

Conceptual of poverty and Measurement in France

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Introduction

The French approach in measuring poverty is entirely relativistic. The definition underlining our studies is that **poverty means having a standard of living that is below that of the majority of the population, or having a standard of living below a given threshold**, set at a certain percentage of the “normal” standard of living. For economist this can be resumed as a simple inequality measurement. In France we decline this approach on three distinct definitions: “resources poverty”, “subjective poverty” and “living conditions poverty”. The relative monetary approach plays a central role in western European society. It reflects the important role of the market. In other words a low level of monetary income is the main indicator to consider when defining poverty in terms of insufficient resources.

I. Relative income poverty

I.1 Inequality indicators and well being

In most of recent analysis, inequality measurement is done through income. The relative indicators of inequality are gaps with the central trend forgetting the trend itself. The main reason of that is that inequality indicators are built as relative indicators from income but with formulas which are invariant with multiplicative transformation of income : the normative choice implies that inequality do not change when all individual income are multiply by the same coefficient. This multiplicative neutrality assumption is in fact debatable, particularly when one move from inequality concept to poverty: many people consider like a paradox the fact that poverty can increase even the income per unit consumption of everybody increase. To illustrate that we use comparison between France and other european eastern countries which are for few time in transition to market economy. This give a good example of restrictive character of the only consideration of inequality indexes. Inequalities are less stronger in these countries than in France but standard of life are lower. To compare collective well being of two societies, we need to consider both central trends and dispersions. The inequality indicators measures above every thing else a dispersion and there is an economic theory which establish the link between well being indicators, which are based on individual utility, and inequality indicators. But before dealing with the main issue, on what making comparison, it seems necessary to define the right standard of living variable for every country. This issue needs both choices of common currency unit and relevant units per consumption.

I.2 Choice of equivalent scale

Comparing the levels of quality of life between two countries requires us to take into account the various modes of living (notably the structures of consumption) and the gaps between the values of goods which satisfy this consumption. These two aspects have a direct impact on our comparison: the structures of consumption determine the equivalent scales by each household and the relatively high cost of goods allows people to meet their needs fairly easily. We are thus led to define the measures of consumption pertinent to our study and to take account of the current price levels in the two countries.

The measures of consumption cited by the OECD are being used more and more in studies on poverty. If in the case of France, the estimations seem to be in favour of this scale (Hourriez and Olier, 1997) we can ask ourselves to what extent the structures of consumption in different countries, which are different from those in France, would require recourse to a different scale: the arguments advanced in criticism of the Oxford scale in the case of France certainly do not have the same pertinence for a study for example in Poland, where consumption is still marked by the relative importance of spending for food (33% against 12% in France)¹. In this example we can say that in Poland the expenditures increase proportionally with the family size and according to the few part of housing expenditures, which have been an evident character of “public good” inside household, these two things can suggest that Oxford scale (original OECD scale) is more appropriate to Poland than modify OECD scale. The same optimal choice had adopted in the case of comparison between France and other countries(Slovakia, Hungaria,).

Structure of monthly average expenditure per household	Poland	France
ALL	100	100
Food	33	12
Outside meal	1	4
Non alcoholic beverages	2	1
Alcoholic beverages	1	1
Tabacco	2	1
Clothes	8	4
Housing repair	17	30
Housing Equipment	6	6
Domestic Services	0	1
Animals	0	0
Health - Hygiene	6	5
Transport	8	12
Communication	2	2
Culture and leisure	5	6
Education	2	0
Others	7	15

Comparability needs homogenous concepts and procedures sometimes that can be translate into different choices of equivalent scale for each country. For countries like France, more generally for countries in the European Community, where food budget coefficient is low, the OECD modified equivalent scale seems more appropriated.

