5

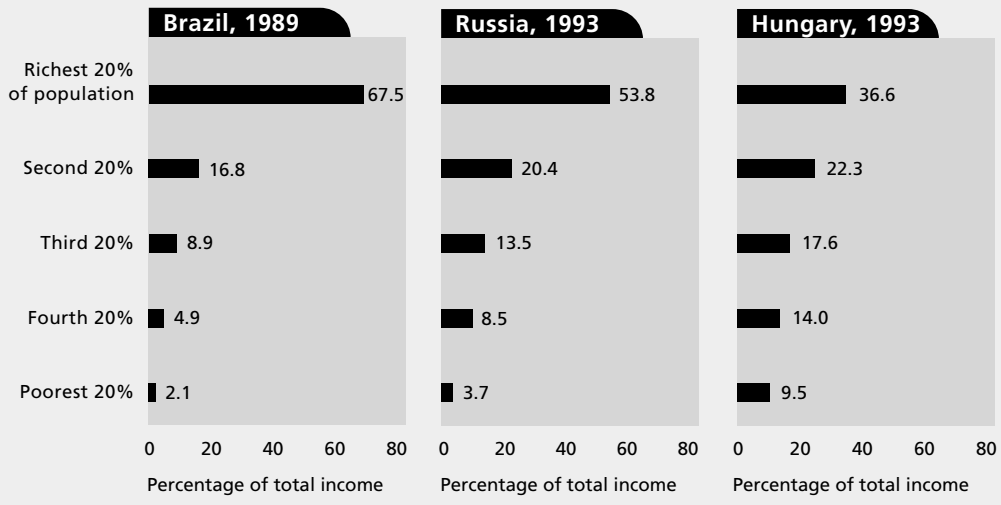
Income Inequality

To begin to understand what life is like in a country—to know, for example, how many of its inhabitants are poor—it is not enough to know that country's per capita income. The number of poor people in a country and the average **quality of life** also depend on how equally—or unequally—income is distributed.

Cross-country Comparisons of Income Inequality

In Brazil and Hungary, for example, GNP per capita is close to that in Russia, although somewhat higher. But the incidence of poverty is slightly lower in Hungary than in Russia, while in Brazil it is much higher than in either of the other two. These observations can be explained with the help of Figure 5.1, which shows the percentages of national income received by equal percentiles of individuals or households ranked by their income levels. In Hungary the richest 20 percent (quintile) of the population receives about 4 times more than the poorest quintile, while in Brazil the richest quintile receives more than 30 times more than the poorest quintile.

Figure 5.1 **Income distributed by population quintile in Brazil, Russia, and Hungary**



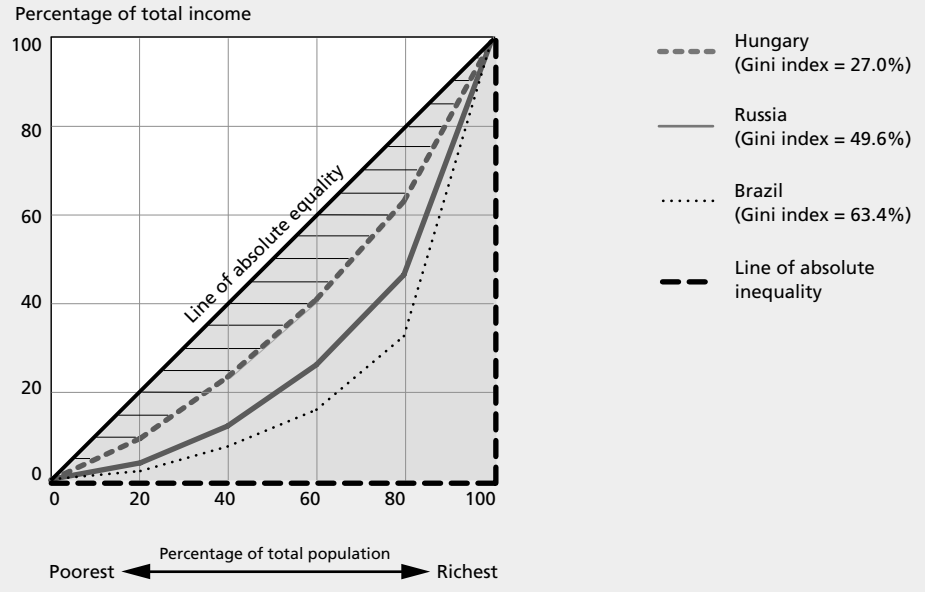
In Russia the ratio of income received by the richest quintile of the population to that of the poorest quintile was about 14:1 in 1993 and was growing because of market reforms and the transition crisis. Compare that ratio to an average of about 6:1 in high-income countries. In the developing world income inequality, measured the same way, varies by region: it is 4:1 in South Asia, 6:1 in East Asia and the Middle East and North Africa, 10:1 in Sub-Saharan Africa, and 12:1 in Latin America.

Lorenz Curves and Gini Indexes

To measure income inequality in a country and compare this phenomenon among countries more accurately, economists use Lorenz curves and Gini indexes. A Lorenz curve plots the cumulative percentages of total income received against the cumulative percentages of recipients, starting with the poorest individual or household (Figure 5.2). How is it constructed?

