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Article

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The Location of Asylum Seekers in Europe Before and After Russia's Invasion of Ukraine

Three months after Russia's invasion of Ukraine on February 24, 2022, more than 4.7 million asylum seekers from Ukraine were recorded across Europe (including Russia) and close to 7 million crossings were registered at the country's borders by the end of May (UNHCR 2022). The number of forcibly displaced is approaching the worldwide Ukrainian diaspora recorded at the end of June 2020 (6.1 million; UNDESA 2022). It exceeds the total number of asylum applications observed between 2016 and 2020 in EU27 countries (3.4 million; UNHCR 2021). A large share of the displaced population, estimated at around 58 percent at the end of May 2022, is hosted in one of Ukraine's neighboring countries, including 25 percent in Russia and Belarus. This is consistent with the fact that geographical distance is the main determinant of asylum location choices (Beine et al. 2021; World Bank 2018). In fact, before the onset of the Ukrainian war, 70 percent of refugees worldwide were hosted in a region bordering their origin country (UNHCR 2021).

The current EU hotspots of inflows from Ukraine differ from those observed during the 2015–2016 surge in asylum applications, and the resulting distributions of forced migrants are heterogeneous across host countries. The former episode saw most asylum seekers going to Germany, in part due to Chancellor Merkel's decision (September 2015) to let refugees (mainly from Syria) who were in Hungary enter the country. Other top destinations, in absolute numbers, were France, Italy, and Spain (see Table 1, column 2). Without coordination among EU countries on the relocation of asylum seekers from Ukraine, their distribution across space is likely to remain unbalanced due to location choices driven by the proximity of their home country and/or the presence of co-nationals in some specific destination countries.

In this article, we contrast the (estimated) current distribution of Ukrainians with the one associated to asylum seekers who arrived before the war in Ukraine and the one that would be obtained based on the allocation scheme proposed by the European Commission in 2015. This allows us to discuss how a reallocation of refugees across destinations would lower pressure for neighboring countries of Ukraine and, at the same time, how this would reshape the location of forced migrants within Europe.

CURRENT DISTRIBUTION OF ASYLUM APPLICATIONS AND UKRAINIAN INFLOWS

A first aspect worth highlighting is the sheer scale of forced displacements. Whereas the UNHCR registered about 3.4 million first-time asylum applications in EU27 countries over the five-year period 2016–2020, by June 1, over 4.7 million individuals had left Ukraine and 2.8 million had applied for Temporary Protection in a EU27 country. Ukraine's neighboring countries, such as Poland, Romania, Hungary, and Slovakia, host large numbers of asylum seekers (Table 1, columns 3 and 4). This pattern is shown in Figure 1, which reports the estimated current distribution of Ukrainian temporary protection applications on June 1, 2022 relative to the population size (i.e., expressed as applications per 1,000 inhabitants) of each receiving country. This protection also extends, under certain conditions, to stateless persons or nationals of third countries other than Ukraine, who have been displaced from Ukraine. Throughout this paper, the use of "Ukrainian" refers to all people coming from Ukraine, independent of their nationality.

As highlighted by the UNHCR (2022), compiling and updating statistics on displacements is challenging. Following a recent update, the UNHCR "Ukraine

