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**The OECD approach to measure and monitor income
poverty across countries**

Prepared by the OECD¹

Abstract

Poverty, as a 'well-being failure', is multi-dimensional and goes beyond material conditions. Furthermore, material conditions reach beyond income (e.g., consumption, wealth). However, household income is the metric most commonly available in OECD countries, and where comparability issues are better understood. This paper focuses on the household income poverty indicators collected and analysed by the OECD as part of its Income Distribution Database (IDD). It describes and discusses the methodological and conceptual approach used by the OECD to measuring and comparing household income poverty across member countries under a consistent, comparable and standardised framework. It also considers conceptual and empirical differences of two alternative poverty measures (collected by the IDD) that are based on current and anchored relative poverty lines. Finally, it reviews current and upcoming challenges and possible changes regarding issues of timeliness, coverage of middle-income and emerging countries, sub-national indicators, alternative indicators of household economic resources and non-monetary poverty

¹Prepared by Michael FORSTER and Horacio LEVY, Social Policy Division, and Marco Mira d'Ercole and Nicolas Ruiz, Household Statistics and Progress Measurement Division.

THE OECD APPROACH TO MEASURE AND MONITOR INCOME POVERTY ACROSS COUNTRIES

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Purpose of poverty measurement

General approach

1. As emphasized by Amartya Sen (1976), the particular way of measuring a phenomenon should depend on the purpose to which the resulting measure will be used. In the case of poverty measurement, there are several conceivable purposes and applications for the resulting measures:

- *Assessment*: Poverty may be measured by a government to provide a continuous assessment of how its various policies are affecting the conditions of the poor. This is part and parcel of a government's goal to become accountable for its actions and to provide accurate information on a central social and economic problem. In keeping with this purpose, it is crucial that the measurement methodology in question is understandable, consistent and transparent in its application over time. There should be little room for hidden arbitrariness in its definition or application. The most common method of evaluating poverty for a continuous assessment is to set a fixed poverty line in income space and calculate the percentage of a given population that is poor. This is how the IDD proceeds.
- *Diagnosis*: Poverty can be measured to help uncover the causes and correlates of poverty in order to formulate policies to fight poverty. It is clear that this poverty analysis objective could and will generally include more dimensions than only income (see final section of this paper).
- *Targeting*: In addition to the above purposes, a standard use for the poverty methodology is to enable governments to identify individuals or families as being in poverty and thereby focus services and policies directly upon them (for instance a multiple of the poverty line can be used to determine eligibility for a program, as in the State Children's Health Insurance Program (SCHIP) in the U.S).

Setting poverty lines

2. Poverty measurement generally assumes that there exist pre-determined and well-defined notions of living standards, called poverty line, which must be reached if a person is not to be deemed poor. But in most societies the notion of what constitutes poverty varies greatly. In order to conduct cross-country comparisons of poverty profiles, numerous approaches can resolve this uncertainty:

- *Absolute poverty lines*: an absolute poverty line is a fixed cut-off level applied across all potential income distributions, after adjusting for differences in purchasing power. In comparison over time, the line is unchanged (except adjustments for changes in price levels) even in the face of economic growth. The most common approach in defining an absolute poverty line is to estimate the cost of a bundle of goods deemed to ensure basic consumption needs. Absolute poverty lines are commonly in use for developing countries and the United States.
- *Relative poverty lines*: One of the main differences between the poverty literature in developing countries and developed countries is that absolute poverty has dominated in the former, while relative poverty is more important in the latter (cf. Forster (1994) for a discussion on the adequacy of relative poverty lines to OECD countries). A relative poverty line begins with a definition of a standard of living for a given distribution of income (such as the mean, median or some quintiles) and defines the poverty line as some percentages of this standard. The result is a poverty line that varies one-for-one with the standard of living. As already mentioned the IDD uses the median as the living standard and applies 50% and 60% as thresholds.
- *Subjective poverty lines*: This approach explicitly recognizes that poverty lines are inherently subjective judgements people make about what constitutes a socially acceptable minimum standard

of living in a particular society. Just as different countries tend to use different poverty lines, and that richer countries tend to have higher poverty lines, so too with individuals or households. This approach is often based on survey responses to a question such as the following: “What income level do you personally consider to be absolutely minimal? That is to say that with less you could not make ends meet”. The answer tends to be an increasing function of actual income. As such, subjective poverty lines presents strong overlaps with the notion of vulnerability

While the last concept has been barely used for poverty monitoring so far (mainly due to the fact that few surveys include such subjective question), the first two concepts have gained an important prominence, but come nonetheless with some practical challenges that could harm comparisons in a cross-country perspective:

