

# Destabilization of Regional Labour Markets in Ukraine under Heightened Security Threats<sup>1</sup>

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## Abstract

This article focuses on the problems of the Ukrainian economy and its regional labour markets in the context of full-scale war. The main challenges to regional development in the short and long term are identified, and the critical trends in the social stability and labour supply and demand in the regions of Ukraine in the prewar period and during the war are characterized. The authors analyse the level of balance in regional labour markets and identify the main risks and threats to their functioning and development in the context of destabilization processes. The article outlines the prospects and priorities of the state policy of stabilizing the functioning and ensuring the development of regional labour markets in Ukraine.

## Keywords

regional policy, labour market, spatial imbalances, threats, destabilization processes, war

## Introduction

Russia's military aggression has caused a deep sociohumanitarian crisis in Ukraine, which has exacerbated existing challenges and generated new risks and threats for the country. Destabilizing processes have affected almost all sectors and regions. From the territorial point of view, the economy of the eastern oblasts of Ukraine has undergone significant destructive changes (the largest steel mills in Mariupol, the coke plant in Avdiyivka, the Azot Company in Syevyerodonetsk, and other enterprises have been destroyed), although the consequences of the war in western Ukraine have been much smaller. Among the various sectors of the real economy, industry has suffered the most. For example, Russian missiles have destroyed all the major oil refineries, but the information

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and technology (IT) industry remains largely intact, with the number of vacancies in the IT industry being roughly the same as before the war. The uneven impact of the current conflict has increased territorial and sectoral imbalances in Ukraine and reinforced prewar structural imbalances in various resource markets, including the domestic labour market.

The full-scale war in Ukraine has revealed a whole range of challenges and threats to the economic security of the state, which have been described in the academic studies of Cheromukhina (2022), Lupak et al. (2022), Mulska et al. (2022), Pham et al. (2023), and Vasylytsiv et al. (2023), among others. These and other studies have sought to develop new tools for regulating the labour market under the critically difficult conditions of war, characterized by mass migration (Petryshyn, 2023; Pyshchulina and Markevych, 2022; Vasylytsiv et al., 2022b; Vinnykova and Zaporozhchenko, 2023) and employment-related challenges, including extensive job losses, pervasive unemployment, difficulties finding employment—especially for young people (Boyko, 2022; Hrynkevych et al., 2023), new personnel requirements and changes in the employment structure (Berezovska, 2022; Zhyriy, 2022), and heightened regional disparities in the distribution of the labour force (Kravchuk et al., 2023).

Currently, researchers are actively involved in forecasting and planning changes in the Ukrainian labour market (Filatov, 2022; Shevchuk et al., 2023) and improving institutional support for the functioning and development of the domestic labour market under the present challenging conditions (Anastasia et al., 2023; Voznyak et al., 2023).

Labour market stability in Ukraine became heavily dependent on globalization trends. In particular, it had become dependent on the increasing influence of digital technologies, which promotes social and labour mobility (Levytska, 2022; Vasylytsiv et al., 2022a; Illiashenko et al., 2023); on the innovative and technological progress of developed economies, which attracts creative workers (Lyashenko and Pidorycheva, 2019; Ilyash et al., 2022; Danik et al., 2023); and on proactive immigration policies in European countries aimed at attracting young and highly skilled workers (Kohlenberger et al., 2023; Rumiantsev et al., 2023).

The country's current labour market is heterogenous, and the specific conditions and problems of various regions differ significantly; this situation requires new, thorough research to identify spatial disparities and justify the state policies, including those at the regional level, adopted to regulate them.

This study aimed to identify the particular imbalances and risks of the development of regional labour markets in Ukraine in the context of full-scale war and the destabilization processes caused by said war.

## Data and methods

The information and analytical foundations of the study include official statistics of the State Employment Service of Ukraine and the State Statistics Service of Ukraine, as well as the assessments of experts and policymakers regarding the impact of current security challenges and threats associated with full-scale war on the development of the Ukrainian labour market. To assess the scale and dynamics of these processes, the methods of structural and temporal analysis of the parameters of regional labour markets were adopted for studying, in particular, labour supply and demand. The level of balance of the mentioned markets was also studied, with a focus on the registered segment of the workforce. The aggregate labour market balance index was calculated as the ratio of the number of occupied and vacant jobs to the total labour force (economically active population). The registered labour market balance index was calculated as the ratio of the number of vacancies to the number of registered unemployed individuals. The main data limits relate to the lack of statistical information on the economic activity of the population of the country and its regions in 2022 and early 2023.

## Results and discussion

### Regional challenges and threats in the face of destabilization

The key challenges for Ukraine's regions *in the short term* include, first and foremost, growing imbalances in regional labour markets due to job cuts, growing unemployment, increased social vulnerability (precarization), reduced labour and employment security, and a narrowing of regions' labour capacity due to the loss of human resources. The western regions of Ukraine, the border ones especially, have always been characterized by a relatively high intensity of migration activity, which is one of the decisive factors in the emergence of the abovementioned imbalances. A significant gap exists between the labour demand in the regional labour markets and the available supply of labour. For example, almost 290 vacancies for seamstresses (tailors, cutters) were available in Lvivska oblast in 2021 (Roy, 2021), while 10 educational institutions in the region (including 2 in Lviv) train such specialists. The reason for the numerous vacancies despite a seemingly robust training regime in the region is migration to Poland, which offers higher wages, a comprehensive social benefits package, better working conditions, and other benefits. Other European Union (EU) countries are also attractive for migration. For example, since 2020, Germany has significantly softened its laws on the employment of workers from outside the EU, the Czech Republic has doubled its quotas for Ukrainian workers, and Poland continues to lift restrictions to facilitate access to its labour markets and educational services for Ukrainian migrants.

As for *long-term challenges*, integration into the European economic space remains a crucial task for Ukraine as a whole and for its regions in particular. One of the ways to realize this agenda is to *increase the competitiveness of the domestic labour market* and *strengthen the convergence* of the labour markets of Ukraine and the EU within the framework of the European integration policy, while offsetting the consequences of the Russian military invasion of Ukraine. The regions bordering the EU can become drivers of these processes. A unique aspect of border areas is that they form formal and informal cross-border systems in trade, logistics, migration, culture, and other activities. Inequalities in socioeconomic development are most pronounced in border areas, but, at the same time, processes of convergence can be achieved faster in such areas. Balancing the uneven development of the country's regions has always been a priority of the Ukrainian government, but the mechanisms for achieving such balance have varied depending on the factors and conditions identified as influencing the emergence of interregional inequalities.