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Table 1

Volumes

	Population (1)	Total asylum applications 2016–2020 (2)	Ukrainian temporary protection applications (3)	Ukrainian individual records (4)	Simulation 7M: temporary protection (5)	Simulation 7M: EU allocation (6)
Austria	8,901,064	98,410	68,747	68,747	167,710	172,274
Belgium	11,522,440	82,575	44,645	45,227	108,913	214,746
Bulgaria	6,951,482	30,460	110,616	78,714	269,851	74,887
Croatia	4,058,165	6,520	13,374	13,375	32,626	47,715
Cyprus	888,005	34,685	11,980	14,862	29,226	13,396
Czechia	10,693,939	6,075	361,419	361,560	881,693	148,794
Denmark	5,822,763	16,785	27,208	29,191	66,375	135,282
Estonia	1,328,976	565	25,693	39,802	62,679	18,515
Finland	5,525,292	16,510	24,455	26,196	59,659	112,102
France*	67,485,531	515,360	93,000	93,000	226,876	1,089,378
Germany	83,166,711	1,327,695	329,340	780,000	803,435	1,487,733
Greece	10,718,565	284,585	13,400	13,400	32,690	128,731
Hungary	9,769,526	32,530	23,347	23,347	56,956	119,484
Ireland	4,964,440	15,075	32,421	32,421	79,092	144,907
Italy	59,641,488	357,530	97,314	125,907	237,400	870,730
Latvia	1,907,675	1,200	23,375	23,382	57,024	24,059
Lithuania	2,794,090	2,205	53,891	53,913	131,469	37,006
Luxembourg	626,108	10,110	5,300	5,300	12,930	23,053
Malta	514,564	11,805	922	994	2,249	7,910
Netherlands	17,407,585	92,100	60,020	60,020	146,421	352,581
Poland	37,958,138	19,470	1,142,964	1,142,964	2,788,295	462,137
Portugal	10,295,909	5,600	39,789	39,884	97,066	141,269
Romania	19,328,838	16,980	33,217	84,470	81,034	221,655
Slovakia	5,457,873	890	78,568	78,756	191,669	71,001
Spain	47,332,614	302,930	109,468	109,541	267,050	641,013
Sweden	10,327,589	99,500	37,995	39,592	92,690	209,167
Total	447,485,231	3,400,735	2,869,405	3,391,502	7,000,000	7,000,000

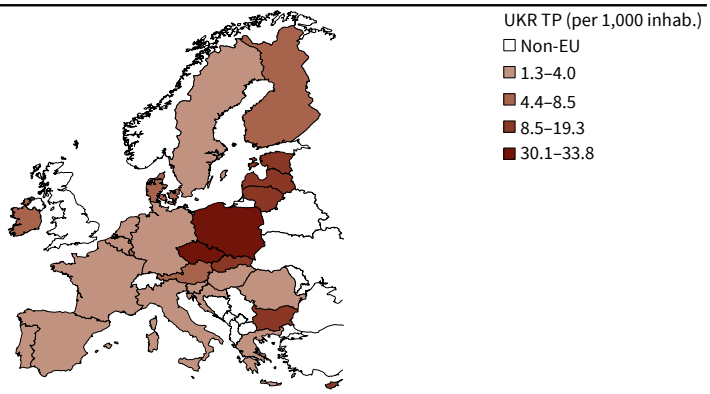
Note: Data are obtained from Eurostat (2022) and UNHCR (2021 and 2022).

*The value provided for France for columns 3 and 4 on UNHCR (2022) is from April 27, 2022. We updated this figure to 93,000 as provided on May 24, 2022 by Libération (source).

Refugee Situation" online portal provides estimations of border crossings, individuals recorded across Europe, and registrations for the Temporary Protection (or similar) schemes. Current estimates on the number of Ukrainian refugees in a given country are likely approximate. They might underestimate the real number of asylum seekers if some of them have not yet applied for temporary protection in the host country. In contrast, they do not account for applicants who have moved to a different country (and thus could include multiple counts) or returned to Ukraine. Where available, we base our estimations on individuals who have applied for the Temporary Protection status and complement it with the number of recorded individuals when this information is not available. The location where an individual applies for temporary protection might arguably be seen as more permanent than the location where the individual is recorded (e.g., while crossing a border or in a train during transit towards a different destination). In Table 1, we provide statis-

Figure 1

Estimated Current Distribution of Ukrainian Asylum Seekers



Note: Data obtained from UNHCR (2022) and Eurostat (2022), as explained below Table 1.

