

The labour market in Ukraine: Rebuild better¹

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EXECUTIVE SUMMARY

The Ukrainian labour market not only needs to be rebuilt, it needs to be rebuilt better. The unprecedented challenges imposed by the reconstruction can only be faced by a labour market that promotes participation and eases the reallocation of workers across jobs. This was not the case for the labour market in Ukraine before the bloody Russian invasion. Reconstruction will therefore require a mix of emergency measures to deal with the legacies of the war and structural reforms to address pre-existing inefficiencies of the labour market. In this chapter, we illustrate the challenges in light of experience of other European countries that have gone through military conflicts in the recent past and propose strategies for action.

Among the challenges are that millions of workers (at least 10% of the labour force) will need to change jobs; the matching of vacancies and jobseekers will in many cases involve repeated changes of residence due to the destruction of the housing stock and the mismatch between the regional profile of worker displacement and of firms relocation inherited from the war; former refugees, internally displaced people and war veterans, often injured and carrying with them the mental scars of the war, will have to be reintegrated in the labour market; a significantly larger fraction of the working age population than before the full-scale invasion will have to be mobilised to avoid bottlenecks in the recovery from the war; and immigrants from other countries will have to be integrated and involved in the reconstruction of the country.

1 Any opinions expressed are those of the authors and do not reflect those of the Federal Reserve Bank of San Francisco, the Federal Reserve System, or any other organisation with which the authors are affiliated. The authors thank Yuriy Gorodnichenko, Dmitriy Sergeyev, Ilona Sologub and participants at the Paris workshop for the CEPR report on the Reconstruction of Ukraine for valuable comments.

The detailed proposals developed in this chapter are consistent with a four-pronged strategy for reconstruction aimed at:

- investing in human capital for the future by offering remedial education to students who have lost years of education, and offering retraining to job losers who are still far from retirement;
- making a better use of existing human capital, increasing the labour force participation of women and tackling youth unemployment among internally displaced workers;
- protecting the most vulnerable groups (job losers, veterans, fragile and older workers) in a sustainable fashion; and
- promoting the return of *ideas*, if not of *people* (i.e. involving in the reconstruction the human capital migrated abroad that will not return back home).

These policies will require technical assistance from EU countries with longstanding experience with labour market policies in times of reallocation. They will also involve large budgetary outlays, especially for a country coming out of a war. Who should pay for these policies is a matter that European policymakers will have to address. In this chapter, we confine ourselves to proposing some broad criteria for the funding of the reconstruction of the Ukrainian labour market. Those measures which concern the architecture of the future Ukrainian labour market institutions and welfare state – for example, partial unemployment insurance, employment conditional incentives and active labour market policies – are to be designed to be permanent, and should be financed over the long run by Ukrainian taxpayers in a sustainable way. Other measures are intended to tackle the immediate issues arising in the post-war labour market. Among these are public work programmes and the creation of an infrastructure allowing for a significant scaling up of remote working and distance learning. Indeed, some of these measures need to be taken even before the war is over. In particular, programmes tailored to the specific needs of internally displaced persons are badly needed today and not just tomorrow. These emergency programmes should be financed largely by instruments connected with EU accession, possibly through grants rather than loans. Apart from EU Structural Funds, the instrument for temporary Support to mitigate Unemployment Risks in an Emergency (SURE) can be mobilised. Currently, SURE is available to member states that need to mobilise significant financial means to fight the negative economic and social consequences of the pandemic. The windfall gains of countries of oil and gas producers, such as Norway and the Netherlands, after the surge of oil and gas prices can also be reoriented towards the reconstruction of Ukraine.

Finally, we argue that progress made in implementing these policies will have to be constantly monitored and subject to rigorous evaluation. Thus, substantial effort should be made to ensure that Ukraine has a modern statistical system for monitoring the labour market. Existing data are not sufficiently detailed and harmonised. Improving data quality would also allow for greater target efficiency of welfare transfers.

1 INTRODUCTION

Ukraine was one of the first labour markets in history in which labour services were offered in exchange for in-kind benefits. According to Herodotus, who is considered the first known historian of mankind, what is now known as Ukraine was once a conglomerate of ethnic groups interacting under a well-defined division of labour between the populations living along the coastal regions, the steppe and the forests. This labour market has been destroyed and rebuilt several times under the invasions characterising the history of this nation located at the gates of Europe. The reconstruction of Ukraine after the bloody Russian invasion will be no less demanding than the previous ones. Fortunately, this time Ukraine can count on the solidarity as well as the financial and technical support of other Europeans.

In this chapter we first take stock, in Section 2, of the labour market conditions before the war, and the way it had reacted to the COVID-19 pandemic. In Section 3, we present evidence on the way the labour market has been operating in a war economy and after the out-migration of almost one fifth of Ukraine's population. In Section 4, we draw lessons from the experience of other countries that have gone through military conflicts in the recent past. Finally, in Section 5, we try to identify reforms that could help in rebuilding a better functioning labour market than the one operating before the war. We conclude by assessing the scope for support that other European countries can provide to the institutions carrying out this very demanding task.

2 THE UKRAINIAN LABOUR MARKET BEFORE THE WAR

The Ukrainian labour market was fairly depressed before the full-scale Russian invasion on 24 February 2022. The unemployment rate for the fourth quarter of 2021 was at the two-digit level and the jobless rate had never been below 7.5% in the previous five years, despite a relatively low and declining labour supply (Table 1).

Labour force participation, at 62%, was below the OECD average (73%). Unlike in other countries coming from central planning, participation rates of prime working age women were particularly low and declining over time (Figure 1).² The gender gap in participation was 12 percentage points.

2 All tables in this section present key statistics that characterised the Ukrainian labour market in: (1) 2001 (or earliest internationally comparable data), as in 2001 Ukraine shifted to collecting data in line with international recommendations (ILO, OECD and the System of National Accounts or SNA); (2) 2013, the last year before the Russian invasion, which started in February 2014 (data include the occupied Crimea and parts of Donetsk and Luhansk oblasts); (3) 2015, the first year when Ukraine lost control over the occupied Crimea and parts of Donetsk and Luhansk oblasts, but when the active large-scale military actions were paused and new demarcation lines were set, which had remained almost unchanged until 24 February 2022; (4) 2019, the last year before the COVID-19 pandemic, which had a notable impact on the labour market; and (5) 2021 (or 2020), the most recent year for which annual data are available. When not otherwise specified, the source for these data is the State Statistics Service of Ukraine (SSSU).

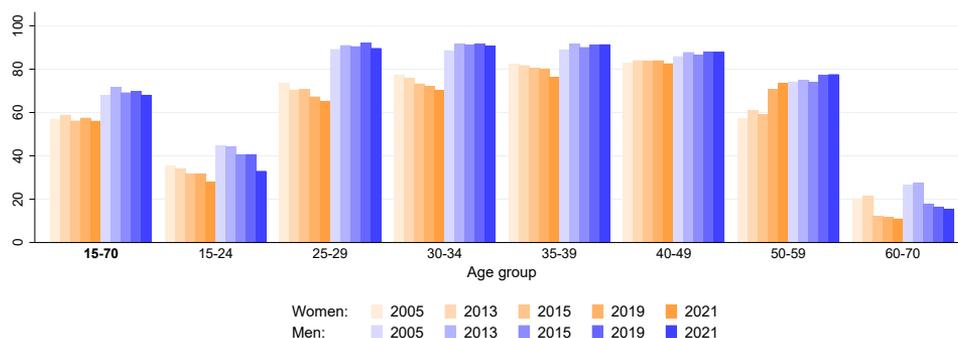
All this was registered despite an employment structure indicating a growing relevance of services, notably of retail trade in which women are more represented. The share of agricultural employment (17%) was still high by EU standards.

TABLE 1 OCCUPATIONAL STRUCTURE AND EMPLOYMENT BY SECTOR

	2001	2013	2015	2019	2021
Total employed (millions)	19.97	20.40	16.44	16.58	15.61
Employment rate (aged 15-70)	55.4	60.2	56.7	58.2	55.7
Employment rate (working age)	64.1	67.3	64.7	67.6	65.3
Unemployment rate (aged 15-70)	10.9	7.3	9.1	8.2	9.9
Unemployment rate (working age)	11.7	7.8	9.5	8.6	10.3
Employment by sector (% of total employment)	2001	2013	2015	2019	2021
Agriculture, forestry and fishing	21	18	17	18	17
Industry	22	16	16	15	15
Wholesale and retail trade; vehicles repair	17	22	21	23	23
Public administration and defence, mandatory social security	6	5	6	5	6
Education	8	8	9	8	8
Other sectors	26	31	31	30	31

Note: The definition of working age in SSSU labour force surveys has changed during these years. Pre-2012, it was women aged 15-55, men aged 15-59. In 2013 it was women aged 15-56, men aged 15-59. In 2015: women aged 15-58, men aged 15-59. In 2019 and 2021, it was all people aged 15-59. For 2013, the figure on total employed includes Crimea, while rates and sectoral statistics do not (data not available). Data for 2001 are based on the previous classification of economic activities in the European Community (NACE).

FIGURE 1 LABOUR FORCE PARTICIPATION RATE, BY SEX AND AGE GROUP (%)



Note: The year 2005 is reported because it is the first one in which the present breakdown by age was used.

An ageing population and a very low fertility rate were inducing a fall in the working age population and putting pressure on the predominantly pay-as-you-go pension system. Immigration was not sufficient to compensate for the decline in the resident population. Since 2005, Ukraine was losing on average about 200,000 persons per year – the equivalent to a medium-sized town disappearing from the landscape every twelve months. This is a considerable amount of people if we consider that, as of the end of 2021, the population of Ukraine was estimated at 41.2 million persons.³

The COVID-19 pandemic exacerbated these structural problems. The pandemic-related restrictions imposed in 2020-2021 on trade, transport and services, as well as the uncertainty over the spread of contagion, induced strong declines not only in the demand but also in the supply of labour. The initial impact of the pandemic was more on participation than on unemployment. Among the factors inducing a decline in labour supply were that (1) individuals not to not work did not return to their previous employment after the quarantine restrictions were lifted, and (2) temporal limitations on public transportation made it almost impossible to search for another job at some distance from home.

In this context, a further reduction of labour force participation of women was observed. Two key factors seem to have been behind this development: (1) the concentration of employment losses in women-dominated occupations in services, and (2) the fact that the burden of care for young children (most kindergartens and schools were closed) disproportionately fell on mothers. This would explain the dramatic fall of female participation in the 25–29, 30–34 and 35–39 age groups, while the rates for similarly aged men groups remained stable or even slightly increased (Figure 1).