Despite having some promising aspects, the intensification of external migration processes in Ukraine along with the entry into a single European market may threaten the economic security of the state due to the loss of a significant part of the labour force, with a consequent reduction in labour potential. Thus, threats to the progressive economic development of Ukraine and its regions because of increased migration flows to the EU make it necessary to focus on migration security as an important component of economic security. Poland offers a striking example of the difficulties that accompany migration: after accession to the EU in 2004, Poland became the largest Central and Eastern Europe sending country. In the period of 2004–2020, more than 2.2 million Poles left their homeland, with one-third of those possessing university-level education. The postaccession migration flows from Poland predominantly comprised young adults aged 19–34 (mostly to the United Kingdom and Ireland; Grabowska et al., 2023). The increased migration activity of young people is an urgent challenge for Ukraine as well, and Poland is among the main destinations for Ukrainian migrants.

Ukraine's regional development in the face of the current processes of destabilization is accompanied by a number of *threats*, which include, in particular, continuing depopulation, significant migration losses (in the western oblasts due to their proximity to the EU, in the southeastern and northern regions due to hostilities or the threat of such actions, and in the case of Volynska oblast, both factors at the same time), imbalances in the domestic labour markets (increased unemployment due to forced migration, downsizing, relocation of enterprises, etc.), and the increased burden on the social infrastructure and social protection system of the regions receiving the majority of internally displaced persons (IDPs). Thus, among the western oblasts, the majority of IDPs have settled in Lvivska and Zakarpatska oblasts, with the highest number of IDPs arriving in April

2022 (630,000 and 390,000, respectively; Hema, 2022; Mukachevo.net, 2022). The degree of the economic burden of forced migration in these regions is much higher than in other oblasts of the Carpathian region: In Zakarpatska oblast, the ratio is 806 IDPs per 1,000 employed persons, and in Lvivska oblast, the ratio is 612 IDPs per 1,000 employed persons (as of late April 2022). The total burden on the local population is difficult to determine objectively due to the lack of data on the regional populations for 2022.

Despite the lack of 'hard' statistics, it is safe to say that there is a long-lasting demographic crisis in Ukraine, which has been exacerbated by the war. As of 1 February 2022, the State Statistics Service of Ukraine estimated the country's population to be approximately 41.1 million people (excluding the temporarily occupied territory of the Autonomous Republic of Crimea (ARC); State Statistics Service of Ukraine, 2023b). Since 24 February 2022, more than 8 million people have moved abroad. This is a very large loss of human resources and labour capacity from the country, which is equivalent in scale to the losses caused by the Holodomor of 1932–1933. Subsequent to these losses, the population of Ukraine today stands at about 33.1 million people (35.4 million together with the ARC).

Until 2022, depopulation had already been occurring in almost all regions, especially the border areas. Among the border areas, Lvivska oblast exhibited an average annual rate of population decline of 0.8% (about 12,000 individuals per year) in the last 5 years of the prewar period. In this region, the depopulation rate has been relatively high due to vigorous migration activity (mainly to Poland), and the level of natural population growth has been lower than in other western oblasts; in 2021, the birth and death rates in Lvivska oblast were 8‰ and 16‰, respectively, while in the neighbouring Volynska and Zakarpatska oblasts, they were 10‰ and 15‰, respectively, for each oblast. In Ukraine overall, there were 190 deaths per 70 births in 2021 (State Statistics Service of Ukraine, 2022). It is impossible to compensate for the losses only by natural factors (i.e., increased birth rate and decreased mortality). In addition, Ukraine has a relatively old population, which objectively is more prone to death. Therefore, to improve on this demographic situation, migration remains the key factor for attracting people from other countries to live and work in Ukraine.

### **Changes in parameters of regional labour markets in the prewar period and during the war**

The processes of depopulation (both due to natural causes and migration) have an extremely negative impact on the development of regional labour markets, as they cause the following problems:

- the deterioration of the sociodemographic structure and a reduction of the share of the economically active population in regions of the country (in 2021, the smallest share was observed in Volynska oblast, at 55.5% of the total population aged 15–70, and the highest was in Kyiv, at 66.3%);
- a decrease in the employment rate of the population in oblasts, which in 2021 ranged from 48.5% to 61.6% (in Volynska oblast and Kyiv, respectively);
- dysfunctions and imbalances in regional labour markets, exacerbated by migration and a decline in economic activity; and
- reduced social protection accompanied by increased social vulnerability in the regions as a result of inefficient labour markets and significant illegalization of employment, thus depriving those employed under such conditions of legal wages, quality social guarantees, and insurance records (in 2021, the highest level of informal employment was observed in Rivnenska and Chernivetska oblasts, at 44.8% each, and the lowest was in Kyivska oblast, at 6.8%).

The European Employment Strategy declares that the rate of 70% is the social benchmark for the level of employment in European countries, with the simultaneous requirement of annual growth of 1.5% (Petrova & Blyzniuk, 2018). The state of the labour market in Ukraine and its regions confirms the signs of employment stagnation and a lack of jobs. Ensuring decent work is possible by aligning the vectors of economic development (taking into account the innovation component) and labour market development to create jobs in competitive investment-intensive sectors of the economy.

Transformations of the parameters of regional labour markets in the prewar period (before the full-scale invasion) and during the war, in particular during 2020–2023, are summarized in Tables 1, 2, and 3.

**Table 1.** Absolute value indicators of the registered labour market in the regions of Ukraine in 2020–2023 (*in terms of labour supply*)

