Growth, Inequality and Poverty: 
Some Hard Questions

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Abstract

This commentary poses a series of progressively harder questions in the economic analysis of growth, inequality and poverty. Starting with relatively straightforward analysis of the relationship between growth and inequality, the first level of hard questions come when we ask what policies and institutions are causally related to equitable growth. Some progress is being made here by the economics literature, but relatively little is known about the second level, harder questions—how a society comes to acquire “good” policies and institutions, and what exactly it is that we are buying into when we accept the number one Millennium Development Goal of the United Nations—halving the incidence of income poverty by the year 2015.

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1. Introduction

The discourse on the economics of growth, inequality and poverty straddles both analysis and policy. Analysts look to the latest policy debates to motivate their (sometimes esoteric) calculations, and are eager to insert their findings into the policy debate (e.g., “…our cross-country regression analysis establishes conclusively that lower tariffs lead to higher growth.”). Protagonists in policy debates are equally keen to register academic pedigree for different policy positions (e.g. “… Nobel Prize winning economist X has argued in favor of Y.”). Policy protagonists and academics find themselves in different “camps”, each with their own articles of faith and characteristic rhetoric. This is particularly so in the debates on “globalization.”

I want to argue in this commentary that in the economics of growth, inequality and poverty, and especially where the effects of “globalization” on these is concerned, the intersection of analytical and policy debates has belabored some questions the resolution of which is relatively easy in principle, and has tended to slide over, or not even recognize, questions that are relatively hard. It is important that we recognize these hard questions since they often lie at the heart of policy or even analytical discord, and without recognition of the fundamental basis of disagreement there cannot be fruitful policy or analytical dialogue.

2. Definitions

Let me start with some preliminaries. I am going to confine myself to growth, inequality and poverty defined over income, or monetary value of consumption, following standard practice in economics. It so happens that this is also the focus of the first of the United Nations’ “Millennium Development Goals”—to halve the incidence of poverty so defined, by the year 2015. My purpose in focusing on “income poverty” is to show that hard questions arise even within this narrow economic perspective. The questions can only get harder as we broaden the frame. Accepting this frame, then, consider the distribution of “real” income across individuals (correcting for price variations, allowing for non-market provision of goods and services, household size, distribution of resources within the household, etc). There are of course conceptual and empirical problems galore in arriving at this distribution, and much of the analytical literature centers on these issues, but let us even leave these to one side for the moment, to get at the “truly” hard questions.

Given the distribution of income we can calculate its mean and the change in this mean over a given time period is the growth in per capita income, or simply “growth.” A measure of the dispersion in this distribution, such as the coefficient of variation or the Gini coefficient, can and usually does serve as a measure of inequality. Finally, poverty focuses on the lower tail of the distribution. The most common measure is simply the fraction of population below a given poverty line income (the “head count ratio”, also

1 For a characterization of different positions, see Kanbur (2001).
known as the “incidence of poverty”), although in recent years measures which incorporate the depth of poverty have also been used.

3. Easy Questions and Answers

Here are some mechanical properties of growth, inequality and poverty as defined above. First, holding inequality constant, an increase in per capita income (in other words, growth) reduces poverty. Second, holding per capita income constant, an increase in inequality increases poverty.4 If the objective was to reduce poverty, then obviously growth is a plus for poverty reduction and increased inequality a minus. Let us then pose the first question, which is prominent in policy debates. “Is growth good for the poor?” The answer is easy and clearly “Yes” if we view growth in isolation. But if growth is accompanied by increased inequality, then the net effect on poverty is no longer clear—it all depends on the relative magnitudes of two opposing forces.

Here then is another question—“What is the empirical association between changes in per capita income and changes in inequality?” The answer to this question is in principle relatively easy to arrive at, and there are many studies which try to provide an answer. The consensus is easily stated—there is no statistical correlation between changes in per capita income and changes in inequality, taking countries as the unit of observation.5 On average, therefore, there is no change in inequality as per capita income changes. If this average behavior is interpreted as guaranteed constancy of inequality as growth proceeds, it is easy to make sense of assertions like “Growth Is Good for the Poor.”6

But this is pretty much the end of the line for easy questions and answers. It is clear that if this was all there was to it, we would not see the raging debates we see in the policy and analytical discourse. The debates continue because the hard questions are not addressed, indeed they are obscured, by the above line of argument.