First, economists rank all the individuals or households in a country by their income level, from the poorest to the richest. Then all of these individuals or households are divided into 5 groups (20 percent in each) or 10 groups (10 percent in each) and the income of each group is calculated and expressed as a percentage of GDP (see Figure 5.1). Next economists plot the shares of GDP received by these groups cumulatively—that is, plotting the income share of the poorest quintile against 20 percent of population, the income share of the

Figure 5.2 **Lorenz curves and Gini indexes for Brazil, Russia, and Hungary**



poorest quintile and the next (fourth) quintile against 40 percent of population, and so on, until they plot the aggregate share of all five quintiles (which equals 100 percent) against 100 percent of the population. After connecting all the points on the chart—starting with the 0 percent share of income received by 0 percent of the population—they get the Lorenz curve for this country.

The deeper a country's Lorenz curve, the less equal its income distribution. For comparison, see on Figure 5.2 the "curve" of absolutely equal income distribution. Under such a distribution pattern, the first 20 percent of the population would receive exactly 20 percent of the income, 40 percent of the population would receive 40 percent of the income, and so on. The corresponding Lorenz curve would therefore be a straight line going from the lower left corner of the figure (x = 0 percent, y = 0 percent) to the upper right corner (x = 100 percent, y = 100 percent). Figure 5.2 shows that Brazil's Lorenz curve deviates from the hypothetical line of absolute equality further than those of Hungary and Russia. This means that among these three countries, Brazil has the highest income inequality.

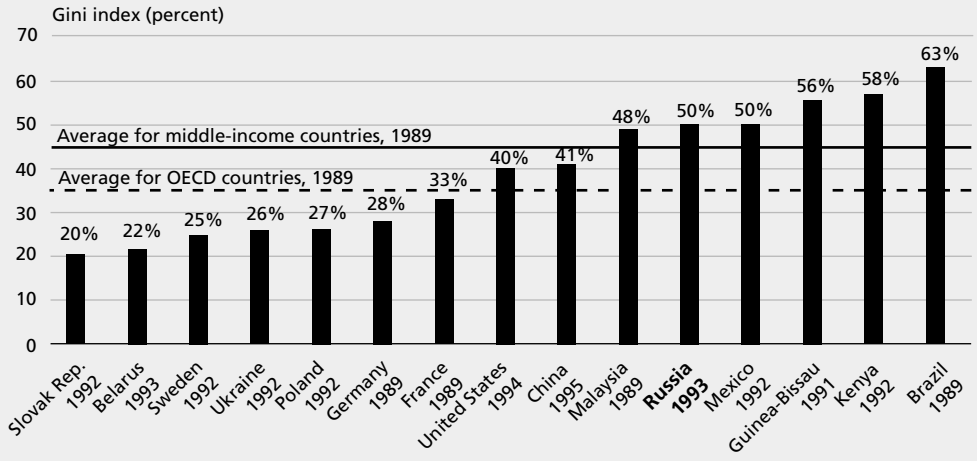
A Gini index is even more convenient than a Lorenz curve when the task is to compare income inequality among many countries. The index is calculated as the area between a Lorenz curve and the line of absolute equality, expressed as a percentage of the triangle under the line (see the two shaded areas on Figure 5.2). Thus a Gini index of 0 percent represents perfect equality—the Lorenz curve coincides with the straight line of absolute equality. A Gini index of 100 implies perfect inequality—the Lorenz curve coincides with the x axis and goes straight upward against the last entry (that is, the richest individual or household; see the thick dotted line on Figure 5.2). In reality, neither perfect equality, nor perfect inequality is possible. Thus Gini indexes are always greater than 0 percent but less than 100 percent (see Figure 5.3 and Data Table 1).

Costs and Benefits of Income Inequality

Is a less equal distribution of income good or bad for a country's development? There are different opinions about the best patterns of distribution—about whether, for example, the Gini index should be closer to 25 percent (as in Sweden) or to 40 percent (as in the United States). Consider the following arguments.

An excessively equal income distribution can be bad for economic efficiency. Take, for example, the experience of socialist countries, where deliberately low inequality (with no private profits and minimal differences in wages and

Figure 5.3 **Income inequality in selected countries, various years**



Note: An index value of 0 percent represents absolute equality in income distribution; 100 percent represents absolute inequality.

salaries) deprived people of the incentives needed for their active participation in economic activities—for diligent work and vigorous entrepreneurship. Among the consequences of socialist equalization of incomes were poor discipline and low initiative among workers, poor quality and limited selection of goods and services, slow technical progress, and eventually, slower economic growth leading to more poverty.

On the other hand, excessive inequality adversely affects people's quality of life, leading to a higher incidence of poverty and so impeding progress in health and education and contributing to crime. Think also about the following effects of high income inequality on some major factors of **economic growth:**

- High inequality threatens a country's political stability because more people are dissatisfied with their economic status, which makes it harder to reach political consensus among population groups with higher and lower incomes. Political instability increases the risks of investing in a country and so significantly undermines its development potential (see Chapter 6).
- High inequality limits the use of important market instruments such as changes in prices and fines. For example, higher rates for electricity and hot water might promote **energy efficiency** (see Chapter 15), but in the face of serious inequality, governments introducing even slightly higher rates risk causing extreme deprivation among the poorest citizens.
- High inequality may discourage certain basic norms of behavior among economic agents (individuals or

enterprises) such as trust and commitment. Higher business risks and higher costs of contract enforcement impede economic growth by slowing down all economic transactions.

These are among the reasons some international experts recommend decreasing income inequality in developing countries to help accelerate economic and human development.