The impact of the pandemic on employment was, as in most OECD countries, mitigated by the expansion of remote working. Short-time work schemes were also used, but much less so than in OECD countries. At the same time, the informal sector failed to provide alternative employment opportunities to displaced workers, unlike in previous recessions where the shadow economy had operated as a kind of automatic stabiliser. Indeed, the pandemic affected the informal sector more than the formal sector, leading to a decline in the shadow employment rate (the share of informal employment in total employment) (see Table 2).

Incomes of displaced workers were supported by increased coverage and duration of unemployment benefits, which were extended to workers who had not been paying social security contributions as they were previously working in the informal sector. New transfers to employers and to the self-employed were introduced to keep businesses afloat. Pensions were increased, contributing to further to the decline in labour force

3 These estimates are based on the latest available Census, which was conducted in December 2001, i.e. 20 years ago. Census data have been updated with administrative data on births, deaths and registered migration.

participation experienced by Ukraine since 2019. Effective labour supply was also reduced by a relatively long duration of unemployment, notably in urban areas (Table 3). This, together with the job reallocation caused by the recovery from the COVID-19 crisis, created serious bottlenecks in the labour market.

TABLE 2 INFORMAL EMPLOYMENT AND THE SHADOW RATE, AGES 15-70

	2013	2015	2019	2021
Informal employees (% of total employed) (1)	8.1	12.6	9.6	8.3
Informal self-employed (% of total employed) (2)	15.5	13.6	11.3	11.0
Shadow rate (1+2)	23.5	26.2	20.9	19.3

Note: The shadow rate is defined as the ratio of informal over total employment.

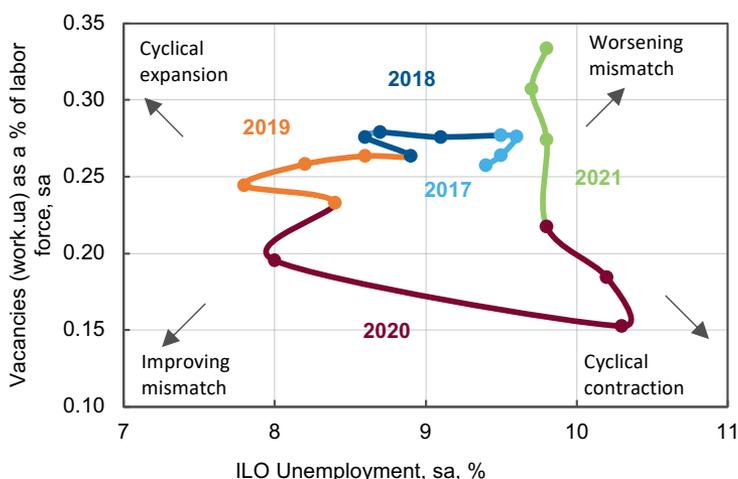
TABLE 3 UNEMPLOYED POPULATION AGED 15-70, BY SEX AND TYPE OF AREA, 2020

	Total	Females	Males	Urban	Rural
Unemployed population (thousands)	1,674.2	763.2	911.0	1,101.0	573.2
By duration of job search (%)					
Up to 1 month	12.6	11.2	13.7	11.5	14.6
From 1 to 3 months	22.0	21.3	22.5	19.5	26.8
From 3 to 6 months	27.3	27.4	27.3	27.1	27.8
From 6 to 9 months	10.6	11.8	9.5	10.9	9.9
From 9 to 12 months	6.3	6.8	6.0	6.8	5.5
12 months and more	21.2	21.5	21.0	24.2	15.4
Average duration of job search (months)	6	7	6	7	6

In 2021 firms faced labour shortages. A shift outwards of the Beveridge curve (Figure 2),⁴ with more unfilled vacancies at any given level of unemployment, was associated with an increase in wages, with nominal growth (18.2% year-on-year in January 2022, the latest available data) real growth (7.4% year-on-year) in wages largely outpaced developments in the previous years (National Bank of Ukraine 2022).

4 The Beveridge curve provides a graphical representation of the relationship between the unemployment rate and the job vacancy rate (the number of unfilled jobs as a proportion of the labour force). If the curve moves outward, a higher level of unemployment corresponds to any given level of vacancies. This implies decreasing efficiency of the labour market, likely caused by larger frictions in the matching of vacant posts and jobseekers.

FIGURE 2 BEVERIDGE CURVE FOR UKRAINE



Source: National Bank of Ukraine (2022).

3 THE LABOUR MARKET CONSEQUENCES OF THE WAR

Right after Russian missiles began to fall on Ukrainian cities and the invading armies crossed borders on the north, east and south of the country, life for more than 40 million Ukrainians changed drastically. Different surveys report that about one third of the population left their homes, migrating within the country or abroad.⁵ A large share of those who did not relocate lost their jobs. According to a poll by the Advanter Group conducted in early March, three out of four small businesses reported that they had completely halted their operations, and another 10% were operating at 10–30% of capacity.⁶ During the first weeks of the invasion, most local shops and markets in the endangered cities were closed. The situation with larger companies was slightly better because they have larger financial cushions and greater diversification on both the input and output side. A survey of large enterprises by the American Chamber of Commerce in Ukraine showed that only 12% discontinued operations in Ukraine in March.⁷

At the macro level, the most important change was once more not the increase in the unemployment rate but the dramatic fall in the labour force. With millions leaving the country, labour supply declined in some cases even more than labour demand. Even those people who remained in their homes were often unable to get to work. Also, the majority of people who lost their jobs were probably unable or unwilling (for example, due to safety

5 Figures range from 19% (https://ratinggroup.ua/research/ukraine/pyatnadcat_obschenaci_opros_ukraina_vo_vremya_voynny_zanyatost_i_dohody_23-24_iyulya_2022_goda.html) to 39% (https://gradus.app/documents/302/Gradus_EU_wave_10_ENG.pdf wave of the study).

6 Advanter, "Study of the state of SMEs" (https://res2.weblium.site/res/621f33197345110023320e26/628b39e6cfded0023850518_optimized_1087?nowebp, in Ukrainian).

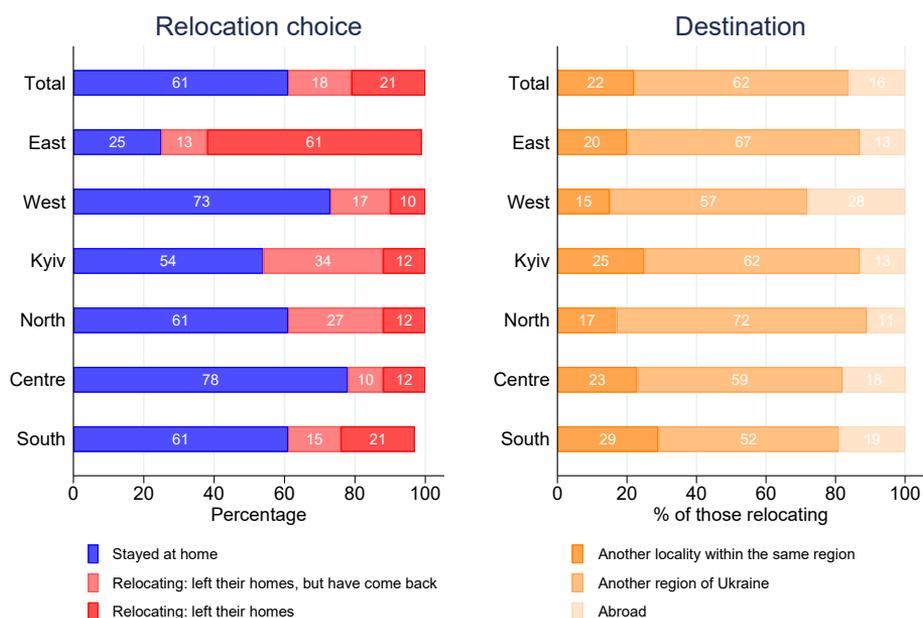
7 AmCham Ukraine, "Doing Business During War in Ukraine, week 4" (https://chamber.ua/wp-content/uploads/2022/03/Survey-Results_ENG_Doing-Business-during-War-in-Ukraine.pdf).

concerns, or setting up in a new place for internal and external migrants) to search for a new job, thus temporarily leaving the labour force. According to the July Rating Group survey, almost half of those who lost their jobs after the beginning of the full-scale war were not searching for a new one.⁸

3.1 Relocation of people

The full-scale invasion led to levels of migration not seen since World War II, both within Ukraine and abroad. According to the tenth wave of survey performed by Gradus in September 2022, 39% of respondents changed their place of residence (Figure 3).⁹ Of these, the largest share (62%) moved to another oblast,¹⁰ 22% moved within the same oblast (often from urban centres to nearby rural settlements in order to avoid air strikes on cities) and 16% moved to another country.

FIGURE 3 DECISION ON WHETHER AND WHERE TO RELOCATE



Source: Gradus.

8 Rating Group 15th national survey, "Ukraine during the war. Employment and incomes" (https://ratinggroup.ua/research/ukraine/pyatnadcat_obschenaci_opros_ukraina_vo_vremya_voynny_zanyatost_i_dohody_23-24_iyulya_2022_goda.html, in Ukrainian).

9 https://gradus.app/documents/302/Gradus_EU_wave_10_ENG.pdf

10 Oblasts are the first-level administrative divisions of Ukraine - the equivalent of regions (or provinces).

If the results of the Gradus survey are representative of the entire population of Ukraine, then currently there would be around 13 million people in Ukraine living in a different place than before the full-scale invasion.¹¹ Estimates from the United Nations High Commissioner for Refugees (UNHCR) of the numbers of internally displaced people (IDPs) are lower, but still at substantial levels – around 7 million Ukrainians would be involved.¹²

The Russian invasion of Ukraine has also caused the largest refugee crisis in Europe in more than 70 years. Since the end of February 2022, UNHCR reports 13.4 million border crossings from Ukraine and 6.3 million border crossings to Ukraine.¹³

Table 4 shows refugees from Ukraine recorded across Europe and bordering countries. Of them, more than 4 million (as of 30 September 2022) are currently registered for Temporary Protection or similar national protection schemes in Europe.¹⁴ This status enables them to choose their country of destination within the EU and to work immediately without any waiting period, unlike other refugees. This has allowed for further transnational mobility of Ukrainian refugees. Indeed, only about six out of ten refugees were planning to remain in the EU country that initially granted them asylum. About 10% of the refugees were planning to move to another host country (top choices were Germany and Canada) and another 15% were planning to return to Ukraine in the coming months, perhaps for family reunification. Among these, around 90% planned to return to the same oblast.¹⁵

Women and children represent around 90% of refugees.¹⁶ Four out of five refugees had to separate from at least one immediate family member who stayed behind in Ukraine. A substantial amount of human capital was involved in the displacement. Around half of refugees have completed their university studies and 25% have a vocational or technical education. Three out of four refugees were working before leaving Ukraine.

