



Multi-dimensional poverty in the EU



Social Situation Monitor
Research Seminar

Monday 12 March 2018
9:00 – 17:00

Crowne Plaza Hotel
Ground floor
Rue Gineste 3
1210 Brussels
Belgium

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*Employment,
Social Affairs
and Inclusion*

About the seminar

The Social Situation Monitor

Each year the Social Situation Monitor (SSM):

- Carries out policy-relevant analysis and research on the current socio-economic situation in the EU on the basis of the most recent available data;
- Examines major issues which are features of the situation or affect it with the aim of providing evidence on which to base policy-making across the EU.

This initiative is directed by the London School of Economics (LSE), in consortium with ICF, on behalf of the European Commission. The team is led by the Academic Director, Dr. Bob Hancké from LSE, and the Project Director, Dr. Simona Milio from ICF. The team is composed of renowned academics and researchers from the consortium organisations reflecting a wide range of expertise.

More information can be found at:

<http://ec.europa.eu/social/main.jsp?catId=1049&>

The SSM seminar series

SSM seminars are research seminars. Their aim is to provide a forum to discuss the theoretical, methodological and policy implications of the latest economic and social research. More specifically, SSM seminars aim to inform:

- The economic and social analysis of the European Commission in general, and the Commission's *Employment and Social Developments in Europe* review in particular*.
- The economic and social analysis of the European Commission's stakeholders.
- The economic and social policies of the European Commission and its stakeholders.

SSM seminars are primarily intended to:

- Economists and analysts working in policy-making organisations;
- Academic researchers;
- Policy officers with an interest in economic and social analysis.

(*) The *Employment and Social Developments in Europe* reviews can be found in the European Commission's publications catalogue:

<http://ec.europa.eu/social/main.jsp?catId=1285&langId=en>

Seminar agenda

08:00 – 09:00 Registration and coffee

09:00 – 09:10 Welcome words
By Loukas Stemitsiotis (European Commission)

09:10 – 09:20 Introduction to Session 1
By Bob Hancké (LSE)

09:20 – 10:00 *Revising the EU material deprivation variables*
By Eric Marlier (LISER)

10:00 – 10:40 *Intra-household inequality and poverty and material deprivation in the EU*
By Eleni Karagiannaki (LSE)

10:40 – 11:00 Coffee break

11:00 – 11:20 *Financial resilience*
By Abigail McKnight (LSE)

11:20 – 12:00 *Asset-based poverty: Insights from the OECD Wealth Distribution Database*
By Carlotta Balestra (OECD)

12:00 – 12:40 *Estimation of Joint Income-Wealth Poverty: A Sensitivity Analysis*
By Sarah Kuypers (University of Antwerp)

12:40 – 13:40 Walking Lunch

13:40 – 13:50 Introduction to Session 2
By Bob Hancké (LSE)

13:50 – 14:30 *Identifying the poor. Sensitivity and characteristics of household selection based on income and consumption*
By Maximilian Sommer (Catholic University Eichstätt-Ingolstadt)

14:30 – 15:10 *Results from EU-SILC Longitudinal analysis: Medium term effects of LM exclusion and insecurity on material and financial situation of youth*
By Magdalena Rokicka (Educational Research Institute)

15:10 – 15:30 Coffee break

15:30 – 16:10 *Objective and subjective measures of poverty: A pan-European comparison of patterns and determinants*
By Dirk Hofäcker (University of Duisburg-Essen)

16:10 – 16:50 *Multidimensional deprivation among adolescents in 39 countries: Evidence from the Health Behaviour in School-Aged Children (HBSC) 2013/14 study.*
By Frank J. Elgar (McGill University)

16:50 – 17:00 Concluding remarks
By Loukas Stemitsiotis (European Commission)

Summary

Revising the EU material deprivation variables

Eric Marlier

Luxembourg Institute of Socio-Economic Research (LISER)

The new indicator of *material and social* deprivation replaces the standard *material* deprivation indicator, which the EU adopted in 2009. The 2009 indicator was defined as the proportion of people living in households confronted with at least three out of nine deprivations. These deprivations are the inability for a household to, for example, face unexpected expenses; afford one-week annual holiday away from home or avoid arrears (in mortgage rent, utility bills and/or hire purchase instalments). The new deprivation indicator is based on 13 items whose selection results from a systematic robustness analysis. Since 2014, these items are collected annually in each country.

