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## High-Migration Events and Future Labour Force in Europe

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Although high-migration events cannot be predicted, we can simulate such situations in scenarios and outline their potential impacts to inform greater policy preparedness.

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Even high-migration events with persisting migration cannot substantially boost future labour force size in European countries.

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## Introduction

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Migration is complex, highly uncertain, and marked by unexpected changes. Political crises, economic downturns, and human-made or natural disasters can set large numbers of people on the move, just as we saw in 2015–2016 for migration from Syria and in 2022 from Ukraine. However, some political crises, such as the Taliban’s return to power in Afghanistan in 2021 did not bring unprecedentedly large numbers of refugees into Europe, despite concerns among policymakers at the beginning of the crisis. Migration events are impossible to predict in terms of their onset, scale, duration and in terms of how many people will return or settle in what destinations.

Nonetheless, migration “shocks” – which we prefer to term **high-migration events** – can, to some extent, be nowcast using signal data. The specific dynamics and post-settlement integration trajectories of immigrants can be analyzed by observational or longitudinal studies.

Overall, it is preferable for policymakers not to wait for ex-post evidence of impacts but to have simulations of such high-migration events to hand. Simulations can support policymaking, for example, by offering a better understanding of the realistic implications of high immigration, once newcomers arrive and settle. What would be the actual demographic and labour force implications of a high-migration event if it occurred, for instance, five years from now?

## Simulating long-term demographic and labour force trends in Europe

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Although we cannot predict when and where the next high-migration event will occur, we have simulated such situations in scenarios to inform greater policy preparedness. The impacts will depend not only on the magnitude (how many will come), but also on the migrants’ regions of origin (who will come), as immigrants arriving from different regions will differ in their characteristics, and demographic and economic behaviours. **The QuantMig-mic dynamic microsimulation model** simulates the populations of 31 EU+ countries (EU, UK, EFTA) by 13 characteristics including age, gender, education attainment, and labour force participation, in the horizon of 2060 (Potančoková et al. 2023).

In the modelling, we utilise today’s still-limited migration data and evidence on differential demographic behaviour,

differences in human capital, in labour force participation, and in migration rates between the native-born and immigrants by place of birth. We model international migration from outside the EU+ against the backdrop of the intra-European migration system to better identify the impact of immigration from different world regions.

We simulate the impacts of high-migration events on the future demographic and labour force makeup of European societies. In this policy brief, we focus on what these events would mean for the future labour force size in Europe, assuming a continuation of past demographic, educational, labour force participation trends, and differentials between the native-born and different groups of immigrants in terms of their origin (region of birth).

## Statistical modelling helps build coherent scenarios

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To illustrate the implications of potential high-migration events, we have developed a set of model-based scenarios anchored in statistical modelling and the theory of rare events. As we cannot predict where the next crisis might develop, how long it would last, and what its magnitude would be, we pioneer the use of quantiles from modelled statistical distributions that would correspond to a certain frequency of occurrence of an event, for example, the 98th percentile of heavy-tailed Pareto distribution for annual data corresponding to a twice-in-a-century frequency of occurrence (Potančoková et al. 2023). Statistical estimates are based on past time series of immigration into Europe, and the volumes differ for seven world regions of origin of immigrants – Other Europe, North Africa, sub-Saharan Africa, Latin America, West Asia, South & South-East Asia, and East Asia – and the event occurs in 2027.

In the first set of **short high-migration event scenarios**, we envisage that a high-migration event takes place only in one calendar year, as a one-off occurrence, followed by a fast policy response that would bring the inflows back to the pre-event levels. The second set of **persistent high-migration events scenarios** envisages a persistence of higher immigration levels for a decade after the initial migration event takes place due to family reunifications and the establishment of new migration networks.

All scenarios (14 in total) are modelled as additional immigration flows beyond the baseline scenario, in which immigration from each world region into the EU+ continues with the same intensity as in 2011–2019. All scenarios

recognize that social networks are the strongest pull factors for destinations and that immigrants from specific world regions will be attracted mainly toward destinations based on past flows.

## High-migration events can only slightly alter future labour force size

Working-age population declines can be expected in most EU+ countries. Labour force declines do not, however, need to be as pronounced as working-age population declines, as they can be partially mitigated through improved labour force participation. In the baseline scenario, we project that the working-age population in the current EU27 would shrink to 80% of its 2020 size by 2060. The decline in the working-age population (dotted line) and the rapidly increasing old age-dependency ratios, which are often used to illustrate the challenges of population ageing to European societies and economies, exaggerate those challenges.

The future looks less daunting once we consider cohort trends in labour force participation (resulting in longer working lives and higher participation of women), even with no improvements in integration of immigrants into the labour force (Figure 1). Our results show great variation in the working-age and labour force trends: a stable and potentially increasing labour force in France and the United Kingdom (UK), as compared to moderate declines projected in Germany and significant shrinkages in Italy (and most southern and eastern EU member states).

Keeping all demographic and labour force participation parameters the same as in the baseline scenario, we find that persistent high-migration events would not change future trajectories in labour force size. At the EU27 level, the relative change in the total labour force shows a reduction of -13 percentage points (pp) to -14 pp, as compared to -14 pp in the baseline scenario.

