 1.8% of the working population in Poland benefited from this allowance, including two-thirds of those working in the private sector [6]. During the pandemic period, the average salary in Poland changed. In the initial period, the average remuneration in the enterprise sector decreased to the lowest level (5119.94 PLN) in May 2020, before increasing to around 5900 PLN in March 2021, with a peak in December 2020 at 5973.75 PLN [30].

Different types of enterprises benefited from the anti-crisis shield, not only micro and small enterprises but also medium-sized and large companies. Approximately 650,000 enterprises operating in various sectors of the economy were able to benefit from this support. Thanks to the introduction of the anti-crisis shield, the rate of unemployment growth fell, remaining at 6.1% in the following months [31]. There was also an increase in the minimum wage applicable in the country. In 2021, the minimum wage increased by 200 PLN to the level of 2800 PLN per month. It is estimated that the anti-crisis shield could have supported up to around 6 million workplaces. The Guaranteed Employee Benefits Fund and other local, often anti-crisis programmes of local government also played an important role in protecting the labour market. All these measures resulted in the negative effects of the pandemic shock on the Polish labour market being quite moderate by mid-2020. However, the pandemic has had structural and long-term effects on this market.

5. Impact of Pandemic COVID-19 on the Popularisation of Remote Work

The remote work that became so prevalent during the COVID-19 pandemic was not a new phenomenon. The concept first appeared in 1972 on the pages of The Washington

Post [32] and is associated with the name of Jack Nilles [10,33]. This American physicist and engineer proposed that during the oil crisis and high fuel prices, instead of commuting, people should do their work at closer locations, either at home or in a telecentre. He called this form of work teleworking. Today, synonyms for the term are: remote working, distance work, virtual work, home-based work, work from home, remote office work. It is sometimes argued that teleworking is not synonymous with remote work [34]. The rationale for these views is that telework refers to work under a contract of employment, but carried out at home, and remote work can be carried out under a contract of employment, civil law contracts or self-employment. All these terms refer to work that is not carried out in a traditional workplace, in an office, shop, warehouse or other place under the supervision of an employer, but in any place without direct contact with the employer by means of ICT devices, mainly the internet and telephone. Practically, this form of work appeared as early as 1962, when, in the UK, the 'F. International' company, in order to reduce staff turnover and cut costs, employed women in programming services doing this work from home [35]. In addition to J. Nille, remote working was popularised by Alvin Toffler in his book *The Third Wave* (1980) and futurologist Francis Kinsman in his book *The Telecommuters* (1987) [36]. Telecommuting became widespread in the early 1990s when the US company AT & T adopted this system, which within six years covered 36,000 employees, or 55% of the workforce, in its US branches. In 1995, the European Commission recognised that teleworking could become an important part of the labour market in the future. An important factor in the popularisation of various forms of teleworking is the rapid advances in information technology and telecommunication. Telework can be categorised as a flexible form of employment, but in many countries it is not regulated, which does not allow for a more precise definition of its prevalence. The International Labour Organisation has proposed a number of definitions that allow for a more precise characterisation and quantification of this flexible form of employment performed in an alternative location to the default workplace.

Until the pandemic, remote work was the domain of the liberal professions and large technology corporations [33]. During the pandemic, remote working or working from home became widespread, especially in education and administration, extending mainly to managers and programmers, accounting, finance and marketing, customer service and sales. An area where the pandemic has particularly involved the supply and demand side of the market is the entire education, science and training sector. The prevalence of remote work during the pandemic in Poland is shown in Figure 3.

According to the Boston Consulting Group [37], in the period prior to the COVID-19 pandemic, globally, 69% of work was performed in stationary form; 7% of work was performed in fully remote form; and 24% in a form combining remote and stationary work. During the pandemic, these proportions changed, with 49% of employees working in a stationary form; 19% performed fully remote work; and 32% worked in a mixed form [33,37]. In Poland, as a result of active state intervention in the labour market, these changes were not so great. However, the pandemic has undoubtedly had a long-term impact on labour markets in Poland. In this country, the share of remote work was 4.6%, lower than the EU average of 5.2%. During the pandemic, there was a sharp increase in the number of employees working from home (Table 4). Finland had the highest share of this form of work before and after the pandemic, where the rate exceeded 25%. Ireland and Luxembourg also had a share of more than 20% of remote work. Only in Bulgaria, Romania, Croatia, Hungary and Latvia did this rate not exceed 5%.