Table 2

Asylum Seekers per 1,000 Inhabitants under Different Scenarios

	Total asylum applications 2016–2020 (1)	Ukrainian temporary protection applications (2)	Ukrainian individual records (3)	Simulation 7M: temporary protection (4)	Simulation 7M: EU allocation (5)
Austria	11.1	7.7	7.7	18.8	19.4
Belgium	7.2	3.9	3.9	9.5	18.6
Bulgaria	4.4	15.9	11.3	38.8	10.8
Croatia	1.6	3.3	3.3	8.0	11.8
Cyprus	39.1	13.5	16.7	32.9	15.1
Czechia	0.6	33.8	33.8	82.4	13.9
Denmark	2.9	4.7	5.0	11.4	23.2
Estonia	0.4	19.3	29.9	47.2	13.9
Finland	3.0	4.4	4.7	10.8	20.3
France	7.6	1.4	1.4	3.4	16.1
Germany	16.0	4.0	9.4	9.7	17.9
Greece	26.6	1.3	1.3	3.0	12.0
Hungary	3.3	2.4	2.4	5.8	12.2
Ireland	3.0	6.5	6.5	15.9	29.2
Italy	6.0	1.6	2.1	4.0	14.6
Latvia	0.6	12.3	12.3	29.9	12.6
Lithuania	0.8	19.3	19.3	47.1	13.2
Luxembourg	16.1	8.5	8.5	20.7	36.8
Malta	22.9	1.8	1.9	4.4	15.4
Netherlands	5.3	3.4	3.4	8.4	20.3
Poland	0.5	30.1	30.1	73.5	12.2
Portugal	0.5	3.9	3.9	9.4	13.7
Romania	0.9	1.7	4.4	4.2	11.5
Slovakia	0.2	14.4	14.4	35.1	13.0
Slovenia	6.0	3.3	3.3	8.1	14.5
Spain	6.4	2.3	2.3	5.6	13.5
Sweden	9.6	3.7	3.8	9.0	20.3

Note: Ratios are computed based on Table 1.

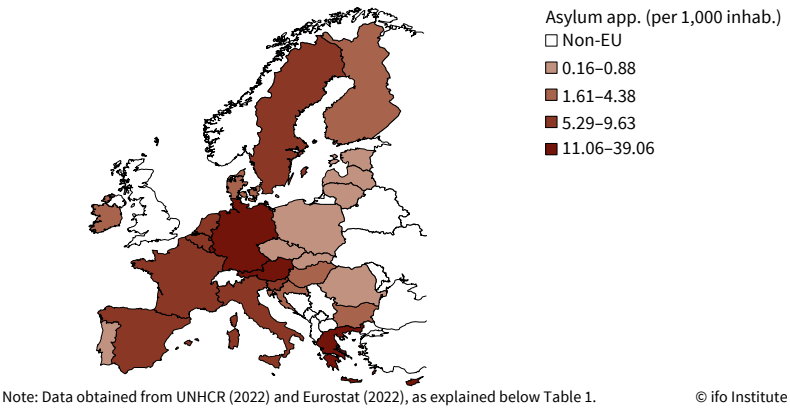
tics based on individuals registered with the Temporary Protection status (in column 3) and individuals recorded (in column 4) as published by the UNHCR (2022) on June 1.

Expressing the asylum aggregates per thousand inhabitants allows accounting for the heterogeneous size of EU member states. Besides neighboring countries, Czechia (33.8), Estonia (19.3), and Lithuania (19.3) are among the top destinations for asylum seekers from Ukraine. A majority of hotspots for Ukrainian inflows had relatively few asylum applications before the onset of the war. In thirteen countries, the number of Ukrainian temporary applications exceeds the sum of asylum applications over the period 2016–2020. These countries include all Eastern European member states, except Slovenia and Hungary, as well as Croatia, Denmark, Finland, Ireland, and Portugal (Table 1).

The spatial distribution of Ukrainian temporary protection applications in Europe is almost diametrically opposed to the one of pre-2021 asylum applications. Figure 2 depicts the distribution of total asylum applications (per 1,000 inhabitants) over the period 2016–2020 within EU27 countries (see Table 2 column 1 for detailed statistics). Relative to their population size (in thousands), the five main hosting countries are Cyprus (39.1), Greece (26.6), Malta (22.9), Luxembourg

Figure 2

Pre-war Distribution of Asylum Seekers



Note: Data obtained from UNHCR (2022) and Eurostat (2022), as explained below Table 1.