11 Responses are collected from towns with a population of 50,000 or more via an app that works on a smartphone; therefore, the respondents are not an exact snapshot of the population. The survey used only people aged 18 or over, but many families migrated with children.

12 <https://www.unhcr.org/ua/en/internally-displaced-persons>

13 This figure reflects cross-border movements, not individuals (source: <https://data.unhcr.org/en/situations/ukraine>).

14 Source: <https://data.unhcr.org/en/situations/ukraine>

15 These intentions are confirmed by more recent surveys such as Factsheet “Profiles, Needs & Intentions of Refugees from Ukraine”. They are based on 23,054 interviews conducted between May and mid-August 2022 by UNHCR and its partners in Belarus, Bulgaria, Hungary, Republic of Moldova, Poland, Romania and Slovakia. This was part of a “protection, profiling and monitoring” exercise to regularly collect and analyse data about the profiles, needs and intentions of refugees from Ukraine and to monitor changes over time (<https://data.unhcr.org/en/documents/details/95010>).

16 The data in this section are based on 4,900 interviews with refugees from Ukraine in the Czech Republic, Hungary, the Republic of Moldova, Poland, Romania and Slovakia between mid-May and mid-June 2022, complemented with seven focus group discussions conducted in Poland and Romania (<https://data.unhcr.org/en/documents/details/94176>).

TABLE 4 REFUGEES FROM UKRAINE, RECORDED BY COUNTRY

Country	Refugees	Country	Refugees
Albania	2,780	Latvia	38,915
Armenia	489	Liechtenstein	306
Austria	82,446	Lithuania	66,368
Azerbaijan	4,218	Luxembourg	6,561
Belarus*	14,219	Malta	1,518
Belgium	56,464	Montenegro	26,745
Bosnia and Herzegovina	231	Netherlands	79,250
Bulgaria	56,734	North Macedonia	5,817
Croatia	18,328	Norway	27,845
Cyprus	13,852	Poland	1,409,139
Czech Republic	439,043	Portugal	52,819
Denmark	35,193	Republic of Moldova	92,443
Estonia	57,257	Romania	80,498
Finland	38,588	Russian Federation*	2,772,010
France	105,000	Serbia and Kosovo	19,722
Georgia	26,135	Slovakia	95,375
Germany	997,895	Slovenia	8,171
Greece	19,413	Spain	144,668
Hungary	30,000	Sweden	45,895
Iceland	1,640	Switzerland	65,098
Ireland	49,999	Türkiye	145,000
Italy	170,646	United Kingdom	131,700
Total	7,536,433		

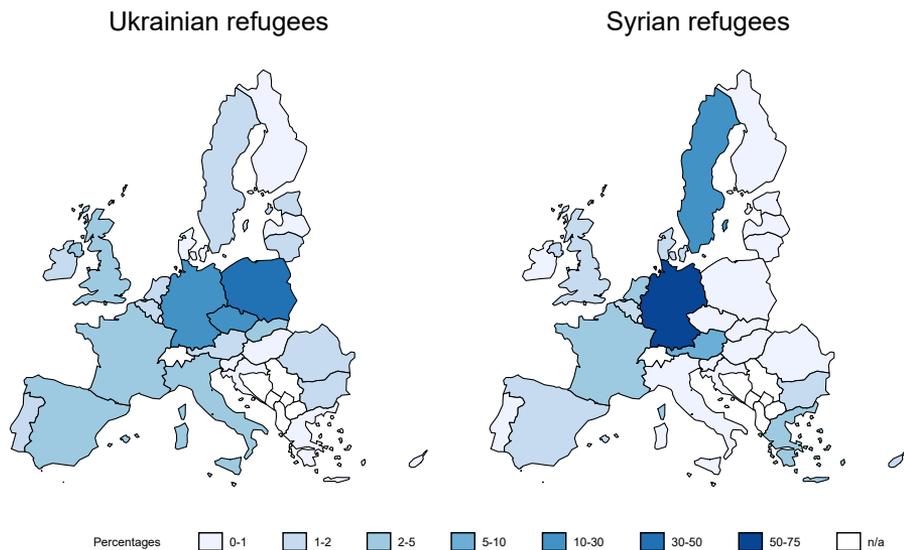
Notes: European and bordering countries are reported. For statistical purposes, UNHCR uses the term 'refugees' to refer to all refugees having left Ukraine due to the international armed conflict. However, we are aware that some of the refugees to Russia have been forcibly deported there (it is hard to tell their exact number, but it is probably in the hundreds of thousands).

Source: UNHCR, September 2022.

As stated above, under the Temporary Protection status, Ukrainian refugees are free to choose their country of destination within the EU. This was not the case for Syrian refugees in 2015 and the following years, when relocations were based on political willingness to accept migrants in different countries.

Figure 4 compares the destinations of Ukrainian and Syrian refugees in Europe. Darker areas denote concentrations of refugees in specific countries. The maps point to a more balanced geographical allocation of Ukrainian refugees. In the Syrian case, 60% of refugees went to Germany, another 11% to Sweden, 6% to Austria and 4% in France, Greece and the Netherlands. Thus, almost 90% of Syrian refugees were concentrated in six countries. In the Ukrainian case, concentration is mainly driven by geographical proximity to the country of origin, and about one third of the refugees are evenly spread across 24 countries.¹⁷

FIGURE 4 GEOGRAPHICAL CONCENTRATION OF UKRAINIAN AND SYRIAN REFUGEES IN EUROPE



Note: Comparison with EU countries (+UK), percentage of total refugees per category. For Syrian refugees, the reference year is 2021.

Source: UNHCR, September 2022.

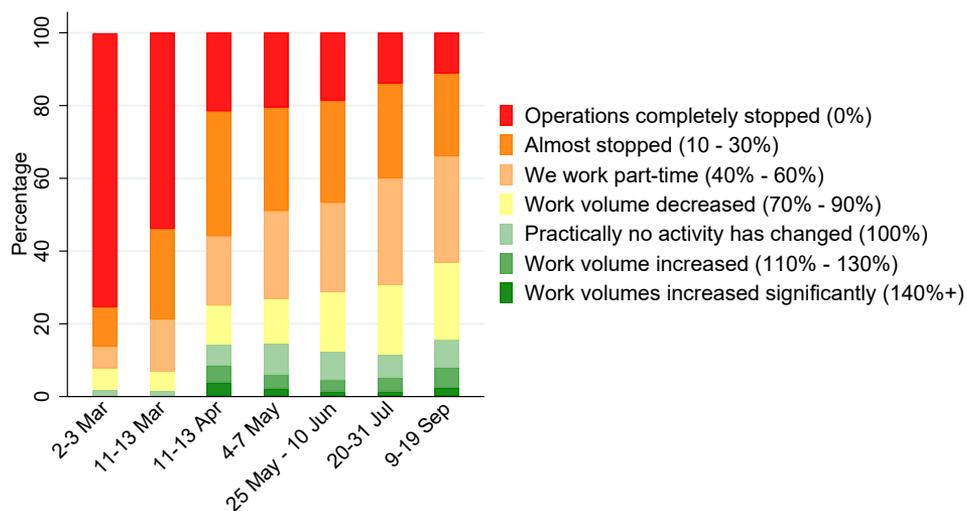
3.2 Relocation of firms

After the initial shock the situation started to gradually improve, but the speed of the recovery in different spheres was markedly uneven. New waves of the small and medium-sized enterprise (SME) polls conducted by Advanter suggest that by mid-March 2022 the share of completely stopped businesses had already fallen to 53%, and one month later to 21.6%. However, the recovery of employment has been far from full. In April, over a third (34.3%) of firms were working at 10–30% of capacity, and another 19.1% at 40–60%. The share of SMEs that were producing on the same scale or more than before the full-scale

¹⁷ As per UNHCR data, the total number of refugees from Ukraine relocating in the EU (+UK) is 4,331,735 while from Syria it is 1,031,904 (reference year: 2021). To grasp the magnitude of relocation, 1% of Ukrainian refugees is roughly equal to 4% of Syrian refugees in absolute numbers.

invasion was just 14.4%. Moreover, after an initial rebound, the situation from mid-April to July remained almost unchanged.¹⁸ Similar results are reported in a survey of SMEs by the European Business Association, which revealed that in March 42% of respondents had halted their work, decreasing to 17% in May and 16% in July.¹⁹

FIGURE 5 CHANGE IN THE STATUS OF BUSINESSES IN UKRAINE SINCE THE START OF THE FULL-SCALE INVASION



Source: Advanter.

Companies started to relocate their business. A survey of firms conducted at the beginning of July 2022 by Gradus showed that a third of all businesses have either fully (12%) or partially (20%) relocated or are about to relocate, and another 18% envisage relocating but have not started the process yet.²⁰

In most cases, the relocation of a firm does not coincide with the relocation of its workers. Most of the relocated businesses (72%) remained in Ukraine, the rest transferred their activity either fully or partially abroad – chiefly to Poland.²¹

The nature of the business is a key factor behind the choice of firms to relocate. Businesses in sectors such as IT and finance display a much higher share of relocations than retail, real estate or construction.²²

18 Another survey of SMEs in March-May presents similar results: only 21% of firms were operating at pre-war capacity, while 17% had completely halted their activities.

19 <https://eba.com.ua/wp-content/uploads/2022/08/1.png> (in Ukrainian).

20 https://gradus.app/documents/269/Gradus_Forbis_ENG.pdf

21 Another survey of SMEs found that as of early May, 71% of respondents remained in place, while the rest had either already relocated or were planning to (https://res2.weblium.site/res/621f33197345110023320e26/628b39e33ac0ae0022ed59fb_optimized, in Ukrainian).

22 https://res2.weblium.site/res/621f33197345110023320e26/628b39e0ae7d00238d2102_optimized (in Ukrainian).

3.3 Labour market tightness

The relocation of firms took place at the same time as some waves of return migration. Thus, the short side of the market became labour demand. As discussed in Section 1, before the full-scale invasion, the labour market was relatively tight due to the fall in participation and long-duration unemployment, and real wages had been growing significantly despite the global pandemic.

