Development Policy

Lecture Note 11

Growth and Distribution

We saw last week that the relationship between growth and poverty depends heavily on trends in inequality. As the distribution of income becomes more unequal, economic growth has a smaller impact on poverty. Economists have noticed over the years that income distribution is more equal in very poor countries than in middle income countries. Is there a natural tendency for countries to become more unequal as they become wealthier? If so, what are the economic and social processes driving this change?

Before we begin to answer this question we have to understand how inequality is typically measured. We are interested in the distribution of income across households or individuals in a given country. However, income is difficult to measure, particularly in poor countries. In most rich countries, salaries are paid through the banking system and employers subtract payroll taxes directly from wages and pay them to the government. Tax records therefore provide accurate information about earned incomes. Investors must report profits and capital gains to the government for tax purposes.

Most people who live in poor countries do not pay income tax either because taxes are not levied or because they work in the unenumerated or "informal" sector. Many people in developing countries do not work for wages. Instead they do "own account" work: for example, growing crops or petty trade. Surveys that attempt to calculate the incomes of own account workers find it difficult to collect reliable information. Also, income fluctuates during the year. For farmers, income is higher at harvest time, and traders make more money at specific times of the year (for example, *Tet* in Vietnam). For this reason, most developing countries measure inequality on the basis of consumption through expenditures surveys like the Vietnam Household Living Standards Survey (VHLSS). Consumption is thought to be easier to measure and is more constant throughout the year. But using consumption or expenditure to measure the standard of living presents another set of complications. Many of the items that the rich consume (for example, foreign holidays, private education and private medical care) are not listed in consumptions surveys. Moreover, people do not remember what they have purchased with a high degree of accuracy. Both income and expenditure surveys have tended to undercount mobile people: rural to urban migrants, and wage workers who move frequently like agricultural laborers and construction workers.

Once we have completed the consumption or income survey, we must construct a frequency distribution of incomes or expenditure. The frequency distribution shows the

percentage of the population at each level of income or consumption. We can then calculate the share of total income or expenditure commanded by each group (for example, each 1%, or each quintile) and graph this on a chart. The resulting chart is called a "Lorenz curve." If we draw a 45 degree line from the origin, and calculate the area below this line and above the Lorenz curve, we have the gini coefficient. This is a useful summary measure of inequality. A gini coefficient of zero is complete equality (everyone has the same income/consumption), and a gini of 1 is complete inequality (all income is controlled by one person or household).

A comparison of gini coefficients shows that inequality varies considerably from place to place. There are important historical reasons for high levels of inequality in Latin America, for example the concentration of landholding in Brazil. China, which was once the most equal society in Asia, is now one of the most unequal. A large part of the problem in China is not concentration of landholding, but rather access to employment. Rural people do not have access to steady, well-paying jobs, with the result that rural-urban inequality has increased extremely quickly.

However, we need to be careful when we compare inequality statistics across countries. Many of these numbers are simply not comparable. Some countries use income and others consumption, as mentioned above. It is difficult to compare results from income and consumption surveys, and the practice of simply adding a fixed percentage to consumption ginis to convert them into income ginis is not very scientific. Some surveys take individuals as the unit of analysis and others take households. Some surveys use large, representative samples and others use small samples. Some surveys are concentrated in urban areas and other countries try to achieve a representative sample across rural and urban areas. Other problems include the use of out of date sampling frames, failure to account for seasonality, and non-response among very poor and very rich households.

Our information about inequality within countries has improved greatly in recent years. However, we have to be very careful when we compare levels of inequality between countries. The World Institute for Development Economics Research (WIDER), a United Nations think tank, has performed the valuable service of compiling data on inequality and making it publicly available. You can access it for free at their website:

http://www.wider.unu.edu/research/Database/en_GB/database/

It is worth spending a few minutes looking through these data, and some students may be interested in using these data for their master's theses. Remember, though, that inequality data depend heavily on the methodologies used to collect them. Do not imagine that you can simply pop these data into a regression without first understanding how they were collected, the populations that they cover and the assumptions underlying their calculation.

These data problems have not stopped economists from making claims about the relationship between inequality and growth and between inequality and the level of income. It is widely believed that countries become more unequal as they become richer, particularly at the early stages of development.

