

Box 1.2**Measuring income poverty: 1899 and 1998**

In a classic study first published in 1901, Seebohm Rowntree calculated that 10 percent of the population of the English city of York in 1899 was living in poverty (below minimum needed expenditures). As we enter the next century, the World Bank calculates that a fourth of the population of the developing world—about 1.2 billion people—is living in poverty (below \$1 a day). These two calculations of income poverty are separated by a century and have very different coverage. Nevertheless, the basic concepts and methods they embody have strong similarities.

Rowntree's approach

Rowntree's method was to conduct a survey covering nearly every working-class family in York to collect information on earnings and expenditures. He then defined poverty as a level of total earnings insufficient to obtain the minimum necessities for the maintenance of "merely physical efficiency," including food, rent, and other items. He calculated that for a family of five—a father, mother, and three children—the minimum weekly expenditure to maintain physical efficiency was 21 shillings, 8 pence; he proposed other amounts for families of different size and composition. Comparing these poverty lines with family earnings, he arrived at his poverty estimate.

The World Bank's approach

The World Bank has been estimating global income poverty figures since 1990. The latest round of estimation, in October 1999, used new sample survey data and price information to obtain comparable figures for 1987, 1990, 1993, 1996, and 1998 (the figures for 1998 are preliminary estimates). The method is the same as in past estimates (World Bank 1990, 1996d).

Consumption. Poverty estimates are based on consumption or income data collected through household surveys. Data for 96 countries, from a total of 265 nationally representative surveys, corresponding to 88 percent of the developing world's people, are now available, up from only 22 countries in 1990. Of particular note is the increase in the share of people covered in Africa from 66 to 73 percent, a result of extensive efforts to improve household data in the region.

Consumption is conventionally viewed as the preferred welfare indicator, for practical reasons of reliability and because consumption is thought to better capture long-run welfare levels than current income. Where survey data were available on incomes but not on consumption, consumption was estimated by multiplying all incomes by the share of aggregate private consumption in na-

tional income based on national accounts data. This procedure, unchanged from past exercises, scales back income to obtain consumption but leaves the distribution unchanged.

Prices. To compare consumption levels across countries, estimates of price levels are needed, and the World Bank's purchasing power parity (PPP) estimates for 1993 were used. These estimates are based on new price data generated by the International Comparison Program (ICP), which now covers 110 countries, up from 64 in 1985, and a more comprehensive set of commodities.

Poverty lines. The 1990 calculations of the international poverty lines had to be updated using 1993 price data and the 1993 PPP estimates. In 1990 national poverty lines for 33 countries were converted into 1985 PPP prices, and the most typical line among the low-income countries for which poverty lines were available was selected. In 1999 the same lines were converted into 1993 PPP prices, and the new line was obtained as the median of the 10 lowest poverty lines. That line is equal to \$1.08 a day in 1993 PPP terms (referred to as "\$1 a day" in the text). This line has a similar purchasing power to the \$1 a day line in 1985 PPP prices, in terms of the command over domestic goods. The upper poverty line (referred to as "\$2 a day") was calculated by doubling the amount of the lower poverty line, as in 1990, reflecting poverty lines more commonly used in lower-middle-income countries.

Estimates for 1998. To obtain consumption levels for 1998 where survey data were not yet available, estimated growth rates of per capita private consumption from national accounts statistics were used to update consumption data from the latest survey year to 1998. This meant assuming that the distribution of consumption did not change from the time of the last survey to 1998. The per capita private consumption growth rates came from estimates based on the model used for other World Bank forecasts (World Bank 1999j). Surveys were available for 1997 or 1998 only for Belarus, China, India, Jordan, Latvia, Nigeria, Pakistan, Panama, Russia, Thailand, and Yemen. So the 1998 figures should be considered tentative, and trends should be interpreted cautiously, particularly in light of the controversy surrounding Indian data (see box 1.8 later in the chapter).

Country-specific poverty lines. The \$1 and \$2 a day poverty estimates described here are useful only as indicators of global progress, not to assess progress at the country level or to guide country policy and program formulation. Country-specific poverty lines, reflecting what it means to be poor in each country's situation and not affected by international price comparisons, are used in country-level analysis.