

Information Aspects of Changes in the Labor Market of the EU and Ukraine in the Context of Ensuring Safety Through COVID-19

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Summary

The main purpose of the study is to analyze the information aspects of the impact of COVID-19 on the labor market in the EU and Ukraine. In addition to studying the key parameters of changes in the labor market under the influence of COVID-19, i.e. the unemployment rate and the share of the employed population, a thorough study of gender equality, labor migration and the impact on youth made it possible to characterize the effectiveness of the policy of stabilization and restoration of the labor market in the EU and Ukraine. The results obtained form the necessary information basis for modeling labor market regulation in the event of possible subsequent disturbances, in particular under the influence of global pandemics.

Key words:

Information aspects, COVID-19, labor market.

1. Introduction

The pandemic caused by the COVID-19 virus has provoked a new economic crisis, the consequences of which are still difficult to determine due to the emergence of new strains, to protect against which governments continue to apply quarantine restrictions and impose lockdowns. The forced slowdown of economic actions for the sake of preserving the life of the population significantly influenced the stability of the world labor market. Along with this, in-depth informational analytical studies and the study of the opinions of scientists and experts make it possible to reveal the nature of changes in regional labor markets, in particular in countries with developed economies, for example, the EU, and those countries that are characterized by economic instability, in particular Ukraine.

The end of 2019 was marked by a massive worldwide spread of the COVID-19 virus, which resulted in the latest pandemic, which, in order to preserve the health and life of the population, forced the governments of all countries to apply strict restrictive measures in the form of quarantines and lockdowns. Restrictive measures, which consisted in the termination of the activities of enterprises, the closure of educational institutions, public catering and culture, complete or partial suspension of transportation, etc.,

entailed a new global economic crisis and had a negative impact on the development of the labor market, in particular in the form of an increase in the proportion of unemployed and loss of income for workers and threats to security.

The significance of the economic crisis provoked by COVID-19 is indicated by the analytical data of the European Commission, according to which economic activity in the EU in 2020 decreased by 6%, while in 2009, that is, during the Great Recession, it fell by only 4, 3 %, which undoubtedly had a significant impact on the dynamics of the labor market. In the first six months of 2020, when the governments of most countries began to apply quarantines to slow the spread of the dangerous disease, the number of unemployed in the United States reached 13 million, and in the EU - 16 million. Along with the fact of imbalance not only in the EU labor market, but also in the global one, it is important to focus on the key points that indicate the ambiguity of the processes within at least the first wave of the pandemic, which later became tendentious and became a real threat to security [1].

International Labor Organization (ILO) CEO Guy Ryder argues that the current trajectory of labor markets is a stalled recovery with serious risks of slowing growth and huge disparities between economies. developed and developing countries " [2]. The basis for this statement was ILO analytical data, according to which it was expected that in 2021 the loss of working time compared to the fourth quarter of 2019 would amount to no more than 3.5%, which should have corresponded to the reduction of 100 million full-fledged jobs. In fact, we are talking about the loss in 2021 of 4.3% of working time, which corresponds to 125 million jobs. Equally important is the fact that these losses were not the same across countries with different incomes per capita. Thus, the smallest losses, estimated at 3.6% (we are talking, in particular, about the EU and the countries of Central Asia), were incurred by countries with a high level of income, 5.7% - by countries with an average level of income, and 7.3% - for a country. low income. We can agree with the ILO experts that not only the level of income, but also the rate of vaccination had a significant impact on the loss of

working time, since in October 2021 in high-income countries the share of fully vaccinated on average reached 59.8% of the population, when in B in low-income countries, this figure was critically low at 1.6%.

Another perspective, also indicating the ambiguity of changes in the labor market in 2020 under the influence of COVID-19, is formed through the determination of the dynamics of employment in various industries. So, in 2020, significant losses compared to 2019 in terms of the number of employees were suffered by wholesale and retail trade, transportation and storage, accommodation and food (-3.3%), as well as other types of services (-3.0%). Along with this, opposite trends are typical for the information and communication industry and construction, where the increase in employed workers was, respectively, 2.2% and 0.9% [3].

A brief consideration of two perspectives in the change in the labor market under the influence of the COVID-19 pandemic motivates for further in-depth analysis in order to characterize and conduct a comparative analysis of all the circumstances characteristic of advanced economies, in particular the EU, and countries characterized by high information volatility, and economic development, in particular in Ukraine.