The new indicator is based on the unweighted sum of the 13 items for each person. The scale ranges from 0 (no deprivation) to 13 (enforced lack of all items). The reliability of the scale is very high both at the EU level and in each Member State: Cronbach's alpha statistic, which measures the internal consistency of a scale, is 0.85 for the pooled EU dataset and ranges from 0.76 in Finland to 0.89 in Bulgaria (the usual minimal threshold is 0.70). The alpha is (much) higher than for the current indicator in all countries. On the basis of the deprivations count (ranging from 0 to 13), the deprivation rate is defined as the weighted proportion of people lacking at least five items in the whole population. The weight used is the personal weight RB050. The choice of the threshold is data-driven. At EU level, this threshold results in a proportion of people deprived that is close to that of the 2009 standard material deprivation indicator (3+ deprivations out of 9).

Asked about how researchers could account for adaptive preferences, Mr Marlier suggested following people in long panels (EU-SILC only follow people during four years). The panel should be long enough to identify the entry into poverty and a process of adaptive preferences after years in poverty.

One participant asked whether child poverty should be considered as 'enforced lack' or 'simple lack'. Mr Marlier replied that only children lacking an item for affordability reasons (and not by choice or due to any other reasons) are considered as deprived of this item. Those lacking the item "for other reasons" are treated, together with those who have the item, as not deprived. There are, however, a number of questions raised by the notion of enforced lack. The "other reasons" modality can encompass a large range of possible situations: people may not want/need an item, or they may be prevented from having an

item for many different reasons (e.g. lack of time of the parents due to caring responsibilities or due to work, no vehicle/ public transport, feeling unwelcome, etc.). Some of these “other reasons” may be correlated with their living standards, or adaptive preferences, shame to admit that children lack the item (Guio et al, 2012, p.34). That is the reason why Guio et al (2017) investigated the characteristics of children living in households replying that they do not have the item for “other reasons”. They show that using the concept of enforced lack makes it possible to control for individual preferences due to differences in cultures, age of children or parental practices.

In response to a question from the audience, Mr Marlier indicated that it was not possible to distinguish between ‘want’ and ‘need’ in EU-SILC questions. Only three answer modalities are proposed: Yes, I have/do; No, I don’t have/do because I can’t afford; NO, I don’t have/do for other reasons. The “other reasons” modality can encompass a large range of possible situations: people may not want/need an item, or they may be prevented from having an item for many different reasons (e.g. lack of time of the parents).

Asked why composite indicators were not included in the EU portfolio of social indicators, Mr Marlier replied that this was a deliberate choice. Indeed, to guide policy action, such a composite index (which would combine into a single figure the information aggregated across dimensions, as for the HDI) would raise serious technical and political issues. Mr Marlier argued that these issues become even trickier if such indicators are to be used for international comparisons and for measuring changes over time.

A participant remarked that the tests used to select the items were mainly based on income and asked whether the social dimension of the indicator could possibly suffer from this. Mr Marlier replied that the latent variable called “Material and social deprivation” (which is captured via the 13 selected items), was closely related to the concept unaffordability. The indicator does not measure deprivation in general, including the lack of items by choice, but it focuses on situations in which people would like to have the items but cannot afford it. So, the lack of leisure, getting out with friends, holidays etc. is considered as deprivation if it results from a lack of resources, not if it results from a lack of public services, lack of child care services, lack of time, problems of mobility, lack of public transport etc. In that sense, the social dimension captures only a sub-group of those lacking social items. This is due to the conceptual and analytical framework we used and which focuses on the lack of items due to lack of resources. The conceptual approach followed is inspired by Peter Townsend’s research during the 1960s on poverty and deprivation.