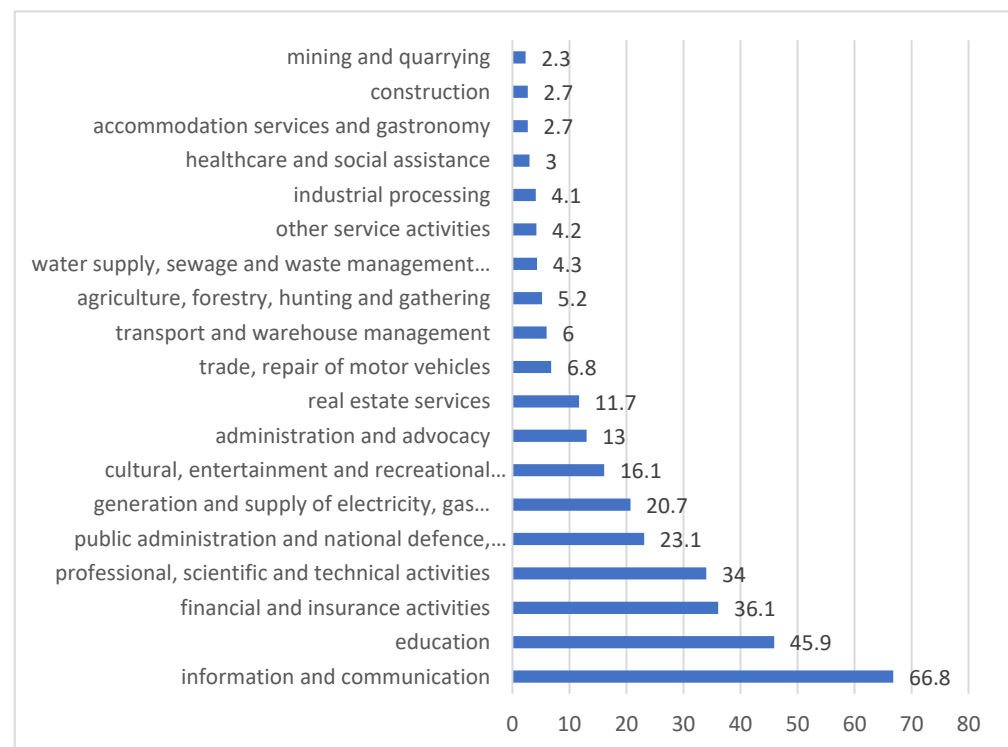


Figure 3. Share of remote workers in the total workforce by section of PKD (Polish Classification of Activity) at the end of the first quarter of 2021, in % [33]. Open access source, there is no copyright issue.

Table 4. Share of people aged 15–64 working remotely in EU countries in 2018 and 2021 in % [22]. Open access source, there is no copyright issue.

| Country | 2018 | 2020 |
|----------------|------|------|
| Austria | 10.0 | 18.1 |
| Belgium | 6.6 | 17.2 |
| Bulgaria | 0.2 | 1.2 |
| Croatia | 1.4 | 3.1 |
| Cyprus | 6.5 | 8.7 |
| Czech Republic | 4.0 | 7.2 |
| Denmark | 7.8 | 17.0 |
| Estonia | 7.6 | 12.6 |
| Finland | 13.3 | 25.1 |
| France | 6.0 | 15.7 |
| Greece | 2.0 | 7.0 |
| Spain | 4.3 | 10.9 |
| Netherlands | 14.0 | 17.8 |
| Ireland | 6.5 | 21.5 |
| Lithuania | 2.5 | 5.4 |
| Latvia | 2.9 | 4.5 |
| Luxembourg | 11.0 | 23.1 |
| Malta | 5.8 | 14.8 |
| Germany | 5.0 | 14.8 |
| Poland | 4.6 | 8.9 |
| Portugal | 6.1 | 13.9 |
| Romania | 0.4 | 2.5 |
| Slovakia | 3.6 | 5.7 |
| Sweden | 5.3 | 7.3 |
| Hungary | 2.3 | 3.6 |
| Italy | 3.6 | 12.2 |
| European Union | 5.2 | 12.3 |