2. Methodology

A significant number of factors affect the change in the labor and safety market. In 2020, the defining among them was the pandemic caused by the emergence and spread of the COVID-19 virus in the world. At the same time, the influence of this factor was ambiguous from the perspective of national economies, individual industries and different groups of labor resources. According to this, the study used both official statistical data generated by Eurostat and the State Statistics Service, and generalized the views of scientists and experts in the interests and responsibilities of which include the issue of labor market regulation.

To determine the impact of COVID-19 on the labor market of the EU and Ukraine, the following methods were used: induction and deduction, comparison and systematization - when characterizing the differences in the impact of the pandemic on the dynamics of the main parameters of the labor market in the EU and Ukraine; synthesis and analysis - to assess changes in the level of unemployment and employment of the population in 2019-2020; morphological analysis - to clarify the impact of the pandemic on the labor market from three perspectives: gender structure, labor migration and young workers; graphic - for visual presentation of theoretical and methodological material; abstract-logical - for theoretical generalizations and conclusions of the study.

3. Results

The latest pandemic made it possible to expose not only problems in the health sector, but, due to the application of significant restrictions on the activity of entrepreneurial structures, required the rapid adoption of comprehensive measures to support a significant number of the population, who were deprived of the opportunity to do their jobs, and then financially ensure the satisfaction of their needs. In the EU, a labor market regulation safety policy during the pandemic was quickly developed in the spring of 2020, that is, in the process of deploying the first wave. This policy was based on the German Kurzarbeit program. The benchmark was taken to preserve jobs for workers, that is, avoiding their dismissal, and, consequently, an increase in the unemployment rate through transfers and support to companies.

It should be mentioned that such a system was already used by European countries during the Great Recession, but on a much smaller scale. For comparison, in the last quarter of 2008, 1.5 million workers needed support, when in the second quarter of 2020 there were more than 40 million of them, including in France - 11.3 million, Germany - 10.1 million, Italy - 8.3 million and Great Britain - 6.3 million. Distinctive were not only the scale of support for the number of employees, but also financial costs. So, during the aforementioned Great Recession in Germany, support provided for the payment of 60% of wages, as well as an additional 8% if there were children in the family. Modern payments have been increased by 10% from the fourth month and by another 10% from the seventh month of the program. Although the principle of support was actively applied by all EU countries, there were certain differences [4].

For example, in Italy, at the first stage, industrial workers were compensated for up to 80% of wages, with the subsequent spread of this practice to other sectors of the economy, which did not suffer such significant losses. In France, almost every second worker received quarantine support (80% of wages within a year). In Sweden, if a company reduced working hours by 80%, it could save 72% of its payroll costs, as the employee received 88% of his salary from government benefits. In the Netherlands, there was only a slight increase in unemployment, but 18% of the employed received compensation from the state. The difference in the implementation of the employee support program was both in the financial value, the timing of introduction, and in the conditions, that is, in the presence of strict quarantine, or in the conditions of a certain period of time, regardless of the epidemiological situation. In addition, there was the application of a ban on the dismissal of workers, in particular, such a tool was used in France and Italy [5].

Despite certain differences in the implementation of the information and economic program for regulating the EU labor market during quarantine, it is advisable to focus on the following important points:

- there was no sharp increase in the unemployment rate, in particular in comparison with the United States, where the emphasis was placed not on the preservation of jobs for workers, but on the payment of unemployment benefits;

- the preservation of jobs had a favorable effect on both the psychological state of workers and the stability of the labor market, because during and between waves of the pandemic there was no sharp increase in the activity of applicants in search of a new job;

- depending on the complexity of the epidemiological situation, the program was applied with varying intensity, which ensured maximum flexibility in regulating the labor market;

- social support for workers entailed a significant increase in financial spending, provoking an increase in public debt in the EU countries from 84% to 98% of GDP;

- a disadvantage can be considered the inflexibility of the market, due to the inhibition of the processes of searching for new jobs by applicants and the unwillingness of employers to hire new workers.

Traditionally, the change in the labor market during a pandemic is characterized by the unemployment rate. Along with this, in our opinion, it is more appropriate to provide information on paying attention to the dynamics of changes in the share of employed workers, because, as noted above, the EU policy was focused specifically on countering a sharp increase in unemployment in the context of ensuring security.

