



German
Advisory Group
Ukraine

German Advisory Group

Policy Studies Series [PS/02/2019]

**Labour migration from Ukraine:
Changing destinations, growing
macroeconomic impact**

Matthias Lücke, David Saha

Corresponding author: luecke@berlin-economics.com

Berlin/Kyiv, December 2019

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German Advisory Group

c/o BE Berlin Economics GmbH

Schillerstr. 59

D-10627 Berlin

Tel: +49 30 / 20 61 34 64 0

Fax: +49 30 / 20 61 34 64 9

info@beratergruppe-ukraine.de

www.beratergruppe-ukraine.de

Labour migration from Ukraine: Changing destinations, growing macroeconomic impact

Executive Summary

Labour migration from Ukraine is receiving increasing attention due to reports about a rapidly growing number of Ukrainian migrants in Poland and other EU member states. This Policy Study analyses available data on labour migration from Ukraine to shed light on its extent and characteristics, recent developments, and its economic impact on Ukraine.

Total extent of labour migration

To assess the number of migrants abroad and understand the various patterns of migration in different destination countries, we have pulled together information from several data sources. The special modules on migration for 2012 and 2017 as part of the Ukrainian Labour Force Survey (LFS) cover those migrants that are still members of a household in Ukraine – hence, mainly temporary migration (both, regular and irregular). By contrast, administrative data from partner countries, especially as harmonized by Eurostat, relate to all Ukrainian citizens officially present, but exclude (by definition) irregular migrants. Based on 2017 data, we estimate that, as a lower bound, there are at least 2 million Ukrainian labour migrants who still interact with the Ukrainian economy (regular and irregular; permanent and temporary).

Destination countries and regions of origin

Between 2012 and 2017, the number of migrants in Russia declined by at least one third, whereas the number of migrants in Poland tripled to half a million. Polish data also suggests that Ukrainian labour migration to Poland continued at a pace of 200,000 new migrants per year in 2017 and 2018. 3 out of 4 migrants from Ukraine were working in the EU in 2017.

Migrants originate overwhelmingly from the western oblasts of Ukraine: 69% of migrants vs 27% of the overall population in 2017. The Western economic region is also the poorest (gross regional product is only 64% of the national average) and has a larger-than-average population share in rural areas (where migration prevalence is higher).

Magnitude and origins of remittances

Personal remittances from migrants have grown to USD 11 bn in 2018 from USD 7 bn in 2015. At the same time, they remained almost constant at 8% of GDP, constituting a robust source of foreign exchange earnings. In terms of geographic composition, remittances have shifted away from Russia towards Poland and other EU member states, mirroring migrants' destinations. Two thirds of remittances now originate in the EU.

Socioeconomic characteristics of labour migrants from Ukraine

The socioeconomic and demographic characteristics of Ukrainian migrants differ substantially across destination countries. Hence, migration opportunities are available to Ukrainians with diverse characteristics. For example, in Italy, many migrants work as caregivers; 70% are women and almost half are older than 50 years. By contrast, in Poland, only one third of migrants are women and nearly half the migrants are under 35. Comparing migrants' education levels to the working-age population, fewer migrants have completed a tertiary education whereas a higher share have completed secondary or vocational education. Still, many work below their qualifications in relatively simple occupations, especially in EU countries.

Effects of migration on labour market performance in Ukraine and macroeconomic interpretation

The recent increase in the number of Ukrainian migrants in Poland, which may have reached an average 1 million individuals during the year 2019, up from 200,000 in 2012, has probably contributed to the rapid real wage growth in Ukraine following the 2014 crisis. Strong Polish demand for Ukrainian workers has reduced access barriers and expanded migration opportunities for Ukrainian workers. As

a result, the domestic labour supply in Ukraine must have contracted. At the same time, while the real wage has grown in Ukraine, so has employment. Hence, labour demand must have remained strong – possibly in part because higher remittances have increased the disposable incomes of Ukrainian households.

Furthermore, while the real wage (adjusted for domestic inflation) has grown rapidly, the international competitiveness of the producers of internationally tradable goods and services in Ukraine ultimately depends on unit labour costs (i.e. wages adjusted for productivity growth) expressed in foreign currency. Even in 2019, unit labour costs calculated in EUR are still significantly lower than in 2013 – in large part because the large nominal Hryvnia depreciation in 2014 led to a lasting real depreciation. However, if the real wage continues to grow at its present rate (and it might if Polish demand for Ukrainian workers remains strong), Ukraine may become less competitive in terms of labour costs, with negative consequences for investment and growth.

Labour market data broken down by economic region within Ukraine show that migrants originate mostly from regions with below-average wages (West, Centre and South of Ukraine). At the same time, Western and Central Ukraine experienced relatively large increases in both wages and migration prevalence between 2012 and 2017, demonstrating the correlation between emigration and wage growth.

If a country receives large migrant remittances, this may cause a “Dutch disease”: while remittances boost domestic income, strong demand for non-tradable goods and services (such as housing, domestic services, etc.) may lead to a real appreciation of the domestic currency, an increase in the real wage, and lower competitiveness for the producers of internationally tradable goods and services. So far, there is little sign of a Dutch disease in Ukraine: remittances have remained broadly stable in relation to GDP and unit labour costs expressed in foreign currency are still below their 2013 level.

Policy implications

So far, Ukraine has seen stable employment in the face of a fast-growing real wage and a rising number of migrants abroad. However, authorities need to be aware that net migration to Poland and other EU member states will likely remain high, given the growing strength of migrant networks and improvements in access to EU labour markets with EU visa liberalisation. In this case, it is unlikely that strong labour demand will indefinitely compensate for the contraction of the domestic labour supply. At least four distinct challenges may then arise:

- Given the regional incidence of migration, there may be growing divergence in regional economic outcomes, with disadvantaged regions experiencing a combination of high emigration, poor economic opportunities at home, low investment, accelerated population aging, and strains on public infrastructure and service provision.
- Government revenue may be negatively affected as migrants’ incomes are normally subject to income tax and social security contributions in the destination country. However, if migrants or their family members continue to live in Ukraine and use public infrastructure or services that are funded from Ukrainian tax revenue, this may strain the government’s fiscal position (and be considered unfair by taxpayers within Ukraine). This negative effect will be mitigated to the extent that higher remittances lead to higher imports that are subject to import VAT and customs duties.
- Third, a growing share of each cohort of young Ukrainians leaving the education system might be headed for work or further study abroad. The better the education and vocational training system prepares students for all the opportunities that they may encounter, the better it serves its purpose.
- Fourth, the financial system will have to handle growing inflows of remittances transparently and safely and macroeconomic policies would need to address inflationary pressures that may

result from growing demand for non-tradable goods and services and the resulting structural changes in the economy (including such phenomena as real estate booms).

As there are numerous countries that face similar challenges, the Ukrainian authorities can benefit from their experiences. There is a good understanding among the international academic and policy communities about what constitutes good practices in each policy area (or at least, there are debates that Ukrainian authorities may draw on as they prepare to face these challenges). We discuss each policy area in more detail in Section 6.

Above all, potential migrants compare their living conditions and prospects at home with their possible destination countries; on this basis, they decide whether to emigrate or not. If young Ukrainians feel that their prospects in Ukraine are uncertain or uninspiring, they will continue to emigrate in growing numbers. The best way to address the possible challenges due to continuing emigration is for Ukrainian authorities to push ahead with reforms to create favourable conditions for economic growth and social development Ukraine.

Acknowledgements

The authors are highly grateful for valuable comments and insights to Olga Pogarska and the research division of the Ukrainian National Bank, the participants of a joint workshop of the Ukrainian, Austrian and Polish National Banks in Vienna, Jens Krauss-Massé of the German Embassy in Kyiv and Olga Kupets. We thank Lara Bohnet, Sophie Paul and Vitaliy Kravchuk for excellent research assistance.

Authors

Matthias Lücke	matthias.luecke@ifw-kiel.de	+49 431 / 8814-497
David Saha	saha@berlin-economics.com	+49 30 / 20 61 34 64 0

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1 Introduction

'A whole generation has gone': Ukrainians seek a better life in Poland – The Guardian, 18th April 2019

Ukraine's workers abroad fuel property boom back home – FT, 26th August 2019

Eastern Europe Feeds on a Shrinking Ukraine – Bloomberg.com, 20th February 2019

The migration of Ukrainian citizens to other countries has received increasing interest in media and policy debate the recent years. There are good reasons for this: migration from Ukraine appears to be growing and changing its character, with Poland replacing Russia as the prime destination country. However, the extent, characteristics and effects of labour migration from Ukraine in the years since 2014 are so far not well understood. While some voices in the debate talk of labour migration of up to 9 million people¹ – which would be absolutely massive for a country of around 40 million citizens – national statistics only show a migrant stock (Ukrainians abroad) of about 1.3 million people². And while some commentators argue that migration is clearly beneficial for Ukraine as migrants' remittances complement domestic incomes and support the current account³, others are concerned about a negative impact on investment due to labour shortages and increasing wages in Ukraine.

It is clear that migration from Ukraine has been rising overall in the past years. There was always labour migration of Ukrainians, mainly to Russia, but since 2014, the situation may have changed systematically: migration to Russia appears to have significantly declined due to conflict with Russia, while the economic crisis after the “revolution of dignity” in 2014 has probably increased labour migration overall. There are clear signs that the increase in the migrant stock is real and the destination of migrants has changed from east to west.

This dynamic is probably here to stay. Wage differentials between Ukraine and EU member states remain high and immigration rules in the EU may become more relaxed. In addition to existing opportunities to work legally in Poland, visa-free travel facilitates informal employment as well as searching for a job in the EU. Some EU member states are also contemplating³ to improve access to their labour markets for non-EU citizens to counteract shortages of skilled workers, such as Germany with its “skilled labour immigration law”⁴ in 2019.

While labour migration from Ukraine has changed substantially since 2014, the picture is not very clear because of stark differences between the various data sources. Furthermore, the effects on Ukraine are unclear: will positive or negative effects dominate? Through this Policy Study, we aim to contribute to this debate with facts and analysis to lead to an improved understanding of the extent and economic effects of labour migration for Ukraine. We will concentrate on labour migrants from Ukraine and on changes since 2014, often by comparing the 2012 and 2017 special modules of the Ukrainian Labour Force Survey (LFS) on labour migration.

This study is structured as follows: we first present a comprehensive picture of the extent and characteristics of labour migration from Ukraine. In Chapter 2, we assess the likely extent of labour

¹ <https://www.wilsoncenter.org/blog-post/losing-brains-and-brawn-outmigration-ukraine-0>

² E.g. the latest, 2017 labour migration module in the Ukrainian Labour Force Survey

³ <https://www.nzz.ch/wirtschaft/millionen-ukraener-wandern-in-den-westen-aus-gut-so-ld.1474125>

⁴ <https://www.make-it-in-germany.com/de/visum/arten/arbeiten/fachkraefteinwanderungsgesetz/>

migration from Ukraine by comparing the available data sources. We analyse destination countries as well as the regions of origins within Ukraine and discuss the evolution of migrant remittances. In Chapter 3, we turn to key socioeconomic characteristics of migrants and discuss implications for access to migration opportunities and patterns of migration. The following chapters analyse the economic effects of migration. Chapter 4 focuses on the impact of emigration on labour market performance in Ukraine. In Chapter 5, we analyse possible macroeconomic consequences of migration and remittances. Finally, we point out the policy implications of our analysis in Chapter 6.