High-migration events can slightly alter the projected labour force size if such events occur in regions of the world with established migration corridors to the destination country, see for example migration from South & South-east Asia to the UK, or from West Asia and Other Europe to Germany. High-migration events would have a very limited effect on population and labour force dynamics in southern and eastern Europe, as shown for Italy in Figure 1.

## Conclusions

Although high-migration events are challenging for integration policies, they are not a major long-term game-changer because of the demographic momentum driving major trends. The scenarios presented above confirm that even large immigration events cannot substantially boost projected labour force size at the national or EU levels. One-off high-migration events of a magnitude similar to that of the

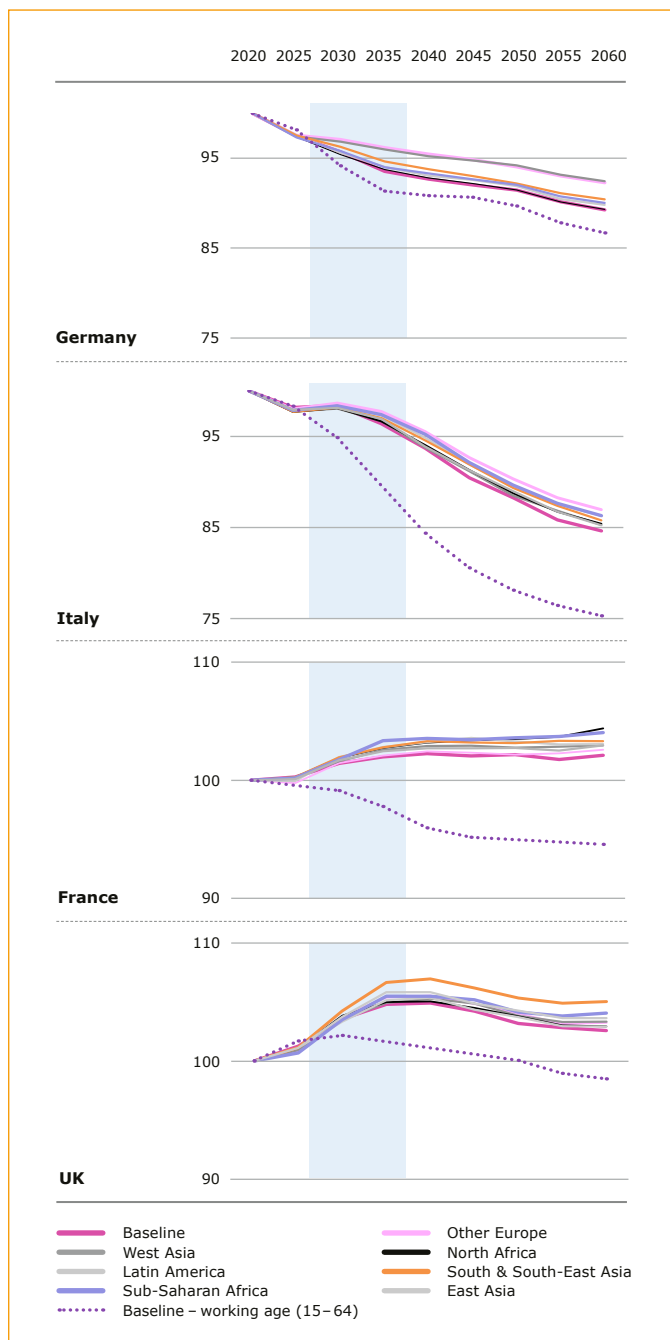


Figure 1: Simulated relative change in total labour force (100 = 2020 labour force size) and working-age population (dotted line) in selected EU+ countries, with the effects of persistent high-migration events shown for different regions of origin.

2015 in Europe leave hardly any trace on projected labour force sizes in the long run. Only persistent immigration can boost the projected labour force to an extent, but the effects on labour force dependency ratios (the ratio of non-workers to workers) are negligible. As we have shown in previous work (Bijak et al. 2008), high immigration would have to be sustained at much higher volumes than those projected in our scenarios (and much higher than it is realistic to assume) to leave a more pronounced impact on the labour force size and the dependency ratios; and that would occur only if it were coupled with better labour force integration of immigrants or selective immigration of those with high human capital (Marois et al. 2019).

It is important to recognize the limitations of the view that immigration could be a tool to address Europe's demographic challenges, especially if it is not paired with inclusive labour market policies. Our results show that immigration cannot prevent or slow down the future labour force decline in many countries and confirm that we can realistically expect only moderate impacts. The simulations do not modify the integration trajectories of immigrants but rely on evidence from past data. In that sense, the past experience of former immigrants from each world region is translated into what we foresee for the future. These results, in combination with our previous work, speak for a stronger focus on inclusive migration and integration policies.

These considerations are particularly important vis-à-vis the predominant policy focus on migration management and border protection. Even in that regard, however, there are lessons to be learned from the policy responses to the arrival of an unprecedented number of people from Ukraine. The triggering of the EU Temporary Protection Directive and the first test of the Migration Preparedness and Crisis Management Blueprint, whereby barriers are removed for new arrivals to enter the labour market as soon as possible, have already shifted the limits of the possible in European migration policy development.

## Policy Recommendations

- Policymakers should not be overly reliant on the potential of high-migration events for altering future labour force trajectories.
- Policies to tackle potential future labour force shortages should focus on fostering longer working lives, increased female labour force participation, and speedier integration of immigrants into the labour market.

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