Oblasts	Registered unemployed, thous. persons				Unemployed recruited by employment centres, thous. persons				Unemployed who underwent training (incl. in vocational education centres), thous. persons			
	Before the war		War time		Before the war		War time		Before the war		War time	
	2020	2021	2022	2023	2020	2021	2022	2023	2020	2021	2022	2023
Ukraine	1,247.2	1,191.0	867.6	483.2	384.5	404.8	248.8	160.1	141.8	138.9	75.5	52.5
Vinnnytska	65.6	62.9	46.3	22.7	20.8	21.9	15.9	7.9	6.3	7.8	3.1	2.6
Volynska	34.0	33.2	23.4	13.6	10.0	10.8	7.5	4.9	4.0	3.8	3.1	1.8
Dnipropetrovska	104.4	96.1	80.5	45.5	38.0	40.5	30.3	22.4	12.5	11.7	8.1	4.3
Donetska	49.7	50.2	26.4	17.3	17.1	20.1	6.6	7.0	9.3	9.5	2.4	5.6
Zhytomyrska	47.0	45.5	36.7	23.4	14.0	15.9	11.2	8.6	5.0	4.6	2.6	1.6
Zakarpatska	21.9	21.6	17.5	10.0	6.2	7.5	5.7	3.6	0.8	1.5	0.9	0.7
Zaporizka	65.9	58.5	39.1	20.2	20.6	20.6	6.9	2.7	1.8	1.4	0.3	0.1
Ivano-Frankivska	36.6	36.3	25.3	16.5	11.7	14.2	10.2	7.9	8.3	8.5	5.7	3.9
Kyivska	49.7	46.8	42.9	26.0	15.8	16.0	12.3	8.4	3.1	2.0	1.5	1.1
Kirovohradska	48.1	47.2	32.8	16.3	12.9	15.1	9.3	4.9	3.0	4.0	3.0	1.6
Luhanska	25.3	26.2	10.2	4.5	9.4	11.1	1.9	0.4	2.8	3.4	0.8	0.3
Lvivska	68.7	70.4	41.6	23.9	17.8	21.0	13.4	10.7	7.4	7.1	4.2	4.3
Mykolaivska	47.7	45.6	36.6	21.6	13.2	14.6	7.5	4.7	6.1	5.5	1.2	1.4
Odeska	51.1	48.9	37.9	22.0	15.4	15.0	10.6	5.5	7.7	7.7	5.8	2.4
Poltavska	70.9	64.2	48.7	24.0	20.9	20.0	14.3	7.6	8.3	6.9	5.5	3.5
Rivnenska	40.6	39.6	30.9	19.9	13.3	14.4	11.7	9.3	8.9	8.5	6.7	5.6
Sumska	49.7	43.6	36.6	23.5	15.1	14.3	10.0	6.9	6.5	5.9	3.7	1.7
Ternopil'ska	32.1	31.4	21.7	10.1	9.7	10.0	7.0	3.3	3.3	4.1	2.4	1.1
Kharkivska	90.4	85.7	54.3	33.9	30.5	30.7	11.0	8.9	17.9	16.4	4.2	4.4
Khersonska	35.4	34.4	15.6	9.0	11.1	11.1	1.9	0.5	4.7	4.8	1.7	0.1
Khmelnyska	43.9	41.4	31.2	14.4	13.7	13.2	10.0	4.3	5.2	5.1	3.6	1.8
Cherkaska	57.6	54.8	40.1	19.5	17.4	18.1	12.6	6.1	3.5	2.3	1.1	0.7
Chernivetska	20.5	20.2	15.0	8.1	5.5	5.4	5.0	3.2	0.9	1.5	1.1	0.7
Chernihivska	38.1	35.7	29.7	17.2	11.8	11.3	8.1	5.4	3.9	4.1	2.6	0.9
Kyiv, the city	52.2	50.6	46.7	20.2	12.7	12.1	8.1	5.2	0.5	0.9	0.3	0.3

Source: State Employment Service of Ukraine (2023)

**Table 2.** Relative value indicators of the registered labour market in the regions of Ukraine in 2020–2023 (*in terms of labour supply*)

Oblasts	Registered unemployment rate for working age population (15–64 years), %				Unemployed recruited by employment centres, % of total registered unemployment				Unemployed who underwent training (incl. in vocational education centres), % of total registered unemployment			
	Before the war		War time		Before the war		War time		Before the war		War time	
	2020	2021	2022	2023	2020	2021	2022	2023	2020	2021	2022	2023
Ukraine	4.4	4.3	3.1	1.7	30.8	34.0	28.7	33.1	11.4	11.7	8.7	10.9
Vinnyska	6.4	6.2	4.6	2.3	31.6	34.8	34.3	34.8	9.5	12.5	6.6	11.6
Volynska	4.9	4.8	3.4	2.0	29.4	32.4	32.0	36.2	11.7	11.4	13.3	13.3
Dnipropetrovska	4.9	4.6	3.9	2.2	36.4	42.1	37.6	49.2	12.0	12.2	10.0	9.4
Donetska	1.8	1.9	1.0	0.6	34.4	40.1	25.1	40.4	18.8	18.9	9.2	32.4
Zhytomyrska	5.8	5.7	4.6	3.0	29.7	34.9	30.5	36.7	10.7	10.1	7.2	6.8
Zakarpatska	2.6	2.5	2.1	1.2	28.1	34.8	32.5	36.2	3.7	6.9	5.3	6.8
Zaporizka	5.8	5.2	3.5	1.8	31.2	35.2	17.7	13.2	2.8	2.4	0.8	0.7
Ivano-Frankivska	3.9	3.9	2.7	1.8	31.9	39.1	40.3	47.9	22.7	23.3	22.4	23.8
Kyivska	4.2	3.9	3.6	2.2	31.8	34.2	28.7	32.1	6.3	4.4	3.5	4.3
Kirovohradska	7.8	7.8	5.5	2.7	26.8	31.9	28.3	29.7	6.1	8.5	9.2	9.6
Luhanska	1.8	1.9	0.7	0.3	37.1	42.2	18.8	8.5	10.9	12.8	8.1	6.7
Lvivska	4.0	4.1	2.5	1.4	26.0	29.8	32.2	44.6	10.8	10.0	10.2	18.0
Mykolaivska	6.3	6.1	5.0	2.9	27.7	32.1	20.6	21.8	12.8	12.0	3.2	6.4
Odeska	3.2	3.1	2.4	1.4	30.2	30.7	27.9	24.9	15.1	15.8	15.2	10.8
Poltavska	7.6	7.0	5.3	2.6	29.4	31.1	29.3	31.6	11.7	10.7	11.2	14.5
Rivnenska	5.3	5.2	4.0	2.6	32.7	36.3	37.8	46.9	21.9	21.5	21.5	28.0
Sumska	6.8	6.1	5.2	3.3	30.3	32.9	27.3	29.4	13.0	13.4	10.1	7.3
Ternopil'ska	4.5	4.5	3.1	1.4	30.1	31.9	32.0	32.9	10.3	13.2	11.2	11.1
Kharkivska	5.0	4.7	3.0	1.9	33.7	35.8	20.3	26.3	19.8	19.1	7.8	13.0
Khersonska	5.1	5.0	2.3	1.3	31.5	32.2	12.4	5.6	13.3	13.9	10.7	1.0
Khmelnytska	5.2	5.0	3.8	1.8	31.2	32.0	31.9	29.9	11.8	12.4	11.4	12.3
Cherkaska	7.2	7.0	5.2	2.5	30.2	33.0	31.4	31.2	6.0	4.3	2.8	3.7
Chernivetska	3.3	3.3	2.5	1.3	27.1	26.9	33.2	39.3	4.5	7.4	7.0	8.9
Chernihivska	5.8	5.5	4.7	2.7	31.0	31.7	27.2	31.1	10.2	11.4	8.7	5.5
Kyiv, the city	2.6	2.6	2.4	1.0	24.3	23.8	17.3	25.9	1.0	1.8	0.7	1.4