- Several competing methods and assumptions are available for deriving absolute poverty line, each of which can generate different poverty cut-off
- A related question is how frequently to update absolute poverty line while there is clear trade-off: it must be fixed enough to capture changes in poverty but it must be updated often enough to reflect changes in economic circumstances
- Absolute poverty line could be set too low in developing countries while relative poverty line could be set too high for developing countries. As a result, neither of these two concepts is satisfactory when one is computing poverty profile on a heterogeneous set of countries
- The choice of relative poverty line is also problematic, as the selection of living standard and the percentage of this standard could vary among countries according to social preferences
- With relative poverty line, the analysis of changes in poverty over space and time is less transparent. Unlike absolute line, there are two sources of change: the direct impact of the change in the distribution and the indirect impact through the change in the underlying living standard, such as growth in median income

To circumvent these limitations, several alternative concepts recently appeared in the literature:

- *Hybrid poverty line*: as an elasticity of one of the poverty line to living standards could appear as implausible, hybrid poverty lines requires poverty to fall when all incomes in a distribution rise by a same proportion (see Ravallion and Chen, 2011)
- *Anchored poverty line*: used in the IDD, anchored poverty lines are both absolute and relative in the sense that a given relative line is computed for one period and then frozen and used as an absolute line over time. Anchored poverty line captures changes in poverty keeping the indirect effect in the evolution in living standards constant. It remains problematic however how to interpret the meaning of an unchanging relative poverty line as the notion of relative poverty aims to capture social inclusion, a concept which embodies intrinsically an important time varying component.

Cross country ex post harmonisation of the IDD

Data collection

3. Although the OECD has a long association with research on the distribution of household income (see, for instance, Sawyer 1976, Förster 1994 and Atkinson, Rainwater, and Smeeding 1995)², it started its own regular income data collection only in the late 1990s. The first wave of this data collection included 13 OECD countries for two data points (mid-1980s and mid-1990s). Results were published in Burniaux et al. (1998) and Oxley et al. (1999). A second wave extended the coverage to 21 countries and included additional indicators (Förster and Pellizari 2000, Förster and Pearson 2002). The third wave of data collection added results for a year around 2000 for 27 OECD countries, with results summarized in Förster and Mira d’Ercole (2005). The fourth wave of data collection served as a major input for the OECD

² For more details on the history of OECD work on income distribution and poverty, see Förster and Mira d’Ercole (2012).

publication *Growing Unequal?* (2008), and updated income information to the mid-2000s and included, for the first time, all (then 30) OECD member countries. The fifth wave included data from the late-2000s for all (then) 34 OECD member countries and was widely used in OECD, *Divided we Stand* (2011). Following the publication of *Divided we Stand*, a fourth phase started with the annual collection of indicators and re-branding it as the Income Distribution Database (IDD, <http://oe.cd/idd>). Comparing data between 2007 and 2010, OECD (2013a) analyses the impact of the first three years of the Great Recession on income inequality.

4. IDD data and indicators are collected through a network of national consultants who provide standard tabulations based on comparable definitions and methodological approaches. This is done via a detailed data questionnaire and terms of reference available on the OECD Income Distribution website (see <http://www.oecd.org/els/soc/IDD-ToR.pdf>).³ This approach to data collection, allows covering a broader range of OECD countries, based on information that is both more up-to-date relative to that available through other statistical sources and better suited for assessing changes in income distribution over time. The close cooperation with the network of national experts also includes a regular discussion of the quality and appropriateness of data and methodology as well as exchange on proposed new developments in terms of data collection and conceptualisation. The most recent meeting of the network of providers of OECD Income Distribution Data has been held in February 2013 (see <http://www.oecd.org/els/soc/inequality-meeting2013.htm>)

5. The OECD data collection strives to achieve both comparability across countries and consistency over time. The latter implies that discontinuities, due to either change in the statistical source used or to changes in survey design or weighting, are generally addressed by collecting data for the same year both on a “new” and “old” basis, and then applying splicing to reconstruct the indicators series. This procedure for correcting breaks has been implemented, so far, in 12 countries. In other 10 cases, countries shifted to another survey and discontinued the one previously used by the OECD. In those cases, where no common data year is available, a genuine break in the series is constituted and documented in the IDD.

Statistical framework of the OECD Income Distribution Database

6. The OECD Income Distribution Database (IDD) is built upon the central concept of disposable income and its sub-components, i.e. total income (the sum of primary and transfer income) received minus current transfers paid. Disposable income is usually the preferred measure for income distribution analysis as it is the income available to the household to support its consumption expenditure and saving during the reference period (noting that a reduction in net worth can also be used to support consumption). The IDD uses an annual reference period. The definition adopted closely follows the international standard set by the UNECE Canberra Group Handbook on Household Income Statistics (2011) for the definition of income. As a result, it reflects the current best practice in household income measurement and ensures a large degree of comparability among OECD countries.

