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VARIOUS APPROACHES TO MEASURING POVERTY IN POLAND

The paper presents various approaches to defining economic poverty in Poland. The objective approaches found their base on the normative settlements concerning human needs or statistical data referring to the material status of individuals. In the subjective approaches the level of the phenomenon is determined on the basis of a survey research where questions concerning respondents' situation or their opinions on poverty are formed. The author made an attempt to compare both approaches and then select the main criteria having the most crucial influence on the formation of the phenomenon of poverty in Poland.

INTRODUCTION

There is a common conviction that good payment for good work is necessary for the development of economy and future prosperity.

The welfare research, more and more frequently, goes beyond traditional analysis. Currently, more and more attention is concentrated upon the quality of life (well being). The definition of well being (Paś et al 1976), i.e. the content of an individual with satisfying his/her needs in a long-term time period, came into being in the 1960's in the United States of America in connection with the efforts of economists, sociologists and politicians to oppose the commonly existent one-dimensional category of economic growth.

The common, synthetic measure determining the growth of welfare i.e. Gross Domestic Product per capita, frequently turns out to be an insufficient or inaccurate criterion. A rise in consumption value does not always mean the automatic rise of the standard of living. Rapid and unequal economic growth is questionable whether it is a fully positive phenomenon. It does not take social costs into consideration: unemployment or social alienation leading to economic poverty. These phenomena weaken the positive impact of economic growth and constitute the reason for pauperization and social stratification.

To carry out the research for the purpose of limiting the areas of poverty has crucial significance not only due to high economic costs together with the activity of the Social Welfare Organization but also it has an impact on elimination the barriers of development that these areas constitute.

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The aim of the article is to identify the population living below the social minimum and identify the factors having an influence on being poor.

Taking into consideration the purpose of this article, the data analysis of the amount of household income will seem to be of key importance as well as the subjective evaluation of particular farms' welfare in Poland. In this elaboration a trial has been made to nominate sample sets of such factors.

1. THE ESSENCE OF ECONOMIC POVERTY

In recent literature on the subject (Sen 2000, p. 133), poverty is defined in three basic categories:

- a) identical with low income (low level of equipment with goods or resources),
- b) identical with low utility,
- c) defined as an inability to reach some minimal, acceptable level of basic needs.

The classic definition of poverty as a lack of proper economic means to satisfy the needs is connected with the research of the World Bank (I. Topińska 1997, in: *Polska Bieda II*, p. 78). It establishes the minimum income, (or expenditure level) defining the economic situation of a household, necessary to satisfy basic needs.

In a multi-dimensional approach, non-pecuniary rates are also mentioned, such as: equipment of the household in durable goods, forms of entertainment, health assessment. Such an approach is represented by European Union criteria, according to which poverty is the limiting of material, cultural and social resources to such an extent that the level of existence of people, families or groups of people lowers below the acceptable minimum in the country they live in.

Depending on the accepted definition of the phenomenon, we can differentiate four main concepts of stating the border between people considered to be poor, and those who are not poor. We can then talk about:

- absolute poverty,
- relative poverty,
- subjective poverty,
- mixed approach, which accepts elements of the solutions used in all the above categories.

These borderlines are called poverty lines and can be stated both objectively and subjectively.

Objective measurements are based on normative decisions concerning human needs or on statistical data about the material status of individuals. Among the most frequently used methods of drawing poverty lines are:

- a. the basic needs method, which means a normative stating of the basic consumption elements and their money value – absolute poverty,
- b. the method of the proportion of food expenditure, based on the dependence of the proportion of expenses on food in the income: the poverty line is stated by a defined level of expenses on food – relative poverty,
- c. method of characteristics of income distribution, which as the poverty line takes a stated medium percentage or income median, or a definite quantile of income distribution – relative poverty.

The absolute poverty lines are drawn by the subsistence minimum and the social minimum.