2 The extent of labour migration from Ukraine

Migration is a multi-faceted phenomenon and this is reflected by a wide variety of possible definitions and data sources. In this Policy Study, we analyse the impact of emigration on the Ukrainian economy today. Therefore, we are interested in those emigrants that currently maintain linkages with the Ukrainian economy – rather than, for example, the global Ukrainian Diaspora that includes many individuals who have left Ukraine several decades ago and may have few current economic interactions with Ukraine.

We begin by considering data on the number of emigrants abroad (the “migrant stock”), with a view to reconciling different concepts of migration and contradictory data sources and identifying those migrants who currently interact with the Ukrainian economy (Section 2.1). As comprehensive data are available only for the year 2017, we then examine more recent developments in migration to Poland (Section 2.2), which is now the main destination country. We complement our review of emigrants by destination countries with a look at the available information on where, within Ukraine, emigrants originate. As there is a pronounced regional pattern, this information will later be at the heart of our assessment of the likely economic effects of emigration (Section 2.3). To conclude this chapter, we review the evolution of personal remittances received by Ukraine (Section 2.4).

A key distinction in this Policy Study is between temporary (circular, seasonal) and permanent migrants. Many Ukrainian migrants belong to a household in Ukraine while they work abroad for part of the year or even continuously for several years (apart from spending holidays at home). As they belong to a Ukrainian household, these migrants are covered by household surveys in Ukraine, such as the Labour Force Survey or Household Budget Survey. We use the term “temporary” migrant as a shorthand for this category.

By contrast, permanent migrants are members of a household in their destination country, typically with their core family members. They may send remittances to relatives or friends or contribute to charitable causes in Ukraine as members of the Diaspora. Permanent migrants are not covered by censuses or household surveys in Ukraine, but may be identified through destination country data (administrative, census, or household survey).

2.1 Destination countries and number of labour migrants

In population statistics, the standard definition of a migrant is a person that lives outside their country of birth. Different data sources apply different definitions of how long a person must live in their destination country to be considered a migrant. Unfortunately, this standard definition is not helpful

for our purposes: many people who were born in Ukraine have lived abroad for so long that they no longer interact economically with Ukraine.

Table 1: Ukrainian migrants' destinations by data source

	World Bank Data		Labour Force Survey		Partner country data**	
	2010	2017	2012	2017	2012	2017
Former Soviet Union						
Belarus	141	227	21	22	n.a.	n.a.
Kazakhstan	272	346	n.a.	n.a.	n.a.	n.a.
Russian Federation	3.647	3.272	510	343	n.a.	346**
EU member states						
Czech Republic	34	138	152	123	103	116
Germany	203	212	28	10	112	118
Italy	173	232	156	147	225	235
Poland	333	221	169	507	122	451
Portugal	15	48	21	21	44	32
Spain	88	96	53	n.a.	78	89
Total EU (Eurostat)					779	1.177
Other						
Israel	249	137	n.a.	14	n.a.	n.a.
United States	332	348	n.a.	23	n.a.	n.a.
<i>Countries not listed*</i>	1.038	717	70	93		
TOTAL	6.525	5.995	1.182	1.303		

*Difference between totals and countries listed; Labour Force Survey data include US, Israel in 2012; Spain in 2017

** All EU data from Eurostat, RUS data from Rosstat

Source: World Bank; Ukrstat, LFS 2012 and 2017; Eurostat; Rosstat

This becomes clear from World Bank migrant stock data, which is the most comprehensive global database for bilateral (country pair) migrant stocks (Table 1): approximately 6 million individuals born in Ukraine lived abroad in 2017, with more than half in Russia and several hundred thousand in other Former Soviet Union republics. However, many of these individuals are probably citizens of their countries of residence and have no relevant current economic links with Ukraine. Conversely, based on the same definition, Ukraine is itself home to 5.4 million “immigrants” (individuals born outside Ukraine), including 3.3 million from Russia.⁵ Again, most of these individuals have probably lived in Ukraine for several decades and have very few active links with the Russian economy. Nevertheless, this large figure serves as a reminder that many individuals abroad have a biographical connection with Ukraine and may potentially consider themselves part of the Ukrainian Diaspora – which may be a useful starting point for Diaspora policies on the part of the Government of Ukraine.

In contrast to population statistics (such as the World Bank database), special modules on labour migration attached to the Ukrainian Labour Force Survey (LFS) in the second quarters of 2012 and 2017 provide extensive information on “temporary” migrants that are still members of a household in

⁵ World Bank Bilateral Migration Matrix 2017:

http://www.knomad.org/sites/default/files/2018-04/bilateralmigrationmatrix20170_Apr2018.xlsx

Ukraine and therefore, by definition, part of the Ukrainian economy. In particular, the LFS modules include details on these migrants' location within Ukraine (Section 2.3) and their socioeconomic characteristics (Section 3). However, the LFS inevitably ignores permanent emigrants who are no longer members of a household in Ukraine; further below, we consider partner country data that do cover permanent migrants.

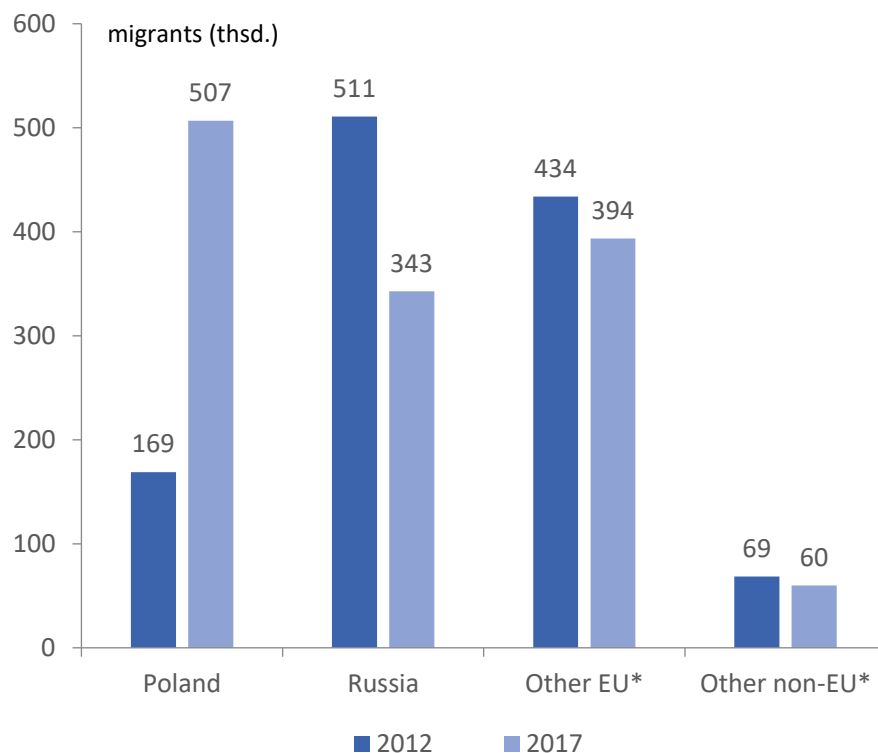
With this important qualification, the LFS defines migrants as those household members that have worked or looked for work abroad at any time between 1 January 2015 and the date on which the survey was taken (no later than 18 June 2017; similarly, for 2012 data). The LFS covers both regular and irregular migrants. Approximately 1.3 million individuals had recent migration experience according to this definition in 2017, up only slightly from 1.2 million in 2012 (Table 1). Importantly, these individuals were not all abroad at the same time. Rather, some had returned to Ukraine at the time of the survey while others were abroad for periods ranging from a few months to more than a year (Ukrstat, LFS 2017, Table 1.4).

While the total number of individuals with migration experience did not change much from 2012 to 2017, a marked shift occurred in the destination countries. The number of migrants in Russia declined by about one third to 343,000, whereas the number of migrants in Poland tripled to half a million (Figure 1). These developments reflected growing political tensions between Ukraine and Russia, the war in Eastern Ukraine, and the subsequent displacement of many working-age individuals to government-controlled areas of Ukraine, on the one hand; and strong economic growth and labour demand in Poland, on the other.

Administrative data from partner countries allow us to cross-check the plausibility of LFS migrant figures (Table 1). Administrative data, by definition, cover (i) mostly regular migrants; (ii) both temporary and permanent migrants; (iii) only migrants that have not acquired the citizenship of the partner country; and (iv) migrants residing in the destination country at a given point in time. Hence, compared with the LFS, partner country data conceptually add permanent migrants; overlap with regard to regular temporary migrants; fail to cover irregular migrants; and fail to cover individuals with recent migration experience that have returned to Ukraine.

For several destination countries, partner country figures are similar overall to LFS estimates (Table 1). However, partner country figures are higher for Italy and Germany, which suggests a larger role for permanent migration to these countries. While permanent migrants may see their linkages with Ukraine and its economy weaken over time, those included in this figure still maintain their Ukrainian citizenship, rather than becoming citizens of their destination country. With 1.2 million regular migrants at the end of 2017, the EU is now by far the largest region of destination for migrants from Ukraine.

Figure 1: “Temporary” migrants by destination countries



Source: Ukrstat, LFS 2012 & 2017

*Finland is included in non-EU in 2012, but in EU in 2017 (approx. 13 thsd.)

Although Eurostat administrative data from destination countries and LFS data are conceptually quite different, it is useful to think about how they may be combined to produce a single estimate of the number of Ukrainian labour migrants abroad at the end of 2017. If we take partner country data as our starting point (total of app. 1.6 million, including 0.1 million to account for countries with migrants but without data in Table 1) and add approximately one third of LFS migrants to account for current irregular temporary migrants, we arrive at a conservative estimate of 2 million migrants interacting with the Ukrainian economy in 2017. Of these, 3 out of 4 migrants lived in the EU. Migration prevalence works out at app. 7% of Ukraine’s working-age population. A corresponding estimate for 2012 would be somewhat lower at 1.6 million migrants.

As documented by the LFS, additional individuals have recent migration experience but have returned to Ukraine for now; they might well embark on another migration spell in the future. Clearly, such back-of-the-envelope calculations can only yield broad orders of magnitudes; this said, they square broadly with estimates by other observers (CES, 2018).

Conclusions:

- Labour migration from Ukraine is multi-faceted and involves different types of migration:
 - Temporary/seasonal/circular vs. permanent migration
 - Formal (legal) vs. informal (illegal) migration

- The two most relevant data sources capture different facets of migration:
 - Data from the special modules on migration of the Ukrainian LFS (2012 and 2017) captures only temporary migration, both formal and informal
 - Administrative data from partner countries captures both temporary and permanent migration, but is restricted to formally registered migrants
- We estimate the total number of Ukrainian labour migrants in 2017 who maintain a substantial connection with Ukraine to be at least 2 million people.
- This number has risen significantly, but not massively from the corresponding estimate of at least 1.6 million people in 2012.
- A large shift from East to West has occurred in the destinations of labour migrants from Ukraine. Between 2012 and 2017, the number of migrants in Russia in LFS data declined by about one third to 343,000, while the number of migrants in Poland tripled to half a million.

2.2 Ukrainian migration to Poland since 2017

While Poland has clearly replaced Russia as the single most important destination country for Ukrainian labour migrants, the number of Ukrainian migrants in Poland, especially in 2018 and 2019, and their patterns of migration are subject to much uncertainty. This uncertainty is not only due to the usual shortcomings of standard data sources in covering recent immigrants, especially temporary ones who stay for less than 12 months (the Polish Labour Force Survey only covers individuals who live in Poland for more than 12 months; Growiec et al., 2019, Section 3.4). The employment of Ukrainians in Poland has also benefitted from highly flexible regulations for the employment of temporary workers from Former Soviet Union republics, which were only marginally tightened in 2018. As a result, various informal practices in the employment of Ukrainians have spread widely and render it difficult to estimate the number of Ukrainian immigrants or how long they stay in Poland.