Definition of disposable income and its components

7. Five main components of household disposable income are identified in the IDD:

- **E:** employee income, including wages and salaries, cash bonuses and gratuities, commissions and tips, directors’ fees, profit sharing bonuses and other forms of profit-related pay, shares offered as part of employee remuneration, free and subsidised goods and services from an employer, severance and termination pay. Sick pay paid by social security are also be included.
- **KI:** capital and property income, including income from financial assets (net of expenses), income from non-financial assets (net of expenses) and royalties. Regular receipts from voluntary individual private pension plans and life insurance schemes are also be included.

³ Further information on the OECD IDD and related analyses is available at www.oecd.org/els/social/inequality.

- **SEI:** income from self-employment, including profits and losses from unincorporated enterprises, as well as goods produced for own consumption, net of the costs of inputs (the inclusion of this latter variable aims to adjust the income concept to the realities of middle-income countries such as Brazil, India, South Africa and others. Some OECD countries do not collect information on this income item).
- **TRR:** current transfers received, including transfers from social security (including accident and disability benefits, old-age cash benefits, unemployment benefits, maternity allowances, child and/or family allowances, all income-tested and means-tested benefits that are part of social assistance), transfers from employment related social insurance, as well as cash transfers from both non-profit institutions and other households
- **TRP:** current transfers paid, including direct taxes on income and wealth, social security contributions paid by households, contributions to employment-related social insurance, current transfers paid to both other households and non-profit institutions

The aggregation of these five income components gives disposable income. Two other concepts can also be computed, market income and primary income.

Unit of analysis and equivalisation

8. The unit of observation of the survey is the household. A household is either an individual person or a group of persons who live together under the same housing arrangement and who combine to provide themselves with food and possibly other essentials of living (following the definition recommended by the UNECE Canberra Group Handbook). However, all the indicators published refer to persons: in the distribution, each household is weighted by the number of individuals who belong to this household. For instance, a household of four people has a weight equal to four; this is equivalent to considering a distribution in which this household is represented by four individuals with the same level of income. The underlying reason for this choice is that each individual in society should be treated as “equal citizen” in the distribution (see Jarvis and Micklewright 1995). This also corresponds to the recommendations put forward in Atkinson et al. (2002)).

9. Income data are then subsequently “equivalised” in order to account for economies of scale in consumption and to assign to each household type a value in proportion of its needs. The equivalence elasticity used by IDD is 0.5, implying that all income components of each household are adjusted by the square root of the household size. For instance, the income of a household with four persons should be divided by two and then attributed to the four members of the household. In this framework, the sum across members of the same household of individual adjusted incomes will exceed the total household disposable income by the amount of scale economies achieved (see <http://www.oecd.org/els/soc/OECD-Note-EquivalenceScales.pdf>).

Poverty indicators

10. Two types of indicators are used to characterise poverty:

- The *headcount ratio*, calculated as the number of individuals in the group considered with disposable household income per equivalent member below the poverty threshold, as a percentage of the total number of individuals in the group considered.
- The mean *poverty gap ratio* (income gap expressed as % of the poverty threshold), calculated as the difference between the poverty threshold and the mean disposable income of the poor, expressed as a percentage of the poverty threshold.

11. In turn, those two indicators are computed using both relative thresholds and an intermediate threshold between relative and absolute (i.e. relative threshold but anchored in time):

- *Relative poverty*: the relative poverty threshold is expressed as a given percentage of the median disposable income, expressed in nominal terms (current prices). Therefore, this threshold changes over time, as the median income changes over time. Two relative poverty thresholds are used: the first one is set at 50% of the median equivalised disposable income of the entire population, the second one is set at 60% of that income.
- *“Anchored” poverty*: the anchored poverty threshold is set at 50% of the median income observed in a given reference year in the past. This threshold is inflation-adjusted each year so as to remain constant, in real terms, over time.

Poverty thresholds are calculated based on the entire population. In other words, poverty figures for different sub-groups of a population are computed based on the median income for the entire population.