In accordance with Eurostat data, we have determined the change in the share of the employed population aged 20 to 64 in 2020 compared to 2019 (Fig. 1), which allows us to form an idea of the dynamics of the labor market not only from the standpoint of unemployment.

It is advisable to emphasize that we took into account the information aspect only in those countries in which a certain change in the share of the employed population was significant. The level of materiality was determined in accordance with the change in the level of the employed population in the EU, which in 2019 was 73.1%, and in 2020 it decreased to 72.4. Consequently, a critical drop was recorded in Iceland, where the share of the employed population fell by 3.6 points. For comparison, based on data from the State Statistics Service, we determined a similar indicator for Ukraine, indicating a decrease in the share of the employed population within a certain time frame by 1.7 points, which is significantly worse than the EU average, but corresponds to the situation that has developed in Ireland (-1.7), Estonia (-1.4) and Portugal (-1.4) [6].

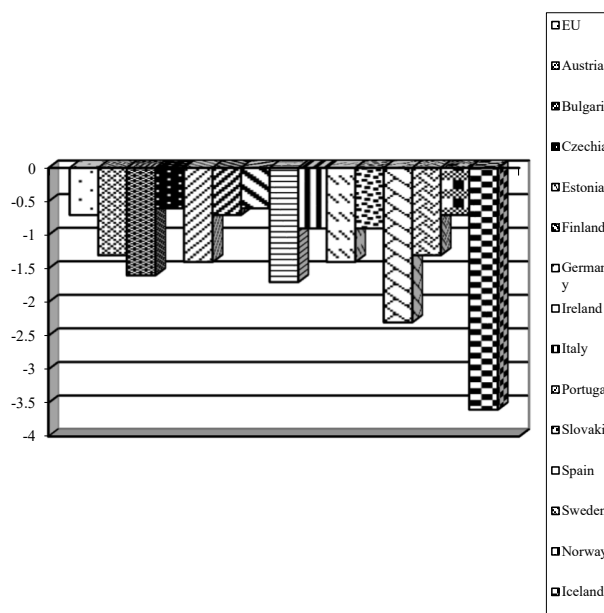


Fig. 1 Information aspect regarding the share of the employed population aged 20 to 64 in 2020 compared to 2019 for individual European countries, according to Eurostat.[7]

Along with a decrease in the proportion of the employed population, the unemployment rate also indicates the significance of the impact of COVID-19 on the EU labor market. Thus, in the second quarter of 2020, 4.8 million Europeans became unemployed, which in absolute terms turned out to be 1.2 million more compared to the same period in 2019. In accordance with the above, in most EU countries, the first wave of the pandemic entailed significant changes in the labor market. So there was a massive closure of shopping centers, restaurants, hotels and other establishments where mass events were held, which accordingly provoked the release of a significant number of workers. Along with this, there was an acute shortage of medical personnel, courier delivery workers and security guards.

The specifics of the Italian labor market can be called the fact that in the pre-crisis period there was a reduction in the number of medical workers, but the pandemic radically changed the situation in this area, because the number of vacancies has increased significantly, i.e. industry, drivers and office workers who took the order. The business was aimed at the greatest introduction of telecommuting for employees, and in case of impossibility of such a form of labor organization, as in agriculture, there was an increase in wages up to 50%.

In France, during the first wave of the pandemic, in addition to the increase in vacancies for medical workers, there was a significant increase in the number of

temporarily unemployed - every third citizen of this country became such. The government took radical steps to improve the situation in this group of unemployed by introducing compensation for up to 85% of lost earnings [7-8].

To mitigate the consequences of the crisis caused by the latest pandemic, the Serbian government has introduced a number of socially oriented measures: deferred payment of taxes on wages; issuance of loans for small and medium-sized businesses at low interest rates; payment to citizens who have lost their jobs and socially vulnerable citizens. In Romania, to reduce unemployment, additional funds were allocated for the implementation of infrastructure projects, and business support included the provision of interest-free guaranteed government loans. Compared to economically developed countries, the situation in Ukraine, according to official data, was less critical. Yes, in accordance with the data of the National Bank the unemployment rate in 2020 amounted to 1.7 million people, and the situation began to improve significantly in the second half of 2020, when the population began to look for work, which means that the unemployment rate dropped to 9.7 % in the fourth quarter. In the first quarter of 2021, there was a further improvement in the situation, as there was a 12% decrease in the number of unemployed compared to the same period in 2020. In May 2021, 401 thousand people had the status of unemployed. We have compiled, according to the State Statistics Service, a comparative table characterizing the dynamics of unemployment by sex and place of residence in 2018-2021 (Table 1).