A survey conducted in April 2020 by the CEBOS and IQS Foundations, with a sample of 1000 respondents [38], showed that one in four respondents worked reduced hours after the announcement of the pandemic, 21% of respondents switched to remote work and 9% stopped working due to the need to take care of school and pre-school children. The research confirmed that remote work was mainly done by people with a university degree who had the necessary IT skills to do such work. This form of work was used by approximately 55% of managers, 38% of employees of state and public institutions, 34% of administrative and office workers, and 32% of the self-employed individuals [33]. The research conducted by Statistics Poland showed that the percentage of people working remotely in Poland was 11% in the first quarter of 2020, after which it fell to 5.8% in the third quarter, only to rise again to 14.2% in the first quarter of 2021 [39]. Before the outbreak of the pandemic, remote work was used more frequently by larger companies. An important factor in the development of remote working was the popularisation of the internet and the general efficient functioning of telecommunication. Poland saw a rapid increase in the number of households with access to the internet between 2010 and 2020: from 67% to 90% of households. In this regard, Poland is not far behind the average of European Union countries. The pandemic has forced an acceleration of education of the population in the use of electronic devices. This can be regarded as one of the positive effects of the pandemic. The positive and negative aspects of remote work are shown in Table 5.

Table 5. Positive and negative consequences of remote work for the employee and the employer [10,18,39]. Open access source, there is no copyright issue.

| Advantages/Positive | Disadvantages/Negative |
|---|---|
| For the employee | |
| Greater autonomy and flexibility at work | The need to plan and organise the working day independently, which can create a challenge for employees with no experience in time management |
| Possibility to reconcile work and personal life, including family life | Constant communication with the employer and remote monitoring of the employee's activities |
| Greater ability to plan activities during the working day and adapt to the rhythm of the day and one's own needs | Limited access to resources and social benefits at the organisation's headquarters and contacts with colleagues |
| Greater motivation to organise and improve work | Narrowing and disruption of the distinction between work and home life |
| Increased productivity and work efficiency | Reduced access to trainings, reduced opportunity for development and promotion |
| Time and cost savings for commuting, positive environmental impacts | Increased cost of housekeeping, increased use of appliances and personal resources |
| Reduced stress associated with working in teams | Monotony of working at a computer, increased working hours, lack of rest, deterioration of health and well-being |
| Flexibility in planning breaks and leisure activities | Decreased attractiveness of work, reduced bonding and feeling of isolation, deterioration of home comfort |
| For the employer | |
| Possibility of employing any class of professionals anywhere in the world | Possibility of disorganisation and reduced effectiveness of teamwork |
| Minimisation of costs of maintaining the organisation's premises and equipping employees with equipment and amenities | No direct control over the course of quality and efficiency of work |
| Increased profits due to increased working hours of remote workers | Need to source effective ways of coordinating work |
| Reduction in the number of social workers and support staff | Lack of direct contact with the team and weakening of internal company ties |

It should be noted that almost all the positive sides of remote working have their counterparts on the negative side. This applies to both employers and employees. Particular beneficiaries of remote working can be: parents raising children, people with disabilities and those taking care of disabled family members, residents from small towns and villages or those far from large urban centres. The quality and efficiency of remote working depends on both the workplace and the employees, with decisions on whether to undertake remote or hybrid work being made by the managers of the organisations. Remote work is more often organised by large companies with access to information technology.

The modern labour market is increasingly characterised by volatility, uncertainty, complexity and ambiguity, making up the so-called VUCA environment [10]. The COVID-19 pandemic fulfilled the characteristics of the environment defined by VUCA and rapidly created a new global emergency requiring quick action under completely different circumstances. Such action in uncertainty, or inaction, often may have involved decisions that were not fully thought out or accurate and resulted in discomfort and adverse outcomes for both employee and employer.

Some studies indicate [33,40–43] that the pandemic will contribute to the development of remote work, but also hybrid work, combining two forms—remote and on-site work. One form of such work could be the designation of appropriate days or weeks for employees to carry out a particular form of work and also the designation of days for meetings and consultations for all employees at the organisation's headquarters. The development of remote or hybrid work may result in deeper structural changes in the labour market. Two groups of employees may emerge—those working remotely and those working from home—with different qualifications, privileges, income, relationships and habits creating distinct forms of work culture.

6. Impact of the Pandemic on the Functioning of the Labour Market—Results of Survey Conducted in Poland

The survey research was carried out between 1 April 2022 and 7 April 2022 on a random sample of 170 respondents who were active in the labour market, using a questionnaire containing questions on the place and conditions of employment before and during the COVID-19 pandemic, the professional and financial situation of the respondents, an assessment of the causes, effects and factors of the changes that occurred during the pandemic, and an assessment of the assistance provided by the state to entrepreneurs and employees. Almost 73% of the surveyed population was female and 27% male, which did not fully reflect the actual structure of the workforce. This observation also applies to the age structure, which was dominated by those aged 21–30 (63%). Those aged 31–40 accounted for 18%, those aged 41–50 for 16% and less than 3% of respondents were aged 51–65. Out of the 170 people who completed the questionnaire, 19 people (11%) were not employed and were therefore not considered for further study. Approximately 70% of the respondents—105 people—worked under an employment contract, 24.5–37% people—under a civil law contract, and approximately 6–9% people—worked on the basis of a non-contractual employment relationship.

