Immigrants tend to be poorer than natives because of their precarious situation, previously in the country of origin and their unstable situation in the host country. Therefore conventional equivalence scales are used to compare the levels of consumption expenditure of households of different sizes. In Italy the equivalence scale used since the 80’s has been the Carbonaro, based on the 1981-1983 consumption data. When applied to immigrant households in order to estimate the poverty line, 40% of immigrants are included among the "poor" and as many as 21% are among the "poorest". In this study we intend to question the use of the Carbonaro equivalence scale to estimate the poverty level among immigrants. Although the incidence of poverty among immigrants remains fairly stable regardless of the scale adopted, some interesting differences emerge with reference to the qualitative characteristics of the "poor". The poverty level of some sub-populations is under- or over-estimated according to the scale adopted. The equivalence scale is calculated on the basis of the 2004-2012 ISMU Surveys on Migrants in the Lombardy Region. The incidence of poverty calculated using ISMU Surveys is compared with that obtained from the 2009 EU-SILC Italian Module on Foreign Population.

Keywords: Equivalence scale, Immigrants, Italy, Poverty.

Introduction

Poverty among immigrants from less developed economies, being more marked and persistent than among the native population, is a well-documented phenomenon in almost all high immigration countries (Blume et al. 2007, Dalla Zuanna 2013, Kazemipur and Halli 2001, Kerr and Kerr 2011, Lelkes 2007, Obućina 2014, Pastor 2014, Picot et al. 2008, Portes and Rumbaut 2006, Reyneri and Fullin 2011). Some possible explanations refer to the immigrants’ status, educational attainment, relatively lower job skills, age, and family status (Hansen and Wahlberg 2009). Furthermore, immigrant families often do not speak the language of the host country (Sullivan and Ziegert 2008). The governments of those countries that receive high immigrant flows worry about the incidence of poverty among the overall population and within its different categories, and attempt to devise more effective policies. Indeed, much of the literature is devoted to measuring the effects of social transfers or labour market policies on reducing poverty among immigrants (Blume et al. 2003,

The immigrant has moved in search of opportunities he failed to find in his own country: despite the fact that the act of migration usually involves accepting a higher risk of poverty by the host country’s standards, at least in the short term, he seems to feel more accomplished and successful than his compatriots who stay. When comparing himself to natives, on the other hand, he feels poorer. So being poor is evidently a relative concept: standards may differ. According to the notion of relative poverty, an individual or family is considered poor on the basis of a comparison with the relative poverty threshold, which varies according to the average income (or consumption expenditure) of a society and does not depend on the cost of the basic goods needed for survival. Therefore, this definition of what is considered an acceptable level of wellbeing has little to do with the amount needed to satisfy elementary needs, but depends instead on the population’s average living standards. Actually, one can imagine measuring the immigrant’s subjective perception of his own poverty status not just as a simple binary variable (poor, not poor) but rather as a point along a continuum of statuses ranging from the standard level of welfare in the country of origin (very poor) to that of the host country one (definitely not poor). In this regard, the more the immigrant is (or perceives himself) integrated, the less he will feel poor compared with the native population. The evaluation of his poverty status will determine his consumer profile, defined as his ability to convert the available resources into welfare. Therefore, the consumer behaviour of the most integrated immigrants is expected to be closer to that of the native population, both in quantity and in quality, while there will be significant gaps between them and the less integrated immigrants.

Actually, there is variation among households in their ability to convert given levels of income into wellbeing: surveys usually find a fairly large number of households living below the specified poverty line, and yet they still survive. Although the underestimation of income, and/or access to informal or even illegal sources of income, may explain a great deal of this variation there is no question that different standards of living exist in relation to any given income level. Such standards relate to consumption models (Vernizzi and Siletti 2004), to quantities and qualities of goods and above all to economies of scale. Furthermore, a varying degree of inequality in the distribution of household income among its members (females are often penalized) highlights how the use of the household as a unit of analysis can be a source of error when household size is variable in time and composition. In very mobile immigrant communities, some household members come and go to take advantage of temporary job opportunities. Nevertheless, since a great

1 For example, subsistence living standards are quite common in some rural areas, and forms of solidarity may exist in some social categories whereby friends and relatives provide families with considerable amounts of consumption goods. Above all, illegal employment is more frequent among immigrants.
deal of the expenditure is typically collective, the household is the lowest suitable disaggregation.

