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Migration into the EU: Stocktaking of Recent Developments and Macroeconomic Implications

Francesca Caselli, Huidan Lin, Frederik Toscani and
Jiaxiong Yao

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WORKING PAPER

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ABSTRACT: Against the backdrop of the war in Ukraine, immigration into the European Union (EU) reached a historical high in 2022 and stayed significantly above pre-pandemic levels in 2023. The recent migration has helped accommodate strong labor demand, with around two-thirds of jobs created between 2019 and 2023 filled by non-EU citizens, while unemployment of EU citizens remained at historical lows. Ukrainian refugees also appear to have been absorbed into the labor market faster than previous waves of refugees in many countries. The stronger-than-expected net migration over 2020-23 into the euro area (of around 2 million workers) is estimated to push up potential output by around 0.5 percent by 2030—slightly less than half the euro area’s annual potential GDP growth at that time—even if immigrants are assumed to be 20 percent less productive than natives. This highlights the important role immigration can play in attenuating the effects of the Europe’s challenging demographic outlook. On the flipside, the large inflow had initial fiscal costs and likely led to some congestion of local public services such as schooling. Policy efforts should thus seek to continue to integrate migrants into the labor force while making sure that the supply of public services and amenities (including at the local level) keeps up with the population increase.

JEL Classification Numbers: F22, H7, J1, J6, O15

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WORKING PAPERS

Migration into the EU: Stocktaking of Recent Developments and Macroeconomic Implications

Prepared by Francesca Caselli, Huidan Lin, Frederik Toscani and Jiaxiong Yao¹

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Executive Summary

Driven largely by refugees from Ukraine, the European Union (EU) saw immigration of non-EU citizens of around 1.4 percent of its population in 2022, the highest level since harmonized migration data became available and close to 50 percent above the levels of 2015-16. Inflows eased in 2023 but remained significantly above pre-pandemic averages. Both the size and the composition of the population shock was distributed heterogeneously across the EU. In Central and Eastern Europe and Germany the roughly 4 million Ukrainian refugees under the EU's temporary protection scheme played an outsized role, while Latin American's made the largest contribution to the increased immigration in Spain, for example.

This paper takes stock of recent migration developments in the EU and its macroeconomic implications, drawing on the large literature. Amid a challenging demographic outlook, the high level of non-EU immigration allowed the EU's population to grow at the fastest rate in many years in 2022 and 2023. The old-age dependency ratio—though still rising—rose more slowly than in previous years. Immigration has also helped meet unprecedented strong labor demand in Europe during 2022-23, with close to two-thirds (2.7 million) of EU jobs (4.2 million) created between 2019 and 2023 filled by non-EU citizens. At the same time, the unemployment rate of EU citizens remained at historic lows, suggesting immigrants helped alleviate labor shortages to some degree. Ukrainians seems to have been absorbed into employment much faster than previous refugee waves in many countries, reflecting not only tight labor market conditions but also the fact that the temporary protection scheme allows Ukrainian refugees to look for work almost immediately.

Using a semi-structural general equilibrium model, we simulate the impact of the recent increase in immigration (relative to pre-pandemic expectations). We find an impact on the level of potential output in 2030 of 0.2-0.7 percent, with a central estimate of 0.5 percent (slightly less than half the euro area's annual potential GDP growth at that time). The range reflects measurement difficulties related to the size of the working age population increase caused by higher immigration, different possible assumptions on the productivity differential of immigrants and natives, and the possibility that only some immigrants settle permanently. The impact on GDP per capita depends crucially on how productivity develops. The literature has shown that the aggregate TFP impact has often been positive. But if a permanent productivity wedge between migrants and natives remains, and there are no positive aggregate TFP effects, the impact on GDP per capita would be negative.

Previous IMF work has shown that the increased migration caused initial fiscal costs of around 0.2 percent of EU GDP. As shown in the literature, the medium- and longer-term fiscal impact will be determined to a large extent by the labor market outcomes of migrants. Beyond the fiscal costs, the impact on native labor market outcomes, as well as "congestion" costs related to the crowding of the per capita provision of public services are often discussed with concern. Data constraints mean it is too early for a meaningful analysis of the wage impact of the recent increase in immigration. The broader literature tends to find possible adverse effects of immigration on some native's wages in the short run (with the complementarity of migrants and native worker skills playing a key role). In the longer run the impact on wages is generally found to be positive. In terms of congestion costs, amid large local population shocks in some regions in 2022 (as high as 3 percent of the population) and an inelastic supply of public services and amenities (including housing), anecdotal evidence suggests that crowding occurred in some places.

Following the recent increase in immigration, its saliency as a public topic has increased noticeably. Around one-quarter of Eurobarometer respondents listed immigration as one of the main two challenges facing the EU in the Spring of 2024. This puts immigration as the second most named concern (after the war in Ukraine), though still below the peaks reached in 2015-16. In a cross-section of individual-level survey responses on migration restrictions from 2017 (before the recent immigration increase), we find a stronger statistical association with the desire to restrict immigration for demographic variables than socio-economic proxies.

Two policy priorities emerge—fully aligned with many previous studies. To improve output trends amid rapid aging of population and tight labor markets, governments need to focus on integrating migrants into the labor market—and integrating them in the most productive way possible—and they need to make sure that the supply of public services and amenities (including at the local level) keeps up with the population increase.

1. Introduction

Always a much-scrutinized topic, migration—and the economics of migration—has been particularly salient in recent European policy debates. Around one-quarter of Eurobarometer survey respondents ranked immigration as one of the two most important issues facing the European Union (EU) in the Spring of 2024.

This comes as immigration into the EU accelerated sharply after the onset of the war in Ukraine, reaching a historical high of around 6.5 million in 2022 when counting all the roughly 4 million refugees from Ukraine. Net immigration in 2023 dropped relative to 2022 but remained significantly higher than in the pre-pandemic years. Consequently, even as fertility rates continued to fall, 2022 saw a sharp acceleration in EU population growth to 0.6 percent, the highest level in many years.

The impacts of such large surges in immigration on the host country (and regions) are varied, and while they extend of course beyond purely economic effects, the latter are the exclusive focus of this paper. How should one think about the economic gains and costs of immigration for host countries? Most fundamentally, an unexpected increase in immigrants is akin to a sudden increase in a country's population. Depending on how immigrants differ from the existing population in terms of age, gender, skill, and language, the increase will also change the structure of population. With a larger population comes higher aggregate demand, greater demand for public services and amenities, and (eventually) a larger labor force. Immigrants' human capital can substitute for or complement the skills of native workers. The economic gains and costs of immigration manifest at the national level, but crucially also at the local level given a usually unequal geographical distribution of migrants within host countries (OECD, 2016).²

The paper studies the recent immigration into the EU, against the backdrop of the war in Ukraine, and its impact on the EU population, labor market, and production capacity. It also discusses the associated costs, such as those on different population groups (i.e. distributional costs), fiscal costs, and local amenity implications, drawing on the large existing literature. The paper also analyzes data on migration perceptions, both documenting recent aggregate trends and using a regression framework to explore the determinants of perceptions toward migrants in a cross-section of subnational European regions for 2017. Two policy priorities emerge from the study, fully aligned with many previous studies, emphasizing the importance of the integration of migrants into the labor market and making sure that the supply of public services and amenities keeps up with the population increase.

The paper proceeds as follows. Section 2 reviews some of the vast literature on migration. We draw on this throughout the paper—our own contribution is to take stock of the recent developments in the EU and to situate them within this existing literature. Section 3 documents migration developments over the past few years in the EU and migration policy changes at the national and EU level. The paper then discusses the macroeconomic implications in section 4, including the role of migrants in the EU's labor market performance, early evidence on the integration of Ukrainian refugees, and the implications for potential output. Section 5 touches upon the subnational angle of migration, while section 6 looks at public perceptions of migration. Section 7 concludes by surveying avenues for governments to make sure that migration can play the crucial role it has to mitigate Europe's demographic challenges while minimizing possible impacts on the native population.

² Migration also has important implications for sending countries. This is beyond the scope of this paper.

2. A Brief Overview of the Literature

Before turning to the stock taking exercise, this section summarizes some of the existing literature on the economic effects of migration on host countries. One can usefully separate the strictly macroeconomic effect of a migration surge (growth, productivity and fiscal, for example), the distributional labor market impact and the impact on public goods and amenities (which mainly manifests at the local level).

- **Short-run macroeconomic effects:** These are generally found to be positive for “economic” migration and more ambiguous for refugees (Engler and others, 2023; IMF, 2020).³ In the short run, following a migration surge, demand expands (as new arrivals consume) and fiscal expenditures increase (especially in the case of refugees who need immediate public assistance to settle).⁴ Also, in the short run, but especially in the medium term, labor supply expands (as arrivals gradually enter the labor force). The degree to which output, productivity, and the fiscal balance of the host country are ultimately affected depends crucially not only on the number of immigrants and their skill levels but also on how their skills are matched with jobs and how capital adjusts to the increase in labor supply (Angrist and Kugler, 2003; Edo and Rapoport, 2019; Edo and Özgüzel, 2023).
- **Productivity:** The literature has also generally found a positive impact on receiving countries productivity (Lewis and Peri, 2015). The channels include cultural diversity (Ottaviano and Peri, 2006), birthplace diversity (Alesina and others, 2016), knowledge diffusion (Andersen and Dalgaard, 2011; Hornung, 2014; Bahar and Rapoport, 2018; Boberg-Fazlić and Sharp, 2024), skill diversity, innovation (Stuen and others, 2012), entrepreneurship, product diversity and quality (Ariu, 2022), among others.
- **Distributional labor market effects:** The literature suggests immigration can create winners and losers among the native workers, despite muted average effects. A key factor determining the impact on wages and employment of the native population is the complementarity of migrants and native workers in terms of observable characteristics such as education and skills, especially in the short term (Borjas, 2003; Ottaviano and Peri, 2012; National Academies of Sciences, Engineering, and Medicines, 2017; Edo 2019 among many others). Since the labor market and firms’ capital take time to adjust, even more so when immigration is unexpected, the initial impact of immigration on natives’ labor market outcomes tends to be negative. Studies exploiting natural experiments, for instance, show that immigration can have an immediate negative effect on wages and employment (Card, 1990; Borjas, 2017; Edo, 2019). Similarly, structural studies find that the mean wage impact of immigration is negative in the short run, and null (or positive) in the longer term when the productive capacity of the economy has adjusted. Finally, labor market institutions in the receiving country also shape the impact of immigration on the local labor market (Angrist and Kugler, 2003; Edo and Rapoport 2017; and Edo and Özgüzel 2023).⁵

³ For an extensive review of the economic impact of immigration in the United States see also National Academies of Sciences, Engineering, and Medicine (2017). Moreover, the recent literature on spatial economics has found that international migrants concentrate more in expensive cities and consume less locally than comparable natives, leading to a more efficient spatial allocation of labor and increasing the aggregate output and welfare of natives (Albert and Monras, 2022).

⁴ UNHCR (2024) estimates that Ukrainian refugees who remained in Poland contributed to an increase of the GDP level by 0.7-1.1 percent in 2023. Strzelecki et al. (2022) find that during the pre-war period between 2013-2018 Ukrainian migrants contributed to Poland GDP by about 0.5 pp each year.

⁵ See Beerli et al. (2021) for a study showing broad positive effects of higher immigration in Switzerland on wages and productivity, with effects driven by firms which previously reported skill shortages.

- **Fiscal:**⁶ Key elements driving the impact of immigration on fiscal balances include not only the design of the tax and benefit system but also the composition of the migrant population (OECD 2013), such as employment status and age. At the macro level, the long-term overall impact of migrants on fiscal balances is estimated to be on average neutral with relatively wide estimates of migrants' average fiscal contributions in the range of -1 and 1 percent of GDP (Preston 2014; Rowthorn 2008; and OECD 2013, among others).⁷ More recently, in a sample of European Countries, Fiorio and others (2023) find that on average migrants were net contributors to public finances over the period of 2014–2018 in the EU. In contrast, van de Beek and others (2023) finds that while labor immigration makes net positive contribution to the public finances of the Dutch government, other categories of immigration (study, family, and asylum) all make a net negative contribution. At the US county level, Mayda and others (2023) show that there is a different impact across US counties receiving immigrants of different skill levels on the per capita tax base and local revenues.^{8 9} Overall, while in the long run migrants' integration will lead to increased tax revenues and higher economic growth, absorbing migrants in the domestic economy can strain the provision of public services in the short run and hence put pressure on public finances.
- **Subnational/local effects:** OECD (2016) discusses the importance of considering the local dimension of migration. The channels which operate at the national level are accentuated at subnational level since immigrants are typically not distributed homogeneously across the country. A key dimension are local public goods. In the short term, supply is largely inelastic, such that some initial congestion (such as lack of affordable housing and overcrowding of schools, hospitals and public transportation) following large immigration waves—particularly unexpected ones—is plausible. This could also lead to negative perceptions of migrants (Hanson and others, 2007; Facchini and Mayda, 2009; and Hainmueller and Hiscox, 2010).^{10 11}
- **Perceptions of immigrants and political effects of migration:** A comprehensive recent literature overview is provided by Alesina and Tabellini (2024) who show that the available evidence points to a dominant role for “cultural” rather than “economic” factors in mediating observed native backlash to immigration. People's perceptions of immigrants as a cultural threat do not appear associated with a country's integration policies, but perceptions of immigrants as an economic threat are found to be lower among survey respondents who live in a country with more inclusive integration policies aimed at labor market access and political participation (Callens and Meuleman, 2016). Weber (2015) shows that a greater share of immigrants nationally comes with a higher perceived threat (consistent with a role of

⁶ See Edo and others (2020) for a useful overview.

⁷ See also Dustmann and Frattini (2014) who show that migrants to the UK have made positive fiscal contributions.

