UNHCR
The UN Refugee Agency

Regional Bureau for Europe

POLICY BRIEF No. 2

FORECASTING REFUGEE RETURN TO UKRAINE AMID ONGOING WAR AND UNCERTAINTY

How Return Dynamics Could Shape Ukraine's Recovery Policy Choices: Understanding Diverse Motivations and Intentions

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Acknowledgements

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Cover photograph:

Halyna, 62, shows repair works being carried out in her home, using construction materials provided by UNHCR. Her house in Shevchenkove village, Mykolaiv region, was damaged by shelling in summer 2022, prompting her, her three children, and two grandchildren to relocate to Comrat, Moldova. The family later returned to Ukraine and, with support from UNHCR, carried out the necessary repairs to make the house functional again ahead of the winter. © UNHCR/Alina Kovalenko

EXECUTIVE SUMMARY

As Ukraine advances recovery planning amid continued war and uncertainty, the human and social dimensions of its post-war revival assume increased importance—including the potential voluntary return of millions of people impacted by the war. Forced displacement remains a defining feature of the war's impact, with some 3.7 million people displaced within Ukraine and nearly 5.9 million Ukrainian refugees abroad, including 5.3 million in Europe alone. Given the scale of war-related damage impacting every aspect of daily life, including massive economic dislocation and loss and the destruction of millions of homes and critical infrastructure[1], efforts to rebuild Ukraine's human capital are vital. Understanding who is likely to return, to where, and under what conditions is as important as assessments measuring the extent of damage to homes, infrastructure and essential services, as well as the vast economic dislocation and disruption following the full-scale invasion, if Ukraine is to realize its vision of a people-centred, inclusive, and 'barrier free' recovery.

Refugee return will occur neither instantaneously nor homogeneously once hostilities abate or end entirely. Rather, individual return decisions will be shaped by a complex interplay of conditions in host countries and communities, legal status and continued access to rights, perceptions of improved security in Ukraine and prospects for socio-economic reintegration in areas of origin or inclusion in areas of intended settlement. UNHCR's Lives on Hold series, capturing six rounds of intentions surveys over nearly four years, underscores the enduring high interest in eventual return and the factors guiding refugee decision-making. Return decisions and dynamics will, in turn, influence the social geography of recovery, the localized demand for housing and public services, labour-market opportunities and gaps, and the pace at which communities can reconstitute and rebuild. Understanding how these complex phenomena will likely occur over time will be crucial to set priorities and guide the necessary investments in a recovery that leaves no one behind.

To support forward-looking recovery planning, UNHCR, in partnership with Brunel University of London, developed an agent-based model (ABM) to simulate potential refugee return patterns under several plausible future scenarios within Ukraine. These scenarios are not predictive. Rather, they provide a structured frame to systematically explore how refugee decision-making and behaviour may change in response to different plausible future events.

SCENARIOS AND ASSUMPTIONS		
Ukraine Victory	Ukraine reclaims the Temporarily Occupied Territories by end 2026. High level of investment across all oblasts	Temporary Protection end in March 2027, with possible transition to alternative legal frameworks
Fragile peace with concessions	By end 2026 combat ceases, but the Russian Federation retains de facto control over the Temporarily Occupied Territories in the illegally annexed areas of Ukraine. Medium/high level of investment across government-controlled territories.	
Ongoing war (status quo)	Continued hostilities until the end of 2029, at current or increased intensity. Low investment levels with continued humanitarian interventions.	

Drawing on UNHCR's integrated refugee data framework, public source data, and expert input, the model represents the first systematic, methodologically sound, and data-driven forecast of how return behaviour may evolve across scenarios, population groups, and locations over time—and transform existing, disparate data into a viable planning tool. Following the launch of the return forecasting prototype in advance of the 4th Ukraine Recovery Conference in Rome in July 2025, this policy brief outlines findings from a refined version of the model, incorporating new evidence, improved behavioural assumptions, and a rigorous external technical scientific review. Across all scenarios, the model highlights several consistent and policy-relevant findings for Ukraine's recovery, as follows:

1. According to the Fourth Rapid Damage and Needs Assessment (RDNA4), released on February 25, 2025 by the Government of Ukraine, the World Bank Group, the European Commission, and the United Nations, as of December 31, 2024, the total cost of reconstruction and recovery in Ukraine is 524 billion US dollars (506 billion euros) over the next decade. The fifth RDNA will be released in the first quarter of 2026.

The **scale of return remains highly dependent on prospects for future peace and security**, with limited returns under a status quo scenario to more substantial return movements under more favourable conditions associated with a durable ceasefire or negotiated peace settlement.[2]

The **availability of housing and key social services are determinative of where people choose to settle, rather than a return to areas of origin**. Returns will likely concentrate geographically, particularly in oblasts with relatively stable local economies, proportionately higher levels of functioning, accessible services and available, affordable housing stock, such as the city of Kyiv and other predominantly urban centers. Across all scenarios, the model suggests that between one-fifth and one-third of refugees are projected to return (at least initially) to an oblast different from their place of origin.

Timing matters. Around 70 per cent of all returns are projected to occur within the first year following a prospective, lasting cessation of hostilities. The largest numbers of returnees will therefore arrive before sufficient absorption capacity exists and before large-scale reconstruction is likely to materialize, with consequences for the supply of adequate housing supply, the restoration of relevant social and other essential infrastructure, particularly in heavily war-impacted areas or already overstretched host-communities, and robust economy recovery. Therefore, access to housing, services and economic opportunities in Ukraine will likely be decisive enablers of return and determinative of directionality and settlement patterns, with people likely to cluster in areas with existing housing capacity and jobs, rather than areas of origin. The model suggests that the availability of jobs and housing in Ukraine far outweighs the employment status of refugees in host countries, where underemployment and skills mismatch are widespread, in the decision-making calculus of potential returnees.

