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LABOR MARKET TRENDWATCHING UNDER WARTIME CONDITIONS: NATIONAL AND REGIONAL ASPECTS

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The article is concerned with the current trends in the development of the labor market in Ukraine under conditions of martial law and military aggression of Russia. It has been established that the changes that have occurred in Ukraine over the past three years have had a significant impact on the economy and employment of the population of the country. The authors have analyzed both qualitative and quantitative parameters of labor force development. In particular, they have identified the trends regarding changes in population structure and size caused by heavy mortality not only by natural causes, but also due to civilian casualties and military casualties on the front line. The influence of migration processes on the changes in the resident population and the unemployment rate in the country has been described. The regional labor market of the Dnipropetrovsk region has been analyzed separately. The disproportions between the demand and supply in the labor market of the Dnipropetrovsk region have been revealed, particularly in terms of the industry-specific orientation of enterprises and types of economic activity. The analysis of nationwide and regional trends in functioning of the labor market shows that there are numerous challenges having significant impact on the staffing support of the economy. The main challenges having impact on the labor market in Ukraine include a nationwide and regional imbalance of the labor force; professional and qualification gap between labor supply and demand; mismatch between professional skills of specialists and the needs of the economy; pressure on the labor market due to the uneven distribution of workers across the country; constant labor outflows and increase in the median age of the workforce; job losses due to the destruction of enterprises or the suspension of their operations.

Keywords: martial law, labor market, disproportion, demand, supply, staffing support of the economy, changes, challenges.

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Introduction and formulation of the problem

The full-scale invasion launched by Russia against Ukraine has had a significant impact not only on the national economy, but also affected various aspects of life for Ukrainians. The war has slowed down all social and economic processes and caused substantial transformations in the functioning of the State, which are particularly acute for the labor sector. The main

trends in the functioning and development of the labor market include changes in the structure and needs of the market, the workplace hazards in frontier zones and areas of combat operations, mass internal and external migration of population, destruction of enterprises, a general deceleration of activity of economic entities and falling living standards of the population.

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Labor market trendwatching under wartime conditions: national and regional aspects

The negative trends and crisis phenomena in the labor market have compelled the market participants to adapt to new operating conditions. The structure of economy has undergone significant changes leading to a shift in demand for workers with relevant qualifications and employee expectations regarding working conditions. Therefore, the issues concerning the study of the main trends in functioning of the labor market at both national and regional levels assume special importance. It is essential for supply and demand balancing, preventing mass unemployment and migration, enhancing cooperation between employment services, businesses and education sector with a view to ensuring job opportunities for unemployed categories of population and training highly qualified personnel.

Analysis and research of publications

We used data from the International Labour Organization, the International Organization for Migration, the International Monetary Fund, official statistics from the State Employment Service and job search platforms such as Work.ua in order to study the current trends in the development of the labor market in Ukraine under wartime conditions.

The issues concerning various aspects of the labor market performance are based on the research conducted by Tho Pham, Oleksandr Talavera, Zhuangchen Wu [3], Yaroshenko O.M., Anisimova Kh.V., Slyusar A.M., Zhigalkina I.P., Kotova L.V. [2], Azmuk N.A. [5], Atamanyuk R.F. [7], Pyshchulina O., Markevich K. [8], Cheryomukhina O.K., Chalyuk Yu.O. [13].

It is worth noting that the conducted studies are multiple-aspect and provide a wide range of information regarding the current state of the labor market in Ukraine. However, the labor market situation under wartime conditions is constantly changing and requires continuous monitoring for the development of effective strategies for market regulations, especially during the period of economic recovery and the alignment of Ukrainian labor market with European standards.

Purpose of the article

The purpose of this paper is to summarize changes taking place in the Ukrainian labor market under wartime conditions, identify the main trends in the development of the labor market of Ukraine under recessional conditions at both national and regional levels, and to determine effective measures for labor market management during the post-war recovery period

Presentation of the main material

The effective functioning of the labor market is an important segment of development of the national economy, which satisfies the essential needs of

population and supports its well-being. Therefore, the study of the main trends in functioning of the labor market at both national and regional levels affords an opportunity to formulate the reasoned proposals for national policy, which can significantly improve the labor market situation and define strategic directions for market performance under current conditions.

Since the beginning of the full-scale invasion on February 24, 2022, national and regional labor markets of Ukraine have undergone significant changes. There has been a substantial change in population structure and size due to increasing mortality rates simultaneously with declining birth rate, increasing morbidity rate and intensifying migration outflow.

According to the International Monetary Fund, in 2021, before the start of the war the population of Ukraine was approximately 41.0 million people. In 2022, this figure has decreased to 35.0 million, and in 2023 it fell further to 33.2 million [1]. Meanwhile, according to the United Nations Population Fund, as of 2023 the Ukraine's population was 36.7 million people.