⁸ The inflow of low-skilled foreign immigrants generates a reduction in expenditures on infrastructure and public amenities, as opposed to high-skilled immigrants who have the opposite impact. They do not find a significant effect on education spending or on student to teacher ratios, suggesting a reallocation of resources toward education expenditure in response to inflows of low-skilled immigrants.

⁹ Another stream of the literature studies how the generosity of receiving countries' welfare state shape migrants' destination decisions. Recent studies for European countries do not present empirical evidence of welfare dependency of immigrants. Several papers suggest that immigrants tend to receive fewer social benefits than natives (see, for instance, Boeri, 2010; Huber and Oberdabernig, 2016).

¹⁰ Saiz (2007) finds that an immigration inflow equal to 1 percent of a city's population is associated with increases in average rents and housing values of about 1 percent (see also “Global Affordable Housing Shortages Can Harm Migrant Reception and Integration”, Solf et al. 2024) Camarota and Zeigler (2020) show that in the US more than 14 percent of immigrant workers live in overcrowded housing, four times the share for native-born workers.

¹¹ Monras (2020) finds interesting dynamic outcomes of the immigrants' impacts on local housing prices in the US—increases in the relative price of rentals are found in high-immigration locations in the short term, followed by lower housing prices in the long run as immigrant workers disproportionately enter the construction sector and lower construction cost.

national communication systems), but a greater share regionally comes with less of a perceived threat (consistent with the impact of contact and habituation).¹²

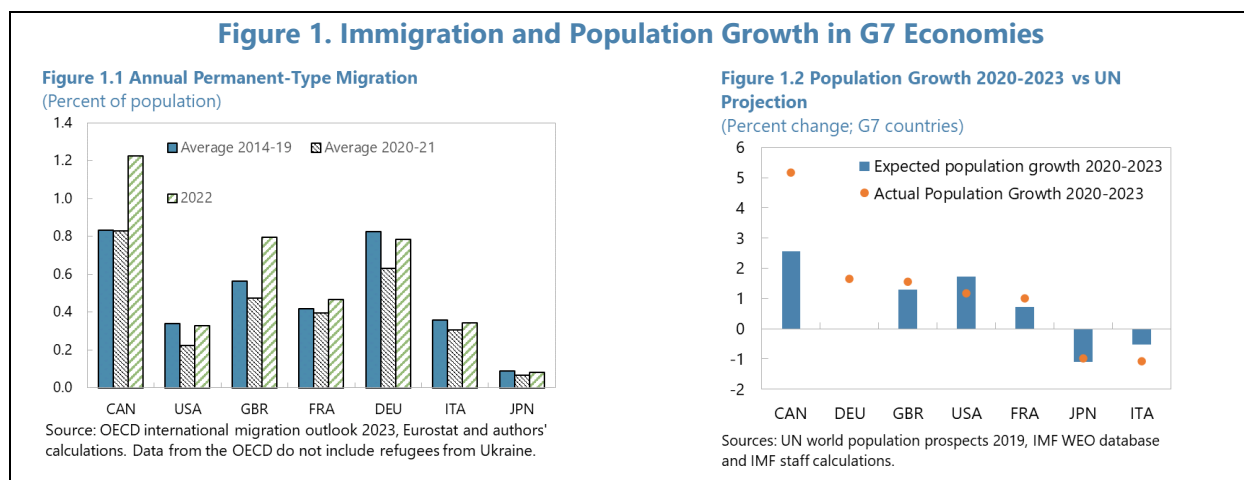
3. Recent Migration Developments

Migration Flows and Population Stocks

Migration into Major Advanced Economies

At an aggregate level, immigration to advanced economies fell during the pandemic and rebounded sharply in 2022, reaching a record high of 6.1 million “permanent-type” migrants for the OECD overall (OECD, 2023a).¹³ At the same time, when excluding refugees from Ukraine, for most G7 countries the sharp increase in migration in 2022 marked roughly a return to pre-pandemic levels (Figure 1.1).¹⁴ While the cross-country OECD data are not yet available for 2023, national sources show a further acceleration of immigration from 2022 to 2023 for Canada, the United States and the United Kingdom. A key qualifier is that the OECD data on permanent-type migrants exclude refugees from Ukraine, which according to UNHCR exceeded 6 million globally as of spring 2024. Considering refugees from Ukraine adds another 4 million migrants in Europe alone, concentrated in Germany among G7 economies, as well as substantial numbers in the US.

All in all, the recent migration surge led to a large positive “surprise” in population growth in Canada and Germany relative to pre-pandemic projections, but others, such as Italy and even the US, are estimated to have had less/more negative population growth over 2020-2023 than projected by the UN in 2019 – with factors such as Covid-19 of course also playing an important role (Figure 1.2). Some nuance is thus warranted in discussing and studying the magnitude of the recent immigration increase, its impact on population growth and the related economic effects.



¹² Steinmayer (2021) shows that in Austria exposure to refugees passing through increases far-right votes, while sustained interactions reduces them.

¹³ Data used in this paper generally reflect releases as of early September 2024. Harmonized migration data from the OECD for 2023 were not yet available at the time of publication.

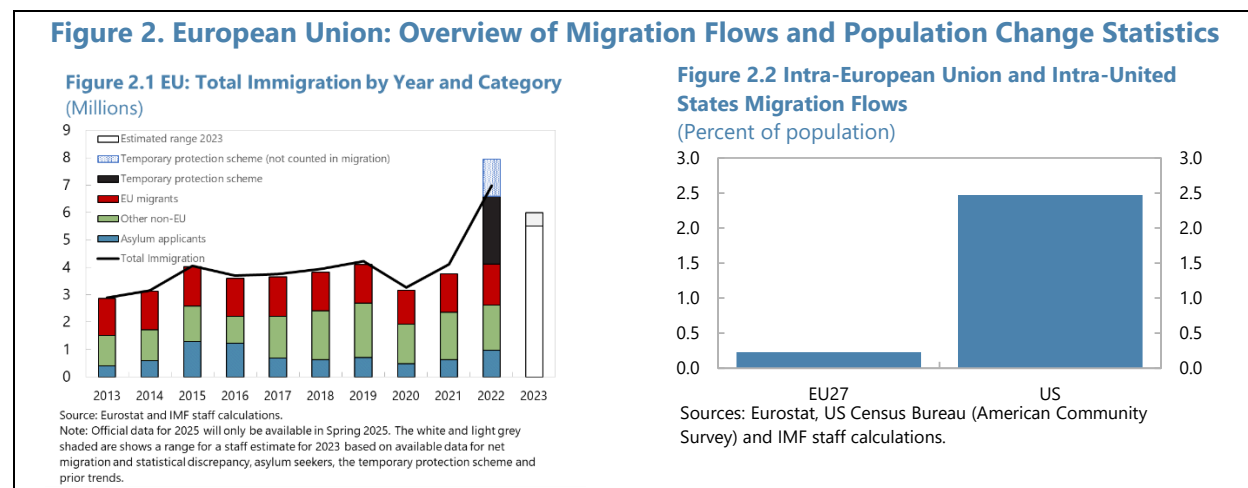
¹⁴ Canada is an outlier, with immigration of around 1.2 percent of the population in 2022, 50 percent higher than recent historical averages and other G7 countries. See also IMF (2024a). Total net international migration flows for Canada in 2022 were 2.3 percent of the population.

The European case

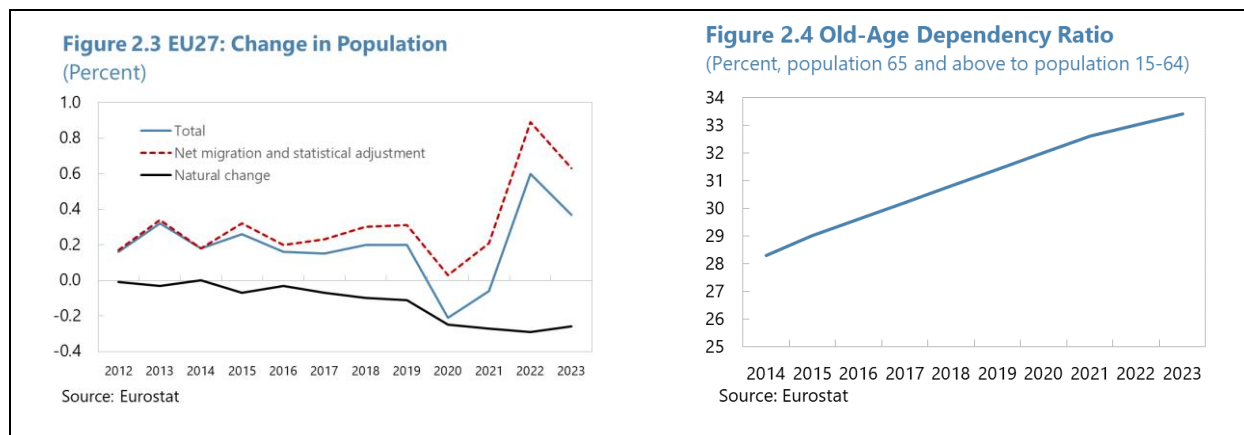
In the European case, given the challenging demographic outlook, much focus is on the potential role migrants could play in attenuating the impacts of rapid aging and thus helping ease the growth and fiscal challenges from demographic change (e.g., Peri, 2020). The EU's experience over the last few years shows that immigration can indeed meaningfully impact population growth rates. The high level of non-EU immigration allowed the EU's population to grow at the fastest rate in many years in 2022 and 2023, with net migration sufficient to offset the accelerating downward trend in the fertility rate (Figure 2.3). The old-age dependency ratio also rose more slowly than in previous years in 2022 and 2023, but did nevertheless continue to increase (Figure 2.4). Net migration levels notably above what has been observed would be needed to outright reverse the trend increase in the old-age dependency ratio (Coleman, 2008; Craveiro and others, 2019).

Official Eurostat statistics show that 7 million people immigrated into or within the EU, roughly 2.5 million more than the previous high in 2019 and about 3 million more than in 2015 (Figure 2.1). Of the 7 million migrants, around 5 million came from outside the EU, with the increase largely driven by the temporary protection scheme for Ukrainian refugees. It is worth noting that several EU countries do not count asylum seekers or Ukrainian refugees under the temporary protection scheme in their official migration statistics. Considering this, a rough calculation suggests that immigration might have been about 1.5 million higher in 2022 than the aggregate data show – this is illustrated by the light blue shaded area in Figure 2.1.¹⁵ This would imply immigration of non-EU citizens of around 1.4 percent of the EU population in 2022, a large figure both historically and in cross-country comparison. For 2023, while detailed EU-wide immigration data are not yet available, estimates suggest immigration dropped relative to 2022 to around 0.8 percent of the population (as temporary protection flows from Ukraine slowed significantly) while remaining at historical highs.

As an aside, note that migration flows within the EU of EU nationals have been broadly stable at around 2 million per year, on the other hand. This translates to intra-EU population flows which are substantially smaller than the state-to-state flows within the US (Figure 2.2), suggesting remaining barriers to such moves.



¹⁵ See Annex I on measurement of migrant population and migrant labor statistics. Total Ukrainian refugees number roughly 4 million in total.



Looking at how recent immigration has been distributed across the EU highlights the large variation in immigration rates at both the national and subnational levels (Figure 3). Official Eurostat data show that the regions with the highest immigration (Ireland, some regions of Spain, Germany, Czechia, Austria, the Baltics and Poland) had net migration (from both within and outside EU) rates of over 3 percent in 2022 – a sizeable population surge. Among the larger countries, Germany stands out with net migration rates above 1 percent in many NUTS3 regions. On the other hand, several regions in Eastern Europe had noticeable outward migration in 2022,¹⁶ while northern France, southern Italy, Hungary and northern Greece saw more moderate net outward migration. Table 1 highlights that relative to 2019 the distribution of net migration in the EU shifted up in 2022, with the median net migration rate tripling from 0.3 to 0.9 percent but also a large increase in the standard deviation (as not all regions have been affected by the migration inflows).