The main issue lies with regulations (“simplified procedure”) that enable employers to declare to authorities their intention to employ foreign citizens from former Soviet Union republics for a period of up to 6 months within a 12-month period, without effective follow-up on whether anyone was actually employed and under what conditions (these rules were tightened in 2018 to limited effect). Since entry visa for Poland are issued based on such declarations, these documents were valuable in themselves and there was an informal market for them at least until visa liberalisation for Ukrainian citizens travelling to the EU in mid-2017. Survey evidence also suggests that employment as such may often have been quite informal with longer hours of work and lower wages than natives (Górny et al., 2019). As a result, the number of declarations issued (1.7 million in 2017) far exceeded the number of temporary immigrants from Ukraine in Poland within a given year; and because of the time limit on employment, the *average* number of immigrants throughout the year would have been even lower.

It is difficult to make sense of this conundrum and derive robust estimates for the number of Ukrainian immigrants in Poland. As part of a detailed study of how the “simplified procedure” was used until mid-2018, Górny et al. (2019) estimate the average number of foreign citizens employed in Poland throughout the year under this procedure alone at 133,000 in 2015 and just over 400,000 in both 2017 and 2018; Ukrainians accounted for the vast majority of those employed.

Growiec et al. (2019) take a broader approach and develop estimates for the total labour input by Ukrainian immigrants into the Polish economy, involving the average number of migrants throughout the year, hours worked, and productivity relative to natives. Based on a wide range of data sources, they estimate just under 200,000 Ukrainian immigrants in 2012; 200,000 to 300,000 in 2014; then a rapid increase to 800,000 to 900,000 in 2017; and 900,000 to 1.1 million in 2018 (Growiec et al., 2019, Figure 2).

These estimates are not directly comparable to the lower numbers by Górný et al. (2019) covering only immigrants under the simplified procedure (see above) or our review of alternative data sources for all destination countries (Table 1). It seems clear, however, that (i) our estimate of at least 2 million Ukrainian migrants abroad in 2017 should be viewed as a lower bound; (ii) the number Ukrainians in Poland has continued to increase in 2018. It seems likely that the number of Ukrainian migrants in Poland and other EU countries may have grown further in 2019, in part because access to informal work in the EU (though not to regular employment) has been facilitated by the mid-2017 EU visa liberalisation for Ukrainian citizens.

In the near future, the net migrant flow to Poland will remain a key driver of the overall migration dynamic in Ukraine. While the fertility rate in Poland has recovered recently, it remains low at 1.4 births per woman in 2019.⁶ Thus, population ageing will combine with persistently high emigration from Poland to sustain demand for Ukrainian labour migrants and keep their wages high. With Ukrainian migrant networks now firmly established, the cost of migrating from Ukraine to Poland will also tend to decline further. If wages in Ukraine continue to grow (see Chapter 4 below), this will ultimately reduce the wage gap towards Poland, along with incentives to migrate. However, except for occupations in high demand in Ukraine, the wage differential with Poland is likely to remain large enough in the short to medium run to generate additional migration from Ukraine to Poland.

Conclusions:

- New research indicates that labour migration from Ukraine has risen sharply from 200,000 migrants in 2012 to around 1 million in 2018.
- Between 2014 and 2018, labour migration from Ukraine to Poland increased by around 200,000 migrants per year.
- Population aging, high labour demand, and relatively high wages in Poland, along with increasingly well-established migrant networks, will generate strong incentives for additional migration from Ukraine to Poland in the short to medium run.

2.3 Origin regions of (temporary) labour migrants

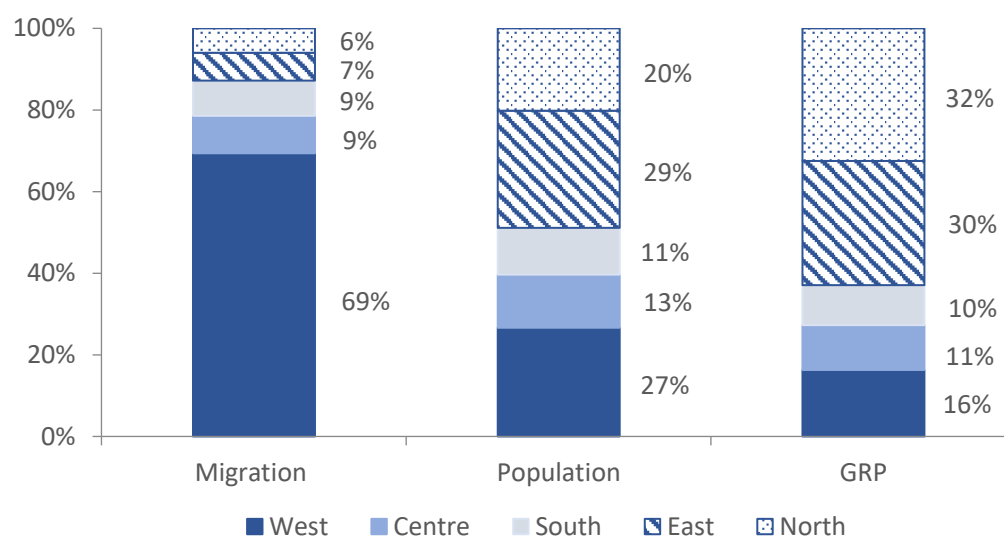
Detailed information on migrants' socioeconomic characteristics, including their region of origin within Ukraine, is available from the LFS module on "temporary" migrants (i.e. those who are members of a household within Ukraine). Although this is only one (large) group within the Ukrainian migrant population, it is plausible to assume that LFS data are more broadly informative: the LFS covers both

⁶ <https://www.macrotrends.net/countries/POL/poland/fertility-rate>.

regular and irregular “temporary” migrants and many permanent migrants also start out as temporary migrants before gaining a firmer foothold in their destination countries.

Within Ukraine, most temporary migrants (69%) originate in the Western economic region (Figure 2), where migration prevalence stands at more than twice the national level. The Western region is also the poorest, with a per-capita gross regional product of 61% of the national average in 2018, and the most rural: while 30% of the Ukrainian population overall live in rural areas, the corresponding figure for the Western economic region is 50%. Since migration prevalence in rural areas is twice as high as in urban areas, the high rural share helps to explain the high migration prevalence in the Western economic region.

Figure 2: Migrants, population, and gross regional product (GRP) by economic region



Source: Ukrstat, LFS 2017; note: GRP denotes Gross Regional Product

More detailed data show that the Western economic region predominates among migrants to all major destination countries (Ukrstat, LFS 2017, Table 1.6). Even in the case of Russia, where the Eastern economic region plays a somewhat larger role than elsewhere, the Western region accounts for 57% of migrants. In Poland, Italy, and the Czech Republic, the Western economic region accounts for 73, 79, and 95% of migrants, respectively.

Conclusions:

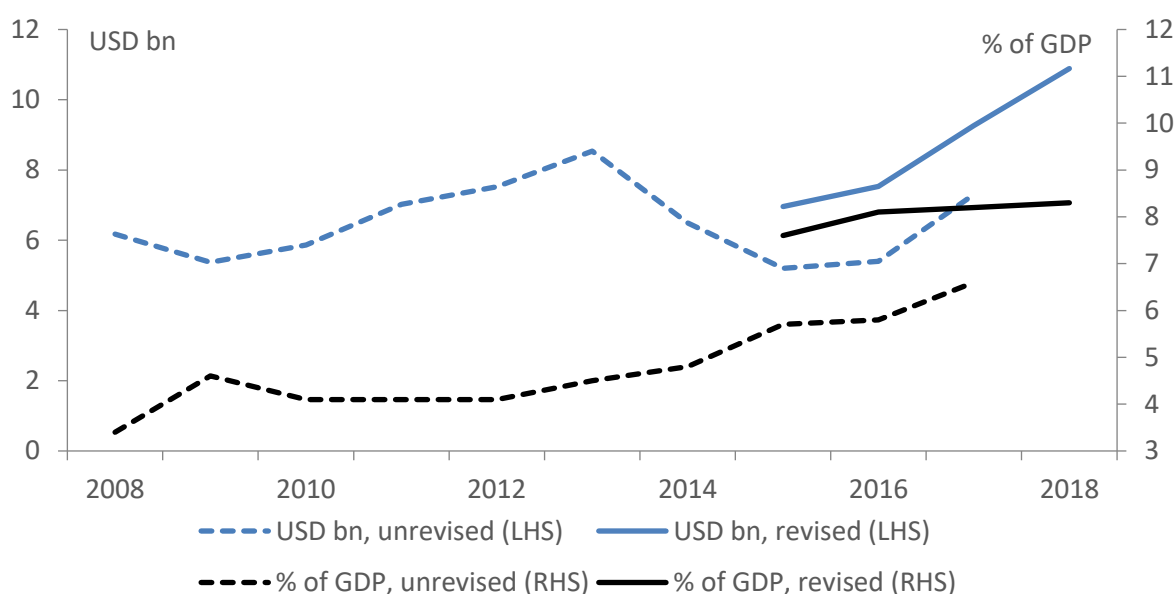
- Western Ukraine was the region of origin of 69% of labour migrants in 2017, despite only accounting for 27% of the Ukrainian population.
- Per-capita Gross Regional Product in Western Ukraine was 61% of the national average in 2017. Thus, in large part, emigration may have been a response to the lack of economic opportunities at home.

2.4 Remittances from labour migrants

Remittances are difficult to estimate because they are transferred not only through formal channels such as bank transfers or money transfer organizations, but also informally by migrants (or their friends or minibus drivers, etc.) carrying foreign exchange cash from host countries to Ukraine. While data on formal transfers are easy to come by, estimates of informal transfers are subject to considerable uncertainty. In the case of Ukraine, most evidence on informal transfers is survey-based; however, migrants and remittances-receiving household often do not report the full amount of remittances, precisely for the same reasons that remittances are often sent informally in the first place (desire for privacy, informality, security concerns, etc.).

Historical balance of payments statistics indicate that personal remittances in USD have fluctuated between USD 6 and 8 m per year between 2008 and 2017 (Figure 3, unrevised data). In relation to GDP, remittances nearly doubled to more than 6% of GDP during the same period, reflecting changes in GDP and exchange rates. During the crisis years of 2009 and 2014, the sharp drops of nominal GDP in USD reflected both the real recessions as well as sharp depreciations of the Hryvnia, whilst consequent nominal GDP recoveries reflect real growth as well as inflation. Starting with 2015 data, the NBU revised remittances upwards by approximately USD 2 bn or 2 percentage points of GDP in line with partner country data, reflecting new surveys conducted in Ukraine, Poland, and Russia.

Figure 3: Personal remittances, Ukraine



Source: National Bank of Ukraine; note: from 2015, a new methodology for estimating informal remittances was introduced leading to a break in the series (see NBU 2018).