The pandemic caused significant changes in the employment structure, as shown in Figures 4 and 5.

As a result of the pandemic, a significant number of people changed their place of work. The number of people employed in trade, education and construction decreased. In trade and construction it was difficult to develop forms of remote working. In contrast, employment increased in administration, finance, accounting, IT and electronics-related occupations, wherever it was possible to increase forms of remote working. Employment in industry and agriculture remained almost unchanged.

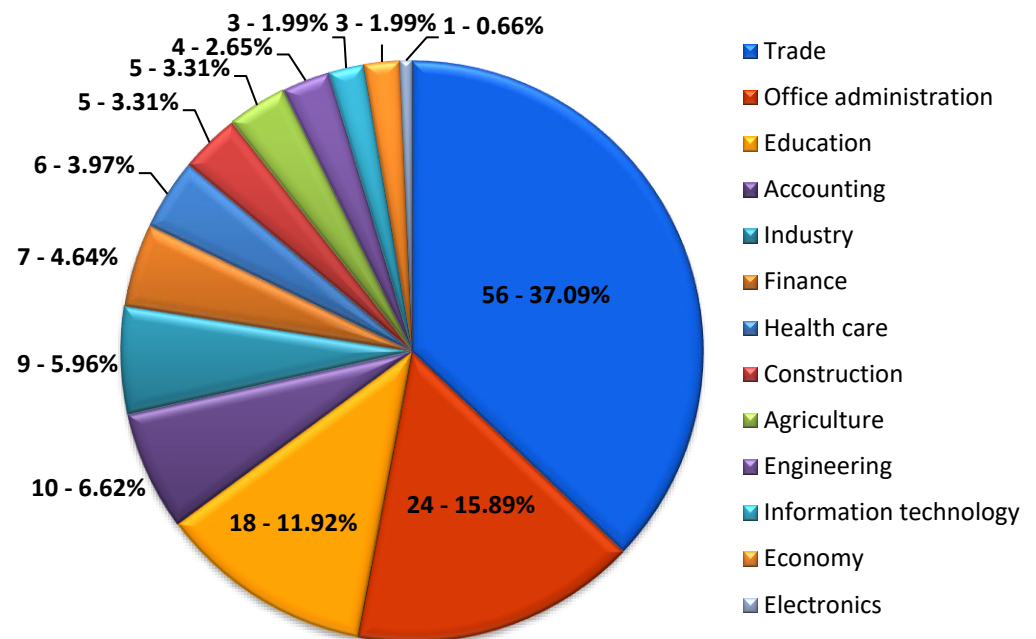


Figure 4. Occupation of the employees before the outbreak of the pandemic [15]. Permission has been obtained and there is no copyright issue.