Since April 2022, the number of workers searching for a new job has increased much faster than the number of new vacancies. According to the job-seeking site grc.ua, which specialises in skilled/specialist labour, 12 people responded to each vacancy on the site on average in June 2022, which is four times more than in the same period the year before. Increased search intensity also allowed for faster filling of job openings. There is evidence that jobseekers have changed their attitude towards the job search process: fewer and fewer of them wait passively for an employer to pay attention to them, and instead increasingly use all available channels to signal their availability for work.

Due to the fact that many more women have migrated than men, and to a large extent abroad, some professions where jobs were traditionally chiefly held by women are in greater demand, especially in healthcare, retail and accounting. At the same time, there has been a huge drop in demand for jobs in entertainment (concerts, cinema, travel and hotels, etc.). There is no significant difference across genders in the share of people who have lost their jobs (40% for men versus 41% for women), but men are more actively searching for new jobs, possibly because non-employed women are often more involved in childcare and helping elderly family members.

According to a survey by Rating Group in July, among people who had a job before the full-scale invasion, 39% no longer work and another 19% are working remotely or partially.²³ This was the fifth wave of the survey, with previous waves conducted in March, April (two waves) and June. After the initial drop in the 'non-working' share from 53% in March to 39%, the share remained roughly the same from late April. The share of people who have lost their job is highest among low-wage workers (77%) and older workers (46% of those aged 51 and over), as well as among those who were forced to leave their homes (55%).

Examination of the geographical distribution of job-seekers reveals that the most affected regions are in the east and south of Ukraine, which is hardly surprising given that these regions are partially under Russian occupation or are part of the battlefield. However, even western regions of Ukraine, where no armed conflict has taken place except for air strikes, have a sizable share of people who have lost their jobs, and this share increased

23 https://ratinggroup.ua/research/ukraine/pyatnadcat_obschenaci_opros_ukraina_vo_vremya_voynny_zanyatost_i_dohody_23-24_izulya_2022_goda.html (in Ukrainian).

during the last wave of the survey in July 2022. Indirect effects of the war – for example, related to the breakdown of supply links and production chains, as well as a sharp change in the profile and magnitude of product demand – are likely to have played an important role in the nationwide rise in unemployment.

Unfortunately, wage data from the national statistical office are not available. However, we do have information from recruiting agencies about proposed wages from job offers and expectations of job-seekers.²⁴ According to the job-search website grc.ua,²⁵ in July–August 2022 average nominal wages remained almost the same as in the previous month and in the same month in 2021. However, the surge in inflation (in July inflation was at 22.2% on a yearly basis) implies a dramatic drop in real wages.

There is also considerable mismatch in the regional distribution of labour supply and demand. Relocations of both labour and businesses between oblasts usually were from all directions to western Ukraine as the furthest away from the frontlines. At the same time, according to the largest job-search site www.work.ua, most job-seekers are in the centre of Ukraine, rather than in the west.²⁶ A similar distribution is reported by www.grc.ua: Lviv oblast (the most populous of the western oblasts) had the second largest share of new vacancies after the city of Kyiv in June (13.6%), with up to two people applying for each vacancy in all western oblasts, compared to six per vacancy in Kyiv and 13–14 per vacancy in Zaporizhzhya and Kharkiv oblasts.²⁷

4 WHAT HAVE WE LEARNED FROM PREVIOUS CONFLICTS IN EASTERN EUROPE?

There are three key lessons for the reconstruction of Ukraine that can be learned from the experience of other Eastern European countries that have recently been involved in military conflicts.

Lesson 1: Displacement worsens labour market outcomes

The war in Bosnia and Herzegovina was one of the major conflicts in Eastern Europe in contemporary history. Between 1992 and 1995, it displaced 1.3 million people, 1.1 million of whom resettled after the conflict. Kondylis (2010) analyses the labour market outcomes of displaced workers and finds that they were less likely to be working relative to people who stayed. While displaced men experienced higher unemployment levels, displaced women were more likely to drop out of the labour force. This result is somewhat surprising as it was mainly the most skilled workers and those in better health who had left the country at the beginning of the war.

24 We must underline that the coverage of vacancy data is limited and job acceptance rates are measured based on subjective statements rather than actual work contracts.

25 <https://grc.ua/article/30669>, <https://grc.ua/article/30602> and <https://grc.ua/article/30725>

26 www.work.ua/news/ukraine/2158/

27 <https://grc.ua/article/30545>

Research on the labour market consequences of the Kosovo war can shed light on the mechanism behind the observed detrimental effect of displacement on labour market outcomes when a war is over (Trako 2018). Displaced men coming back from exile were less likely to be employed in the agricultural sector and to work on their own account, while displaced women were more likely to be inactive. Loss of assets (land, livestock, etc.) in an agrarian skill-based economy, as well as loss of social networks in an informal labour market, might have decreased the probability of finding employment relative to stayers. However, shortly after returning home, displaced men and women tended to moved off-farm, finding jobs primarily in the construction and public administration sectors.²⁸

Youth unemployment is a serious concern after a war. Fares and Tiongson (2007) examine early unemployment spells and their longer-term effects among youth over the period 2001–2004 in Bosnia and Herzegovina. They find that youth unemployment was about twice the national average and that younger workers were more likely to go into inactivity or unemployment and less likely to experience transitions out of inactivity, holding other things constant. Regardless of age, initial spells of unemployment or joblessness appear to have long-lasting adverse ‘scarring’ effects on earnings and employment.²⁹ Although higher educational attainment is generally associated with more favourable labour market outcomes, the penalty from jobless spells is higher for more educated workers.

A cross-country analysis by Ivlevs and Veliziotis (2018) confirms a significant long-term labour market disadvantage from forced displacement: people who fled conflict 10–15 years earlier are more likely to (1) be long-term unemployed, (2) have experienced a recent job loss and (3) work informally.³⁰ People affected by conflict (both displaced and non-displaced) are more willing to acquire further education and training. These results are not uniform across demographic groups, however: displaced women consistently experience a greater labour market disadvantage than displaced men, and younger people (aged 18–34) affected by conflict are particularly keen to acquire extra education and training. Overall, the results in Ivlevs and Veliziotis (2018) highlight a long-lasting vulnerability of the forcibly displaced.

Internally displaced people (IDPs) are a special case. Torosyan et al. (2018) focus on Georgia, which experienced a large flow of internal migrants from the early 1990s until now. They find that labour market outcomes for IDPs are much worse than those for local residents. IDPs are 3.9–11.2% less likely to be in the labour force, depending on the period

28 Related to this, Sanch-Maritan and Vedrine (2019) show that in Bosnia and Herzegovina, conflict-induced displacement of agricultural households dramatically affects the adoption of new technologies in agriculture: displaced workers are less likely than stayers to adopt fertilizers and pesticides. The authors speculate on two possible mechanisms that link forced displacement and technology adoption. The first is behavioural factors, such as risk aversion. The second was the effect of the war on land ownership regimes. Displaced people find themselves caught in an ‘institutional poverty trap’, because their return threatens the unity of the new territories built on ethnic affiliation. Their future is very uncertain because, on the one hand, they farm land without property rights, and on the other hand, they cannot go back to their old property. This legal framework fosters legal insecurity and inhibits legitimate investment

29 See papers from the EXCEPT project on the impact of youth unemployment on subsequent lives at <https://www.except-project.eu/publications/>.

30 Data are from a survey conducted in 2010.

and duration of IDP status. IDPs are also up to 11.6% more likely to be unemployed, even 20 years after forced displacement. Those residing in a locality for more than five years ('protracted displacement') earn persistently lower wages than local residents with similar characteristics. This gap widens over time, reaching 11% in the last period under analysis. Without active policies aimed at the improvement of labour market outcomes of IDPs, there is no evidence of an improvement in outcomes in the long run. In the Ukrainian context, Vakhitova and Iavorskyi (2020), in a study of Luhansk and Donetsk oblasts after 2014, document that displacement has been associated with a large gap in terms of employment for both genders. After controlling for personal characteristics, the structure of the household, its location, non-labour incomes and endogeneity of displacement, they observe that the heads of displaced households are 20% less likely to be employed two years after resettlement.

The literature review on job interventions for refugees and IDPs by Schuettler and Caron (2020) identifies as specific challenges the loss of assets and separation from family members, the lack of skills required by the host labour market, the impact of forced displacement on health and economic behaviour (in terms of prospects and aspirations, risk-aversion and time horizon), the legal situation, a lack of social networks and discrimination, as well as a high likelihood of excess supply in the labour market at destination. The authors point to the importance of conducting thorough assessments of both the demand and supply side of the labour market, including the legal situation of those forcibly displaced and their perceptions and aspirations, before designing interventions. Making up for lost assets through cash injections seems particularly important, together with other interventions that tackle specific challenges that refugees and IDPs face. Changing when and how the right to work, residency status and freedom of movement are granted has important impacts on labour market outcomes. Intensive coaching and individualised assistance seems to help with matching.

Lesson 2: Wars generate large losses of human capital

The intensity of war has deep and long-lasting effects on educational attainments. Swee (2015) finds that in the context of the 1992–1995 civil war in Bosnia and Herzegovina, cohorts that endured greater war intensity were less likely to complete secondary schooling (but not primary schooling). These effects are much stronger for males than for females. Drafted male cohorts experience a deterioration in their physical and mental health relative to female and non-drafted cohorts, suggesting that military drafts may play an important role.

Focusing on the same conflict, Eder (2014) studies the effect of forced migration of parents on investment in their children's education years later. In comparison with households who did not have to move because of the war, displaced parents spend between 20% and 30% less on the education of their children in primary and secondary school. The result also holds for one-time expenditures on things such as textbooks, school materials and

tuition in secondary schools. Differences in income and the stock of durable goods can explain at most one third of the gap in spending. Other potential explanations for the reduced spending of displaced parents on education include altered preferences through exposure to violence, increased uncertainty about the future, and financial constraints.

Similarly, Efendic et al. (2022) find that individuals with greater exposure to conflict exhibited systematically worse educational performance and lower earnings two decades after the war. Their results also indicate that those who left the country and have since returned have significantly higher incomes and educational attainment, compared with those who did not move. Internal migrants, on the other hand, did not have different educational or income outcomes than those who remained in place throughout the conflict. Those who moved abroad benefited from additional educational and work opportunities. However, when voluntary migrants and those who were forced to move are separated, the latter have lower levels of income and educational achievement. It appears that the additional educational and labour market opportunities abroad could not fully make up for the disadvantages of forced displacement.