Greeley (1994) has argued that "these problems of equivalence – and others such as family size, seasonality and indexing for inflation – are important, but mainly only so far as they affect the precision of the estimate and not because they effect the fundamental conception of this approach to poverty measurement". We would suggest, on the other hand, that they are in fact conceptual problems, since the estimation of poverty is based on unshared standards of living and different consumption profiles among households. Economies of scale can play a determining role in poverty analysis: failure to correctly identify household composition can therefore lead to biases in poverty results (Galloway and Aaberge 2005).

In this initial study, we intend to throw light upon these biases, by indirectly measuring poverty among foreign households (those with at least one foreign member) both by reference to the Italian standard Carbonaro scale and by reference to a more appropriate standard, the "Foreign scale" suggested here.

To what extent are foreign households exposed to poverty, and how do foreign households differ from Italian ones? A preliminary consideration about this issue refers to the use of a different equivalence scale. The results of our analyses show that using a different scale matters.

In the following pages, we propose the construction and implementation of an appropriate equivalence scale for foreign households, based on their specific consumption features. This enables us to further support what we think are significant considerations on the incidence of poverty, both in quantitative and qualitative terms.

Data and Methods

Data

We use two different sources of data: 2004-2012 annual editions of the ORIM (Regional Observatory on Immigration) surveys and the 2009 EU-SILC Italian Module on Foreign Population. The former were collected by the Foundation for Initiatives and Studies on Multi-Ethnicity (ISMU) in order to study and monitor the foreign population living in the Lombardy Region. The surveys were conducted each year on nearly 8,000 immigrants aged 15 and over, living in Italy at the time of the interview and born in high emigration countries (Blangiardo 2013). Interviewees were randomly selected on the basis of the Centre Sampling Method (Baio et al. 2011), a method specifically designed to collect information on a representative sample of immigrants (both legally and illegally present). This survey method is based on the hypothesis that in everyday life immigrants frequent a range of "aggregation centres" (such as specific immigrant services, phone centres, churches, markets, places of worship, ethnic shops etc.), and that information about the numbers
attending these centres can be used to correct the sample by giving to each interviewee a different weight, according to how likely it was that the person would be found by interviewers. The method is based on a two-stage design. The questionnaires are allocated across municipalities (first level units) selected according to their share of immigrants, their socio-economic situation and their demographic representativeness at the regional level. Immigrants (second level units) are randomly selected among those who frequent one or more of a set of aggregation centres previously identified in each of the first level units. Interviews are performed face-to-face by interviewers with a foreign background, most of them cultural-linguistic mediators who have undergone specific training.

Two important factors should be mentioned at this point. Firstly, since the statistical unit of analysis in the ISMU surveys is the individual, little information is available on the family (income, living arrangement, children, etc.), and there are few data useful for analysing differences between groups. Secondly, the ISMU surveys concern only the Lombardy Region. However, both the fact that the dataset cover several years (6 years, 2007-2012) and the quite broad and representative sample, including 39,813 individuals/families, provide a reliable basis for the present analysis. Furthermore, the Lombardy Region can be considered as a representative case study, as 33.6% of families live in the north-west of Italy (Istat Census data-warehouse).

In order to confirm our results, we repeated the same analysis using the EU-SILC Italian Module on Foreign Population collected by the Italian Institute of Statistics (ISTAT). Nearly 6,000 households with at least one foreign member (4,425 families with only foreign members, from high emigration countries) were surveyed in 2009. The interviews were performed in all the Italian regions (for further details see www.istat.it).

The EU-SILC estimates of the incidence of poverty are not presented here, since preliminary data analysis showed that single families are over-represented in the sample relative to the family distribution by size presented at the last Census. This over-representation is expected to have a strong impact on the estimate of the incidence of poverty, as it could reflect the fact that the sample was taken from the population register two years before the last Census, after which 800,000 foreigners appear to have left Italy. This suggests that there probably was a highly selective re-emigration: single immigrants (especially men) were more inclined to leave Italy, as pointed out in a recent study (Barbian di Belgiojoso and Ortensi 2013).

Methods

The equivalence scale built here refers to Engel’s law according to which, as income rises, the proportion of income spent on food falls. The equivalence coefficients are computed by the ratios between the incomes of families of

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1The estimates for incidence of poverty are based on data only for the period 2007-2012, as family income is available only since 2007.
different size and composition, which spend the same income share on food, and are hence assumed to have the same living standard.