(16.2), and Germany (16). In contrast, the five countries at the bottom of the list, which hosted less than 0.5 refugees per 1,000 inhabitants in 2020, are Slovakia, Estonia, Poland, and Portugal. Figure 2 suggests thus that, until 2020, the Eastern European member states were receiving relatively few asylum applications, while the opposite is true for small EU member states, Germany, and Greece, which received a large number of applications relative to their population between 2016 and 2020.

The post-war distribution of asylum seekers from Ukraine across host countries remains uncertain at this stage. The activation of the Temporary Protection Directive, granting temporary protection to Ukrainian nationals residing in Ukraine and displaced following the country's invasion, allows forced migrants to settle in the EU member state of their choice. This implies that countries not bordering Ukraine should gradually expect to receive more individuals coming from Ukraine. As of June 1, more than 1,700,000 temporary protection applications have been registered in these non-bordering destination countries (i.e., more than 42 percent of all temporary protection applications). Within EU member states, those with a large Ukrainian diaspora are expected to progressively host more Ukrainians, as networks have been proven to facilitate migrants' access to employment, housing, schooling, and other key dimensions for their integration at destination (Beaman 2014; Munshi 2014; Dagnelie et al. 2019; Brell et al. 2020).

REALLOCATION OF ASYLUM SEEKERS USING THE EU SCHEME

From what we have learned from previous episodes of massive asylum flows, individuals from Ukraine are expected to have minor economic effects at destination in the medium term (Guichard et al. 2022a and 2022b). Nonetheless, such outcomes do not materialize immediately in the economy of the host country. Although offering a short-lived status, the activation of the Temporary Protection Directive withdraws a major barrier for newcomers to access the labor market and social services of receiving countries (Dustmann et al. 2018; Fasani et al. 2021 and 2022). Beyond these key features, it has been shown to be crucial to implement integration policies aiming to help refugees acquire the language of the destination country and other specific knowledge to quickly access its labor market (Arendt et al. 2022). This is particularly important for refugees, who are generally less prepared and face more difficulties associated with a lack of skills compared to economic migrants (Brell et al. 2020). The demographic composition of current asylum flows, with an important number of children and a high proportion of women, might involve new challenges for destination countries. These include providing education opportunities to a large number of children and childcare facilities to facilitate women's labor market participation.

However, integration policies will be hard to implement if the distribution of asylum seekers is concentrated in a few EU countries. Despite important numbers of Ukrainian protection applications not lodged in Ukraine's neighboring countries, we estimate that the latter still host around 57 percent of all asylum seekers (see Table 1, column 3, for country-specific numbers). The total number of asylum seekers that will eventually leave Ukraine is difficult to predict. We base our numerical exercises on a total number of 7 million individuals from Ukraine, which represents the current number of crossings registered at the Ukrainian borders (UNHCR 2022). However, as the war is still ongoing, numbers are likely to keep increasing. Current predictions range from 9.9 million (Düvell and Lapshyna 2022) to 15 million refugees (Betts 2022) if the war persists.

Assuming that 7 million asylum seekers from Ukraine would follow the currently observed distribution of temporary protection applications in the EU would lead to a large imbalance in the distribution of forced migrants per capita across countries. More specifically, this scenario would imply less than 4 Ukrainian asylum seekers per 1,000 inhabitants in France and Greece, more than 40 in Lithuania and Estonia, and more than 70 in Poland and Czechia (see column 4 in Table 2). If asylum seekers were to move progressively close to their co-nationals or to the most attractive countries for recent Ukrainian diasporas prior to 2022, we would also obtain a skewed distribution towards countries neighboring Ukraine and towards Germany (see Guichard et al. 2022a and 2022b). The corresponding large inflows in Eastern Europe are likely to be unsustainable and the related countries could face hurdles to set up relevant measures to minimize the short-run costs and maximize potential medium-term gains triggered by the inflows. European citizens have so far shown high solidarity with Ukrainians; however, maintaining it in the long run is certainly demanding.

