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(doi: 10.7384/114539)

Economia & lavoro (ISSN 0012-978X)
Fascicolo 2, maggio-agosto 2024

Ente di afferenza:
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Anno LVIII, 2024, 2 *Economia & Lavoro* *Saggi, pp. 97-112*

POVERTY AND ITS DYNAMICS IN ITALY: COMPARING RESULTS BY USING ABSOLUTE AND RELATIVE POVERTY THRESHOLDS. A (METHODOLOGICAL) NOTE

by Lucia Coppola, Anna Giraldo, Stefano Mazzuco

In this paper, by using both cross-sectional and longitudinal EU-SILC Italian data, we compare the effects of using absolute or relative poverty thresholds in estimating poverty incidence and in analysing poverty dynamics. We apply relative poverty thresholds (RPT) and absolute poverty thresholds (APT) to equivalised household income. The stratification of such indices by family composition, geographical area, and other socio-economic characteristics allows us to show and discuss the differences between the two approaches to poverty measurement. Our analyses show that, when using APT, the differences (in terms of poverty incidence) between regions are smaller than when using RPT. Conversely, when using APT, the differences between living arrangements are stronger than those obtained by using RPT. We also found differences in terms of poverty persistence (i.e., being poor for at least three years out of four). In addition, the APT takes into account differences in purchasing power between Italian regions, and does not depend on the average income levels, making it more sensitive to the effects of economic recessions.

Keywords: relative poverty, absolute poverty, poverty incidence, poverty dynamics.

In questo articolo confrontiamo, utilizzando dati italiani, sia trasversali che longitudinali, di EU-SILC, gli effetti dell'adozione di soglie di povertà assoluta o relativa nella stima dell'incidenza della povertà e nell'analisi delle dinamiche della povertà. Le soglie di povertà relativa (RPT) e assoluta (APT) sono applicate al reddito familiare equivalente. La stratificazione dei due indici per composizione familiare, area geografica e altre caratteristiche socio-economiche consente di mostrare e discutere le differenze tra i due approcci alla misurazione della povertà. Utilizzando l'APT le differenze (in termini di incidenza della povertà) tra le regioni sono inferiori a quelle che otteniamo utilizzando l'RPT. Al contrario, utilizzando l'APT le differenze tra tipologie familiari sono più forti di quelle che otteniamo utilizzando l'RPT. Differenze sono riscontrate anche in termini di persistenza della povertà (vale a dire, essere poveri per almeno tre anni su quattro). Inoltre, l'APT tiene conto del diverso potere d'acquisto nelle regioni italiane, non dipende dal livello di reddito medio, ed è quindi più sensibile agli effetti delle recessioni economiche.

Parole chiave: povertà assoluta, povertà relativa, incidenza della povertà, dinamica della povertà.

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Codici JEL/JEL codes: C20, C81, I32.
Pervenuto alla Redazione nel mese di ottobre 2023, revisionato nei mesi di marzo-aprile 2024, e accettato per la pubblicazione nel mese di maggio 2024 / Submitted to the Editorial Office in October 2023, reviewed in March-April 2024, and accepted for publication in May 2024.

ISSN 0012-978X

1. Introduction

Since 2005, the Italian National Institute of Statistics (Istat) has provided absolute poverty thresholds based on consumption data. On the basis of these absolute thresholds, Istat publishes annual estimates of the incidence of absolute consumption poverty for Italian households, as well as the incidence of relative consumption poverty (Istat, 2023b). Istat also publishes measures of poverty based on income, harmonised at European level (Istat, 2023a), using the Italian sample of the European Union Statistics on Income and Living Conditions (EU-SILC) survey, which provides extended information on income, living arrangements, and household characteristics. The longitudinal component of EU-SILC allows us to deepen the understanding of the phenomenon, obtaining measures of poverty trends.

Italy is one of the few countries in the world that publishes regularly an official measure of absolute poverty. Absolute poverty is defined as the condition of an individual who does not own the minimal requirement necessary to afford minimal standards of food, clothing, healthcare, and shelter. These minimal requirements have been evaluated by defining the basic needs, i.e., a minimum basket of goods and services representing the whole goods and services considered essential for life. The monetary value of the basket is the absolute poverty threshold (Istat, 2009). The basket could vary with respect to household composition; therefore, various baskets are defined according to household size and composition. Furthermore, the monetary evaluation of the basket depends on the geographical location and the size of the Municipality, in order to correctly take into account the different purchasing parities that exist in the country. Relative poverty, instead, is the condition of an individual whose consumption/income is below a certain specified threshold of the consumption/income distribution of the population.

The two measures of poverty, absolute and relative, meet two different information needs. On the one side, absolute poverty measures the amounts of individuals/households who lack the fundamental resources for living a decent life; on the other side, relative poverty determines the percentage of individuals/households that have less than the rest of the individuals/households of the country. Their income/consumption could be even quite sizable if the general level of income/consumption of the country is high.