Monitoring trends with poverty measures

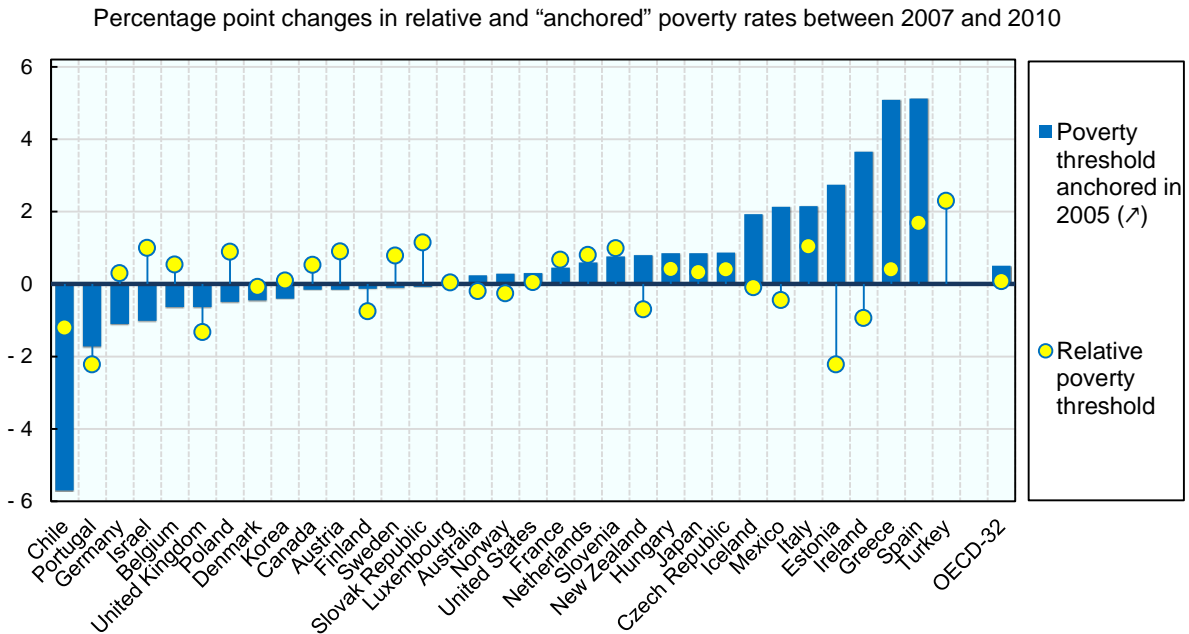
Trends in relative and anchored poverty in OECD countries during the crisis

12. Measures based on anchored and relative poverty lines may point out quite different results regarding poverty trends. Figure 1 describes changes in relative and poverty headcount ratios between 2007 and 2010.

13. Relative and anchored headcount ratios differ with regard to the level of change in poverty between 2007 and 2010. Changes in relative income poverty were rather modest. Poverty increased by more than 2 percentage points only in Turkey and by more than 1 percentage point in Spain, the Slovak Republic and Italy. Relative poverty fell more than 1 percentage point in Estonia, Portugal, the United Kingdom and Chile. Meanwhile, anchored poverty estimates indicate higher increases in poverty. Anchored poverty increased by more than 3 percentage points in Spain, Greece and Ireland and by 2 points or more in Estonia, Italy Mexico and Iceland. On the other hand, it fell by 2 points or more in Chile and by 1 point or more in Portugal, Germany and Israel.

14. Relative and anchored headcount ratios also differ with regard to the direction of change. In 16 out of 33 countries, relative and anchored indicators point into different directions. In 9 cases relative poverty points to an increase while absolute poverty points to a decrease. Some of the most striking examples can be found in Estonia and Ireland, which are two of the countries most affected by the crisis. Reflecting the fall with respect to previous income levels, the headcount ratio using an anchored poverty line increased 2.7 percentage points in Estonia and 3.7 in Ireland. However, as median income fell more than the incomes in the bottom of the distribution, the headcount ratio using a relative poverty line fell by 2.2 points in Estonia and 1 point in Ireland. The case of Israel illustrates the opposite phenomenon: an increase in the relative poverty rate and a decrease in the anchored poverty rate, suggesting an overall increase in income which was stronger at the middle than at the bottom of the income distribution.

Figure 1. Evolution of poverty differs if the threshold is “anchored” at the time before the crisis



Notes: Changes in income poverty measured using relative and anchored poverty line based on 50% of current and 2005 median income in each country, respectively. Estimates for anchored poverty are not available for Switzerland and Turkey.

1. 2007 refers to 2006 for Chile and Japan; 2008 for Australia, Finland, France, Germany, Israel, Italy, Mexico, New Zealand, Norway, Sweden and the United States. 2010 refers to 2009 for Hungary, Japan, and Turkey; 2011 for Chile. 2010 data based on EU-SILC are provisional for Austria, Belgium, Czech Republic, Estonia, Finland, Greece, Iceland, Ireland, Italy, Luxembourg, Poland, Portugal, Spain, Slovak Republic and Slovenia. Household incomes are adjusted for household size. Market incomes are reported net of taxes in Hungary, Mexico and Turkey.