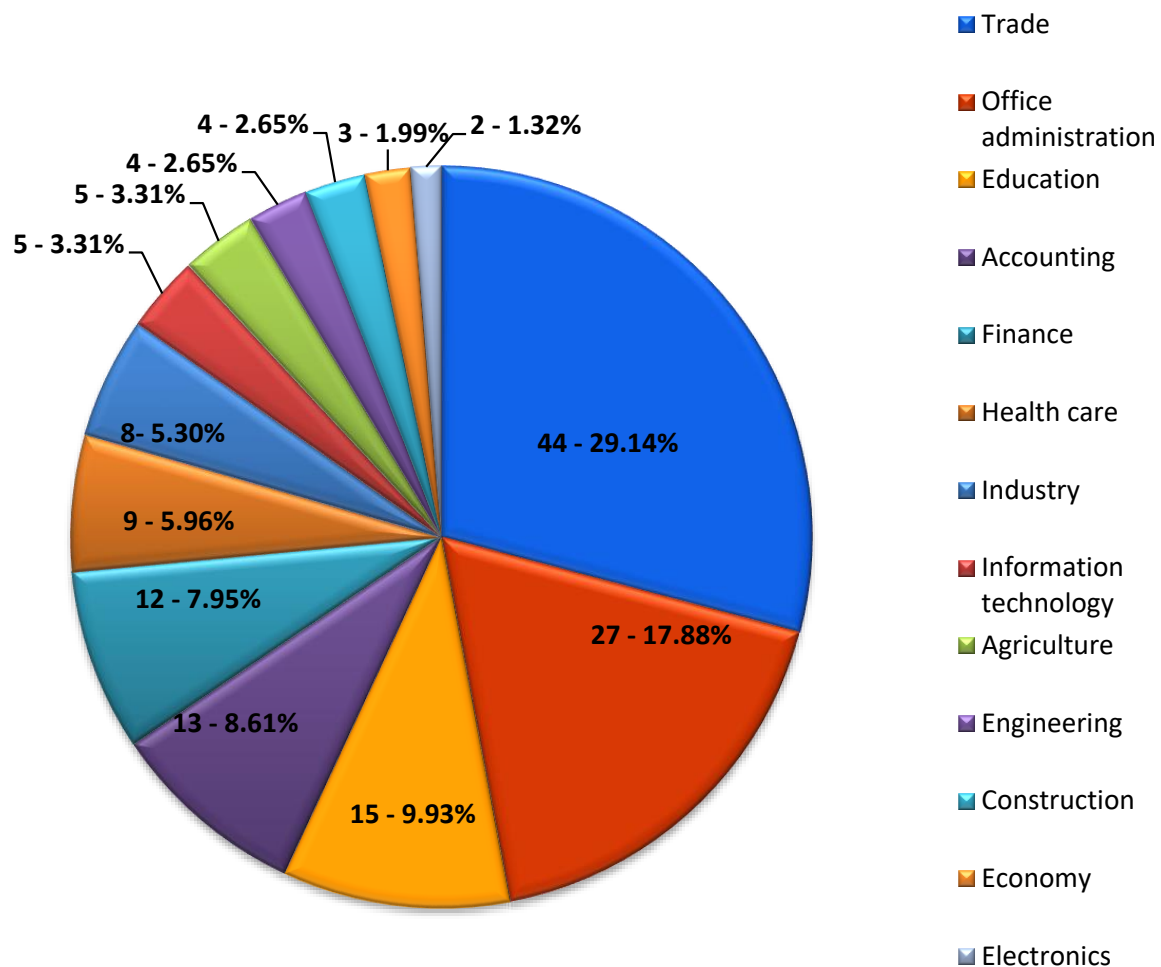


Figure 5. Occupation of the employees after the outbreak of the pandemic [15]. Permission has been obtained and there is no copyright issue.

The pandemic led to a change in the employment situation of a significant portion of respondents. The number and percentage of people working increased, the occupational situation was poor and moderate and the number who assessed their situation as good and very good decreased (Table 6).

Table 6. Occupational status of respondents before and during the COVID-19 pandemic [15]. Permission has been obtained and there is no copyright issue (N = 151).

| Occupational Status | Before the Pandemic (Number of People) | Before the Pandemic (%) | In April 2022 (Number of People) | In April 2022 (%) |
|---------------------|---|----------------------------|-------------------------------------|----------------------|
| Very low | 1 | 0.6 | 1 | 0.6 |
| Low | 3 | 2.0 | 14 | 9.3 |
| Moderate | 44 | 29.1 | 50 | 33.1 |
| High | 78 | 51.7 | 70 | 46.4 |
| Very high | 25 | 16.6 | 16 | 10.6 |

The number of people whose status was described as low increased fivefold and the proportion of people who considered their status to be very good fell by 36%. Despite the impact of the pandemic in April 2022, more than half of respondents described their status as high or very high. Prior to the pandemic, the corresponding percentage of these answers was 68%. More than half of respondents said that the outbreak of the pandemic had affected their working life to a great extent, with 46% moderately, 28% to a relevant extent and around 13% significantly. Just over 30% of the respondents (46 people) said that their working life had changed little or not at all.

The changes that took place in the labour market due to the impact of the pandemic varied in nature and were perceived differently by respondents. The most noticeable changes are shown in Table 7.

