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Understanding Extreme Poverty in the European Union

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Abstract_ The European Union headline measure of poverty is the at-risk-of-poverty measure derived from the percentage of the population in households with incomes less than 60 per cent of the median. This measure has been incorporated into the EU 2020 poverty and social exclusion target. In this paper some criticisms are made of this approach, in particular that it under-estimates poverty in the newer member states. Some possible additional, less relative, more extreme measures of poverty were reviewed for a project commissioned by the EU. Two approaches, one based on deprivation and the other based on low income and deprivation were found to have merit. The results are explored using the secondary analysis of EU Statistics on Income and Living Conditions (SILC) 2008. However, some groups in extreme poverty are still likely to be excluded from SILC, including homeless people.

Keywords_ Poverty; deprivation; housing; indicators; social inclusion
Background

Since the Lisbon European Council in 2000 the European Union has been committed to the fight against poverty and social exclusion using the Open Method of Coordination (OMC). A key element of the OMC is a set of indicators, agreed upon jointly by the European Commission and all EU member states, to measure progress towards the agreed EU social inclusion objectives. These include:

- At-risk-of-poverty rates at different thresholds (40, 50, 60 and 70 per cent of the national median equivalised household income).
- An at-risk-of-poverty gap (how far households are below the poverty threshold).
- An at-risk-of-poverty rate ‘anchored’ at a point in time.
- A persistent at-risk-of-poverty rate.
- A material deprivation indicator. In 2009, the Social Protection Committee (SPC) adopted a set of indicators and context information on housing and material deprivation.

The situation changed recently when the European Council agreed on an EU target to lift at least 20 million people out of poverty by 2020. Three poverty thresholds are being prioritised here:

- At-risk-of-poverty: the population living in households with equivalent income less than 60 per cent of the median (80 million in the EU).
- Material deprivation: the population living in households lacking four or more of nine indicators, i.e. cannot afford: to pay rent or utility bills; to keep home adequately warm; to pay unexpected expenses; to eat meat, fish or equivalent every second day; a week’s holiday away from home once a year; a car; a washing machine; a colour television; a telephone (40 million in the EU).
- People living in jobless households: no one working or work intensity of household is below 0.2 (40 million in the EU).

Although both the above sets of indicators include material deprivation measures, the relative income poverty measure remains at the heart of poverty measurements in the new EU target. In addition, this poverty measure is also dominant in national-level poverty analysis.

For its first semester report for 2010, the EU Network of Experts on Social Inclusion undertook a survey of what poverty thresholds were being used by national governments in the EU (Bradshaw et al., forthcoming). It was found that the threshold most commonly used was the household equivalent income less than 60 per cent of
median before housing costs. The most commonly mentioned lower poverty threshold was a lower relative income poverty threshold: 40 or 50 per cent of the median equivalent threshold.

Based on research commissioned by the EU, this paper critically examines the relative income measurement of poverty and explores the potential for the development of less relative, more extreme measures of poverty. After detailing the potential limitations of a relative income measure, the paper reviews existing methods of measuring absolute poverty, before considering new measurements of poverty that could be used at the EU level and that include robust measures of both income and deprivation.

Problems with the Relative Income Measure

There are a number of reasons to be anxious about an over-reliance on a poverty threshold based on relative income. Some of these relate to use of the threshold in any context and some relate to use of the measure in international comparisons.

The limitations of a relative income measure in any context include:

- It is hard for non-experts to understand what is meant by ‘x per cent of the population live in households with disposable income less than 60 per cent of the national median equivalised household income’. It does not resonate with persuasive power or credibility.
- Income is only an indirect indicator of living standards.
- It is probably not as good an indicator of command over resources as expenditure, not least because it does not take account of capacity to borrow, dissaving, gifts and the value of home production.
- The 60 per cent of the median (and any other) income threshold is arbitrary. It is not related to any understanding of need but is merely a line drawn on the income distribution.
- The equivalence scale\(^1\) adopted – the modified OECD scale – has no basis in science (and has been abandoned by the OECD\(^2\)).

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\(^1\) Adjusts income to household needs.

\(^2\) The OECD now uses the square root of the number of people in the household (as well as a threshold of 50 per cent of the median), see OECD (2008).
The limitations of a relative income measure in a comparative context include:

- The EU publishes estimates of the monetary value of the poverty threshold in Purchasing Power Parity standards (PPPs). This reveals that we are not comparing like with like when we compare poverty rates between countries using this threshold. So, for example, the relative poverty threshold in 2008 for a couple with two children was €9,770 PPPs per year in Estonia whereas in the United Kingdom it was €24,380. The at-risk-of-poverty rate in both countries was 19 per cent. Yet, the poor in Estonia, even taking into account differences in purchasing power, were living at much lower levels.