Intra-household inequality and poverty and material deprivation in the EU

Eleni Karagiannaki

London School of Economics and Political Science

Material deprivation is usually assessed using household level deprivation indicators. In this presentation Dr Karagiannaki used individual level deprivation data from the 2014 EU-SILC ad-hoc material deprivation to illustrate the sensitivity of deprivation estimates to using individual level rather than household level deprivation indicators and to examine the implications of intra-household inequality on individual material deprivation outcomes focusing on, but not limited to, effects for multi-family households. Analysis of the determinants of individual deprivation risk confirm that household income, gender, age, family type and co-residence status (i.e. whether living in one-family or multi-family households) are all independent predictors of the individual's deprivation risk. A statistically significant negative effect is also estimated on the share of total household income contributed by the individual suggesting that individuals who contribute a higher share of total household income are statistically significantly less likely to be deprived in terms of the individual level deprivation indicator than those who contribute a lower share of total household income. Separate models by country reveal a substantial variation across countries in the effect of individual's income share. Overall, the evidence presented suggests that personal deprivation indicators complement household deprivation indicators and that both should be used in the overall assessment of deprivation risks.

Three main points were made during the discussion. First, some wondered whether the individual's income share was a fit for purpose measure of the distribution of control of resources/power within households. The speaker noted that in common with most relevant research individual's income share measure is used as a proxy of individual's control over household resources but she acknowledges that ideally one would like a more comprehensive measure which would include other monetary resources (e.g. individual wealth holdings) would be preferable.

Another participant asked whether partners or other household members were present when personal-level deprivation data was collected and what implications this could have on the reliability of estimates. Dr Karagiannaki noted that her understanding is that there is no specific rule that requires partners not to be present when individual level data are collected. With respect to the potential impact that the presence of other household members would have on the estimates she replied that one would expect that this would bias downwards the estimates of the effect of intra-household inequality on deprivation outcomes of different household members.

Financial resilience

Abigail McKnight

London School of Economics and Political Science

Many individuals face periods of financial difficulty during the course of their lives, but while some are able to recover relatively quickly, others experience an elongated period of financial stress. We use the term 'Financial Resilience' to describe the capacity to recover quickly from financial adversity (the ability to bounce back from financial shocks). From a policy perspective, it is important that policies are in place to bolster households' financial resilience to income and expenditure shocks both for individual well-being, and economic stability and prosperity. The analysis of poverty and financial security has mainly focused on the analysis of household income. However, the role savings and financial debts play is just as important. Examples of cross-country differences in debt and credit holding and in saving rates using macro data were shown but these data are limited in terms of understanding the determinants of financial resilience and the risk of financial vulnerability. The presentation explained how this research project will use data from the Luxembourg Wealth Study and the European Household Finance and Consumption Survey to assess the financial resilience of households across European countries based on asset-holding and debts. It will explore the extent to which households are asset-poor (using a variety of definitions) or over-indebted, leaving them vulnerable to income shocks. The presentation outlined some of the existing asset-based welfare policies that could help low income households become more resilient to shocks. These policies and existing evaluation evidence is being reviewed for this research note, along with alternative policy responses designed to boost households' financial resilience.

One participant asked if there had been any consideration given to whether the analysis should be conducting at the household or individual level and whether particular breakdowns such as differences between genders had been considered. Abigail McKnight explained that the methodology was still being developed but the team were very open to suggestions.