Finally, returns are not likely to mirror the socio-demographic profile of the refugee population at-large. Across all scenarios, **household composition emerges as a stronger predictor of return than age or other factors**, such as legal status. The model suggests that older people, single adults (with and without dependents), and relatively vulnerable households who may face continued challenges or barriers to full socio-economic inclusion are more likely to be among those most likely to return. These return demographics carry important implications for what services and investments will be required for recovery and inclusion of returnees into communities and the local workforce. Across scenarios, adults aged 18-64, broadly corresponding to the main working-age population, represent approximately two-thirds of all forecasted returnees.

The initial findings of the model are intuitive and broadly reflect existing displacement patterns and settlement dynamics within Ukraine. They do, however, provide important insights to guide recovery planning, including what investments will be needed where in response to anticipated returns. Evidence from UNHCR's Protection Survey and other public source data show that both IDPs and returnees are predominantly concentrated in certain oblasts but often face significant barriers to access adequate housing and essential services. Large-scale return of refugees from abroad will likely follow a similar pattern and add further pressure on over-stretched infrastructure and services in communities already hosting large numbers of IDPs. In addition, social cohesion in communities receiving returnees may be further tested, particularly if local housing, services and employment are further stretched. Likewise, policy choices in refugee hosting countries will also be critical in shaping return dynamics and should be carefully calibrated to avoid overwhelming national capacities in areas of likely return.

Without exception, the modelled scenarios underscore the intense pressure on local housing stock, job markets, and social and basic services likely to accompany the return of significant numbers of returnees, with a high proportion of vulnerable households concentrating in existing host communities in Ukraine. Taken together, the evidence highlights a key implication for recovery planning: population pressures linked to return will neither mirror the geography of destruction nor presage a large-scale return to pre-war communities. Recovery efforts that anticipate these dynamics, by sequencing housing solutions, scaling and adapting services, and supporting economic recovery and efforts to foster social cohesion in line with likely return patterns, can help enable safe, voluntary and sustainable return and contribute to a timely and people-centred recovery inside Ukraine.

2. In 2025 official cross-border movement data by the State Border Guard Service of Ukraine suggest almost equal in- and outflows, border monitoring data has consistently shown that over two thirds of people entering Ukraine only intended to stay for one month or less.

INTRODUCTION

As Ukraine advances recovery and reconstruction planning amid continued war and uncertainty, decisions taken today will shape not only what is rebuilt, but where, for whom, and in what timeframe. The scale of the challenge is immense. Forced displacement remains a defining feature of the war: an estimated 5.9 million Ukrainians are currently living abroad as refugees, while around 3.7 million people remain internally displaced. Population movements, including the potential large-scale voluntary return of refugees from abroad, will therefore continue to influence prospective durable solutions, recovery needs, demand for localized services in host communities or return areas, and subsequent investment priorities well beyond the end of active hostilities. It is imperative that the needs and aspirations of future returnees are at the heart of recovery planning in the inception phase—and that the Government of Ukraine and international stakeholders have the requisite tools and frames of reference to plan accordingly.

For refugees, return is a deeply personal decision—not a moment triggered by the end of fighting, but a process shaped by individual circumstances, safety considerations, access to housing and services, economic prospects, and the confidence and courage to rebuild lives and livelihoods at home. For many, return to a Ukraine still at war is unthinkable, but the intention to return one day persists for millions of refugees, documented through six rounds of intentions surveys across Europe captured in UNHCR's Lives On Hold series. Irrespective of the context, all individual return decisions must be well informed and fully voluntary, in conditions of safety and dignity.

To help inform this complex policy space, UNHCR, in partnership with a team of experts at Brunel University of London, a world leader in the field of agent-based modelling, developed a prototype to simulate potential refugee return patterns under different scenarios, including a potential ceasefire. Rather than producing a single forecast, this model explores how return behaviour may evolve over time as conditions change, capturing demographic differences among those likely to return, from which locations, to where in Ukraine and under what conditions. It provides a forward-looking population perspective—highlighting how individual or household factors influencing return are weighted, decisions made, and then how these micro-level phenomena are aggregated into macro trends in each of the respective scenarios. The results of the model underscore the likelihood that decisions will unfold unevenly across population groups and locations and will be influenced by a range of factors associated with recovery including: labour-market dynamics, the availability of decent housing, and access to public services in areas of return or intended settlement.

HOW THE AGENT BASED MODEL WORKS

PEOPLE-CENTERED

Computational simulation in which each "agent" represents a refugee with a unique profile, demographic, and socio-economic characteristics.

INDIVIDUAL DECISION LOGIC

Macro return patterns emerge from individual decisions, as each agent weighs conditions in host countries and in Ukraine according to their specific profile.

SCENARIO TESTING

Forecasts return decisions under alternative theoretical war-outcome scenarios.

GRANULAR OUTPUTS

Generates oblast-level return forecasts, socio-demographic profiles, origin–destination patterns, and identification of early-pressure areas.

DYNAMIC & RESPONSIVE

Assumptions and parameters can be refined as conditions evolve, and the model is designed to incorporate new evidence as soon as it becomes available.

EXPERT-GUIDED

Developed with inputs from an Informal Advisory Board of IFIs, EU institutions, OECD, Ukrainian counterparts, and academic partners.

AN INNOVATIVE METHODOLOGY: AGENT BASED MODELLING

The Agent-Based Model (ABM) simulates refugees' return under five plausible scenarios relating to the future continuance of war in Ukraine, or the emergence of a ceasefire or fragile peace. Three different scenarios (status quo/continuing war, a Ukraine Victory, and peace with concessions) are used as a basis for analysis in this brief and to highlight the capabilities and future potential of the model to understand prospective returns. All scenarios are constructed around a limited number of common parameters, namely: (1) the intensity and duration of hostilities; (2) the extent of territory remaining under temporary occupation; and (3), the levels of recovery-oriented investment that could reasonably be expected under each situation. These scenarios are not predictive. Rather, they provide a structured way to explore how refugee decision-making and behaviour may change in response to different plausible future events.

To ensure comparability across scenarios, all respective contextual elements are assumed to materialise by the end of 2026. This common reference point serves as a technical starting condition for the simulations and do not reflect any expectation regarding the timing of an end to the war. In all scenarios, Temporary Protection (TP) in the EU is assumed to end in March 2027, with refugees who remain abroad potentially transitioning to alternative legal frameworks, such as work - or study-related residence permits.