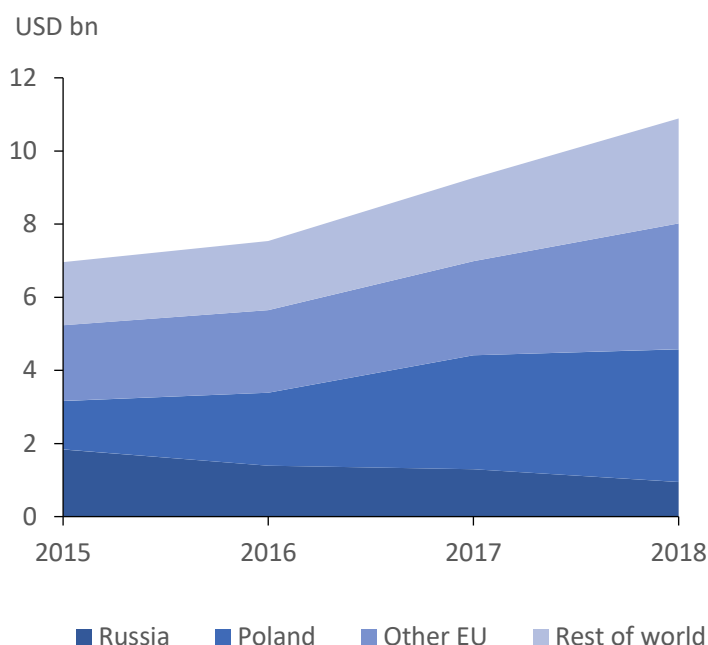
The revised data show remittances growing strongly from USD 7.5 bn in 2015 to USD 11.9 bn in 2018; in relation to GDP, they stabilized at 8.3% in 2018, reflecting the recovery of GDP after the 2014 crisis. Thus, personal remittances were a major source of foreign exchange earnings for Ukraine: the remaining current account deficit was less than 3% of GDP in recent years.

The geographic composition of remittances reflects the shift in migrants' destination countries away from Russia and towards Poland and other EU member states (Section 2.1). In 2018, more than two

thirds of remittances came from EU member states, up from just half in 2015 (Figure 4). Poland has replaced Russia as the largest single source country, accounting for one third of remittances in 2018.

While the revised estimates of personal remittances since 2015 likely paint a broadly realistic picture, it is important to note that the growing weight of Poland as a destination country may render these estimates increasingly less reliable. Remittances from Russia to Ukraine went mostly through formal channels: fees were low, migration and employment were often regular, and travelling with large amounts of cash was not always safe. In Poland, these factors are reversed: transfer fees are higher, much migration and employment is informal, and travelling with cash is reasonably safe. It is likely, therefore, that remittances through informal channels account for a growing share of all remittances. To the extent that informal remittances are not captured well by existing methods of data collection, the reported recent increase in remittances may need to be thought of as a lower bound for the true (possibly more rapid) increase in remittances.

Figure 4: Net personal remittances by source countries, Ukraine



Source: National Bank of Ukraine

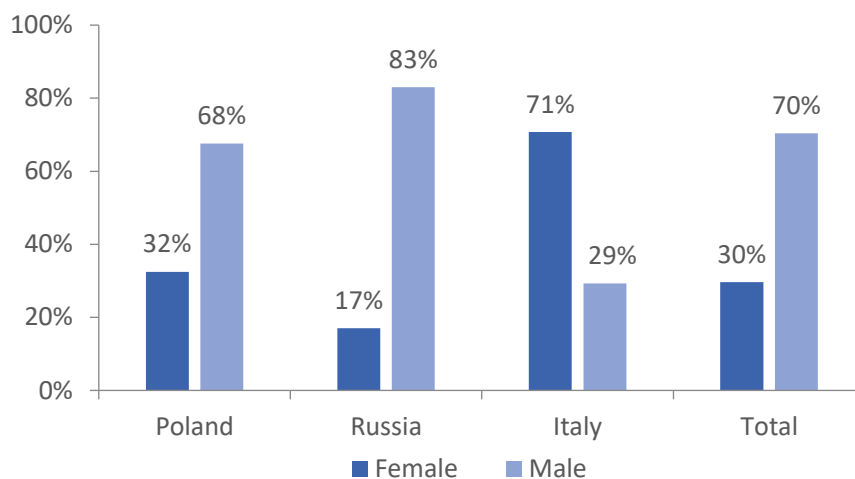
Conclusions:

- Migrant remittances to Ukraine increased by more than USD 3 bn over the 2015-2018 period.
- In relation to GDP, remittances remained relatively stable at around 8% of GDP.
- Poland is now the largest source country for remittances, having replaced Russia.
- With the growing importance of Poland as a destination for migrants and source country of remittances, more remittances probably come to Ukraine through informal channels, making them more difficult to estimate.

3 Socioeconomic characteristics of labour migrants from Ukraine

Although migrants in each main destination country are similarly distributed by region of origin within Ukraine (see Section 2.3 above), other socioeconomic characteristics of Ukrainian migrants do diverge across countries of destination, suggesting differentiated patterns of migration. Overall, migration from Ukraine is predominantly male (70% of all migrants), with the important exception of Italy where women account for 71% of all migrants (Figure 5). This is likely to reflect the large share of Ukrainian migrants providing care services in Italy families, whereas manual work in agriculture, construction and industry predominates in Russia and Poland.

Figure 5: Destinations by gender

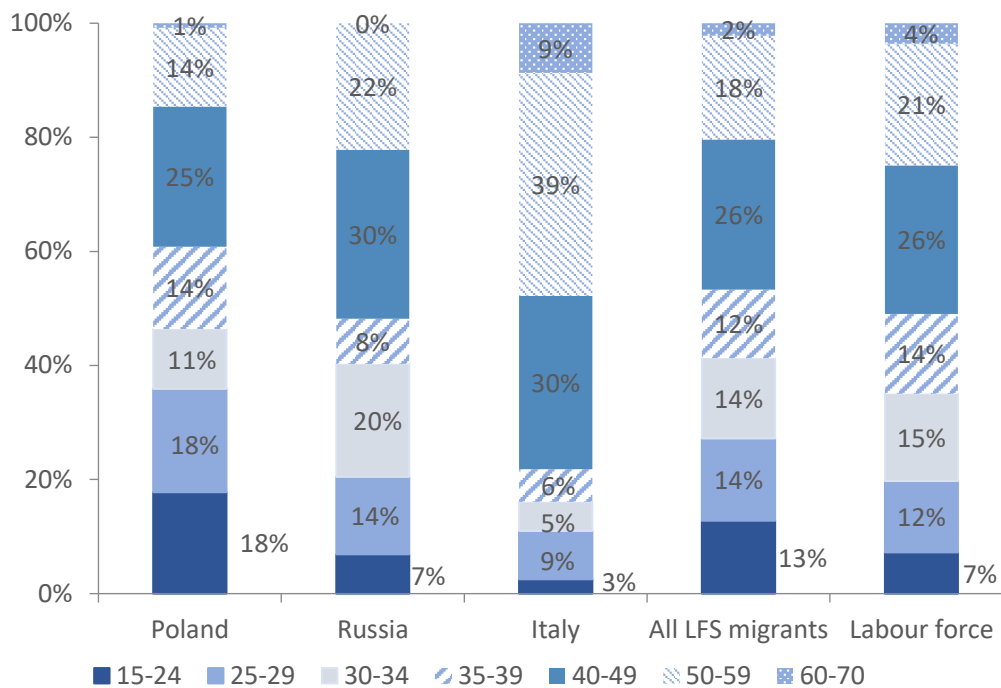


Source: Ukrstat, LFS 2017

The characteristics of typical occupations in the destination country also drive the age composition of migrants (Figure 6). LFS Migrants overall, as well as those in Russia, are quite similar in age structure to the labour force. By contrast, nearly half the migrants in Italy are over 50 years of age, vs. a quarter of the general population. Apparently, employment in caregiving offers opportunities for older Ukrainian women who may have few other job options.

By contrast, migrants in Poland tend to be younger than the labour force: 47% are under 35 vs. 34% of the general population. Hence, if the steady outflow of migrants to Poland continues as in recent years, this will accelerate the demographic trend towards an aging population in Ukraine with all the attending challenges (see Section 6 for a discussion of the policy implications of this development).

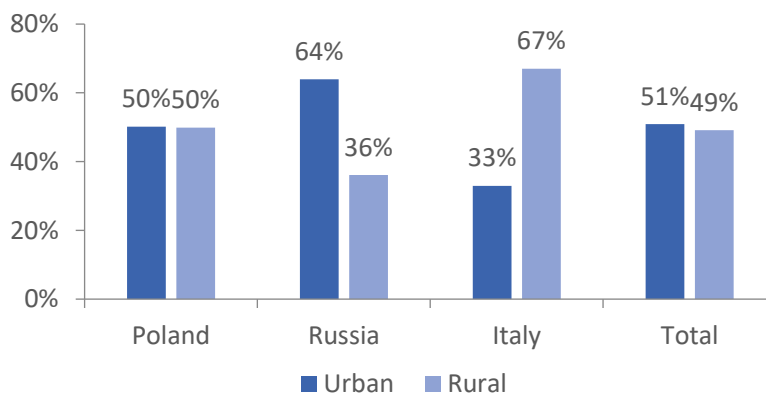
Figure 6: Migrants by age and destination countries, Ukraine



Source: Ukrstat, LFS 2017

Ukrainian migrants are almost equally likely to come from urban or rural areas. As we have explained above (Section 2.3), less than one third of Ukrainians live in rural areas so that migration prevalence there is twice as high as in urban areas. While the rural vs urban composition of Ukrainian migrants in Poland reflects that of the migrant population overall, Italy draws an above-average share of rural migrants and the reverse applies in Russia. These observations suggest that, with different patterns of migration in different destination countries, diverse groups within the Ukrainian population have access to differentiated migration opportunities. Accordingly, the cost of migrating is probably small enough so that no large group within the population is excluded from migration opportunities.

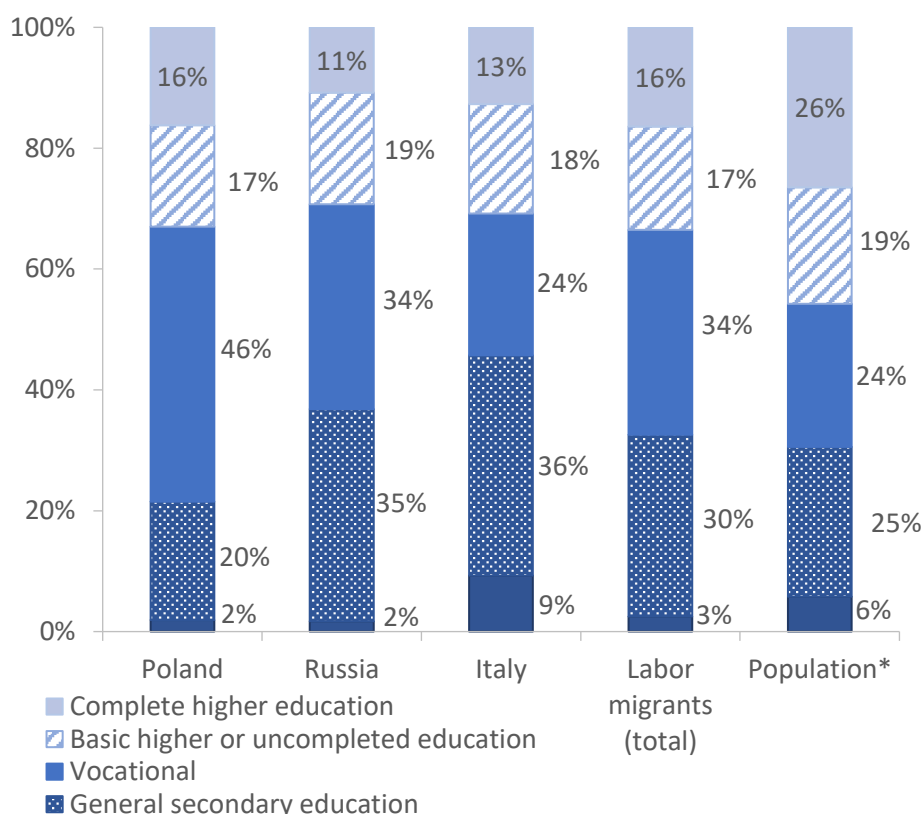
Figure 7: Migrants by destinations and location within Ukraine



Source: Ukrstat, LFS 2017

The education level of migrants gives an initial indication of whether emigration leads to a brain drain from Ukraine. It turns out that the share of high-skilled individuals (complete or basic/ incomplete higher education) among migrants is lower (33%) than among the working-age population (45%; Figure 8). Thus, as migrants leave, the share of high-skilled individuals in the population *increases* – the opposite of a brain drain. Conversely, “medium-skilled” individuals with vocational training make up 34% of migrants but only 24% of the working-age population. The relatively large share of medium-skilled emigrants (as high as 46% in Poland, where the number of migrants has recently grown sharply) may help to explain why firms in labour-intensive light industries have recently reported growing labour shortages.