Preliminary observations refer to the quality of data available. Although a great deal of literature (Bick and Choi 2013, Browning et al. 2013, Fernández-Villaverde and Krueger 2007, Filippucci and Drudi 2002) demonstrates that the composition of family consumption not only varies among families of different size, but also depends on the stage in the life cycle of their members, we are constrained here by the ISMU-Orim dataset’s strict classification of the average monthly total family expense into the four categories of "food, clothes", "dwelling", "transport, leisure, installments" and "remittances". To address this limitation we adopted a subjective approach; the measure of consumption is based on the common sense of interviewees in recognizing the range of goods necessary to satisfy their basic needs in the category of "food, clothes". Pertaining to the dwelling, it seems appropriate not to include this expense among the basic needs, bearing in mind the issue of migration strategies, which have a strong focus on savings and therefore on reducing the outlay for the home at the beginning: in these situations, immigrants often share overcrowded, poor quality housing (Alietti 2014). A third consideration is whether or not to include the remittances in "total expenditure". Based on Figure 1, in the period between 2004 and 2012, remittances accounted for 12% of total expenditure on average, with their share of the total expense decreasing over the period. We chose not to include remittances in total expenditure, assuming that the consumption behaviour of immigrants depends primarily on the household nucleus in the hosting country and secondarily on the extended family living in the country of origin. Actually, if the remittances were considered the number of family members in the country of origin, their consumption profile, and possible further sources of income, should be also taken into account.

**Figure 1.** Total Expenditure, Remittances and Average Household Size. ISMU Surveys 2004-2012
In order to provide more consistent estimates, the 2004-2012 period is divided into three intervals of three years each. The total sample size amounts to 51,695 cases, almost equally distributed over the years.

Finally, annual items have been deflated based onto the Italian consumer price index for the whole nation (NIC) to obtain monetary values at constant prices.

Therefore, with $X_h$ and $C_{a,h}$ being, respectively, the total and "food, clothes" expenditure for each $h$ family, and $n_h$ its size, the regression model can be written as follows:

$$\log C_{a,h} = \alpha + \beta \cdot \log X + \eta \cdot \log n_h$$

then

$$S_h = \left( \frac{n_h}{n_r} \right)^{\frac{\eta}{1-\beta}}$$

is the equivalence coefficient between $h$ and $r$ ($r = 1, 2, \ldots$).

Based on the three periods considered, the following results are obtained:

- 2004–2006: $\frac{\eta}{1-\beta} = 0.367$
- 2007–2009: $\frac{\eta}{1-\beta} = 0.558$
- 2010–2012: $\frac{\eta}{1-\beta} = 0.549$

The final coefficient of elasticity is computed as the average of these three:

$$\frac{\eta}{1-\beta} = 0.491.$$  

### Table 1. Coefficient of the Equivalence Scale by Household Size, Carbonaro and Foreign Scales

<table>
<thead>
<tr>
<th>Scale</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbonaro</td>
<td>0.59</td>
<td>1.34</td>
<td>1.63</td>
<td>1.91</td>
<td>2.15</td>
<td>2.40</td>
<td></td>
</tr>
<tr>
<td>Foreign</td>
<td>0.71</td>
<td>1.22</td>
<td>1.41</td>
<td>1.57</td>
<td>1.72</td>
<td>1.86</td>
<td></td>
</tr>
</tbody>
</table>

Despite the limits highlighted by previous studies (e.g. Lemmi et al. 2014), in order to evaluate poverty among foreigners living in Italy, we adopted the *International Standard of Poverty Line* method since most national institutes of statistics adopt this method.

This methodology is grounded on the estimate of a relative poverty line as an explicit function of family income (or consumption expenditure), namely a constant fraction of some family income (or consumption expenditure) standard. Hence, evaluating poverty involves three steps (Foster et al. 2013):
first, the space selection, namely the variable to be used as the welfare indicator, either income or consumption expenditure; second, the identification of "poor", that is the selection of function to estimate the threshold (including the selection of the equivalence scale to compare families of different sizes); third, the aggregation method, to measure poverty.

