Measurements of Poverty and Data sources

Preface

Within the framework of research activities being carried out in Israel on the issue of poverty and income distribution, a relative approach to measuring poverty was formulated in the early 1970's, which is accepted by most researchers and social policy makers in the Western world. According to this relative approach, poverty is a phenomenon that stems from relative hardship and which must be evaluated in connection with the standard of living which characterize the society: a family is not considered poor when it is unable to purchase a basic basket of products required for its subsistence, but rather when its living conditions are significantly inferior to the living conditions characterizing the society as a whole. The relative approach even acknowledges that need is not only expressed merely by low income, but it can also be expressed by the level of property ownership, housing conditions, education and the public services available to those in need. However, since there is no agreed-upon index that reflects all aspects of hardship, and since the NII possesses only data available on the current economic income of households in Israel (based upon CBS income surveys), the measurement of poverty is limited to the aspect of economic income. The relative approach offers some practical methods for measuring poverty based upon the level of economic income, whose common denominator is comparing the income level of the rest of the families at the lowest level of the income scale with that of all other families in the economy. The determination of the "poverty line" as some percentage of the "representative income" of the society's standard of living is at the source of every method. A family whose income is below the poverty line is considered a poor family without this necessarily implying that its members are hungry, undernourished, wearing threadbare clothing or living in dilapidated housing. A poor family, therefore, is simply a family whose income is significantly lower than the representative income.

Method for Measuring Poverty in Israel

In Israel, the method for measuring poverty is based upon three principles:

The first principle is viewing the family's disposable income as income that is relevant for examining the phenomenon of poverty. Disposable income is defined as the family's economic income (from work or ownership of physical means of production or financial assets) in addition to transfer payments (payments whose source is not the result of economic actions, such as national insurance benefits, support from institutions and

individuals in Israel and abroad) from which direct taxes are deducted at source (income tax, national insurance and health insurance contributions).

The second principle is viewing the median disposable income of the population as society's representative income.[1] The median income is defined as an income level where 50% of the families have an income that is either equal or below this and where the income of the other 50% of the population is above it. The poverty line is defined as an income level that is equivalent to 50% of the median disposable income. Therefore, a family whose disposable income is lower than half of the median disposable income is considered to be a poor family. One of the outcomes of economic growth which brings about an increase in the level of the median disposable income is a rise in the poverty line. A family which is not poor but whose disposable income is growing at a slower rate than that of the poverty line is likely to become a poor family.

The third principle upon which the measurement of poverty in Israel is based is adjusting the poverty line to the size of the family. It is assumed that the size of the family has advantages in terms of consumption: when a family increases by one member its consumption needs do not increase at a similar rate but rather at a lower rate, so that the additional income required by a family in order to maintain a balanced standard of living drops in relation to the increase in the number of family members. In order to make it possible to compare the living standards of various families according to their size, it was necessary to develop an "equivalence scale", making it possible to measure the requirements of these families compared to the requirements of a family of a given basic size. Specifically, the equivalence scale translates the number of persons in a family to the "standard" number of persons (or "standard" adults) it contains. The basis of the scale is a family with two persons, which is assigned a value of two standard persons. That is, the requirements of a one-person family are assigned a value of 1.25 standard persons. That is, the requirements of a one-person family are not assessed as being equal to half of those of a two-member family but rather to more than half. Similarly, the requirements of a four-member family (assigned a value of 3.2 standard persons) are not double those of a two-member family (assigned a value of two standard persons), but rather less than double (only 1.6 times larger).

Based upon those principles, the poverty line per standard person in Israel was defined as a level equivalent to 50% of the median disposable income per standard person. A family in Israel is considered part of the poor population when its disposable income, divided by the number of standard persons it contains, is lower than the poverty line per standard person. The poverty line for a family can be calculated in a similar manner – by

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[1]   Median income is preferred over the average income as representing typical standard of living, since the average income is affected by extreme values in income distribution (that is, by very high or very low incomes).

multiplying the poverty line per standard person by the number of standard persons in a family.

As in many Western countries, an analysis of the dimensions of poverty in Israel is based mainly upon the two aggregate poverty indices that are the most accepted in empirical studies – the incidence of poverty and the depth and severity of poverty (reflected in the index of the income gap of the poor and the FGT index). The incidence of poverty index indicates the extent of poverty in terms of rate of poor family from among the whole population. The index of the income gap of the poor reflects the depth of poverty: the poverty gap of any poor family is defined as the difference between the poverty line (adjusted to family size) and its actual income, while the poverty gap in the population as a whole is defined as the sum of the poverty gaps of all of the poor families. It is possible to standardize the poverty gap index and to define it as the ratio between the average income gap for a poor family and the poverty line (hereinafter: "the income gap ratio of the poor"). The FTG Index (also called the Foster Index), developed by Foster, Greer and Thorbecke in 1989, became the most accepted index for expressing the depth and severity of poverty. Contrary to the income gap index of the poor, it gives increased weight to those whose income is the farthest from the poverty line.[2] Another aggregate index that is used is the SEN Index, which combines the above two indices with the element of inequality in the distribution of income among the poor.