Simulations cover a three-year horizon, from the assumed materialisation of each scenario at the end of 2026 through December 2029. The geographic scope includes refugees hosted in the EU and Moldova, with selected results rebased where relevant to reflect the broader Ukrainian refugee population in Europe.

The model does not simulate new refugee outflows or secondary movements within Ukraine following return. It also does not yet include returns of internally displaced persons (IDPs). UNHCR is planning to adapt the model to include potential IDP returns in the next phase, with initial results released by the end of 2026. This will provide a more comprehensive overview of return and mobility patterns to inform recovery planning.

What Is New in the Refined Agent Based Model to Simulate Refugee Return

This second release builds on the preliminary results presented in the Policy Brief No. 1 and reflects a series of methodological and data-driven refinements introduced since mid-2025.

Key improvements include:

- **Refined behavioural mechanisms**, strengthening how agents assess:
  - employment prospects in Ukraine
  - family reunification dynamics in host countries, and
  - knowledge of the host-country language as a factor influencing integration and return.
- **Updated data inputs**, drawing on the latest UNHCR surveys, and external relevant evidence.
- **External validation**: Independent technical and scientific audits of the model code were conducted by academic experts, leading to targeted refinements in model structure, assumptions, and performance.
- **Enhanced computational performance**, including model parallelisation to reduce runtime and expanded sensitivity analysis to identify the most efficient balance between simulation scale and precision.

Together, these refinements **improve the stability, consistency and policy relevance** of the results, while preserving the model's core purpose: to explore how return behaviour may evolve under uncertainty, rather than to produce point forecasts.

FORECASTING RETURN: RESULTS OF SCENARIO-BASED SIMULATIONS

The model underscores the extent to which refugee return to Ukraine will be uneven and scenario-dependent, with the directionality of movement and settlement decisions closely tied to where housing, services and economic opportunities are available, rather than a more linear return to areas of pre-war origin or settlement. Moreover, returns will not simply reverse existing displacement patterns: even when overall return numbers remain below pre-war outflows, certain oblasts will face early and concentrated settlement pressures and further strains on existing, often-overstretched public services. These dynamics have direct implications for where recovery investments should be prioritised, which services will likely be required and how they should be sequenced, and which population groups will require early support to foster socio-economic inclusion and effective reintegration.

Scale: projected returns remain highly scenario dependent

MAGNITUDE OF RETURNS PER SCENARIO

		Returnees by end of simulation		
	Refugees by start of simulation	Prolonged War (Status Quo)	Fragile Peace with Concessions	Ukraine's Victory
EU & Moldova	4,390,000	30,000	1,940,000	2,980,000
Rest of Europe	810,000	10,000	360,000	550,000
TOTAL	5,200,000	40,000	2,300,000	3,530,000
% of refugees		1%	44%	68%

Projected returns fall into two broad groups. Under **Prolonged War** returns remain limited (some 40,000 by 2029), while under **Fragile Peace with Concessions** and **Ukraine's Victory,** returns rise sharply to 2.3 million (44 per cent of refugees) and 3.5 million (68 per cent) respectively. Overall projected returns are lower than in the first simulation round outlined in UNHCR's initial policy brief (July 2025), reflecting prolonged hostilities, deeper socio-economic integration in host countries, and refinements to some behavioural assumptions underlying the model.

From which countries will refugees return: From intentions data to forecasts

Forecasts regarding returns differ considerably among host countries, particularly if a sub-regional lens is applied. Refugees residing in Central and Eastern Europe record the highest return propensities, ranging between 55 to 65 per cent under a scenario of **Fragile Peace with Concessions** and from 75 to 85 per cent under a scenario of **Ukraine's Victory**. In contrast, refugees residing in Western and Northern Europe exhibit the lowest return rates, ranging from 35 to 45 per cent and from 60 to 65 per cent, respectively under each of those scenarios.

These differences also reflect a combination of geographic, demographic, and socio-economic factors—as documented in six rounds of UNHCR intentions surveys carried out across host countries in Europe. Household composition plays a significant role: nuclear families with children, who are less likely to return, are more prevalent in non-neighboring countries, whereas single caregivers—often women, more frequently living across neighboring countries, display higher return likelihood. Area and oblast of origin also shape intentions, particularly under the Fragile Peace with Concession scenario, as countries such as Germany, Poland, and Estonia host a higher share of refugees from heavily affected or occupied eastern and southern oblasts.

Finally, self-selection effects might also have an influence, with refugees more prone to return once conditions permit having opted to settle in neighboring countries.

Surprisingly, the model suggests that legal status plays a relatively lesser role in household return decision-making than might logically be expected. While the model predicts a peak in returns following the March 2027 expiry of Temporary Protection, under the Fragile Peace with Concessions scenario it also suggests that around 38% of refugees originating from non-occupied oblasts who remain in Europe (approximately 500,000) may face difficulties in securing an alternative legal status[3].

UNHCR's Skills and Jobs Survey[4], which finds that one in five currently employed refugees are working without a regular contract—offers some insight into why this may be the case as the anticipated end of existing temporary protection arrangements approaches. This has significant implications for access to work-related residence permits, as many refugees may not meet formal eligibility requirements despite being economically active and may struggle to obtain legal status after the end of temporary protection, unless specific policy adjustments are made to facilitate their access to formal employment or alternative forms of residency. Despite this challenge, the model does not foresee significant returns within this group during the three years covered by the model's simulations (2027 - 2029). Among the range of factors influencing individual decision-making—such as security, housing, employment prospects, family composition, and access to services—legal status alone is rarely decisive. Instead, decisions to return appear to be driven primarily by broader perceptions of safety, stability, and, comparatively, overall economic and living conditions in both Ukraine and host countries. However, individuals remaining in host countries without legal status is undesirable for host states and leads to significant personal risks for individual refugees. Policy adjustments in host states will be necessary to address this pending concern.