Figure 8: Migrants by education level and destination country, Ukraine



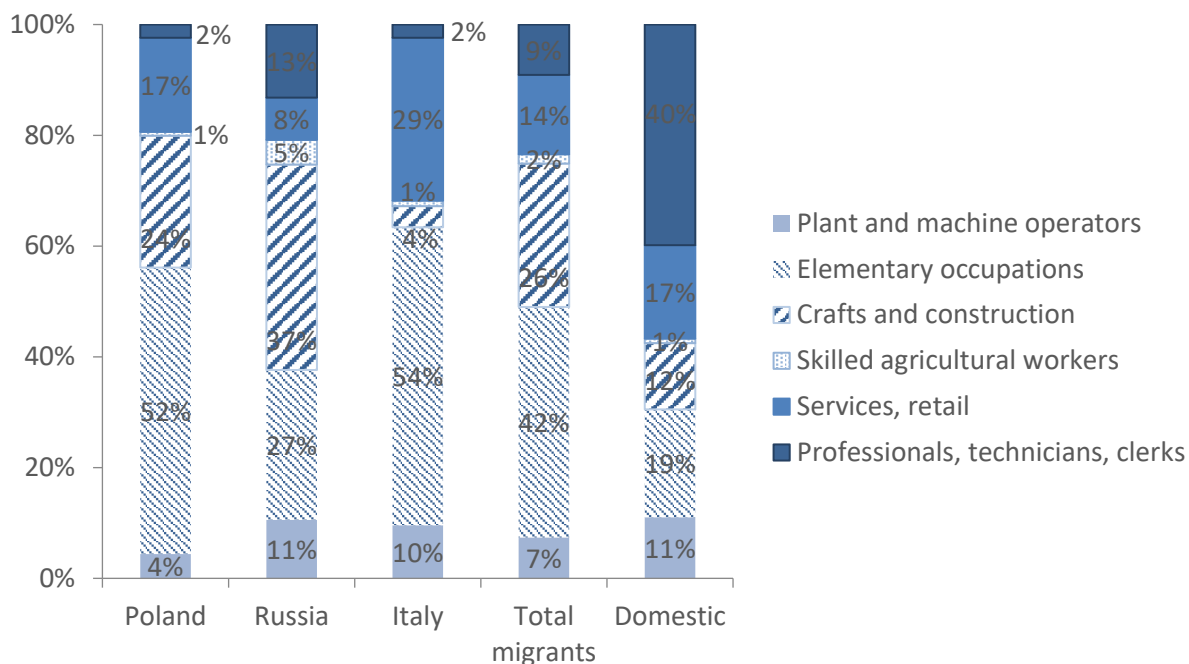
Source: Ukrstat, LFS 2017 & "Economic Activity of Population 2017";
 *population refers to working age population in Ukraine

The main destination countries also differ markedly amongst themselves, and from the labour force, in the shares of major occupational categories (Figure 9). Compared to the labour force, the most highly skilled occupational group (professionals, technicians, and clerks) is substantially underrepresented among migrants (40 vs. 9%). By contrast, more than half the migrants in Italy and Poland work in elementary occupations vs. 19% of the general population.

These observations are consistent with further LFS data on the share of migrants who say they are overqualified for their jobs: 46% in Poland and 56% in Italy vs. only 21% in Russia. The shift in migrants' destination countries towards the EU appears to coincide with a shift towards less complex occupations (“de-skilling”). In part, this may result from many Ukrainian migrants' limited knowledge

of West European languages, in contrast to Russian. Apparently, the wage differential with Western Europe is large enough to make migration worthwhile, nevertheless.

Figure 9: Migrants by occupation and destination country



Source: Ukrstat, LFS 2017; note: “Professionals...” denote the most complex occupations, “Elementary occupations” include various simple tasks in service and agriculture sectors. “Domestic” denotes the labour force.

Conclusions:

- 70% of labour migrants in 2017 were male.
- Younger persons and persons from urban areas are overrepresented among labour migrants.
- Persons with higher education are less likely to migrate, whereas vocational education backgrounds are overrepresented among labour migrants.
- Risk of de-skilling: More than half of migrants in EU countries such as Poland or Italy are working in elementary occupations, much more than in Russia or at home.
- Migration patterns are quite diverse across destination countries. Hence, most socioeconomic groups in Ukraine have access to migration opportunities.

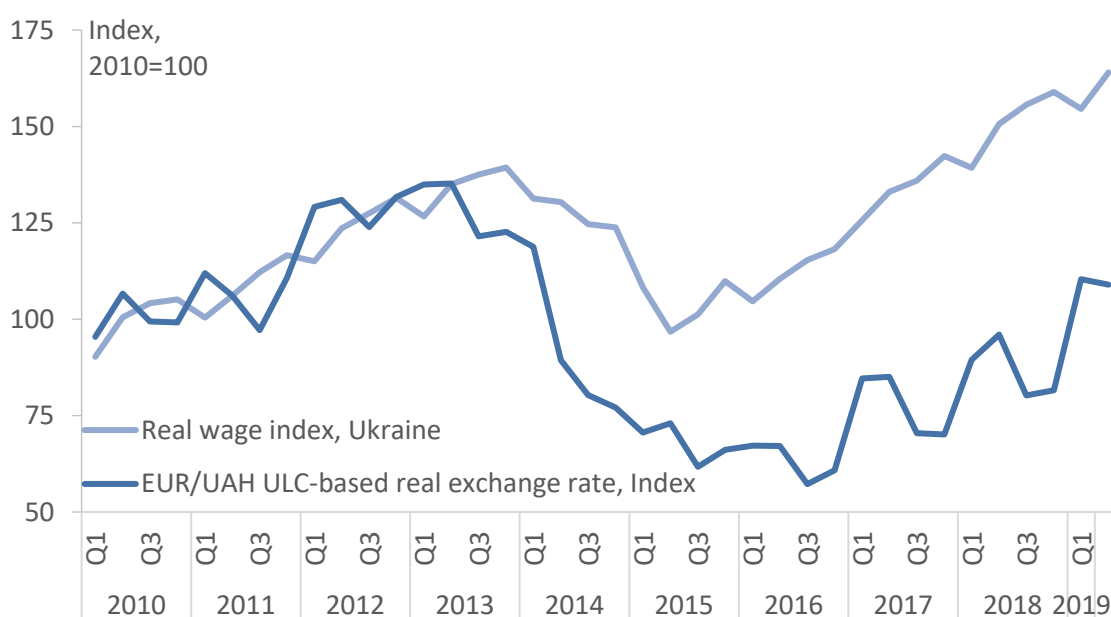
4 Effects of migration on wages and labour markets in Ukraine

4.1 Effect of migration on wages and employment in Ukraine

Formally speaking, labour migration affects labour market performance in Ukraine by reducing the number of hours that Ukrainian workers are willing to work in Ukraine at a given wage – because workers now have the alternative option of working abroad at a higher wage. If labour demand is not affected by migration, there will be a new labour market equilibrium in Ukraine at a higher wage and lower employment, with some workers leaving Ukraine to work abroad. This effect becomes larger as EU labour markets with higher average wages become easier to access for Ukrainian workers, for example because of EU visa liberalisation that facilitates job search and irregular work or more liberal rules for work visa in some member states.

Of course, higher wages benefit workers and Ukraine had the lowest GDP per capita in Europe at USD 3220 in 2018. However, rising wages can have negative effects as well: a rise in wages that is not matched by higher labour productivity (as in the case of a shrinking labour supply) implies a rise in unit labour costs and hence a reduction in the international competitiveness of Ukrainian firms. In addition to lower employment in the short run, this will discourage investment and reduce economic growth in Ukraine in the long run. This is an important concern because low labour costs are generally seen as Ukraine's main competitive advantage since the sharp depreciation of the Hryvnia in 2014. Many recent investments such as labour-intensive automotive suppliers in the Western Ukraine were attracted precisely by low labour costs.

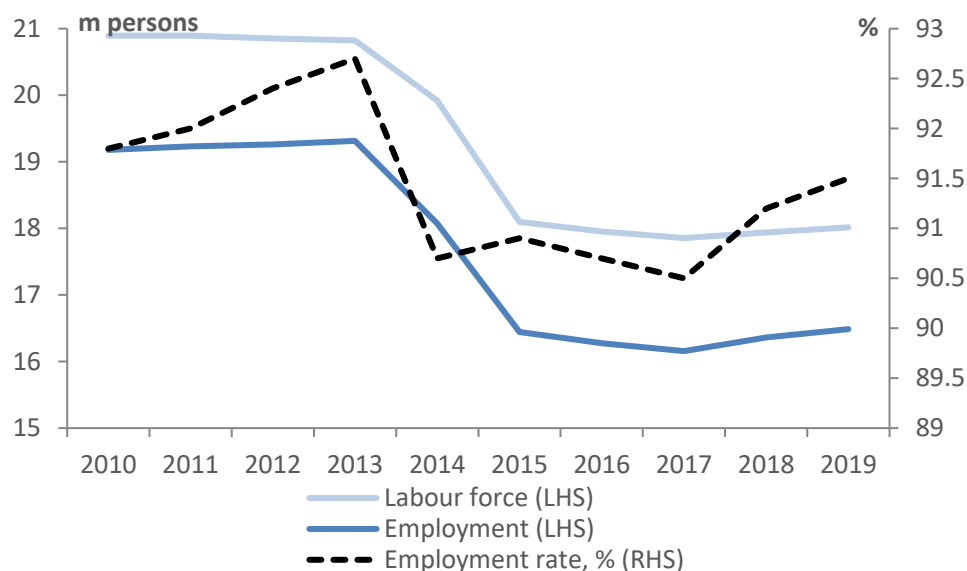
Figure 10: Real wages and real exchange rate based on unit labour cost



Source: Ukrstat, LFS 2017, Eurostat, own calculations; note: Real wage index is based on wages in UAH deflated by CPI. ULC based EUR/UAH exchange rate index is based on the ratio of Ukrainian (UAH) to Eurozone (EUR) unit labour cost (ULC) multiplied with EUR/UAH exchange rate

Figure 10 shows that real wages (corrected for inflation in Ukraine)⁷ and the EUR-UAH real exchange rate based on unit labour costs (a measure comparing production costs in Ukraine with the Eurozone, reflecting the perspective of potential investors) have both risen since Ukraine hit its economic low in 2015/2016. However, whereas real wages are now significantly higher than ever before, the EUR-UAH real exchange rate has risen more slowly due to the sharp depreciation of the Hryvnia in early 2014. In terms of unit labour costs, Ukraine is still more competitive in 2019 than in 2013. However, if unit labour costs keep increasing at the rate of the past two years, Ukraine will eventually lose this competitive advantage.