- In many of the countries, including many using the 60 per cent of the median as their poverty threshold, the cash value of the threshold is very low. The threshold for a couple with two children in 2008 in purchasing power parity terms was €1.71 in Romania and €2.22 in Bulgaria per person per day.

- In contrast, the 60 per cent of median threshold in many of the EU-15 is perhaps too high. In the richer EU countries many people identified as poor on the 60 per cent of median threshold are not deprived of any items in the EU index (see below) and do not say they have difficulty making ends meet.

**Defining and Measuring Absolute Poverty**

The discourse on poverty is very confusing. We tend to mix up concepts and measures and use different words to describe the same thing and the same words to describe different things. In the EU this is complicated by translating words that have one meaning in English into words with completely different meanings in other languages. Thus, for example, the notion of ‘extreme poverty’, which has not been used in English academic discourse, has been used by the European Commission as the title of the research project on which this paper is based because the notion of ‘absolute poverty’ does not translate very well into other EU languages. Absolute poverty is the concept most commonly contrasted with relative poverty, although, as we shall argue, there are serious problems with it.

There are some internationally approved understandings of absolute poverty. For example, in 1995 the World Summit for Social Development (the Copenhagen Summit) stated: ‘Absolute poverty is a condition characterized by severe deprivation of basic human needs, including food, safe drinking water, sanitation facilities, health, shelter, education and information. It depends not only on income but access to services’ (United Nations, 1995, Annex II, para. 19). Although these kinds
of definitions give the social scientist some guidance and authority, they have two drawbacks. First, they seem to have rather limited relevance to European countries. Second, they do not help when it comes to operationalisation and measurement.

Limitations of income-based measures of physical necessities

Notions of absolute poverty tend to emphasise physical necessities. Absolute poverty is perhaps most commonly associated with the work of Seebohm Rowntree (2000), who, in his first survey of poverty in York in 1898, used a measure of primary poverty based on the ‘minimum necessities of life for mere physical efficiency’. In the post-war period this quasi-scientific quality of Rowntree’s poverty line was criticised, most effectively by Peter Townsend (1954 and 1962), who did more than anyone to reconceptualise poverty as relative.

There are at least four poverty measures presently in operation that emphasise physical necessities:

- **The World Bank**: The World Bank is the only international body still giving official credence to an absolute poverty threshold. Its one dollar a day poverty line was established for the 1990 World Development Report based on background research by Ravallion et al. (2008). It became the basis of the first Millennium Development Goal: to abolish one dollar per day poverty by 2015. Far from being an absolute poverty threshold in a scientific sense, it was a marketing tool, a heuristic device, to provide an acceptable focus for world efforts to tackle poverty.

- **The US poverty standard**: Another interpretation of absolute poverty is a poverty threshold that does not change as living standards change. The EU publishes an at-risk-of-poverty rate anchored at a point in time, which is updated to a new point in time every five years or so. The US poverty standard also uses a point in time but has been anchored for a very long time – since the 1960s it has been increased only with price inflation. The US poverty standard may have had a rationale based on need when it was first developed in the 1960s, but its value has really eroded as time has passed. It is now only an income threshold and we ought to be able to find an income threshold that has a better basis in science.

- **Lower relative income thresholds**: One obvious alternative to the 60 per cent of median threshold is to take a lower relative threshold to measure more extreme poverty. In the survey of poverty thresholds being used by EU governments, the most commonly mentioned lower poverty threshold was a lower relative income poverty threshold: 40 or 50 per cent of the median equivalent income. Countries employing these lower thresholds as their lower national thresholds include Croatia, France, Germany, Latvia, Lithuania, Luxembourg, Malta, Romania, Spain and the UK. There are really three objections to lower relative thresholds as thresholds of extreme poverty in the EU. First, there is evidence that income
is less reliable as you move down the distribution. Second, in many of the EU-10 and current/potential candidate countries the 60 per cent threshold is already very low. Third, a lower relative poverty threshold does not get over the objections made about the 60 per cent of median at-risk-of-poverty threshold. It remains relative and not necessarily extreme.