Questions on how to cope with the massive arrival of individuals from Ukraine have raised discussions on the implementation of a common asylum policy at the EU27 level. The first-time enactment of the Temporary Protection Directive represents a direct and major reaction to provide a protective status and a fast process of applications from individuals pushed out of Ukraine. In the last decade, political debates within EU member states have mainly focused on simple allocation schemes or quota systems, based on criteria such as each country's population size and GDP. Such criteria were already suggested by the European Commission in 2010. In previous work (see Guichard et al. 2022a and 2022b), we quantified potential distributions across EU destination countries based on GDP, population, or a mix of both (inspired by the German Königsteiner Schlüssel) using data

for the year 2020. In May 2015, the European Commission proposed another scheme based on population (40 percent), GDP (40 percent), unemployment (10 percent), and past hosting efforts apprehended through the number of asylum applications received during the previous five years (10 percent). However, no official agreement has been reached so far at the European Council.

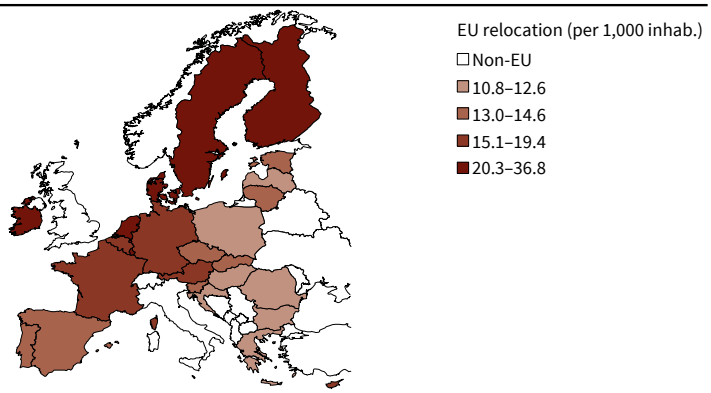
We show in Figure 3 how such an allocation key, applied to 7 million asylum seekers from Ukraine, would translate in terms of forced migrants per 1,000 inhabitants across EU27 countries. The technical appendix below explains the formula that we use, while column 5 of Table 2 reports the related numbers. The distribution derived with the EU key would imply between 10.8 (Bulgaria) to 36.8 (Luxembourg) asylum seekers from Ukraine per 1,000 inhabitants. Distributing 7 million individuals in a homogeneous way across Europe would imply 15.6 asylum seekers from Ukraine per 1,000 inhabitants. Applying the EU key would translate into 17 countries hosting a number of individuals per inhabitant below this average. The other ten, mostly high-income Western European countries, including Germany, France, Ireland, or Luxembourg would host a number above the EU average.

TOWARDS A SHARED RESPONSIBILITY IN EU ASYLUM POLICY

The implementation of the EU allocation scheme would reshape the total number of hosted asylum seekers towards a more balanced distribution, thus paving the way for a more equal sharing of responsibilities within Europe. To emphasize this finding, Figure 4 conveys three types of information. Countries are ordered following the light blue bars, which represent the sum of total asylum seekers from 2016–2020 and current (estimated on a total of 7 million) Ukrainian asylum seekers per 1,000 inhabitants. The dark blue area shows the part of this value registered before the onset of the Ukrainian war. Finally, the dark bordering area shows the number of asylum seekers per 1,000 inhabitants that each country would host under the EU allocation scheme with a scenario of 7 million asylum seekers from Ukraine. The exact values in terms of total and per capita numbers for the different scenarios are provided in Tables 1 and 2, respectively.

Without surprise, the impact of the Ukrainian exodus is reflected in the neighboring countries listed at the top of the figure. Cyprus, Luxembourg, and Austria also appear in the top 10 countries because of their relatively high (population-weighted) effort provided before the onset of the Russian invasion. Receiving countries hosting, as of today, few individuals from Ukraine are located in the lower part of the figure. Those countries, such as Portugal, Hungary, or Croatia, also welcomed a limited number of asylum seekers, relative to their population, during recent asylum episodes (especially in 2015–2016) compared to the small European countries and other top destinations such as Germany, Austria, and Greece.