In general, comparing absolute and relative measures of poverty is not appropriate, because they measure different things. Nevertheless, by defining an appropriate framework, their comparison could be a useful tool to better understand the characteristics of the poor.

In this work we study, by using both cross-sectional and longitudinal EU-SILC data, the effects of using absolute (APT) or relative poverty thresholds (RPT) in analysing poverty incidence and poverty dynamics. Differently from Istat official data on relative and absolute poverty based on consumption (Istat, 2023b), we will consider income poverty, following Eurostat's approach.

The paper is structured as follows. Section 2 introduces the EU-SILC data, and provides the definition of APT and RPT. Section 3 compares APT with RPT, conditioning on some household characteristics, and provides comments on the results. Some measures of poverty persistence are presented, following the two approaches, and then estimates of the probability of being poor and persistently poor are calculated, conditional on some household characteristics. Section 4 concludes with a discussion on the advantages and caveats of using APT rather than RPT to analyse poverty incidence and poverty dynamics.

2. Data, definitions, and methods

EU-SILC is a European rotational sample survey in which individuals are interviewed every year for four years[1]. The survey collects detailed information, harmonised at European level, on household and individual characteristics such as income, living arrangements, employment, education, and health (Eurostat, 2013). Individual and household characteristics refer to the moment of the interview, while the income reference period is the previous calendar year. We consider the Italian cross-sectional samples from 2007 to 2013 and the four four-wave balanced panels from 2007-2010 to 2010-2013.

According to Eurostat, and based on EU-SILC data, individuals are at risk of poverty if their equivalised income is below a certain threshold. This is defined as the 60% of the median of the equivalised national household income distribution. The equivalised household income is computed by dividing the household disposable income by the equivalised household size according to the scale of the Organisation for Economic Co-operation and Development (OECD) (Istat, 2023a).

In our analysis, we compare relative and absolute incidence of income poverty. We apply to the equivalised household disposable income distribution *a*) the Eurostat poverty line defined above, *b*) a relative poverty line defined as the 40% of the median, and *c*) the Istat absolute threshold, which varies according to household composition, geographical location, and municipality dimension. All the analyses discussed in this paper refer to an income definition that is slightly different from Eurostat's definition. In fact, to be closer to the concept of consumption expenditure, household disposable income, as defined by Eurostat, is added to imputed rents, values of goods for own consumptions, and fringe benefits (see Istat, 2015, for a comparison of income levels with and without imputed rents). For this reason, our poverty incidences differ from those published by Eurostat.

Taking advantage of the longitudinal structure of the EU-SILC data, we introduce two simple measures of poverty dynamics. The first one is the Eurostat "at-persistent-risk-of-poverty" definition, stating that individuals who are poor in the last wave and in two out of the previous three ones are persistently poor. This means that the poor during the first three waves, but not the last one, are not considered persistently poor. The second measure of persistence we introduce is a broader one, and defines an individual as persistently poor if s/he is in poverty for three years out of four (irrespective of his/her state in the last wave).

In Section 3 we present estimates of poverty incidence and persistence conditional on several household characteristics. To control for spurious relationships and to provide a more detailed picture of the absolute and relative poverty in Italy, we then apply logistic regression models to both cross-sectional poverty incidence and longitudinal persistent poverty. The poor and persistently poor are regressed against the rest of the population. We run our estimates on the pooled datasets, either cross-sectional or longitudinal, and we use the same covariates in the models. For persistent poverty models, based on longitudinal data, characteristics at first wave are considered.

[1] In 2021, a new regulation has been adopted. It aims, among other things, to achieve higher precision requirements and to encourage the adoption of a six-year (or more) rotation scheme (Regulation (EU) 2019/1700 of the European Parliament and of the Council of 10 October 2019 establishing a common framework for European statistics relating to persons and households, based on data at individual level collected from samples, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019R1700). However, in this paper, we use data based on the previous regulation, and following a four-year rotation scheme (Regulation (EC) No 1177/2003 of the European Parliament and of the Council of 16 June 2003 concerning Community statistics on income and living conditions (EU-SILC), available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32003R1177).

In both univariate estimates and models, sample units are individuals instead of households, for two reasons: a) according to Eurostat, income poverty measures the share of individuals living in at-risk-of-poverty households; and b) longitudinal weights are defined at the individual level, to correct for selective non-response. As a consequence, household and main earner (ME) characteristics are applied to all household members. In the models, robust standard errors are estimated, and normalised weights are used.

3. Results

3.1. Poverty incidences

In Table 1, using the cross-sectional EU-SILC data from 2007 to 2013, we present three measures of the incidence of poverty by making use of the three poverty lines presented above: the two relative poverty lines (60% and 40% of the median of the equivalised household income), and the absolute poverty line established by Istat.