% OF RETURNS PER SCENARIO PER HOST COUNTRY

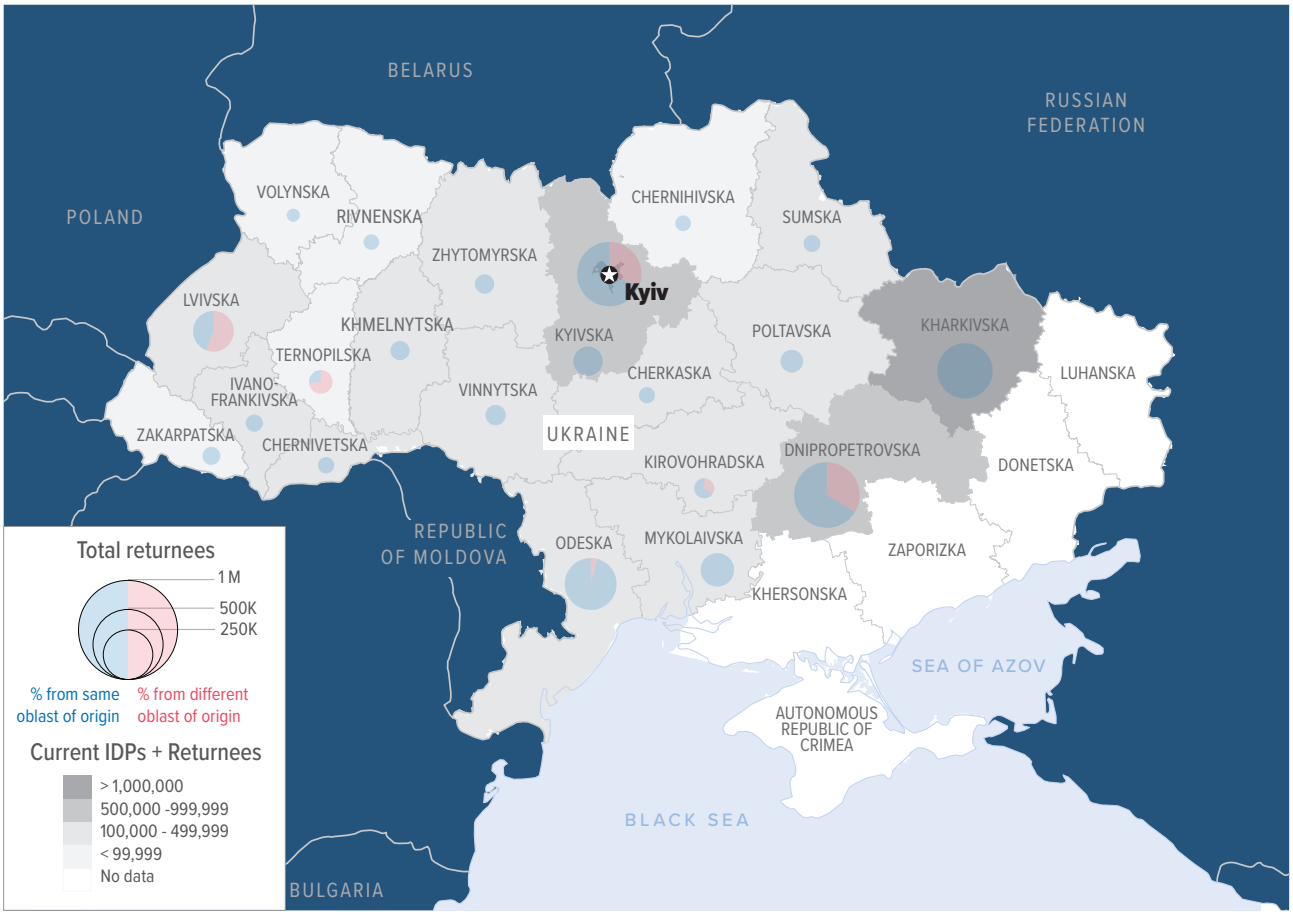
Host country	Refugees by start of simulation	Fragile Peace with Concessions	Ukraine's Victory
Germany	1,184,000	33%	59%
Poland	997,000	47%	70%
Czechia	366,000	49%	71%
Spain	234,000	43%	66%
Romania	184,000	56%	79%
Italy	165,000	45%	73%
Slovakia	132,000	52%	75%
Rep. of Moldova	128,000	66%	83%
Netherlands	123,000	45%	68%
Ireland	112,000	42%	65%
Belgium	90,000	43%	64%
Austria	81,000	52%	71%
Bulgaria	73,000	55%	81%
Finland	71,000	46%	69%
Portugal	66,000	47%	71%
France	56,000	45%	68%
Latvia	49,000	45%	78%
Lithuania	45,000	50%	80%
Hungary	40,000	63%	78%
Denmark	36,000	44%	69%
Estonia	34,000	39%	73%
Greece	33,000	53%	79%
Sweden	27,000	48%	70%
Croatia	26,000	50%	73%
Cyprus	23,000	52%	78%
Slovenia	11,000	36%	64%
TOTAL	4,386,000	44%	68%

3. It should be noted that the model simulates, for each refugee deciding to remain in a host country, only one attempt to secure a legal status—whether through asylum procedures or alternative visa frameworks. In addition, for statuses linked to international protection, recognition rates were set
at a uniformly low level (15%) across the refugee population, without differentiation for specific vulnerabilities. These assumptions may therefore underestimate the number of refugees who could eventually regularize their stay.
4. UNHCR. 2026. Labor market integration of Ukrainian refugees in Europe: Employment gaps, skill mismatches and economic gains.

Location: refugee returns will concentrate where conditions allow, reshaping population pressures in host communities

Across scenarios, returnees without intact or accessible housing in areas of origin will likely make return and settlement decisions based on the availability of services, housing stock, and jobs—rather than returns to pre-war communities. While prospective settlement in proximity to areas of origin is likely a factor in household decision-making, viable (re)integration considerations appear paramount, mirroring the experience of IDP decision-making in recent years. The model elaborates 'return hubs' likely to emerge, as well as a disaggregation of anticipated numbers, the household demographic profiles of those likely to return, and the pace at which people will return under the simulation.