2. Information on data for Israel: <http://dx.doi.org/10.1787/888932315602>

Source: OECD (2013).

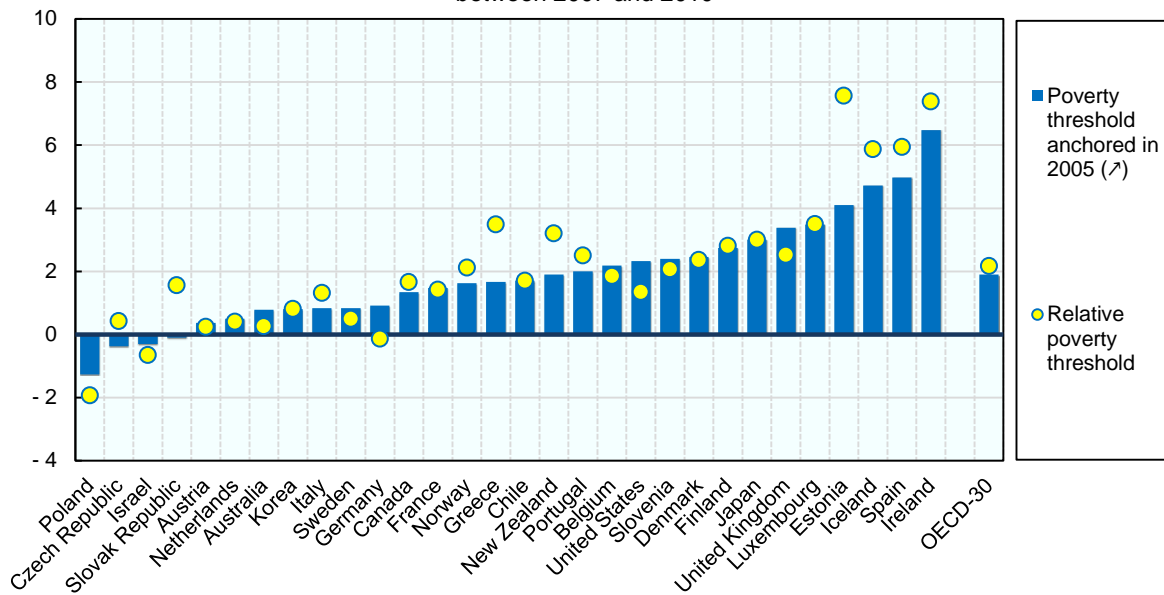
Trends in poverty alleviation due to taxes and transfers in OECD countries during the crisis

15. As pointed out in the previous section, the IDD collects poverty indicators of income before and after the inclusion of taxes and transfers using both anchored and relative poverty lines. Based on these indicators, Figure 2 measures how the poverty alleviation effect of taxes and transfers on the poverty headcount has changed between 2007 and 2010.

16. Overall, between 2007 and 2010, the change in poverty alleviation due to taxes and transfers was similar whether based on relative or anchored poverty lines. Across the 30 OECD countries for which data is available, poverty alleviation went up 1.9 percentage points when using the anchored poverty line and 2.2 points when using the relative line. Although the correlation between these two indicators is very high (91%), there are some significant differences across countries. In Estonia, Greece, Slovak Republic, New Zealand, Iceland and Spain the increase in poverty alleviation was more than 1 percentage point higher when using a relative poverty line. This reflects that in some of those countries (particularly the ones hit by the crisis) part of the change in relative poverty alleviation is due to the fall of the median disposable income (and therefore of the poverty line) between 2007 and 2010. Conversely, poverty alleviation increased by 1 percentage or more when using an anchored poverty line in Germany and the United States.

Figure 2. Poverty alleviation due to taxes and transfer increased during the crisis independently of the poverty threshold used

Percentage point changes in poverty alleviation due to taxes and transfers using relative and “anchored” poverty lines between 2007 and 2010



Notes: Measures based on relative and anchored poverty lines derived from 50% of current and 2005 median income in each country, respectively. Estimates for poverty before taxes and transfers are not available for Hungary, Mexico, Switzerland and Turkey.

1. 2007 refers to 2006 for Chile and Japan; 2008 for Australia, Finland, France, Germany, Israel, Italy, Mexico, New Zealand, Norway, Sweden and the United States. 2010 refers to 2009 for Hungary, Japan, and Turkey; 2011 for Chile. 2010 data based on EU-SILC are provisional for Austria, Belgium, Czech Republic, Estonia, Finland, Greece, Iceland, Ireland, Italy, Luxembourg, Poland, Portugal, Spain, Slovak Republic and Slovenia. Household incomes are adjusted for household size.