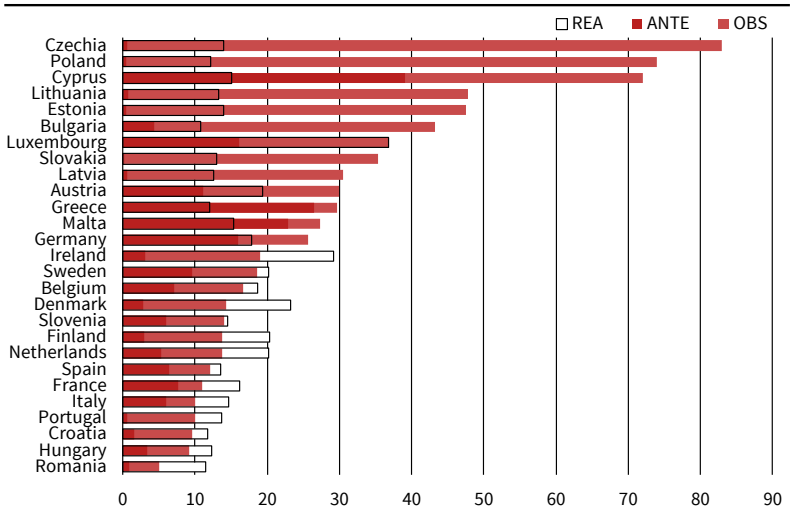
Figure 3
Distribution of Asylum Seekers under the EU Allocation Scheme



Note: Data obtained from UNHCR (2022) and Eurostat (2022), as explained below Table 1. © ifo Institute

The reallocation of asylum seekers based on the EU key implies that the bordering countries of Ukraine would face a much lower pressure on their hosting capacities, which could be beneficial for them to absorb the shock. The displaced Ukrainian population would be resettled in other EU member states, with heterogeneous effects across countries. Larger relocation would take place in countries hosting, in general, relatively few asylum seekers per 1,000 inhabitants (e.g., Denmark, Finland, Ireland, and the Netherlands). The EU scheme would also affect destinations already welcoming asylum seekers in Southern Europe (e.g., Greece, Cyprus, or Malta), or a few Western European countries like Austria or Germany, as it is assumed to be applied only to refugees from Ukraine, disregarding

Figure 4
Contrasting the Pre-Ukrainian, Current and Reallocated Distributions of Asylum Seekers from Ukraine



Notes: The light blue bars, denoted OBS, represent the sum of total asylum seekers over the period 2016–2020 and current (estimated on a total of 7 million) Ukrainian asylum seekers per 1,000 inhabitants. The dark blue area, denoted ANTE, shows the sum of total asylum seekers from 2016–2020 before the onset of the war in Ukraine. The dark bordering area, denoted REA, shows the number of asylum seekers per 1,000 inhabitants that each country would host under the EU allocation scheme with a scenario of 7 million asylum seekers from Ukraine.
Source: UNHCR (2021 and 2022). © ifo Institute

past asylum applications in the country. All in all, this highlights that applying the EU scheme would help smooth the burden across countries. It would support bordering countries of Ukraine in coping with the asylum inflows through a transfer of efforts to other (in particular Western) EU countries with higher leeway in terms of hosting capacities.

In principle, more sophisticated mechanisms could be used to relocate asylum seekers across destination countries. This is the case of tradable quota schemes that have been discussed in the literature (Fernández-Huertas Moraga and Rapoport 2014; de la Croix and Docquier 2015). Their underlying objective is to maximize coordination between countries, assuming that a quota system has been agreed upon, e.g., each country is required to host a certain number of asylum seekers. In addition, some systems can account for asylum seekers' preferences. In practice, these proposals lack political consensus in Europe, which might explain why political discussions have so far mainly focused on simpler allocation settings based on socio-economic characteristics of EU countries.

DISCUSSION

We have compared the distribution of 7 million asylum seekers from Ukraine under two different scenarios: a replication of the distribution observed early June 2022 with larger total outflows from Ukraine and a distribution based on the allocation scheme proposed by the European Commission in 2015. We contrasted both scenarios to the asylum hosting efforts provided by EU countries over the period 2016–2020. The current Ukrainian inflows are mostly concentrated in neighboring countries, which were receiving relatively few asylum applications before the onset of the war. In that sense, the current asylum episode is rebalancing the distribution of forced migrants in Europe.

