IMF Institute seminar

Measuring poverty: pitfalls, prescriptions, and policy implications

Measures of poverty figure prominently in debates on the social impact of economic policies and are now routinely used to design targeted interventions to fight poverty. This, coupled with the prominence given to the UN Millennium Development Goal of halving the poverty rate in the world by 2015 (relative to 1990), highlights the need for close scrutiny of poverty data and measures. At a February 4 IMF Institute seminar, Martin Ravallion, Research Manager in the Development Research Group of the World Bank, reviewed current methods of measuring poverty and discussed their role in the debate over globalization's impact on poverty and inequality.

Ravallion: "Measurement issues play an important role in the debate over globalization's impact on poverty and inequality."

Measuring poverty typically involves three steps: choosing an indicator of individual economic welfare (which tends to be household expenditure or income over some period, adjusted for differences in household size and the cost of living); setting a poverty line (that defines the level of welfare deemed necessary for an individual to escape poverty); and identifying an aggregate poverty measure (one that summarizes the information from the first two steps).

A number of contentious issues surround this process, however. At the conceptual level, for example, there have been disputes over the household welfare indicator (should it be consumption or income, what should it include, and how should it take cost of living differences into consideration?); the poverty line (at what overall level should it be set, and should it vary in real terms by subgroup or date?); and the aggregate poverty measure (how should it treat inequality among the poor?). Increasingly, answers to these questions are being sought outside economics, for example, by studying individuals' perceptions of their well-being.

Deciphering definitions

A common source of confusion is the difference between absolute and relative poverty. Absolute poverty lines are fixed in real terms over time and in geographic space. Relative poverty, in contrast, rises as average incomes rise. In some cases, relative poverty lines are even set in proportion to average income, though this practice is hard to accept, Ravallion noted, because it implies that when all incomes grow at the same rate, poverty does not fall. He argued that the concepts of absolute and relative poverty can be unified by thinking of poverty as absolute in terms of individuals' well-being (low welfare makes one poor), though relative in terms of commodities, depending on how individuals' well-being is affected by their relative positions in society. Very little is known about the weight that individuals attach to their relative income. Further research is needed, he said, and one promising area is how self-rated welfare varies with individuals' own income and with that of a reference group consisting of, for example, coworkers or individuals living in the same area.

A related issue arises with inequality. Relative inequality depends on the ratios of individual incomes to the overall average, while absolute inequality depends on the absolute differences in levels of living. Consider an economy with just two household incomes: $1,000 and $10,000. If both incomes double in size, relative inequality will remain the same; the richer household is still 10 times richer. But the absolute difference in their incomes doubles, from $9,000 to $18,000. Relative inequality is unchanged but absolute inequality rises sharply.

Data issues

At a practical level, too, Ravallion said, many shortcomings are associated with the data used to measure these concepts. Household surveys are the main source of data. Statistics offices often put considerable effort into ensuring that the surveys provide reliable data, but some times people underreport their income or consumption or do not respond. Sometimes efforts are made to anchor poverty measures, instead, to national accounts data on consumption, assuming that the household surveys measure relative inequality correctly. However, this practice is fraught with further problems. Consumption data from the national accounts may well be even further off the mark because they are not designed to measure poverty, and survey noncompliance and underreporting are thought to be more of a problem for estimating incomes of the rich than of the poor.

Ravallion also cautioned that certain practices in setting poverty lines can be misleading if they do not account well for differences in people's actual cost of living. This is particularly worrisome because choices made in setting poverty lines influence decisions about, for example, which regions and types of households should be targeted. Ravallion described a computationally simple "cost of basic needs" method for setting poverty lines that can often provide a reasonable approximation of the true cost of living differences facing poor people.

But aside from these problems, the inadequacy of income or consumption as a metric of welfare points to the need for supplementary indicators, notably measures that gauge access to public education and health services, income distribution within households, and maternal mortality and children's nutritional status. Not all of these are relevant in every context, he indicated, but, generally, multiple indicators are needed to provide a fuller or more accurate picture.