Table 1: Information on unemployment of the population by sex and type of residence

	2018	2019	2020	Begin of 2021
Total aged 15 years and over	8,8	8,2	9,5	9,9
Females	7,4	7,9	9,1	10,0
Males	10,0	8,5	9,8	9,7
Urban area	8,6	8,0	9,1	9,5
Rural area	9,2	8,6	10,3	10,7

Comparison of the pre-crisis period 2018-2019 and crisis, that is, 2020 and the first half of 2021. makes it possible to assert about a slight official increase in unemployment, which was a consequence of the simultaneous influence of a number of factors, which will be considered in the future.

Despite a slight increase in the unemployment rate with the subsequent stabilization of the situation, it is necessary to take into account other points that characterize the impact of COVID-19 on the labor market and become a real threat to security. So, about 33% of small businesses lost up to 50-75% of income, which provoked a reduction in staff. Most of those laid off were not registered as unemployed, but were looking for work, in particular in the EU. Already today, we can say that the financial losses of Ukrainian enterprises are insignificant compared to personnel losses, because the main competitor for labor from Ukraine is Poland, which creates attractive conditions for labor migration, considering it one of the important factors for further economic growth and security.

In Ukraine, in addition to an increase in unemployment, the crisis associated with COVID-19 affected the labor market and due to a decrease in average wages. According to the information provided by the State Statistics Service, if in March the average salary was UAH 11446, then in April it fell to UAH 10430, that is, by 8.88%, but in July there was an increase to UAH 11804. Some other information is provided by job search sites, for example, work.ua indicates the fact that as of April 7, the average salary for vacancies was UAH 12,779 and was subsequently lower and did not rise until November 3, 2020, when it was determined as UAH 12,901 ., which indicates the pessimistic sentiments of job applicants, despite the high level of inflation, which they previously took into account when forming proposals to employers. This important aspect highlights the difference in state regulation of the labor market in Ukraine and the EU. It was already noted above that European countries widely used the practice of supporting hired workers due to the payment of wages, despite the suspension of the work of enterprises. In Ukraine, such a mechanism was not used, so employers bore the whole burden of the lockdown, partially overloading it on the shoulders of workers due to lower wages and the deprivation of a number of payments. We consider it advisable to briefly pay attention to other tools used by employers in response to quarantine and lockdown and security [9-10]:

- maximum cost optimization, which provided for the elimination of regional offices, staff reduction (during 2020, large and medium-sized companies reduced their staff by 15-40%) and the transition to a combined form of remuneration, when the main share is occupied by payments for results, and the size of the constant part minimized;

- reduction of labor costs. More than 30% of employers are ready to take such a step in 2021, when the remaining 70% are ready to leave the current level of wages. In addition to the actual reduction in wages by 30-40% of a massive nature, employers' savings on health insurance, annual and quarterly bonuses, a reduction in the

working week with a corresponding decrease in wages, sending workers on unpaid leave, the use of officially unregistered workers, the official payment of the minimum wage in combination with "Gray" salary in an envelope. The practice of forcing staff to register as an individual entrepreneur with subsequent contract wages and shifting the main burden of paying taxes to employees has become widespread. These facts actually indicate a further decrease in the real income of workers, since the unchanged level of remuneration with a significant increase in prices for food and services deprives them of the opportunity to fully meet their needs;

- the use of remote work for workers (in 2020, large and medium-sized companies transferred more than 15% of full-time employees to remote work) with a decrease in the cost of renting office and industrial premises, a reduction in transportation costs and the attraction of workers from other regions on terms of lower wages.