Following the argument that the consumption expenditure of foreigners is strongly affected by migrants’ maximisation of savings and frequent remittances to their country of origin, we opted for income as the welfare indicator (Barbiano di Belgiojoso et al 2009, Barsotti and Moretti, 2004). We took the mean per capita income as the threshold, as does the Banca d’Italia (2008, 2010, 2012, 2014). Hence, a two member household is considered "poor" if its family income is lower than the mean national per capita income. The income of different sized households is compared with that of a family of two members by the use of both the Carbonaro equivalence scale (conventionally adopted in Italy for the analysis of poverty) and the estimated scale on foreigners. As our aggregation method, we opted for the headcount ratio.

We also offer a dimensional evaluation of the foreign families classified as "poor" according to the Carbonaro and Foreign scales as well as a picture of their main characteristics.

Finally, we offer an interpretation, by means of logistic regression models, of the relative probabilities of the individual characteristics being classified as poor by the two scales considered.

Results

As shown in Table 1, there are more economies of scale among foreign households than in Italian households\(^1\). In order to keep the same level of wellbeing with a household with two members, foreign households with three or more members have to increase their income by a lower proportion than do Italian households. Migrants living alone, on the other hand, have a higher coefficient of equivalence. Thus, we postulate a lower incidence of poverty among households with more members, which are usually "penalized" to a greater extent by the Carbonaro scale.

**Table 2. Incidence of Poverty among Foreign Families according to both the Carbonaro Scale and the Foreign Scale, Italy, 2007-2012**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign Scale</td>
<td>24.1%</td>
<td>25.3%</td>
<td>27.4%</td>
<td>29.2%</td>
<td>29.1%</td>
<td>32.2%</td>
</tr>
<tr>
<td>Carbonaro Scale</td>
<td>29.5%</td>
<td>29.2%</td>
<td>32.3%</td>
<td>34.9%</td>
<td>34.2%</td>
<td>39.0%</td>
</tr>
</tbody>
</table>

*Source: Elaboration on ORIM data.*

\(^1\) By the term "Italian" we refer to the set of households on which the Carbonaro scale is based, that is all the households living in Italy in the early 1980s. Notice that at that time immigration was far from being the sizeable phenomenon it is today, so the term "Italian" seems appropriate.
Using a different equivalence scale leads to a different incidence of poverty among foreign families (Table 2). More specifically, based on the scale presented here, the incidence of poverty is lower than in the case of the Carbonaro scale. A similar conclusion is obtained by using the EU-SILC data.

Although the gap between the two estimates of incidence of poverty is only 5-7 percentage points, some interesting findings emerge when comparing the different groups of poor according to the two equivalence scales. Special attention is paid to families when they are classified in a different manner by the two scales. How many are they? Why are they "poor" for one scale and "non-poor" for the other? What characteristics do these families have?

Based on Table 3, there is a large number of families who are classified as "poor" according to the Carbonaro scale but who appear "non-poor" according to the foreign scale (henceforth referred as PoC, "poor only for Carbonaro"). Specifically, 21.4% (more than 1 in 5) of families classified as poor by the Carbonaro scale are classified differently by the "Foreign scale" suggested here. As a consequence, the share of "poor" for both the scales (AP, "always poor") is 78.6%. As regards the "non-poor", there is no significant difference between the scales (in 97.3% of cases, hereafter named the NP, "never poor", the scales agree). 2.7% of those classified as "non-poor" by Carbonaro are classified as "poor" by the foreign scale (PoF, "poor only for foreign scale").

**Table 3. Distribution of Foreign Households according to the Carbonaro and Foreign Scales a. Italy, 2007-2012**

<table>
<thead>
<tr>
<th>Carbonaro scale</th>
<th>Foreign Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non poor</td>
<td>97.3%</td>
</tr>
<tr>
<td>Poor</td>
<td>2.7%</td>
</tr>
</tbody>
</table>

Notes: (a) analogous EU-SILC results are not reported for the sake of space

Source: Elaboration on ORIM data.

Regardless of the dataset used (EU-SILC or ORIM) or the period (2007-2012) considered, the results of the analysis show a clear pattern in the cross-classified families. Families which are classified as "poor" only according to one of the two compared equivalence scales (Carbonaro or foreign) have a precise socio-demographic profile (Table 4). More specifically, people classified as PoC are usually foreigners living in Italy with their families, more frequently as a couple with children, with or without other members. Moreover, they are typically homeowners, with a higher number of years since migration, and main workers with a long-term contract. Such a result seems surprising since all these features seem to indicate advanced settlement behavior, generally corresponding to a higher level of socio-economic integration than that of the AP group (Alba and Logan 1992, Borjas 2002, Constant et al. 2009).