The decrease in population is also associated with the civilian casualties as a result of Russian aggression, military casualties in the areas of combat operations and population migration. Tracking the population losses due to military actions is quite difficult; however, the number of migrants is periodically published by host countries. As of now, according to the United Nations High Commissioner for Refugees (UNHCR), 6 201 600 refugees from Ukraine were registered worldwide, of which 5 832 400 were registered across Europe [2; 3].

In addition to the decrease in population, the gender structure has also changed, because the number of males has sharply decreased due to military casualties on the front line. The age structure of the population has shifted due to the migration of young people and women with children abroad. There are no unified statistical data on the number of children and adolescents abroad, but analysis of information from various sources points to the fact that approximately 1 to 1.5 million children and adolescents are currently stay abroad, and this number continues to grow.

In 2023, working-age individuals (persons aged 15 to 64 years) made up the majority of the population (64.6%), while those aged 65 and over accounted for 20%, and children under 14 years made up approximately 15.2% [4].

Population density across regions has changed due to the internal forced displacement of people from occupied territories. According to estimates by the International Organization for Migration (IOM), nearly 6.65 million people (or 15% of the country's

population) have become internally displaced persons as a result of military aggression. The largest number of internally displaced persons is registered in the Dnipropetrovsk, Kyiv, Kharkiv and Poltava regions, as well as in the city of Kyiv [5].

Since the beginning of the war, the Ukrainian labor market has lost a significant number of jobs in the eastern part of the country. The International Labour Organization (ILO) [6] reports that nearly 5 million jobs have been lost in Ukraine due to the war, representing about 30% of the total number of jobs available in the pre-war period. Along with the reduction in the number of jobs, the key indicators of labor market such as the employment and unemployment rates have also changed.

In 2021, the unemployment rate was 10.3%, which can be considered a relatively stable indicator for the pre-war period. According to the National Bank of Ukraine, the full-scale invasion has forced the country's unemployment rate to jump to a record high level of 35%, but by the end of the year it had declined to 21.1% due to economic recovery and increased demand for labor [2]. Throughout 2023, the unemployment rate further decreased to 18.3% [7].

It should be noted that both mobilization and migration of Ukrainians keep the unemployment rate from rising further, but the actual unemployment rate is very difficult to determine due to the lack of reliable statistical data from the temporarily occupied territories, as well as a decrease in applications to the State Employment Service from citizens due to inability or unwillingness to seek employment through official channels under wartime conditions [8].

The reduction in the number of jobs, the increase in unemployment and the growing number of internally displaced persons in host regions have increased the load on the labor market deepening the disproportions between labor supply and demand.

Analysis of data on the job seeking website Work.ua gives evidence of uneven trends in respect of job demand across various branches of economy. While some economic sectors show the jobs growth compared to early 2022, others are experiencing declines. In particular, the increase in job vacancies is observed in healthcare and pharmaceuticals industry, education and science, law and retail trade. However, such areas as culture, music, entertainment business, telecommunications, insurance, real estate development and records management demonstrate a significant reduction in job vacancies and increasing competition among the job seekers [9]. In graphic presentation, the main trends in demand and supply in the Ukrainian labor market are shown in Fig. 1.



Fig. 1. Number of unemployed persons and number of job vacancies in the labor market of Ukraine from 2017 to 2023, thousands of persons/thousands of vacancies

Source: compiled by the author based on the source [10]

During the study period, the labor supply in the market was primarily composed of qualified agricultural workers (approximately 30 – 40 applicants per vacancy), technical staff (15 – 20 applicants), office employees and managers (17 applicants) and workers engaged in services and trade (17 applicants).

The abovementioned trends are most noticeable in the regions located near the areas of combat operations. The Dnipropetrovsk region is no exception. Since the beginning of the full-scale invasion launched by Russia against Ukraine in 2022, the Dnipropetrovsk region has become one of the main hubs for receiving internally displaced persons. The International Organization for Migration (IOM) identified approximately 3.5 million internally displaced persons in Ukraine. As of December 2023, the Dnipropetrovsk Region hosted 14% of the total number of internally displaced persons. By the end of 2023, 464.4 thousand internally displaced persons were registered in the Dnipropetrovsk Region [11].

Migration of the population from the areas of combat operations has changed the demographic structure of the region. During the period from 2018 to February 2022, the population decreased due to natural decline and high mortality caused by the COVID-19 pandemic. With the onset of the war, the demographic structure of the Dnipropetrovsk region changed significantly due to the arrival of a large number of internally displaced persons in the area. In addition to the increase in population, there were changes in the age and gender structure of the population, as well as a rise in the proportion of working-age individuals and women across the population.

Due to the active integration of internally displaced persons into the labor sector, the labor market of the region has faced additional pressure. According to the State Employment Service, as of January 1, 2022, on average in the Dnipropetrovsk region, 5 unemployed persons applied for one vacant job, while as of January 1, 2023, this number had increased to 7 unemployed persons per available vacancy [12].