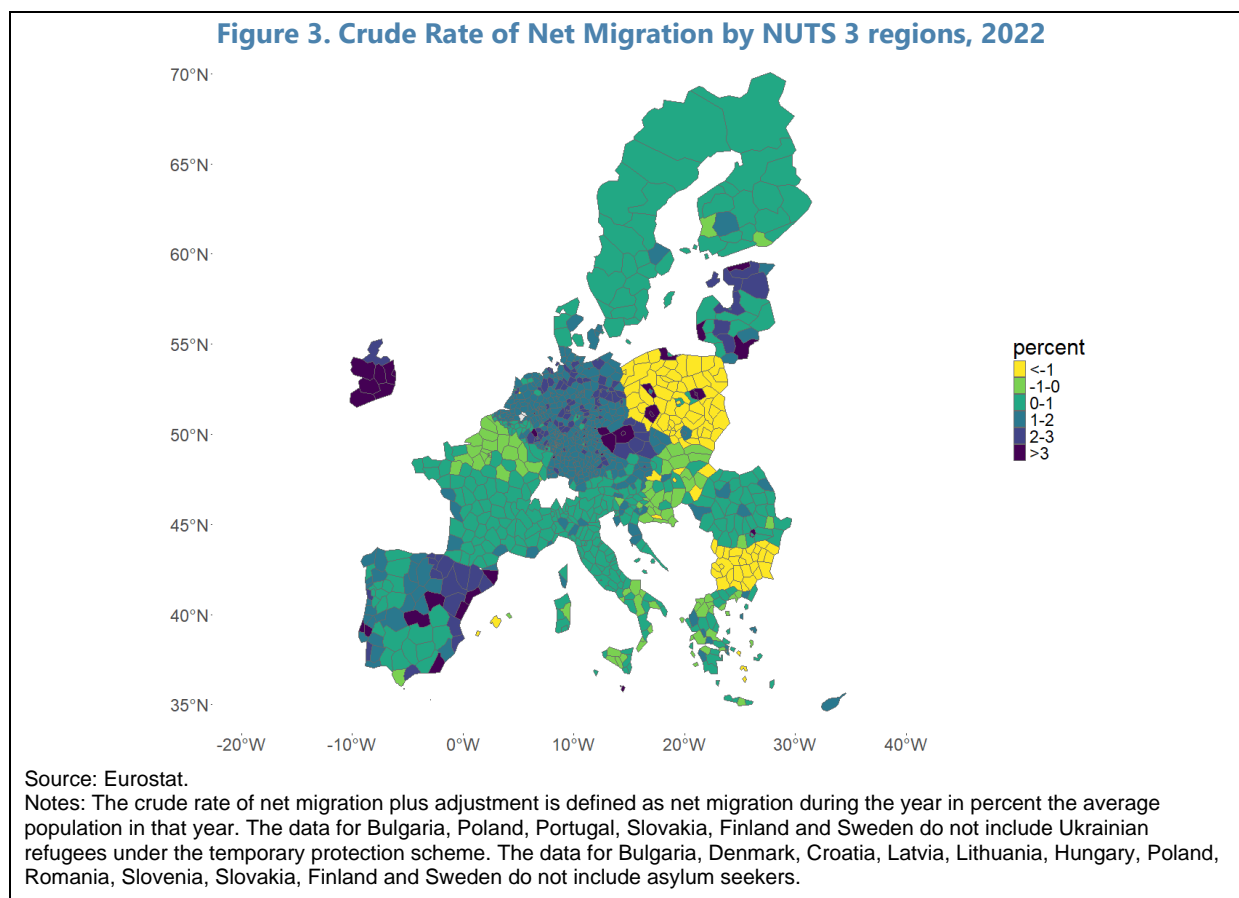
Ukrainian refugees are highly concentrated in Germany and Poland, with the former receiving over 1 million and Poland close to 1 million as of end-2023 according to Eurostat data on temporary protection. Czechia, Spain, Bulgaria and Italy also saw an inflow of over 150,000 people (Figure 4). While Ukrainians represented the largest single group of immigrants for the EU aggregate, for individual EU countries migrants from other countries played a more important role recently, such as Latin Americans and North Africans in Spain.

Table 1. Crude Rate of Net Migration at the NUTS3 Level

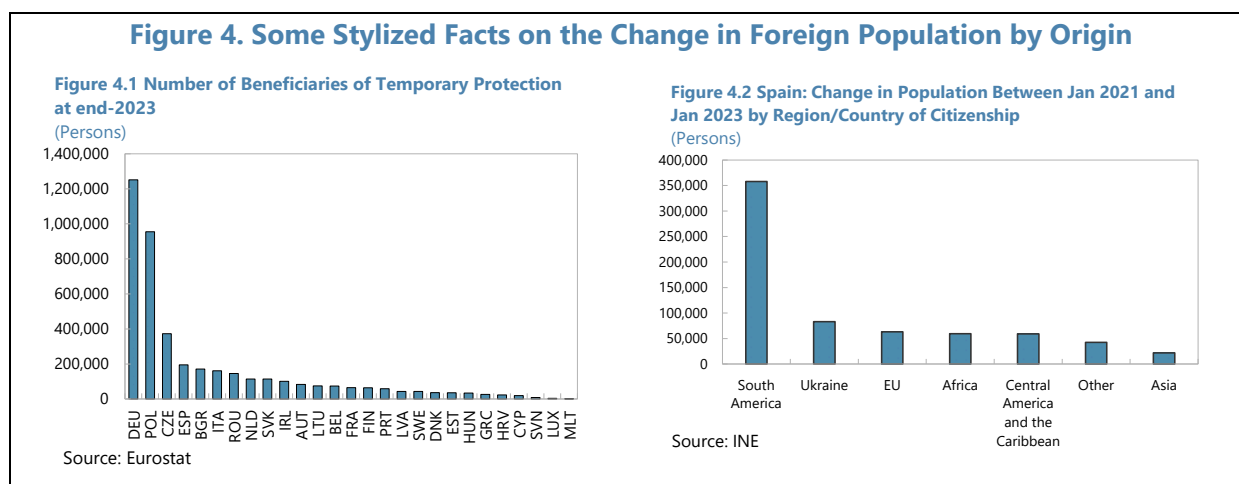
	# of NUTS 3 regions	min	P25	P50	P75	max	mean	std
2019	1343	-10.2	-0.1	0.3	0.6	6.5	0.2	0.8
2022	1322	-11.5	0.2	0.9	1.6	14.2	0.6	2.0

Source: Eurostat and IMF staff calculations.

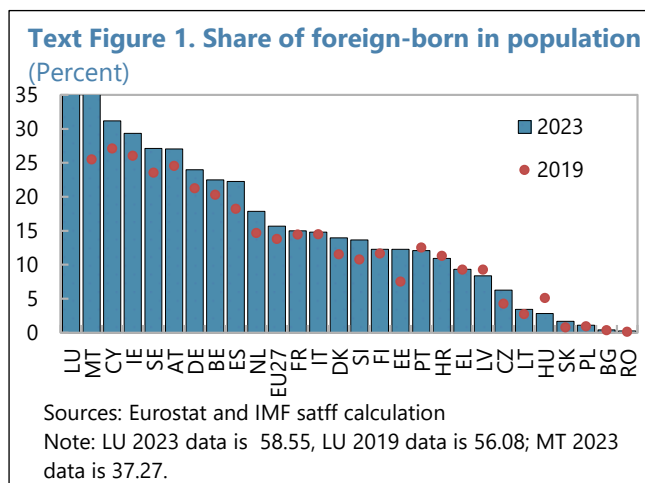
¹⁶ The picture for Poland is strongly influenced by the fact that Poland is one of the countries not counting refugees under the temporary protection scheme in the official migration and population statistics.



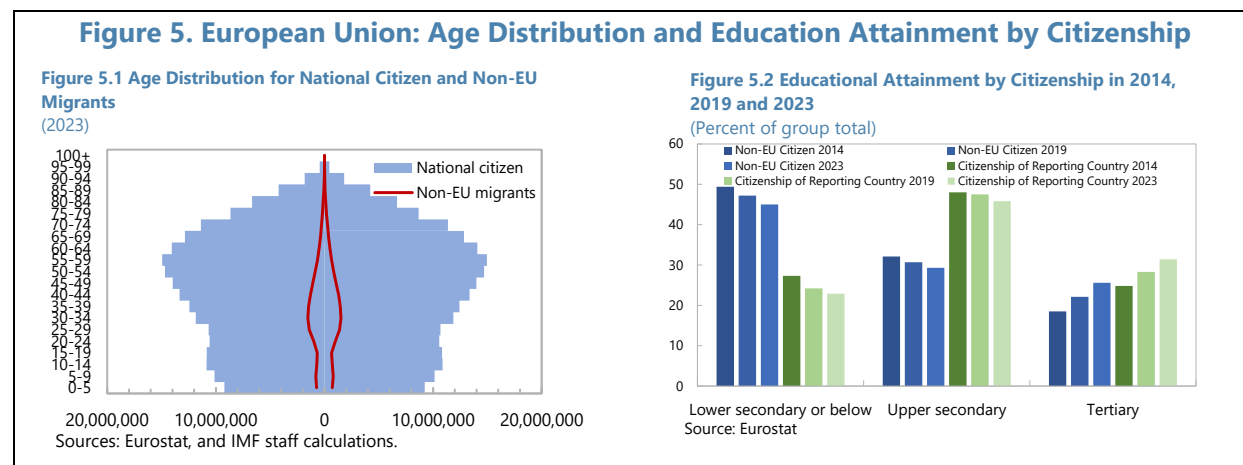
Focusing now on stocks, rather than flows of migrants, allows us to zoom in on the size of the increase for the working-age population. The EU’s working-age population fell by 265,000 in 2021, and then grew by 838,000 in 2022. The latter was the result of a contraction of nearly 2 million in the domestic working-age population, offset by an increase of 2.7 million in the number of non-EU citizens of working-age population. The growth rate of the working age population in 2022 was thus 0.6 percentage point higher than what was projected before the pandemic—all of this driven by non-EU citizens.



The stock data also reveal large heterogeneity across EU countries both in terms of the share of the foreign-born population in total population, and how this ratio has changed between 2019 and 2022. Notably, small, open economies such as Luxembourg, Malta and Cyprus have shares of foreign born to total of 30 percent and above, and have also seen large increases since 2019 (Text Figure 1). For the EU as a whole, the share of foreign-born persons stands at around 13 percent and the share of foreign citizens stands at about 9 percent.



Non-EU citizens in the EU are on average younger than national citizens – hence the well understood potential for immigrants to partially address the difficult demographic outlook Europe is facing – and have lower educational attainment (Figure 5). As Figure 5.2 shows, despite the large educational gap between foreign citizens and natives, especially in the share with lower secondary or below, the trend for both groups has been similar with a decline in low-skill workers and an increase in the share with tertiary education.



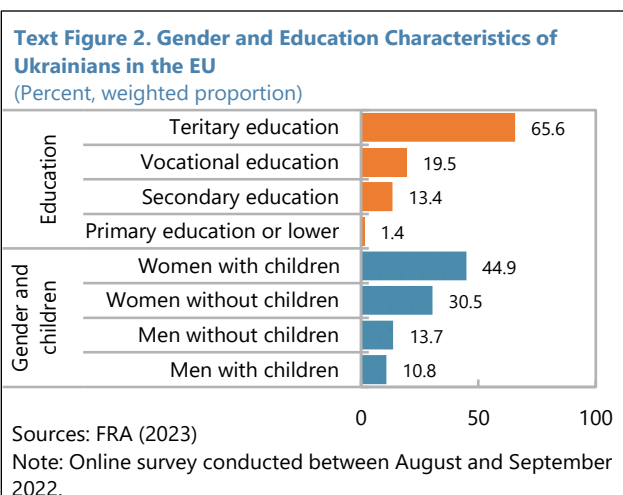
While comprehensive demographic data for recent arrivals from Ukraine are not yet available, their gender and education composition likely differ significantly from previous refugee waves such as the one from Syria during 2015-16. Data on temporary protection registrations show that 73 percent who had registered by the end of 2022 were women (48 percent) and children (25 percent). Tentative survey data (Text Figure 2) also show that people displaced from Ukraine have high levels of educational attainment, with the majority having a tertiary education.

Integration Policies in the European Union

As pointed out by Aiyar and others (2016), government policies play an important role in influencing the labor market integration of refugees. Granting asylum seekers early access to the private and public sector labor market and self-employment (as the current Temporary Protection Directive allows for Ukrainian refugees) is a key prerequisite for their speedy integration into the workforce. In addition, across the EU, various measures are in place to help integrate immigrants and refugees once they are permitted to work.

There is significant heterogeneity across the EU countries in all policy strands related to integration. While the EU on average scores lower than the U.S. or Australia in promoting the integration of migrants based on MIPEx data, individual countries in the EU outperform both countries in seven out of eight strands (Figure 6.1).¹⁷ For example, Sweden and Finland score the highest on the education strand, reflecting their individualized, needs-based approach to education of immigrant pupils. Portugal scores the highest on the labor market mobility strand, followed by Sweden, Finland, Norway and Germany. Portugal stands out as it grants fully equal rights and opportunities to access jobs (e.g., in all economic sectors)—facilitated by fast recognition of qualifications—and improve their skills for both immigrants and national citizens, while Nordic countries provide greater targeted support for immigrant workers (Figure 6.3 and 6.4).

Labor market policies aimed at absorbing migrants into the labor market also affect integration of refugees. Employment rates of refugee migrants are typically lower than other immigrants upon arrival in host countries and tend to increase in the first few years of migration. There are significant heterogeneities across countries in terms of the speed with which refugees close the employment gap with other immigrants. The gap closes rapidly in Norway and Sweden but only modestly in Denmark, Germany, and Finland (Brell and others, 2020).

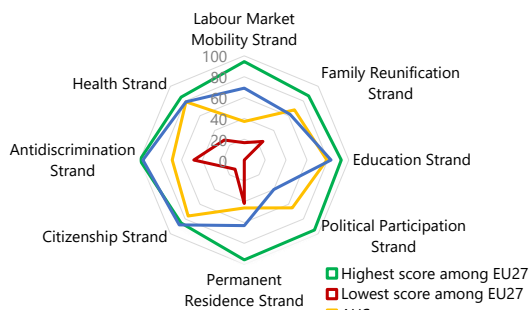


¹⁷ The [Migrant Integration Policy Index](#) (MIPEx) measures policies to integrate migrants in 56 countries covering eight policy areas.

Figure 6. Migrant Integration Policy

Figure 6.1 Migrant Integration Policy Scores

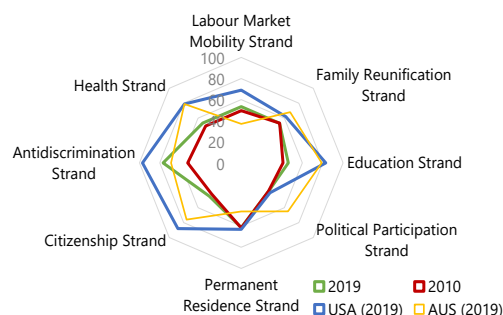
(Comparison across selected countries, 2019)



Sources: Migrant Integration Policy Index 2020 and IMF staff calculations.