2. Information on data for Israel: <http://dx.doi.org/10.1787/888932315602>

Source: OECD Income Distribution Database (via www.oecd.org/social/income-distribution-database.htm)

Current and upcoming challenges

Timeliness

Annual data collection

17. The growing social and political interest on income inequality, and the dramatic effects of the economic crisis on the living standards of individuals in many OECD countries, led to the need of monitoring income distribution developments more frequently. As a result, since 2012 the OECD IDD collects data on annual basis, using the same approach described in section 1.1.

18. In order to ensure the collection of good quality data, on time and for all countries, the burden on national data providers was significantly reduced. The number of indicators requested fell from about 150 to 100. Also, new (easier) way of delivering data has been designed in order to reduce the burden reporting and documenting it. Finally, for some countries for which the OECD has direct access to the micro-data (currently the EU-SILC), the calculation of the indicators is done in-house and then submitted to national experts for double check and feedback.

Prospects

19. The speed and intensity of events that emerged during the economic crisis highlighted the limitations of household surveys as data sources to monitor current changes in income distribution. In many countries there is a considerable lag between the time the data is collected and made public for analysis (in some cases up to 2 or 3 years). Different approaches have been used to try to overcome such limitation by estimating indicators for recent years based on external information.

20. One approach is to estimate the relationship between income inequality and a set of macroeconomic indicators (such as unemployment) using regression analyses based on time-series data. However, despite its early popularity, in recent year this approach has not been used much as its results have proved to be quite sensitive to the data available (time series are too short) and the econometric method used (Jenkins et al, 2013).

21. An alternative approach is to use nowcasting. Using micro-data from a previous year and a tax-benefit micro-simulation model, this method applies a number of interventions on the micro-data in order to reflect macro-economic, labour market and tax-benefit changes that happened between the year the data was collected and the period of analysis.

22. At the national level, this kind of approach has been used to predict child poverty in the UK in 2020 (Brewer et al. 2011), and to forecast effects of the recession in the UK (Brewer et al. 2013), in Ireland (Keane et al. 2013), and in Bangladesh (Habib et.al. 2010). At the international level, using the European Union tax-benefit micro simulation model (EUROMOD), Immervoll et al. (2006) simulated the impact of potential macro-economic changes on income inequality. Recently, EUROMOD has been used to estimate the distributive impact of fiscal consolidation policies in 9 EU countries (Avram et al., 2012) and to estimate (“nowcast”) the current at-risk-of-poverty rate for the European Union (EU) countries based on EU-SILC microdata from a previous period (Navicke et al, 2013).

23. The OECD is considering using a similar approach to produce up-to-date estimates of income distribution indicators for the IDD. Such approach would be applied on household survey micro-data available at the OECD (e.g., EU-SILC) making use of OECD macro-economic indicators and estimates of policy changes derived from the OECD tax-benefit model. Given the substantial amount of resources it involves and the uncertainties regarding the accuracy of estimates, this method is currently being assessed and may be tried as pilot for a selection of countries.

Extensions

Regional breakdown of poverty estimates

24. Facing an increasing policy demand for information on regional differences in living standards the OECD has been piloting an extension of the Income Distribution Database at the NUTS2/OECD TL2 regional level (e.g. Italian regions, Mexican and U.S. States...), collecting data on relative poverty headcounts and income distribution indicators (Gini, quintile share ratio). Data, which are already available for 24 OECD countries, show that there are significant variations in levels of inequality within most countries, and that regional breakdowns are useful for documenting spatial patterns of material deprivation.

25. The statistical identification of the figures is key here. For several countries relying on survey data for measuring income distribution, standard cross-sectional indicators of inequality and relative poverty are estimated with low precision in the smallest regions given sample issues. The OECD study addressed this problem in two ways. First, confidence intervals are produced for all the indicators derived from surveys, so that the precision of the regional estimates can be evaluated. Second, the gains in statistical precision that can be achieved through averaged measures for multiple years have been assessed on EU-SILC data from Spain and Austria.

Using wealth beyond income for poverty evaluation

26. Income is undoubtedly a good proxy of living standards, and income deprivation has been very effective in guiding policy action and raising public concern for poverty. Yet, it is not without shortcomings. First, income fails to represent the full amount of available resources, as individuals can also rely on real and financial assets to cope with the needs of everyday life and to face unexpected events. The omission of wealth may appear somewhat surprising in light of the standard economic theory of consumption behaviour, where the budget constraint embodies current net worth together with the discounted value of current and future income flows. In empirical applications, the omission is often forced

by the lack of a database with both income and wealth information, but it may also reflect the slow development of analytical tools accounting for the role of assets in the poverty definition.