The subsistence minimum is such a level of consumption (expenditure) that assures keeping a person alive, healthy and able to work (Deniszczuk et al. 1997). In Poland, the basket of goods that defines it, includes only these needs that cannot be postponed in time (Deniszczuk et al. 1997), so the basket contains only the goods of immediate consumption:

- food,
- rent and use of a flat (of minimum area meeting the sanitary requirements),
- medicine and personal hygiene goods,
- small repairs of clothes and footwear, and necessary replenishment of underwear and footwear,
- books and school articles connected with fulfilling the education requirement (only for families with children aged 7 – 17).

The social minimum serves to diagnose the changing poverty sphere and the distance of various poverty states from the needs assumed to be socially indispensable.

The social minimum is such a level of low wages which allows families of a certain type to meet their biological, cultural and social needs, so they can take normal part in the life of a society (to integrate with it) and do not live in poverty.

This minimum includes expenditures on:

- food and accommodation (60%),
- education,
- health,
- culture,
- active rest,
- transportation and communication.

According to Desay, cited by S. M. Kot (2000), establishing the poverty level should take into account the economic rights of an individual citizen. They result from the fact of being a member of a given community, and enable, among others, to: bring up children, take care of the house and old people, help the handicapped, be a blood donor, collect money for charities, vote or take part in electoral campaigns.

If we compared the subsistence minimum and the social minimum lines, we would note that the subsistence minimum draws the bottom poverty borderline, below which human existence is endangered. The social minimum line draws the upper poverty borderline, below which deprivation of social needs of an individual takes place, and one feels endangered by poverty.

The following chart presents the relation between the subsistence minimum, counted for one-person households of people up to the age of 60, and the social minimum and other categories of income in Poland in 1999.

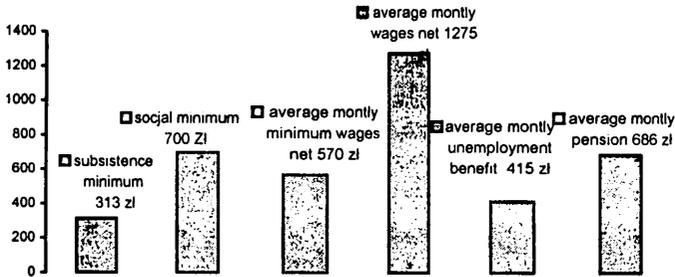


Figure 1. The level and relations of the subsistence minimum of one-person household of people up to the age of 60 in Poland in 1999.

Source: Own analysis based on: *Living conditions of the population in 1998, 1999*, GUS Warsaw

The above relation of the subsistence minimum and some income categories to the social minimum indicates the low level of income of unemployed people if one considers meeting basic needs.

The World Bank's report on poverty in Poland paid attention to the relative approach, which is developed mainly in comparative studies. The relative poverty lines define relative poverty as the real value of such line changes which follow the changing average level of living in a given country. In other words, the basket of goods and services that is behind the relative line, changes according to the changes in the categories of average income or expenditure.

Such an approach has also been used in Poland as the criterion entitling to social help (at present 39% of the average wages) (Golinowska 1997). The 29 November 1990 Act on social security, with later amendments (Dz. U.

1998.64.414), art. 3, defines the amount of guaranteed income entitling one to receive social benefits (at present, June 2000 – March or June 2001, this income is 401 PLN) and states the reasons for helping individuals and families:

- 1) poverty,
- 2) orphanhood,
- 3) homelessness,
- 4) maternity protection,
- 5) unemployment,
- 6) disability,
- 7) durable illness,
- 8) helplessness in taking care of or bringing up children and managing a household, especially in single-parent or large-sized families,
- 9) alcoholism and drug addiction,
- 10) natural or ecological calamities.

The above act, however, does not give a definition of poverty. Therefore it is difficult to identify poor people and aid them. A free interpretation of poverty also makes it difficult to collect uniform statistical data.