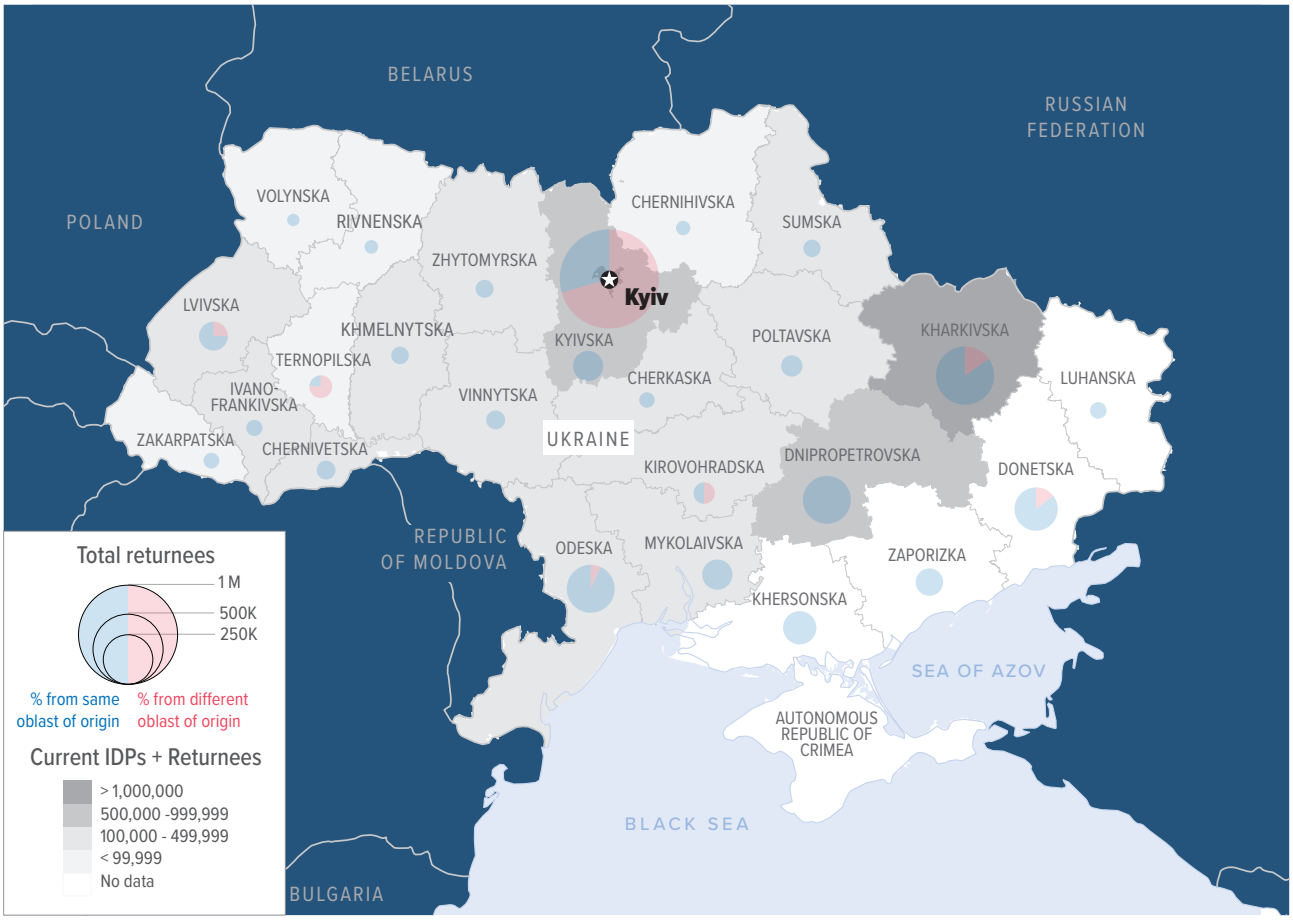
Returns by Oblast: Cumulative returns by end of simulation | Peace with concessions scenario



The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Under a scenario of **Fragile Peace with Concessions**, returns to much of the East will remain limited due to either continued occupation, or severe damages to homes and essential infrastructure. Many refugees from these oblasts therefore may delay return or settle elsewhere in Ukraine. This will shift settlement patterns, and pressure on existing social services, toward areas with proportionately greater shares of functional services and intact housing stock, particularly in Dnipropetrovska, the city of Kyiv and Kyivska, Kharkivska, Odeska, and Lvivska. For instance, Returnees to Lvivska are forecast to exceed by 30 per cent the baseline refugee outflow, while returnees to Ternopil are expected to exceed the baseline outflow by 70 per cent. Even where the total number of refugee returnees remains below that of the total number of those originally displaced, the share of "newcomers" is high: nationally, one in five returnees settles outside their oblast of origin, rising to three in four in Ternopil, one in two in Lviv, and around one in three in Kyiv city and Dnipropetrovska, considerably increasing pressure on the available housing stock.

Returns by Oblast: Cumulative returns by end of simulation | Ukraine's Victory scenario



The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

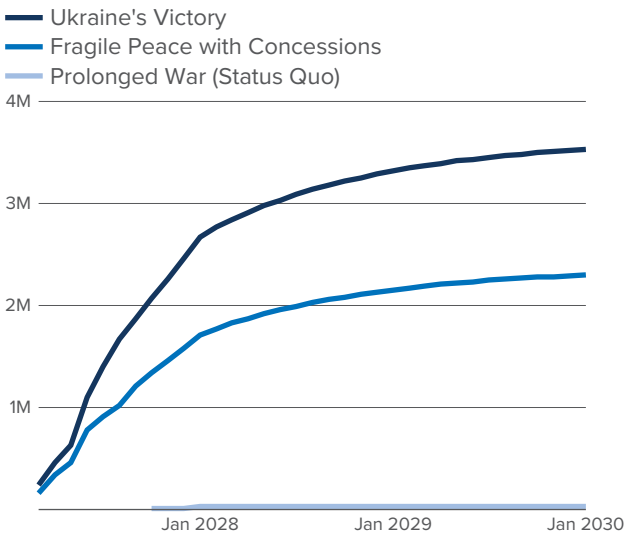
Under a scenario of **Ukraine's Victory**, returns expand across all regions as access improves, including to previously occupied areas such as Donetska, Khersonska, and Zaporiska. Mobility will nevertheless remain significant: nationally, one in three returnees settles outside their oblast of origin, which could reflect either temporary relocation while reconstruction in areas of origin is undergoing or suggest permanent resettlement in areas better able to provide greater access to needed services and employment. Returns to the city of Kyiv stand out: under this scenario, the city will receive arrivals equivalent to more than twice its initial refugee outflow, with three in four returnees originating from other oblasts. This also reflects a broader trend toward increasing urbanization already documented in Ukraine.