These detrimental effects of war on education have also been documented for other historical episodes. As Ichino and Winter-Ebmer (2004) point out, an important component of the long-run cost of a war is the loss of human capital suffered by children who receive less education. In the context of World War II, Austrian and German individuals who were aged ten during the conflict, or were more directly involved through their parents, received less education than comparable individuals from non-war countries, such as Switzerland and Sweden. They also experienced a sizable earnings loss 40 years after the war, which can be attributed to the educational loss caused by the conflict and imply significant consequences in terms of loss of GDP.³¹

Gorodnichenko et al. (2022) study the effect of war on a country's human capital and outline the key directions for rebuilding human capital in Ukraine: quantity and quality of schooling for children, quality of higher education, training and retraining programmes for adults, assistance for people with disabilities, post-deployment reintegration into the civilian sector, population growth and fertility, and promotion of self-motivating mechanisms.

Lesson 3: Conflict has long-lasting effects on both physical and mental health

Zilic (2018) analyses the health consequences for females of forced civilian displacement that occurred during the Serbo-Croatian conflict in 1991–1995. During that period, a quarter of Croatian territory was ceded, 22000 people were killed and more than half a million individuals were displaced. Unsurprisingly, results indicate that various

31 For an analysis of the consequences of shocks to human and physical capital on the creation of scientific knowledge, see Waldinger (2016)

dimensions of measured and self-assessed health are adversely affected by displacement. In terms of latent health, there is a positive selection into displacement: faced with armed conflict, individuals with better latent health, conditional on age and education level, were more prone to move.

Focusing on the 1992–1995 Bosnia and Herzegovina conflict, Shemyakina and Plagnol (2013) find that individual war-related trauma has a negative, significant and lasting impact on subjective wellbeing (the effect is stronger for those displaced during the war), while Bratti et al. (2015) show that six years after the conflict, war-traumatised individuals were 60% more likely to be at risk of depression and have worse labour market outcomes.

In the Ukrainian context, Coupe and Obrizan (2016) study how war affects happiness and find that the average level of happiness declined substantially but only in areas that experienced war directly, with the drop being roughly comparable to the loss of happiness a relatively well-off person would experience if he or she were to become a poor person. Osichuk and Shepotylo (2020) investigate the contemporaneous effect of conflict on civilians living outside of the conflict zone and find that in Russia and Ukraine over 2012–2016, the conflict significantly worsened financial wellbeing, mostly by worsening expectations, and that this is inversely related to the distance from the conflict zone. Their analysis also indicates an increase in chronic diseases in Ukraine over a longer period, while mental health was negatively impacted in both countries at the earlier stages of the war. However, in Russia this effect was significant only in the region bordering the conflict zone, while in Ukraine it was significant in regions farther away from the conflict zone.³²

These findings are consistent with evidence on other major armed conflicts. Kesternich et al. (2014) investigate the long-run effects of World War II on socioeconomic status and health of older individuals across Europe. Exposure to war and, more importantly, to individual-level shocks caused by the war significantly predicts economic and health outcomes at older ages: it increased the probability of suffering from diabetes, depression, and, with less certainty, heart disease, so that those experiencing war or combat have significantly lower self-rated health as adults. Experiencing war is also associated with less education and life satisfaction and decreases in the probability of ever being married for women.

Other lessons

Another fundamental channel through which conflict impacts labour market outcomes is its longer-term impact on firm performance and local economic development. Petracco and Schweiger (2012) explore the short-run impact of armed conflict on firms' performance and their perceptions of the business environment, focusing on the August 2008 conflict

32 For the analysis of the effect of the Russian invasion from 2014 to February 2022, see also Aslund (2018), Melnyk et al. (2019), Havlik et al. (2020) and Kharitonov (2020).

between Georgia and Russia. Despite its relatively short duration, this armed conflict had a significant and negative impact on exports, sales and employment for at least a subset of firms. Perceptions of some obstacles to the business environment were also affected, but not necessarily negatively. Young firms can experience a scarring effect from conflict, which may lead them to close down prematurely. Small, young firms may find it more difficult to deal with the aftermath of an armed conflict than large, established firm; they are likely to have fewer suppliers or customers and have less experience in dealing with an adverse business climate, and may not be aware of remedial measures available from institutions. What happens to them can have important consequences – several studies (e.g. Haltiwanger et al. 2013, Criscuolo et al. 2014) show that young firms contribute substantially to job creation.³³

On institutional trust, Alacevich and Zejcirovic (2020) investigate the effect of violence against civilians on voting, using data from elections in Bosnia and Herzegovina between 1990 and 2014 and exploiting variation in war intensity. They estimate a negative impact on voter turnout that persists for more than 20 years. Violence against civilians drives this negative effect: respondents in more affected municipalities report lower generalised trust, trust in institutions and voting.

5 BUILDING A BETTER LABOUR MARKET

In this section, we discuss policy options for a recovery of the Ukrainian labour market. Consistent with the other chapters in this book, the underlying assumptions are that the war is over, security issues have been sorted out, a long-lasting peace is on the horizon and Ukraine is a candidate for EU membership. In our scenario, the western part of Ukraine – notably its rural areas – are largely spared from the war destruction. Clearly, these policies will have to be enforced by a sufficiently efficient state machinery. This is why the prospect of EU entry is very important. It can be a powerful tool to set up systematic technical assistance, and also indirectly induce an improvement in the quality of Ukrainian institutions. This is essential for the success of the strategy outlined below also from the standpoint of societal involvement in the reconstruction. As argued by Justino (2022) based on evidence from other wars, the economic, social and political recovery of Ukraine will be dependent not only on reconstructing markets and infrastructure, but also on ensuring that social cohesion and trust in institutions are rebuilt so that any post-war government is able to succeed in maintaining a united population.

33 On the impact of war on later economic development, somehow optimistically, it is worth citing Miguel and Roland (2011). They investigate the impact of US bombing in Vietnam (the Vietnam War featured the most intense bombing campaign in military history and had massive humanitarian costs). Comparing heavily bombed districts to other districts, controlling for local demographic and geographic characteristics and using an IV approach exploiting distance to the 17th parallel demilitarized zone, US bombing did not have negative impacts on local poverty rates, consumption levels, infrastructure, literacy or population density through 2002. This finding indicates that even the most intense bombing in human history did not generate local poverty traps in Vietnam – that is, situations in which people who are poor are unable to escape from poverty. However, as Dell and Querubin (2018) point out, bombing increased the military and political activities of the communist insurgency, weakened local governance, worsened attitudes toward the US and South Vietnamese government and reduced non-communist civic engagement.

A rebound in economic activity should be expected at the end of the war. As reported by Hoeffler (2012), there is strong evidence that countries experience higher-than-average growth rates once a war is over (the ‘peace dividend’). Hoeffler finds that the economies of countries involved in conflict grow by about 1.6% less per year on average than peaceful states, but once the war ends their economies rebound. However, it takes more than 20 years on average for these economies to revert back to pre-war trend levels. Labour markets in this context need to be sufficiently flexible to reduce potential bottlenecks in the recovery and, at the same time, offer incomes to groups that presumably will find it hard for quite a long time to have stable employment. This means having a better labour market than before the war and an encompassing safety net.

There are four main sets of policies to be pursued in the years to come to rebuild a better labour market:

1. investing in human capital for the future (remedying gaps in educational attainment in schools and offering retraining to job losers);
2. making better use of existing human capital, increasing labour force participation of women and tackling youth unemployment among internally displaced workers;
3. protecting the most vulnerable groups in a sustainable fashion; and
4. promoting a return of ideas if not of persons, by involving Ukrainian refugees in job creation.

5.1 Investing in the future human capital

The pandemic and the war have created huge **gaps in educational attainment**. Schools were closed during the lockdown, resorting at best to distance learning. Right after the Russian invasion, most schools were closed nationwide. On 25 February, the Ministry of Education recommended that all educational facilities go on a at least two-week break.³⁴ Then the ministry recommended either shifting to online/remote teaching or continuing the break. Reopenings were mainly in the form of distance learning. The majority of schools and universities chose remote teaching if they were relatively safe (missile strikes were in all regions, so in-person studies were discouraged even far from frontlines). Most schools and universities finished the academic year 2021–22 online, while those in the newly occupied territories were still on a break (the chapter in this book on education by Martin Kahanec and co-authors provides more detail on this).

The situation has only partially improved in 2022–23. The external final exams (similar to the SATs in the United States) guiding enrolment to tertiary education were carried out later than usual. Since many potential new students are IDPs or refugees abroad, several waves of the test were organised, shifting the beginning of the 2022–23 academic

34 <https://mon.gov.ua/ua/news/sergij-shkarlet-vsime-zakladam-osviti-rekomendovano-pripiniti-osvitnij-proces-ta-ogolositi-kanikuli-na-dva-tizhni> (in Ukrainian).

year for first-year students by one month. The situation is more serious in schools. Schools that have shelters and are far from frontlines started to work in-person at the beginning of September 2022, with parents allowed to choose if their child would go into school or study remotely. In the occupied territories, Russia actively promoted a shift to the Russian curriculum, including importing both textbooks and teachers, but no school successfully reopened on 1 September 2022.³⁵ Thus, for some students, gaps in educational attainment can extend well beyond the loss of one year of teaching. Remedying these gaps in education accumulated in the last three years should be a priority matter for the reconstruction of Ukraine. Moreover, it is of foremost importance to improve not only the quantity but also the quality of education (Heckman 1998, 2006, Hanushek and Woessmann 2016).

There are a variety of methods to provide **remedial education** to students left behind by the two shocks that have dramatically hit the school system in Ukraine. Angrist et al. (2022) list some of these: (1) opening classes for Ukrainian refugees in selected schools in neighbouring countries, as well as expanding schools in parts of Ukraine where many internally displaced families have moved; (2) provide online, by-phone, or in-person tutoring possibly drawing also on the experience of the Ukrainians teachers who have left the country during the war; (3) adapt curricula – including providing tablets and online textbooks in Ukrainian – in countries receiving refugees so that a large number of refugee children can regain access to standard schooling.