The variation in time of the poverty incidence calculated in the three ways shows the same pattern, although different sizes. The poverty lines based on 40% of the median, and the absolute poverty line give closer incidence estimates; for this reason, from now on, we decide to consider and comment only on these two measures. RPT is always higher than APT, but it increases at a slower rate over the observation period: RPT in fact shows an increase of 1.5 percentage points (p.p.), while APT increase is 2.1 between 2007 and 2013. As a consequence, the difference between the two measures of poverty decreased in time, from about 2 p.p. in 2007-2008, to 1.3 in 2012-2013.

Table 1
Poverty incidence 2007-2013 by using three poverty lines based on previous calendar year household income (weighted data)

Poverty line	2007	2008	2009	2010	2011	2012	2013
60% of the median household income	17.50	16.85	16.36	17.04	17.79	17.56	18.11
40% of the median household income	5.91	5.53	5.65	6.04	7.16	6.72	7.43
Absolute poverty line	3.95	3.36	3.99	4.26	5.24	5.34	6.10
Sample size	52,772	52,433	51,196	47,551	47,841	47,365	44,622

Source: EU-SILC.

In Table 2 we report cross sectional estimates of poverty incidence for the years 2007-2013 by using APT and RPT for different characteristics of the households. Some differences, but also some similarities, between the two poverty lines emerge from these figures.

Poverty incidence rates by household characteristics, with APT and RPT, are relatively consistent (see Table 2). Both measures show higher poverty incidence for households whose main earner is young (especially in the case of those younger than 34), female, and unemployed. When household types are considered, single-parent households, young adult households, and households with two or more families have a higher incidence of poverty. Finally, households living in the South of Italy are more likely to be poor than others.

We also notice some differences between the estimates obtained with the two measures. First, RPT shows wider geographical differences than APT does. Second, the difference between relative and absolute poverty is higher for most disadvantaged households (see figures for main earners conditions). Third, the trend over time of some figures also changes between the two measures, and, in general, we find a decreasing difference between the two measures over time.

Table 2
Poverty incidence for different household characteristics according to two poverty lines (weighted data)

Poverty line	*Age of main earner*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*
APT	Up to 34 years old	7.15	7.79	8.28	9.42	13.37	11.75	13.31
	From 35 to 44 years old	5.08	3.56	5.09	5.36	6.42	7.35	7.85
	From 45 to 54 years old	3.15	2.42	2.63	3.36	4.65	4.77	6.11
	From 55 to 64 years old	2.38	1.98	2.80	2.88	2.84	3.20	3.77
	65 years old and more	1.82	1.52	1.72	1.28	0.74	1.10	1.70
RPT 40%	Up to 34 years old	10.49	10.52	10.45	12.44	16.37	14.20	15.09
	From 35 to 44 years old	6.77	5.93	6.58	7.32	7.80	8.19	8.95
	From 45 to 54 years old	5.00	3.98	4.38	5.22	7.03	6.53	7.94
	From 55 to 64 years old	3.93	3.89	4.36	4.15	4.28	4.70	5.04
	65 years old and more	3.42	3.85	3.09	2.21	2.38	1.87	2.51
Poverty line	*Sex of main earner*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*
APT	Male	3.09	2.42	2.96	3.32	4.33	4.51	5.09
	Female	6.26	5.78	6.59	6.58	7.58	7.41	8.61
RPT 40%	Male	5.10	4.66	4.82	5.25	6.29	5.83	6.42
	Female	8.10	7.79	7.70	7.98	9.37	8.93	9.94
Poverty line	*Geographic area*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*
APT	North-East	2.79	2.36	2.76	3.11	3.92	3.65	4.02
	North-West	2.22	1.60	1.61	2.53	2.07	2.93	3.24
	Centre	3.02	2.39	2.87	3.10	3.86	3.40	4.14
	South	6.26	5.60	6.87	6.77	8.81	9.09	10.46
RPT 40%	North-East	2.77	2.67	2.69	2.86	3.71	3.19	3.40
	North-West	2.30	1.98	1.60	2.35	2.12	2.82	2.95
	Centre	3.42	2.84	2.90	3.32	4.10	4.13	3.99
	South	11.59	11.11	11.64	12.05	14.36	13.09	15.07
Poverty line	*Employment status of main earner*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*
APT	Self-employed	2.14	1.61	2.48	2.52	3.35	3.10	3.09
	Employed	5.22	3.98	4.41	5.07	7.92	7.96	9.74
	Unemployed	32.17	25.68	22.09	25.54	22.87	24.42	30.55
	Retired	1.59	0.93	1.18	1.00	0.65	0.98	1.54
	Not in the labour force	11.82	12.62	12.02	13.01	15.01	15.26	14.38