27. To fill this gap and also in response to the growing demand for micro statistics on household, the OECD published recently some guidelines for the collection and presentation of household wealth statistics (OECD, 2013b). A companion report, the OECD Framework for Statistics on the Distribution of Household Income, Consumption and Wealth (OECD, 2013c), presents also how income, wealth and consumption interact as three separate but interrelated dimensions of people's economic well-being. Through international agreed standards, these two reports offer a structure for the measurement of poverty based on wealth and income. An on-going initiative of the OECD aims at implementing these two reports through a collection of standardized wealth distribution figures, in particular on the joint distribution of disposable income and net wealth.

28. By making income and wealth commensurable, Brandolini & al. (2010) provides insight on what could be an analytical framework for the measurement of poverty based on income and wealth. Called "asset-based poverty" measurement, the approach defines asset-poverty as an individual having wealth holdings insufficient to meet their basic needs over a specified amount of time. Taking wealth into consideration allows distinguishing, among the income-poor, those who have sufficient wealth to keep them at the poverty line for a period of time from those who lack this buffer. Both groups experience low income, but the latter are clearly worse-off than the former. A third group comprises the "asset-poor only", i.e. people who currently have sufficient income to achieve the minimally acceptable standard of living but do not have enough assets to protect them from a sudden drop of their income. The results suggest that asset-related measures of poverty have a distinctive informative value with respect to income-based statistics.

Multidimensional approaches to poverty measurement

29. Conceptually, asset-based poverty measurement appears to be a special case of a broader stream of work on poverty measurement called multidimensional poverty. Such approaches use shortfall from multiple well-being dimensions used to identify the poor. The various dimensions of wellbeing that are being used as the basis of poverty measurement are aggregated into a single cardinal measure. There are several reasons for such approach:

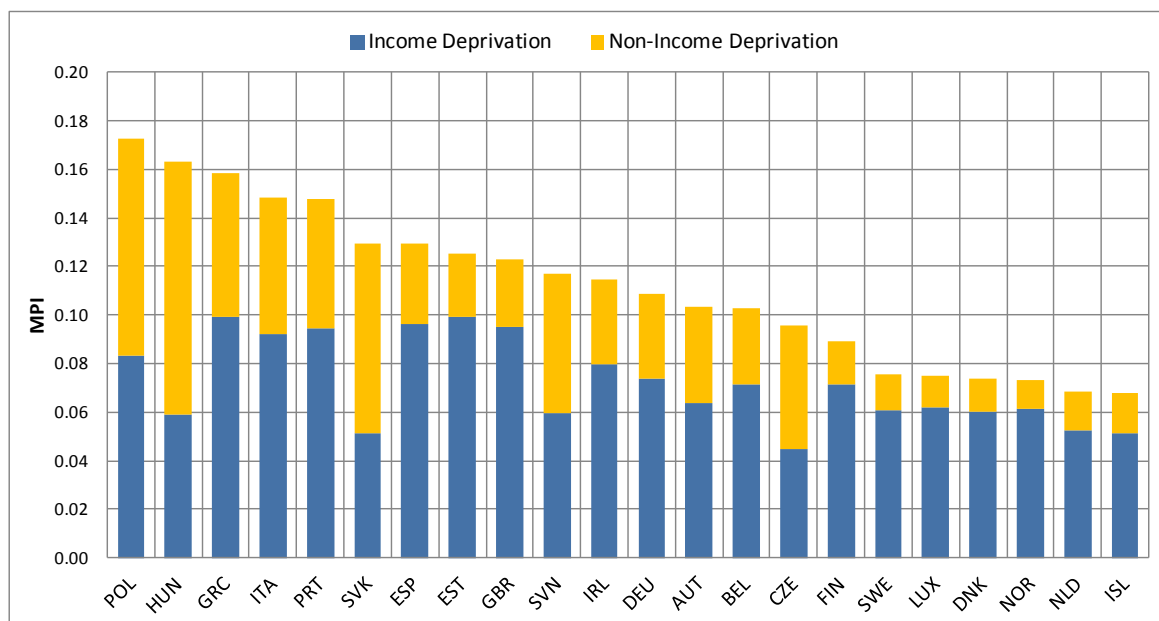
- Sen's capability framework received recently greater acceptance as a way of conceptualising well-being and poverty
- Statistical production has evolved toward surveys that can support multidimensional assessment
- There is an increasing demand from countries and international organisations for instruments that perform multidimensional assessment of poverty