Online remedial education can be a key driver of students' learning engagement. As suggested by Werner and Woessmann (2021), for this to be possible it is fundamental that all children have access to adequate digital devices and a good internet connection at home. The same is true for teachers, who may require some training. While online teaching is unlikely to fully substitute for in-person teaching, the daily interaction can better protect children's cognitive and socio-emotional development than pure self-studying. In addition to remedial education in schools, two further measures that have been shown to be quite effective in reducing gaps in educational attainments are tutoring and mentoring. Tutoring works better when carried out by educators or other professionals, and at early ages (Nickow et al. 2020). Ukrainian refugees abroad, including a large share of teachers, can contribute greatly to this mission.

Retraining of job losers is also a very important component of investments in human capital. The large-scale displacement suffered by the Ukrainian population has destroyed millions of jobs. In the post-war economy, some jobs will come back but a significant fraction of them will disappear and be replaced by new jobs. Construction, civil engineering, health and information technology will likely be the key industries offering jobs in the post-war economy. Major investments will be required in physical

35 <https://sprotyv.mod.gov.ua/2022/09/02/shkoly-bez-ditej-okupanty-provalyly-pershe-veresnya/> (in Ukrainian).

capital, residential building and infrastructure (Blinov and Djankov 2022).³⁶ The decline in agricultural employment will likely continue, creating hardship for those who have moved to rural areas during the war and resorted to subsistence agriculture to cope with the crisis. The only exceptions to this mass job destruction will be agricultural export industries.

Making the best use of human resources in this context implies retraining job losers. The Ukrainian government has set aside a budget and put in place a framework for training for blue-collar jobs, but implementation will be difficult and with growing demand for skilled professionals, much more should be done.³⁷

Investment in human capital beyond the school system can also be encouraged with fiscal as well as non-fiscal incentives (e.g. Heckman 1998).³⁸ Self-incentives could be amplified by easier access to retraining, improved working conditions and other mechanisms that enhance quality of work.

5.2 Increasing labour market participation of women and tackling youth unemployment

One of the ways to compensate for the loss of displaced workers and the loss of human capital involved by the refugee crisis is to increase labour market participation. In particular, women's participation should be encouraged by adopting employment-friendly family reconciliation policies. These policies were undersized in Ukraine before the war and were largely oriented towards informal childcare, allowing women to take up to three years of maternity leave.³⁹

To encourage **women's participation in the labour force** and at the same time support childbearing, the priority should be shifted from direct payments to parents providing informal care to creating a government-sponsored childcare infrastructure. Currently, there is a substantial deficit in childcare facilities in the main urban centres and satellite towns because in the last 30 years a lot of residential housing was built, but much less related social infrastructure. The reconstruction of the real estate should involve the creation of kindergartens and maternity schools.

This emphasis on formal childcare is a major turning point with respect to policies implemented in the past. For instance, one of the many promises of Victor Yushchenko's presidential campaign of 2004 was to significantly increase transfers to families that have a child. These policies seem to have had some effect on fertility but, as we have

36 <https://kse.ua/about-the-school/news/direct-damage-caused-to-ukraine-s-infrastructure-during-the-war-has-reached-over-105-5-billion/>

37 <https://zakon.rada.gov.ua/laws/show/2312-IX#%23Text>

38 Becker et al. (2020) study the long-run effects of forced migration of Poles after World War II on investment in education and find that Poles with a family history of forced migration are significantly more educated today than other Poles. The authors argue that these results are driven by a shift in preferences away from material possessions toward investment in human capital.

39 Source: Закон України Про відпустки - art. 18.

seen, they have not increased labour force participation of women; if anything, they contributed to its decrease. The trend in OECD countries is for a positive correlation between fertility rates and women's labour force participation. It is important that Ukraine's reconstruction moves in this direction, exploiting the experiments carried out in Europe with work and family reconciliation policies.

The experience of other countries involved in conflicts also suggests that **youth unemployment** may be a serious concern in the reconstruction of the Ukrainian labour market. Here, the main challenges relate to the obsolescence of skills learnt during formal education and matching frictions in a poor working labour market. A careful exam of school curricula, notably in vocational education, is warranted to improve the marketability of skills acquired in schools. Providing tertiary education opportunities involving training both within formal education structures and in firms, along the German *Fachschule* tradition, is another route to be explored (more on this in the chapter on education). As to matching frictions, policies should be tailored to youth. Indeed, growing youth unemployment has been a key issue in many countries in the aftermath of wars also because of their difficult labour market integration.

Coping with **internally displaced people** (IDPs) will be one of the major challenges for post-war Ukraine. International experience offers important insights regarding measures that could reduce unemployment among them IDPs. Here we draw on the comprehensive review of the existing literature on job interventions for refugees and IDPs by Schuettler and Caron (2020). To overcome liquidity constraints and the loss of assets linked to forced displacement, interventions that provide displaced people with financial capital may help.⁴⁰ These might be of two types: repeated (conditional or unconditional) transfers or one-shot grants or credits. The evidence on transfer programmes suggests that they reduce poverty and increase spending on basic needs. The impact seems similar for cash, voucher or in-kind food transfers, but cash gives more flexibility. It allows displaced people to save or to invest in education, which improves future job prospects. Repeated transfer programmes do not seem to have a positive impact on adult employment, while they might give displaced people some stability to search for better jobs.⁴¹ One-off grants or asset transfers have partially different goals: helping refugees and IDPs in overcoming the loss of assets, easing access to credit and supporting them in starting their own business or becoming self-employed. This plays a role especially when local labour markets are not able to absorb the labour supply shock linked to the arrival of forced

40 Currently, the government pays 2,000 hryvnia per adult IDP and 3,000 hryvnia per child per month. This is the equivalent of US\$69 and \$103, respectively, at the exchange rate before the full-scale invasion of 24 February 2022 (the exchange rate hryvnia/US dollar was at 29.15 on 23 February 2022). These transfers are extremely low: pre-invasion, the minimum monthly subsistence per working-age adult was 6,032 hryvnia in January 2022.

41 Evidence, especially on Syrian refugees, points to an increase in reservation wages and higher minimum quality of jobs that displaced workers are willing to take.

migrants. These measures can have positive effects on income, but legal uncertainty and unclear future prospects may lessen the impacts. To fight poverty, a combined approach that includes grants, entrepreneurship training, financial inclusion for the extreme poor, and so on seems to work best.

Regarding human capital, training programmes can address the skills mismatch IDPs might face in the hosting labour market, although the evidence on programmes focusing only on skills is not very positive. In addition, displacement status brings with it other challenges that, along with the lack of demanded skills, should be taken into account: the legal framework for displaced, constraints to participation, or a possible need to change occupation or location shortly after displacement. Although rigorous evaluations are still lacking, investing in IT and coding skills seems to have positive effects in the context of IDPs. These are portable skills that offer a competitive salary, allow individuals to work remotely with only the need for a computer and internet connection, and are in high demand in high-income countries, with the possibility of telemigrating. To improve the matching between demand and supply of jobs, job search assistance can help forced migrants to overcome informational asymmetries and the loss of social networks linked to displacement. Evidence on refugees in high-income countries suggests that matching programmes have positive effects on employment when job opportunities exist. However, these services cannot replace private networks; rather, they should support their reconstruction. The more intensive and individualised the better, but of course in turn these tend to be more costly.

Concerning subsidised employment in the private sector, offering wage subsidies for IDPs and refugees seems to increase short-term employment, but longer-term impacts are less clear. With regards to public sector employment, labour-intensive public work programmes have been frequently used – especially in low- and middle-income countries – to meet both the urgent need of the workforce in the aftermath of a shock (e.g. a natural disaster) and the need to provide income and employment to displaced people. They can potentially have important positive short-term effects on income, assets and consumption, but over the longer term they may distort the labour market, crowd out regular employment and reduce the subsequent likelihood of employment. With the massive destruction of cities and infrastructures caused by the Russian invasion, and the consequent need for a reconstruction workforce, public work programmes can play an important role in sustaining the participation of IDPs in the labour market. However, they should be tailored very carefully, given also the demographic profile of those forcibly displaced.⁴²

42 In June, the government adopted changes to the legislation that simplify hiring official unemployed for temporary public works, which mainly consist of removing rubble on sites that were bombed, construction of protective structures, and similar activities. This temporary work is paid at the minimum wage rate (6,500 hryvnia per month) and refusal to take the work leads to the cancellation of unemployment benefits. Bearing in mind that such a job often requires physical fitness and the payment is rather low, such practices are not well thought out.

In terms of interventions indirectly linked to improving the job prospects of displaced people, psychological support will be crucial to prevent mental health issues due to displacement impairing the ability of forced migrants to participate in the labour market. Together with this, a legislative effort should be made to assure that the legal framework – both national and local – will not be an obstacle to the integration of IDPs and returning refugees.

Policymakers should also be aware of the other side of the coin: receiving communities. The existing evidence on the impact of refugees in destination countries does not apply to intra-Ukraine displacement – a reinforced national identity, lack of a language barrier and widespread solidarity should mitigate many of the problems that emerged elsewhere. However, it is still important to note that there will also be some repercussions on that front. The analysis by Morales (2018) of the Colombian civil war suggests that a conflict-induced increase in labour supply decreases wages in the short run, but subsequent out-migration of local workers helps to mitigate these effects. The wage effect persists only for low-skilled women, suggesting the vulnerability of this group to the arrival of forced displaced people. On the same conflict, Calderón-Mejía and Ibáñez (2016) show that internal migrations substantially reduce wages for urban unskilled workers who compete for jobs with forced migrants. Thus, an emphasis on job creation will be fundamental for a positive integration of IDPs and local communities.

In order to face potential labour shortages, notably in the construction sector, Ukraine might also want to attract migrants from abroad. Before the full-scale invasion, there was a net inflow of migrants to Ukraine averaging 17,500 per year since 2005. This was not sufficient to offset the fall in the resident population, which averaged 237,500 over the same period. Ukraine was not a very appealing place to migrate to because there were more interesting alternatives on its eastern and western borders in terms of incomes per capita or social protection (in case of the EU). While its EU candidate status should boost Ukraine's attractiveness, low incomes may continue to be a significant deterrent to immigration.

Ukraine's status as an EU candidate and its defence of democratic values may also encourage immigration from those who oppose the current regimes in Belarus and Russia. Before the 2014 invasion, attitudes toward Russians were very positive in Ukraine: according to a KIIS regular survey in November 2013, 82% of respondents described their attitude towards Russia as "rather positive" or "very positive" and only 10% as "negative".⁴³ However, the full-scale invasion of 2022 has naturally led to notable worsening of attitudes. Now the absolute majority of the population supports closing the borders and the minimisation of contact with Russians and Belarussians.⁴⁴ Currently,

43 It is interesting to note that a similar survey in Russia by the Levada Centre between 2008 and 2019 consistently showed less favourable attitudes of Russian respondents with respect to Ukraine than of Ukrainians with respect to Russia (https://www.kiis.com.ua/materials/pr/20211217_stav/01.JPG).