Another participant said that they would like to know more about the challenges: for example, more detail on why the treatment of housing assets and housing liabilities are considered a challenge. Abigail McKnight acknowledged that in the analysis of financial resilience it is clearly the case that housing is an important element (housing security being key). However, housing assets and debts behave in a different way to many of the other assets considered. For example, compared to unsecured loans, housing loans are typically fully offset by housing assets and therefore the analysis will distinguish between different types of assets and debts.

Asset-based poverty: Insights from the OECD Wealth Distribution Database

Carlotta Balestra
OECD

Broadening the income concept used in poverty analysis by taking into account other dimensions than income can help derive a more comprehensive picture of the prevalence of low material living standards in society. For instance, the joint analysis of income and wealth allows exploring the correspondence between households' current income and their vulnerability to income shocks. In the context of the 2nd round of the OECD data collection on the distribution of household wealth, the OECD has collected information on asset-based poverty, which provides comparable evidence on the adequacy of individuals' wealth buffers against major economic shocks. This presentation provided evidence on the extent of asset-based poverty in the OECD area, and showed how it affects different population groups defined by age, educational attainment, household structure, etc. The presentation also discussed some of the methodological challenges faced when deriving measures of asset-based poverty, and assessed how these metrics are sensitive to different asset poverty thresholds, and to the wealth and income concepts used.

Questions from the floor mostly related to methodological issues. A participant asked for more information on the statistical validity of the estimates presented. Ms Balestra replied that indeed a number of data challenges of wealth statistics may affect the results and that in order to assess their robustness various scenarios was considered and tested. Two participants asked for more information on the relatively low level of asset poverty among the self-employed. Ms Balestra explained that this is due to the concentration of the self-employed towards the middle and top of the wealth distribution in the data sources considered. Prompted by a participant, Ms Balestra clarified that asset poverty rates as defined by the OECD are based on the national relative income poverty line, rather than on the respondent's current standards of living. Additional questions concerned the relation between liquid financial poverty and net worth poverty, as well as the impact of house prices on asset poverty. Finally, a participant asked whether there exists evidence on the relationship between asset poverty and financial literacy. Ms Balestra replied that, while the OECD hasn't conducted research on the topic, country-based studies suggest an effect of financial literacy in reducing asset poverty rates.

Estimation of Joint Income-Wealth Poverty: A Sensitivity Analysis

Sarah Kuypers
University of Antwerp

Most poverty studies build on measures that take account of recurring incomes from sources such as labour or social transfers. However, other financial resources such as savings and assets also affect living standards. Previous studies that have sought to incorporate assets into poverty measures have used two approaches. A first approach integrates the two financial resources into one single dimension, while a second approach applies a two-dimensional framework by developing separate poverty lines for income and wealth. These studies find that poverty rates of the elderly are more affected than those of the non-elderly and that poverty rates are especially affected by the value of the household's main residence. In this paper, the authors assessed the sensitivity of these conclusions to various alternative assumptions, such as the poverty line calculation. The authors checked whether the impact of alternative assumptions is consistent across age and institutional settings. To that effect they compared Belgium and Germany, two countries with similar living standards and income poverty rates, but different wealth distributions. Using data from the Eurosystem Household Finance and Consumption Survey (HFCS) they showed that accounting for wealth affects the incidence and age structure of poverty in a very substantial way. However, they also illustrated that results strongly depend on all kinds of measurement choices.

One of the discussion points focused on the reliability of the wealth data that are used in this research. In particular, someone pointed towards the fact that wealth data often suffer from non-response and underreporting and inquired whether there was any correction applied for these issues. Ms Kuypers responded that problems of non-response and underreporting are indeed very important with regard to wealth data. The data producers of the HFCS are also very aware of these issues and try to address them by applying an oversampling to the rich and using a multiple imputation technique to deal with item non-response. The authors of the paper have not applied any other correction to the data. Another aspect that was raised is the fact that holding assets may be more important in some countries than in others. The importance of being able to rely on assets in times of need indeed largely depends on institutional settings and the social security provisions in place. The latter is often referred to as 'public wealth'. Since the two-dimensional approach towards joint income-wealth poverty puts more emphasis on the role of wealth to overcome periods without income Ms Kuypers argued that this approach makes more sense in countries such as the US with low social security provisions, while the unidimensional approach may be considered more appropriate in a European context.