These patterns tend to mirror current internal displacement dynamics[5]: currently IDPs and returnees (refugee and IDP) are already heavily concentrated in these same oblasts, reflecting a preference for locations where housing is available and services remain accessible. Although the model does not yet simulate IDP return dynamics, high levels of intra-oblast displacement, particularly in Kharkivska and Dnipropetrovska, suggest that these areas, together with Kyiv city, are likely to receive return and settlement flows exceeding the number of people who originally left them, irrespective of scenario.

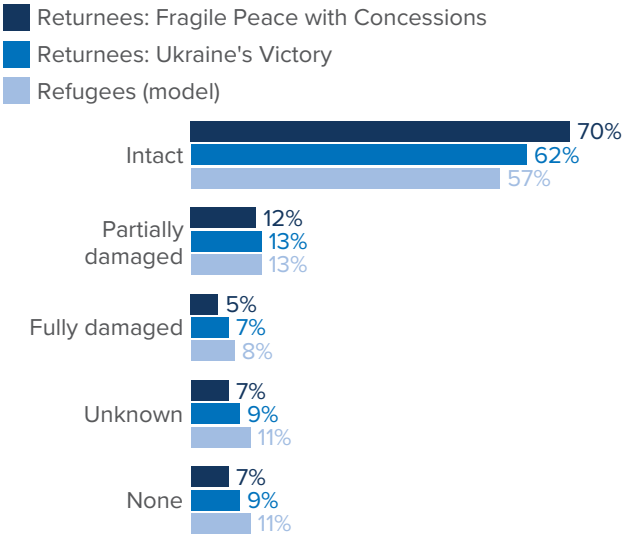
Across scenarios, around 70 per cent of all returns occur by end of 2027, with initial movements, and in greater numbers, toward areas with proportionately more intact housing or available housing stock, functioning services and perceived safety. Under **Fragile Peace with Concessions**, Kyiv, the Centre and parts of the South receive returnees earlier than the East and North. Under **Ukraine's Victory**, returns accelerate and become more geographically balanced, but settlement in new or different locations will likely occur faster than returns to communities of origin, particularly in the first year.

5. International Organization for Migration (IOM), Oct 17 2025. DTM Ukraine — Internal Displacement Report — General Population Survey Round 21 (October 2025). IOM, Ukraine.

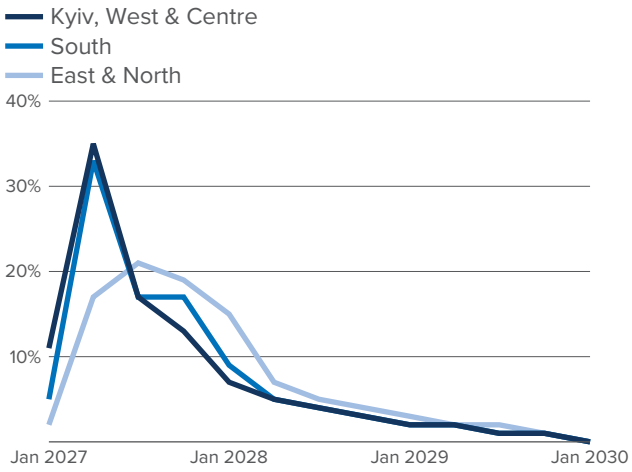
Cumulative returns per scenario



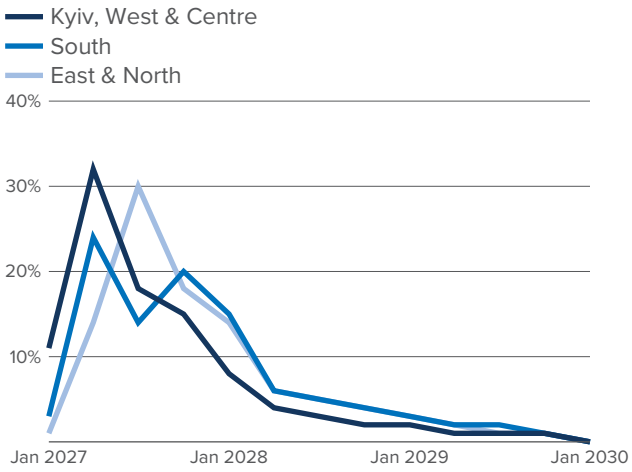
Property status: distribution of returnees compared to overall refugees by scenario



Returns over time by macro-region — Fragile Peace with Concessions



Returns over time by macro-region —Ukraine's Victory



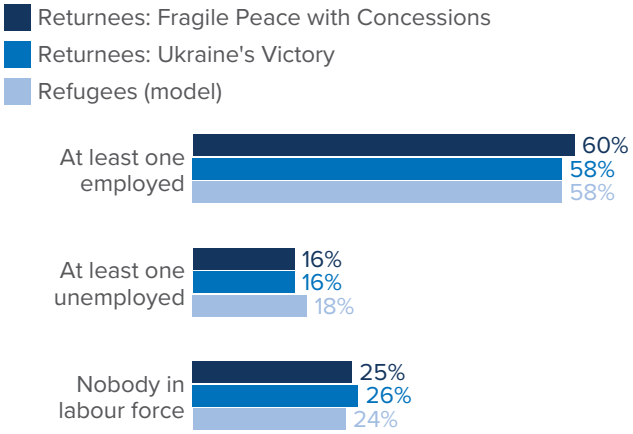
Enablers of return: housing availability and perceived economic opportunities are decisive

Across all scenarios, the model identifies housing availability and perceived economic prospects inside Ukraine as the strongest enablers of return. Refugees with intact or partially intact housing are consistently more likely to return and to do so earlier. Particularly in the **Fragile Peace with Concessions** scenario, they account for a disproportionate share of early returns (by end of 2027), with return rates 10 percentage points higher than among refugees whose homes are destroyed, or of unknown status. Similarly, households with at least one working-age adult show slightly higher return propensities, although employment status in host countries has only a modest effect, reflecting widespread underemployment and skills mismatch abroad[6]. These findings suggest that return decisions are driven less by current labour outcomes in host countries than by confidence in being able to re-establish housing and livelihoods upon return.