OECD modified equivalent scale:

¹ Comparison France - Poland, Bienkiuska and alii

- 1 for the reference person of the household
- 0.5 for other adults in the household
- 0.3 for every children (less than 15 years olds)

For countries where the food budget coefficient stay relatively high, the called Oxford equivalent scale seems more appropriated:

- 1 for the reference person of the household
- 0.6 for other adults in the household
- 0.3 for every children (less than 15 years olds)

The following table give some information on sensitivity of the results in Poland between the different equivalent scales.

Poland : Sensitivity of income indexes ² according to choice of equivalent scale

Scales	Gini	Theil	Kuznets	Decile 1	Median	Decile 9	Mean	D9/D1	Atkinson		
									0,25	0,5	0,75
Oxford	0.293	0.150	0.199	1948	3667	6875	4203	3.53	0.102	0.070	0.036
OECD	0.288	0.142	0.195	2468	4453	7792	5097	3.16	0.097	0.066	0.034
\sqrt{N}	0.333	0.177	0.220	1403	3078	5844	3459	4.17	0.122	0.083	0.043
Per capita	0.287	0.140	0.195	2590	4675	8548	5358	3.30	0.096	0.066	0.034

N : households' size

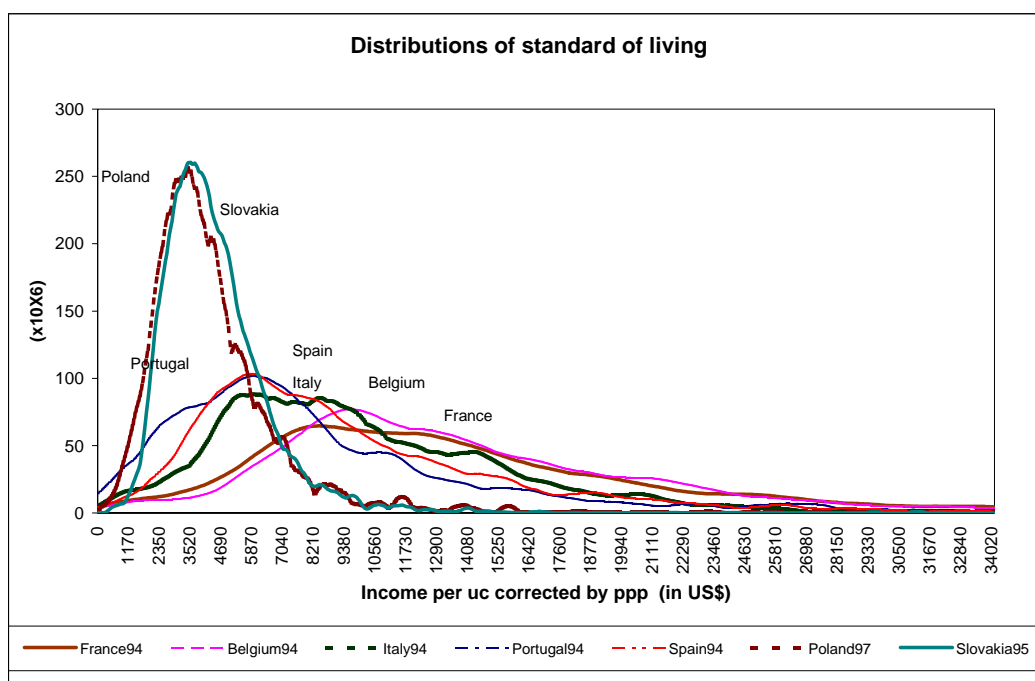
We notice that we have a little bit more inequality in Poland with Oxford equivalent scale, but the difference with OECD modified scale is not big when we refer to the global distribution indexes (Gini, Theil, Atkinson). But when we look to the relative measures like the decile ratio (D9/D1) or the poverty rate, we have a significative difference between the two scales. The monetary poverty rate calculated with a threshold equal to half a median of the income per consumption unit distribution, is 9.2% if it is calculated with the Oxford equivalent scale, it become 7.8% when we use the OECD equivalent scale. In absolute terms the difference of 1.4% of households correspond to 227076 households who change status according to the adopted choice, poor versus non poor. Two groups of scales are pointed out by the comparison between four scales, in one hand Oxford and per capita scales are very closed and in other hand OECD and square root of households' size.