Table 7. Distribution of responses concerning the most noticeable changes in the labour market [15]. Permission has been obtained and there is no copyright issue.

| Type of Change | Number of Responses | % of All Respondents |
|---|---------------------|----------------------|
| Increase in unemployment | 59 | 39.07 |
| Popularization of remote work | 109 | 71.52 |
| Decrease in the number of job offers from April 2020 | 39 | 25.83 |
| Decline in professional activity | 38 | 25.17 |
| Increase in frequency of change of employment | 21 | 13.91 |
| Wage regulation | 26 | 17.22 |
| Increase in part-time work | 36 | 23.84 |
| Increase in importance of technology on the labour market | 51 | 33.77 |
| Increase in demand for employees in electronics-related occupations | 19 | 12.58 |
| Acceleration of technological advancements | 30 | 19.87 |

Almost 72% of respondents noted that the biggest change was the development of remote work. A significant proportion of respondents pointed to an increase in unemployment (39%), an increase in the importance of modern technologies (34%), a decrease in the number of job offers (26%), a decrease in the level of professional activity (25%), and an increase in the number of people working part-time (24%). One in five respondents also pointed to the acceleration of technological advancements, especially in the area of ICT implementation, which also stimulated demand for specialists prepared to work in electronics-related occupations. The effects of each change on the labour market is shown in Table 8.

Table 8. Distribution of responses regarding the type of change and the degree of impact of the pandemic on the labour market according to the respondents [15]. Permission has been obtained and there is no copyright issue.

| Type of Change | Very Low | Low | Average | Large | Very Large |
|---|----------|-----|---------|-------|------------|
| increase in unemployment | 12 | 27 | 48 | 41 | 23 |
| popularization of remote work | 7 | 3 | 21 | 36 | 84 |
| decrease in the number of job offers | 7 | 20 | 64 | 43 | 17 |
| decline in professional activity | 9 | 36 | 51 | 39 | 16 |
| increase in frequency of change of employment | 6 | 27 | 74 | 28 | 16 |
| wage regulation | 9 | 30 | 54 | 43 | 15 |
| increase in part-time work | 4 | 33 | 55 | 42 | 17 |
| increase in importance of technology on the labour market | 5 | 15 | 31 | 55 | 45 |
| increase in demand for employees in electronics-related occupations | 10 | 17 | 55 | 37 | 32 |
| acceleration of technological advancements | 7 | 16 | 31 | 63 | 28 |

By far the strongest impact came from remote work as well as new labour market technologies and the acceleration of general technological progress. The other factors listed influenced the labour market to a moderate or average degree. The pronounced impact of the COVID-19 pandemic on the change of existing forms of employment was indicated by 52 people, or 34.4% of respondents, with 73% of them indicating remote working as the main form of change.

The labour market in Poland was strongly influenced by state interventionism. The type and scope of intervention was outlined earlier in this article. In the survey, respondents were asked how they assessed the effectiveness of the state's efforts to mitigate the adverse effects of the pandemic on the labour market.

On the other hand, flexible solutions for the application of working time regulations, financial assistance offered to people in difficult life situations, subsidies for salaries in enterprises, or support for the tourism industry were assessed relatively positively (Table 9).

Table 9. Ineffective measures taken by the state according to respondents [15]. Permission has been obtained and there is no copyright issue.

| Type of Change | Number of Responses | % of All Respondents |
|--|---------------------|----------------------|
| exemption from social insurance contributions for micro-entrepreneurs | 24 | 15.89 |
| additional attendance allowance | 41 | 27.15 |
| regulations concerning examinations as part of preventive healthcare for employees | 29 | 19.21 |
| flexible solutions regarding the application of working time regulations | 11 | 7.28 |
| introduction of reduced working hours | 58 | 38.41 |
| offering financially disadvantaged employees a wage subsidy in companies | 16 | 10.60 |
| more favourable loss settlement rules | 20 | 13.25 |
| granting loans for micro entrepreneurs | 20 | 13.25 |
| implementing facilitations for the tourism industry | 18 | 11.92 |

7. Discussion

The labour market determines the employment situation and influences the level of unemployment, and is therefore an important economic category that influences the state of the economy and the development of the country. The theory of the labour market, starting from classical economics, was subject to evolution, with successive currents adding to it further elements resulting from emerging new phenomena in the economy. In classical economics, the invisible hand of the market also applied to the labour market. Neoclassical theory also recognised the existence of perfect competition, that workers' wages are the re-

sult of employers and employees clashing to achieve their goals, that real wages are shaped by labour supply and demand and that any disturbances in the market are temporary as the market mechanism automatically restores the equilibrium. The Great Depression of the 1930s revealed that there was imperfect competition in the labour market resulting in a large increase in unemployment. John Maynard Keynes, in his work entitled 'The General Theory of Employment, Interest and Money', rejected the theory of the presence of perfect competition and argued that labour market imbalances resulted from insufficient effective demand, which manifested itself in unemployment. He saw the causes of unemployment in low consumption expenditure. The task of an interventionist state in such a situation should be to increase people's income and consumption. Technological progress introduced new factors into labour markets, which prepared the ground for the development of new theories such as the labour market segmentation theory (Wendell Smith), the search theory (Edmund Strother), or the theory of the natural rate of unemployment, also known as the new microeconomics (Milton Friedman). These theories rejected the existence of information transparency in the labour market, which was one of the assumptions about the existence of perfect competition.