6. UNHCR. 2026. Labor Market Integration of Ukrainian Refugees in Europe: Employment Gaps, Skill Mismatches, and Economic Gains.

Evidence from UNHCR's Protection Survey in Ukraine (November 2025) reinforces these patterns. Among internally displaced persons (IDPs) and recent returnees, both IDP and refugee, those who have returned report better access to housing and employment than IDPs who remain displaced. At the same time, the survey highlights persistent structural constraints: while over 60 per cent of IDPs report their homes as damaged, destroyed or occupied, only around 4 per cent have accessed any form of housing compensation. Employment gaps remain substantial, with around 20 per cent of working-age IDPs and returnees unemployed, compared to 11 per cent among non-displaced residents. Access barriers to essential services compound these challenges, including difficulties with social protection registration (around 13 per cent) and health care access (around 7 per cent), often linked to documentation gaps, digital exclusion and financial constraints.

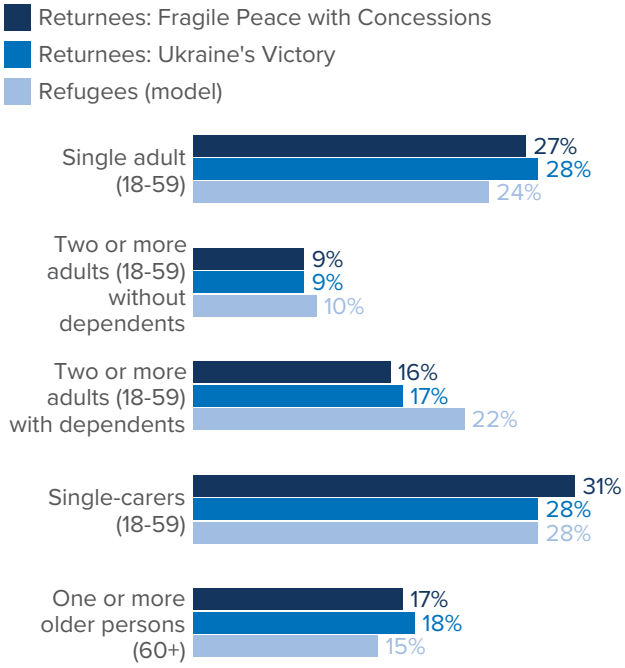
Employment by household: distribution of returnees compared to overall refugees by scenario



Taken together, these findings point to a clear risk for refugee returnees, particularly those who return to an oblast different from their place of origin, a group that the model estimates at 20–30 per cent of all returnees depending on the scenario. Like IDPs, these returnees are likely to face housing insecurity, limited tenure security, competition in local labour markets, and barriers to administrative access, even when returning to relatively less-damaged areas. Without timely availability of housing solutions, compensation mechanisms and access to services, returns risk reproducing displacement-related vulnerabilities, underscoring the central role of housing, employment and access to services as both drivers of return and determinants of its sustainability.

Population profile: household composition is a stronger predictor of return than age

Household type: distribution of returnees compared to overall refugees by scenario



Adults aged 18 – 64, broadly the working-age group, represent approximately 64 per cent of those projected to return, underscoring significant labour-force potential. This is consistent across scenarios. However, return behaviour will be shaped more by household composition than by age alone. Households composed of older persons, single adults, and single carers with dependents consistently show a higher propensity to return, particularly in the **Fragile Peace with Concessions** scenario. These projections largely mirror UNHCR's sixth round of intentions surveys, which also highlights a relatively pronounced gender distinction with regard to returns. Hopes to return one day are higher among female-headed households than male-headed ones (69 vs. 61 per cent), while male-headed households are more likely to indicate no hope to return (22 vs. 15 per cent).

These patterns suggest that returns will include population groups with distinct vulnerabilities and immediate needs, reinforcing the importance of targeted investments in social services, health care, housing and administrative systems operational early,

in addition to economic inclusion support in areas of anticipated high return. However, in the case of refugees, vulnerabilities are often subjective and highly situational. For instance, a single refugee caregiver may return to their spouse or a more robust family or community support network, thereby mitigating displacement-related vulnerabilities. Other vulnerable refugee returnees will, however, require support and access to specialized services upon arrival. When analysed through the RDNA4[7] Human Impact vulnerability framework, these profiles overlap with groups already identified as facing heightened risks: older persons, women-headed households, children and youth, and those with limited access to employment and services.

Evidence from UNHCR's November 2025 Protection Survey reinforces these findings. A majority of IDPs and returnees report damaged, destroyed, or occupied housing, very limited access to compensation, and persistent barriers to employment and essential services. These constraints are particularly acute for vulnerable household types and are likely to shape reintegration outcomes unless addressed early.

Scenario-Based Distribution of Simulated Returnees by RDNA4 Vulnerability Framework

To promote comparability with existing impact assessments inside Ukraine, the profile of refugees forecasted to return by the model were analysed within the broader vulnerability framework adopted by the RDNA4 Human Impact Assessment. While refugees returning to Ukraine were not, in most cases, directly exposed to the impacts of the war in the same way as those who remained in the country, many of them are likely to face similar challenges upon return. This includes structural access barriers, such as damaged services, disrupted social support networks, and reduced availability of housing, schooling, and healthcare, as well as specific reintegration needs. For instance, children re-entering the Ukrainian education system after years abroad, may struggle with language gaps, curriculum differences, and psychosocial adjustment. Older people, female-headed households, and single carers may likewise encounter reduced accessible economic opportunities and heightened exposure to protection risks during early reintegration.