Figure 6.2 Migrant Integration Policy Scores

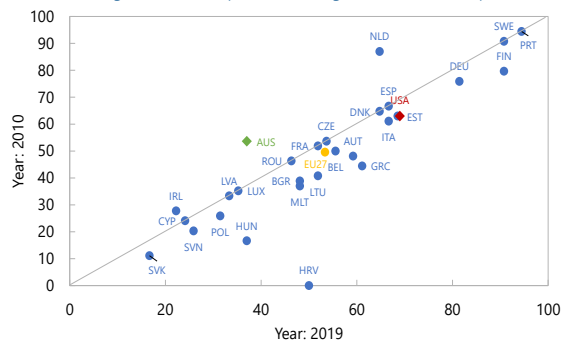
(EU27 average vs USA vs AUS; 2010 vs 2019)



Sources: Migrant Integration Policy Index 2020 and IMF staff calculations. Note: For the health strand 2014 is used instead of 2010 due to data availability

Figure 6.3 Labor Market Mobility Strand Scores

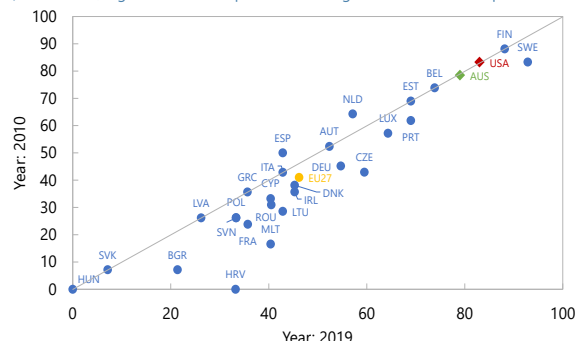
(Score 0-100, higher score when policies meet highest standards for equal treatment)



Sources: Solano, G. and Huddleston, T. (2020). Migrant Integration Policy Index 2020; and IMF staff calculations.

Figure 6.4 Education Strand Scores

(Score 0-100, higher score when policies meet highest standards for equal treatment)



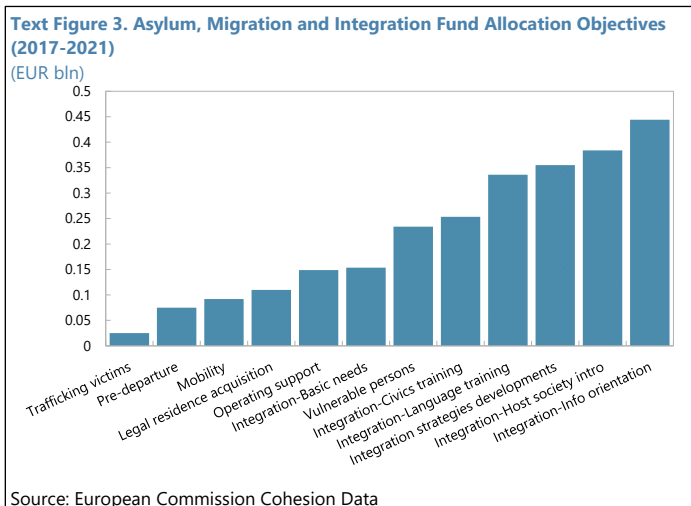
Sources: Solano, G. and Huddleston, T. (2020). Migrant Integration Policy Index 2020; and IMF staff calculations.

Labor market policies, including the length of the asylum process, early support to address health issues, and facilitation of job search at the earliest stage are key to increasing the employment rates of refugees (see also Eurofound, 2024). For example, the literature finds that refugees who are granted permanent status experience more favorable labor market outcomes than those who are granted temporary status (Bakker and others, 2017; Fasani and others, 2022).

Changes in integration policies over the past decade focused mostly on reducing discrimination (Figure 6.2). There was some progress also with labor market mobility, notably in Greece and Hungary as they caught up on providing basic support and access to information for immigrant workers and entrepreneurs and education (i.e. in the Czech Republic and Malta).¹⁸

¹⁸ As noted for example by Bruecker and others (2019b), social integration is also an important part of integration – and one that can support labor market integration. Based on the IAB-BAMF-SOEP-Survey of Refugees 2017 for Germany, refugees do not differ significantly from Germans in terms of political values and attitudes, but in terms of family values some differences are apparent.

At the EU level, there has been an overhaul of the EU's asylum and migration rules (Box 1). Additionally, to make the EU more attractive to talent from outside EU and facilitate mobility within the EU, the European Commission introduced [the Skills and Talent Mobility Package](#) in December 2023. The package consists of two strands—the new EU Talent Pool and measures to promote the recognition of qualifications and the mobility of learners. Through [the EU Talent Pool Pilot](#) run by the European Employment Service (EURES) (in cooperation between the Commission, the European Labor Administration, national employment services, and other members and partners), Ukrainians and other beneficiaries of temporary protection under the EU Temporary Protection Directive (as well as job seekers allowed under national laws), can publish their CV, which is accessible to more than 5,000 registered employers. In terms of financial support, there are a variety of EU funds available targeting various aspects of integrating migrants into the EU economy and society (Text Figure 3).



Box 1. European Union: Recent Change to the Legal Framework for Migration

Until recently, the Common European Asylum System provided a partial framework for EU asylum policies. At the core, to prevent multiple applications, the first country where the asylum seeker registered is responsible for processing the asylum application, with a few exceptions such as family cases (the [Dublin III Regulation](#)). Most other asylum rules were national and differed across EU member countries. National rules covered when and on what grounds residency is granted; which countries of origin are deemed safe; the extent and nature of the support given to asylum seekers; and how quickly access to the labor market is granted (Aiyar and others, 2016). [The European Commission's 2015 evaluation of the Dublin III Regulation](#) noted that some missing elements in the blueprint have reduced Dublin's overall relevance to achieve its objectives (to establish a clear and workable method for determining which member state is responsible for examining an application for international protection). Notably, Dublin III Regulation—despite the existence of the emergency relocation mechanisms established in 2015 for the benefit of Italy and Greece in the areas of international protection—was not designed to “deal with situations of mass influx” or “to ensure fair sharing of responsibility”, and “does not effectively address the disproportionate distribution of applications.”

In the largest overhaul of the EU's migration and asylum rules in many years, [the Pact on Migration and Asylum](#)—a set of new rules aimed at managing migration and establishing a common asylum system at the EU level—entered into force in June 2024. Member states are now required to put in place the legal and operational capabilities to start applying the new legislation by 2026. The European Commission and EU agencies are to provide technical, operational and financial support.

Under the new framework, an [Asylum and Migration Management Regulation](#) (AMMR) is to replace the Dublin III Regulation. Applicants will still have to apply for asylum in the member state of first entry as under the Dublin regulation, but a new solidarity mechanism is established aimed at contributing to a fairer system for sharing responsibility among member states. Specifically, there is mandatory solidarity (coordinated by an EU solidarity coordinator) to support member states dealing with a mass of irregular arrivals (that is, when a “national system is under pressure or at risk”). Contributing member states have flexibility as regards the choices of the contribution which can take the form of.¹ Should relocation pledges not be sufficient for effective support to member states in need, a backstop tool called “responsibility offsets” will apply, in which case the responsibility of examining an application is transferred to the contributing member state, without the need for the applicant to be transferred (as the applicant is already in the contributing member state in this case).² The new framework aims to improve administrative burden sharing and reduce member states' incentive to act unilaterally.

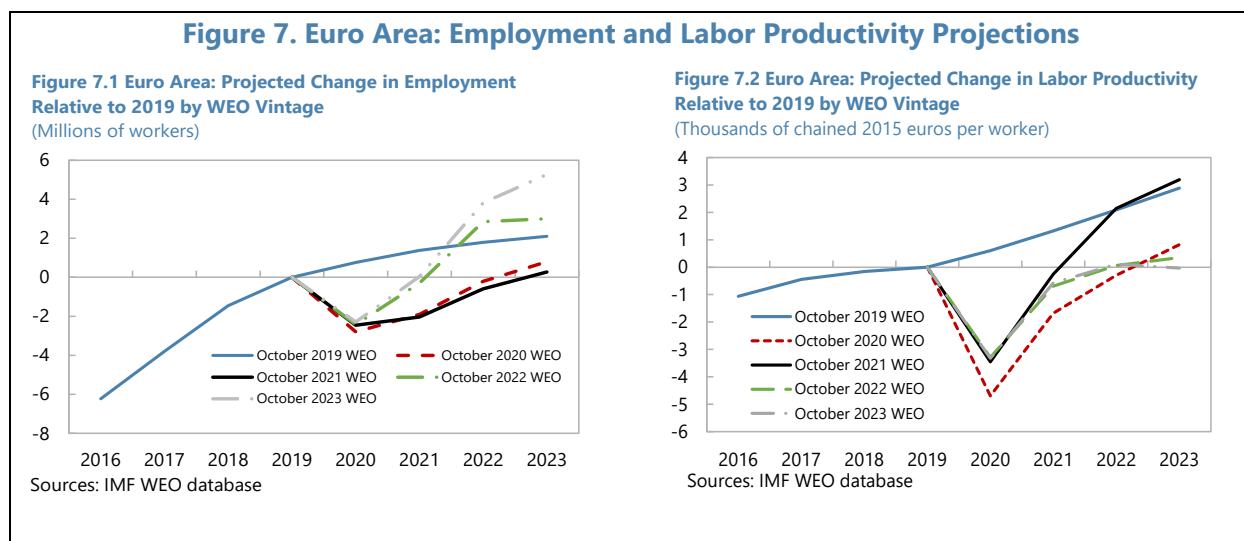
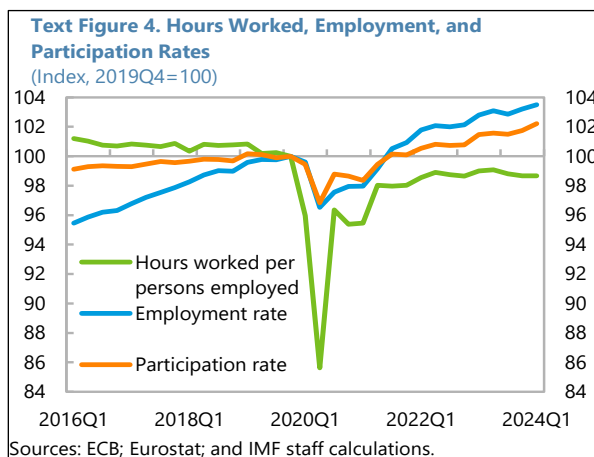
¹ These contributions can take the form of: (i) relocation of asylum seekers and of beneficiaries of international protections; (ii) financial contributions such as supporting projects in third countries; (iii) alternative solidary measures such as capacity building or placement of personnel.

² Responsibility offsets apply to those whose asylum applications should have been examined by the member state under pressure but applicants moved to another member state in an unauthorized way. Under the rule, these applicants should be sent back to the member state under pressure. However, the member state where the applicants are physically present takes the responsibility to examine the asylum applications instead of transferring the applicants back to the member state under pressure.

4. The Macroeconomic Implications

Labor Markets

EU labor markets in 2022, 2023 and into 2024 (at the time of writing) were marked by record low unemployment levels, high vacancy rates and strong employment growth. Only average hours worked remained below pre-pandemic levels, extending a long-run decline (Astinova and others, 2024; Text Figure 4). This aggregate labor market strength, at least in employment levels, came as a surprise relative to the projections of many forecasters. Pre-pandemic projections assumed a sharp slowdown in employment creation over 2020-23 relative to 2016-19. This did not materialize, and over 3 million more jobs existed in the euro area in 2023 than expected in 2019. As a consequence, employment projections in the IMF World Economic Outlook had to be continually revised up between 2021 and 2023 (Figure 7.1). At the same time, the GDP level remained below pre-pandemic projections through 2023, such that output per worker had to be revised down several times (Figure 7.2).



Migration almost certainly had a role to play in these dynamics. At end-2023, euro area employment stood three million, or about 2 percent, above pre-pandemic projections—primarily driven by the increase in the foreign working-age population and higher-than-expected domestic worker participation (European Commission, 2023a). On aggregate and using EU-Labor Force Survey (EU-LFS) data, out of 4.2 million EU jobs created between 2019Q4 and 2023Q4, close to two-thirds (2.7 million) were filled by non-EU citizens. This share was the highest seen in recent history in the EU, although somewhat below the 70 percent share seen in the United States. The years since the pandemic have seen a sharp acceleration in the role of non-EU citizens

(Figure 8.1), extending a long-run trend, whereby both intra-EU and extra-EU migrants roughly doubled their share in total employment from 5 to 10 percent over 2005-2023.¹⁹

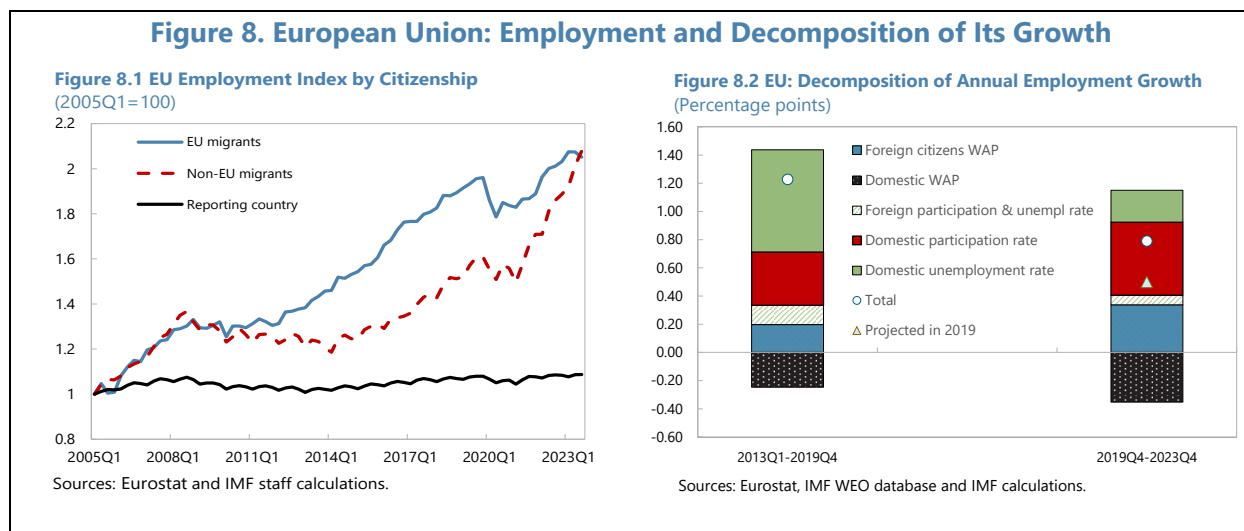
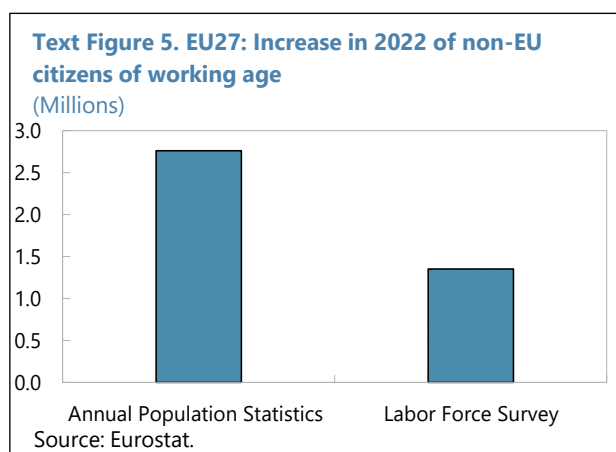