Source: State Employment Service of Ukraine (2023)

The reasons for low registered unemployment in Ukraine during the war (3.1% in 2022 and 1.7% in 2023) are related to the following factors: (1) forced migration from the country (affecting, according to ILO estimates, 8 million people, of whom 2.75 million are of working age; Ivanov, 2022); (2) men avoiding applying to the State Employment Service of Ukraine due to the requirement to provide documents from the military registration and conscription office for unemployment registration; (3) shortening of the period of payment of unemployment benefits to 90 days for the period of martial law, which demotivates individuals from registering the status of unemployed (according to the State Employment Service of Ukraine, in 2023, a total of 664,572 people in the country received assistance, which is 68% less than in 2021; State Employment Service of Ukraine, 2023); and (4) shadow employment as an alternative social guarantee (in the last few years before the war, the share of informal employment in the domestic economy ranged from 19% to 20%, but since 2022, this figure has increased significantly). Thus, the decline in the registered unemployment rate does not indicate an improvement in the labour market in Ukraine and its regions, as the number of

vacancies has halved compared to the prewar period; rather, it illustrates the difficult conditions under which society is living.

**Table 3.** Indicators of the registered labour market in the regions of Ukraine in 2020–2023 (in terms of labour demand)

Oblasts	Number of vacancies, thous. units				Load per 1 vacancy, persons				Average salary in vacancies, EUR			
	Before the war		War time		Before the war		War time		Before the war		War time	
	2020	2021	2022	2023	2020	2021	2022	2023	2020	2021	2022	2023
Ukraine	829.7	705.8	396.3	329.4	1.5	1.7	2.2	1.5	244.1	282.6	294.4	290.1
Vinnytska	40.4	30.5	19.6	14.4	1.6	2.1	2.4	1.6	228.8	239.7	257.6	223.0
Volynska	27.0	24.9	16.6	15.0	1.3	1.3	1.4	0.9	234.8	259.5	255.9	249.1
Dnipropetrovska	69.6	61.7	40.0	29.5	1.5	1.6	2.0	1.5	234.4	285.7	298.0	292.7
Donetska	27.8	28.8	10.5	11.1	1.8	1.7	2.5	1.6	251.0	256.3	362.6	264.5
Zhytomyrska	39.2	29.2	16.8	14.4	1.2	1.6	2.2	1.6	221.7	255.2	275.0	252.2
Zakarpatska	16.4	12.7	8.4	6.1	1.3	1.7	2.1	1.6	220.7	250.6	279.2	240.9
Zaporizka	33.6	25.5	8.9	4.6	2.0	2.3	4.4	4.4	226.5	266.1	299.4	271.8
Ivano-Frankivska	27.6	21.9	14.9	14.5	1.3	1.7	1.7	1.1	188.4	252.7	237.3	256.4
Kyivska	36.3	32.3	19.2	17.3	1.4	1.4	2.2	1.5	275.3	306.4	310.9	302.6
Kirovohradska	24.3	22.6	14.3	9.7	2.0	2.1	2.3	1.7	226.9	276.9	304.6	270.9
Luhanska	19.6	18.3	1.8	0.0	1.3	1.4	5.6	...	209.4	253.3	...	185.7
Lvivska	47.3	43.2	29.0	33.9	1.5	1.6	1.4	0.7	276.7	283.1	310.1	336.3
Mykolaivska	24.1	20.1	9.2	7.5	2.0	2.3	4.0	2.9	227.8	278.3	299.3	264.3
Odeska	30.6	31.2	21.0	14.8	1.7	1.6	1.8	1.5	234.4	258.9	297.3	263.9
Poltavska	46.0	30.3	21.2	15.7	1.5	2.1	2.3	1.5	237.3	277.7	275.2	260.1
Rivnenska	33.9	26.9	17.0	14.2	1.2	1.5	1.8	1.4	203.4	255.4	263.7	241.0
Sumska	25.0	22.4	14.6	11.9	2.0	1.9	2.5	2.0	223.1	271.4	273.2	230.3
Ternopil'ska	22.1	14.6	10.2	11.0	1.5	2.1	2.1	0.9	233.6	251.0	274.0	269.4
Kharkiv'ska	63.0	50.7	18.3	17.2	1.4	1.7	3.0	2.0	218.6	262.2	275.7	249.9
Kherson'ska	17.6	15.8	2.4	1.1	2.0	2.2	6.6	8.5	222.3	242.9	322.2	350.6
Khmeln'ytska	28.2	27.4	18.4	13.1	1.6	1.5	1.7	1.1	229.6	248.4	266.3	323.3
Cherkaska	30.4	26.9	16.9	11.0	1.9	2.0	2.4	1.8	233.7	278.0	298.7	292.8
Chernivetska	10.9	9.8	8.7	6.4	1.9	2.1	1.7	1.3	221.3	265.1	278.2	261.1
Chernihiv'ska	21.4	16.0	9.8	8.4	1.8	2.2	3.0	2.0	224.1	254.2	289.7	248.6
Kyiv, the city	67.3	62.2	28.7	26.6	0.8	0.8	1.6	0.8	277.3	331.0	319.2	347.0

Source: State Employment Service of Ukraine (2023)

In the face of the general upheavals caused by the current ongoing hostilities, the labour resource capacity of the country and its regions is shrinking, and the competitiveness of the labour force is weakening due to the deterioration of its quality parameters. This is partly explained by the quality of training and the degree of interaction between the education system and the labour market. Both the qualifications of the potential labour force and the demand for specialists are suffering due to insufficient flexibility and mobility of educational institutions, a lack of dialogue with employers, and insufficient practical training of future personnel in favour of theory-based education. Therefore, the situation is one in which there are many educational institutions (including many small, narrowly focused ones) that are constantly recruiting applicants, but then, these applicants do not get jobs in their specialty after graduation (especially graduates of higher education institutions) because the local market is overcrowded with graduates of previous years. At one time, until 2016, the state

statistics authorities published a very important indicator, namely the share of graduates of state higher education institutions who got jobs. In 2010, 27.8% of all graduates (182,000 people) received job offers, but in 2016, the number had fallen to only 17.6% (68,000 people; State Statistics Service of Ukraine, 2023a).

