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"Summary of article by Nancy Birdsall, David Ross, and Richard Sabot: Inequality and Growth Reconsidered: Lessons from East Asia"

Conventional wisdom has long held that there is a necessary trade-off between increasing economic growth and reducing income inequality in developing economies. However, using cross-economy statistical studies of eight "high-performing East Asian economies" (Hong Kong, Indonesia, Japan, the Republic of Korea, Malaysia, Singapore, Taiwan (China), and Thailand), as well as theoretical analyses and microeconomic studies, the authors challenge this assumption. These East Asian economies achieved rapid economic growth in the last three decades, a remarkably long period for such growth to persist with low and apparently even decreasing levels of income inequality. In fact, their experiences suggest that polices aimed at reducing poverty and income inequality actually stimulate growth, and low income inequality may independently contribute to rapid growth.

EDUCATION AND GROWTH

The workings of two "virtuous circles" are apparent in the East Asian economies. In the first, education contributes to economic growth, which in turn stimulates further investment in education. In the second, (discussed in the following section) education contributes to low levels of income inequality, which also stimulates additional investment in education.

Although the correlation of human capital accumulation (i.e., education) with economic growth has long been apparent, the direction of causality has remained unclear until recently. However, both human capital theory and endogenous growth theory predict that educational investments will enhance growth by increasing the productivity of labor and an economy's ability to produce or adapt new ideas. Microeconomic analyses confirm this conclusion. Recent work by Robert Barro using cross-economy regressions to test whether characteristics of economies several decades ago can predict later growth rates supports this causal relation.[1]

It is also evident that education best enhances economic growth when it occurs in conjunction with an increasing demand for skilled labor. Education levels alone will over-predict rates of growth in countries with weak demand for educated labor such as Egypt, the Philippines and Sri Lanka, and these countries may experience diminishing returns to investment in human capital. In East Asia, on the other hand, policies such as an orientation toward manufactured exports helped maintain high levels of demand for skilled workers, resulting in constant or even increasing returns to educational investments, even at higher overall levels of supply. It was

therefore the combination of increasing supply of and demand for skilled labor that generated faster economic growth in East Asia than in other developing regions.

The other half of this virtuous circle connects rapid economic growth to increasing investments in education both at the household and the national level. This is not due to greater government commitment to education--public expenditure on education as a percentage of GNP is roughly the same in East Asia as in other developing regions. Rather, the combination of rapid economic growth and declining fertility allowed for the expansion of the education system, increased enrollment rates, and greater expenditure per student (increasing education and decreasing fertility also form a virtuous circle).

EDUCATION AND INEQUALITY

Evidence from more than eighty countries shows a clear correlation between high enrollment rates in basic education and low levels of income inequality. Additionally, causality appears to run in both directions. In other words, increasing education is both a cause and an effect of lower inequality--the second virtuous circle. Educational expansion can tend to increase inequality as the number of workers holding high-wage jobs increases (the composition effect), but this effect can be offset by the decreasing scarcity rents that educated workers will earn as the pool of skilled laborers expands (the compression effect). For example, as education levels rose in Korea, a worker with a high school education earned 47 percent more than a primary school graduate in 1976, but by 1986 this premium had eroded to just 30 percent. In Brazil, on the other hand, where enrollment in higher education increased much more slowly, the premium for higher education levels barely changed. In Brazil the composition effect dominated and inequality increased, while in Korea the compression effect was dominant, leading to overall decreases in inequality.

The tendency of lower income inequality to increase the demand for education comes from both the demand and supply sides. On the demand side, it is readily apparent that if two countries have similar levels of average per capita income then the country with lower income inequality will have a higher demand for education because the poor will face less of a liquidity constraint. Conversely, the country with higher inequality will have more households that are too poor to invest in education even if its returns are high. Governments are also better able to supply widespread educational opportunities when inequality is low because the tax burden to support such programs can be spread across a broad sector of the population. In a highly unequal society, the rich would have to be taxed heavily to support the provision of education for the poor, a burden which they are likely to resist, for example by trying to channel spending on education into subsidies for university students where the children of the rich can capture the benegits. While East Asian and Latin American countries each devote a roughly similar proportion of GNP to education, the share of this spending allocated to primary and secondary education rather than to higher levels is consistently higher in the Asian countries.