Figure 8.2 decomposes the growth of employment over 2013-19 and 2020-23 more formally. In the pre-pandemic period, a sharp drop in unemployment and a rise in the participation rate of native workers (which more than offset a decline in the native WAP) were the main drivers of employment growth which averaged 1.2 percent per year. In pre-pandemic projections, this growth rate was expected to slow to 0.5 percent over 2020-2023 as demographics would be a large drag, the unemployment rate had already reached historically low levels by 2019, and the gains in participation rates were expected to ease (diminish). Instead, employment growth held steady at 0.8 percent. This reflects, to an important extent, the increase in the foreign working-age population as well as continued – and even accelerated – gains in the domestic labor force participation rate. This is shown by the blue and red bars in Figure 8.2. The fact that the increase in the foreign working-age population, rather than foreign unemployment or participate rates, is found to have played a large role suggests that an important contribution is from *new* immigrants.

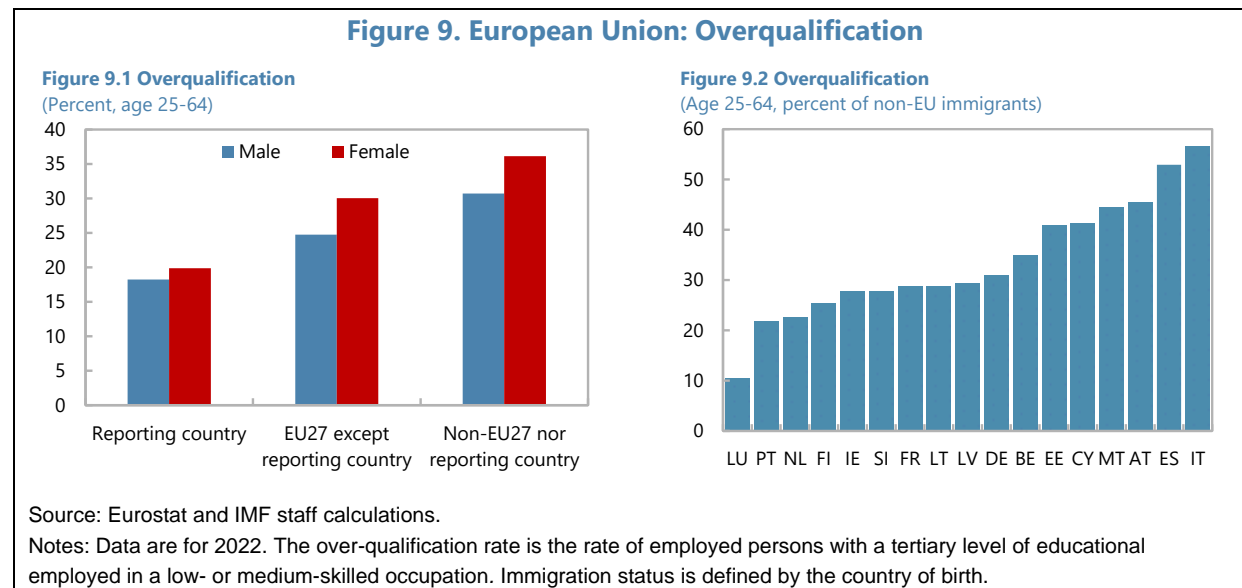
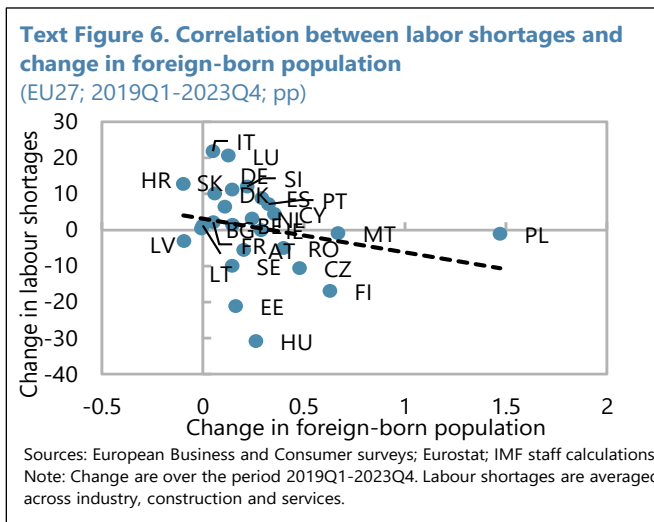


The above analysis relies on the data as reported in Eurostat's EU Labor Force Survey (LFS). But picking up recent migrants in labor force surveys is difficult, among other factors because they are often housed in collective housing which is not covered by the sampling frame. Comparing the increase in the number of non-

¹⁹ The EU is not unique in terms of having a broadly flat domestic labor force and an increasing foreign-one in the last five years. Labor markets in other advanced economies have seen similar dynamics to the EU. For instance, in the past three years, new immigrants into the US expanded the labor force by 4.6 million workers (almost 3 percent of the labor force). This represents a significant acceleration from the 1.7 million increase in foreign-born workers that took place in the three years prior to the pandemic (IMF, 2024b). In the meanwhile, the US domestic labor force has been broadly unchanged relative to 2019 levels.

EU citizens of working age in the LFS and in Eurostat’s population statistics gives a sense of the possible undercount (Text Figure 5). According to the population statistics, the number of non-EU citizens of working age increased by 2.8 million in 2022, but in the LFS the number is only around half.

Migrants have likely also helped alleviate labor shortages across the EU. Countries with a larger increase in the share of foreign-born population register less of a labor shortage since 2019, with a few outliers (Text Figure 6). European Commission (2023b), using EU-LFS micro data between 2017 and 2021, finds that at the EU level the migrant share is higher in occupations and sectors that experience labor shortages than in those that don’t experience labor shortages.²⁰ It also finds, however, that there is significant country heterogeneity at the occupation and sector levels—some countries have seen occupations and sectors with labor shortages have a higher share of migrants than native workers, while the opposite is true for other countries—due partly to different regulations of professions (that affect the speed of labor market integration) across countries. European Labor Authority (2024) documented that, between 2019 and 2022, there were higher increases in migrant workers than native workers in sectors suffering from labor shortages such as building and related trade (7 percent for migrant workers vs stable for total workers), health (15 percent vs 7 percent) and ICT (50 percent vs 30 percent). As discussed previously, migrants also have an impact on wages of the native population, but data constraints prevent an early assessment of the impact over the past few years.



²⁰ Labor shortage is mapped at the occupation and sector level, combining the results of European Commission’s Business and Consumer Survey, job vacancy rates, and information collected by the European Labor Authority from member states’ public employment services (see European Commission, 2023b).

Ukrainian Refugees

The limited available survey and administrative data also suggest that in many countries Ukrainians have been absorbed into employment faster than previous refugee waves, such that the potential undercount of arrivals might be meaningful for the labor market impact. Ukrainian refugees reached employment rates of around 50 percent in several countries, a number more commonly observed five or more years after a refugee wave (OECD, 2023a). Concretely, the OECD reports data for a broad range of countries, ranging from an over 60 percent employment rate in Poland to below 20 percent in Italy.²¹

This reflects not only tight labor market conditions (that is, labor demand is high, many sectors experience labor shortages, and unemployment rates are at historic lows) but also the fact that the temporary protection scheme allowed Ukrainian refugees to look for work almost immediately. In some countries (such as Poland in March 2022), specific laws were adopted or amended to facilitate Ukrainians' access to labor market; in some (such as Lithuania and Portugal), financial incentives were provided for taking up a new job; in some others (such as Romania and Spain), vocational information and employment counseling services targeted to Ukrainians were provided (Eurofound, 2024). Eurofound (2024) noted that contributing factors also include "the large Ukrainian diaspora in Poland and proficiency in Russian, especially beneficial in countries with a large Russian-speaking population such as Estonia, Latvia and Lithuania."

Administrative data reported in Honorati and others (2024) for Germany, which received the largest absolute number of Ukrainian refugees, show lower employment rates than the data summarized by the OECD (which does not cover Germany) – 12 percent of Ukrainian refugees were in formal employment (employment requiring social security contributions) after one year. This is nevertheless higher than the comparable number for Syrian refugees during the 2015-16 wave, which was around 7 percent. Following an initial focus on language acquisition in Germany (around 75 percent of refugees in 2017 had completed at least one language course since their arrival and within three years of immigration 40 percent had acquired good or very good language skills, see Bruecker and others, 2019b), employment rates of refugees in Germany later caught up, with Honorati and others (2024) suggesting that the initial investment pays off in terms of higher skill jobs and earnings for refugees.²²

All in all, available data for Ukrainian refugees suggest higher employment rates than previous refugee waves – in some cases the employment rates being reported for one-two years after arrival might usually be expected after five or more years.

Overqualification

Despite the successful integration into the labor market in recent years, migrants are more likely than natives to be overqualified for the jobs they hold—i.e. they often find a job that does not fit their skill profile. This is also known as skill downgrading—the phenomenon of workers, especially female migrants being disproportionately employed in occupations that require lower education levels than the ones they obtained (Figure 9.1). This could partly reflect language barriers. Among high-skilled workers, overqualification is also found to be more prevalent for within-EU migrants (34 percent of total high-skilled in 2019) than for native workers (22 percent of

²¹ Data for Poland and Italy are based on survey data.

²² See also the Institute for Employment Research brief by Bruecker and others (2019a). It shows that in 2017 around 20 percent of refugees who arrived in 2015 were employed, and by 2018 the number was 35 percent.

total high-skilled workers). Looking across countries, in Italy more than 50 percent of non-EU migrants aged 25-64 are overqualified compared to about 20 percent in Portugal and the Netherlands (Figure 9.2). The average overqualification rate has remained relatively constant through time hovering around 30-35 percent since the early 2000s. Anecdotal evidence for Ukrainian refugees in Poland suggests that while employment rates are high, 50 percent state that their work does not match their qualifications (Szymanska, 2023).

Potential Output

To understand how much the production capacity of the EU's economy has changed following the population increase due to migration, it is instructive to study the impact on potential output – the amount of output that can be produced in the euro area if all resources were utilized at the maximum rate consistent with macroeconomic stability. A mapping of the effect of higher (migrant) labor supply to potential GDP is not trivial. A large literature shows that migration can have positive effects on total factor productivity (TFP) (e.g., through innovation and knowledge diffusion), in addition to positive effects through greater labor supply. However, this requires a proper matching of immigrants' skills to jobs, which takes time. In the near term, a significant increase in labor supply without accompanying increases in capital stock could temporarily lower labor productivity.

In this section we use a semi-structural model to simulate the impact of the change in migration over 2020-23 on potential output.²³ Given the model's setup, the simulations here are for the euro area (rather than the whole EU).

Simulation Assumptions

We consider five scenarios which combine different assumptions on the size of the working age population shock, the productivity differential between migrants and natives (either a permanent gap or a gap that slowly closes over time) and the length of time migrants stay in the host economy (Table 2).²⁴ Irrespective of the scenario, the euro area economy saw a small negative migration shock over 2020-21 due to the travel restrictions during the pandemic, and then a large positive migration shock in 2022 (and 2023). All scenarios assume a temporary 0.2 percent of GDP fiscal expansion (IMF, 2022a).²⁵ The fiscal assumption does not vary across scenarios given that the fiscal cost is tied down by the overall population shock for which there is less measurement uncertainty than the working age population shock. The hours worked per week are assumed to be the same for newly employed migrants and existing workers.

- Scenario 1 has the most conservative assumption on the change in working age population from immigration with the data only capturing the 2022 but not the 2023 increase.²⁶ In addition, the difference in

²³ See Andrieu and others (2015) for the description of the model.

²⁴ We do not explicitly model a scenario in which aggregate TFP increases due to migration even though the literature has often shown such effects. The potential output effects would be more positive in such a scenario.

²⁵ IMF (2022a) estimated that in 2022 across the EU the additional costs could have amounted to about 0.2 percent of GDP and were likely as high as 1 percent of GDP in some EU countries (such as the Czech Republic, Estonia, and Poland) which hosted the largest number of refugees relative to their population.

²⁶ To calibrate the working age population increase, the scenario uses data on working-age population from Eurostat. The scenario captures the difference in outturns with pre-pandemic projections or, nearly equivalently, the difference when extrapolating a pre-pandemic average. The data for 2023 are not available yet so the shock only covers 2020-22. Also note that other surprise changes in the working-age population (such as excess mortality during the pandemic) are captured here, attenuating the size of the shock.