I.3 Monetary Poverty threshold

To deduce comparison in terms poverty thresholds from comparison in terms of inequality, we must define levels of thresholds which isolate the same proportion of poor households in each country.

The monetary poverty threshold commonly measured in France corresponds to 50% or 60% (Eurostat option) of the median of one's income per units of consumption. Using this definition to compare countries our results depend on inequality levels different between these countries (see figures A,B and C on distributions).

²Income per unit consumption corrected PPP (US\$).



Thus countries with less inequality would have the lowest monetary poverty, that can give unexpected situations. For example the poverty rate in France is 11.7% with a threshold of a half a median of income distribution and using the same definition in Slovakia we get 4.3%. This lowest poverty rate in Slovakia than in France make a important problem linked to the relative kind of this indicator. The main issue is can we accept the fact that there is more poor in France than in Slovakia. One thing is sure: doing comparison of monetary poverty in any case amount to compare the lowest parts of distribution of standard of living. That why it seems more reasonable to compare similar proportions of poor households between the different countries.

In the same way, we adapt the threshold used for Slovakia in such a way as to isolate a comparable proportion of households as in France (on the order of 10%) situation at the lowest point on the scale of standard of living: this gives us to consider monetarily poor any Slovakian household whose standard of living is less than 60% of the median in standard of living

This retained part of the median change with countries, that is why it is necessary for each country to calculate several monetary poverty rate with following proportions of the median : 40%, 50%, 60%, 70%. The evolution of the number of poor households according to these different thresholds is one way to take into account the more or less concentration of income distribution in the considered country.

It happens that in many comparative analysis (France-Slovakia, France-Poland,), the poverty thresholds which allow to isolate the same proportion of poor households in different countries are close to the respective social minimum benefits of these countries.

I.4 Limits

The main limitation on the monetary poverty come from data used. One major problem is that in our household surveys a part of the population is excluded. For example homelessness is not covered in most of our survey. The total excluded population (homeless living on the street, in hospices, asylums, prisons...) is estimated around 100,000 people. Another limit is inside the definition of income. There is a great debate in broadening resources for example the treatment of home production. The home production include “home” activity and “production” activity and covers all the goods and services produced or made by households outside of their paid work in order to meet their own needs. The main problem on that is the

measure of time spent on home production (home production does not involve regular activities; surveys generally observe just a single day for each individual that's why we have to reconstitute a standard year's activities through imputation). In general the broader notion of resources include many items:

- imputed rent or other value derived from the use of assets
- home production
- social capital, health capital
- services provided by the community
- value of time save through the acquisition of resources
- hardship in earning income, ect.

The broader notion raises technical problems for example how to deal with the problem of individual consumption of public goods (education, health, etc.). This is particularly important when making international comparisons between countries with different policies on "free provision".

II. Poverty on living condition and subjective poverty: construction of poverty thresholds

These approaches are commonly used in France. They are recommended as one of the foundations for a statistical poverty observation system. It is used instead of a genuine consumption based approach. The main advantage of these measures is that they can be adapted to the case of countries with low per capita GDP. In defining levels of poverty, we must maintain a balance between two major requirements: on the one hand, by taking into account of differences between sociological realities and the norms in place in different countries, and on other hand, by maintaining a high degree of comparability between countries.