As a result, there is a tendency for deskilling or so-called 'professional downshifting', evident in 34% of university graduates being employed in work not only related to their specialization but also not requiring higher education at all. In the case of vocational education centre graduates, the share of those employed in another specialty is approximately 20%.

Another problem with the quality of training is the practice of following trends and opening popular specialties that are completely unrelated to the profile and educational capabilities of the particular educational institution—for example, training economists in a medical school. The result is an uncompetitive labour pool that joins the ranks of the unemployed, unbalancing the market or becoming a migration resource for other countries. Therefore, a system of monitoring and controlling the quality of education, optimizing the network of educational institutions, and establishing a dialogue between the educational system and employers to link supply and demand are important.

One way to achieve these goals is to create an integrated public database of the employment of graduates of higher education and vocational training institutions as part of the system of monitoring the quality of education at the national level, with further scaling of the database to the regions.

The mechanism for creating such a database includes the use of the electronic administrative databases of the Ministry of Education and Science of Ukraine (Unified State Electronic Database on Education), the Pension Fund (Register of Insured Persons), the State Fiscal Service, and the State Employment Service to create an integrated state database of the professional development of graduates. The implementation of the initiative should result in the creation of objective administrative, statistical, and analytical data sets on the employment of graduates of higher education and vocational training institutions of Ukraine, and the data can serve as a basis for making various management decisions—in particular, decisions to improve youth employment and reduce migration losses.

The 2025 Strategy of the State Migration Policy of Ukraine identifies the following key problem:

[T]he emigration of highly qualified specialists and young people, including as a result of non-return to the homeland after receiving education abroad, which is growing due to the policy of a number of states to attract highly qualified immigrants, young professionals from among foreign students (in particular, Poland, Germany, Czechia, and Slovakia); in turn, Ukraine's loss of such categories of workers affects the age and educational and qualification structure of the labour force and slows down economic growth.

Accordingly, with the outbreak of the full-scale war, this situation has only worsened, which means the prospect of prolonged employment stagnation, spatial disintegration of the labour market, and a decrease in economic competitiveness.

## **Balance of regional labour markets in Ukraine and levers to regulate their development**

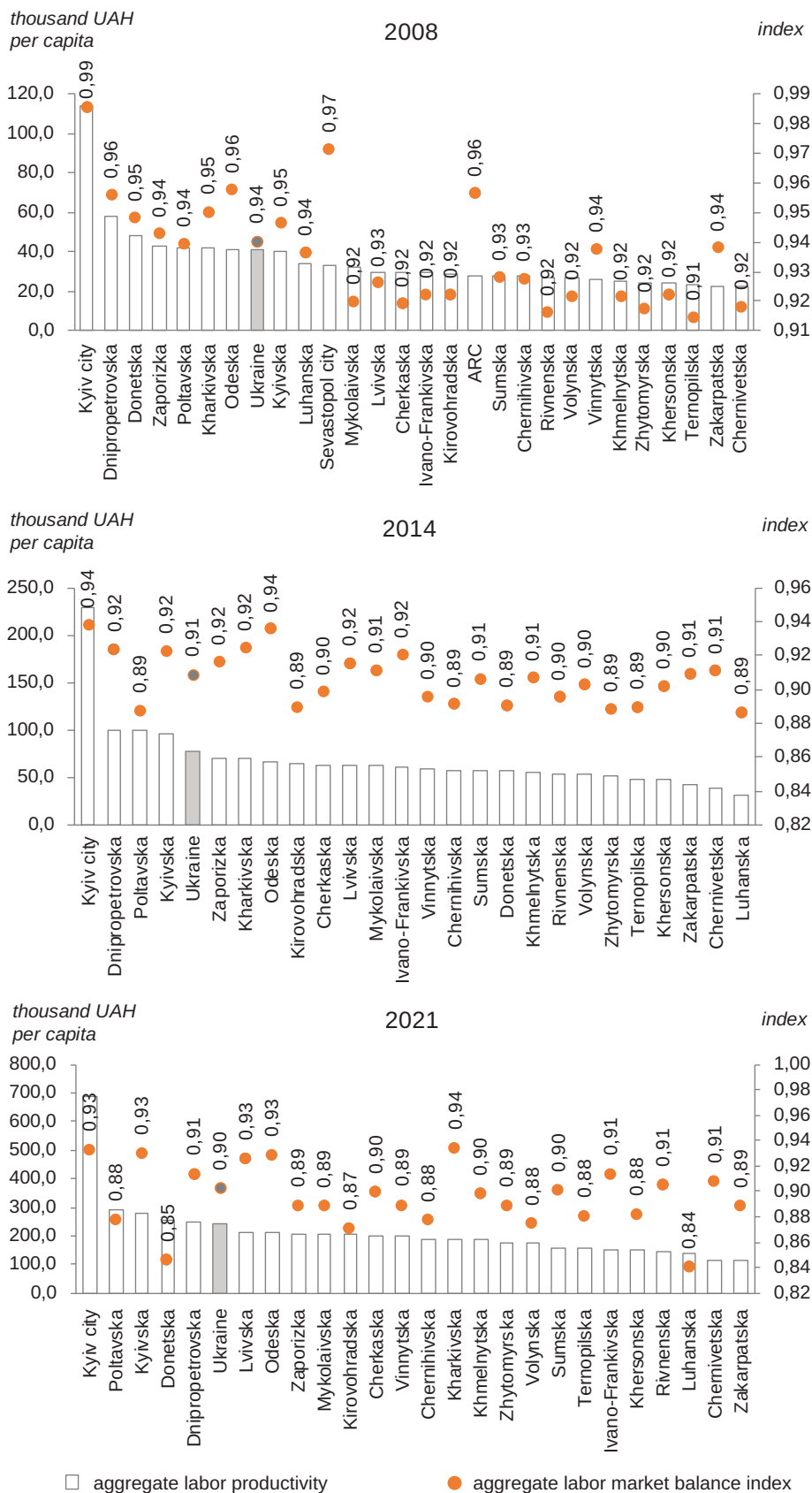
Through the analysis of regional aggregate demand (vacant and occupied jobs) and aggregate supply (economically active population), it is possible to assess the level of balance in the domestic labour market in retrospect (for 2008, 2014, and 2021) and the registered labour market balance index in the prewar period and in 2023 (Figure 1).