EUROSTAT – the European Statistical Office – accepts 3 relative lines – 40%, 50%, 60% of average expenditure per person (equivalent person using the OECD equivalent scales). That is why in countries with a high standard of living the relative lines express inequality rather than poverty.

The objective poverty borderlines are represented in the research of household budgets and provide us first of all with information concerning the situation of the living conditions of households. They, however, say nothing about personal satisfaction in the society and the level of fulfilling basic needs.

This aim of measuring various fields of social activity has been described in literature as measurement taking into account social effect (output measurement), and not the means used (input measurement) (Paś et al. 1976).

2. SUBJECTIVE POVERTY LINES

In spite of their subjective character, the poverty lines drawn by social opinion are said to be the most democratic method of defining poverty. The level of this phenomenon is delimited on the basis of questionnaires, which contain questions on the level of income, considered by the respondents to be sufficient to satisfy the basic needs. They can concern the respondents' own situation or their opinion about poverty in Poland.

The Leyda method (Kot 2000, p. 38), based on public opinion polls, is the most often used one. Its creation and development are concerned with the work

of T. Geodhart (Central Statistics Office in the Hague), V. Halberstadt, A. Kapteyn, B. Van Praaga (Leyden University in the Netherlands).

J. Bentham, the creator of the utilitarian theory, assumed that the aim of a household is to obtain maximum satisfaction, pleasure and other subjective feelings possible to realize in certain conditions due to the consumption of different goods and services. He called the subjective feelings of a consumer, resulting from consuming a given good or a basket of goods, utility. According to this theory, a consumer acts rationally when he makes his choices in such a way that he is guided by the idea of maximizing a certain utility function.

With the use of the utility function it is possible to order the goods baskets by assigning numbers to each consumption basket, in such a way that the most preferred baskets are assigned higher numbers than the less preferred ones. A basket of two goods (x_1, x_2) is preferred to the (y_1, y_2) basket then and only then, when the utility of (x_1, x_2) goods is bigger than the (y_1, y_2) goods. So $(x_1, x_2) > (y_1, y_2)$ (the (x_1, x_2) basket is more preferred than the (y_1, y_2) basket then and only then, when $u(x_1, x_2) > u(y_1, y_2)$) (Varian 1997).

The graphic picture of the family of utility functions (utility hill) is presented in Figure 1.

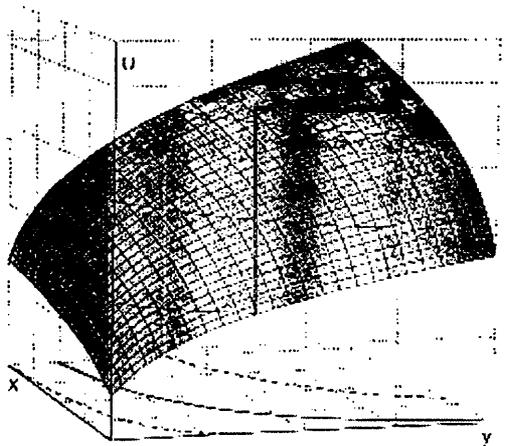


Figure 1. Utility hill

Source: Kot M. S., 2000, p. 16

The above figure presents the utility peak for two goods x and y and the value of the utility function U . According to the assumptions of three researchers: Gossen, Jevons and Edgeworth, the utility function forms the third

dimension in space $(R^+)^{n+1}$ (Kot, 1995, p. 30). In this framework utility U is a surface in $(n+1)$ -dimensional space, and the n -dimensional space of goods $(R^+)^n$ represents “arguments” of function U . If we create I-sections of this surface for given I-dependent variables of the $U = u_i = const$, then the resulting projections of these sections onto subsurface of goods form indifference curves. The points of a given indifference curve represent such combinations (baskets) of two goods that ensure the consumer the same level of satisfaction (represent the same utility).

The points on the indifference curve that are placed higher represent higher utility and as such are more preferred than the lower ones. It is also assumed that the curves are convex towards the beginning of the co-ordinate system.