Sensitivity and characteristics of household selection based on income and consumption data

Maximilian Sommer
Catholic University Eichstätt-Ingolstadt

The identification and quantification of poor households is still under review as many different concepts and dimensions of poverty can be used for calculation. While the official AROPE measure combines income data with material deprivation and low-work intensity, most of the available consumption data is not taken into consideration. The question remains to what degree different poverty indicators identify the same households as being poor. The presentation analysed the poverty risk of households based on income and on variations of consumption data in Germany. The methodology is kept constant only changing the underlying variable. The authors are especially interested in the differences in socio-economic characteristics between the different groups of identified households and in the changes in the consumption patterns. The presentation showed that the marking of a household as being poor is highly conditional on the underlying variable. This is even true for different sets of consumptions data. Household can be identified as being poor based on income but not on consumption and vice versa. Additionally, characteristics of poor households differ with changes in the analysed variables so that their identification is based on a normative setting.

The first part of the discussion was related to using consumption data to measure poverty especially if we are using some kind of subsistence level in our analysis. This is not the case as we use the official way to calculate the at-risk-of-poverty threshold that is 60% of the median of the equivalized net income. However, instead of income as an indirect measure we use different concepts of consumption data as a direct measure. Additionally, it was argued that the US way of measuring poverty cannot be called consumption-based. However, this view can be challenged. The US-concept of poverty is based on the food requirements adjusted for different family types. Based on the available data sets at that time, families of three or more spent one third of their after-tax income on food. Hence, the poverty line in the US has been set at three times the value of the food basket. This threshold is then compared to the income of the household.

The second part of the discussion focused around the data set especially if it could be used analyse intra-family distribution of resources. Unfortunately, this is not possible. Data include detailed information on the income of every member of the household but consumption data is aggregated for each household. The only exceptions are the spending on clothing and shoes.

Medium term effects of LM exclusion and insecurity on material and financial situation of youth

Magdalena Rokicka
Educational Research Institute

The presentation focused on material and financial consequences of labour market exclusion of youth in the EU. Authors applied a medium term perspective analysing the effect of unemployment of a young person on material and financial situation of their household, using a longitudinal EU-SILC data. Results confirmed that labour market exclusion in a form of unemployment at the age 18-29 have scaring medium term effect on economic situation of youth in all analysed aspects: objective financial situation, material deprivation, and subjective economic situation. Furthermore for the older youth, it was found that the detrimental effect of unemployment was stronger. According to the results, also length of unemployment in youth translates into higher probability of being poor, to live in a materially deprived household and to express greater household financial distress.

Participants stressed that it was important to include more information about household characteristics, as they can have impact on the results. Ms Rokicka agreed and responded that two important indicators are already accounted for: an indicator for living with parents, and an indicator for work intensity of other household members. There was also a question about model specifications, and suggestion to apply a country random intercept model. Ms Rokicka already estimated model with this specification and informed that indeed certain country variation exist, and that country random effects compose approximately 20% of the total residual variance, being the greatest in the case of subjective measures. There was also suggestion that instead of using country fixed effects, some country specific policy measure can be controlled for, for example eligibility, and size of unemployment benefits for youth. Another suggestion from the audience was about making distinction between different types of job, for example blue collar versus white-collar jobs. Ms Rokicka explained that because she focused on unemployed this cannot be done straightforward, but there is possibility to include information about a previous job or educational attainment.

The final question was about policy implications of the results. Ms Rokicka responded that one of the possible implication might be that if the policy measures are created to support unemployed youth, the context of their household should be taken into account, as the detrimental effect of personal experience of labour market exclusion is reinforced by low labour market participation of the other household members.