We consider it appropriate to characterize another aspect of the development of the labor market in Ukraine during quarantine measures. Yes, because of the risk of losing their job, and hence a permanent income, Ukrainians began to value their work more. Consequently, the staff turnover in most large and medium-sized companies in 2020-2021. recorded at the lowest level in the last twelve years. The difference from the EU countries was that the demand in Ukraine increased to the greatest extent for couriers, drivers and logisticians, but the largest growth of 125% was characteristic of IT specialists and cybersecurity specialists, which is explained by the actions of companies to form their own IT. infrastructure for transferring part of the staff to remote work

Since today it is impossible to speak of the end of the pandemic, certain aspects of its impact on the labor market cannot be considered definitively studied; rather, it is about putting forward certain hypotheses based on individual cases and situations that develop at a certain point in time. This thesis is confirmed by the gender equality of losses during quarantine restrictions. A number of studies have been released today that show that women in the US and UK were more likely to lose their jobs, but there is another position that, based on analytical data on unemployment by gender in Italy, determines the fact that the impact on the retention of women is the same. work capacity. in men and women. In our point of view, the main aspect in the study of this important issue should not be in direct clarification of how many men and women became unemployed, whether they received financial assistance, but how old they were, how much the industry suffered losses and the industry in which they were involved. (the share of women in the structure of employees in the catering sector is 53%, in the hotel business - 60%, retail trade in Latvia, Lithuania and Poland reaches 75%, what kind of work they did, that is, it was performing certain functions in the office or physical

work Such a multidimensional analysis allows us to conclude that not gender, but other factors had a more decisive influence on a certain worker. Nutrition and trade, low-skilled, with a low level of education, performed simple physical work, which made it impossible to switch to a remote form of labor organization, had a low wages and age were under 30 years of age.

In Ukraine, a tough lockdown, introduced in the spring of 2020, had great negative consequences for women, which is explained by the following circumstances: firstly, the most risky areas in terms of infection with the virus were medicine, education, consumer services, retail, where women are mostly employed. ; secondly, the termination of the work of preschool and school education institutions increased the burden on women, or resulted in their temporary disability. If in the EU countries the practice of allocating direct cash transfers and the provision of additional paid holidays was implemented to reduce the negative impact of the crisis on families with children, then in Ukraine such a protection system was not used, which increased the negative impact of the pandemic on a significant part of society.

An additional characteristic of the gender aspect in the impact of COVID-19 is considered with an additional division of the entire population into three groups: "employed", "unemployed" and "economically inactive". A peculiarity of Ukraine is that the group of economically inactive during the quarantine included self-employed and entrepreneurs, whose activities were limited and were in a state of expectation in order to resume their activities after the termination of the lockdown. In addition, the same group included persons who not only lost their jobs, but also did not carry out searches due to restrictions in transport links, as well as because of problems with childcare. This group also included labor migrants who returned from the EU and who were waiting for the borders to open for return, and therefore did not register as unemployed. This perspective makes it possible to explain why there was no sharp increase in the number of officially registered unemployed in Ukraine, because the actions of the non-working majority of the population were associated with expectations. According to opinion polls conducted by Gradus, in the context of men and women, the proportion and dynamics of the economically inactive differ significantly. So, before the start of quarantine restrictions (January 31, 2020), 10.8% of men and 29.0% of women were economically inactive. Studies conducted at the end of the first wave (08/05/2020) indicate that the share of men in this group increased to 23.7%, and women - 35.2%. According to these data, the first wave of quarantine restrictions was characterized by a greater proportion of economically inactive women, but significantly worse dynamics were observed in relation to men. This can be explained by the following features of the Ukrainian labor market during COVID-19: the gender

specificity of certain industries that suffered the most losses, in particular, women are mostly involved in medicine, education, retail trade, which continued to function during quarantine (education in remote form), when the almost complete stop of the transport industry resulted in the release of a significant number of men; the loss of income of men during the lockdown was more significant, but women, while retaining their place of work, received an additional burden in the form of an increase in the volume of housework, incl. and related to childcare.