Figure 11: Labour force, employment and employment rate



Source: Ukrstat, LFS 2017

While increasing real wages and unit labour costs indicate a problematic development, we must ask whether this is due to labour migration or other factors. Figure 11 shows a massive simultaneous contraction of both the labour force and employment between 2013 and 2015 by 3 million individuals. While a large part of this decline reflects workers in the non-controlled territories in Luhansk and Donetsk (citizens of the AR Crimea and Sevastopol are not included in these time series), this does not fully explain the drop in the number of economically active persons: the reduction of the labour force (the labour force) in Donetsk and Luhansk oblast after 2014 was around 2 million people, out of which some workers will have resettled to other parts of Ukraine since. The non-controlled territories had an estimated pre-conflict total population of 3.9 million people⁸. Hence, at least one third of the reduction of employment and the labour force in 2013-2015 was due to the loss of jobs and consequent exit of workers from the labour force during the economic crisis.

⁷ Of course, wage data in Ukraine should be interpreted with caution because of the large size of the informal economy and, hence, informal wages. However, we assume that the informal/underreporting share remains relatively constant over time and hence would affect the level of the data we interpret, but not the changes over time.

⁸ PS/01/2015 "Implications of an economic detachment of the rebel-held area" of the German Advisory Group Ukraine

The ratio of (domestic) employment to labour force yields the “employment rate”, a measure of labour market tightness and de-facto the opposite of the unemployment rate. The employment rate fell by 2 percentage points from 2013 to 2014 as employment fell faster than the labour force. Due to the recovery, employment has risen faster than the labour force since 2017, but the employment rate has not regained its pre-crisis level.

Our assessment of labour migration from Ukraine shows a constantly increasing stock of Ukrainian labour migrants abroad (chapter 2). In particular, the annual net increase of Ukrainian labour migrants in Poland is estimated in the range of up to 200,000 people since 2017 (Growiec et al. 2019). While some of this increase may have been offset by falling migrant numbers in Russia, net annual emigration to Poland still amounted to more than 1% of the Ukrainian labour force (app. 18 million individuals). Such a large movement must have a substantial impact on labour market outcomes in Ukraine, even though the employment rate, at around 91.5% in 2019, indicates some slack in the labour market.

Hence, it seems safe to state that lower access barriers to employment abroad and the resulting migrant outflows have contributed to wage growth in Ukraine since 2015, along with higher domestic labour demand due to economic recovery. At the present level of wages and the exchange rate, Ukraine is still competitive on labour costs and the recent rise in the employment despite rising wages is consistent with this. But if net emigration continues and wages rise further, this may indeed diminish Ukraine’s competitiveness and its ability to attract much-needed productive investment.

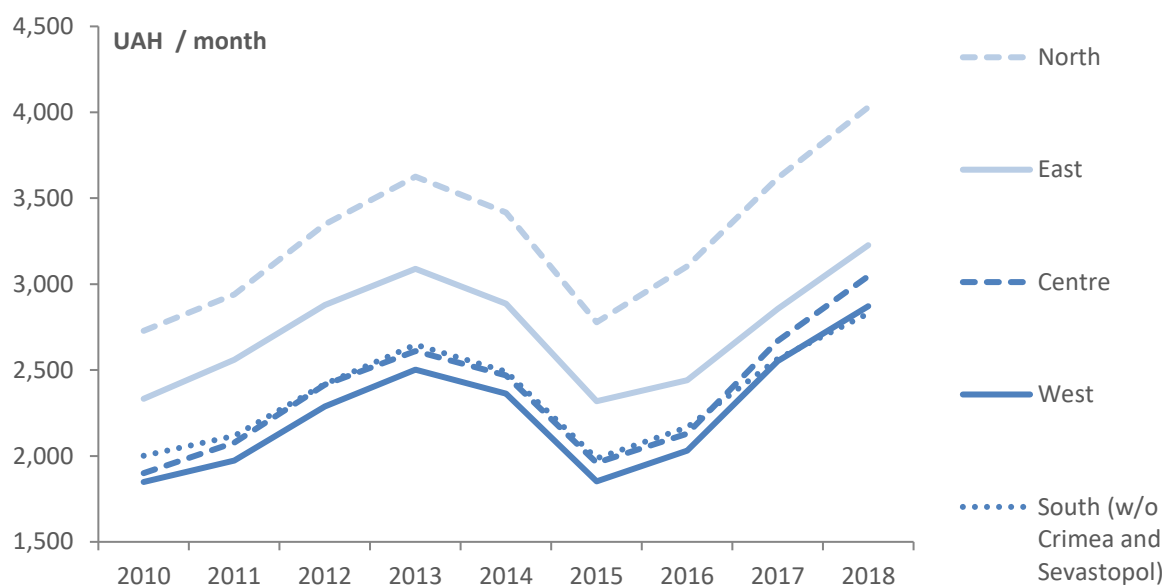
Conclusions:

- Real wages in Ukraine have increased by around 60% since 2015, raising fears about Ukraine losing its international competitiveness.
- However, the real UAH/EUR exchange rate in terms of unit labour cost, a measure of wage competitiveness, has risen much less and remains well below its 2013 peak.
- Migration is likely to be one driver of rising real wages, but the increase in the minimum wage in 2017 and the general economic recovery since 2015 have also contributed.
- Although migration appears to have an effect on real wages, it has so far not negatively affected employment, which has increased slightly since 2017.
- However, if migration continues and real wages keep increasing at the current pace, this may become a threat to competitiveness, investment, and ultimately employment.

4.2 Impact of migration on regional labour markets and wages

Turning from the national labour market to regional labour markets will enable us to shed light on two questions: first, we can compare changes in wages and migration across regions to ask whether more emigration is correlated with faster wage growth. Second, we can compare changes in migration and gross regional product (GRP; a local GDP measure) across regions to analyse whether emigration takes place predominantly from economically stagnant regions or whether it also threatens the growth of economically thriving regions.

Figure 12: Real wages by region



Source: Ukrstat, LFS 2017; note: monthly average, 2010 UAH

Officially reported wage levels in Ukraine are relatively differentiated between regions: wages in the North, which includes Kyiv, are around 50% higher than in the Centre, West and South of Ukraine. The industrial East used to be in between these two groups but has lost ground since 2014, clearly related to the Donbas conflict. Two relatively poor regions, the West and Centre, have converged somewhat to the North in recent years: wages in the West were 69% of the level of the North in 2013, dropped to 65% in 2015 but increased to 71% by 2019. In the Centre of Ukraine, they increased from 72% of the North in 2013 to 76% in 2018. Nevertheless, large differences remain among the regions of Ukraine in terms of wages and, hence, prosperity.

Table 2: Migration and migration prevalence by region of Ukraine

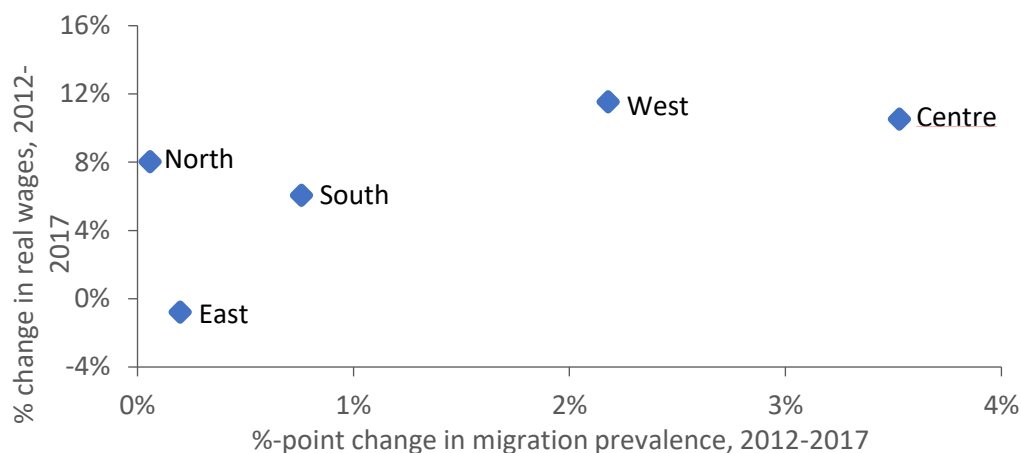
	2008	2012	2017	2008	2012	2017
	Migrants from region, thsd.			Migration prevalence, %*		
North	84	79	78	2.1%	2.0%	2.0%
Centre	136	39	120	5.1%	1.5%	5.0%
South	131	102	112	3.8%	4.6%	5.3%
East	278	116	89	3.8%	1.6%	1.8%
West	847	846	904	17.3%	17.2%	19.4%
Ukraine	1,476	1,182	1,303	6.9%	5.7%	7.3%

Source: Ukrstat, LFS 2017

As noted in Section 2.3, Western Ukraine is home to app. 70% of Ukrainian labour migrants; 19.4% of the labour force were labour migrants (some seasonal, some temporary, some full-time; Table 2). Between 2012 and 2017, migration prevalence – the ratio of labour migrants to the labour force – increased in several regions. In Central Ukraine it increased from 1.5% to 5%, while the employment rate suffered a sharper-than-average drop. In the West, migration prevalence increased from 17.2%

to 19.4% without much change in the employment rate; this outcome may be related to the region's geographic proximity to Poland with its strong demand for Ukrainian workers. So, what is the link between changes in migration prevalence and changes in real wages?

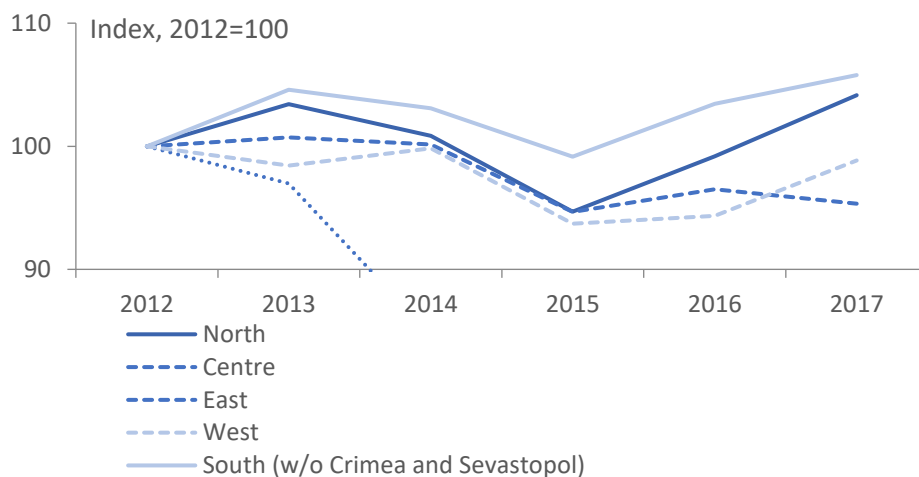
Figure 13: Changes in real wage and migration prevalence by region



Source: Ukrstat LFS 2012 & LFS 2017, National Bank of Ukraine

Figure 13 suggests a positive relationship between rises in migration prevalence and wage increases. The data point for the Eastern region should be ignored because the sharp decline in the real wage there is mainly due to the Donbas conflict. However, the other data points indicate that more migration was indeed correlated with a higher wage increase.