- **Social assistance**: In the survey of poverty thresholds used in the EU, we found seven countries (Cyprus, Estonia, Hungary, Lithuania, Netherlands, Poland and Portugal) with their main national poverty thresholds linked in some way to their minimum income/social assistance scheme or to other benefits or reimbursements. Another five countries use social assistance or minimum income standards as the basis for a lower poverty threshold (Austria, Belgium, Germany, Slovakia and Sweden). However, we sense that this approach may be losing its authority. There is no reason why minimum income thresholds should be fixed at the level of poverty, they could be higher or lower. Also, if these thresholds are increased (or reduced) in real terms, then it has an immediate impact on the numbers counted as poor, meaning that these indicators can easily be manipulated, which violates a key criterion to be met by robust social indicators.

**Considering Alternative Measures of Poverty**

**Persistent poverty**

Some argue that severe poverty would only have a real social meaning if it was persistent. Some researchers have indeed defined extreme poverty as severe and persistent poverty (Adelman et al., 2003) and the UK uses a persistent poverty measure in it official portfolio. The OECD (2008) has also compared persistent poverty for a selection of countries. The EU Statistics on Income and Living Conditions (SILC) is able to generate a persistent poverty measure at least over a four-year period, but first we need to decide on what threshold is extreme and then observe how persistent it is.

**Deprivation measures**

Deprivation indicators were first introduced into poverty measurement by Peter Townsend (1979) in order to operationalise his relative concept of poverty and to broaden the range of resources taken into account. He drew up a list of items and activities that he believed no one should go without and then asked respondents in his survey whether they lacked them. Townsend counted as poor those lacking three or more items.
Guio (2009) explored the deprivation indicators in SILC 2005. She distinguished between three sets of indicators. First, she identified a set of five indicators of economic strain where the household could not afford:

- To face unexpected expenses.
- A one-week annual holiday away from home.
- To pay for arrears (mortgage or rent, utility bills or hire purchase instalments).
- A meal with meat, chicken or fish every second day.
- To keep the home adequately warm.

Second, a set of four indicators of durables was identified where the household could not afford (if it wanted to):

- To have a washing machine.
- To have a colour television.
- To have a telephone.
- To have a personal car.

Third, a set of five housing indicators was identified (the sixth was adopted in 2008) where the dwelling suffers from:

- Leaking roof/damp walls/floors/foundations or rot in the window frames.
- Accommodation that is too dark.
- No bath or shower.
- No indoor flushing toilet for sole use of the household.
- Lack of space (defined as an insufficient number of rooms for the number of persons).
- Spending more than 40 per cent of income net of housing costs on housing.

Having undertaken exploratory analysis, Guio concluded that the economic strain and durable indicators could be treated as a single deprivation index, but the housing indicators should be excluded because they co-varied less with the other domain variables. Her index has since become the standard one used in comparative analysis of the EU SILC, the EU social inclusion indicators include the proportion lacking three or more items and the new 2020 target includes those lacking four or more items.

We decided to revisit some of Guio’s analysis using 2008 SILC data, which includes extra countries and the additional housing indicator. We found that including six housing indicators improved the index. We also found that ‘accommodation too
dark’, ‘spending more than 40 per cent of income on housing’ and ‘overcrowded’ did not contribute to the overall scale and when they were dropped the index improved further. We decided that there are reasons for including the extra three housing indicators in a study designed to explore measures of extreme poverty. We will call this the ‘composite index’.

Figure 1 compares the at-risk-of-poverty rate (under 60 per cent median income) with this deprivation poverty rate for the EU. Deprivation gives a completely different distribution of poverty in the EU: the range of poverty rates is much attenuated with Hungary, Poland, Lithuania and Latvia in the middle of the distribution and Bulgaria and Romania outliers with much the highest rates of extreme poverty. For example, whilst the UK and Romania have similar at-risk-of-poverty rates (just below and just above 20 per cent of households having under 60 per cent median income), they are very different on deprivation levels (less than 10 per cent of households lacking four or more necessities in the UK compared with 50 per cent of households in Romania). Among the EU-10, Estonia, Czech Republic, Slovakia and Slovenia are much more similar to the EU-15.

Figure 1: Under 60 per cent median income poverty rate 2007 by percentage of people in households lacking four or more necessities composite index. SILC, 2008
In the 2009 SILC survey there was a special once-off module on deprivation, which included 14 household questions, 19 children’s questions and 7 individual questions. The data will not be available for analysis until 2011 but they could well contribute to a new deprivation index that could be included in SILC in subsequent years – probably from 2013 onwards.