4. Discussions

We want to start this part of the study by citing the informational expression of the former US Treasury Secretary Larry Summers, who said in an interview with the Financial Times that "... we have a record high layoff rate, a record high vacancy rate, and every employer in America complains that they are not there is enough manpower. " Today it can be argued that the EU and the US have implemented excellent labor market regulation strategies during the pandemic. Since we have generally described the EU experience above, we only briefly note that the United States was focused on supporting the population's income through direct remittances to households. In 2020, the provision of unemployment benefits was applied for twenty-six weeks, followed by an extension of payments for another thirteen weeks and an additional \$ 600 per week is provided until July 31. Such a policy was aimed at encouraging the population to independently search for new jobs in those sectors of the economy that were less affected by the pandemic. Therefore, Larry Summers' statement fully reflects the state of the labor market in this country, the stability of which is broken due to its oversaturation with both vacancies and jobseekers. This imbalance is based on disproportionality in a crisis state, and then in the pace of recovery of certain spheres of activity. For example, if the hotel business is just beginning to come to its senses and in the short term it is not expected to create new vacancies due to the possible emergence of new strains, and therefore the next waves of a pandemic, then the demand for drivers or couriers has increased by more than two times compared to the pre-crisis period. Times [11-12].

In the EU, the situation is somewhat different, but there are common signs of labor market behavior with the United States. The key difference is that the payment of monetary compensation supported the stability of the labor market, thus avoiding significant increases in unemployment and staff turnover. Significant progress in vaccination development allowed the EU to apply less stringent restrictive measures, and then created opportunities for a gradual recovery of economic activity, which primarily provoked an increase in labor demand. So,

in accordance with the optimistic forecasts of the IMF and the European Commission, the EU economy should grow in 2021 and 2022 by more than 4%, which, accordingly, cannot be realized without the recovery and growth of the labor market [13-17]. Along with this, workers who received financial assistance are in no hurry to return to work, because the conditions for them are more than comfortable. It can be argued that today a problem is brewing, which consists not only of a shortage of labor in general, but also of specialists who will be able to work in gradual-demographic conditions that require new skills and provide for a different structure of the labor force. We must not forget that a long stay outside the workplace leads to a loss of skills, reduces the quality and productivity of work, requires updating knowledge, going through an adaptation period, and returning to the previous rhythm of work. For the EU, it will be difficult to solve the problem of the return of labor migrants, for whom there are currently restrictions due to vaccination. All these facts point to a significant increase in the demand for labor, in the competition for which companies are already ready to go for an increase in wages and the provision of additional social packages, and in the short term they should be ready to additionally finance training programs and obtaining new knowledge.

5. Conclusions

COVID-19 had a significant impact on the EU labor market, but thanks to the application of a state support program focused on compensating companies for lost working hours and paying workers' benefits, the unemployment rate did not increase significantly, including as was the case in the United States, where from 80% to 85% of those laid off between May 18-24, 2020 could be classified as temporary, most of whom could return to their previous jobs after the end of the pandemic. That is, in the EU, through the use of financial instruments, it was possible to maintain the stability of the labor market within 2020-2021, in particular, through the successful use of the experience gained during the 2008 financial crisis.

The informational aspect of comparing the impact of COVID-19 on the labor market of the EU and Ukraine found that economic stability and the presence of significant financial reserves made it possible to stabilize the situation in European countries and maintain a state of security. In Ukraine, both businesses and workers were forced to deal with the consequences of the pandemic on their own, which provoked not only the loss of jobs by men and an increase in the burden on women, the spread of informal employment among young people, but also a decrease in the income of each family, which was not compensated by the state in any way. In addition, as a result of a decrease in the average wage in Ukraine and the

possibility of getting vaccinated, a significant increase in labor migration of Ukrainian citizens of working age to the EU is predicted for a longer period of time.

The impact of the COVID-19 pandemic on the labor market should be considered not only from the standpoint of increasing unemployment and decreasing the share of the employed population, gender equality, regulating the access of labor migrants to cover labor shortages and losses of young workers due to lack of experience and orientation to the industries that have experienced the largest losses, but also from two perspectives: different rates of recovery in individual industries and the transition to remote work. If the first perspective provokes an information and economic imbalance in vacancies and the number of job applicants, which can later be leveled out in the course of economic growth of the EU economy, the second will require more significant changes. These changes will affect companies that must create or improve an internal communication system between employees who are not in the office, but work remotely. No less changes will apply to the workers themselves, who now have to compete for jobs not only with applicants within a certain place of residence, but also in fact from any region that requires them to devote great efforts, incl. and for lifelong learning. When organizing remote work, applicants from regions with a lower standard of living may agree to work for lower wages, paying more effort. The same perspective forms an idea of possible changes in the migration of labor resources, the attraction of which to work in certain industries does not require physical movement across the EU borders. It is undeniable that a number of industries will not be able to fully apply remote work, in particular when it comes to agriculture, hospitality or retail. At the same time, we must not forget about the benchmark for the increasingly active use of robots, incl. and in agriculture. This proves that a certain temporary loss of stability in the EU labor market is only the pinnacle of those processes that will take place in the short term, but in the strategic dimension, we can talk about the need for a thorough analysis of the risks that both an individual company and the economy will face. EU. in the event of the next pandemic, in order to develop measures to minimize them and ensure safety.