(*continued on next page*)

Table 2 (*continued from previous page*)

RPT 40%	Self-employed	3.82	3.35	3.93	3.93	4.65	4.37	4.19
	Employed	7.63	6.78	6.22	7.90	9.60	9.54	11.46
	Unemployed	38.52	33.84	25.71	33.73	29.94	27.89	34.01
	Retired	2.64	2.25	2.31	1.73	1.98	1.63	2.25
	Not in the labour force	15.88	16.70	14.98	15.33	19.97	17.73	16.75
Poverty line	*Household type*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*
APT	Young-aged single	10.25	9.00	9.79	12.59	12.03	16.42	12.92
	Middle-aged single	7.82	6.11	7.01	7.72	7.16	7.99	9.03
	Old-aged single	2.42	1.91	2.21	1.82	1.04	1.12	1.66
	Young-aged couple without kids	1.11	3.10	4.04	4.01	3.45	3.07	4.54
	Middle-aged couple without kids	2.06	1.77	1.97	2.79	2.13	3.71	4.29
	Old-aged couple without kids	0.57	0.41	0.42	0.34	0.31	0.29	1.23
	Couple with small kids	4.69	3.92	4.60	5.49	7.21	7.48	10.14
	Couple with adult kids	1.31	0.86	1.08	0.89	1.69	2.08	4.97
	Lone parent with small kids	17.85	16.86	19.08	16.93	21.35	19.56	22.61
	Lone parent with adult kids	3.19	2.94	4.26	2.72	3.92	3.95	5.58
	Two or more households	8.45	3.38	6.34	8.27	8.44	4.31	9.10
	Other household type	3.50	4.97	5.09	4.64	9.28	4.16	8.67
RPT 40%	Young-aged single	10.29	10.31	9.78	10.20	10.64	15.66	13.53
	Middle-aged single	8.34	6.62	7.11	7.93	7.51	7.68	9.23
	Old-aged single	2.86	2.75	2.61	1.89	1.40	1.00	1.54
	Young-aged couple no kids	3.47	3.55	4.07	4.69	3.55	3.79	4.62
	Middle-aged couple no kids	2.76	2.92	2.46	3.60	3.31	4.18	3.82
	Old-aged couple no kids	1.18	1.00	1.17	0.83	0.91	0.48	0.76
	Couple with small kids	7.50	6.77	7.01	8.58	10.01	9.27	8.33
	Couple with adult kids	2.95	2.84	2.40	2.02	3.78	3.70	2.50
	Lone parent with small kids	19.39	20.08	20.40	19.07	21.96	19.95	24.06
	Lone parent with adult kids	5.80	5.06	6.45	4.44	5.89	5.45	4.40
	Two or more households	13.49	12.69	14.00	15.03	13.69	12.50	6.83
	Other household type	6.80	6.70	5.79	4.90	12.51	8.87	5.19

Source: EU-SILC.

3.2. Poverty dynamics (at persistent risk of poverty)

In panel a) of Table 3, we provide the estimates achieved using the two definitions of persistent poverty given above, using both absolute and relative poverty thresholds. Clearly, according to our definition, higher estimates of persistent poverty are achieved, but the two definitions provide a coherent picture of the national situation. In the following we refer to our definition only.

Although the persistent poverty shows an increase in the period of observation, we prefer pooling the different longitudinal samples with a view to achieving more accurate estimates, because longitudinal samples are relatively small (see panel b) of Table 3).

Table 3
At persistent risk of poverty (our definition and Eurostat definition) according to the two poverty lines (weighted data)

a) Results for the single panels and for the pooled one

Panel	Sample size	APT – our definition	RPT – our definition	APT – Eurostat definition	RPT – Eurostat definition
Panel 2007-2010	9,903	1.49	2.89	1.30	2.32
Panel 2008-2011	8,986	2.14	3.34	1.65	2.90
Panel 2009-2012	7,598	2.63	3.85	1.99	3.26
Panel 2010-2013	6,608	2.97	3.86	2.86	3.76
Pooled panel	33,095	2.23	3.43	1.87	2.98

b) Results for household characteristics (our definition, pooled panel)

Household and main earner characteristics		APT our definition	RPT our definition
Age of main earner	Up to 34 years old	4.98	6.67
	From 35 to 44 years old	2.63	4.33
	From 45 to 54 years old	1.81	2.84
	From 55 to 64 years old	1.59	2.41
	65 years old and more	0.49	1.14
Sex of main earner	Male	1.67	2.94
	Female	3.67	4.70
Geographic area	North-East	1.24	1.05
	North-West	0.64	0.56
	Centre	1.08	1.51
	South	4.48	7.86
Employment status of main earner	Self-employed	0.99	2.03
	Employed	2.40	4.07
	Unemployed	19.07	24.21
	Retired	0.52	0.91
	Not in the labour force	8.38	10.52
Household type	Young-aged single	3.80	3.61
	Middle-aged single	3.22	4.10
	Old-aged single	0.84	0.93
	Young-aged couple without kids	2.36	3.05
	Middle-aged couple without kids	0.99	1.76
	Old-aged couple without kids	0.27	0.76
	Couple with small kids	2.64	4.48
	Couple with adult kids	0.29	1.14

(*continued on next page*)

Table 3 *(continued from previous page)*

Lone parent with small kids	12.49	13.64
Lone parent with adult kids	1.30	2.30
Two or more households	5.38	9.81
Other household type	4.58	4.07

Source: EU-SILC.