Being a homeowner is usually strongly associated with being "non-poor" (Myers and Woo Lee 1998, Painter et al. 2001): the share of homeowners among PoC is 29.8% of families, versus 24.2% among NP. Moreover, we may
consider the presence of the household as a sign of a higher standard of wellbeing in itself, since several conditions must be fulfilled in order to achieve family reunification (a regular permit to stay, a minimum size of accommodation and a minimum income, depending on the number of members to be reunified).

Whereas PoF are frequently present in Italy without their families, they are usually hosted by friends and/or the community network, or they even live at their workplace. Generally, they have just arrived in Italy, often without a regular permit to stay, and they are employed in casual and seasonal jobs. Moreover, they frequently have no family left behind (neither spouse nor children at home).

Table 4. Main Characteristics of Foreign Families according to Cross Classification between the Carbonaro and Foreign Scales. Italy, 2007-2012

<table>
<thead>
<tr>
<th></th>
<th>Always Poor</th>
<th>Poor only for Carbonaro</th>
<th>Poor only for Foreign Scale</th>
<th>Never Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household size in Italy (mean)</td>
<td>3.3</td>
<td>4.5</td>
<td>1.0</td>
<td>2.4</td>
</tr>
<tr>
<td>n. children (mean)</td>
<td>1.6</td>
<td>2.0</td>
<td>0.8</td>
<td>1.1</td>
</tr>
<tr>
<td>n. children in Italy (mean)</td>
<td>1.3</td>
<td>1.9</td>
<td>0.0</td>
<td>0.7</td>
</tr>
<tr>
<td>n. children abroad (mean)</td>
<td>0.3</td>
<td>0.1</td>
<td>0.8</td>
<td>0.5</td>
</tr>
<tr>
<td>Living arrangement</td>
<td>80.7% live with partner/spouse with children</td>
<td>36.3% alone 73.7% with friends, relatives or acquaintances</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% home-ownership</td>
<td>15.2%</td>
<td>29.8%</td>
<td>2.6%</td>
<td>24.2%</td>
</tr>
<tr>
<td>% employed*</td>
<td>49.0%</td>
<td>62.4%</td>
<td>70.0%</td>
<td>81.3%</td>
</tr>
<tr>
<td>Years elapsing since migration (mean)*</td>
<td>8.5</td>
<td>10.7</td>
<td>5.5</td>
<td>9.1</td>
</tr>
<tr>
<td>Number of families</td>
<td>10,258</td>
<td>2,799</td>
<td>720</td>
<td>26,036</td>
</tr>
</tbody>
</table>

Note: (a) information available only for the interviewee considered as reference person of the family. Source: Elaboration on ORIM data.

Finally, we derive confirmation of the descriptive results previously obtained, based on the results of a logistic regression model applied to the classification of poor by both of the two scales considered (Table 5).

For both scales, all the predictors considered are statistically significant. Considerable differences between the odds ratios obtained for the two scales are detected exactly for those variables previously identified as determinant to be classified among the PoC: family size and year since migration. As regards the first predictor, one can notice that, holding the other variables at a fixed value, the effect of an increase in one unit of the family size is much higher adopting the Carbonaro scale than the foreign scale (3.65 vs 2.18). Year since migration (squared) seems to have opposite effects on the odds of getting into the "poor" group depending on the scale adopted: positive with the Carbonaro scale (+3%), negative with the Foreign scale (-5%). Therefore when the family size and the years since migration increase, that is when migrants are in a more advanced phase of migration (family reunification or creation) the risk to be
classified as poor is much higher adopting the Carbonaro scale rather than the foreign one. In synthesis, the results of the models confirm that the Carbonaro scale overestimates the incidence of poverty among immigrants, principally because it excessively penalizes large families, simply based on the number of members.