TFP between natives and workers is assumed to be stable at 18 percent (Dossche and others, 2022). Migrants are assumed to stay permanently.

- Scenario 2 has an intermediate assumption on the size of the increase in the labor supply from immigration.²⁷ The TFP differential is permanent, and migrants stay permanently.
- Scenario 3 has the same initial labor supply increase as scenario 2 but only half the migrants stay permanently while the others gradually return to their home countries over 2025-28.
- Scenario 4 again has the same labor supply increase as scenario 2 but the TFP differential disappears over the period until 2030. Migrants stay permanently.
- Scenario 5 has the largest increase in labor supply.²⁸ The TFP differential is permanent, and migrants stay permanently.

Table 2. Euro Area: Key Assumptions in Different Model Scenarios

	Labor force shock				Permanent TFP differential	Permanent migration
	2020	2021	2022	2023		
Scenario 1	-0.2%	-0.1%	0.6%		Yes	Yes
Scenario 2	-0.1%	0.0%	0.4%	0.5%	Yes	Yes
Scenario 3	-0.1%	0.0%	0.4%	0.5%	Yes	Partly
Scenario 4	-0.1%	0.0%	0.4%	0.5%	No	Yes
Scenario 5	-0.1%	0.0%	1.0%	0.2%	Yes	Yes

Sources: Author's calculations.

Simulation Results

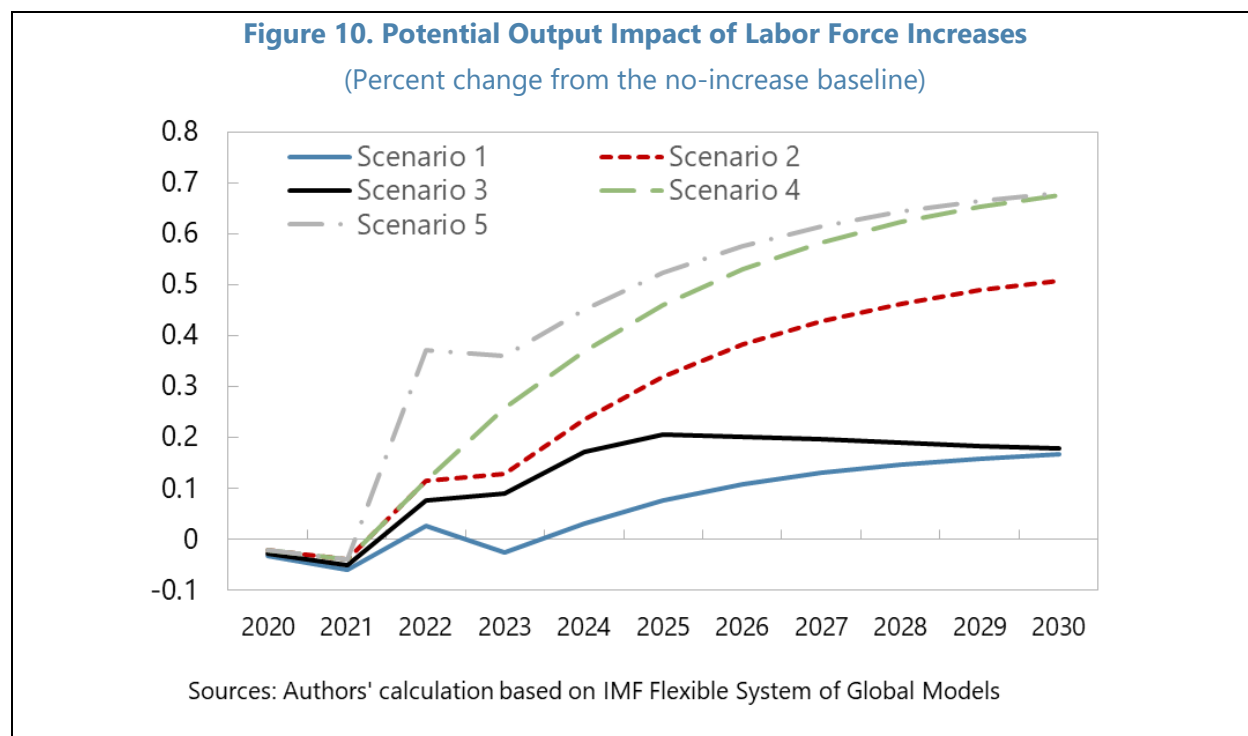
Our stylized simulations show that assuming an increase in the labor force of 0.3-1.1 percent due to the increase in net migration over 2020-23 could raise the level of potential output by 0.2–0.7 percent by 2030 (Figure 10), with a center estimate of about 0.5 percent—slightly less than half annual potential euro area GDP growth projected for that time. The impact is more positive the larger the increase in the labor force (either due to a larger initial increase or because immigrants stay permanently) and the lower the productivity differential between natives and migrants.

- Keeping the initial labor force increase constant, assuming half of all migrants leave again by 2030 reduces the potential GDP impact by 0.3 percentage points (difference between scenarios 2 and 3)
- Assuming the TFP gap between migrants and natives closes over time increases the impact on potential GDP by 0.2 percentage points (difference between scenarios 2 and 4)

²⁷ The shock is calibrated based on labor force survey data. We calculate the average pre-pandemic contribution to labor force growth from non-EU citizens. And then for 2020-2023 we calculate the difference in actual with the pre-pandemic reference.

²⁸ Migration flow data is used to calibrate the shock. Only aggregate numbers (not by working age) are available, we thus assume two thirds of “excess” inflows are of working-age population. We also don't have 2023 data yet but can make an informed guess yielding the labor force shock as shown in the table.

- Scenarios 4 and 5 lead to the same increase in potential output of 0.7 percent. In other words, having migrants work in more productive jobs delivers the same output increase as having a noticeably sharper labor force increase, but mode subdued migrant productivity levels.



The simulation results use a similar methodology and deliver consistent results with recent IMF work on the impact of Venezuelan refugee flows to Latin America (Alvarez and others, 2022), and the inflow of refugees to the EU in 2015-16 (Aiyar and others, 2016). Alvarez and others find aggregate GDP effects over the medium term for Chile, Colombia, Ecuador, and Peru in the range of 2.5 to 4.4 percent, for a migration increase that was as high as 5 percent of the initial population.²⁹ Aiyar and others (2016) find a GDP effect of around 0.25 percent for the EU, for a population increase of 0.45 percent of the population over three years.

What about the effects on GDP per capita? TFP is the key margin determining this. The literature has generally shown positive aggregate TFP effects from immigration on host countries which would imply higher GDP per capita in the medium-term. Here we don't study such an aggregate TFP effect (as discussed in the assumptions sections above) but use the model to highlight the key role of migrants skill level (which we do not model separately) and integrating migrants into the labor market in a way that is commensurate with their skill level. Directionally, GDP per capita drops marginally in the simulations as long as a permanent TFP gap between natives and immigrants persists but if the TFP gap closes, GDP per capita is unchanged in the medium-term.

²⁹ Alvarez and others (2022) analyze labor misallocation (where wage gaps between domestic and migrant workers widen with the level of education) following large-scale Venezuelan migration to Latin America. Language frictions facing Ukrainians in Europe (these are absent in the Venezuelan case) might plausibly lead to more severe labor misallocation though the limited scale of the informal sector in Europe may help contain labor misallocation.

Beyond potential output and GDP per capita in the medium-term, the simulations also allow some insights into the short-run macroeconomic effects. In the general equilibrium logic of the model, the labor force shock was modestly inflationary in the short run (around 0.1 percentage point) owing to a positive contribution to the output gap (as potential GDP adjusts slower than actual GDP which is boosted by demand from newly arrived immigrants and fiscal outlays). All scenarios except scenario 3 (in which half of the migrants only stay temporarily) see a positive GDP *growth* impact over the whole horizon as capital accumulation catches up with the increased labor force.

Finally, on the fiscal implications, the model is not well setup to study those. In the literature, for the longer-run fiscal impact, among other factors such as the social security system, the degree of labor market integration of migrants has been shown to be a key factor (Aiyar and others, 2016). Section 2 surveyed the insights from the literature in more detail.

5. Local Economic Implications

Like most migration surges, the 2022 one in the EU was heterogeneously distributed across subnational regions. The mean region saw a net migration rate of around 0.5 percent, but the top percentile experienced net migration as high as 4 percent of the existing population—a large increase in the local population in only one year.³⁰ Effects related to aggregate demand, labor market, and demand for public goods and services can be more pronounced at the local level, given the increase can be larger and supply of schools, public housing, and health services might be less elastic relative to the national level. For instance, OECD (2022) cites safe, secure and affordable housing as one of the pressing challenges faced by local authorities when integrating migrants (see also Eurofound and FRA, 2023). IMF (2022b) notes that policies to address the refugees from Ukraine need to pay heed to education, childcare, health services, as well as housing, among others.

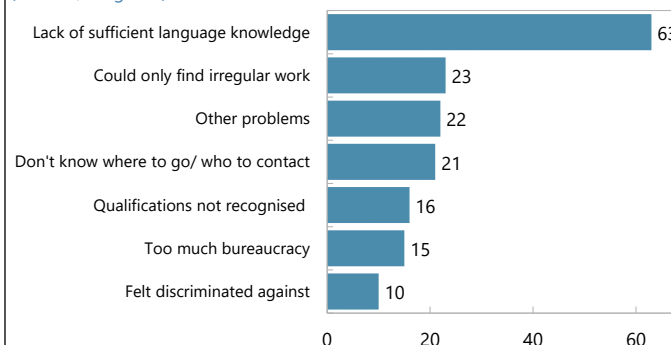
Granular data are not yet available to gauge whether the large inflows in certain NUTS2/NUTS3 regions in 2022 might have stretched local public goods provision or accentuated housing market pressures during the post-pandemic influx of immigrants. This makes it hard to assess the effects of the recent increase in immigration in a quantitative way. Nonetheless, limited anecdotal evidence and survey data suggest that there might have been some pressures, with policies generally reacting quickly to try and attenuate some of them.

Anecdotal evidence for Poland shows some strains on local housing markets with a significant increase in rental prices in major hubs and shortages of available housing in some communities (Szymanska, 2023). Also anecdotally, a [German Youth Institute survey](#) among nurseries showed that around half had admitted Ukrainian children, with 50 percent of the ones who had not saying this was due to capacity constraints. For school-aged children, [surveys](#) suggest that following the initial wave physical school infrastructure and teacher availability were stretched in many places but personnel has since been expanded and, despite waiting lists in some regions, almost all Ukrainian children seem to be able to attend a school. A different question, which the available data is not able to answer at this point, is whether teacher-student ratios, for example, have been adversely affected.

³⁰ Regions are defined according to the nomenclature of territorial units for statistics (NUTS) which subdivides the economic territory of the [European Union](#). NUTS 3 level regions - the smallest regional entities according to this nomenclature – are considered throughout the paper.

A survey launched by the European Union Agency for Fundamental Rights in 2023 (Eurofound and FRA, 2023) which interviewed displaced people in the ten EU member states hosting the largest shares of individuals under temporary protection schemes, shows that areas where accommodation is more accessible, such as small villages, often lack job opportunities, while larger cities where the labor market offers more opportunities do not offer affordable and adequate housing. Since, as discussed previously, the majority of migrants under temporary protection are women and children, access to early education and childcare is also fundamental to facilitate women labor force participation. Language training needs are widespread to guarantee access to the labor market and are often mentioned as a key barrier to entry (Text Figure 7) but providing this service can put pressure on local schools and budgets (OECD, 2016) unless adequate resources are provided.

Text Figure 7. Barriers Reported by Ukrainian Respondents Who Have Looked for A Job in A Host Country
(Percent, weighted)



Sources: FRA, Ukrainian 2022

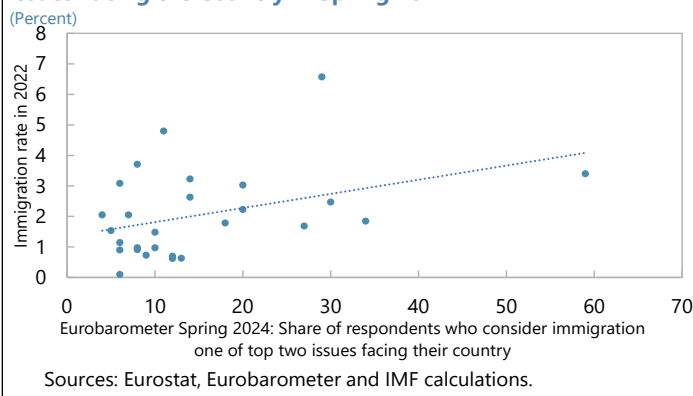
Note: The question was phrased as follows: 'Have you experienced any of the following problems when looking for a job in the country you're staying?'

6. Perceptions of Migrants

To complete our economic stocktaking of recent immigration surge, this section focuses on perceptions of migrants and investigates whether economic considerations drive immigration perceptions at the regional level.