As observed for the poverty incidence, worse-off households show much higher persistent poverty if the relative threshold is used. Most relevant differences are observed for households living in the South, those composed of two or more families, and those whose main earner is unemployed or not in the labour force. Once again, the differences are driven mostly by the South.

Coherently with the poverty incidence, persistent poverty shows that most disadvantaged households are those whose main earner is young, a woman, unemployed, or inactive. Households living in the South, lone-parent households with small kids, and households composed of two or more families show higher levels of persistent poverty as well.

3.3. Modelling poverty incidences and persistence

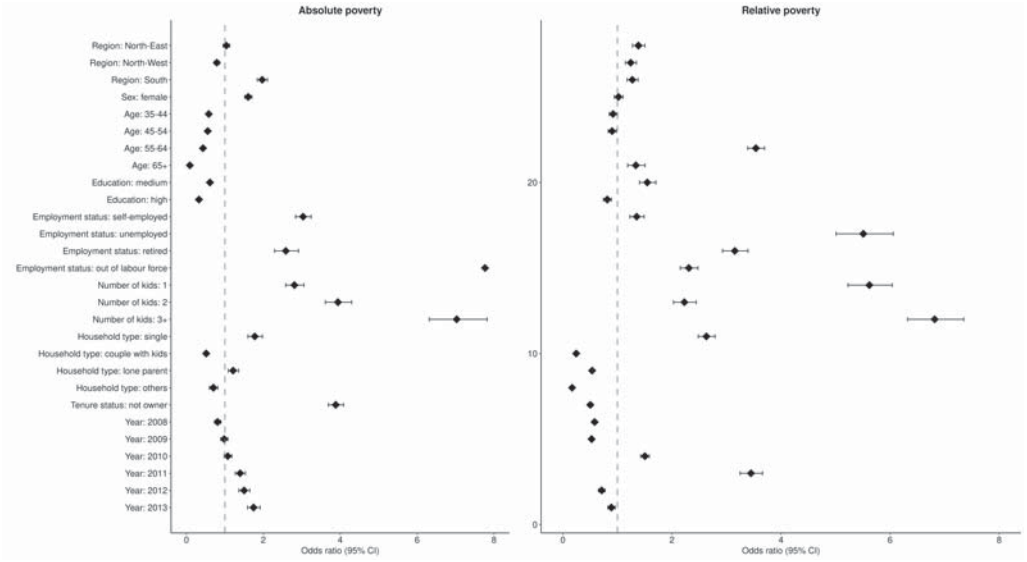
Figure 1 shows the odds ratios and 95% confidence intervals estimated via logistic regression models of poverty incidence and persistent poverty, measured according to the absolute and relative thresholds (the estimates of the models are provided in the annex). In order to facilitate the discussion on multivariate analysis, we have also calculated the predicted poverty incidence and persistence rates for a range of household profiles. These figures are reported in Table 4.

We notice generally consistent results of APT and RPT models, however some differences emerge. First, the geographical gradient is reduced when APT is used, and the effect of living in the South is much smaller. This is not surprising since APT takes into account differences in purchasing power between regions. Second, the risk associated with the inactivity or unemployment of the main earner is much higher with APT. Tenure status effects on poverty persistence also differ between the two measures, and the trend over time (year effect) is more pronounced for APT estimates.