LOW INEQUALITY AND GROWTH

Can low inequality stimulate economic growth independently of its effects on education? Results of cross-economy studies find that there is in fact an inverse correlation between growth

and income inequality, but due to the weaknesses of cross-economy analyses, this result can only be viewed as suggestive. Nevertheless, the effect of reducing inequality may be substantial. Simulations suggest that if Korea had had Brazil's level of inequality in 1960, its GDP per capita in 1985 would have been 15 percent lower than the level actually realized and that is without including the negative effects of higher income inequality on demand for education.

There are four reasons why policies that reduce income inequality (by increasing the productivity and earning power of the poor rather than via income transfers) might enhance economic growth. First, they may result in increases in savings and investment by the poor. Capital market imperfections often prevent the poor from borrowing to finance investment in human capital, even when returns are high. As a result, a larger proportion of additional income earned by the poor is likely to be invested in health, education and nutrition, resulting in higher-than-proportionate increases in productivity, and hence in economic growth. Even if the increased savings and investment generated among the poor are offset by decreases among the more wealthy, the efficiency and marginal returns on such investments by the poor are likely to be relatively high compared to those on other savings and investment opportunities.

Secondly, low inequality is likely to enhance political and macroeconomic stability as it reduces the incentives for inefficient fiscal and economic policies that radically shift between those serving the interests of a narrow economic elite (such as high subsidization of higher education) and equally damaging populist measures (e.g., the creation of large numbers of unproductive government jobs). Low inequality can also help governments avoid damaging policies such as exchange rate overvaluation, which favors consumption of imports by elites at the cost of jobs and foreign exchange earnings in agriculture and other export-oriented sectors. Governments may also find themselves with enhanced policy flexibility in responding to unanticipated negative shocks, since the benefits of growth will be more widely shared, and the absolute incomes of the poor are likely to be more secure, with only rates of income growth substantially affected. Finally, declining inequality is likely to contribute directly to political stability by legitimizing the government in the eyes of the public.

Third, decreasing inequality may also have an important effect by improving the opportunities available to the poor, thus increasing their incentive to work hard. Barriers to upward mobility or an inability to realize a substantial proportion of the rewards from increased labor productivity can discourage the extra work effort that is important for economic growth. In fact, the work ethic associated with students and laborers in East Asia may not be an exogenous cultural trait, as is often assumed, so much as an endogenous response to the incentives and opportunities that reward extra effort in these economies. Land reform in Korea and Taiwan (China) is a clear example of a policy that both reduced inequality and increased productivity.

Finally, lower levels of income inequality mean higher incomes for rural agricultural households, which in turn are likely to lead to better agricultural policies that contribute to agriculture sector growth rather than undermine it. In addition, higher rural incomes stimulate demand for both agricultural inputs and manufactured outputs, enhancing growth in these sectors as well--the multiplier effects of agricultural growth on other sectors can be quite substantial. The tendency for the share of agricultural GDP to decline in these economies occurs not because of agricultural

stagnation, but because manufacturing and other sectors, boosted by agricultural growth, grow even faster than the agriculture sector.

CONCLUSION

Investment in education stands out as the most effective policy for both enhancing economic growth and reducing income inequality, and, via two virtuous circles, growth and declining inequality will further increase the demand for and supply of education. However, education alone cannot explain the rapid growth and low inequality experienced in East Asia. Policies that promoted a dynamic agriculture sector, and the pursuit of labor-demanding, export-oriented growth also contributed. In addition, low inequality itself may have directly contributed to growth.

Thus, the conventional wisdom that countries must necessarily choose between growth and equality is called into question. The solution is not to be found in income transfers to the poor, but rather for policies that reduce inequality by eliminating consumption subsidies for the wealthy and that increase the productivity of the poor. East Asian leaders, whether by design or by luck, have successfully implemented such policies, and other regions now have the opportunity to benefit from this lesson.

Notes

1. Robert J. Barro, "Economic Growth in a Cross-Section of Countries," *Quarterly Journal of Economics* 106 (May 1991), 407-443