The latest available Eurobarometer data from Spring 2024 highlight that immigration is among the top issues mentioned by Europeans together with the cost of living and the war in Ukraine.³¹ An interesting fact also emerges—the importance of immigration as an issue differs depending on whether survey respondents are asked about their personal situation, the main topics facing their country, or the main topics facing the EU. The larger the entity, the more important immigration is perceived to be. At a personal level, only 6 percent of respondents see immigration as one of the top two topics, at the country level it is 16 percent and at the EU level 24 percent (Figure 11). This pattern suggests that the more abstract the reference unit, the bigger an issue migration appears to be. In the cross-section, there is a (weak) association between the level of immigration in the country and the share of survey respondents who consider immigration

Text Figure 8. Immigration Rate in 2022 VS Share of Respondents Who Consider Immigration One of the Main Issues Facing the Country in Spring 2024
(Percent)

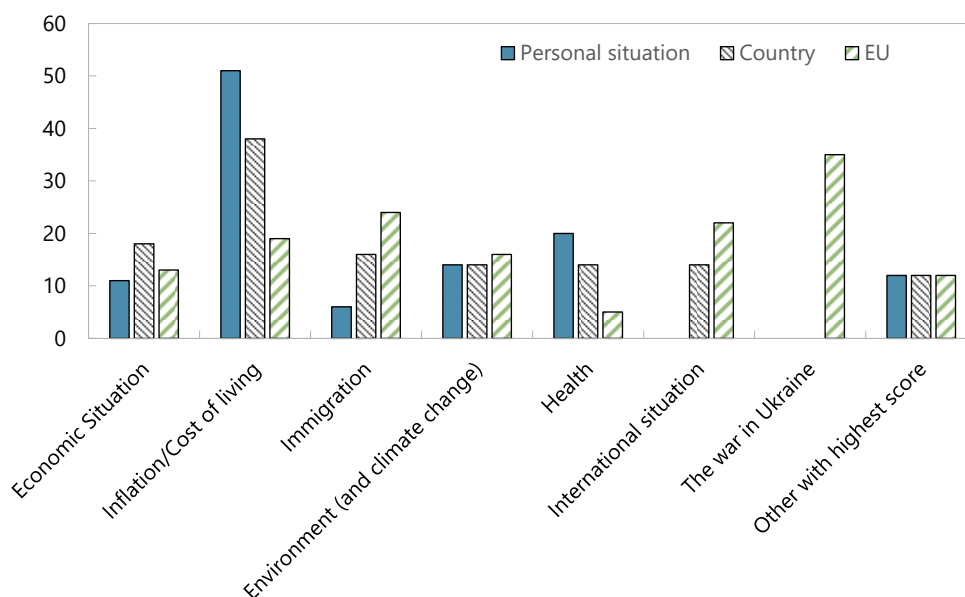


Sources: Eurostat, Eurobarometer and IMF calculations.

³¹ See Annex II for a summary of perception to migrants before the recent refugee wave from the European Value Study (EVS) and World Value Survey (WVS).

to be one of the two main issues facing their country (Text Figure 8). This chimes with the more formal analysis discussed in the literature review above.

Figure 11. Eurobarometer – Eurobarometer Spring 2024: What Do You Think Are the Two Most Important Issues Facing You Personally/Your Country/the EU?



Source: [Eurobarometer](#) and IMF staff calculations.

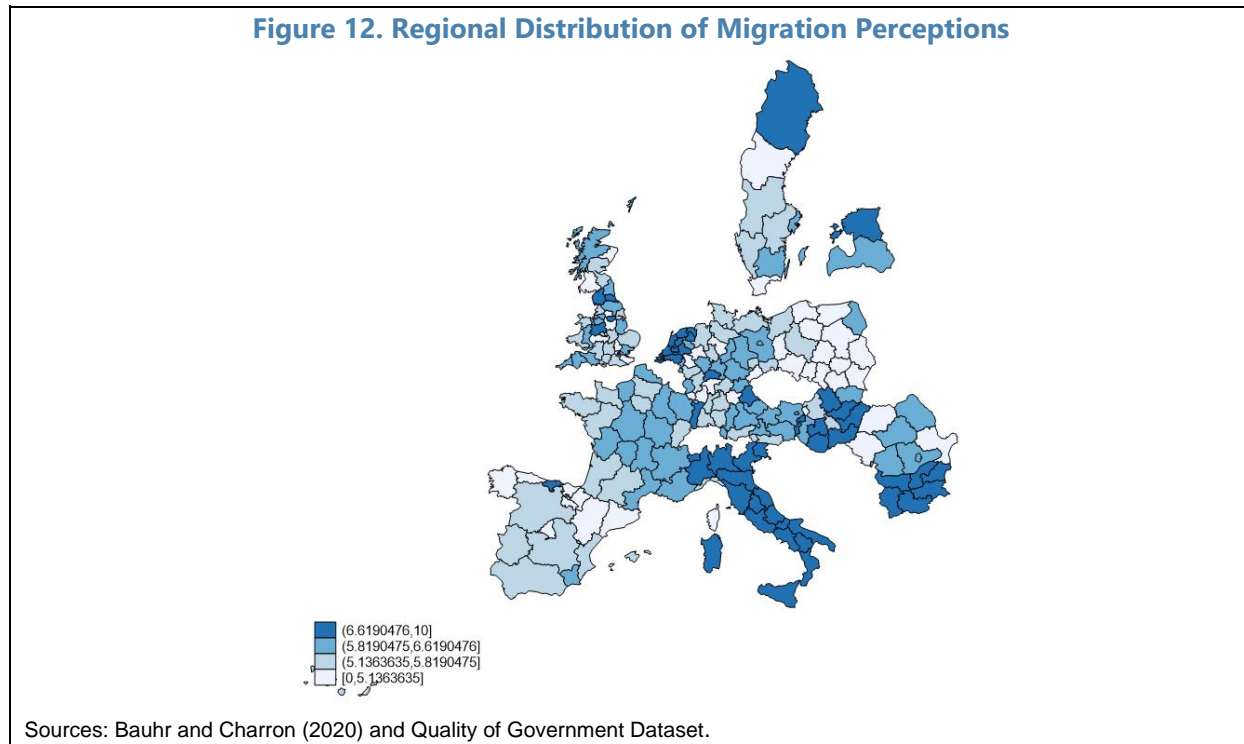
Notes: The “other” group includes crime, taxation, the EU’s influence in the World, pensions, energy supply, health, the international situation, and the war in Ukraine. The last three questions were only asked since 2020, 2022 and 2024, respectively and explain the uptick in the “other” category in the most recent years.

Drivers of Perceptions: Exploring Regional and Individual Characteristics

In this subsection we build on the above and the large literature which tests whether economic variables can explain variation in perceptions of migration by exploiting a large-cross section of individual level survey responses. The advantage of this dataset is that it surveys individuals at the regional level, which, as mentioned before, is where possible congestion of public goods tends to arise.

We rely on the [PERCEIVE Survey Dataset](#) (Bauhr and Charron, 2020). The survey includes a cross-section of European individuals interviewed in September 2017 hence it does not provide information on perceptions related to the 2022 immigration wave. At the same time, while there is no time variation in the survey, precluding a study of the evolution of perceptions over time, the interviews were conducted after the large Syrian refugees’ surge in 2016. One of the questions in the survey is whether the country of the respondent should have more restrictions on migration, with a higher score indicating that more restrictions are advocated for. Figure 12 shows the distribution of the regional answers pointing to substantial variation across Europe with some Southern countries generally presenting higher anti-immigration scores, but relatively modest subnational variation.

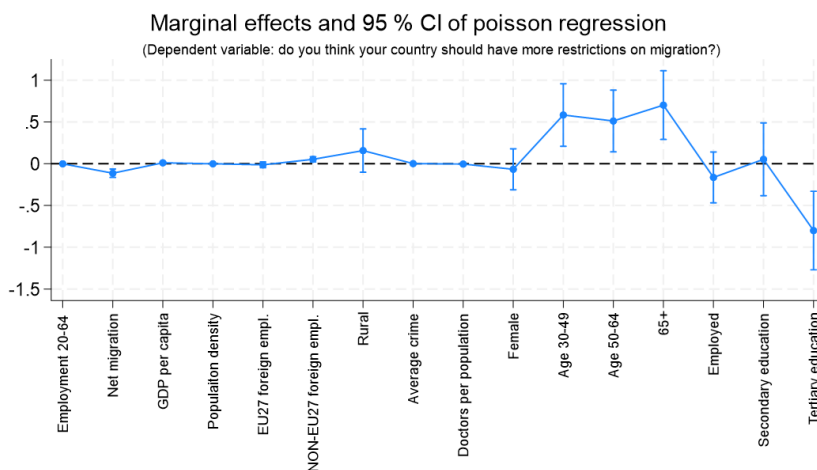
Figure 12. Regional Distribution of Migration Perceptions



Given the count-type structure of the data, we estimate Poisson regressions to study the determinants of individual perception as a function of economic variables, proxies for public goods, and individual characteristics.³² The set of economic variables includes the following for the year 2016: employment for the age group 20-64, net migration, GDP per capita, population density, employment of EU-27 foreign workers, employment of non-EU 27 foreign workers. The set of proxies for public goods includes a dummy for rural regions, average crime incidents, and number of doctors per capita. The survey respondent's immigration status is not identified.

The results show that respondents' own individual characteristics, namely age and education, are the most relevant factors driving perception (Figure 13). Older people prefer more restrictions, and individuals with a tertiary education advocate instead for less restrictions. The economic variables and the proxy for public goods show up as statistically insignificant. The net migration dummy is nevertheless statistically significant and negative, suggesting that individuals in regions with larger net migration tend to prefer fewer restrictions on migration flows. However, the coefficient is relatively small if compared to the ones on individual characteristics. In some less restrictive specifications, the rural dummy appears as significant with a positive coefficient. This suggests that individuals living in areas with limited access to services tend to favor more restrictions to immigration, possibly speaking to the lack of public goods as a driver of anti-immigrant perceptions. It is also important to note that the country coverage varies with the inclusion of different economic variables and proxies for public goods at the regional level. The inclusion of country fixed effects does not change the results.

³² Alternative empirical models accounting for the overdispersion of data obtain similar results. Standard errors are clustered at the NUTS2 level. The economic variables and proxies for public goods are all from Eurostat.

Figure 13. Regression Results: Determinants of Negative Perception of Immigrants

Sources: Bauhr and Charron (2020); Eurostat; and IMF staff calculations.

Notes: The chart reports the point estimates and the 95 confidence bands obtained with Poisson regressions. Standard errors are clustered at the NUTS2 level.

Overall, these results are broadly consistent with several studies in the literature suggesting that opposition to immigration does not necessarily have economic roots, but it is mainly driven by a “cultural” channel and socio-demographic characteristics (Tabellini, 2024 and Alesina and Tabellini, 2024, among others). At the same time, the tertiary education variable could proxy for economic factors: for instance, individuals from better-off families can invest time in acquiring tertiary degrees because of the relatively low opportunity cost to their family of forgoing employment, and people with tertiary education have skills that tend to be complementary with those of migrants, helping to boost their productivity and incomes.

As highlighted in previous sections, housing and overcrowding of schools are among the factors that voters worry about when immigrants arrive (Hanson and others, 2007; Facchini and Mayda, 2009; and Hainmueller and Hiscox, 2010; Colas and Sachs, 2024). Unfortunately, proxies for housing quality and schools’ overcrowding are not available at the regional level, preventing an analysis of pressures on housing and the education system on perceptions in the above setting.

7. Conclusion and Policy Implications

Recent immigration into the EU has helped meet unprecedented strong labor demand in Europe during 2022-23, with close to two-thirds (2.7 million) of EU jobs created between 2019 and 2023 filled by non-EU citizens. This share was the highest seen in recent EU history while the unemployment rate of EU citizens remained at historic lows, suggesting immigrants likely helped alleviate labor shortages to some degree. Notably, Ukrainians seems to have been absorbed into employment faster than previous refugee waves in many countries, reflecting not only tight labor market conditions (that is, labor demand is high, many sectors experience labor shortages, and unemployment rates are at historic lows) but also the fact that the temporary protection scheme allow Ukrainian refugees to look for work almost immediately.

Simulation results suggest that an increase in labor force of 0.3-1.1 percent of existing labor force can increase the level of euro area potential GDP by 0.2-0.7 percent by 2030. The impact is more positive the larger the increase in the labor force (either due to a larger initial increase or because immigrants stay permanently) and the lower the productivity differential between natives and migrants. Our favored point estimate for the impact of the recent increase in immigration is an increase in euro area potential output of 0.5 percent by 2030. GDP per capita drops in the simulations as long as a permanent TFP gap between natives and immigrants persists but not if that gap gradually closes over time (the literature has also found positive aggregate TFP effects from which we abstracted in the simulations). This highlights both the key role of immigrant skills and the role of integrating migrants into the labor market in a way that is commensurate with their skill level.

In terms of possible costs, immigrants tend to require additional temporary fiscal outlays (estimated at 0.2 percent of EU GDP in previous IMF work). Anecdotal evidence also points to some pressures on the provision of public goods such as hospital, affordable housing, and schooling at the local level. Nevertheless, and consistent with the literature, economic variables and proxies for publicly provided goods are found to have less of an effect on public perceptions of immigration across European regions in 2017 than do demographic variables. Assessing the impact of the increase in immigration on wages is an important question that remained outside the scope of this paper due to data constraints.

Two policy priorities emerge—fully aligned with many previous studies.³³ To improve output trends amid rapid aging of populations and tight labor markets, governments need to focus on integrating migrants into the labor market – and integrating them in the most productivity enhancing way possible - and they need to make sure that the supply of public services and amenities (including at the local level) keeps up with the population increase.

The immediate access to the job market granted under the Temporary Protection Directive for Ukrainian refugees in 2022 appears to have been a success in that respect, with employment rates much above those observed for previous waves of refugees. Further efforts to facilitate labor market access for immigrants not under the Temporary Protection Directive should be pursued, including minimizing restrictions on taking up work during the asylum application phase. Easing avenues for migrants to enter self-employment (including access to credit), facilitating skill recognition, strengthening language training, and improving rental housing affordability and supply could also help. Finally, strengthening the role of the non-governmental sector, drawing for example on the experience of Germany, can support integration. Building a strong collaboration among government, NGOs, CSOs, and private sector stakeholders to provide immediate assistance and tailored support can help integration while reducing the burden on the public sector.

