

Encyclopedia of World Poverty

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CONSUMPTION BASED MEASURES OF POVERTY COST OF LIVING

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A class of poverty indicators that uses consumption as a measure of individual welfare. A poverty measurer can be described in terms of three main characteristics: (1) a measure of individual welfare; (2) a poverty line, i.e., a threshold for the welfare measure below which an individual is classified as poor; and (3) a summary statistic, for instance, the proportion of the population below the poverty line (i.e., headcount ratio). Consumption and income are the most common measures of individual well-being that have been used to obtain poverty indicators.

Consumption-based welfare measures. Household surveys typically contain information on household expenditure for several product categories. However, household expenditure is a satisfactory measure of living standards only if everyone faced the same prices and everyone lived in households with the same size and composition. In most cases we observe households of different sizes living across regions or neighborhoods with different prices. Therefore, we have to make some adjustments to obtain a proper consumption-based welfare measure.

Two measures are the most commonly used to adjust for differences in prices: the *money metric utility*, proposed by Samuelson (1974); and the *welfare ratio*, based on Blackorby and Donaldson (1987). Deaton and Zaidi (2002) provide a discussion of the theoretical foundations and the practical implementation of these two measures. We provide here a brief description.

Suppose that we have a household survey with information on household total expenditure. Let x^h be the total expenditure, in monetary units, of household h . Suppose that we have also information on prices faced by each household. Let $p^h \equiv (p_1^h, p_2^h, \dots, p_n^h)'$ be the prices of n product categories for household h . The *welfare ratio* consists in deflating total expenditure using a *Laspeyres price index*. The *welfare ratio* for household h is:

$$WR^h = \frac{x^h}{L^h}$$

where L^h is the Laspeyres index

$$L^h = \sum_{i=1}^n w_i \left(\frac{p_i^h}{p_i^0} \right)$$

p^0 is a based price vector, and w_i is the share of product i in the budget of a

representative poor household when prices are p^0 . The *money metric utility* consists in deflating expenditure using a *Paasche price index*. The *money metric utility* for household h is:

$$MMU^h = \frac{x^h}{P^h}$$

where P^h is the Paasche index:

$$P^h = \sum_{i=1}^n \frac{p_i^h q_i^h}{p_i^0 q_i^h}$$

p^0 is a based price vector and q_i^h is the amount of product h consumed by household h . The main advantage of the *welfare ratio* measure is its simplicity. To construct the Laspeyres index we need only information on household total expenditure. Instead, to construct the Paasche index we need disaggregate information on household expenditure for each product category.

Other adjustments are necessary to get a consumption-based measure of standard of living. For instance, it is very common that rural households should invest part of their income into agricultural production inputs such as fertilizer, water, or seed. These expenditures should not be considered as household consumption but as investments. Otherwise we would overstate the actual welfare levels achieved by households. Deaton and Zaidi (2002) describe other types of adjustments for durable goods, rationing, public goods, and leisure.

Consumption versus income. There is a good deal of consensus on the value of using consumption as a summary measure of living standards. In recent years, researchers at the World Bank have used consumption-based measures constructed from survey data to measure poverty, to analyze changes in living standards, and to assess the distributional impacts of anti-poverty policies. There are several reasons why consumption can be a better measure of welfare than income. Consumption can provide a better picture of actual standards of living when income fluctuates importantly. In particular, consumption takes into account whether households can access credit markets or household savings at times when current income is low due, for instance, to seasonal variations. Furthermore, consumption may be better measured than income in poor economies with large informal sectors where households consume their own production or exchange it for some other goods.

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