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Un sentito ringraziamento va ai referee per l'accuratezza e l'importanza del lavoro svolto.

Claudio Ceccarelli

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DETECTING THE POOR AMONG FOREIGNERS: REMARKS ON A CONVENIENT EQUIVALENCE SCALE¹

Stefania Maria Lorenza Rimoldi, Elisa Barbiano di Belgiojoso

1. Introduction

That foreign immigrants are more vulnerable to poverty than natives is a well evident fact in reality beyond scientific research, rich of contributions in this field (Lelkes, 2007; Kazemipur and Halli, 2011; Dalla Zuanna 2013, among others). Newspapers daily illustrate situations of social marginality sometimes so extreme to border on degradation of entire neighbourhoods, usually in the periphery of urban centres. Many organizations working in the third sector (Caritas, Banco Alimentare, Società San Vincenzo, Frati Francescani, etc.) document a chronic poverty among immigrants, even increased in recent years due to the economic juncture Italy is being experiencing (Rimoldi and Accolla, 2010; Blangiardo and Rimoldi, 2013). However, whatever its perception, a problem of measuring the incidence of poverty among immigrants arises when making use of tools designed for a population quite different, the Italian one. The discussion about the validity of the measurement tools involves the discussion about the different households' ability to convert resources into wellbeing, that means to ascertain whether the Carbonaro equivalence scale, conceived (thirty years ago) for Italian families may be valid also for foreign families.

2. Theoretical framework

Migrants move in search of opportunities that are not available in their country. At the beginning they are minded to accept a certain risk of experiencing a transitional period in poverty compared to natives, in the perspective of a global improvement of conditions compared to their countrymen who don't move. Then, immigrants can feel poor compared to natives but they feel non-poor compared

¹ Paragraphs 1-3 are due to Rimoldi S.M.L., paragraphs 4-5 are due to Barbiano di Belgiojoso E.

with their countrymen. It follows that poverty is a relative concept: the reference standard for the same individuals may be different. Therefore, subjective perception of poverty by immigrant can be described not as a dichotomous variable (poor and non-poor), but along a continuum of states ranging from the level of the country of origin (very poor) to the one of the country of destination (rich), acquired as a reference. The assessment of own poverty status determines the consumption behaviour, i.e., the ability to transform the available resources into well-being. It follows that the consumption behaviour (both in terms of quantity and quality of goods) of more integrated immigrants is more similar to the natives' one while significant differences are observed with respect to the less integrated immigrants. These gaps must be ascribed to at least two reasons. First, the immigrants' exceptional mobility (the higher the shorter the duration of presence) affects the size and shape of families. Immigrant families expand and shrink continuously to receive relatives or simply compatriots just arrived and the traditionally model "couple with children" is the goal to be reached in the long run. Second, differences in the standard of reference between country of origin and country of destination affect the economies of scale of families. It should also be noted that simple subsistence lifestyle is fairly common among immigrants, and forms of solidarity can exist between members of certain social groups where friends and relatives help families by providing them with even considerable quantity of consumer goods. Therefore, it seems evident that the consumption behaviour of immigrant families cannot, a priori, be measured with the same equivalence scale of the natives' families. There would be a coincidence between the two scales only in case of perfect integration and absence of frictional phenomena related to migration. It has been argued that "these problems of equivalence are important, but mainly only so far as they affect the precision of the estimate and not because they affect 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).

3. Data and methods

The research issue materializes in building a specific equivalence scale for the immigrant families and in measuring the impact on the incidence of poverty.

The equivalence scale suggested hereafter 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 different size and composition, which spend the same income share for food, and are hence assumed to have the same living standard.

Waves 2004-2012 of the ORIM (Lombardy Region Observatory on Immigration) surveys are employed to estimate the so-called "foreign scale". Unfortunately, the average monthly total family expense is available only split into four categories: "food, clothes", "dwelling", "transport, leisure, instalments" and "remittances". We opted for a subjective approach for the respondents to indicate the primary goods in the first category. We also excluded housing costs that, especially in the early stages of the migration process, represent a minimal share of total expenditure: in these phases immigrants often share housing poor, overcrowded and poor quality. A final consideration refers to the exclusion of remittances in total expenditure: based on data, no univocal relationship can be detected between remittances and total expense, since remittances decrease even when total expense increases, therefore we decided not to take them into account. All the items have been deflated annual (NIC) in order to obtain monetary values at constant prices.

The interval of the observations 2004-2012 has been divided into three three-year periods, for a total of 51,695 cases.

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 (Vernizzi and Siletti, 2004):

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

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. We opted for income as the welfare indicator since 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 scale and the foreign scale (Table 1). As our aggregation method, we opted for the headcount ratio. The incidence of poverty is computed on ORIM data 2007-2012 and on EU-Silc 2009, Italian foreign module².