The development of internationalisation, globalisation, large-scale migration and the implementation of the concepts of sustainable and green growth, as well as large-scale uncontrolled migration flows are important contemporary determinants of national labour markets. All this leads to new factors shaping these markets, new important aspects of its functioning, new ways of defining and new theoretical insights into the possibility and ways of influencing these markets. Currently, the COVID-19 pandemic has become a crisis factor shaping the labour market situation for both employers and employees, as well as for the state, which can to some extent offset or mitigate the adverse effects caused by the global spread of the pathogenic SARS-CoV-2 virus.

The research on the influence of the COVID-19 pandemic on the labour market were conducted by international and national institutions and organizations such as WHO [1] CBOS [37], Eurostat [38,40], GUS [39], OECD [44], IZA [45] and others. Also, several papers presented initial results of studies on the coronavirus disease impact on the labour market. Thomas Lemieux et.al. in the study on the Canadian labour market [46] revealed that COVID-19 had induced a 32% decline in aggregate weekly work hours among workers aged 20–64 years, alongside a 15% decline in employment. They characterized the distribution of work lost, finding that nearly half of job losses were attributed to workers in the bottom-earning quartile. In the future, the impact of the pandemic on both labour supply and demand will be large, and labour market policy that responds appropriately can assist the recovery by facilitating fast and efficient matches in the changed labour market. Guido Cortes and Eliza Forsythe, in their study on the heterogenous labour market impacts of the COVID-19 pandemic in the United States [47]), showed that the pandemic had exacerbated pre-existing inequalities on the market. Although losses have been widespread, they have been substantially larger in lower-paying occupations and industries. Carmen Radulescu et. al., in the study of impact of the COVID-19 pandemic on the Romanian labor market, revealed that the health crisis had induced an increase in the number of unemployed people and influenced the mentality of employees. The study pointed out the importance of the complex of the health care and social insurance [48].

The labour market in Poland since 1989, i.e., since the end of the centrally planned economy system in Poland and the beginning of the market transformation, has gone through a number of stages in which various factors have played their part and labour market relations have evolved differently. The centrally planned economy, which was present in Poland from World War II until 1989, was characterised by the fact that basic economic decisions were made by central authorities and the basic principle of the state policy was full employment. As a result, over-employment, low labour productivity and low wages were common in the planned economy. Formally, unemployment did not exist in the socialist economic system. The systemic transformation implemented since 1989 included the introduction of three main reforms: 1. Liberalisation of the economy and

the introduction of the foundations of the market mechanism; 2. New rules for the labour market and the transfer of employment decisions to employers; 3. Privatisation of state and cooperative enterprises, which also had a major impact on the labour market [43]. The transformation was associated with collective redundancies and resulted in high unemployment. Between 1991 and 2007, the unemployment rate in Poland reached 10% and between 2002 and 2003 it rose to 20%. The difficulties on the labour market were exacerbated by migration trends, which intensified when Poland joined the European Union in 2004. Thanks to European Union membership, the economic and social situation in Poland improved, which also translated into favourable changes on the labour market. The unemployment rate dropped from 20% in 2003 to around 15% in 2006. Accession to the European Single Market, ensuring free movement of goods, people and capital, resulted in a sharp increase in emigration from around 750,000 in 2004 to around 1,860,000 in 2007. At this time, foreign investment and European funds began to flow into Poland, e.g., for the modernisation of the labour market. These new elements and the dynamisation of economic growth have changed the structure and functioning of the labour market in Poland.