**Budget standards**

One way to establish an income poverty threshold that has more basis in science and is less arbitrary than the at-risk-of-poverty measure is to use budget standards. Countries that have income or expenditure thresholds derived from research based on budget standards include Austria, Belgium, Croatia, Denmark, Ireland, Portugal, Romania, Slovakia and the UK. A number of these countries have adopted the ‘consensual’ budget standards methodology developed by researchers in the UK (Bradshaw et al., 2008), although more usually the budgets standards are based on either normative or behavioural (expenditure-based) estimates of needs. One advantage of budget standards is that they are not arbitrary: they are designed to derive a basket of goods that represents a given living standard. We employ a budget standards income threshold in the next section.

**Bringing Measures of Income and Deprivation Together**

Income- or expenditure-based approaches to measuring poverty have been dominant in most EU countries and internationally, and for practical reasons much of the empirical research on poverty has used one measure at a time. This is partly because early surveys using deprivation indicators tended not to include income questions. However, the European Community Household Panel (ECHP) survey began to collect data on a selection of deprivation indicators, as well as income. In Ireland, this data was used to explore the overlap between deprivation and income, and the Irish government adopted an ‘overlaps measure’ as one of its official poverty measures. It was called ‘consistent poverty’, although not (in our opinion) very accurately, as it was entirely cross-sectional. The third poverty and social exclusion survey in Britain was used to explore overlaps between income, deprivation, subjective poverty and benefit receipt (Bradshaw and Finch, 2003). Others began to use the ECHP income and deprivation measures together (Heikkila et al., 2006). Curiously, since SILC developed, there have been rather few examples of overlaps analysis (but see Whelan and Maître, 2009 and 2010, and Fusco et al., 2010). However, a number of countries have followed the Irish example and are using an overlaps measure in their official poverty measurement.
There are a number of reasons for employing income and deprivation measures at the same time, some of which are to do with the weaknesses of income measures:

- As already argued, the 60 per cent of median equivalent income threshold does not resonate with non-specialists.

- Income data collected in surveys (though not the Nordic registers) is more or less unreliable, understated, hidden, forgotten. There are particular problems for the self-employed, casual, informal economy and such like workers.

- In SILC, income is the previous year and the deprivation data is more up to date.

- It is an indirect measure of poverty:
  - The SILC income poverty threshold is before housing costs, but what a household can purchase is likely to be determined by income after housing costs.
  - A household may have a low income but large wealth, and therefore, purchasing power.
  - A household may have had a low income last year, but now be richer as a result of taking up employment.
  - A household may have had a high income last year, but is now poorer as a result of retirement, unemployment or even the death of a family member.

With all these disadvantages of income measures, why not just rely on deprivation? Why reintroduce income? Here are some reasons:

- Data collected on deprivation may of course also be unreliable.

  - Deprivation may not be enforced: it may be a lifestyle choice by someone who is perfectly capable of purchasing the item. In some surveys (though not SILC) this is dealt with by counting only items that are lacked because the respondent cannot afford them. Some households may say they lack assets because they cannot afford them, but in reality it is because they do not want them – they are not a high priority in their budget.

  - Deprivation items may be possessed but broken.

- It might also be argued that we need to have income data for policy purposes. Policy cannot generally intervene at the level of deprivation, but it can and does intervene by providing income.
When we use a threshold that defines a household as income poor and deprived we are much more certain that we are getting a reliable indication. Also, although it will depend on the thresholds used, there are reasons to suppose that we are getting at core poverty, a more secure degree of poverty than those based on a single dimension.

A decision needs to be made about which overlaps threshold to use: which income threshold and which deprivation threshold? Fusco et al. (2010) explored the overlaps between relative income poverty and deprivation. However, we do not think that it makes sense to mix relative income thresholds with absolute deprivation thresholds, as they have done (and the EU 2020 target does) – at least when the focus is on extreme poverty. As we have seen, the at-risk-of-poverty thresholds are also too low for some of the poorer countries. After some exploration we have chosen the overlaps between the Netherlands’ budget standard (NIBUD budget standard) and lacking four or more items on our composite index. We present the results in the conclusion, after a consideration of the role of SILC below.