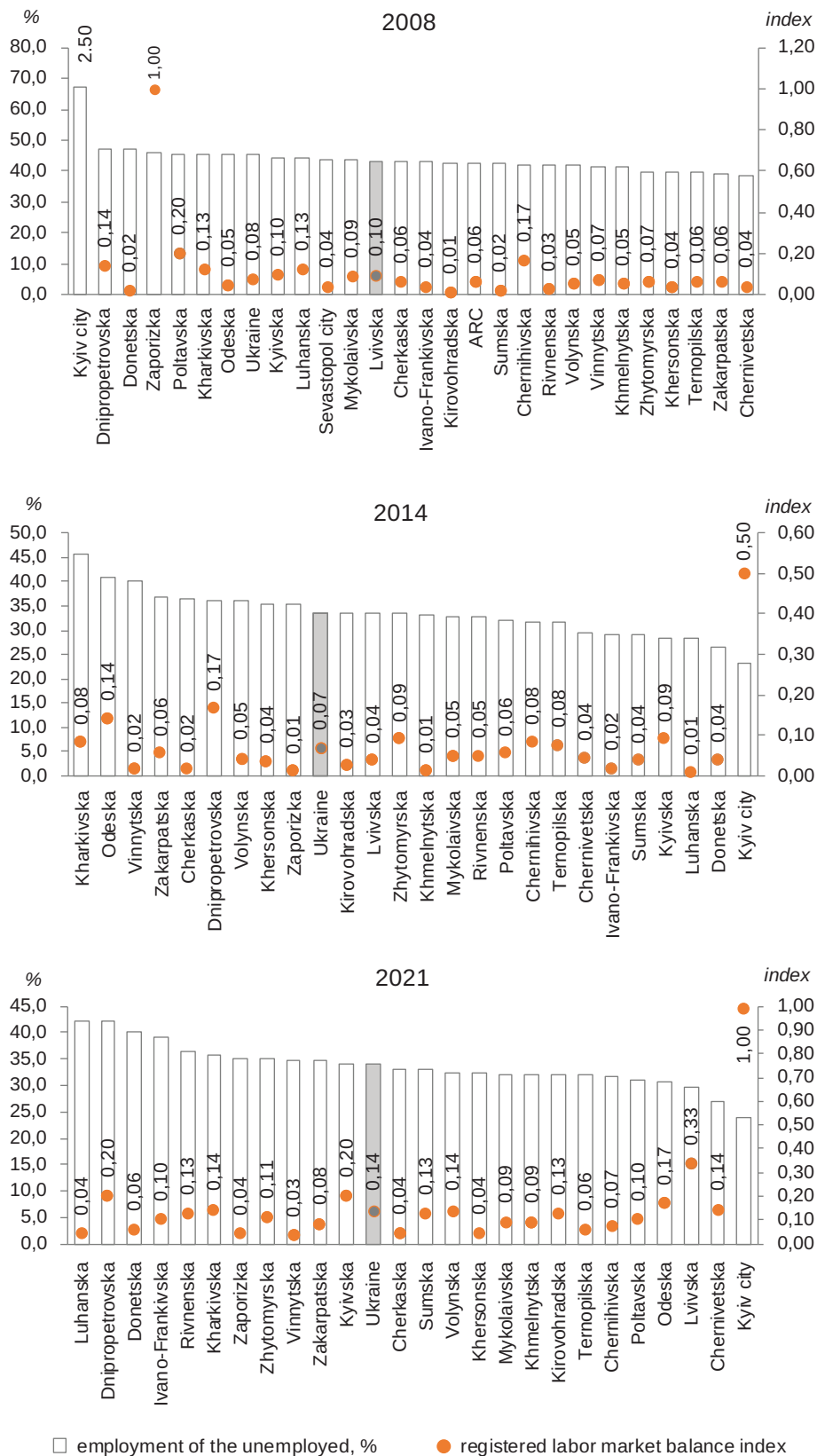
According to the results of the research, the aggregate labour market of the regions of Ukraine is out of balance, with the values of the balance indices in different years ranging from 0.84 to 0.99. This means that a part of the aggregate labour supply is not involved in economic activity, thus contributing to the unemployment rate.

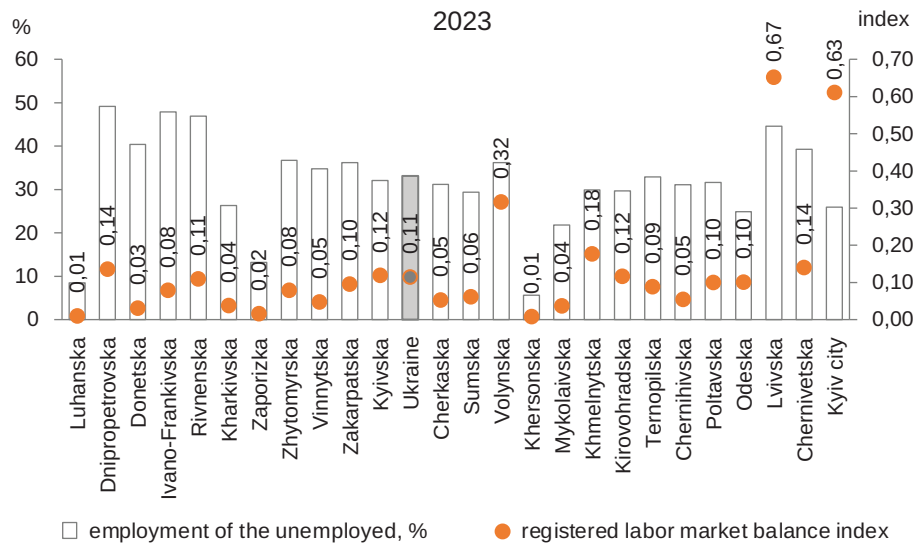
Moreover, the registered labour market is even less balanced, as it depends on the number of vacancies declared by employers and the number of registered unemployed persons. Traditionally, Kyiv is characterized by the most balanced situation in regard to the registered labour market, which is explained by a low level of official unemployment and a large number of vacancies (compared