References

- [1] European Commission *European Economic Forecast, Spring 2021. Directorate-General for Economic and Financial Affairs*, Institutional Paper 149, Brussels, May 2021.(2021)
- [2] World Employment and Social Outlook: Trends 2021 International Labour Office – Geneva: ILO, 2021. https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_795453.pdf (2021)
- [3] Jestl S., Stehrer R. (Post-)Pandemic Employment Dynamics in a comparative perspective. <https://wiiw.ac.at/post-pandemic-employment-dynamics-in-a-comparative-perspective-n-519.html> (2021)
- [4] Müller T., Schulten T. *Ensuring fair short-time work - a European overview. ETUI Policy Brief*. <https://www.etui.org/sites/default/files/2020-06/Covid-19%2BShort-time%2Bwork%2BM%C3%BCller%2BSchulten%2BPolicy%2BBrief%2B2020.07%281%29.pdf> (2020)
- [5] Short-Time Work Allowance 2021. <https://tillvaxtverket.se/english/short-time-work-allowance-2021.html#q11> (2021)
- [6] Ebbinghaus B., Lehner L. *Labour hoarding during the pandemic: Assessing the impact of job retention schemes in Europe*. <https://blogs.lse.ac.uk/europpblog/2021/06/01/labour-hoarding-during-the-pandemic-assessing-the-impact-of-job-retention-schemes-in-europe/> (2021)
- [7] Eurostat. Employment - Annual Accounts. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Employment_-_annual_statistics (2020)
- [8] Merkl, Christian, and Weber, Enzo *Rescuing the labour market in times of COVID-19: Don't forget new hires!* VoxEU, accessed on 7.4.(2020)
- [9] Adams-Prassl, A., Boneva, T., Golin, M., & Rauh, C. "Inequality in the Impact of the Coronavirus Shock: New Survey Evidence for the UK". *Journal of Public Economics*, 189, 104245 (2020)
- [10] Casarico, A., & Lattanzio, "The heterogeneous effects of COVID-19 on labor market flows: Evidence from administrative data". *Covid Economics*, 52, 152-174. (2020)
- [11] Lopez P. *Covid-19: Gender Inequalities in the Labour Market*. Three questions to Monika Queisser. <https://www.institutmontaigne.org/en/blog/covid-19-gender-inequalities-labour-market> (2020)
- [12] Forsythe, E., Kahn, L. B., Lange, F., & Wiczer, D. "Labor demand in the time of COVID-19: Evidence from vacancy postings and UI claims". *Journal of Public Economics*, 189, 104238 (2020)
- [13] Dingel, J., & Neiman, B. *Who Can Work at Home?*. *Covid Economics*, March, 1(1), 16-24. (2020)
- [14] Fana, M., Torrejón Pérez, S. & Fernández-Macías, E. (2020) *Employment impact of Covid-19 crisis: from short term effects to long terms prospects*. *J. Ind. Bus. Econ.* 47, 391–410.
- [15] European Commission (2021). *European Economic Forecast, Spring 2021*. Directorate-General for Economic and Financial Affairs, Institutional Paper 149, Brussels, May 2021. (2021)
- [16] Rothwell J. The effects of COVID-19 on international labor markets: An update. Brookings. <https://www.brookings.edu/research/the-effects-of-covid-19-on-international-labor-markets-an-update/> (2020)
- [17] Kopytko, M., Pazičieva, A., Khorosheniuk, A., Matviienko, M., & Vinichuk M. *Shadow employment in Eastern Europe: practical aspects of evaluation and counteraction*. *Business: Theory and Practice*, 20, 485-491. <https://doi.org/10.3846/btp.2019.45> (2019)