Poor Immigrants!
Evidence from the Italian Case

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This paper should be cited as follows:

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Abstract

Due to both their previous fragile condition in the country of origin and to the unstable situation in the host country, immigrants tend to be poorer than natives. The consumption expenditure of households of different sizes is made equivalent to that of a family of two people using coefficients which take into account the different needs and economies of scale matching to an increasing number of members. In Italy, since the Eighties the equivalence scale of Carbonaro has been adopted. This conventional equivalence scale has been calculated for the Italian population, based on 1981-1983 consumption data. On applying it to immigrant households in order to estimate the poverty line, 40% of migrants emerge as being included among the “poor” and as many as 21% among the “poorest”. This result suggests that the method of estimate deserves at least to be discussed.

In this study we intend to question the use of the equivalence scale of Carbonaro to estimate the poverty level among immigrants. Based on preliminary results, although the poverty incidence among immigrants remains fairly stable regardless of the scale adopted, some interesting differences emerge with reference to the qualitative characteristics of the “poor”. In particular, the poverty level of some sub-populations is under/over-estimated according to the scale adopted.

These results allow us to make some interesting remarks concerning the use of a conventional measure of poverty among migrants and add some useful considerations to a possible review of this approach. The equivalence scale is calculated on the basis of the 2004-2012 ISMU Surveys on Migrants in the Lombardy Region. The poverty incidence calculated using ISMU Surveys is compared with that obtained from the 2009 EU-SILC Italian Module on Foreign Population.

Keywords: Poverty, immigrants, equivalence scale
Introduction

That poverty among immigrants coming from less developed economies is more marked and persistent compared to the native population is a well-documented phenomenon in almost all high immigration countries (Blume et al. 2005; Portes and Rumbaut, 2006; Lelkes, 2007; Kazemipur and Halli, 2011; Kerr and Kerr, 2011; Reyneri and Fullin, 2011; Dalla Zuanna 2013; Pastor 2014): some possible advanced explanations refer to the immigrant status, educational attainment, relatively lower job skills, age, and family status (Hansen and Wahlberg, 2008). Furthermore, immigrant families often do not speak the language of the host country (Sullivan and Ziegert, 2008). Governments of countries hosting high immigrant flows worry about the poverty incidence among the overall population and among 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; Greeley, 2007; Munos de Bustillo and Anton, 2011).

These immigrants have moved in search of opportunities they failed to find in their own country: although the act of migration usually involves accepting a higher poverty risk in terms of the host country standards (at least in the short term), they feel more accomplished and successful than their compatriots who stay. When they compare themselves with natives, on the other hand, they feel poorer. So, being poor is evidently a relative concept: standards may differ. Actually, 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, the 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. Indeed, there is variation among households in the 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. Even though underestimation and/or informal or even illegal sources of income may explain a great deal of these events1, there is no question that different standards of living exist. Such standards reflect on consumption models (Vernizzi and Siletti, 2004), quantities and qualities of goods and above all on scale economies. Furthermore, a varying degree of inequality in the distribution of household income among members (females are often penalized) highlights how the use of the household as a unit of analysis can represent a source of error where household size is variable in time and composition: i.e. in very mobile immigrant communities, some

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1For example, subsistence life 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 works is more frequent among immigrants.
household members come and go in the family to take advantage of temporary job opportunities. Nevertheless, since much expenditure is typically collective, the household is the lowest suitable disaggregation.

It has been 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 effect the precision of the estimate and not because they effect the fundamental conception of this approach to poverty measurement” (Greeley, 1994).

We would suggest, on the other hand, that they are in fact conceptual problems, since poverty estimate is based on unshared standards of living and different consumption profiles among households. Economies of scale can play a determinant role in poverty analysis: failure to correctly identify household composition can therefore lead to biases in poverty results (Galloway and Aaberge, 2003).

In this initial study, we intend to throw light upon these biases, by indirectly measuring poverty among foreign households (with at least one foreign member) by comparing the Italian standard of reference (the Carbonaro scale) with an 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? The results of simple analyses show that using a different scale matters.

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

**Data and Methods**

**Data**

We use two different sources of data: waves 2004-2012 of the ORIM (Regional Observatory on Immigration) surveys and 2009 EU-SILC Italian Module on Foreign Population. The former were collected as part of the monitoring activity of the Foundation for Initiatives and Studies on Multi-Ethnicity (ISMU) in order to study and monitoring 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 are 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 (legally as well as illegally present). The underlying hypothesis is 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,
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 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 before going ahead. First and foremost, since the statistical unit of analysis in the ISMU surveys is the individual, little information is available as regards the family (i.e. income, living arrangement, children, etc.), and data useful for analysing differences between groups are scarce. Secondly, the ISMU surveys concern only the Lombardy Region. However, these data cover a multiple year period (6 years, 2007-2012) and constitute a numerous sample, since the final sample is made up of 39,813 individuals/families, both considered as positive conditions for the present analysis. Furthermore, the Lombardy Region can be considered as a representative case study, bearing in mind that 33.6% of families live in the north-west of Italy (Istat Census datawarehouse).