4. First Level Hard Questions

Empirically, the lack of an association between growth and inequality change could mean that there is literally no change in inequality as per capita income changes. In fact, in reality the average is an average of points “above and below the line”. Actual data show considerable variation, with cases where inequality goes up with growth, and cases where inequality goes down with growth. Consider a policy maker who is pursuing policies that are leading to growth but also increases in inequality. This increase in inequality is at the very least dissipating some of the effects of growth on poverty reduction, and in the extreme may be so great as to overturn the beneficial effects of

4 This is only true as a general tendency. There are technical conditions under which for specific measures of poverty and in specific circumstances, the opposite can happen.
5 There is a large literature on this relationship, known as the “Kuznets curve.” An early refutation of a systematic relationship in cross-country data is in Anand and Kanbur (1993). The recent literature starts with the data compilation in Deininger and Squire (1996). See for example, Li, Squire and Zou (1998).
6 This was the title of a paper that got much coverage in the press when it came out as a World Bank paper. The published paper, Dollar and Kraay (2002) does not have the italicized Is.
growth altogether. It is cold comfort to this policy maker to be told that on average there is no association between growth and inequality change, so (presumably) the country should carry on doing what it is doing!

The *reductio ad absurdum* of this line of thinking leads to the recognition that changes in per capita income and inequality are *outcome* variables, not *policy* variables. Policy makers cannot simply will an increase in per capita income or a decrease in inequality. Rather, they have to select and implement policies that they hope will lead to these (or other) outcomes. Identifying policy variables that will lead to equitable growth is the first level of hard questions that analysts and policy makers face on growth, inequality and poverty.

I want to illustrate the difficulties of a search for “equitable growth policy variables” by looking at the issue of trade and openness. I focus here on physical trade, and leave to one side the issue of financial flows and capital account openness. Most mainstream economists, perhaps because of their training, are instinctive “free traders”, believing that open trade confers general benefits in terms of higher productivity and growth. The difficulty lies in actually demonstrating this link empirically. The measure of “openness” that often does the trick, in the sense of being associated with higher growth, is the “trade ratio” (imports plus exports divided by GDP). Now the trade ratio is surely a reasonable measure of openness. The problem is that it is not of itself a policy variable. It is in fact determined by a number of other variables in the economy, including “true” direct policy variables such as tariffs. It could well be that a third feature of the economy, for example institutional climate for investing, leads to both growth and more trade, irrespective of tariffs. Indeed, when tariffs are tried as an explanatory variable for growth, they do not turn out to be statistically significant.7

Many have made the leap from an association between the trade ratio and growth to a policy recommendation to reduce tariffs, but this is across a chasm that is not easily bridged methodologically. A similar chasm awaits those who try to relate greater openness to lower inequality. If the two prongs of the argument were true, that trade policy variables were causally related to higher growth and greater equality, the policy conclusion would be clear, if the objective is to reduce income poverty. But establishing these links remains a hard question.8

Whether growth leads to increased inequality is an old question in economics, and we have seen that there are easy and hard ways to pose the question. A relatively recent question approaches it the other way round—Does higher inequality at a point in time lead to slower growth in the subsequent period? The economics literature is in two minds on this one. The theorists have developed many different types of argument to support this conjecture. One such argument relies on “threshold effects”. Suppose, for example,

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7 The best statement of the methodological problems highlighted here is in Rodrik (2000), made on a paper which was subsequently produced in revised form as a World Bank Working Paper, Dollar and Kraay (2001).
8 Similar difficulties in demonstrating the link between other economic policies and growth are covered in Esaterly (2001b).
that there are threshold effects in the (private and social) return to human capital—the
returns only start to kick in, in a big way, after a critical threshold is passed. Suppose
further that the capital market is not perfect so that, to some extent, human capital
acquisition has to be self financed. Then the very poor will not find it worthwhile to
acquire human capital (they do not have enough financial resources to take them over the
threshold). With this setting, and few more assumptions about the human capital
investments of those who do find it worthwhile to acquire human capital, it can shown
theoretically that greater inequality will lead to lower overall human capital
accumulation, lower productivity and (if we tack on an “endogenous growth model”)
lower growth. This is one of many ways in which a causal link between higher inequality
and lower growth can be generated from theoretical models.9

However, empirically establishing any sort of causal relationship from initial
inequality to subsequent growth remains a hard question. The jury is still out10, and the
literature swings between combinations of papers that claim to show causality from high
inequality to low growth, to those that claim to show no causality--or even that more
inequality leads to higher growth.11 The empirical problems are not dissimilar to the
problems of the trade and growth literature. Even if one could show an association
between inequality and subsequent growth, both phenomena could be caused by a third
factor affecting both, and it is hard empirically to sort out the separate effects.

Faced with the conceptual and empirical difficulties of establishing relationships
between growth/equity and other economic variables, the economic literature has fallen
back on “institutions,” as the basis of success in growth, inequality and poverty.12 But
this is also a hard question—What types of institutions lead to success? There is
substantial variation in institutional structures (whether of corporate governance, law,
family, etc) across cases of success and failure.13 And what about the political economy
of building and maintaining institutions, and selecting and implementing policies? But
now we move to the realm of second level hard questions, questions that are harder to
handle, at least for economists.