	Fragile Peace with Concessions	Ukraine's Victory
Total Refugee Returnees	**2,300,000**	**3,530,000**
Children (0-17)	29%	27%
Older Persons (60+)	13%	14%
Youth (14-35)	36%	36%
Women and girls	59%	61%
out of whom: Women (18-59)	62%	63%
Returnees in women-only households*	54%	55%
Returnees in women single-carer households**	24%	21%

*HHs composed of one or more adult woman with or without children
**HHs composed of one woman 18-59 with children and/or older persons

7. World Bank, Government of Ukraine, European Union and United Nations (2025), Ukraine Fourth Rapid Damage and Needs Assessment (RDNA4), February 2022 - December 2024.

IMPLICATIONS FOR UKRAINE'S RECOVERY

Returns will likely concentrate in established, more stable host communities—rather than those heavily-damaged by war, including areas of origin of refugees—amplifying housing, economic and services pressures in return hubs.

Across all scenarios, the model indicates that returns will occur early and cluster spatially. Around 70 per cent of returns are projected to take place within the first year after hostilities end, well before large-scale housing and infrastructure reconstruction can scale-up, and service and market recovery can realistically absorb additional demand. As a result, returns will likely concentrate in oblasts where housing is immediately usable, where job opportunities are more prevalent and services are available (even if stretched), rather than in the most heavily damaged areas.

This pattern is consistent with current internal displacement and mobility dynamics: IDPs and returnees are already concentrated predominantly in the east and in Kyiv and Kyiv-adjacent oblasts with lower levels of destruction: the model results indicate that this trend is likely to persist after the war, with return hubs emerging in oblasts such as Dnipropetrovska, Kharkivska, Odeska, Kyiv city and parts of the West, particularly Lvivska.

For recovery planning, this means that housing, economic and service pressure will be locally intense rather than nationally diffuse, even under lower-return scenarios—and could adversely impact social cohesion at local level in high-return areas if not carefully managed. Oblasts receiving significant inflows of returning refugees, in some cases exceeding their pre-war outflows will require the ability to rapidly scale affordable housing, municipal services and administrative capacity, despite not being the areas with the highest physical damage.

Household composition and demography will have important implications for how recovery needs are prioritized and sequenced, with a projected focus on the provision of social and administrative services in areas of return to cater to a disproportionately high percentage households with specific needs among new arrivals.

Model results indicate that household composition is a stronger predictor of return than age alone. Older people, single adults and single-carer households, particularly women and woman-headed households, are consistently more likely to return, particularly under constrained scenarios. When analysed through the RDNA4 vulnerability framework, these profiles overlap with groups already identified as facing heightened risks related to housing insecurity, access to services and livelihoods.

Evidence from UNHCR's Protection Survey reinforces this picture. IDPs and recent returnees report high levels of housing damage, limited access to compensation, persistent employment gaps and barriers to social protection and health care. These challenges are likely to be replicated among refugee returnees, particularly the 20–30 per cent projected to resettle in an oblast different from their place of origin, who may face conditions similar to those of IDPs.

This highlights the importance of sequencing. The sustainability of return will depend not only on investment volumes, but on whether housing solutions, social services and administrative systems are operational and scaled up early, especially in areas absorbing newcomers.

Recovery planning should therefore integrate returnee profiles into service sequencing, ensuring that housing, health care, education and social protection systems are prepared to absorb inflows of vulnerable population groups in areas of high forecasted returns. Policy choices in countries currently hosting refugees from Ukraine will also be critical in shaping return dynamics and should be carefully calibrated to avoid overwhelming national capacities in areas of likely areas of return.

Different end of war scenarios will shape the level, directionality, settlement patterns and duration of stay among returnees—and where and how investments in Ukraine's recovery may need to be adapted.

For instance, under a Ukraine Victory scenario, a substantial share of returns may initially be temporary, with refugees resettling in less-affected areas while reconstruction progresses in previously occupied or heavily damaged oblasts. By contrast, scenarios assuming continued occupation or prolonged insecurity are more likely to result in durable settlement in new locations, rather than return to areas of origin.

These differences have important planning implications. They suggest that, depending on the context, reconstruction needs may not align neatly with return destinations, and that respective planning and investments in housing, services and infrastructure must factor in population movements and be flexible enough to respond both to temporary population concentration and to longer-term demographic shifts.

Economic recovery and investment trajectories will strongly influence decisions to return.

Across all scenarios, the model identifies housing availability and perceived economic opportunity inside Ukraine as decisive enablers of return, more influential than employment status in host countries. UNHCR's recent Skills and Jobs Survey offers possible explanations for why this may be the case. The report documents that while 57% of Ukrainian refugees across Europe are employed, nearly 60% report working below their skill level. At the same time, underemployment is not materially improving over time and salaries are relatively low with a 40% median wage gap between refugees and hosts. Therefore, the confidence in being able to use one's skills in Ukraine, whether through employment or as entrepreneur, appears to be an important consid-eration.

The model simulates the effect of different levels of recovery investment, with results pointing, results point to a reinforcing dynamic: targeted investments in housing, services and job creation can accelerate returns, while returns, if adequately supported, can contribute to labour supply, service revitalisation and local recovery. Conversely, challenges in peoples ability to access compensation and repair damaged or destroyed homes, tenure security and administrative access risk redirecting or postponing returns, intensifying pressure in already stretched areas.

Strengthening the link between recovery investment planning and return dynamics, including through a close integration with World Bank growth and labour-market modelling, would enhance the ability to test how targeted investments can support both sustainable return and broader economic recovery.

If recovery planning relies solely on damage-based assessments, investments risk missing early population pressures in less-damaged oblasts, undermining housing affordability, service delivery, and labour-market absorption during the critical first years of return. Anticipating these dynamics is essential to ensure that recovery investments support safe, voluntary and sustainable return, and contribute to durable solutions for refugees, IDPs and host communities alike.

POLICY BRIEF No. 2
FORECASTING REFUGEE RETURN TO UKRAINE AMID ONGOING WAR AND UNCERTAINTY

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For further information visit the UNHCR Operational Data Portal for Ukraine:
https://data.unhcr.org/en/situations/ukraine