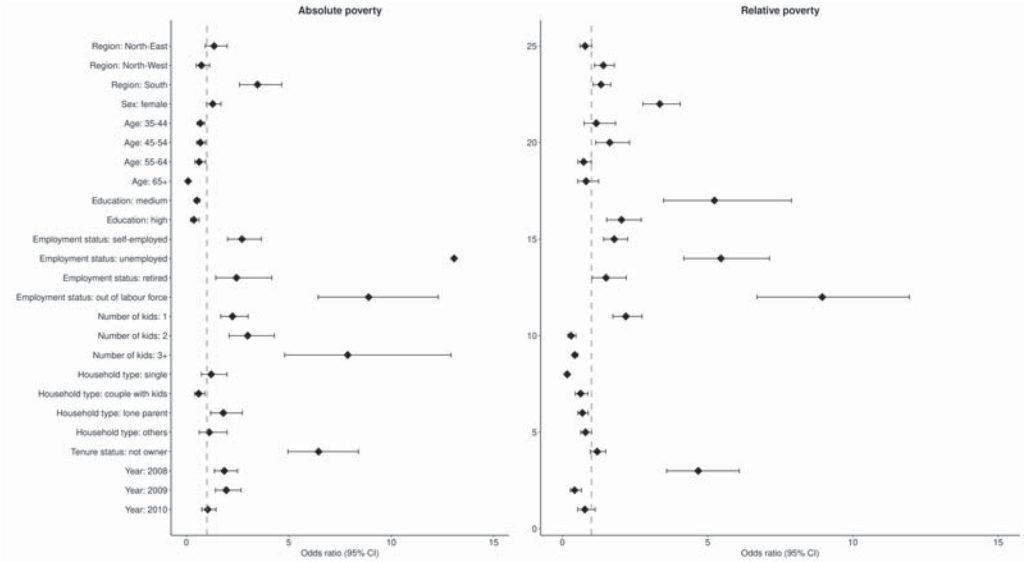
These differences are also reflected in the predicted poverty incidence/persistence rates reported in Table 4: lone mothers in North-Western Italy, and single women feature a higher poverty incidence/persistence rate if APT is used, while couples generally have higher rates with RPT. Noticeably, both measures provide increasing rates over time for all profiles, but the increase associated with APT is higher.

Figure 1
Odds ratio incidence and persistence of poverty, two poverty lines, pooled data (weighted data)

a) Poverty incidence



b) Poverty persistence



Key: CI: confidence interval.
Note: the baseline individual is male, living in the centre of Italy, younger than 35 years old, low educated, employed, married, without kids, and owner of a dwelling, in 2007.
Source: EU-SILC.

Table 4
Probability for selected profiles, standard errors in brackets, pooled data (weighted data)

Profiles	Incidence		Persistence	
	APT	RPT	APT	RPT
Couple, age >65, no kids, ME retired, low education, South, 2007	.0046 (.0004)	.0170 (.0009)	.0012 (.0005)	.0081 (.0020)
Couple, age >65, no kids, ME retired, low education, North-West, 2007	.0019 (.0002)	.0036 (.0002)	.0003 (.0001)	.0008 (.0002)
Couple, age >65, no kids, ME retired, low education, South, 2013 (2010 for persistence)	.0081 (.0006)	.0234 (.0013)	.0026 (.0010)	.0112 (.0027)
Couple, age >65, no kids, ME retired, low education, North-West, 2013 (2010 for persistence)	.0032 (.0003)	.0049 (.0003)	.0006 (.0002)	.0011 (.0003)
Couple, age (45-54), 2 kids, ME employed, high education, owner, South, 2007	.0074 (.0005)	.0165 (.0010)	.0026 (.0009)	.0010 (.0026)
Couple, age (45-54), 2 kids, ME employed, high education, owner, North-West, 2007	.0030 (.0002)	.0034 (.0002)	.0006 (.0002)	.0009 (.0003)
Couple, age (45-54), 2 kids, ME employed, high education, owner, South, 2013 (2010 for persistence)	.0128 (.0009)	.0227 (.0014)	.0058 (.0020)	.0137 (.0038)
Couple, age (45-54), 2 kids, ME employed, high education, owner, North-West, 2013 (2010 for persistence)	.0052 (.0004)	.0048 (.0003)	.0013 (.0005)	.0013 (.0004)
Couple, age (45-54), 3 or more kids, ME employed, high education, owner, South, 2007	.0131 (.0010)	.0285 (.0019)	.0063 (.0023)	.0239 (.0072)
Couple, age (45-54), 3 or more kids, ME employed, high education, owner, North-West, 2007	.0053 (.0004)	.0060 (.0005)	.0014 (.0006)	.0023 (.0008)
Couple, age (45-54), 3 or more kids, ME employed, high education, owner, South, 2013 (2010 for persistence)	.0226 (.0016)	.0390 (.0026)	.0138 (.0053)	.0328 (.0101)
Couple, age (45-54), 3 or more kids, ME employed, high education, owner, North-West, 2013 (2010 for persistence)	.0092 (.0007)	.0083 (.0006)	.0031 (.0013)	.0032 (.0011)
Female lone parent, age (35-44), 2 kids, employed, high education, not owner, South, 2007	.1027 (.0067)	.1332 (.0077)	.0569 (.0165)	.0959 (.0216)
Female lone parent, age (35-44), 2 kids, employed, high education, not owner, North-West, 2007	.0439 (.0033)	.0307 (.0022)	.0134 (.0046)	.0098 (.0030)
Female lone parent, age (35-44), 2 kids, employed, high education, not owner, South, 2013 (2010 for persistence)	.1664 (.0098)	.1754 (.0097)	.1171 (.0335)	.1283 (.0298)
Female lone parent, age (35-44), 2 kids, employed, high education, not owner, North-West, 2013 (2010 for persistence)	.0742 (.0053)	.0420 (.0030)	.0290 (.0100)	.0136 (.0042)
Female single, age (<35), employed, high education, not owner, South, 2007	.1285 (.0080)	.1247 (.0075)	.0174 (.0053)	.0300 (.0077)
Female single, age (<35), employed, high education, not owner, North-West, 2007	.0578 (.0043)	.0295 (.0022)	.0040 (.0014)	.0029 (.0009)
Female single, age (<35), employed, high education, not owner, South, 2013 (2010 for persistence)	.1991 (.0109)	.1630 (.0094)	.0376 (.0117)	.0411 (.0109)
Female single, age (<35), employed, high education, not owner, North-West, 2013 (2010 for persistence)	.0951 (.0065)	.0403 (.0030)	.0087 (.0031)	.0040 (.0013)