Figure 14: Real gross regional product by region



Source: Ukrstat, LFS 2017; note: GRP for East drops to index value of 71 by 2017

Finally, we compare the development of gross regional product (GRP) with changes in migration prevalence. Those regions where migration prevalence grew very little – the North and South – also saw GRP recovering well by 2017 from the 2014 crisis. Both the West and Centre, however, have seen a sluggish (West) to no (Centre) real recovery of GRP. This could indeed explain why migration from these regions has increased the most. The wage increases in these regions could hence be interpreted as linked to a reduction in labour supply in the absence of higher labour demand. Interestingly, this is

somewhat at odds with the frequent perception that growth has mainly taken place in the Western Ukraine since 2014. Due to the conflict and loss of control over areas in Donetsk and Luhansk, the real GRP of Eastern Ukraine in 2017 had dropped to 71% of its 2012 value.

Conclusions:

- Regional labour market data shows that the West and Centre of Ukraine experienced higher increases in migration prevalence along with larger real wage increases between 2012 and 2017, confirming the impact of migration on real wage increases.
- The West and Centre of Ukraine also experienced a slower (West) or no (Centre) economic recovery since 2015.
- Migration prevalence did not increase between 2012 and 2017 in the North of Ukraine, which has the highest wage level in the country. The North also experienced the best economic recovery of GRP since 2015.
- The South of Ukraine had the lowest average wages in Ukraine in 2017, but experienced only a small increase in migration prevalence 2012-2017 and also recovered well since 2015.

5 Macroeconomic effects of migration and remittances in the long run

Our foregoing analysis (Section 4) of the effects of emigration on the Ukrainian labour market is complicated by the lack of fully consistent data on migration, domestic employment, labour force, and output, relating to the same territorial base over time. At the same time, some of the observed outcomes – more migrants abroad, growing remittances, real wage growth, stable domestic employment – are broadly consistent with the predictions of economic theory regarding the long-term effects of large inflows of remittances: the currency is expected to appreciate in real terms, raising wages expressed in foreign currency; the international competitiveness of industries producing tradable goods and services declines; and demand for non-tradable goods and services increases along with output.

In this section, we first explain the economic mechanism underlying such a “Dutch disease” effect.⁹ Then we assess whether recent labour market performance and structural change in Ukraine fit the expected pattern. Our reasoning relies on the distinction between internationally tradable goods and services such as most industrial goods, whose prices are largely determined in the world market; and non-tradable goods and services such as housing, construction, government services, etc. whose prices are determined domestically.

Many migrants send remittances to relatives and friends in their countries of origin. Remittances directly benefit the households that receive them through the usual microeconomic effects, such as less income poverty, higher expenditures on food/ health care/ education, etc. Typically, the additional expenditures not only go towards imports (in which case there would be no large effect on the domestic economy), but also towards domestic, “non-tradable” goods and services. Extra demand for non-tradables raises their prices relative to tradables, drawing additional resources into non-tradables production and causing it to expand. Conversely, the tradable goods sector will shrink while the increased demand for tradables due to remittances will be met through additional imports.

One way to conceptualise the relative price of non-tradables is the average wage (we focus on labour as a ubiquitous non-tradable service) expressed in foreign currency, adjusted for foreign inflation. We may think of this “real foreign-currency wage” as the power to purchase a constant basket of internationally tradable goods. By a simple algebraic transformation, the real wage in foreign currency may be written as the product of the nominal wage adjusted for domestic inflation and the real effective exchange rate based on inflation rates. The country trade weights on which the real effective exchange rate index is based will implicitly determine the foreign currency composite in which the wage is expressed.

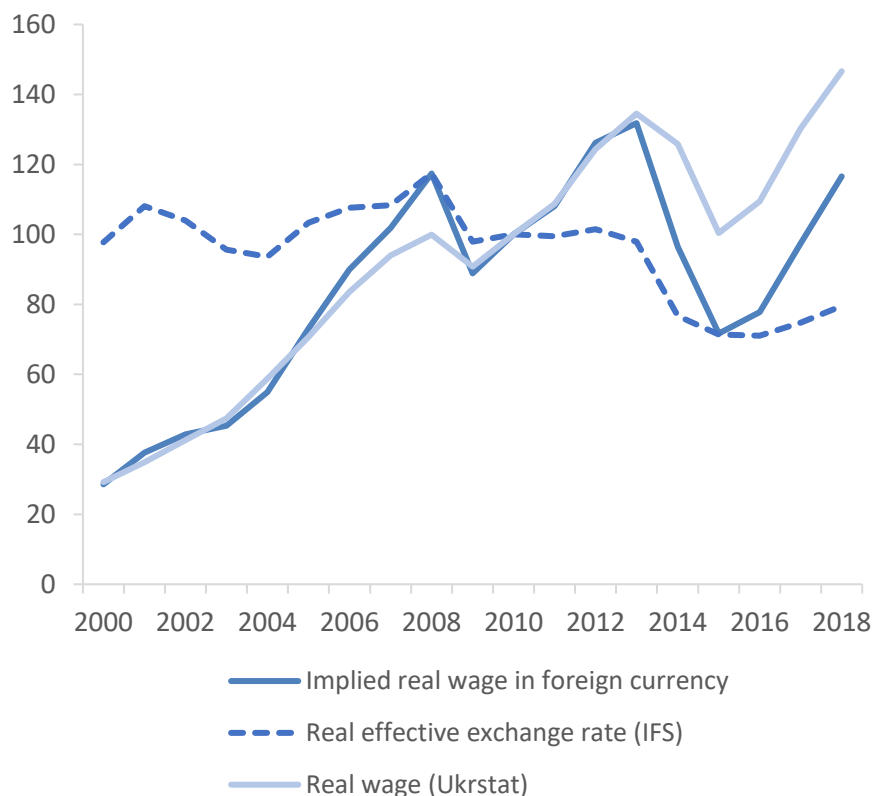
In Ukraine, the real foreign currency wage has fluctuated widely since the mid-2000s, demonstrating that it is influenced by many factors that include, but are not limited to, migration and remittances (Figure 15). At the same time, the real domestic-currency wage (adjusted for CPI inflation in Ukraine) has followed a strong upward trend since the year 2000, punctuated by temporary declines due to the

⁹ This effect is similar to, but analytically separate from the Balassa Samuelson effect (Grui, Vdovychenko, 2019) – the notion that through economic development or successful systemic transformation, the productivity of the tradable goods sector rises rapidly, in turn raising wages in both tradable and non-tradable goods sectors, and ultimately causing the relative prices of non-tradables to increase (i.e. a real appreciation). Here the key is differential productivity growth, whereas the Dutch disease effect is driven by additional demand for non-tradable goods and services through higher disposable income from remittances.

2009 and 2014 crises and subsequent recoveries. Overall, the purchasing power of the average wage in Ukraine in 2018 was five times as large as in 2000.

While this is an impressive gain, it is also a development to be expected (or at least, hoped for) in a transition economy that underwent a profound systemic transformation during the 1990s and has since gradually recovered, with substantial economy-wide productivity growth as a result of restructuring. However, even today (data of September 2019), the headline average monthly wage in Ukraine is still below EUR 400, leaving a large wage differential with all EU member states and strong incentives for emigration.

Figure 15: Real exchange rate and real wage trends, Ukraine



Source: Ukrstat, LFS 2017; indices: 2010 = 100

The international competitiveness of Ukrainian firms may be assessed on the evolution of the real foreign currency wage. Until 2013, with a broadly stable real exchange rate, this indicator increased more or less in line with the real domestic-currency wage. When the exchange rate peg was abandoned in early 2014, the Hryvnia depreciated sharply and has only partly recovered since. As a result, the real foreign-currency wage fell rather more sharply than the real domestic-currency wage between 2013 and 2015; despite a rapid recovery, it had not regained its 2013 level by 2018. This development mirrors the evolution of the real exchange of the Hryvnia relative to the euro, based on

unit labour costs (see Figure 10 above); this is noteworthy because, although the two indicators have their respective strengths and weaknesses, they both point in the same direction.¹⁰

Zooming in on the very recent past, it is also true that the real foreign-currency wage has increased by more than half since hitting rock bottom in 2015 (we discuss this recent development in Section 4 above). This wage growth may have presented challenges to Ukrainian firms that face competition in European and global markets and rely heavily on cheap labour. It also seems plausible (see Section 4) that emigration to Poland during this period (app. 1% of the labour force annually) has reduced the domestic labour supply and sustained the wage recovery.

At the same time, a strong Dutch disease effect would depend on rapidly growing migrant remittances. However, remittances remained fairly constant at 8% of GDP from 2015 to 2018 (Section 2.4). Thus, there is little evidence to date that migration and remittances have produced a Dutch disease effect that threatens the international competitiveness of Ukrainian industries producing tradable goods and services. Even if there were a Dutch disease effect due to remittances, this would be problematic mainly if remittances were volatile – for which, again, there is little evidence (Section 2.4).

Conclusions:

- Taking a long-term view, the real wage in Ukraine, adjusted for domestic inflation, has grown strongly since 2000, consistent with a broadly successful systemic transformation of the Ukrainian economy.
- The average Ukrainian wage expressed in foreign currency, adjusted for foreign inflation (“real foreign currency wage”), has fluctuated widely since the mid-2000s, reflecting the 2009 and 2014/15 macroeconomic crises and subsequent recoveries as well as the depreciation of the Hryvnia after the abandonment of the exchange rate peg in early 2014.
- The real foreign-currency wage may be interpreted as a broad indicator of the international competitiveness of the Ukrainian economy relative to all its trading partners. While fluctuating strongly, it stood at the same level in 2018 as in 2008, suggesting no long-term loss in competitiveness.
- As remittances have been broadly stable since 2015 relative to GDP, there is little evidence that a Dutch disease effect, which would depend on rapidly growing remittances, has played a large role in wage growth since 2015.

¹⁰ *Relative unit labour costs are a more precise measure of competitiveness, but here relate only to one trading partner (the Eurozone). By contrast, the real foreign-currency wage is calculated on the basis of consumer price inflation (which includes non-tradable goods and services that are not relevant for international competitiveness), but accounts for all trading partners.*

6 Policy implications

Labour migration has become an important factor that economic policy must take seriously. Working abroad sustains the livelihoods of at least 2 million Ukrainian migrants and their dependents. Many migrants remain members of a household in Ukraine, while others have moved abroad more permanently. Migrant remittances amount to 8% of GDP. They directly sustain the livelihoods of several million Ukrainians and provide a stable source of foreign exchange earnings for the Ukrainian economy. EU countries now host up to 3 out of 4 Ukrainian migrants and are the source of two thirds of migrant remittances.

There is a distinct possibility that net emigration will continue in the short to medium term, especially to EU member states (see below). This said, even with its present importance to the livelihoods of millions of Ukrainians and to the external financing of the Ukrainian economy, **the Government of Ukraine should mainstream migration in its strategic policy planning** to harness the benefits of migration for the development of Ukraine and to address challenges in a proactive and timely manner. In this chapter, we discuss important policy challenges and possible responses.