The study of the relationship between inequality and development begins with Simon Kuznets' pioneering work in the 1950s. He viewed the relationship as the outcome of contending forces, some leading towards more inequality and other leading to less. He did not propose a deterministic framework (although many of his critics accused him of doing so). Forces working towards greater inequality include the concentration of savings in upper income brackets; the concentration of income-yielding assets at the top of the distribution; the increasing share of non-agricultural incomes; and difference between average incomes in industry and agriculture. In the early stages of industrialization, migrants (and immigrants) work in the industrial sector for low wages. Investors therefore make large profits. They save and reinvest these profits, adding to their wealth. At the same time, pre-industrial redistributive institutions are shattered. Death rates fall, but fertility remains high, with the result that workers lack bargaining power. Inequality worsens. Forces working towards greater equality include the organization of the industrial working class into trade unions after the early stages of development; inheritance taxes and progressive income taxes; the rise of new industries; the rise of the professions and services; and inflation, which reduces the value of savings.

The famous "Kuznets curve" is the outcome of these contending forces. Kuznets proposed that income distribution would worsen during industrialization and then improve as countries became wealthier. He did not think of the so-called "inverted-U" relationship as the only possible relationship, but rather he saw it as a tendency. He never argued (as some of his critics have charged) that he favored greater inequality at the early stages of development in order to accelerate growth. This was not his position. He was much more concerned about over-investment in non-productive assets like real estate and the political implications of rising inequality for democracy and political stability.

Kuznets was deeply concerned about the quality of inequality data:

> "Proper disclosure of our meaning and intentions is vitally useful. It forces us to examine and evaluate critically the data that are available; it prevents us from jumping to conclusions based on these inadequate data; it reduces the loss and waste of time involved in mechanical manipulations of the type represented by Pareto-curve-fitting to groups of data whose meaning, in terms of income concept, unit of observation, and proportion of the total universe covered, remains distressingly vague; and most

important of all, it propels us toward deliberate construction of testable bridges between the available data and the income structure that is the real focus of our interest."

An important subsequent empirical study of the relationship between the level of income and inequality is Montek Ahluwalia (1976).[1] Lacking time series data, Ahluwalia used cross section data from 60 developed and developing countries. He finds support for the Kuznets curve, which he explains as a product of intersectoral shifts in production, the spread of education and the slowdown in the rate of population growth.

Ahluwalia rejects reject a separate proposition that many economists had proposed, but which was unrelated to Kuznets' theory. This proposition states that faster growth is associated with rising inequality. Kuznets was not concerned with this relationship: rather, he wrote about the relationship between inequality and the *level of development*

Bowman (1997) makes the important point that tests of the inverted U hypothesis depend heavily on the inclusion or exclusion of certain key cases. In most studies of the Kuznets curve, the middle income countries come from Latin America, which has high levels of inequality at all levels of development. He argues that rather than cross section analysis we need to approach the issue through time-series country case studies. He considers nine countries that were poor in 1950 and middle income by 1980. Inequality increased in Brazil, and Costa Rica shows a U shaped pattern (the opposite of Kuznets). Japan recorded low levels of inequality after the war. Malaysia shows an inverted U as a result of the New Economic Policy of 1970s, which was initiated to reduce inter-ethnic inequality after 1970. Taiwan became less unequal (although Terrence Moll argues that inequality data in Taiwan is not representative and based on very small samples).[2] In general, Bowman argues that the idea of a Kuznets "turning point" is not appropriate because of the great variation among countries.

So the conclusion about the relationship between the level of development and inequality is that no generalized pattern applies. The economic, institutional and political setting in each country will affect the outcome.

What about the relationship between inequality and *growth*? In the 1950s and 1960s, economists thought that more inequality was good for growth because it would generate capital for investment. Some economists still hold this view.[3] But most economists abandoned the "inequality is good for growth" story in light of the experience of the East Asian Newly Industrializing Economies (Taiwan, Korea,

[1] "Inequality, poverty and development, *Journal of Development Economics*, 3, 1976, 307-342.
[2] Terrence Moll (1992) "Mickey Mouse Numbers and Inequality Research in Developing Countries, *Journal of Development Studies*, 28, 4, 1992, p. 689-704.
[3] See Kristin J. Forbes (2000) "A Reassessment of the Relationship Between Inequality and Growth," American Economic Review, 90(4):869-887.

