Development Policy

Lecture Note 7

Is Growth Good for the Poor?

Today we consider an important development myth: *economic growth is sufficient to reduce the incidence of extreme poverty*. Many policy makers, in government and in aid agencies, believe that government should focus on achieving a high rate of economic growth since growth alone is sufficient to reduce extreme poverty. Aid agencies have often promoted this idea to discourage developing countries from adopting aggressively redistributive fiscal policies, which they believe slow down economic growth. But is this assumption supported by the facts?

Before we can answer this question we need to review some basic facts about poverty. Poverty is generally defined as income or consumption that does not support a standard of living considered adequate for a person or family to take part fully in the life of the community. This certainly includes having enough to eat and a place to live. But what is meant by poverty varies from place to place, with poverty lines set higher in rich countries than in poor countries. The poverty line in Vietnam is presently VND 750,000 per person per month in urban areas and 550,000 per person per month in rural areas. The poverty line in the United States is adjusted for household size. For a single member household, the annual poverty line was $10,890 in 2011, and for a family of four people in the same year the line was $22,250. Therefore, for a household of four people the U.S. poverty line was about 13 times the Vietnamese urban poverty rate, and 18 times the rural rate.

Measures of poverty can be absolute (for example, the World Bank's "dollar a day" poverty line) or relative. Absolute poverty lines usually start with a minimum caloric intake expressed in monetary terms. Then a "non-food" component is added, often as a percentage of the minimum food requirement. Absolute poverty lines set a standard for what is an "acceptable" quality of life.

Relative poverty lines express poverty in relation to some measure of central tendency. For example, poverty in the United Kingdom is defined as household income less than 60 percent of the median income. This has the advantage of ensuring that the poverty line stays in touch with "normal" levels of living for that society. It also reduces the need for complex calculations to express food and non-food necessities in monetary terms.

Whether absolute or relative, the poverty line is used to derive the headcount poverty index, which is simply the percentage of individuals or households whose income or consumption is less than the poverty line. This gives us a rough indication of the incidence of poverty, but it is not sensitive to the *depth* of poverty: there are great differences in living standards BELOW the poverty line, and we need to know how many people are among the poorest and how much poorer they are than everyone else. We often use the poverty gap ratio for this: the poverty gap ratio is the sum of the income gap ratios for the population below the poverty line, divided by the total population, which can be expressed as follows:

$$PG = \frac{1}{n}\sum_{i=1}^{q}\left[\frac{z - y_i}{z}\right]$$

where z is the poverty line, y_i is the income of individual i, q is the number of poor people and n is the size of the population.

Economists generally argue that the best way to reduce poverty is economic growth. Is this belief justified by the evidence? David Dollar and Art Kraay published a very influential article in 2002 that argued strongly that it is. In their article, "Growth IS Good for the Poor," they claim that the relationship between growth and poverty reduction is linear and one-to-one.[1] A one percentage point rise in national income is associated with a percentage point increase in the income of the poor, i.e. the bottom quintile of the population. The authors pool 285 country-year observations where we have at least two observations per country on incomes of the poor separated by at least five years (covering 92 countries). They find that we cannot reject the null hypothesis that the slope of this line is equal to one: i.e. incomes in the bottom quintile grow as fast as average income.

They write: "What we can conclude however is that policies that raise average incomes are likely to be central to successful poverty reduction strategies, and that existing cross-country evidence – including our own – provides disappointingly little guidance as to what *mix* of growth-oriented policies might especially benefit the poorest in society."

In other words, looking across a wide range of countries, growth does not benefit rich people disproportionately. The best anti-poverty policies are those that promote growth. We need not worry about poverty as an issue that is separate from economic growth. If this is correct, it is an important finding.

Dollar and Kraay then take the next logical step. If growth is in fact good for the poor, then the poor should benefit from policies that are good for growth. For them this means low inflation, financial system development, a high trade to GDP ratio and rule

[1] David Dollar and Art Kraay (2002) "Growth IS Good for the Poor, *Journal of Economic Growth*, 7, p. 195-225, September.

of law. Moreover, many policies that we generally assume are good for the poor are not associated with reduced poverty. For example, spending money on primary education is associated with growth but not poverty reduction; spending on health and education does not raise the incomes of the poor; agricultural productivity growth is not related to growth OR poverty reduction and democratic institutions are associated neither with growth or poverty reduction.

If these results are accurate, they are very important indeed. They would mean that governments cannot reduce poverty by spending more on anti-poverty programs such as primary education, public health and agricultural research and extension. Instead, governments should focus on increasing trade, reducing inflation and liberalization their financial systems.

Are these conclusions supported by the evidence? Foster and Szekely argue that one problem with the Dollar and Kraay story is that they define the poor as the bottom fifth of the population.[2] The bottom fifth is poorer than the top four-fifths, but are people in the bottom fifth "the poor?" To follow their story we have to first recall the definition a mean or average. If we take general means of the form:

$$\mu_\alpha(x) = [(x_1^\alpha + ... + x_n^\alpha)/n]^{1/\alpha}$$

then we get the arithmetic mean by setting alpha equal to one. If we set alpha to zero then we get the geometric mean; when alpha is equal to -1 it is called the harmonic mean. The small alpha is, the more the mean stresses lower values.