II.1 Selection of the indicators of living condition

The choice of items to build comparable poverty indicator in terms of living condition depend in one hand on common available data in surveys and in second hand on definition of common social minimum benefit (for discussion see Lollivier and Verger 1997, Three poverty approaches : Living conditions, subjective and monetary). For this choice we need axomatic rules. The most important axioms so called Dicks axioms are :

- Frequency : items are used for scoring if they are present on most of the population
- Consensus : items are used if they are considered by the population to be part of a normal standard of living.
- General concern : items that concern only specific households (working households, households with children...) cannot be used

The general concern axiom is debatable and discussed because it must happened that one item is not considered essential only according to geographical place et not according to cultural habit, for one part of studied population. To illustrate this purpose, we can take heating appliance for example, it seems clear that to be equipped or no in the North and the South of Europe do not have the same acuity, even in The North and the South of France.

When making international comparison, the choice of elements to be taken into account must respond to the following principle : it was assured for each country that the controls by frequency and by consensus were respected, either directly in light of the statistical results (control by frequency,) or according to the experts of the respective countries: in this way a certain number of elements of living conditions relating to the general comfort of a lodging (separate kitchen, central heating...) or to material consumption (vacations, hobbies) may not been used for the construction of the score for one country (e.g. comparison between France and Slovakia Fall and al., 1997). In the same way, the non-possession of certain durable

goods can be considered or not as a sign of poor living conditions (stove, refrigerator, washing machine...) according to the level of development of the country. In France we use these following items for living conditions

Material deprivation Consumption: unable to afford

	% of households
...clothes and show	5
...heating	4
...meat, chicken or fish every other day	6
...a one-week holiday away from home once a year	26
...replacements for worn furniture	25
...having friends or family in for a drink or a meal	5

Poor housing Overall comfort of home: lack of

	% of Households
Separate kitchen	11
Indoor toilet	2
Bathtub or shower	2
Hot running water	2
Central heating	22
Electric heaters	75
Garden or tenace	36

% of Households

Housing hardships:

Home too small	12
Home too damp	15
Home too dark	9
Inadequate heating	8
Leaking roof	5
Windows and floors in bad repair	8
Noisy neighbours	9
Noisy sunoundings	19
Pollution	17
Vandalism	20

Material deprivation Durables: lack of

	% of households
Dishwashing machine	10
Car	17
Telephone	3
Videocassette recorder	27
Colour television	4

Source: European Panel, 2001, INSEE.

We construct a score with items where diffusion of the good exceeds 50%. All items can be weighted or not (using the diffusion rate ...).

II.2 Subjective Poverty-Line

The items allowing us to define the indicator of subjective poverty in France are based on the opinion of households on their own financial situation. We use the same method to define this indicator as for living condition.

Households' financial hardships	
	% of households
Income	
Hard or very hard to live on current income	14
Current situation: falling into debt (or living on capital)	11
Income less than or equal to minimum necessary income	36
Falling behind on payments	
Rent, housing service, utilities, heat	7
Other expenses (including taxes)	9

Source: European Panel, 2001, INSEE.

Another application of this approach was done for Slovakia (Fall et alii, 1997). The items have been taken from the following questions:

- Do you think that your situation has been worsening for the past two years?
- Does your monthly income allow you to live only with difficulty or with great difficulty?
- Does your present financial situation oblige you to go into debt?
- Is the income that you spend equal to or lower than the minimum income necessary to make ends meet in your household?
- Does it sometimes happen that you have to make late payments on your rent or for the services relating to your lodgings?
- Does it sometimes happen that you have to make late payments on your bills for electricity, gas, hot water, etc.?

Each time that a household responds affirmatively, we increase the value of its score by one. The scores obtained in this way allow us to determine a subjective poverty level: as with an indicator of living conditions, we have looked to isolate a percentage of underprivileged households comparable to that measured in France. Thus we consider poor any household in which the score is (strictly) higher than three. For France, the poverty level was fixed at two out of six. This rate gap between Slovakian and French households reflects a poverty level that is actually much higher in Slovakia. Yet, the Slovakian households have not in all likelihood interpreted this question as restrictively as have French households. Either the minimum income to live on has been interpreted as the minimum income for living without problems, or even as the income that they would wish to have; or, the households questioned have implicitly raised the value of their domestic production by integrating it into the minimum income which then becomes higher than the monetary income measured in the survey.