Singapore and Hong Kong) in the 1970s and 1980s.Nancy Birdsall, David Ross and Richard Sabot (1995) make the case that policies in East Asia that were good for growth also reduced inequality: education, export of labor-intensive manufactures, land reform and rural investment support both growth and equity.[4] But it is also important to remember that China has become much more equal following these same policies. The result is not guaranteed.

Economists have made other arguments in favor of the position that inequality is bad for growth. Alberto Alesina and Dani Rodrik (1994) claim that inequality creates more pressure for higher taxes, which are bad for growth.[5] When income is distributed more equally, more people vote for low taxes. Torsten Persson and Guido Tabellini argue for similar reasons that a larger middle class is good for growth.[6]

Szekeley and Hilgert (2000) (www.iadb.org/res/publications/pubfiles/pubwp-439.pdf) show that these results depend very heavily on the poor quality of inequality data. If the data are adjusted to take into account different levels of coverage, different intervals between surveys and seasonality, therelationship between growth and inequality disappears. They comment that:

> Surprisingly, our analysis shows that the impression obtained about the ranking of countries in terms of inequality, and that our ideas about the effect of inequality on other development indicators, can be a mere illusion caused by differences in the characteristics of household surveys, and by the way in which the data are treated.

Like the relationship between income levels and inequality, there is probably no stable relationship between inequality and growth. Each country has its own political, historical and institutional conditions. Cross country regressions do not capture this information. This does not mean that inequality is not important, but rather that it is just one among many factors that affect economic performance. Many would argue that even if equality does not accelerate growth, it is worth pursuing as an end in itself. Surely our ideas of a "good society" are in some way related to a minimum degree of equality based on our equal rights and responsibilities are citizens.

A related issue is the relationship between inequality and globalization. Economists generally view this issue from the perspective of the Stolper-Samuelson theorem, which states that trade between labor scarce (industrialized) and labor surplus (developing) countries will lower the returns (wages) to unskilled labor in the labor scarce countries, and raise wages for unskilled labor in labor surplus countries. Two country trade models assuming competitive markets and full employment predict that more trade will increase inequality in rich countries and decrease inequality in poor countries.

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[4] "Inequality and Growth Reconsidered: Lessons from East Asia," *World Bank Economic Review*, 9:3, 477-508.
[5] "Distributive Politics and Economic Growth," *Quarterly Journal of Economics*, 109:2, 1994.
[6] "Is Inequality Harmful for Growth?" *American Economic Review*, 84:3, 600-621.

However, inequality does appear to be rising in both rich and poor countries during the globalization era. If we take the US and China as examples, we can see that rising trade between these two countries has coincided with sharply rising inequality in both countries. Feenstra and Hanson (1996) argue that trade and FDI have increased the demand for skilled workers in *both* developed and developing countries (see also Gaston and Nelson, 2002).[7] The reason is that these production jobs are *relatively skilled* from the developing country perspective.

In industrialized countries, globalization has been associated with a decline in union membership and centralized collective bargaining. Off-shoring and outsourcing has moved factory jobs from the United States to other locations, and these were precisely the sectors with the highest rate of unionization. As a result, globalization has increased inequality in the US, UK and Canada among male wage earners (but not among female workers, who were not as likely to hold these jobs).[8]

Inequality is not an inevitable consequence of growth. Many factors affect the level of inequality in a given country, including politics, culture and the structure of the economy. There is no necessary trade-off between growing faster and remaining a more equal society. But it is also not true that globalization, competition and trade automatically generate more equality, as proposed in some simple economic models. The desired level of equality is a choice that every society must make through its political system.

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[7] R. Feenstra and G. Hanson (1996) "Globalization, outsourcing, and wage inequality", *American Economic Review*, 86:2, 240-45; N. Gaston and D. Nelson (2002) "Integration, foreign direct investment and labour markets: microeconomic perspectives," *The Manchester School*, 70:3, 420-59.

[8] David Card, Thomas Lemieux and W. Craig Riddell (2003) "Unionization and Wage Inequality: A Comparative Study of the US, UK and Canada," National Bureau of Economic Research, Working Paper 9473, http://www.nber.org/papers/w9473.