5. Second Level Hard (i.e. Harder) Questions

Difficult as they are, the first level hard questions are being tackled by
economists, subject to data and other restrictions. Presumably “normal science” will, little
by little, illuminate the various relationships discussed in the previous section.14 But there
is a second level of hard (harder) questions that may not be quite so amenable to

9 Some papers are reviewed in Kanbur (2000) and Kanbur and Lustig (2000). Political economy
considerations are another route to linking inequality and growth causally. Banerjee and Duflo (2003)
review some papers and present a stylized model for each of these causal links.
10 This is the phrase used in the review by Kanbur and Lustig (2000).
11 A selection of these papers would include Barro (2000), Forbes (2000) and Banerjee and Duflo (2003).
12 See, for example, Easterly (2001a) and Rodrik et. al. (2002).
13 Rodrik (2003b) argues powerfully against a “one size fits all” policy prescription on institutions.
14 Excellent examples of such progress are the compilation of papers in Bourguignon and Pereira Da Silva
(2003), and in Rodrik (2003a).
conventional economic method, and it is often these that lie at the heart of analytical and policy disagreement. I want to pose five such questions.

**How do “good” policies and institutions come to be adopted?** Suppose economic normal science does in the end manage to solve the first level hard questions and provide an account (no doubt nuanced) of the policies and (more problematically) institutional structures that promote equitable growth. This still leaves open the question of how and why some countries “do the right thing” and others do not. This also relates to the influence, if any, that outside agencies like the IMF and the World Bank can have on domestic political economy through the device of “conditionality” of assistance. Economists would point to the burgeoning field of rational choice political economy as their contribution. The equilibrium theorizing in these models does provide insights into many issues, such as how reform can be resisted because of uncertainty of outcomes, or because of a distributional consequence such that losses are greatly concentrated among the few while gains are diffused widely among the many. What it does not do very well is to allow us to distinguish between cases where these factors were equally balanced, but outcomes were very different. Issues of leadership, ideology, use of state power, tipping points between support for institutions and withdrawal of this support, these are relatively lightly explored in the economics literature, and there are only fledgling attempts at integrating the vast historical, comparative, institutional and political science literature into the standard economic analysis—at least so far.

The first of the five hard(er) questions, discussed above, is still in the realm of positive analysis, asking how growth and poverty reduction come about. The remaining questions I wish to highlight are all related to the concept of poverty itself.16

**If the total number of the poor goes up but, because of population growth, the percentage of the poor in the total population goes down, has poverty gone up or down?** This is not simply a philosophical curiosum. The World Bank’s calculations show that from 1990 to 1999, the number of people in the world surviving on less than two dollars a day increased from 2.7 billion to 2.8 billion. But the world’s population was increasing sufficiently fast that the incidence of poverty, the percentage of people below the poverty line, fell from 62.1 percent to 55.6 percent. The latter trend is sometimes proclaimed as a victory for “globalization”, the former as a defeat (by the appropriate factions, respectively). This phenomenon is present at the regional level as well. In South Asia the number of poor people increased by more than 100 million people, while the incidence of poverty fell by 5.0 percentage points. Even in East Asia excluding China, where both absolute numbers and incidence fell, the rate of fall was very different. Absolute numbers fell by 8.8 percent, while the incidence fell by 21.0 percent. In Sub-Saharan Africa, where both numbers and incidence rose, absolute numbers rose by 24.4 percent while incidence rose by a bare 1.7 percent.17 I have argued elsewhere that the

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15 The field is very large by now, so a few recent references will have to suffice. See Besley and Case (2003), Case (2001), Persson and Tabellini (2000, 2003), Drazen (2000), Besley and Coate (2003).

16 Some of these questions are raised in Kanbur (2001, 2002).

“total” view should at least be given some weight and not shut out altogether by analysts and policy makers, but how much weight exactly is a hard question.\(^{18}\) The problem is made more severe by the fact that, as noted earlier, the first Millennium Development Goal of the United Nations is to halve, between 1990 and 2015, the global percentage of population living in poverty.

**Suppose the incidence of poverty (and/or the number of poor) goes down because the poor die at a faster rate than the non-poor—is this a legitimate “decrease” in poverty?** This too is not a mere curiosum. The international community has chosen the change in the incidence of poverty between 1990 and 2015 as the number one indicator for self assessment. Yet the fact of the matter is that the incidence of poverty falls when a poor person dies because of poverty.\(^{19}\) As the Aids epidemic spreads among poorer nations, and as even within these nations preventive measures have a greater impact on rich rather than poor, if the first MDG is met we will surely have to temper our assessment with the an account of the missing poor people, whose death contributed, perversely, to a reduction in poverty.\(^{20}\) One answer to this is of course to have mortality rates and life expectancies as part of the assessment. This what the MDGs do. Further down the MDG list, we have a goal for reducing by two thirds the mortality rate among children under five. Still further down is the general goal of attacking HIV/AIDS and malaria. This is good, but at least three issues arise. First, it seems clear that the first MDG is “primus inter pares.” Second, reducing child mortality does not handle the issue of adult mortality and its impact on measured income poverty. Third, it is not clear how exactly the different goals are to be weighed relative to each other, in order to provide guidance for resource allocation to achieve those goals. This leads to the next hard question.