**Table 5. Logistic Regression Models: Comparison between Odds Ratios for Carbonaro and Foreign Scales. Italy, 2007-2012**

<table>
<thead>
<tr>
<th>Living Arrangement (ref. Homeowner)</th>
<th>Carbonaro Scale</th>
<th>Foreign Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rent</td>
<td>2.10 ***</td>
<td>2.07 ***</td>
</tr>
<tr>
<td>At Friends’ or Relatives’ Home</td>
<td>5.48 ***</td>
<td>5.33 ***</td>
</tr>
<tr>
<td>Other</td>
<td>2.40 ***</td>
<td>2.52 ***</td>
</tr>
<tr>
<td>Years since migration</td>
<td>0.87 ***</td>
<td>0.86 ***</td>
</tr>
<tr>
<td>Years since migration squared</td>
<td>1.003 ***</td>
<td>0.95 ***</td>
</tr>
<tr>
<td>Family size</td>
<td>3.65 ***</td>
<td>2.18 ***</td>
</tr>
<tr>
<td>Family size squared</td>
<td>0.92 ***</td>
<td>0.95 ***</td>
</tr>
<tr>
<td>Children in Italy (ref. No)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>2.09 ***</td>
<td>1.99 ***</td>
</tr>
<tr>
<td>Partner (ref. No partner)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partner Abroad</td>
<td>0.73 ***</td>
<td>0.77 ***</td>
</tr>
<tr>
<td>Partner In Italy</td>
<td>0.89 **</td>
<td>0.84 ***</td>
</tr>
<tr>
<td>Single-income family (ref. Yes)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>0.24 ***</td>
<td>0.29 ***</td>
</tr>
<tr>
<td>Survey Year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>1.05</td>
<td>1.15 ***</td>
</tr>
<tr>
<td>2009</td>
<td>1.14 **</td>
<td>1.23 ***</td>
</tr>
<tr>
<td>2010</td>
<td>1.40 ***</td>
<td>1.50 ***</td>
</tr>
<tr>
<td>2011</td>
<td>1.37 ***</td>
<td>1.47 ***</td>
</tr>
<tr>
<td>2012</td>
<td>1.68 ***</td>
<td>1.70 ***</td>
</tr>
<tr>
<td>Constant</td>
<td>0.04 ***</td>
<td>0.10 ***</td>
</tr>
</tbody>
</table>

Legend: * p<0.05; ** p<0.01; *** p<0.001
Source: Elaboration on ORIM data.

**Conclusion**

In this study we discussed the use of the Carbonaro equivalence scale to estimate levels of poverty among foreigners. Our estimation results indicate significant elements that may contribute to the scientific debate on the measurement of poverty among foreigners. In short, economies of scale among foreign families are higher than among Italian ones, as shown by the use of the two equivalence scales.
Adopting the Carbonaro equivalence scale led to a higher incidence of poverty than that indicated by the foreign equivalence scale and several interesting differences emerged with regard to the qualitative characteristics of "poor". Therefore, the poverty level for certain sub-populations was under or over-estimated depending on the scale adopted. In particular, the "poor" according only to the Carbonaro equivalence scale have clear economic and socio-demographic features: reunified families that have attained a high degree of socio-economic integration. This had a strong influence on the estimate of poverty, depending on the scale adopted. Actually, over time, the gap between these two methods of measurement has increased, since the group of "poor" according only to the Carbonaro equivalence scale was composed precisely of that category of foreigners which has been increasing over time, i.e. families with a settlement project. Hence, by adopting the Carbonaro equivalence scale, an over-estimation of the incidence of poverty among foreigners may have occurred.

Our analysis does not solve the problem of defining a convenient measurement of poverty for foreigners (mono-dimensional versus multi-dimensional measure) and we are well aware of the implicit limitations of the data used. However, introducing a specific scale of equivalence that takes into account the different economies (or diseconomies) of scale within a family draws attention to the consequences of using a non-specific scale of equivalence.

Although it is well established that reunifying the family brings about a temporary decrease in economic status (like the arrival of a new baby), it is debatable whether a significant number of families with a higher level of socio-economic integration (and a clear settlement project) could be classified as "poor". Could this classification possibly be affected by the underestimation of the economies of scale adopted by foreigners? According to our results, introducing a specific scale of equivalence that takes into account the different economies or diseconomies of scale within a family may lead to a better distinction between poor and non-poor families without penalizing reunified families just because of the higher number of members.

These descriptive statistics point to the need for further analyses in order to investigate more thoroughly, by means of the appropriate scale, the determinants of poverty among those foreigners currently defined as poor, following in the footsteps of other researchers. Furthermore, future research based on more detailed data about the consumption patterns of foreign families (which are not available at the moment), would allow us to obtain more precise outcomes and comparisons both across different ethnic groups (since the average consumption profile has been adopted here for the foreign population as a whole) and across sub-populations.
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