The unemployment rate has been steadily increasing during the period from 2017 to 2020 (from 96 000 to 100 400 people, respectively), which is related to the ongoing military conflict in Eastern Ukraine since 2014. The Dnipropetrovsk region has always been a hub for refugees, which have been significantly changing the structure of the regional labor market since 2014. An increase in unemployment during this period is also related to structural and qualification changes caused by the COVID-19 pandemic. In 2021, the number of unemployed persons decreased to 96.1 thousand. In March – April 2022, this number dropped further to 80.5 thousand people, which is due not only to the employment of the previously unemployed population, but also to natural decline and migration of specialists abroad.

By the end of 2023, the number of people with the status of unemployed had significantly decreased to 45.5 thousand persons. It is evidence that Ukrainian businesses are gradually adapting to new conditions and are beginning to fill vacancies with retrained specialists or by adjusting hiring specification in accordance with the realities.

An analysis of the dynamics of available vacancies at enterprises in the Dnipropetrovsk region from 2017 to 2023 reveals two different trends: an increase in the number of vacancies up until the pandemic in 2019, followed by a sharp decline in open vacancies at enterprises in the region from 2020. In 2021, the number of job vacancies was 61.7 thousand positions, which is 11.2% less than in the same period of the previous year [12]. In 2022, with the onset of the war and the influx of “incoming” workers, the number of available job vacancies decreased to 40.0 thousand, which is 35.3% lower than in the same period of the previous year. Throughout 2023, the number of job vacancies at enterprises in the region declined by another third (down to 29.5 thousand vacancies). This was due not only to the employment of previously unemployed persons, but also to a reduction in the number of available positions caused by limited operating conditions at some enterprises in the region under wartime conditions. The dynamics of available job vacancies and the number of unemployed persons in the Dnipropetrovsk region from 2017 to 2023 are shown in Fig. 2.

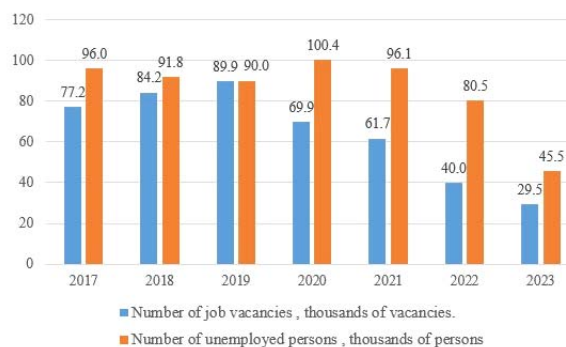


Fig. 2. The number of unemployed persons and the number of job vacancies in the Dnipropetrovsk region from 2017 to 2023, thousand persons/thousand units

Source: compiled by the author based on the source [12]

The conducted analysis gives evidence of structural and qualification imbalances between the supply and demand of labor within the region, which represents the main trends in the development of the labor market at the national level.

With the onset of the war, significant changes occurred in the labor market supply: decrease in the supply of qualified labor due to migration abroad and the deaths of working-age individuals; increase in the number of workers with disabilities, whose ability to work differs from pre-war period; increase in the number of women in the labor market due to the postponement of marriage and childbirth; increase in the cases of child labor as a result of growing poverty and lost educational opportunities, particularly with regard to higher education [13].

Before the war, by the end of 2021, the labor market supply was mainly composed of unemployed persons, the majority of which had professional experience in wholesale and retail trade (19.5%) and in the processing industry (16.8%).

With the onset of the war, the composition of labor force making up the main portion of the labor supply in the Dnipropetrovsk region has slightly changed. In 2022, the largest share of job seekers had previously worked at enterprises in the processing industry (17.2%), agriculture (10.1%), and wholesale and retail trade (16.2%).

By the end of 2023, the structure of unemployed persons by work experience was dominated by former employees in wholesale and retail trade (21.0%), processing industry (17.5%), and public administration and defense (11.3%). The structure of the unemployed population in the Dnipropetrovsk region from 2020 to 2023 by type of economic activity is presented below.

It should be noted that during the study period, the largest number of unemployed persons had previously filled vacancies in agriculture, processing industry and retail trade.

It is interesting to note that the structure of labor demand by type of economic activity at enterprises significantly differs from the labor supply, as evidenced by the official statistics from the State Employment Service in the Dnipropetrovsk region.

The main trends in the labor market demand include a decrease in employers' need for qualified workers and a reduction in the number of job vacancies at enterprises in the region.