Key: ME: main earner.
Source: EU-SILC.

4. Conclusions

The debate about the use of absolute or relative poverty measures has been going on for years in the literature and in policy discussion. Absolute and relative poverty measures capture different aspects of poverty – APT reflects the level of economic resources needed to meet a set of basic needs, while RPT reflects the level of economic resources where individuals have less than what is considered normal in a given society – but not everywhere both are available. Absolute poverty measures are widely used in developing countries while, among developed countries Italy, along with the USA, is one of the few countries that regularly publish official estimates. The European Union (EU) has recently opened up the possibility of adopting a European measure of absolute poverty (Menyhert *et al.*, 2021), but at the moment such a measure does not exist. Rather than choosing between the two, some authors have proposed alternative measures that try to reconcile these approaches (see, for example, Foster, 1998; Madden, 2000; Ravallion, Chen, 2011; and, more recently, Decerf, 2023). However, the main conclusion reached by most scholars is to consider both approaches in order to shed light on different aspects of the phenomenon to better understand it and to propose policy interventions that address these different aspects (Brandolini, 2021; Notten, De Neubourg, 2011).

A recent paper by Cutillo *et al.* (2022) introduces the Italian absolute poverty measure to the international research community for the first time, and then compares the incidence of absolute income and consumption poverty. Absolute income poverty is then compared with Eurostat indices "at risk of poverty or social exclusion" and "severe material deprivation". Our contribution is along the same lines. By establishing a common framework, we are able to underpin and interpret the difference between the absolute and relative income poverty in terms of poverty incidence and, more importantly, persistence.

In our study, although APT and RPT generally provide consistent evidence on the association between household characteristics and poverty incidence/persistence rates, there are some divergences we can briefly comment on.

Firstly, the fact that APT takes into account the differences in purchasing power between Italian regions is reflected in the weaker geographical gradient that we estimate by using this threshold. Therefore, if we consider APT, we should conclude that households in the South of Italy are less worse off than what RPT shows. Second, the most disadvantaged households (single, lone parent, and unemployed) show a higher risk of persistent poverty when APT is used. Thirdly, APT is more sensitive to economic recession: this could be explained by the fact that APT does not depend on the average income level, so that, if the national average (median) income falls, the relative poverty threshold will fall, whereas the absolute poverty will not (Smeeding, 2006).

We can conclude that the absolute poverty threshold provides different insights for the analysis of poverty compared with the relative one, and therefore constitutes a useful tool for the inspection of poverty dynamics of individuals and households, to be used together with the relative poverty measures in order to better understand poverty in Italy and to address it with appropriate policy interventions.

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Appendix

Table A1
Modelling incidence and persistence of poverty, two poverty lines, pooled data (weighted data)

Poverty incidence	APT			RPT		
	Parameter estimate	95% confidence limits		Parameter estimate	95% confidence limits	
Geographic area (ref.=Centre)						
North-East	.0374616	–.0425644	.1174875	–.1177333	–.1946523	–.0408143
North-West	–.2347103	–.3218507	–.1475698	–.3411354	–.4244974	–.2577734
South	.6780429	.6112078	.7448779	1.237972	1.178409	1.297536
Sex of main earner (ref.=male)						
Female	.4737364	.4155229	.5319499	.4078557	.3552036	.4605078
Age of main earner (ref. <35)						
35-44	–.5442152	–.6124538	–.4759765	–.6427826	–.7059258	–.5796394
45-54	–.5873911	–.659612	–.5151702	–.5425223	–.6072929	–.4777517
55-64	–.8395656	–.9431763	–.735955	–.6891821	–.7767569	–.6016072
65 or more	–2.420963	–2.541453	–2.300472	–1.779301	–1.880152	–1.678451
Education of main earner (ref.=low)						
Medium	–.4923796	–.5465468	–.4382124	–.6235691	–.6718511	–.5752871
High	–1.120579	–1.223929	–1.017229	–1.409106	–1.509507	–1.308705
Employment status of main earner (ref.=employed)						
Self-employed	1.110113	1.043519	1.176707	.9674957	.9089031	1.026088