Yet, the current inflows, if persistent over time, are likely to be unsustainable for most neighboring countries. A coordinated relocation of asylum seekers could allow for a better sharing of responsibilities across EU member states. Applying the allocation scheme suggested by the European Commission in 2015 to 7 million asylum seekers from Ukraine would lower the pressure on neighboring countries and lodge applications in countries that have, so far, received relatively few claims, such as France and Italy.

However, the practical implementation of allocation mechanisms remains highly disputed. It seems unlikely to apply this type of scheme to the entire outflow of asylum seekers from Ukraine. It might rather be implemented to specific contingents of this population, who need to be resettled from a given destination country facing hurdles in hosting them. In addition, some recent studies argue that individuals with personal networks should be allowed to benefit from them and thus be excluded from reallocation settings. Brücker et al. (2022) make this point in the context of within-Germany dispersal of asylum seekers, arguing that allocation schemes should only be applied to individuals requiring public housing. They further defend that the efficiency of the distribution settings could be increased by better accounting for the profile and the needs of each asylum seeker. For instance, in the case of Ukrainian women, accounting for the availability of childcare facilities to ease their labor market integration could be an important criterion in redistribution schemes applied at a more local level.

More broadly, matching the applicants' profile to the economic opportunities in the receiving areas is an important determinant of their long-term integration (Arendt et al. 2022). Our paper provides a first exercise to quantify the effect of a reallocation scheme on the EU-wide spatial distribution of asylum seekers, and in particular on how such a redistribution contrasts with past asylum applications. Further analysis, e.g., within countries and/or at the individual level (depending on data availability), could refine and complement this paper. Notwithstanding the persisting uncertainties, the current Ukrainian exodus may constitute an historical opportunity to reform the EU asylum policy.

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TECHNICAL APPENDIX ON THE CALCULATION OF THE EU ALLOCATION SCHEME

In 2015, the European Commission suggested an allocation scheme that would account for the size of each country and its short-term hosting capacities (see European Commission 2015 for further details). Suppose that a certain number of asylum seekers, defined as *Allocation*, is to be distributed among EU27 countries.

The four components of the allocation key to take into account are population size, GDP, average asylum applications per 1 million inhabitants over the previous five years, and the unemployment rate. These four effects (denoted POP, GDP, ASY, and UR) are respectively computed as follows:

$$POP\ effect_i = \frac{Pop_i}{\sum_{j=1}^{27} Pop_j}$$

$$GDP\ effect_i = \frac{GDP_i}{\sum_{j=1}^{27} GDP_j}$$

$$ASY\ effect_i = \min\left\{\frac{\frac{1}{Avg.\ app.\ per\ 1\ million\ inhabitants_{\ i}}}{\frac{1}{\sum_{j=1}^{27} Avg.\ app.\ per\ 1\ million\ inhabitants_j}},\ 0.3 \times (POP\ effect_i + GDP\ effect_i)\right\}$$

$$UR\ effect_i = \min\left\{\frac{\frac{1}{UR_i}}{\frac{1}{\sum_{j=1}^{27} UR_j}},\ 0.3\times(POP\ effect_i + GDP\ effect_i)\right\}$$

Population, GDP, and the unemployment rate data refer to the year 2020 and were taken from Eurostat (2022). Asylum applications refer to the period 2016 to 2020 and were extracted from Eurostat (2022). The yearly average is calculated by aggregating the values of the five years and dividing by 5.

$$Capped\ Quota_i = \text{Allocation} \times (0.4\times POP\ effect_i + 0.4\times GDP\ effect_i + 0.1\times ASY\ effect_i + 0.1\times UR\ effect_i)$$

The minimum value condition on the asylum and unemployment effects implies that a certain number of individuals from the total allocation might not be allocated. This residual quota is then distributed according to the GDP and population effect as

$$Residual\ Quota_i = \left(\text{Allocation} - \sum_{j=1}^{27} Capped\ Quota_j\right)(0.5\times POP\ effect_i + 0.5\times GDP\ effect_i)$$

The final allocation of country i is then given by the sum of the capped and residual quotas:

$$Total\ Quota_i = Capped\ Quota_i + Residual\ Quota_i$$