The impact of low-skilled immigration on fertility decisions of natives in Italy - *Extended abstract*

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Background

Immigration flows have steadily increased in Italy during the last three decades. In 1991 immigrants were 0.6% of the total resident population, while in 2018, they reached 8.5% of the total population, corresponding to over 5 million individuals (ISTAT, 2019). Thirty per cent of foreign residents originates from an EU country. Romanians are the largest community with 1.151.395 residents in 2017. Among non-EU citizens, the more represented countries are Morocco, Albania, China, and Ukraine (ISTAT, 2018). Gender composition of foreign population is mostly balanced, with women representing the 51.4 percent of the immigrant population. However, this figure hides some unbalances in gender distribution within the single nationalities: immigrants from Ukraine, for instance, are mostly women (79 per cent), while a prevalence of males (74 per cent) is reported among Bangladeshis.

Importantly, the share of low-skilled immigrants is higher than in other European countries (and in the U.S), and most of them are employed in sectors like agriculture, logistics and domestic services (Eurostat, 2018). Almost half (47 per cent) of foreign women residents in Italy are employed in the sector of domestic and care services (ISTAT, 2015).

Immigrant inflows are expected to affect fertility decisions of native women by several channels. First, low-skilled immigration, especially of women, brings to an overrepresentation of foreign-born in the domestic service industry, leading to a decrease of prices and an increase in the availability of childcare, which imply a reduction in the costs of child rearing. However, this could also translate in an increase of labour supply by native women due to the rise of the opportunity cost of spending time at home, instead of an increase in fertility.

On the other hand, although births from foreign parents have started to decrease in absolute terms since 2005, immigrant women report higher fertility rates than natives (1.98 and 1.24 respectively for foreigners and natives in 2017) (ISTAT, 2018). Therefore, the presence of immigrant families in the same area rises the demand for socio-educational services and benefits for infancy day-care provided by local municipalities. If this translates in a decrease of the availability of public-provided social services, or an increase of their relative costs, native women may be discouraged from having children. Otherwise, if the enlarged demand lead to a positive shift in the supply of public-provided social services, (or a decrease of their relative cost), we would expect positive spill over effects on the fertility rate of native women.

Much of the existing research has focused on the impact of low-skilled immigration on labour market in destination countries, while less attention has been devoted to the implications of this in terms of natives' fertility decisions. Furtado (2016) analyses the fertility responses of high-skilled native women to immigrant inflows, showing that immigration is associated with native women's increased likelihoods of having a baby. Since the effect is driven by women who are most likely to consider childcare costs when making fertility decisions namely, married women and women with a graduate degree, this would suggest that the immigrant-induced reduction of child rearing costs plays a significant role. Furtado and Hock (2010) also find that low skilled immigrant labour act as a moderator of the negative impact of fertility shocks on labour force participation among native college graduates.

Similar evidence is reported by Forlani, Lodigiani, Mendolicchio (2016) in Germany. Their study finds a positive and statistically significant effect on the average probability of having a child for the (medium) skilled native women. In line with previously mentioned contributions, they observe that an increase in the share of female immigrants augments the probability of (medium) skilled women to work more hours. Analogously, Romiti (2018) shows that immigration in UK increases the size of the childcare sector, and reduces its prices, easing the trade-off between working and child rearing among native women. However, this does not affect fertility directly.

Barone and Mocetti (2011) investigate the link between immigration and the female labour supply in the Italian context. They find that a higher concentration of immigrants providing household services has a positive and significant impact on hours worked by native women, while the effect on the extensive margin, i.e. labour force participation, is positive but not significantly different from zero. They provide evidence in favour of the household production transmission channel and exclude other possible mechanisms such as complementarity between immigrants and natives on the labour market. However, to the best of our knowledge the relation between immigration and fertility has not been fully explored in Italy yet.

Data and empirical strategy

We examine the impact of low-skilled immigration flows on fertility trends in Italy. By leveraging geographical variation in immigrant concentration in Italy, we empirically test the relationship between low-skilled immigrant inflows and fertility rates of both native and foreign women. To conduct this analysis we combine administrative data on foreign resident population at the province level with live births information registered in the population register. Both data sources are available on the National Institute of Statistics (ISTAT) data warehouse.

However, estimates of the above relation may be biased upward if low-skilled immigrants are more likely to settle in areas where women have stronger preferences for large families, or downward in case immigrants are more attracted by local economies that also provide better labour market opportunities for native women. To address the fact that immigrant location decisions are not exogenous, we adopt a common instrumental variable approach in the immigration literature, which relies on the propensity of new immigrants to locate in areas with

high historical concentrations of foreigners from the same country of origin (Card, 2001; Barone and Mocetti, 2011).

We adopt a basic fixed-effects model of the impact of low-skilled immigration using pooled data from multiple years (2004-2017):

$$Y_{it} = \beta_1 IS_{it} + \beta_2 X_{it} + \gamma_i + \gamma_t + \varepsilon_{it}$$

where Y_{it} is the total fertility rate of natives (immigrants) in province i at time t, IS_{it} is the share of the population that is immigrant in province i at time t, X_{it} is a vector of controls, including density and per capita income of province i at time t, and γ_i and γ_t are province and time fixed effects, respectively. The instrument for IS_{it} is given by:

$$INST_{it} = \sum_c \frac{N^i_{c,2003}}{N_{c,2003}} \times \left(N_{c,t} - N_{c,t-1}\right)$$

For each country of birth, c, the first term in this equation represents the fraction of all immigrants from country c living in province i in 2003. The second term represents the net change in the total number of immigrants from country c between time t and $t-1$.

As a further step, we identify the mechanisms determining the main impact. For this purpose, with a similar specification to equation 1, we test how native women respond to lower costs of (private) childcare and domestic services determined by low-skilled immigrant inflows, in terms of labour supply decisions. To conduct this analysis, we make use of the European Labour Force Survey (EU – LFS) data on labour market performances at the local level, i.e. employment and activity rates, and wages. Additionally, we explore the relationship between presence of immigrant families, availability of socio-educational services for infancy and fertility rates of foreign and native women. To do so, we exploit data on social services and budget allocation of municipalities collected by ISTAT. These further analyses allow us to shed some light on what of the elements presented above has driven the impact of immigration inflows on fertility decisions of native women in Italy.

Preliminary analyses suggest that immigrant inflows are associated with an increase of total fertility rate of native women. The IV estimations confirm this positive effect, showing a slight upward bias of OLS findings. Further analysis will shed light on the mechanisms determining this effect by exploring the channels presented above.

References

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