Simulations of future labour force in the EU+ using scenarios of labour force integration of immigrants

Successful economic integration of immigrants[1] is of high importance as it fosters also their social and linguistic inclusion and improves the quality of life of immigrants, their families and empowers communities. Immigrants' better economic integration is also debated against the backdrop of the unavoidable future smaller labour force in the EU overall and in practically all Member States (Lutz et al. 2019, Marois et al 2019). At the same time, increasing labour force participation through inclusion of more women and older workers and higher productivity are proposed as most effective ways to deal with smaller future labour force sizes due to population ageing (Loichinger 2015, Lutz et al 2019, Marois et al 2020).

In our study we explore the existing differences in labour force participation and employment rates between the immigrants and EU-born populations taking into account gender, age and educational attainment using EU-LFS microdata (2010-2019). Using stylised scenarios of labour force participation and employment we ask what would be the long-term consequences on EU's labour force if the disadvantaged standing of immigrants persisted or what if their labour force integration improved. We apply demographic projection methodology and microsimulation approach and formulate a set of stylised scenarios of labour force and employment at fixed demographic trends (model assumptions). These stylised scenarios are derived from observed situations in EU Member States.

Labour force participation and employment are modelled for individuals aged between 15 and 74. When a change occurs to the characteristic of an individual (age, education, duration of stay, etc.), the module determines stochastically whether or not he/she participates in the labour force. The labour force participation status and unemployed status are imputed through a Monte-Carlo experiment in which a random number is compared to the probability of being active: a successful trial means that the simulated individual is active. Model parameters are estimated from sex- and country-specific logit regressions on a binomial variable representing participation in the labour force, using pooled data from the 2010 to 2019 EU Labour Force Survey (EU-LFS yearly files). We estimated probabilities of participating in the labour force and being unemployed by age, sex, education and country of residence (net from the immigration variable). Further, the country-specific effect of individual characteristics of immigrants (including the age at immigration and the duration of stay) are added. The contextual factors or feedback effects, however, are not considered. In real world these contextual factors, such as economic cycles etc., matter for unemployment rates but in our simplified model only individual characteristics and willingness to work determine unemployment status. The labour force participation by age is modelled over time using the cohort development approach (Loichinger 2015).

We build on our earlier study (Marois and Potancokova 2020) but we use more recent data and adapted scenarios of baseline (trends continued), high and low integration trajectories of immigrants. These scenarios are not predictions but are crafted to demonstrate and evaluate the magnitude of the impact, focusing on long-term consequences of possible policy options. At fixed demographic trends and labour force and employment of EU-born population, we can evaluate the impact of improved, continued or worsened economic integration of immigrants in the EU and in individual member states.

Indeed, a gap in labour force participation and employment exists between the immigrants and EU-born in most EU member states. This gap is larger for female immigrants. For men, labour force participation rate reaches similar levels to natives after 10 years of stay, while it stays way lower for

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[1] Immigrants are defined as persons resident in but born outside the EU28, irrespective of their nationality.

women. Another important result of the LFS data analysis is that while the gap in labour force participation between EU-born and foreign-born closes with their longer presence in the country, this is not the case for the gap in employment. This means that immigrants face barriers to employment even after having resided in the host country for at least a decade. This is particularly true for low educated male immigrants. Our study does not further analyse the reasons for these gaps and their persistence. Integration policies and approaches vary greatly across the EU as they are grounded in the local context and because of great variety in the size and composition of resident foreign born-populations, volumes of recent immigrants and their diversity in terms of their reasons to migration, countries of origin, demographics, education and skills. Our results illustrate that integration policies should not focus only on addressing barriers to employment for the job seekers of immigrant background, but also on activation policies that foster labour force participation that is lower than among the EU-born.

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