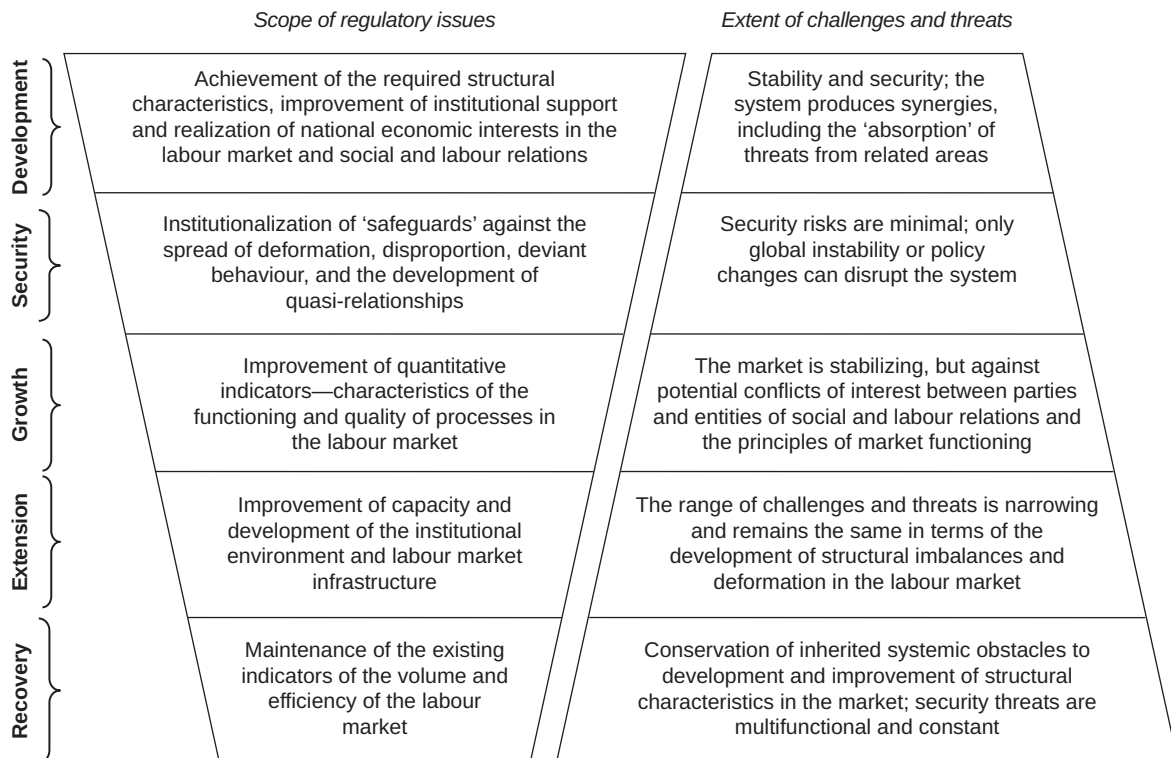
to other regions). In 2008, the balance index in Kyiv was 2.5 (*labour shortage* market condition), whereas in 2021, due to a threefold reduction in the number of vacancies, the registered market reached *equilibrium* (the balance index was 1), which was disturbed in 2023 (0.63). The situation in regard to the registered labour market in other regions was characterized by significant imbalances between labour supply and demand—in particular, by a *labour surplus* structure.







**Figure 1.** Dynamics of regional labour market balance indices in Ukraine (2008, 2014, 2021, and 2023) against the background of changes in labour productivity and employment in the regions  
 Note: 1) *Aggregate labour market balance index* characterizes the ratio of the number of occupied and vacant jobs to the size of the labour force (economically active population), coefficient. 2) *Registered labour market balance index* is calculated as the ratio of the number of vacant jobs to the number of registered unemployed persons (coefficient). 3) *Aggregate labour productivity* is calculated as the ratio of gross value added produced in the region to the number of employed aged 15–70 (thousand Ukrainian hryvnias per capita). 4) *Employment of the unemployed rate* is the share of persons recruited by employment centres in the total number of registered unemployment (%).  
 Source: calculated by authors.



**Figure 2.** Methodological asymmetries in the development and growth of the labour market  
 Source: developed by authors.

It is worth noting that there are three types of labour-surplus regions: (1) regions with lagging socioeconomic development and intensive demographic growth; (2) depressed regions, where the number of jobs stabilizes or decreases as a result of stagnation in the areas of specialization due to

the exhaustion of raw materials or poor competitiveness of manufactured products; and (3) regions with a deformed economic structure or with monopolistic enterprises or certain dominant industries in the labour market, which results in an imbalance of demographic or qualification characteristics.

The etymological and methodological asymmetries of the labour market provide a basis for the generalization of the substantive characteristics of these similar (but not identical) processes and, consequently, for the further development of the methodological and applied foundations of more efficient state regulation (Figure 2).

Therefore, when formulating the foundations of regional economic policy in the field of labour development, one should strategically focus not so much on improving specific macroeconomic parameters but rather on the following:

- (1) establishing the necessary structural correlations and overcoming macroeconomic divergences in the regional labour market;
- (2) implementing comprehensive institutional (regulatory and infrastructural) support for its functioning and development; and
- (3) institutionalizing security and safeguards against imbalances.

The prerequisites for the formation of a new regional policy to ensure the development of the labour market in Ukraine are critically complex and specific, and they require taking into account a number of circumstances. First, despite the distinct interdisciplinary nature of the labour market, its functioning from the point of view of state regulation is still objectively considered, to a great extent, in terms of its impact on the economy at the following levels: business, territory, region, and country.

Second, the levers of state regulation should be adjusted in accordance with the objects of regulation, which are negative trends, and their consequences for the regional labour market.

Third, the challenges, consequences, and structural and spatial imbalances in the functioning of the labour market under conditions of full-scale war, as well as forecasted, projected, modelled, and expected changes and trends in the regional and labour market, which are related to the specifics of postwar reconstruction of the national economy and its regional economic complexes, should be taken into account.

Fourth, the central positions in the structure of the latest challenges and threats to the sustainability of regional labour markets (related to the military operations in the territory of Ukraine) are naturally occupied by those caused by and related to migration processes (both external and internal, as well as social and transformational shifts and changes in mobility).

Fifth, even in the future situation of the conclusion of the war and with rapid and successful postwar reconstruction, Ukraine will still face the challenges of losing and/or not realizing the new unique opportunities that are opening up in terms of European integration, social progress, economic growth, and so forth, including in the development of regional and national labour markets.

As a result, the model of economic levers to ensure the development of the labour market under the current conditions of instability and the resultant growing migration processes looks like the one presented in Figure 3.

Regional economic policy in the field of domestic labour market development should be based primarily on ensuring its sustainability and stabilization in the context of full-scale war. As already mentioned, the war has activated a whole range of critical challenges, risks, and threats, including growing unemployment, spreading poverty, deteriorating material well-being of the population, an increasing burden on social infrastructure, the development of market and other structural imbalances in regional labour markets, and the weakening of enterprises' human resources.