44 Since 1 July 2022, Ukraine has a visa regime with Russia. So far, a visa-free regime has been preserved with Belarus to help Ukrainians who are fleeing occupied territories via Russia and Belarus, but essentially movement across the border with Belarus is closed.

there is a very strong negative sentiment towards residents of these two countries.⁴⁵ In this context, the Ukrainian government may wish to look to other countries as potential sources of migration. It is important to note that the recent popularity of Ukraine in the Western media may lead to an increase in the number of Western activists that visit the country. While in absolute terms their number will be small, their expertise and fresh views on many substantial issues can be a great boost to Ukrainians who work and study with them.

5.3 Helping the most vulnerable: Job losers, veterans and fragile and older workers

Bertheau et al. (2022), comparing the cost of **job loss** over three decades in Austria, Denmark, France, Italy, Portugal, Spain and Sweden, suggest that the labour market consequences of losing a job are vastly different across Europe. Scandinavian countries experience by far the lowest earnings losses: five years after job displacement, earnings of workers in Nordic countries are about 10% lower than pre-displacement levels. At the other extreme, those performing worst are workers from Southern European countries, whose earnings are around 30% lower. A large part of these differences is driven by dynamics at the extensive margin: around 20% of displaced workers from Spain, Portugal, and Italy are unable to find employment five years after job displacement, compared with only 5% in Sweden and Denmark. Interestingly, observed characteristics of workers and employers are not a source of difference in the cost of job loss. What seems crucial are labour market institutions: “a country’s overall spending on active labour market policies is a key factor in predicting earnings losses from job displacement”, while “other institutional factors, such as union coverage and employment protection legislation, have very limited explanatory power” (Bertheau et al. 2022). The findings of this study point to the serious consequences Ukrainian workers might face after the war. Many workers have lost their jobs and are thus at risk of permanent earning losses. Indeed, the Ukrainian labour market structure resembles more that of Southern Europe than of Scandinavian countries. To address this, the emphasis should be put on increasing the coverage of unemployment benefits and combining this with active labour market policies (public employment service, training, employment incentives operating in conjunction with unemployment benefits, etc.).

45 In the case of Russia, amplified by the fact that even anti-Putin Russians are often unconsciously imperialistically minded, following the narrative of ‘brotherly nations’ developed in the 19th century Russian empire and later adopted and promoted by the USSR. Since the state, Ukrainians have questioned this concept, but it is still a part of the historical narrative in Russia, so the majority of Russians never question it.

The full-scale invasion led to a surge in demand for **unemployment benefits** and placement services offered by the Public Employment Service. Expenditure for unemployment benefits contributed to widening the fiscal deficit to the extent that the government decided to set a cap on the level of benefits at 1.5 times the minimum wage.⁴⁶

Cutting benefits may move many potential workers from unemployment benefits to social assistance of the last resort, reducing their attachment to the labour force. A better strategy may be to reform unemployment benefits in such a way as to expand the scope of partial unemployment insurance, that is, measures enabling unemployment benefit recipients to combine benefits with low-income jobs and wage insurance (offering a temporary wage subsidy to workers changing jobs) (Boeri and Cahuc 2022). Clearly, setting up such schemes requires institutional capacity and resources. This is an area where technical assistance from the EU – and perhaps also temporary transnational funding – can be particularly important.

Properly designed partial unemployment insurance could also help in tackling **informal sector** employment. The informal sector tends to grow during periods of economic crises, including wars (Looney 2006). In fragile and conflict situations, for a large part of the population there is no other alternative to working in the informal economy to secure livelihoods. There are at least three reasons why Ukraine will probably follow this trend: (1) an increase in poverty and economic hardship will raise the incentive to evade reporting incomes; (2) the scale of internal forced migration may be associated with a rising shadow employment rate, as there is evidence that immigration is positively correlated with the size of the informal labour market (Bosch and Farré 2010); and (3) the weakening of institutions in charge of addressing informal sector employment, and shifts in priorities after the conflict, may provide a more favourable environment for the black (or grey) economy. Even if informal employment is not a first-order concern in the short term, we believe that, also given the prospect of joining the EU, efforts should be made to prevent informality from becoming widespread in the country. This would also improve the efficiency of the allocation of resources targeted to workers. To avoid encouraging flows of jobs to the informal sector, the administrative and tax burden on employment should be kept as low as possible. The links between contributions and coverage of social insurance (pensions and unemployment benefits, in particular) should also be made explicit in order to reduce the perceived tax burden on formal sector employment.

Regarding **labour taxation**, the total tax burden on labour is roughly in line with other European countries (Enache 2021). Currently in Ukraine, employees (except for several special categories) should pay from their gross wage 18% in personal income taxes, 1.5% in war tax and another 22% in social security contributions (SSCs). SSCs finance

46 According to the law, "[o]n changes to some legislative acts of Ukraine regarding some issues of the functioning of employment spheres and mandatory state social insurance in case of unemployment", a person can start receiving unemployment benefits after submitting (physically or online) requested documents (the number of which was reduced). While IDPs are eligible for benefits, and where they cannot supply some documents alternative sources are allowed (chiefly registers, for example in the tax service), people who have migrated outside and haven't returned within 30 days are not eligible.

a large number of social programmes and in particular state pensions. As of Q4 2021, there were 15.6 million working people in the country (based on the ILO methodology) and 10.8 million pensioners. Moreover, about one fifth of employees are in the informal sector and hence do not pay SSCs, and another 1.4 million are self-employed and paying lower SSCs (usually 22% of the minimum wage). All this makes it difficult to reduce taxes without reducing social protection. Additional fiscal revenues from progress in reducing the size of the informal sector – via tighter controls and a closer perceived link between contributions and social insurance – could, however, be explicitly allotted to reducing the tax burden on labour.

The number of **people physically injured during the war** continues to grow. While statistics on the emotional and mental impact of the war are scarce, the negative impact of war on overall health conditions goes well beyond physical injuries. Murthy and Lakshminarayana (2006), reviewing research findings on mental health consequences of war, find that among the consequences, the impact on the mental health of the civilian population is one of the most significant. Evidence points to a large increase in the incidence and prevalence of mental disorders.

Disability-inclusive infrastructure and workplace policies can empower and make it easier for people with disabilities to be part of rebuilding and development. The ICED (2019) offers an outline of the key challenges and opportunities in legislating for, designing and financing disability-inclusive infrastructure.

Particular attention should also be devoted to the reintegration of individuals serving in the Ukrainian armed forces or in other units involved in combat into civilian life after deployment, or for those who choose to return to civilian life. The **reintegration of veterans** requires tailoring occupational training and health programmes to the specific needs of the individuals who participated in combat activities (Angrist 1990).⁴⁷ Ukraine already has a Ministry of Veterans, similar to that in Croatia, and even before the full-scale invasion it had worked with over 400,000 of war veterans.⁴⁸ On 29 July 2022, the Parliament adopted a law that should help former military personnel to adapt to civil life.⁴⁹ The main idea is that the right to social and professional adaptation is now available to persons who are discharged from military service as well as family members of such persons, including family members of deceased war veterans.

47 See, for example, Dunigan et al. (2020) for a review and analysis of practices across US federal agencies.

48 <https://branitaelji.gov.hr/> (in Croatian).

49 <https://zakon.rada.gov.ua/laws/show/2488-20/print> (in Ukrainian).

Evidence, mainly from the United States, on the long-term consequences of war on veterans' labour market outcomes points to significant and persistent earning losses in the years that follow military service.⁵⁰ Many veterans have problems returning to civil life.⁵¹ As pointed out by Coupe and Obrizan (2016), the large number of suicides among Ukrainian soldiers suggests this is and will be an issue in Ukraine.⁵² Already in 2019, Ukraine was ranked 19th in the world for suicide rates, with 17.7 suicides per 100,000 people (age-standardised according to WHO data).⁵³ This problem will only get worse after the war.

As suggested by Demers (2011), communities play a fundamental role in the reintegration of veterans. She proposes three policy options that might benefit veterans: (1) support groups, so that veterans can share their stories and find psychological relief; (2) transition groups for families and friends of veterans; and (3) military cultural competence training for mental health practitioners (such as therapists, social workers and counsellors). The latter two suggestions are motivated by the need to inform about the unique needs of veterans and the best practices to cope with them. The experience of US veterans' associations can provide guidance here.

Concerning labour market policies, ad hoc measures that target veterans can help ease their reintegration. Again, most evidence is based on the United States. For example, Heaton (2012) finds that tax credits for disabled veterans have a significant effect in reducing their unemployment. Angrist (1993) shows how subsidised education and training can increase schooling and in turn earnings, with the effect concentrated on those who attended college or graduate school.

Regarding the current situation in Ukraine, some caveats apply: (1) exact numbers on combatants are secret, but the estimate of soldiers currently fighting for Ukraine is between 700,000 and one million, among which there have been 30–40,000 wounded and 9,000 thousands; (2) the combatants are a mix of conscripts and volunteers; (3) military veteran status may be tricky to define in some cases; (4) compared to other historical episodes, veterans will not 'come back home' to a 'normal' situation, but will also have to bear the difficulties linked to reconstruction.⁵⁴ The fact that the army involves many voluntary soldiers makes the reintegration easier, as suggested by international evidence. Angrist (1998), in particular, finds that volunteer soldiers who served in the early 1980s were paid considerably more than comparable civilians while in the military, and had higher employment rates after service. Problems in defining the status of veterans and the level of destruction of real estate in Ukraine make the issue more difficult to tackle.

50 See, among others, Angrist (1990) and, on the cost of conscription in the Netherlands, Imbens and Klaauw (1995). Even when, as in the case of World War II, veterans appear to earn more on average, this is due to non-random selection into the military, as shown by Angrist and Krueger (1994).

51 For example, 44% of post-9/11 veterans say their readjustment to civilian life was difficult, according to a survey made by the Pew Research Centre (www.pewresearch.org/social-trends/2011/10/05/war-and-sacrifice-in-the-post-911-era/).