Unemployed	2.103414	2.02205	2.184779	1.91937	1.843804	1.994936
Retired	.9497644	.8294602	1.070069	.8007625	.7070819	.894443
Not in the labour force	2.049663	1.970226	2.1291	1.726343	1.654243	1.798444
Number of kids (ref.=0)						
1	1.032915	.9484885	1.117341	.8369198	.766783	.9070567
2	1.37116	1.28428	1.458039	1.14818	1.074145	1.222216
3 or more	1.949909	1.842817	2.057001	1.706362	1.611228	1.801496
Household type (ref.=couple without kids)						
Single	.5752327	.4697573	.680708	.3022646	.205845	.3986843
Couple with kids	–.6676206	–.7762434	–.5589979	–.2064032	–.2973966	–.1154099
Lone parent	.1941663	.0826127	.3057199	.4366549	.3400408	.5332691
Others	–.3569415	–.5110987	–.2027844	.2906701	.1719184	.4094217
Tenure status (ref.=owner)						
Not owner	1.356552	1.305986	1.407118	1.26407	1.220481	1.307658
Year (ref.=2007)						
2008	–.2090837	–.3077821	–.1103853	–.1031376	–.1850652	–.02121
2009	–.0189165	–.1130967	.0752636	–.0843497	–.1637963	–.0049031
2010	.0727363	–.021316	.1667887	.0199981	–.0594403	.0994365
2011	.3338591	.2403759	.4273423	.2416552	.1628194	.320491
2012	.4054375	.3112816	.4995934	.2175652	.1364006	.2987298
2013	.5569521	.4630818	.6508224	.3258303	.2438975	.4077631

Poverty persistence	APT			RPT		
	Parameter estimate	95% confidence limits		Parameter estimate	95% confidence limits	
Geographic area (ref.=Centre)						
North-East	.131665491	–.035775501	.299106159	–.113593209	–.278818785	.05163249
North-West	–.134886131	–.325199646	.055427263	–.376923945	–.567430091	–.186417744
South	.54079956	.413913044	.667686102	.669755417	.554858728	.784652234
Sex of main earner (ref.=male)						
Female	.109366241	–.009035688	.227767964	.078281325	–.0172678	.173830237
Age of main earner (ref. <35)						
35-44	–.165767489	–.283180366	–.048354601	–.099069201	–.199525562	.001387091
45-54	–.165079478	–.29991711	–.030241866	–.163065579	–.275115971	–.05101515
55-64	–.204040219	–.384348905	–.023731476	–.203916225	–.351715729	–.056116722
65 or more	–1.094583551	–1.320573921	–.868593403	–.787921116	–.951908337	–.62393373
Education of main earner (ref.=low)						
Medium	–.292490033	–.399859919	–.185120074	–.368512093	–.456754295	–.280269826
High	–.440467771	–.670509779	–.210425563	–.522558933	–.713484476	–.331633375
Employment status of main earner (ref.=employed)						
Self-employed	.433570317	.302945564	.564195185	.338925796	.240004041	.437847397
Unemployed	1.116293531	.969067498	1.263519373	.951519068	.825847938	1.077190153
Retired	.388132298	.155949993	.620314631	.176399788	.009970294	.342828951

Not in the labour force	.949268143	.808458038	1.090078442	.736992392	.620941824	.853042991
Number of kids (ref.=0)						
1	.351900231	.22474692	.479053469	.251449864	.152290485	.350609263
2	.475970734	.318588138	.633353201	.308290732	.183161328	.433420178
3 or more	.896268099	.681148759	1.11138754	.718956505	.541232793	.896680232
Household type (ref.=couple without kids)						
Single	.081963741	–.132444366	.296371833	–.088520866	–.272228563	.095186793
Couple with kids	–.223493057	–.398688073	–.04829805	–.137109806	–.271831827	–.002387745
Lone parent	.255065925	.073217065	.436914931	.212378066	.061019099	.363736986
Others	.04847521	–.200983707	.297934413	.066610267	–.128714529	.261934613
Tenure status (ref.=owner)						
Not owner	.809857155	.695427474	.924286834	.525504268	.442779909	.608228558
Year (ref.=2007)						
2008	.266448084	.135429715	.397466196	.123561906	.025715793	.221407717
2009	.28901985	.151678068	.426361266	.148469385	.044527217	.252411719
2010	.018413786	–.122140491	.15896767	–.107220587	–.219480712	.00503973

Key: ref.: reference.
Source: EU-SILC.