Measurement issues and policy debates

Measurement issues play an important role in the debate over globalization's impact on poverty and inequality. Some argue that the proportion of people living in extreme poverty in the developing world fell sharply in the 1990s; others argue that globalization has brought greater poverty. Some say that income inequality has been rising in the world; others claim that it is falling.

These discrepancies, Ravallion stated, stem in part from differences in the data and methods used but also from important conceptual distinctions. For example, proglobalizers appear to be more relativist about inequality, taking the view that if all incomes grow at the same rate, inequality is unchanged. Antiglobalizers, in contrast, tend to be absolutist about inequality, emphasizing the increase in absolute differences in levels of living that accompany economic growth even when relative inequality does not change. Neither is right or wrong; it is simply a question of interpretation.

Ravallion also pointed out that some recent claims of rising inequality in the world are based on the fact that poorer countries have tended to grow relatively slowly over the past 40 years. But taking into account the enormous variations in population size between countries, the picture of rising inequality among people in the world changes dramatically: There is no clear trend in relative inequality around the world over the past 20 years. Inequality has risen within many growing countries, including China and India, but these two countries' high economic growth rates have been a major factor in keeping down overall inequality.

Can the seemingly opposing positions taken in the globalization debate be reconciled? Ravallion sees hope. He said that poor people typically do share in the benefits of rising aggregate affluence, and they do typically suffer from economic contraction. But there are large differences between countries in how much poor people share in growth, and, often, there are losers among the poor during spells of growth, even when poverty falls on average.

Examining data for about 120 periods of growth or contraction across 50 developing countries, mostly during the 1990s, Ravallion found that the extent to which growth benefited the poor varied enormously between countries and over time. A 1 percent growth rate resulted in anything from a modest 0.6 percent drop in the poverty rate to a more dramatic 3.5 percent decline. Also, in about half the cases, relative inequality rose during periods of growth, and the rate of poverty reduction was lower than in other countries with similar growth rates. And, even when inequality was unchanged, how rapidly poverty fell in response to economic growth also depended on the initial level of inequality, in both income and nonincome dimensions (such as level of education and health status). For example, in a typical low-inequality country with a 2 percent rate of growth in per capita income and 40 percent of the population deemed poor, the poverty rate could be halved in 12 years. In a typical high-inequality country, halving the poverty rate would take 21 years.

And while economic growth tends to reduce poverty, not all growth-promoting policies do so, Ravallion said. Policies often have distributional implications that cannot be ignored. Combining growth-promoting economic reforms with the right social sector programs and policies to help the poor participate fully in the opportunities unleashed by growth will achieve more rapid poverty reduction. Ravallion emphasized the need to develop the human and physical assets of poor people; remove biases against them in public spending, taxation, trade, and regulation; and promote agriculture and rural development. Redressing inequalities of opportunity within developing countries as they open their economies is crucial for realizing the poverty-reducing potential of globalization, he said. This is the real challenge facing policymakers. ■

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—Martin Ravallion

Selected IMF rates

Week beginning	SDR interest rate	Rate of remuneration	Rate of charge
March 3	1.76	1.76	2.25
March 10	1.73	1.73	2.21

The SDR interest rate and the rate of remuneration are equal to a weighted average of interest rates on specified short-term domestic obligations in the money markets of the euro, the Japanese yen, the pound sterling, and the U.S. dollar, which constitute the SDR valuation basket. The rate of remuneration is the rate of return on members' remunerated reserve tranche positions. The rate of charge, a proportion of the SDR interest rate, is the cost of using the IMF's financial resources. All three rates are computed each Friday for the following week. The basic rates of remuneration and charge are further adjusted to reflect burden-sharing arrangements. For the latest rates, call (202) 623-7171.

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Data: IMF Treasurer's Department