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

We do not show the estimates obtained for poverty incidence on EU-SILC data, since according to a preliminary analysis, we postulate to have an overestimate of single families in the sample, compared to family distribution by size at the last Census, and this may have a strong impact on the estimate of poverty incidence. The overestimate may be due to the fact that the sample selection was grounded on the population register two years before the last Census, after which 800,000 foreigners are recorded as having left Italy, and probably there was a highly selective re-emigration: single (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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1Poverty incidence estimation based on data referred to the limited period 2007-2012 as family income is available only since 2007.
different size and composition which spend the same income share for 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 family consumption composition varies not only among families of different size, but also depends on the stage in the life cycle of their members, we are constrained here by the strict classification, in the ISMU-Orim dataset, of the average monthly total family expense into the four categories of “food, clothes”, “dwelling”, “transport, leisure, instalments” and “remittances”. Therefore, we bypassed the choice of goods to consider in our computations by using a subjective approach, that is we decided to rely upon the common sense of interview respondents in recognizing the range of goods necessary to satisfy basic needs in the category of “food, clothes”. As regards the dwelling, it seems appropriate not to include this expense among the basic needs, bearing in mind the issue of migration strategies, characterized by 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 2013). A third consideration regards whether or not to include the remittances in “total expenditure”. Based on Figure 1, on average in 2004-2012 remittances counted for 12% of total expenditure but their share of the total expense decreased 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. Well aware that this is a strong postulation, it would seem to be acceptable as regards immigrants as a whole: a “correct” scale should take into account both remittances and the members of the family living in the country of origin (who allegedly, however, have a different consumption profile and further sources of income).

Figure 1. Total Expenditure, Remittances and Average Household Size. ISMU Surveys 2004-2012
In order to provide more consistent estimates, the 2004-2012 interval of data is divided into three periods of three years each. The universe globally amounts to 51,695 cases, almost equally distributed along the years.

Finally, annual items have been deflated based on the Italian consumer price index for the whole nation (NIC) to obtain monetary values in 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:

$$\log C_{a,h} = a + b \times \log X + h \times \log n_h$$

then,

$$r_{Sh} = \frac{n_{h \frac{1}{r}}}$$

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: \(h_{1-b} = 0.367\)
2007-2009: \(h_{1-b} = 0.558\)
2010-2012: \(h_{1-b} = 0.549\)

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

\(=0.491\).

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

<table>
<thead>
<tr>
<th>scale</th>
<th>Household size</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></td>
<td>0.59</td>
<td>1</td>
<td>1.34</td>
<td>1.63</td>
<td>1.91</td>
<td>2.15</td>
<td>2.40</td>
</tr>
<tr>
<td>Foreign</td>
<td></td>
<td>0.71</td>
<td>1</td>
<td>1.22</td>
<td>1.41</td>
<td>1.57</td>
<td>1.72</td>
<td>1.86</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 the 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 the poverty.

We opted for income as the welfare indicator since, as already mentioned, the consumption expenditure of foreigners is strongly affected by migrants’ behaviour characterised by the maximisation of savings and frequent remittances to their country of origin (Barbiano di Belgiojoso et al., 2009; Barsotti and Moretti, 2004). We took the mean per capita income as the threshold, as Banca d’Italia (2006, 2008, 2010, 2012) does. 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 size households is made equivalent to that of a family of two members using 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.

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 as a household with two components, foreign households with three or more members have to increase their income by a lower proportion compared to the Italian households. Migrants living alone, on the other hand, have a higher coefficient of equivalence. Thus, we postulate to find lower poverty incidence among the households with more members, which are usually more penalized by the Carbonaro scale.

Table 2. Incidence of poverty among Foreign Families According to both Carbonaro and Foreign Scale. Italy, 2007-2012.

<table>
<thead>
<tr>
<th>Incidence of poverty</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</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

Using different equivalence scales leads to different incidence of poverty among foreign families (Table 2). More specifically, according to the scale here presented, 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.

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\(^1\) With the term “Italian” we refer to the set of households the Carbonaro scale is based on, 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.
Although the gap between the two estimates of poverty incidence 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 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”): as many as 21.4% (more than 1 in 5) of families classified as poor with the Carbonaro scale is classified differently according to the equivalence 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”, scales agree). Anyway, 2.7% of the “non-poor” for Carbonaro are classified as “poor” (PoF, “poor only for foreign scale”) only for the foreign scale.

**Table 3. Distribution of Foreign Households according to Carbonaro and Foreign Scale". Italy, 2007-2012**

<table>
<thead>
<tr>
<th>Carbonaro scale</th>
<th>Row percentages</th>
<th>Foreign scale</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non poor</td>
<td>Poor</td>
</tr>
<tr>
<td>Non poor</td>
<td>97.3%</td>
<td>2.7%</td>
</tr>
<tr>
<td>Poor</td>
<td>21.4%</td>
<td>78.6%</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. Actually, families who 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 household, more frequently as a couple with children and with or without other members. Moreover, they are typically homeowners, with a higher number of years since migration, and in the 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 and Zimmerman, 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 of 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 or by the community network, or they live at their workplace. Generally, they have just arrived in Italy, are often without a regular permit of 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 the Cross Classification of the Carbonaro and Foreign Scale. Italy, 2007-2012

<table>
<thead>
<tr>
<th></th>
<th>always poor</th>
<th>poor only Carbonaro</th>
<th>poor only 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

Conclusion

In this study we have discussed the use of the equivalence scale of Carbonaro to estimate the poverty level among foreigners. Our research outcomes pointed to 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 means of the two equivalence scales.

Adopting the Carbonaro equivalence scale led to a higher incidence of poverty compared to the foreign equivalence scale; furthermore, several interesting differences emerged with reference 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 emerged as having 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 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 the determinants of poverty among foreigners as detected beforehand by means of the appropriate scale, 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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