In 2021, there were 61.8 thousand job vacancies, while in 2022, the number dropped to 40 thousand, which is 35.3% less than in the previous year. In 2023, the corresponding figure was 29.5 thousand vacancies. Both in the pre-war period and after the onset of the war, the structure of job vacancies by type of economic activity was dominated by vacancies in processing industry (approximately 20%) and trade (approximately 16%). A sufficient quantity of vacancies was also available in the agricultural sector (about 10% of the total number), as well as in the education and healthcare sectors (about 5–7%) [12].

The above studies indicate ambiguous trends in the development of the modern labor market in Ukraine, both at the national and regional levels. Characteristic trends of modern labor market include a mismatch between labor supply and demand resulting from changes in the age, qualitative and quantitative composition of the labor force, alongside with a reduction in the number of available jobs. The number of vacancies is decreasing, while a significant outflow of personnel caused by forced migration creates a labor shortage in certain economic sectors.

These trends are disappointing and, most likely they will persist after the end of the war. Summarizing the trends in the functioning of the Ukrainian labor market identified in this study, it is arguable that during the post-war recovery period, the labor market will face several challenges, including:

- addressing regional imbalance between labor supply and demand;
- overcoming the skills and qualifications mismatch in the labor market;
- investing in the creation of educational and qualification direction for the formation of labor supply;

- investing in the creation of new vacancies with decent and inclusive working conditions;

- reintegrating former refugees, internally displaced persons and veterans, many of whom may have physical and psychological war-related trauma, into the labor market at both national and regional levels;

- promoting and expanding new forms of employment and supporting self-employment.

Conclusions

The labor market is a system of social and economic relations currently operating under conditions of uncertainty. Development of the labor market is complicated by negative trends that have emerged both at the national and regional levels. The deterioration of the parameters of the labor force, reduction in workforce and changes in the structure of labor supply and demand require of the country leaders to respond flexibly and adaptively to these challenges.

Therefore, post-war recovery policy will require effective management tools at all levels of labor market regulation, as well as the creation of strategic directions for its further development. In our view, the following measures would be appropriate:

- restoration of human potential and capital;
- implementation of real and effective mechanisms to ensure employment for all segments of the population;
- improvement of the legislative and regulatory framework in accordance with the requirements of the post-war recovery of the labor market;
- introduction of effective long-term forecasting of demand for qualified workers and specialists for the economic sectors of the country taking into account national, regional and local needs of the labor market;
- creating effective retraining programs and advanced training programs in accordance with the requirements of the post-war labor market;
- ensuring effective interaction among labor market participants: the State, employees, employers, higher education institutions and the vocational education system;
- creating conditions for improving competitiveness of workers in the labor market;
- ensuring consistent and systematic approach in the process of implementing the state development policy and restoring the labor market in the post-war period.

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ТРЕНДВОЧІНГ РИНКУ ПРАЦІ В УМОВАХ ВІЙНИ:
ДЕРЖАВНИЙ ТА РЕГІОНАЛЬНИЙ АСПЕКТИ

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Стаття присвячена сучасним тенденціям розвитку ринку праці України в умовах воєнного стану та військової агресії з боку росії. Встановлено, що зміни, які сталися в Україні за останні три роки, мали серйозний вплив на економіку та зайнятість населення країни. Авторами проаналізовані якісні та кількісні параметри розвитку робочої сили. Зокрема виявлені тенденції щодо зміни чисельності та структури населення, які обумовлені великою смертністю не тільки з природних причин, а й внаслідок загибелі мирного населення та втрат бійців на фронті. Описано вплив міграційних процесів на зміну чисельності наявного населення та рівень безробіття в країні. Визначено, що основне навантаження на ринок праці відслідковується у регіонах, які з початку війни прийняли найбільшу кількість внутрішньо переміщених осіб. Окремо проаналізовано регіональний ринок праці Дніпропетровської області. Визначені тенденції розвитку відповідного ринку. Виявлено диспропорції між попитом та пропозицією на ринку праці Дніпропетровщини у розрізі галузевого спрямування підприємств та видів економічної діяльності. Аналіз загальнонаціональних та регіональних тенденцій функціонування ринку праці свідчить про наявність численних викликів, які суттєво впливають на кадрове забезпечення економіки. Серед основних викликів, які впливають на ринок праці України, визначено наступні: загальнодержавний та регіональний дисбаланс робочої сили; професійно-кваліфікаційна диспропорція між попитом та пропозицією; невідповідність потреб економіки та рівня компетенцій фахівців; навантаження на ринок праці через нерівномірне розміщення працівників на території країни; постійний відтік кадрів та підвищення середнього віку працюючих; скорочення робочих місць через руйнування підприємств або у зв'язку із призупиненням діяльності останніх.

Ключові слова: військовий стан, ринок праці, диспропорція, попит, пропозиція, кадрове забезпечення економіки, зміни, виклики.

**LABOR MARKET TRENDWATCHING UNDER
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Keywords: martial law, labor market, disproportion, demand, supply, staffing support of the economy, changes, challenges.

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