Objective and subjective measures of poverty: A pan-European comparison

Dirk Hofäcker
University of Duisburg-Essen

Previous research on poverty has focused mostly on objective measures such as the income. In comparison, subjective measures, which are based on individual perception, have received less attention. Yet, both measures may not necessarily coincide: 'objectively poor' individuals may not feel 'subjectively poor' and vice versa. The paper investigated the degree of overlap between these two measures. Empirically, the paper drew back to data from three waves of the European Quality of Life Survey (EQLS), a representative household sample of EU member states dealing with a broad range of social and labour market issues. Findings at the national level reveal that, even though the majority of the population classifies itself as poor or non-poor consistently, deviations amount to up to a quarter of the population. More detailed analyses showed that deviations between the two measures not only occur at the aggregate level but also can be observed with regard to relevant determinants. While the objective incidence of poverty has increased throughout the economic crisis, the subjective feeling of being poor effectively has declined. Results confirm positive effects of human capital for the prevention of both objective and subjective poverty.

The following discussion highlighted the relevance of including more subjective measures into poverty research as these indeed add to an adequate understanding of the phenomenon. Further questions focused particularly on the cross-nationally comparative dimension. On the one hand, the question was raised in how far regime welfare regime differences are still adequate to systematize cross-national differences in objective and subjective poverty. Yet, Hofäcker argued that, despite certain variations, regime differences performed well as a distinguishing device. Yet, regime dummies by themselves do not inform much about why countries differ in the applied measures of poverty. As raised by one participant, it would be a sensible idea to replace regime dummies by stylized institutional indicators to investigate these reasons in more detail, a suggestion which was appreciated by the presenter and which could be included in further analyses. Another comment suggested to also look at the incidence of missing information on either one or both indicators. As only cases where both measures were available were considered in the analysis, a systematic pattern of missing values could bias the analysis. Again, Hofäcker welcomed the suggestion, which can be controlled for in further analyses.

Multidimensional deprivation among adolescents in 39 countries: Evidence from the Health Behaviour in School-Aged Children (HBSC) 2013/14 study.

Frank J. Elgar
McGill University

The presentation described an application of UNICEF's Multiple Overlapping Deprivation Analysis (MODA) framework to adolescents (aged 11, 13 and 15) in 37 European countries and Canada using data from the 2013/14 Health Behaviour in School-aged Children survey. It is one of the first applications of MODA based entirely on data collected from adolescents themselves rather than from household reference persons on their behalf. Unlike most other multidimensional child poverty studies, the present analysis focuses on non-material, relational aspects of child poverty. Substantial cross-country variation was found in the prevalence of adolescent deprivations in nutrition, perceived health, school environment, protection from peer violence, family environment and information access. These single dimensions of poverty did not closely relate to national wealth and income inequality. However, when we looked at deprivation in three or more dimensions (i.e., multidimensional poverty), we found association with income inequality. In most countries, girls were at a higher risk of multidimensional poverty than boys. In addition, adolescents who lived with both parents in the household or reported higher family wealth were consistently less poor than other adolescents, in both single and multiple dimensions. The results of this study show the interconnectedness of social (family, school support) and psychological (health and violence) dimensions of poverty for adolescents in higher income countries. Children poor in the domains of family and school environment are also likely to be poor in terms of perceived health and protection from peer violence.

A brief discussion followed with two questions about the study's lack of economic measures (i.e., was this really investigating deprivation since you did not include household income?) The speaker's responses reiterated the premise of the study and of MODA: that income- and wealth-based measures of child poverty imply that children receive an equal share of household resources, but this is not always the case. MODA is a rights-based approach to conceptualising and operationalising child poverty. It assumes (1) there are social and educational resources that are foundational to child wellbeing, (2) that all children have a right to these resources, as enshrined in the UN Convention of the Rights of the Child, and (3) children are often the best sources of knowledge about deprivations in those areas.