The Data Sources

The data on income that are used as a basis for calculating the dimensions of poverty and the distribution of income in Israel are the annual income surveys carried out by the Central Bureau of Statistics (hereinafter: the CBS). Until 1997 (inclusive) the population surveys only included households headed by either a salaried or unemployed individual in urban communities with at least 2,000 residents, excluding East Jerusalem.[3] In 1998, the CBS decided to carry out an integrated income survey, based upon the data from the current income survey and the data from the family expenditure survey. The integrated income survey has been published since 1997, when the CBS began preparing a current family expenditure survey in addition to the current income survey. The integrated survey is based upon a larger sampling (1.8 times larger than the previous sampling) and encompasses 95% of all households in most types of communities in Israel. In addition

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[2] The FTG index can receive values of between 0 (if the incomes of the poor are linked to the poverty line) and the incidence of poverty (if the income of the poor is zero). The index is calculated according to the following formula: $1/n*\Sigma((z_i-y_i)/z_i)2$, where z_i is poverty-line income and y_i is the family's income.

[3] Up until 1994 (inclusive), non-Jewish communities with at least 10,000 residents were included in the income surveys (with the exception of East Jerusalem). As of 1995, the income survey was expanded to also include non-Jewish communities having between 2,000 and 10,000 residents.

to the salaried and unemployed individuals residing in urban communities, the integrated survey includes the self-employed, and residents of moshavim as well as rural communities and small communities, and in principle, residents of East Jerusalem as well. The population that has yet to be included in the survey consists mainly of that in the kibbutzim and Bedouins who do not live in permanent communities. The residents of East Jerusalem were included in the integrated survey in 1997-1999,[4] but not in 2000, due to the security situation, which made it difficult to conduct a survey. In order to present comparisons between 1997 and 2000, the poverty and inequality data for 1997-1999 were re-issued, omitting residents of East Jerusalem.[5] A household (defined as a group of individuals who reside together most of the week and who have a common household budget) serves as the basic study unit in income and expenditure surveys.[6] For convenience sake, it is customary to use the term "family" instead of "household", even if the terms do not have the same connotations.

When using the historical data presented in the Poverty and Inequality Tables Appendix, it is important to take into consideration the following major milestones in the CBS's income surveys, and the NII's calculations of the poverty line and dimensions of poverty and inequality over the years:

1. In the poverty calculations published by the NII up to 1985 on the basis of income surveys, the poverty line was defined as income level that is equal to 40% of the gross median income (after making transfer payments but before deducting direct taxes). Since 1988, the definition has been revised to 50% of the median disposable income.

2. Income surveys carried out since 1985 differ from the methods of research and methodologies implemented in previous income surveys from the aspect of the duration of the research period.

3. Until 1997 (inclusive), the population surveyed in the CBS income surveys contained only households headed by a salaried or unemployed individual (that is, it did not include households headed by a self-employed individuals, which is the situation in 10% of the families) in urban communities with at least 2,000 residents, excluding East Jerusalem.

4. Up to 1994 (inclusive) communities of non-Jews with at least 10,000 residents (excluding East Jerusalem) were included in the income surveys. As of 1995, the

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[4] The sampling of the integrated income surveys included residents of East Jerusalem in 1998-1999 and only partially (approximately 65%) in 1997.

[5] Data on the dimensions of poverty in 1997-1999 with regard to the population which includes East Jerusalem as well can be found in the 1999 Annual Survey.

[6] Since 1995, a head of a household is defined as the member of the household whose "degree" of participation in the labor force is the greater, regardless of age or gender.

income survey was extended to include communities of non-Jews with 2,000-10,000 residents as well.

5.   Since 1998, the CBS issues an income survey which is based upon the data of the integrated income survey and of the family expenditure survey. The integrated survey is based upon a larger sampling (1.8 larger than the previous sampling) and encompasses 95% of all households in Israel in most types of communities.

6.   With regard to the new series which began in 1997: the residents of East Jerusalem were not surveyed in 2000-2001. In 1998-1999, samplings of the integrated income survey among the residents of East Jerusalem were fully surveyed, as well as from 2002 onward, but only partial (approximately 65%) in 1997.

Following a NII initiative, the CBS carried out a feasibility study which showed that it is possible to produce findings on poverty and income distribution on a bi-annual basis. Therefore, as of 2004, in addition to publishing data for every calendar year, the CBS publishes findings regarding the second half of the previous year and the first half of the current year. For example, in addition to the 2007 Survey, a survey covering 2007/8 containing the second half of the 2007 Survey and the first half of the 2008 Survey is published. No special survey is carried out to study poverty and income distribution for these interim periods, but rather, a special database was constructed that comprises half of each of the two annual surveys. Accordingly, the poverty report for those periods is more succinct in nature and is mainly intended to show trends which are anticipated for the next calendar year in the domains of poverty and the social gaps.