National governments, and possibly the EU, should carefully study whether the needed mechanisms are in place to avoid sudden decline in provision of local public goods (such as schooling and social housing) at the per capita level. Public data do not allow an in-depth assessment of this question, and establishing firmly whether per capita public good provision has been negatively affected is an important first step. Regions relying more on local financing may require greater initial support from regional, central, or supranational governments to ensure continuity. This will help reap the overall positive economic benefits at EU and country levels, while avoiding overburdening countries and regions receiving disproportionately larger shares of immigrants. In addition, reducing barriers to geographical mobility (including those linked to housing, education, and health services) would allow migrants to move where labor demand is high. Elfayoumi and others (2021) show that

³³ See Bahar et al. (2024) for a useful overview of policies for successful economic and social integration.

improving rental housing affordability is a priority in Europe (irrespective of migration trends), to support inclusion and labor mobility. Measures to expand affordable rental housing, include targeted higher housing allowances, more social rental housing, and regulatory and financial incentives that raise rental housing supply across locations. This would also help limit any adverse effect of a population increase on local housing affordability and help increase the within-EU labor mobility of EU citizens, which continues to lag significantly behind that of the US.

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Annex I. Measurement of Migration and Migrants in the Labor Market: A Few Observations

Migration and migrant population statistics:

- Timing: Eurostat publishes comprehensive migration and migrant population statistics (based on data provided by national authorities) in Spring of year t, for year t-2, i.e. data for 2022 were just published in March 2024. Some data which allow for a partial reading on migration (eg asylum seekers) are available at a much higher frequency – see section below on “higher frequency data”). National level data are also available at (much) higher frequency in some instances.
- Definition of migration: According to Eurostat “immigrants who have been residing (or who are expected to reside) in the territory of an EU Member State for a period of at least 12 months are included in the statistics, as are emigrants living abroad for more than 12 months. Therefore, data collected by Eurostat concern migration for a period of 12 months or longer. Migrants therefore include people who have migrated for a period of one year or more as well as persons who have migrated on a permanent basis.
- Data collection. According to Eurostat “Although EU Member States may use any appropriate data sources according to national availability and practice, the statistics collected under the Regulation must comply with common definitions and concepts. Most EU Member States base their statistics on administrative data sources such as population registers, registers of foreigners, registers of residence or work permits, health insurance registers and tax registers. Some countries use mirror statistics (for example, country X may use for immigration from country Y the emigration flows reported by country Y as coming from country X), sample surveys or estimation methods to produce migration statistics.”
- Granularity of data: The flow data on migration have information on whether migrants are EU, non-EU or (returning) nationals. The stock migrant population data has more granularity on country of birth and country of citizenship of migrants.
- Definitional differences across countries: While in principle they should be included, a number of countries exclude asylum seekers or refugees under the temporary protection program (see below the section on “higher frequency data for details of both categories) from their statistics. For asylum seekers, Bulgaria, Denmark, Croatia, Latvia, Lithuania, Hungary, Poland, Romania, Slovenia, Slovakia, Finland, Sweden, Iceland and Liechtenstein do not include them in migration statistics. Bulgaria, Poland, Portugal, Slovakia, Finland, Sweden and Liechtenstein do not include refugees from Ukraine who benefit from the temporary protection program in their migration and population statistics. Total number of migrants in 2022 could be as much as 1.5 million higher than the official statistics based on this.
- Higher frequency data and relationship with comprehensive immigration data
 - Asylum seekers: First-time asylum applications are country-specific and imply no time limit. Therefore, an asylum seeker can apply for the first time in a given country and afterwards again as first-time applicant in any other country. If an asylum seeker lodges once more an application in the same country after any period of time, (s)he is not considered again a first-time applicant.

- Temporary protection (Ukraine):
 - Given this was for the first time used in the case of Ukrainian refugees as of 2022, Eurostat issued initial guidance on measurement in January 2023. Eurostat explicitly acknowledges that there are likely to be differences across countries in counting temporary protection and including them in migration and migrant population statistics. The essence of the guidance is that the usual residence definition should be applied, meaning a large number of refugees from Ukraine under the temporary protection program should be counted in migration statistics (basically those still in the member state at the end of the year).
 - Monthly flow data on granting of temporary protection, annual flow data as well as annual stock data (beneficiaries of temporary protection) are available but do not appear to be fully consistent. The delta in the annual stock appears to be the measure most closely capturing the number of Ukrainians de facto in a member country. This would be 3.8 million at end-2022 and 4.3 million at end 2023.
- Data on emigration: Eurostat publishes data on emigration at the same time as data on immigration but notes that this is much harder to measure (as there is less incentive to notify authorities of departures than arrivals). Official data show a very stable annual rate of emigration from the EU (somewhat over 1 million people).
- Net migration: Eurostat publishes data on net migration plus statistical adjustment together with the aggregate population statistics (where net migration plus statistical adjustment is the difference between the total population change and the natural change of the population. Data for 2023 are already available for this measure as of early July 2024 (as shown in Figure 2.3 and discussed in footnote 17).

Migration and Labor Market Statistics (LFS)

- Timing: Eurostat publishes both quarterly and annual data from the labor force survey. The quarterly data are published around 10 weeks after the end of the quarter, while the annual data are available roughly four months after the end of the calendar year.
- Scope of the survey: The sample size is large at 1.1 million in 2021. The survey aims to capture everybody aged 15 and above who live in private households. Eurostat specifies that those doing military of community service and those living in institutional or collective housing are not covered. The latter is relevant in the context of immigration, given migrants (especially refugees) initially often live in collective housing.
- Difference in working age population between population statistics and labor force survey: In Eurostat's migrant population statistics, the increase in non-EU citizens between 1 January 2022 and 1 January 2023 (so the increase during 2022) is roughly 2.8 million. From the quarterly LFS, the increase between Q1 2022 and Q1 2023 was 1.5 million (1.7 million when taking Q4 2021 as the base). This implies a shortfall of over 1 million relative to the population statistics. For 2021, the picture is slightly reversed, population statistics show an increase of only 185,000, while the LFS shows an increase in the WAP of around 500,000.

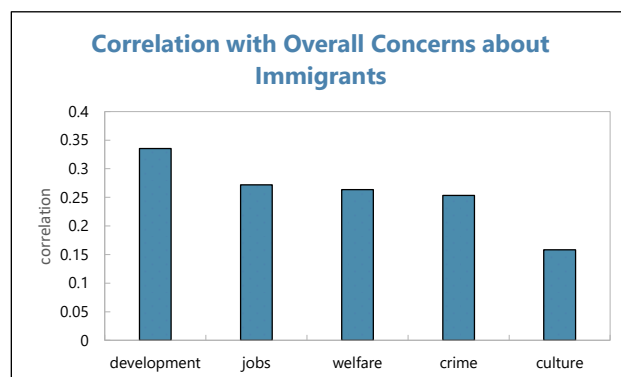
Annex II. A Further Look at Aggregate Perceptions Data

Perceptions of migrants are multi-dimensional. This annex resorts to the European Value Study (EVS) and World Value Survey (WVS), which conduct repeated cross-sectional longitudinal surveys on perceptions of migrants. The latest two surveys of EVS consist of Wave 2008 with the field work conducted during 2008-2010 and Wave 2017 conducted during 2017-2021, while the last survey of WVS was conducted jointly with EVS during 2017-2021.

EVS has six questions related to perceptions of migrants in Wave 2017. The first question asks respondents whether they feel concerned about immigrants on a scale of 1-5, with 1 being very much concerned and 5 not at all concerned. The next four questions ask respondents to rank on a scale of 1 to 10 on whether immigrants take away jobs, increase crime problems, strain welfare system, and maintain own customs, with 1 indicating “agree” and 10 “disagree”. The last question asks respondents to evaluate the impact of immigrants on the development of their country on a scale of 1-5, with 1 being very bad and 5 very good.

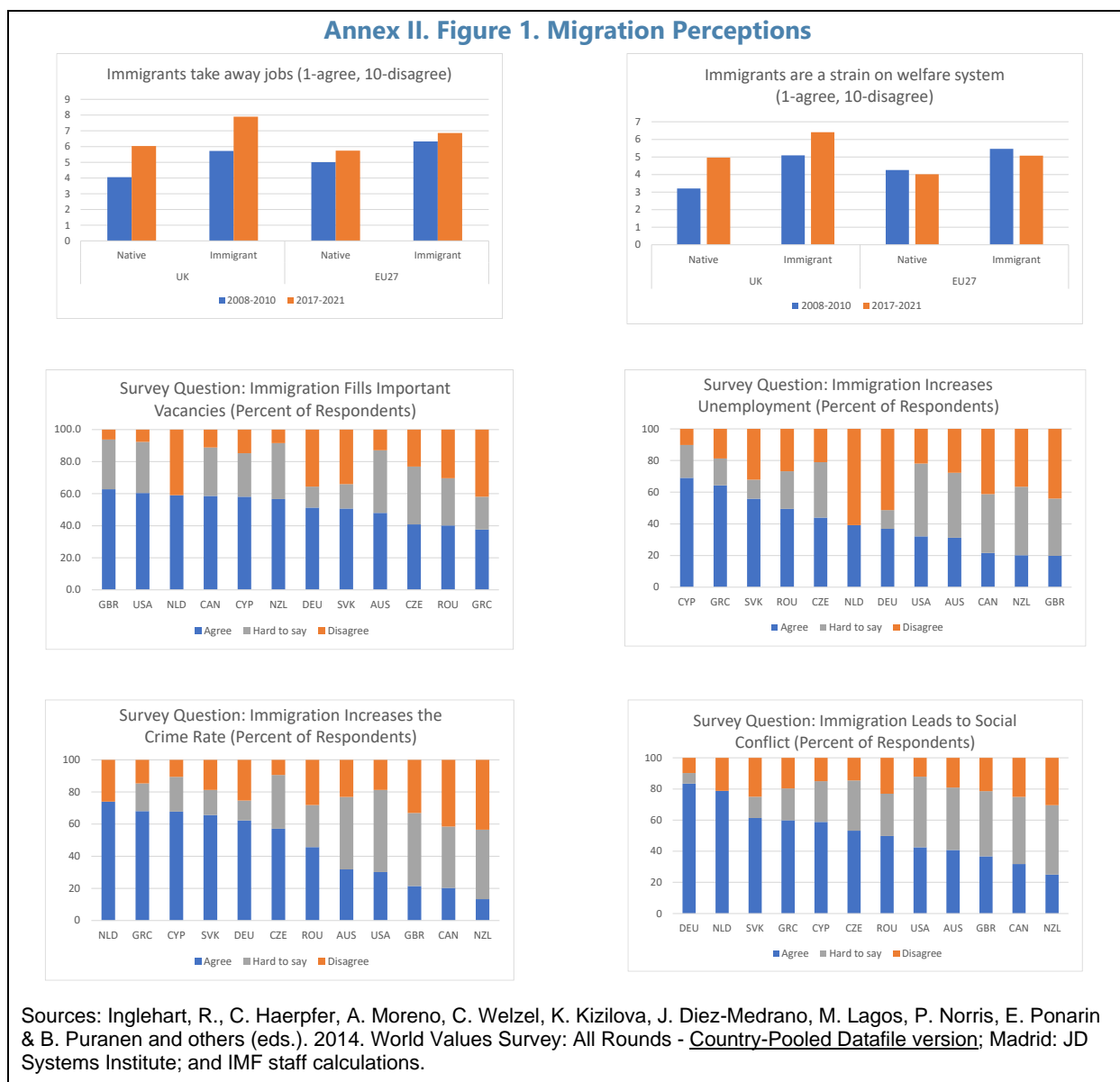
EVS Questions	Scale	Notes
1. Feel concerned about immigrants	1-5	1-very much; 5-not at all
2. Immigrants take away jobs from [nationality]	1-10	1-agree; 10-disagree
3. Immigrants increase crime problems	1-10	1-agree; 10-disagree
4. Immigrants are a strain on welfare system	1-10	1-agree; 10-disagree
5. Immigrants maintain own/take over customs	1-10	1-agree; 10-disagree
6. Evaluate the impact of immigrants on the development of [your country]	1-5	1-very bad; 5-very good

The questions in EVS reflect overall concerns as well as different aspects of concerns about immigrants. The concern about own country’s development is most correlated with overall concerns (text figure). Job security, strains on welfare, and increase in crimes are also associated with overall concerns. Worries about cultural differences are least correlated with overall concerns. Taken together, overall concerns about immigrants seem to reflect concerns about economic prospect and security.



Perceptions of migrants are evolving. Comparing different waves of EVS survey reveals a changing landscape of perceptions as well as heterogeneity across social groups. According to the latest two waves, negative perceptions of migrants, including claims that immigrants take away jobs (Annex II. Figure 1, top left) and strain welfare systems (Annex II. Figure 1, top right), have declined. Such improvement in perceptions may partly reflect the trend decline in the unemployment rates during the same period. The improvement in perceptions has been larger in the UK than in the EU. Within the UK or the EU, existing immigrants tend to have better perceptions of new immigrants than natives, though both natives and existing immigrants have improved perceptions of new immigrants over time.

Perceptions of migrants are also heterogeneous across countries (Annex II. Figure 1, middle and bottom). WVS ask different questions than the EVS about opinions of migrants, including the role of migrants in job vacancies, unemployment, crime rates, and social conflict. For some countries, such as Greece, perceptions of migrants are unfavorable on all fronts. There is a large share of survey respondents who disagree that migrants fill important job vacancies and agree that migrants increase unemployment, the crime rate, and social conflict. In contrast, countries such as the UK and Canada tend to view migrants favorably in these aspects. Other countries such as the Netherlands have divergent perceptions of economic and social impact of migrants. While close to 60 percent of survey respondents agree that migrants fill important job vacancies, more than 70 percent agrees that immigration increases crime rates.





PUBLICATIONS

Migration into the EU: Stocktaking of Recent Developments and Macroeconomic Implications
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