The Problems with SILC: The Need to Address Homelessness

The EU project on which this paper is based was about producing measures of extreme poverty. For that reason the analysis focused on deriving comparable measures that can be used across EU countries. In this we have been very reliant on SILC. However, it needs to be recognised that people in the most extreme poverty may not be living in households – the sampling base for EU SILC, they may be homeless and living rough; they may be living in institutions, prisons, hospitals or hostels; they may be refugees living in camps; or they may be Roma and other groups who are mobile or unregistered and left out of surveys. There may be extremely deprived, possibly ethnic minority, groups within a country that, although included in sample surveys like SILC, are so rare as to be neglected.

There are partial solutions to this problem. First, Eurostat needs to ensure that the sampling frame for SILC is as comprehensive as it can possibly be. There is no reason why the institutional population should not be included, and it is quite possible to over-sample extremely poor minorities.

Beyond that, there needs to be alternative approaches to gathering data on extreme poverty. Homelessness is an example of an area where the EU has made a special effort quite recently to improve data collection at national level (Stephens et al., 2010; Edgar, 2009). Unfortunately there is still no data on homelessness that is comparable across EU member states, even on the narrowest definitions. The comparative possibilities offered by the 2011 census seem likely to be very limited with respect to homelessness.
One potential way forward at a relatively low cost would be to incorporate a short suite of questions on homelessness into SILC to gain comparative data on past experience of homelessness. There are already two questions in SILC 2009 on moving in the next six months and reasons for moving but they are not entirely satisfactory. There may also be a need for special targeted surveys. For example, Ringold et al. (2005) produced an excellent World Bank report on Roma in Eastern Europe combining a variety of quantitative and qualitative methods.

**Conclusion: New Measures of Extreme Poverty**

The objective of this project was to suggest some measures of extreme poverty for the EU countries. We explored a variety of approaches to setting extreme poverty thresholds. In the end any method is a matter of judgment. We sought to find a threshold that is not relative to a country but that represents the reality of the differences in living standards in the EU countries and that can be used to identify extremely poor households in all countries.

We reviewed and rejected a number of possible methods, including: World Bank and US approaches to absolute poverty; lower relative thresholds; and thresholds based on social assistance/minimum income schemes. In the end we recommend that the EU considers two measures. One based on deprivation indicators alone, and the other based on the overlap between deprivation indicators and living on an income below a budget standard threshold.

Figure 2 shows that the extreme poverty rates obtained using these thresholds are higher than the at-risk-of-poverty rates in Bulgaria, Hungary, Latvia, Lithuania, Poland, Romania and Slovakia, but, interestingly, not in Cyprus, Czech Republic, Estonia, Slovenia and among the EU-10+2. The extreme poverty rates are lower than the at-risk-of-poverty rates in all the EU-15 countries. However, there are households who are extremely poor in all EU countries.
In the preceding analysis, we tended to focus on the impact of the poverty threshold on poverty rates. But changing the poverty threshold has inevitable consequences for the composition of the poor. However, we found it very difficult to make generalisations about how our extreme poverty measures would change the composition of the poor. It varied from country to country. Households in extreme poverty are generally more likely than the at-risk-of-poverty group to be single parents, tenants, low educated and with bad health, and to have low work intensity. But this was not the case for all countries.

While this project was being finalised, the EU developed the 2020 target for people at risk of poverty and/or materially deprived and/or living in jobless households (see earlier). Figure 3 shows how the poverty rates derived from that threshold compare with our proposed overlaps extreme poverty threshold. The EU at-risk-of-poverty or exclusion rate is lower than the extreme poverty rate only in Romania and Bulgaria. This is because the new EU target is still heavily influenced by the relative at-risk-of-poverty threshold. Thus, for example, the extreme poverty rate for the UK is only 1.5 per cent but the EU 2020 target poverty rate is 28.3 per cent, not least because it includes all 19 per cent of households under the 60 per cent of median at-risk-of-poverty threshold. In contrast, 49.5 per cent of households in Romania are below the extreme poverty threshold but only 44.2 per cent are below the EU 2020 target threshold.
An extreme poverty threshold of the kind we propose for the EU inevitably has political consequences. It will focus more attention than at present on disparities within the EU. If the intention of the EU is to eradicate social exclusion by 2020, or some date thereafter, there are challenges for all countries, but perhaps the greatest challenge is to raise the living standards of the poor in the poorer countries. The EU already approaches its responsibilities for regional economic and social cohesion using an EU-wide indicator (GDP per capita for the EU-27) and perhaps it is time for the social inclusion strategy to add at least one such non-relative indicator to its own portfolio.
References