Need for more statistical data

A recurring theme in this study has been the lack of comprehensive and up-to-date information on crucial aspects of labour migration from Ukraine – including the number of migrants abroad, their patterns of migration, remittance behaviour, and links with households in Ukraine. The Labour Force Survey (LFS) special module on migration covers an important sub-group of migrants: those who are still member of a household in Ukraine. So far, however, it has been conducted only every four to five years (2008; 2012; 2017) on the grounds that emigration is not an important and rapidly developing issue in Ukraine. While this may have been true in 2008 or 2012, it was hardly still true in 2017, and this study demonstrates that migration now creates important opportunities and poses challenges that policymakers may want to address in a timely manner at many different levels. More and better data are urgently needed to do so.

A crucial first step will be to include questions on migration experiences of current or former household members in the forthcoming population census for Ukraine. As the census forms the basis of the sampling schemes of the main household surveys (LFS and Household Budget Survey - HBS), census information on migration experiences will be important to ensuring that the household surveys generate reliable information about migration (LFS) and the use of remittances (HBS).

Second, the next **LFS migration module** is currently scheduled for 2022. Since migration is now an important issue, the module **should be implemented more often (preferably, every year)**. The module planned for 2022 should be brought forward as much as possible: if possible, to 2020 or, alternatively, at least to 2021.

Third, many high-emigration countries use the regular (quarterly) LFS to generate information about the evolution of employment not only in the domestic economy, but also abroad. Given the importance of migration to the Ukrainian economy today, **questions on migration should be added to the regular LFS at short notice** to get a better handle on the number of migrants (from among the households covered by the LFS), destination countries, and patterns of migration.

All these data would only cover migrants that are (or were at one time) members of a current household in Ukraine. Thus, these measures exclude permanent migrants that have left Ukraine in recent years, may still have links with the Ukrainian economy, may even consider returning to Ukraine, and will most often live and work abroad with regular status. Without consistent information on this important group, it will be difficult to produce reliable population statistics for Ukraine. One possible source of information that could be exploited more fully is partner country **data based on work visa and administrative registers**, especially from EU member states. Combined with **information on border crossings**, such data may help to generate more comprehensive estimates of the population and labour force and improve data collection accordingly.

Similarly, remittances data in the balance of payments rely on partner country information on informal remittances to Ukraine. Given the growing share of migrants in Poland where informal remittances are wide-spread, it seems worth exploring whether the findings of in-depth research such as Growiec et al. (2019) on the number of migrants, their labour input in the Polish economy, and their conditions of work can be translated into innovations in data collection on remittances jointly by the two central banks.

Will net emigration remain strong?

Migration already now has reached a level of magnitude that justifies mainstreaming it as a factor into strategic policy planning as a whole. In order to accurately design specific policy responses, an important question is whether net emigration will continue or whether the number of migrants possibly reached a plateau the current level. The short answer to this important question is that existing data are too sketchy to provide a reliable answer. This is in itself a problem and points back to the need to collect more frequent and comprehensive data on migration.

This said, the recent research paper by Growiec et al. (2019) provides robust evidence that the number of Ukrainian migrants in Poland (measured in full-time equivalents) has increased from approximately 200,000 in 2014 to about one million in 2018. It appears that easy access to the Polish labour market and the opportunities created by EU visa liberalisation for job search and informal work in the EU have been game-changers and have created a new dynamic of emigration and wage growth.

It is difficult to predict how long this dynamic may continue. Recent wage increases in Ukraine must have reduced the wage gap between Ukraine and most EU member states substantially; anecdotally, wages for construction workers in Kyiv are now competitive with Poland after taking into account differences in the cost of living and the non-monetary costs of migration such as being separated from one's family members. On the other hand, the wage differential between Ukraine and EU member states remains large. Furthermore, real wages in Poland have grown by nearly 18% from 2015 to 2018, turning wage convergence into an exercise of shooting for a moving target.

Thus, **it seems unlikely that net emigration from Ukraine will suddenly stop**. In any case, the number of Ukrainian labour migrants abroad is already so large that migration affects many distinct policy areas and the best response for the Government of Ukraine is to mainstream migration in its strategic policy planning. In the remainder of this chapter, we first discuss key economic challenges posed by present and future emigration and then turn to possible policy responses.

Economic challenges of high and growing labour migration from Ukraine

The recent growth in the number of Ukrainian labour migrants, especially in Poland, along with likely future net emigration, poses at least four challenges to policymakers in Ukraine. First, **regional economic development within Ukraine may diverge more widely**, with disadvantaged regions experiencing a combination of poor economic opportunities, low growth, high emigration, accelerated population aging, and strains on public infrastructure and service provision. The large share of Western Ukraine in the number of migrants abroad and ongoing discussion on the effects of wage growth on investment and long-term growth in Western Ukraine illustrate these concerns.

Second, migrants' incomes are normally subject to income tax and social security contribution in the destination country. If migrants or their family members continue to live in Ukraine and use public infrastructure or services that are funded from Ukrainian tax revenue, this may **strain the government budget** (and be considered unfair by taxpayers within Ukraine). It is worth noting that this effect will be mitigated to the extent that remittances (even when transferred through informal channels) lead to higher imports on which import VAT and customs duties are effectively assessed.

Third, **a growing share of each cohort of young Ukrainians leaving the education system will be headed for work or further study abroad**. This should be taken as a fact and not as a disincentive for providing citizens with a good education system. The better the education and vocational training systems prepare students for all opportunities that they may encounter, the better they will serve their purpose to benefit the Ukrainian population.

Fourth, even when a large proportion of remittances comes to Ukraine through informal channels, the **financial system will still have to handle growing inflows of foreign exchange transparently and safely**. Macroeconomic policies may need to identify and probably accommodate inflationary pressures that may result from growing demand for non-tradable goods and services and the resulting structural change in the economy (including such phenomena as real estate booms).

Policy responses

As there are many countries that experience large emigration, there is a good understanding among the international academic and policy communities about what constitutes good practice in each policy area (or at least, there are debates that Ukrainian authorities may draw on as they prepare to face challenges going forward).

Above all, the Ukrainian authorities need to be aware that potential migrants compare their living conditions and prospects at home with how they expect to fare in possible destination countries; on this basis, they decide whether to emigrate or not. If young Ukrainians feel that their prospects in Ukraine are uncertain or uninspiring, they will continue to emigrate in growing numbers. Importantly, the cost of emigration will continue to decline as more migrants are abroad already and form networks that facilitate economic and social integration in destination countries for newcomers. **Authorities can best address the challenges that may arise from emigration by pushing ahead with reforms to create favourable conditions for economic growth and social development in Ukraine**. If young Ukrainians are confident about the future of their country and their own prospects, they are less likely to emigrate and more likely to return at a later stage.

There is a wide-ranging discussion, first, on what policies will effectively **counteract regional economic divergence**. Discussions address critical infrastructures whose functioning the central government

should actively guarantee, such as transport, broadband internet, schools, health care, and social services; as well as strategies for systematically withdrawing certain layers of government services when population density simply falls too low. More active forms of intervention may include subsidies for investment (domestic or foreign) in disadvantaged regions; such subsidies may be justified by the positive external effects of additional economic opportunities. In an aging society, many related challenges will also have a regional dimension. Quite irrespective of the extent of future emigration, it will be helpful if authorities have a long-term strategy to address regional divergences.

Second, regarding the fiscal impact of emigration, various economists have proposed various types of taxes on migrant incomes to channel some of the productivity gains due to migration from migrants to those in countries of origin or destination that may be disadvantaged by migration. For many good reasons, however, these ideas have never been put into practice in earnest. In particular, it would be **impractical and counterproductive to attempt to tax remittances** because migrants would likely use informal transfer channels instead of formal ones to avoid taxes. At the same time, if more remittances were transferred formally and saved in the financial system, financial development would be enhanced (see below).

To ensure that migration benefits not only migrants but also those who stay at home, many governments now engage in **Diaspora policies** to harness migration and remittances for development. Diaspora policies may seek to **encourage migrant transnationalism and philanthropy, circular patterns of migration, and Diaspora involvement in firms, research and education, and civil society institutions at home.**

Migrants are often vulnerable in their destination countries because they are unfamiliar with local conditions, do not speak the local language, or because of their legal status. Therefore, a good starting point for Diaspora policies would be to provide support services to migrants that will make their position more secure and enable them to get the best out of their migration experience, such as **consular or employment services or advice on legal and administrative issues** faced by migrants at home or at destination. Given the large number of Ukrainians already abroad, such measures will be useful with or without any increase in migration.

Third, to be useful to young Ukrainians, the **education and vocational training systems need to equip students with the right skills to work in Ukraine as well as abroad.** This may take many forms, from the teaching of relevant foreign languages to setting up skill partnerships where Ukrainian students receive vocational training and certificates that are recognized in Ukraine as well as in key destination countries.

Fourth, measures to encourage more formal transfers of remittances may start with the ongoing efforts (World Bank/ G7) to **reduce the cost of sending remittances through formal channels.** Specifically, Ukraine may build on these efforts to work with destination country governments to reduce the cost of sending remittances to Ukraine from the EU. In other countries with large incoming remittances, there have been campaigns to strengthen financial literacy and financial integration, particularly among households that receive remittances. Fees from handling remittances may strengthen the financial sector institutions involved, while their role also requires scrutiny as part of financial sector supervision. If remittances are large enough to affect relative prices and the sector structure of the economy, **macroeconomic policies may need to accommodate these possible price**

level effects and not mistake them for inflationary pressures that should be addressed through a contractionary policy stance.

Conclusions:

- There is an urgent need for more comprehensive and frequent statistical data on migration and remittances. Priority measures include introducing questions on migration experiences of past and present household members in the forthcoming census; annual LFS modules on migration (which are currently implemented only every five years); and introducing questions on migration of household members in the regular LFS.
- In the absence of better data, it is difficult to assess the likelihood that the number of migrants abroad will continue to grow as in the recent past (although it is difficult to see why net emigration should suddenly come to a halt). However, even today, migration is important enough to the Ukrainian economy to mainstream it in strategic policy planning.
- A (likely) further increase in the number of labour migrants will exacerbate several current policy challenges:
 - Regional divergence: Some regions are particularly affected by emigration and face the prospect of an aging population, lack of incentives for public and private investment, and, hence, slower economic growth.
 - Public finance: Migrants normally pay taxes and pensions contributions in their destination countries, while they themselves or their household members may use public services in Ukraine.
 - Education and vocational training: With a substantial share of each cohort of young Ukrainians now headed abroad, schools, universities, and vocational training institutions need to equip students with the necessary language, educational, and professional skills to allow them to succeed in a wide variety of settings.
- The following measures will help to counter these challenges:
 - Regional policies to reduce regional divergence: maintenance of key infrastructures; a structured response to falling population density; investment promotion.
 - Harness the benefits of migration for migrants as well as those who stay behind in Ukraine by assisting Ukrainian migrants/ Diaspora abroad through consular and employment services and legal advice; introduce Diaspora policies to encourage the involvement of Ukrainians abroad in the economy and society at home
 - Equip students with the right skills for work in Ukraine and abroad
 - Encourage the use of formal transfer channels for remittances and financial development by lowering the cost of sending remittances formally from the EU to Ukraine and improving financial literacy
- Above all, migration intentions are strongly influenced by (especially young) people's expectations for the economic and social development of their home country compared to potential countries of destination. By implementing comprehensive economic reforms now, Ukraine has the opportunity to create favourable conditions for economic growth and social development that will encourage young Ukrainians to invest in a future in Ukraine.

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