**Which outcomes other than income should be included in the assessment of “success”, and how should they be weighed relative to income and relative to each other?** The MDGs give one answer to this question. They have 8 goals, the first of which is reduction of income poverty—primary education, gender equality, child mortality, maternal health, HIV/AIDS/malaria, environmental sustainability, and global partnership for development are the other 7. But these immediately raise questions. The eighth goal is not an end but a means. Of the first seven goals, two questions can be asked. Why these and just these? How are resources to be allocated to the different goals—what is the weight given to each? On the first question, the UNDP’s Human Development Index has three components—income, life expectancy and literacy. There is some but not a perfect

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\(^{18}\) See Chakravarty, Kanbur and Mukherjee (2002).

\(^{19}\) For further discussion of this for more general poverty measures, and an attempt to develop a poverty measure that takes into account mortality, see Kanbur and Mukherjee (2003).

\(^{20}\) Various paradoxes of social assessment when the population changes (because of births or deaths) are well known in the economic and philosophical literature. Parfit (1984) famously critiqued Utilitarianism by deriving his “repugnant conclusion”—that a society in which every individual was worse off than in another could still be pronounced to be better by the Utilitarian criterion simply because there were more individuals in the first society. The route of “average utilitarianism”, i.e. focusing on per capita well being, skirts the repugnant conclusion but only by preferring the deaths of those below the average, since this will raise the average of those who remain. These and other issues are discussed further in Kanbur and Mukherjee (2003).
correspondence between these and some of the components of the MDGs. Why one list rather than another? On the second question, the UNDP has a particular form of weighting its three components. I have argued that the specific weighting is not entirely satisfactory, but at least it is there and it is specific.\textsuperscript{21} A central policy question is how public resources should be divided between, for example, primary education, maternal health and supporting informal sector income generating activities. Simply listing the MDGs, important as it might be as a political and communication device, gives us no guidance on such policy issues. But, then, it is a hard question.\textsuperscript{22}

\textbf{Suppose poverty (in whatever dimension, and however measured) goes down, but this is composed of a fall in poverty for some but an increase in poverty for others—is such aggregation across poor individuals ethically permissible?} One of the dirty little secrets of policy reform is that it pits not only rich against poor (the usual case considered in the analytics), but also some poor against other poor. The poor who are engaged in activities that are favored by the reform, for example exports, will benefit, but those engaged in activities that are not, will be hurt. From the late 1980s to the mid-1990s, income poverty in Mexico as a whole fell as the economy recovered from the debt crisis of the mid 1980s. But this national decline was composed of a fall in areas like Mexico city, and a rise in rural areas like Chiapas.\textsuperscript{23} Even within a region, or even within a locality, there is evidence of “churning”—some households escape poverty but others fall into poverty.\textsuperscript{24} Our aggregated national measures gloss over these fine patterns and pronounce “a reduction in poverty”. This is of little comfort to those who have been impoverished by the economic trends—an issue of some ethical and political significance. The aggregation issue is especially important, and raises related but different ethical and political questions, when identifiable socio-economic groups (like the indigenous people in Chiapas and the majority community in Mexico City) are on different sides of the winners and losers divide. How to address this type of aggregation, if at all, is a hard question. At the very least, we should carry with us a disaggregated account of how many have crossed the poverty line in either direction, and what socio-economic groups they belong to—any aggregation, or “canceling out”, being a further step to be taken in full view of its ethical assumptions.

6. Conclusion

My goal in this commentary has been to pose what I consider to be some hard questions in the analysis of growth, inequality and poverty. I have by no means covered all the hard questions. And the questions I have covered are not particularly new; it is just that (at least to me) they seem particularly hard. Given the space constraints, I have only been able to cover a small number, and perhaps in too staccato a fashion. Each of the issues raised is worthy of a paper, indeed a literature, by itself. The footnotes show that

\textsuperscript{21} Kanbur (1994).
\textsuperscript{22} Of course the different components, such as health and income, may affect each other. This is another analytical complication. See Case (2002).
\textsuperscript{23} See Lustig and Szekely (1997).
\textsuperscript{24} See Baulch and Hoddinott (2000).
economists have made a good start in addressing these questions. But I believe that these are the questions that need to be in the forefront of the analytical and policy discourse in the years to come.
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Primacy of Institutions Over Geography and Integration in Economic Development.”