4. Results

There are more economies of scale among foreign households than in Italian households³ (Table 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 1 - *Coefficient of the equivalence scale by household size: Carbonaro and Foreign scale*

scale	Household size						
	1	2	3	4	5	6	7+
Carbonaro	0.59	1	1.34	1.63	1.91	2.15	2.40
Foreign	0.71	1	1.22	1.41	1.57	1.72	1.86

Source: authors' elaborations 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.

According to the ORIM data, the gap between the two estimates of poverty incidence is 5-7 percentage points, furthermore the gap increases over time. Based on Eu-Silc data, difference is only 1.7%, but it must be noticed how the sample population is distorted being affected by an overestimation of “singles”, as widely documented by the 2001 Census data.

² With regards this source of data only foreigners from high emigration countries are considered.

³ 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.

Table 2 - Incidence of poverty among foreign families according to both Carbonaro and Foreign scale.

ORIM						
Incidence of poverty	2007	2008	2009	2010	2011	2012
Foreign scale	24.1%	25.3%	27.4%	29.2%	29.1%	32.2%
Carbonaro scale	29.5%	29.2%	32.3%	34.9%	34.2%	39.0%
EU-Silc						
	Carbonaro scale		Foreign scale			
Not at risk of poverty	50.7%		52.2%			
At risk of poverty	49.3%		47.8%			

Source: authors' elaborations on ORIM data 2007-2012 and Eurostat EU-Silc 2009.

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?

Table 3 - Distribution of foreign households according to Carbonaro and Foreign scale.

ORIM		
Carbonaro scale	Foreign scale (row percentages)	
	Non poor	Poor
Non poor	97.3%	2.7%
Poor	21.4%	78.6%
EU-Silc		
Carbonaro scale	Foreign scale (row percentages)	
	Non poor	Poor
Non poor	93.9%	6.1%
Poor	9.3%	90.7%

Source: authors' elaborations on ORIM data 2007-2012 and Eurostat EU-Silc 2009.

Based on ORIM data in 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.

Eu-Silc data show for both *PoC* and *PoF* an incidence of about 6-9%, consistent with the hypothesis of an overestimation of singles in the sample.

Table 4 - *Main characteristics of foreign families according to the cross classification of the Carbonaro and Foreign scale.*

	always poor	poor only Carbonaro	poor only foreign scale	never poor
Household size in Italy (mean)	3.3	4.5	1.0	2.4
n. children (mean)	1.6	2.0	0.8	1.1
n. children in Italy (mean)	1.3	1.9	0.0	0.7
n. children abroad (mean)	0.3	0.1	0.8	0.5
living arrangement		80.7% live with partner/spouse with children	36.3% alone 73.7% with friends, relatives or acquaintances	
% home-ownership	15.2%	29.8%	2.6%	24.2%
% employed*	49.0%	62.4%	70.0%	81.3%
Duration of presence (mean) ^a	8.5	10.7	5.5	9.1
number of families	10,258	2,799	720	26,036

Note: (a) information available only for the interviewee considered as reference person of the family

Source: authors' elaborations on ORIM data 2007-2012.

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 (Borjas, 2002, before others). Being a homeowner is usually strongly associated with being “non-poor” (e.g. 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).

5. Conclusions

In this study, we discussed the use of Carbonaro equivalence scale to estimate the level of poverty among foreigners. The results highlighted some significant elements that can contribute to the debate on the measurement of poverty among foreigners. In summary, the economies of scale between foreign families are higher than the Italian ones. By adopting a specific equivalence scale for foreigners a lower incidence of poverty is obtained as a first result. In addition, some important differences emerged with reference to the qualitative characteristics of the poor. In particular, the poor only for Carbonaro are families who have attained a high degree of social and economic integration. It follows that the Carbonaro scale would seem to overestimate the poverty of the families of foreigners just because are numerous. Well aware that our analyses (which are based, among other things, on limited data) do not solve the problem of defining "the" measure of poverty among foreigners, anyway we suggest that the introduction of a specific equivalence scale that takes into account the different economies (or diseconomies) of scale in foreign households calls attention to the consequences that ignore them entails. The analyses presented here indicate the need for further study on the basis of more detailed data on the consumption behaviour of foreign families (currently not available), also investigating specific population subgroups.

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SUMMARY

A problem of measuring the incidence of poverty among immigrants arises when making use of tools conceived for the Italian population. In this study, we discuss the use of Carbonaro equivalence scale to estimate the poor among foreigners. The results highlight the need for a specific equivalence scale that takes into account the different economies of scale in foreign households.

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