52 <https://www.bbc.com/news/world-europe-60318298>; https://en.wikipedia.org/wiki/Suicide_in_Ukraine

53 Male: 32.7; female: 4.7 (https://en.wikipedia.org/wiki/List_of_countries_by_suicide_rate).

54 www.bbc.com/ukrainian/features-62635359

Finally, problems with the sustainability of the Ukrainian pension system suggests that **early retirement** is not an option to be used on a large scale to deal with job loss. For those workers who are close to the retirement age and whose skills are not required in the new labour market landscape, an extended duration of unemployment benefits could provide a sort of bridging scheme to retirement.

5.4 Promoting the return of ideas if not of people

Ukraine has suffered a major outflow of individuals during the war, and this loss may not be temporary as a large share of the persons involved do not appear to be planning to return home in the short run. The longer the active military confrontation continues, the larger the share of migrants getting acclimatised to their host countries, and hence the greater the risk that they remain there even after peace is established. A survey of migrants to Germany suggests that 90% of Ukrainian refugees want to get a job in Germany and 22% are already working or planning to start working in the near future. Even over a longer time horizon such as a two years, the majority of refugees are not planning to come back. As we have documented, Ukrainian **refugees** are young and relatively well educated. Shortages of workers are likely to arise especially in healthcare and in schools.

It is important to avoid double taxation of refugees. In the EU, there is generally a 183-day threshold (i.e. half a year) for residency, beyond which someone residing in another state can be recognised as a resident there and taxed. Ukrainian refugees are now exposed to this risk.⁵⁵ In order not to further burden refugees, who are already in a precarious situation, EU states should waive double taxation for the period of the war. This would prevent some refugees finding it convenient to move tax residence to another country. The issue of double taxation is particularly relevant for those who work remotely. However, the European Commission does not have much power in this regard beyond moral suasion over individual countries' decisions.

Even if many of the refugees do not come back after the war is over, there can be relevant interactions between Ukrainians abroad and the domestic labour force. Internet connections and geographical proximity with the country of destination significantly reduce the extent of the brain drain associated with the migration of skilled workers. The experience of refugees to Germany from former Yugoslavia is revealing in this respect. The largest increases in exports from former Yugoslavia were registered in sectors with the highest share of refugees who had left the country to go to Germany (Bahar et al. 2019).

55 www.dlapiper.com/fr/france/insights/publications/2022/09/tax-considerations-for-ukrainian-refugees-and-their-employers/

One of a few positive effects of the COVID-19 pandemic was a notable increase in the number of people working remotely. According to the job-searching website work.ua, the share of vacancies which allowed remote working increased from 3.4% in Q2 2019 to 6.4% in Q2 2020, and to 6.5% in Q2 2021.⁵⁶ With the start of the full-scale invasion, the share surged again, to 13.9% in Q2 2022 (albeit with a much lower absolute number of vacancies).

The low absolute number of vacancies for remote working led to a three-fold increase in the number of applications – from 31 per vacancy in Q2 2021 to 104 in Q2 2022.

Remote working can be a powerful tool to bring back to Ukraine some of the human capital lost during the conflict. In addition, remedial education to cope with the gaps in educational attainment generated by the war can be organised by drawing on the contribution of refugees, as a significant share of these are former teachers. In Italy, online tutoring programmes in which voluntary university students operated as tutors for disadvantaged middle-school students during the pandemic effectively raised participants' cognitive achievement, socio-emotional skills (SES) and psychological wellbeing, with effects being particularly strong for low-SES children (Carlana and La Ferrara 2021). Also, a low-tech intervention that sent SMS messages with basic problem sets to parents, supplemented by live phone calls from instructors, appears to have improved children's cognitive outcomes (Angrist et al. 2020). These examples demonstrate that help provided through remote tools can effectively mitigate some of the legacy of school closures on children's development.

6 CONCLUSIONS

The Ukrainian labour market not only needs to be rebuilt, it needs to be rebuilt better. The unprecedented challenges imposed by the reconstruction can only be faced by a better-functioning labour market. Millions of workers will need to change jobs. The matching of vacancies and job seekers will, in many cases, involve repeated changes of residence due to the destruction of the housing stock and the mismatch between the regional profile of worker displacement and of firm relocation inherited from the war. Former refugees, internally displaced people and war veterans, often injured and carrying with them the mental scar of the war, will have to be reintegrated in the labour market.

A significantly larger fraction of the working age population than before the war will have to be mobilised to avoid bottlenecks in the reconstruction of the country. Immigrants from other countries will also have to be integrated and involved in the reconstruction. In this chapter, we have offered an account of developments since the beginning of the full-scale war, drawing on all data sources that we were able to assemble. We have also reviewed the literature assessing the labour market experiences of other European

56 www.work.ua/news/ukraine/2172/ (in Ukrainian).

countries having gone through military conflicts in the recent past. Based on these facts and findings, we propose a set of policies that could be implemented, possibly with the technical support of EU countries that have longstanding experience with these measures. These policies aim at addressing pre-existing structural problems as well as the new challenges imposed by the war. There is no one single priority: it is fundamental for Ukraine to invest in future human capital, to increase labour force participation, to help the most vulnerable people and to somehow involve in its reconstruction the human capital that has migrated abroad.

These policies will require large budgetary outlays, especially for a country coming out of a war. Who should pay for these policies is a matter that European policymakers will have to address. One option is to reorient the windfall gains of countries like Norway and the Netherlands after the surge of oil and gas prices towards the reconstruction of Ukraine.

Concerning labour market policies specifically, a couple of remarks are in order.

A crucial distinction among the policies proposed is that between structural and one-off interventions.

On the one hand, we have proposed measures relating to the architecture of the future Ukrainian labour market institutions and welfare state, concerning for example partial unemployment insurance, employment conditional incentives and active labour market policies. These policies should be designed to be permanent, and thus financed over the long run by Ukrainian taxpayers in a sustainable way.

On the other hand, some measures proposed in this chapter will have to cover the period shortly after the end of the war and are intended to tackle the immediate issues arising in the labour market. Among these are public work programmes and the creation of an infrastructure allowing for a significant scaling up of remote working and distance learning. Indeed, some of these measures will need to be taken even before the war is over. Among these is remedial education to cope with the huge educational attainment losses experienced by many Ukrainian students first with COVID-19 and subsequently with the war. Programmes tailored to the specific needs of IDPs are also badly needed today, not just tomorrow.

These emergency programmes should be financed largely by instruments connected with EU accession, possibly by providing grants rather than loans. Apart from the EU Structural Funds, the temporary support scheme put in place to mitigate unemployment risks in case of emergency, SURE, can be mobilised. SURE is currently available for member states that need to mobilise significant financial means to fight the negative economic and social consequences of the COVID-19 pandemic. It provides financial

assistance up to €100 billion in the form of loans from the EU to address sudden increases in public expenditure for the preservation of employment.⁵⁷ In the context of the accession process, the scope of SURE can be extended to support efforts to rebuild a better Ukrainian labour market.

Progress made in implementing these policies will have to be constantly monitored and subject to rigorous evaluation. Substantial effort should therefore be made to ensure that Ukraine has a modern system of statistical monitoring of the labour market (existing data are not sufficiently detailed and harmonised). This would allow a more tailored and rigorous allocation of welfare transfers.

Ukraine has for centuries been the gate to Europe. The human capital that it gathers is an asset for the entire continent, and the preservation and enhancement of this human capital is a matter of priority and concern for the EU as a whole.

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57 https://economy-finance.ec.europa.eu/eu-financial-assistance/sure_en

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APPENDIX

TABLE A1 LABOUR FORCE PARTICIPATION RATE BY SEX AND AGE GROUP (%)

	2005	2013	2015	2019	2021
Total					
15-70	62.2	65	62.4	63.4	61.8
15-24	40.2	39.3	36.3	36.2	30.6
25-29	81.4	80.8	80.8	80	77.7
30-34	82.9	83.9	82.3	82	80.8
35-39	85.6	86.6	85.2	85.8	83.9
40-49	84.3	85.8	85	86	85.2
50-59	64.8	67.1	65.9	73.8	75.4
60-70	22.9	23.8	14.5	13.7	12.8
Females					
15-70	57	58.9	56.2	57.5	56.1
15-24	35.5	34	31.8	31.7	28.1
25-29	73.5	70.2	70.7	67.3	65.1
30-34	77.3	75.9	73.3	72.2	70.4
35-39	82.4	81.7	80.5	80.2	76.4
40-49	82.9	84	83.7	84	82.6
50-59	57.2	60.9	59.1	70.8	73.6
60-70	20.3	21.4	12.2	11.8	11
Males					
15-70	67.9	71.6	69.2	69.9	68.1
15-24	44.7	44.4	40.6	40.5	33
25-29	89.2	91	90.5	92.2	89.7
30-34	88.6	91.8	91.2	91.6	90.8
35-39	89	91.6	90.1	91.3	91.4
40-49	85.9	87.8	86.5	88.1	87.9
50-59	74.2	74.9	74.1	77.4	77.6
60-70	26.7	27.5	17.9	16.4	15.5

Note: The year 2005 is reported because it is the first one in which the present breakdown by age was used.

TABLE A2 RELOCATION CHOICES IN EU OF UKRAINIAN AND SYRIAN REFUGEES

Country	No. of refugees from Ukraine	Share	No. of refugees from Syria	Share
Austria	82,446	2%	62,408	6%
Belgium	56,464	1%	19,188	2%
Bulgaria	56,734	1%	20,067	2%
Croatia	18,328	0%	548	0%
Cyprus	13,852	0%	10,735	1%
Czech Republic	439,043	10%	358	0%
Denmark	35,193	1%	19,706	2%
Estonia	57,257	1%	105	0%
Finland	38,588	1%	2,660	0%
France	105,000	2%	37,375	4%
Germany	997,895	23%	621,740	60%
Greece	19,413	0%	39,372	4%
Hungary	30,000	1%	869	0%
Ireland	49,999	1%	2,832	0%
Italy	170,646	4%	3,527	0%
Latvia	38,915	1%	312	0%
Lithuania	66,368	2%	463	0%
Luxembourg	6,561	0%	2,409	0%
Malta	1,518	0%	1,918	0%
Netherlands	79,250	2%	39,388	4%
Poland	1,409,139	33%	254	0%
Portugal	52,819	1%	861	0%
Romania	80,498	2%	2,258	0%
Slovakia	95,375	2%	25	0%
Slovenia	8,171	0%	326	0%
Spain	144,668	3%	14,987	1%
Sweden	45,895	1%	115,233	11%
United Kingdom	131,700	3%	11,980	1%
Total	4,331,735		1,031,904	

Source: UNHCR, September 2022.

Note: Comparison of EU countries (+UK). For Syrian refugees, 2021 is the reference year.