The analysis of responses compared between the two countries is interesting. When one asks households if their income allows them to live with difficulty or with much difficulty, one obtains percentages of households in difficulty that are quite close (19% and 25%); this is consistent with other information about respective standards of living in the two countries. Yet it is also possible that the Slovakian households have particular difficulties in managing their budget during times of economic change: the diversity of products as well the brands and the prices offered are new; this can generate new demands and even surprise a consumer who is not used to shopping for the least expensive items (by finding the least expensive stores, by taking advantage of sales...). On the other hand, the results are different when we are looking

at the responses to the question about minimum income: in France, 35% of households claim to have an income inferior to that which they estimate to be necessary to live on; in Slovakia this rate reaches 71%!

As the Slovakian survey is the first of its kind in this country, no calibration of this question has been made, even though the international results prove the high sensitivity of answers to the formulation of the question and to the context of the survey. The solution adopted here serves to register the answer as an indication of unsatisfiedness while toning down its relative importance by fixing the subjective poverty line at a level higher than that of France: it is necessary that at least two other indications of difficulties be used to corroborate this one if we want to it to be more decisive.

The Slovakian score differs even more from the French score in two ways: the question of late payments of taxes and bills not related to one's lodgings, which does not seem to have sense in Slovakia, has not been used; it has been replaced by an item relative to recent changes in their financial situation, which are judged particularly informative in a country undergoing disturbances related to the transition. That's why we decrease for France the score defining the poverty threshold, otherwise we get a high poverty rate too far from results elsewhere founded with more items (see Hourriez-Legrès (1997), Lollivier-Verger (1997)....).

II.3 Construction of Poverty Thresholds

To isolate households in the most difficult living conditions, one creates score of bad standard of living³ from different kept standard of living items. The comparability effort is resumed by a common axiom, which bring us to make effective choice of indicators marginally different –one item must not be taking into account in one of countries because in such country his diffusion is restricted in a minority and at the same time it is more common in a other country or it is missing in data for one country.

To compare different countries, even to establish poverty threshold, statistical discretionary incline us for isolating the same part of households living the worse living conditions that mean households which cumulate the maximum of disadvantage. This approach is also valuable for defining subjective poverty.

II.4 Plurality of different types of poverty

After isolating three household groups with relatively lowest income, the worst living condition and the strongest difficulties of existence, even when these groups had been defined very closely according to their size –10% of all the households for each group-, they present a small intersection in France, and also in Poland and Slovakia. In these three countries, 25% of households belong at one of the three forms of poverty. Menus one household over fifty are poor if we take into account of three forms of poverty in France and in Slovakia, this ratio is one over one hundred for Poland. 6% of French and Slovakian household and 5% of Polish household are concerned by two forms of poverty. And in these three countries 17% of their households present a single form of poverty.

Distribution of households in the three forms of poverty (%)

	France	Poland	Slovakia
No symptom	74.8	77.2	72.7
Two and only two symptoms	6.3	4.6	6.2
Three symptoms	1.8	1.1	1.9

Sources: European panel, 1994 (Insee)
Living condition survey, 1997 (Gus)

³ A more complete presentation of these theoretical axioms and historical analysis about poverty in living condition are in Lollivier and Verger (1997) .

Social Situation of Households survey, 1995 (Statistical Office of the Slovakian Republic).

The small values of the following Pearson correlation coefficients prove the few relationship between the three forms of poverty.

Pearson correlation coefficients between the three forms of poverty

	France	Poland	Slovakia
Living condition-monetary poverty	0.27	0.16	0.27
Living condition - existence	0.25	0.14	0.25
Monetary poverty - existence	0.22	0.24	0.22

Sources: European panel, 1994 (Insee)

Living condition survey, 1997 (Gus)

Social Situation of Households survey, 1995 (Statistical Office of the Slovakian Republic).

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