Foster and Szekely regress these various means against mean income growth using this equation:

$$\log \mu_\alpha(x)_{i,t} - \log \mu_\alpha(x)_{i,t-1} = c + \gamma(year) + \beta(\log \mu_1(x)_{i,t} - \log \mu(x)_{i,t-1}) + \varepsilon_{i,t}$$

The results are interesting because they suggest that the more weight you put on the poorest, the weaker the correlation with average growth. So growth may be good for the poor, but which poor? It turns out that the very poorest are not helped as much by growth. The more attention you pay to the very poor, the weaker the relationship between average income growth and the income growth of the poor. So perhaps we need policies specifically designed to reduce poverty after all.

This conclusion makes sense when we think about the relationship between growth and poverty reduction. Some people in the lower quintile of the population will benefit from increased trade, for example factory workers or small farmers. But will

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[2] James Foster and Miguel Szekely (2008) "Is Income Growth Good for the Poor? Tracking Low Incomes Using General Means," *International Economic Review*, 49:4, p. 1143-1172.

trade help the poorest members of society, for example, landless agricultural workers or people living in remote rual areas?

What about Dollar and Kraay's other claims? Are public spending and agricultural productivity good for the poor? Perhaps the poor do not benefit disproportionately from spending on health and education, but it is difficult to imagine a scenario in which health and education are not in some way a necessary condition for poverty reduction. Another possibility is that countries spend a lot of money on health and education, but the benefits of these program accrue disproportionately to the top half of the income distribution.

Datt and Ravallion's paper "When is Growth Pro-Poor? Evidence from the Diverse Experiences of India's States" (1999) shows that in fifteen Indian states over the years 1960-1994 higher farm yields and development spending led to less poverty. Non-farm growth reduced poverty more when literacy rates were higher. This conclusion is the opposite of Dollar and Kraay: farm productivity is important, and literacy is closely associated with poverty reduction. They conclude, "More than half of the difference between the elasticity of the headcount index of poverty to non-farm output for Bihar (the state with lowest elasticity) and Kerala (the highest) is attributable to the latter's substantially higher initial literacy rate."

Why do the authors reach such different conclusions? One reason is that Datt and Ravallion are comparing regions of one country rather than comparing data from many developing countries. More comparable data are available for Indian states than for a large sample of developing countries. In addition, Datt and Ravallion use a common absolute poverty line for all Indian states rather than a relative poverty line (the bottom 20 percent of the distribution).

The relationship between trade, growth and poverty reduction is also more complicated than Dollar and Kraay suggest. Trade *volumes* and growth are closely related .[3] But *tariff protection* and other measures of trade protection are either POSITIVELY associated with growth or not all.[4] (.

What explains this paradox? The question is not whether government intervenes in trade, but how. If intervention does not interfere with the growth of trade, or even encourages it, then protection is either not associated with growth or positively

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[3] See Halit Yanikkay, "Trade Openness and Economic Growth: A Cross-Country Empirical Investigation," *Journal of Development Economics*, 2003; and Anne Harrison, "Openness and Growth: A Time Series, Cross-Country Analysis for Developing Countries," *Journal of Development Economics* 48, 419– 447, 1996

[4] F. Rodriguez and Dani Rodrik, "Trade Policy and Economic Growth: A Skeptic's Guide to the Cross-National Evidence," 2001; and M. Clemens and J.G. Williamson, "A Tariff-Growth Paradox? Protection's Impact the World Around 1875–1997," NBER Working Paper Series, No. 8549, 2001.

associated with growth. There are also problems involved in measuring trade protection.

But what about trade and poverty? Petia Topalova, shows that rural poverty *increased* in Indian districts with most trade liberalization.[5] Goldberg and Pavcnikfind that trade liberalization did not reduce urban poverty in Colombia.[6] The reason that trade liberalization did not reduce poverty in Indian districts and Colombian cities is the lack of geographical mobility in these places. If people cannot move to where the new jobs are being created, trade liberalization may simply destroy old jobs without giving unemployed workers a chance to get new ones.

The evidence strongly supports the conclusion that economic growth is good for the poor. In this we agree with Dollar and Kraay. But Dollar and Kraay do not explain what causes growth very well: you will recall from the growth models that we discussed last term that growth is more complicated than just small government, low inflation and openness to trade. We must always remember that productivity growth is the key to both growth and poverty reduction: growth and poverty reduction are more closely correlated to productivity growth than they are to each other. Unfortunately, we do not understand what causes productivity growth very well. Investment, education, technological innovation and institutional change are also important, but the relative impact of each is hard to measure. Moving labor from low productivity to higher productivity occupations is essential to growth in low income countries.

However, Dollar and Kraay's contention that there is a one-to-one relationship between average growth and growth of the poorest people in society is based on the assumption that the bottom fifth of the population are all equally poor. They are not. And as we move down the income distribution, poor people receive proportionately fewer benefits from growth. Dollar and Kraay's other argument—that government spending on health, education and agriculture is not related to poverty reduction—is not supported by other studies.

The main policy implication of this evidence is that a growing economy helps us to reduce poverty, but that growth may not be enough to help the poorest. If we want to help the poorest people we need to do other things as well. Education and investment are important. Raising agricultural productivity can help. It also turns out that mobility is crucial: removing obstacles to geographical movement is the only way to make sure that the poor can change locations, change jobs and upgrade skills to take advantage of the benefits of growth.

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[5] Petia Topalova, "Trade Liberalization, Poverty and Inequality: Evidence from Indian Districts" http://www.nber.org/chapters/c0110.

[6] Goldberg and Pavcnik, "The Effects of the Colombian Trade Liberalization on Urban Poverty," http://www.nber.org/chapters/c0106.pdf.