The modern theory of consumers' behaviour has begun to express utility in preference categories, and the utility concept is used only to describe preferences (Kot 2000).

Consumers' preferences can be described using two models:

- a) the revealed preferences model by P. A. Samuelson,
- b) Simon's model of a satisfied person.

The revealed preferences model of P. A. Samuelson assumes that a consumer is able to schedule his or her preferences within the obtained information about the possibilities of completing different baskets.

A consumer chooses rationally this basket which includes a larger number of goods; it is not certain, however, if he chooses the optimum basket (the one that gives the consumer maximum satisfaction).

P. A. Samuelson questions the assumption that a consumer knows all his possible shopping baskets and is able to create his own map of indifference curves. Doing shopping he is not aware of his preferences, which he reveals taking into account his budget limits.

Samuelson assumes the hypothesis that at some period of time, when market conditions are stable, consumers' preferences are also stable, so they can be empirically measured, revealed, and it is possible to draw conclusions about demand.

In Samuelson's conception a vital role is played by the consumer's budget limit (budget limitation says that a consumer can only choose such a basket that he can buy with his income at given prices).

An interesting dynamic model of consumer's behavior is Simon's model of a satisfied person.

Conforming to this model people act according to the rule of satisfying the minimum. The consumer's decisions do not make a single act but a process of subsequently running phases. One can distinguish the following stages of decision-making.

Firstly, the space of all alternative objectives concerning a given problem should be defined. Then, this space should be reduced to a set containing alternatives considered at that time to be probably accessible, taking into account the initially acknowledged limitation set of resources, budget and information. At the end of the process, a sub-set of feasible objectives should be formed deriving from both a sub-set of accessible objectives and the set of satisfactory objectives. This sub-set will contain objectives that have been selected because of the limitations noticed, and also due to the interests, motives and expectations of the people who make these choices.

So the final choice is made after taking into consideration two factors: possibilities and aspirations. The level of aspirations is confronted with the perceived limitations and adjusted to them.

A state of balance is achieved when all the intentions and predictions of the market agents are fulfilled in such a way that none of them is inclined to reconsider them. So the participants of the market no longer aim at changes if the existing state satisfies them.

In this understanding, Simon's idea is connected with Sen's assumptions about considering poverty in the categories of the ability to function. The author proves that the analysis of poverty which is limited solely to the level of income, may not be sufficient to reveal the important causes of poverty.

It can also make it impossible to obtain proper empirical data concerning the origins and the range of distress. (The empirical research concerning the conditions of life performed in Scandinavian countries and the USA prove the importance of the influence of external income variables.)

According to the author, the sufficiency of income should be assessed through abilities. The poverty phenomenon cannot be identified solely with low income, ignoring the differences in individual dependencies among income and abilities.

Sen also draws attention to the fact that an insufficient income does not mean an income lower than the minimum level stated in advance. It is such an income that is lower than necessary to generate a certain level of abilities.

3. CHARACTERISTICS OF PEOPLE ENDANGERED BY POVERTY IN POLAND

In Poland there are still not enough studies devoted to poverty, while even now a relatively large part of society is in the situation adequate to the meaning of this term. In 1999, some 64% of "poor" society were unemployed persons.

Therefore, lonely people and the ones remaining without work should be considered as a kind of subculture of poverty (Malikowski et al. 1996) formed

in the situation of lack of work by limiting to the minimum the needs and aspirations.

Poor people are usually those in the most difficult socio-economic situation, that is, they have the lowest monthly income per capita in the family, primary education only, and – in the case of working ones – a low professional position (farmers and unskilled workers).

Table 1
The percentage of people in households endangered by poverty according to the level of education of the head of family in 1998

Level of education of the head	The percentage of people in households below		
	social minimum	subsistence minimum	relative poverty line
Total	49.8	5.6	15.8
higher	15.1	0.3	1.6
secondary	36.4	1.9	7.0
technical/vocational training	60.7	6.9	19.8
primary or no education	62.7	10.2	26.0

Source: Living conditions of the population in 1998, 1999, GUS Warsaw.