## Conclusions

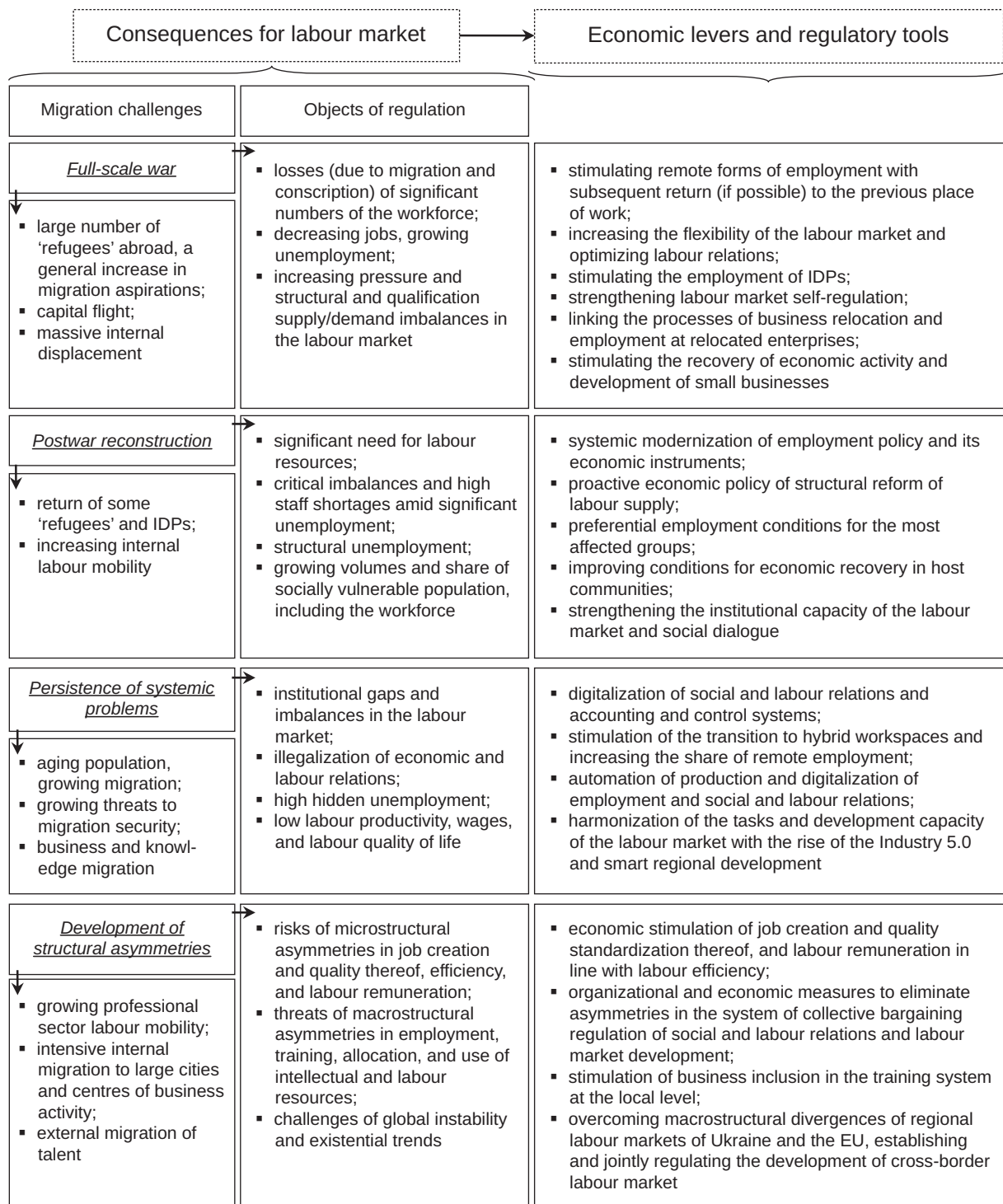
Russia's military actions have caused a deep sociohumanitarian crisis in Ukraine, exacerbating existing challenges and generating new risks and threats. Destabilization processes have affected almost all sectors and regions. The main short-term challenges for Ukrainian regions include, first and foremost, growing imbalances in regional labour markets due to job cuts, rising unemployment, increased social vulnerability, reduced labour safety and employment security, and a narrowing of the regions' labour capacity due to the loss of human resources. As for long-term challenges, integration into the European economic space remains a crucial task for Ukraine's regions. One of the ways to

accomplish this aim is to increase the competitiveness of the domestic labour market and strengthen the convergence of the labour markets of Ukraine and the EU in the context of the European integration policy and offsetting the consequences of the Russian military invasion of Ukraine.

Ukraine's regional development in the face of current destabilization processes is accompanied by a number of threats that are worsening. These include, in particular, continuous depopulation, significant migration losses (of the western oblasts due to their proximity to the EU, of the south-eastern and northern regions due to hostilities and the threat of such actions, and in the case of Volynska oblast, due to both factors simultaneously), imbalances in the domestic labour markets (increased unemployment due to forced migration, job cuts, relocation of enterprises, etc.), and the increased burden on the social infrastructure and social protection system of the regions hosting the majority of IDPs.

Based on the analysis of regional aggregate demand (vacant and occupied jobs) and aggregate supply (economically active population) in 2008, 2014, and 2021, the study assessed the level of balance of the labour market conditions and confirmed the absence of balance in the aggregate labour market of the regions of Ukraine, with the values of the balance indices in different years ranging from 0.84 to 0.99. This means that a part of the aggregate labour supply is not involved in economic activity, thereby increasing the unemployment rate. At the same time, the registered labour market (both in the prewar period and in 2023) is even less balanced, as it depends on the number of vacancies declared by employers and the number of registered unemployed persons. Traditionally, Kyiv is characterized by the most balanced situation in regard to the registered labour market, which is explained by the low level of official unemployment and a large number of vacancies. The situation in the registered labour market in other regions is characterized by significant imbalances between labour supply and demand, including a surplus labour structure.

Despite the magnitude and criticality of the challenges and threats to the functioning of Ukraine's regional labour markets in the context of the war, the strategic nature of proactive regional economic policy should be aimed at the systemic development of the labour market. It involves the achievement of the necessary structural parameters, overcoming macroeconomic divergences (compared to more efficient models); the improvement of institutional support, ensuring high quality functions and tasks; the realization of national economic interests in the allocation and use of the country's intellectual and labour capital; and the institutionalization of security and safeguards against imbalances. In this context, the entire range of economic levers and controls is contrasted with the factors and consequences of (1) full-scale war, (2) postwar reconstruction of national and regional economies, (3) the persistence of systemic problems and obstacles to the functioning of the labour market, (4) and the development of structural asymmetries, on the one hand, and, on the other hand, the specifics and impact of migration processes on the regional socioeconomic system. This approach is characterized by adaptability to the current challenges of Ukraine's existence, integrity, and security.



**Figure 3.** Model of economic levers for regulating and ensuring the development of regional labour markets under intensified migration processes

Source: developed by authors.

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