On these considerations, a recent literature paid attention to the relationship among deprivations in several dimensions, to ways of communicating these, and to methodologies to validate indicators used in composite or multidimensional indices (Guio and Maquet (2006), Whelan (2007)). Drawing on the 2004 EU-SILC data, Guio and Maquet (2006) proposed a multidimensional indicator of poverty, which reflected deprivations such as poor housing, lack of durable assets, and an inability to afford to meet basic needs. The indicator was designed to be comparable across time and across the EU and most member states, and to provide meaningful trend data showing improvements in material deprivation over time. Whelan (2007) used the Irish component of the 2004 EU-SILC dataset to develop an 11-item 'consistent poverty' index; and Whelan and Maître (2008) use a range of statistical methods such as correlation and factor analysis; goodness of fit tests like root mean square error of approximation; and reliability tests to identify three dimensions of material deprivation (consumption, household facilities, and neighbourhood environment) and examine their relationship to income poverty.

30. A major development in this field has been done for the 20th anniversary year of the United Nations Development Program's Human Development Report, where a new international measure of poverty has been introduced: the Multidimensional Poverty Index (MPI). Developed by the Oxford

Poverty and Human Development Initiative (OPHI), the Index aims to measure the combination of many types of deprivation experienced by households, in addition to the lack of income. Below is an Index of Multidimensional Poverty built for European countries using the 2008 wave of the European Survey on Income and Living Conditions (EU-SILC) (see Figure 2). In particular the index considers four dimensions of material deprivation alongside income deprivation: living in a very low quality dwelling, inability to afford a decent meal, inability to afford medical examination and inability to make ends meet. On the basis of the MPI, a household will thus be identified as multidimensionally poor if and only if it is deprived in at least one of the five, equally-weighted dimensions. The MPI is given by the product of the prevalence of poverty (i.e. the share of households deprived in at least one dimension or more), and its depth (i.e. the average number of dimensions in which multidimensional poor are deprived).

Figure 2. Multidimensional poverty in selected OECD countries, 2008



Source: OECD

31. The number of people deprived in more than one area varies from a low 6% in Iceland to 17% in Poland. An interesting feature of the MPI is that it can be broken down by dimension of deprivation in order to assess the contribution of each dimension to poverty. Thus, while one can see that the new ranking of countries in term of multidimensional poverty does not differ significantly from the income-poor perspective, it is worth noting that non-income deprivations contribute substantially to overall poverty: on average one third of multidimensional poverty is explained by material deprivation other than the lack of income, and this contribution varies greatly among countries (from 16% in Norway to 64% in Hungary). Thus the MPI seems to offer a more complete picture of poverty. It can be used by policymakers to target specific aspects of poverty such as dwellings or access to health care; it can thus potentially improve the effectiveness of policies, by directly measuring well-being outcomes instead of appraising them exclusively through income.

32. Multidimensional poverty is also part of a more general and recent shift in the approach to economic development, for which broader measures and statistics beyond the material sphere are needed to assess achievements and disparities among people. While not focused on deprivations, the OECD Better Life Initiative focuses on the aspects of life that matter to people and that, together, shape their life. It comprises a regularly updated set of well-being indicators and an analysis, published in the *How's Life?* Report (OECD, 2013d), as well as an interactive web application, the *Better Life Index*⁴. It also includes a

⁴ <http://www.betterlifeindex.org/>

number of methodological and research projects to improve the information base towards a better understanding of well-being trends and their drivers. As a result, it can provide a foundational support to analyse deprivation in a multidimensional context.

Poverty in a dynamic perspective

33. IDD, the main instrument of OECD reporting on income poverty trends is based on cross-sectional data and indicators. However, while many people experience very long and/or recurrent spells of poverty during their life, others experience shorter and temporary periods of poverty, e.g. when they are students or in temporary absence from work. These differences matter for policy considerations. In the past, OECD has investigated the issue of temporary versus more permanent poverty and its characteristics for a selection of countries (OECD 1998, OECD 2001 and OECD 2008). The increasing availability of longitudinal panel data will make it possible to extend this analysis to a larger set of countries in the coming years.

Moreover, risks of low earnings and poverty can be “inherited” from one generation to another. Past OECD work has shown that inter-generational earnings mobility is lower in countries with high income inequality (OECD 2008). Current and planned OECD work goes beyond the large body of already existent work on earnings elasticities across generations and examines a broader concept of mobility, which includes education, occupation, poverty and other social dimensions.

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