The latest research findings of the Central Statistical Office show that the low level of education, and the resulting low qualifications, is a very important factor of falling into the poverty sphere. Table 1 shows the immediate dependence between the obtained level of education and the percentage of people living below the poverty threshold. The households in which the head of the family does not have any education, or finished it at primary level, constitute over 62% of the total number of poor people. About 90% of people living below the subsistence minimum are members of households whose head did not finish secondary education.

The percentage of people in the poverty sphere is getting smaller with the growing level of education of the head of household. Possessing higher education is a safeguard from falling into the margins of society.

Usually, however, poor people come from the professionally passive circles – these are people hit by unemployment or poor health (pensioners) and people without their own income (housewives and people of similar status).

The last group of the people surveyed identifies themselves with the poor more often than the others. It does not, however, describe the level of living in those families in such a dramatic way.

The situation is different in the case of large families of four or more people, in which every fifth person admits that his or her family lives very

poorly, yet not many of them identify with the poor. Large families are the group most endangered by poverty. In 1998 among married couples with at least four children to keep, about 84% were living below the social minimum, and 20% (that is every fifth person) were living below the subsistence minimum.

Another factor differentiating the level of living is the area in which people live. The results of analyses of poverty performed showed a big diversification between cities and villages, and also among regions.

Table 2
Percentage of people in the households endangered by poverty
according to the class of locality in % in 1998

Class of locality	Percentage of people in the households below		
	Social minimum	Subsistence minimum	Relative poverty line
Total	49.8	5.6	15.8
Urban areas	41.3	3.4	10.0
Cities by number of inhabitants			
500 tsd. and more	24.7	1.0	3.9
200-500 tsd.	38.1	2.3	7.9
100-200 tsd.	39.4	2.8	8.8
20-100 tsd.	46.4	3.9	11.3
20 tsd. and less	52.8	5.9	16.4
Rural areas	63.2	9.1	24.9

Source: Living conditions of the population in 1998, 1999, GUS Warsaw.

The data included in the table show that the group most endangered by poverty are the inhabitants of villages and small towns. The rate of relative poverty in the rural regions is 25%, while in the cities it is two and a half times lower – only 10%. The number of people living below subsistence minimum in cities was about 3%, and in villages over 9%. The highest percentage of the poor in villages was among households with no farm of their own, making their living from non-wage-earning sources other than retirement or pension money (GUS 1999).

CONCLUSIONS

Poverty in Poland is closely connected with unemployment, living in a village or a small city, the type of family and a low level of education. According to the results of research of the World Bank and the Central

Statistical Office, poverty more often concerns the inhabitants of villages. It is a multi-dimensional phenomenon, and the assessment of its scale depends on the established criteria.

An unpleasant phenomenon of establishing poverty, or even its inheritance, has been observed. In consequence, this leads to the degradation of family in both material and social terms.

Village people are especially exposed to a consolidation of poverty, as they have worse access to the technical and social infrastructure, they have worse education, and the dominating type of household are large households (among farmers –5 people).

Action against unemployment aimed at limiting the poverty phenomenon should be the basic task of government, and first of all of local authorities.

It is also necessary to integrate the efforts of all the social partners through:

- creating conditions for the development of the potential giving chances in the labour market, that is the proper level and structure of education,
- creating new workplaces for the unemployed, especially the long-term ones,
- creating conditions for the development of small and medium-sized enterprises,
- preparing regional programs combating unemployment and poverty,
- co-operating and exchanging information among all the subjects of social policy in fighting the results of unemployment,
- improving the institutional services on the labour market,
- continuous learning (training, courses), addressed to the regional labour market,
- fighting the negative stereotype of an unemployed person in society.

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