At the end of the first decade of the 21st century, however, Poland was faced with a global financial crisis, which also affected the labour market in Poland [49]. The financial crisis reduced the demand for goods and services and employers, out of fear of bankruptcy, sought to reduce the operating costs of their companies, which also included employment. The general rise in prices resulted, on the one hand, in employees demanding higher wages and, on the other hand, in employers' willingness to adjust employment rate. In the difficult situation of the crisis, the state also introduced minimum wage regulations, a wage bargaining system, the institution of wage contracts, wage indexation rules, etc. [50]. The financial crisis in the European Union influenced changes in the faltering of migration processes and intensification of immigration to Poland, where the crisis was relatively mild. The labour market at that time was subject to profound interventions undertaken both at the EU and national level. In Poland, an important role in stabilising the labour market was brought about by the Act on the promotion of employment and labour market institutions of 19 December 2008, the Budget Act of 9 January 2009, and the Act on mitigating the effects of the economic crisis on employees and enterprises of 1 July 2009. [49,51].

Despite the state's active labour market policies, in the second decade of the 21st century the unemployment rate in 2013–2016 still exceeded 10% and mainly affected young people. It began with high levels of unemployment and a weakening trend of emigration of the working-age population in Poland [52,53]. Towards the end of the decade, the situation in this respect improved and positive structural changes emerged in the form of a stronger impact of globalisation [54], the emergence of new professions and a greater saturation of workplaces with IT equipment forcing the need to upgrade workers' skills. This means that a phenomenon of polarisation had appeared on the labour market in Poland, both in terms of education and qualifications, as well as new flexible forms of employment [55].

The COVID-19 pandemic caused many changes in the economy and social life in Poland. On an unprecedented scale, it reduced the mobility of the population, direct interpersonal contacts, caused biological losses of the population, slowed down economic growth, reduced economic activity and increased unemployment, interrupted the functioning of enterprises and organisations, increased absenteeism, developed various forms of remote working, popularised distance learning, and led to the collapse of certain industries and service sectors. The list of adverse effects of the pandemic could be longer. On the other hand, the pandemic has forced an acceleration of the automation of production, the digitalisation of the economy and social life and the implementation of new production and communication technologies. The pandemic has forced public authorities to become more active in order to manage the crisis situation, develop action plans to offset the adverse effects of the disease and restore public health, and programmes to implement anti-crisis measures to support the economy and protect workers. In Poland, the government's intervention activities were quite effective, resulting in limiting the growth of unemployment,

sustaining labour force participation at a good level and maintaining a satisfactory rate of economic growth. Despite sizeable expenditures directed towards supporting employment, social assistance and increasing the average level of wages in the business sector, two-thirds of the employees surveyed rated the effectiveness of state actions limiting the negative impact of the pandemic on the labour market as unsatisfactory.

The anti-crisis shields and financial shields that were put in place protected the business sector and employers quite well, while the social-subsistence activities of workers in the labour market, especially those employed on the basis of civil law contracts and the self-employed, did not fully meet expectations. The situation of young people in the labour market has also deteriorated, with an increase in unemployment and professional inactivity in this group. Increased difficulties in the youth labour market could have long-term effects. The pandemic has caused significant changes in the sphere of labour mobility, disrupted supply chains' fluidity, and also caused changes in terms of work organization, work time management and rest. Work began to permeate and grow into the private lives of employees, forcing accelerated processes of mastering new techniques and skills in using IT equipment, increasing competencies related to self-organization and self-discipline. In limiting contact between employees and managers, it also inhibited the emergence of the benefits of close interpersonal contacts and the exchange of ideas that can be the nucleus of innovation.

8. Conclusions

The COVID-19 pandemic crisis was a major factor influencing the labour market in Poland. The outbreak of the COVID-19 pandemic has fundamentally changed the labour market in Poland as well as in other countries of the world. It has affected all aspects of social and economic life and its effects will be felt long after the end of the pandemic. Management measures of the state in response to the labour market crisis were also of a broader nature and affected the whole of socioeconomic life. The use of such instruments to help the labour markets of the economic sectors adapt to the new crisis conditions, such as the digitalisation of the economy and society, e-commerce and remote learning and remote working are likely to become entrenched in the functioning of the economy and society in the future. It is important to note that recovery from the crisis always requires adequate support from the state but also from international organisations. The pandemic, in causing a general economic crisis, has left a permanent mark on the labour market, which will be structurally important for its functioning in the future. The very process of the pandemic, its course, corrective and preventive instruments in the sphere of the labour market have certainly become an interesting subject of research in terms of both empirical and theoretical studies. The case study of labour market during the pandemic in Poland has obvious limitations, mainly if the implementation of an anti-crisis policy is the main issue. However, this case of Poland, where broad anti-pandemic and anti-crisis measures were successfully undertaken, may be partly applicable to other, mainly European countries. Further research for crisis resulted from COVID-19 pandemic in different aspects of socioeconomic areas, on national and international scales, are recommended.

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