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Is there a trade-off between inequality and economic growth? This article uses data from the 1970s and 1980s to estimate the relationship between the stages of economic growth and the income shares of rich and poor. It finds that on average, very little movement toward equality accompanies the process of growth. Moreover, in the 1980s structural adjustment policies gave many countries an additional push toward inequality.

Previous Studies of Equality and Growth

In his pathbreaking 1955 article, Simon Kuznets formulated the hypothesis that early economic growth increases inequality while later economic development narrows it. A graph of the share of the poor in national income would therefore be shaped like a U. In the climate of optimism about development that followed World War II, Kuznets' hypothesis was initially ignored; it was reconsidered only in the late 1960s, as problems of unemployment and poverty emerged even in fast-growing countries.

Statistical research into income distribution and development began in the 1970s, although it was hampered by the lack of adequate distributional data. Studies published in the 1970s and 1980s differed in many details, but generally confirmed the existence of the U-shaped Kuznets curve; some studies, however, found the curve to be quite flat. None of these studies is entirely satisfactory, and none had access to today's more ample sources of data.

Theory Guiding Variable Selection

An empirical study of income distribution in developing countries must take account of the factors that explain the Kuznets curve, as well as many other long and short run influences on distribution. The discussion of these factors here includes previews of the findings of the international comparative analysis described below.

Most models that generate the Kuznets U rely on intersectoral movements of population and income. For example, industrialization transfers labor and resources from the low-productivity, relatively egalitarian, traditional agricultural sector to the high-productivity, inegalitarian industrial sector. This initially increases inequality; but once more than half the labor force is employed in the modern sector, continued industrialization will decrease inequality. Yet

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surprisingly, the relative sizes of the agricultural and industrial sectors have no consistent relationship to the distribution of income in developing countries.

Productivity differentials between agriculture and industry, or between modern and traditional agriculture, are another source of inequality. Kuznets and some subsequent writers suggested that there would be a U-shaped movement in the intersectoral productivity gap, first widening as industry pulls ahead and then narrowing in a later stage of balanced growth. A measure of the intersectoral gap, the ratio of productivity in agriculture to productivity in industry, proves quite significant in explaining income inequality.

More rapid growth requires higher investment, which, in a closed economy, must come from savings. Greater inequality puts more income in the hands of the rich, who are more likely to save; in this sense, inequality might be thought to promote growth. In an open economy, other sources of investment financing are available. Measures of savings or other financing availability – the rate of inflation, the ratio of foreign debt to GDP, and the ratio of foreign capital investment to GDP – had a significant relationship to inequality, particularly in the 1980s. The distribution of wealth – including land, physical capital, and human capital – should have a major effect on the distribution of income. Major redistributions of land and physical capital are rare; however, many people advocate broadening education as a route to equality and growth. A key measure of the distribution of wealth, the Gini ratio for land ownership, is significantly related to the distribution of income in the 1970s.

Political and institutional factors shape the distribution of income. Governments invest in infrastructure and education, set and collect taxes, and establish the policies and legal frameworks within which economic activity takes place. Elite-oriented governments carry out these functions in ways that promote the interests of the rich; populist or socialist governments seek to promote the interests of the poor. A dummy variables describing the extent of socialist influence on government policy had a significant relationship to inequality in the 1970s.

Finally, the initial physical and demographic conditions affects a country's options for development, and hence its income distribution. Countries with abundant natural resources tend to specialize in primary product industries, which create relatively few jobs while often involving dependence on foreign economic interests. Therefore, natural resource abundance is often associated with inequality; the present analysis confirms that conclusion for the 1970s. Greater population density implies less arable land per agricultural worker, which often means that there are many small, uneconomic holdings engaged in low-productivity agriculture. These may coexist with high-productivity commercial agriculture, implying a high degree of inequality. We would thus expect less arable land per agricultural worker to be associated with more income inequality, which is again empirically valid for the 1970s.

The Statistical Analysis

The sample encompasses all less developed countries for which income distribution data could be found: 45 countries for the 1970s and 38 countries for the 1980s. The analysis seeks to explain the shares of income of population quintiles (i.e., the poorest fifth, the second fifth, etc.).

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It uses the explanatory variables discussed above, and the log of per capita GNP and its square. The presence of the square of the income variable allows the estimation of a Kuznets U.

The U-hypothesis is confirmed for both periods. A graph of the share of the poorest quintile first declines with growing incomes, and then rises again at higher income levels. In fact, a similar shape is traced by all but the richest quintile; for the top group, the U is inverted. However, the right-hand side of the U is extraordinarily flat. The share of the poorest quintiles drops rapidly, at very low levels, and then rises very slowly thereafter. "The major declines occur at income levels corresponding to those of South Asia, where the bulk of the world's poor are... The income share of the poorest quintile is within 3% of the minimum at income levels ranging from $485 to $1000 for the 1970s and $1689 to $5000 for the 1980s." [19] The poorest quintile does not recover the income share it had at a per capita income of $100 until the country reaches the income level of a developed nation.

Results for the 1970s and 1980s

Aside from per capita GNP, there are a wide range of variables that are significantly related to income distribution in the two decades, as suggested above. Macroeconomic variables play essentially no role in the results for the 1970s; instead, structural and institutional factors and initial conditions appear more important. Factors associated with greater inequality in the 1970s include the productivity differential between sectors, the inequality of land ownership, the abundance of natural resources, and population density. The degree of socialist influence on the government is correlated with greater equality, suggesting that more market-oriented policies promote inequality. Also, foreign investment is associated with inequality: the greater the size of foreign direct investment relative to the economy, the lower the share of the poorest four quintiles, and the higher that of the richest.

For the 1980s, macroeconomic adjustment policies appear to have become more important, replacing several of the influences seen in the 1970s. The intersectoral productivity differential and the extent of foreign investment remain correlated with inequality, as in the earlier decade. There are many reasons why foreign investment may be associated with political and economic inequality, which applied equally in the 1970s and 1980s. An additional reason, specific to the 1980s, is that foreign investment was more likely to flow to countries that followed IMF adjustment policies more closely -- and those policies were a force for inequality.

Inflation becomes a major influence on income distribution in the 1980s; at the average rate of inflation for the sample, inflation reduces the income share of the poorest by about one sixth. In times of rapid inflation, wage increases usually lag behind prices, while the returns to the assets of the rich (land, foreign exchange, and physical capital) keep pace with price increases. Moreover, inflation in the 1980s was more likely to lead to IMF-inspired adjustment policies, relying heavily on wage repression and cuts in government subsidies to mass consumption. The literature on the adjustment to the debt crisis points out that the poor have borne the brunt of the costs of IMF adjustment policies; the statistical research described here confirms this observation.

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In conclusion, there is a Kuznets curve, but its right-hand side is so flat that it cannot be relied on to cause a noticeable increase in the income share of the poor. Other readily understandable factors also affect the distribution of income in developing countries, such as the distribution of land and other wealth, the nature of government intervention, the role of foreign investment, and the impact of structural adjustment policies. “[I]n the lowest income countries, the primary hope of the poor lies not in raising their countries’ growth rates, but rather in changing the structure of assets of the poor and the nature of macroeconomic adjustment policies.” [25]

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