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GROWTH AND CHANGES IN INEQUALITIES

By

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CONTENT

This note is an invited discussion of a paper by professor Edmar L. Bacha: "The Kuznets curve and beyond: Growth and changes in inequalities" presented to the Fifth World Congress of Economists, Tokyo, 1977: It is to be published in the proceedings of the congress.

GROWTH AND CHANGES IN INEQUALITIES

DISCUSSION OF A PAPER BY PROFESSOR EDMAR L. BACHA

By Odd Aukrust[1)]

Introduction

1. Professor Bacha's paper is a survey of the large literature from the last decade or so on "income distribution under economic growth". He searches this literature for answers to three groups of questions:

(i) The first group concerns facts: What happens to income distribution when an economy grows? Do statistics reveal any regularities in the way in which inequality of income distribution changes as economies pass through successive stages of development? If a relationship between income distribution and development does exist, what is the form of this relationship?

(ii) The second group of questions concerns theory: What are the forces - economical, or political, or both - which cause income distribution to change during the process of development? If there is a fixed relationship between inequality and growth, how do we explain this fact? How do we choose between competing explanations?

(iii) The third and last group of questions concerns policy: Granted the facts and our understanding of them, is there anything man can do to influence the distribution of incomes at various stages of development? Through which instruments can this be done? If we have a choice between equality and growth, what is the trade-off between the two?

2. Since Professor Bacha mainly reports the views of others there is not much in his presentation which is controversial and asks for comment. I shall use my time instead to sum up what I have personally got out of his paper in the way of answers to the questions asked. In the interest of discussion I shall deliberately state my views rather provocatively.

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3. Before I do this, however, I feel a need to pay Professor Bacha a sincere compliment for having given us what I think is a very fine survey paper. He has succeeded admirably in providing us a tightly composed guide to a vast literature. We are indeed grateful to him for having given us such an excellent starting-point for a discussion of what is a controversial and politically rather "hot" subject.

The Statistical Facts

4. Let me then turn to the facts. The basic hypothesis was formulated by Kuznets more than 20 years ago. Whereas economists before him tended to believe, with Pareto, that the distribution of incomes remains in all places and at all times more or less the same, Kuznets speculated that, as an economy grows, the distribution of incomes will not remain stable but change everywhere according to a characteristic pattern. According to Kuznets, income inequalities will increase during the early stages of development, then become stable, and later narrow again.

5. Do the statistical facts support the Kuznets view? To me, this is not obvious. Or, to be more precise, the evidence does not seem to me to be in any way conclusive.

6. First, as to what we know about the history of individual countries. On this, two sets of statistics are available. One (summarized by Bacha on pp. 6-7) relates to the records of a small number of European countries. As I read them, these statistics show a rather strong and uniform trend towards equality starting by World War I. However, we are certainly not justified to conclude that these trends - observed during one single historical epoch for a small number of homogeneous economies - will repeat themselves under different circumstances in countries with different economic and social structures. Indeed, scattered data for a few countries before World War I show no such regularity.

7. The second set of historical statistics bearing on the subject is brought together by Bacha in Table 1 and Figure 2. This material is interesting and deserves close examination. The statistics show changes in income shares of the lowest 40 per cent of households in 30 countries during (roughly) the 1960's. The data apparently behave as, according to

Kuznets, they should: They show inequalities to have increased in a majority of the low-income countries and decreased in most high-income countries. However, Figure 2 shows clearly that the slope of the regression line depends heavily on observations for a small number of countries (France, New Zealand, and the Netherlands at one end; Mexico, Malaysia and Brazil at the other). As Bacha himself comments: "These results are not very robust .... . If Sri Lanka and Pakistan are included in the sample and alternative estimates for the UK and US are adopted .... no significant results can be obtained. Shifts in income shares in the sixties appear as purely random." So much about historical data.

8. On the other hand, it must be admitted that studies of cross-section data seem to prove that a U-shaped Kuznets curve does exist in such data. A fairly large number of such studies have been undertaken in recent years. They are exemplified in Bacha's paper by his Figure 1, which reproduces Ahluwalia's data for 54 market economies.

9. Many question marks may be put with the value of such studies. First, the figure used are of doubtful quality. Kuznets once commented on them as follows: "It may not be an exaggeration to say that we deal here not with data on the distribution of income by size but with estimates or judgements by courageous and ingenious scholars relating to size distribution of income in the country of their concern." Secondly, we have the fundamental question whether conclusions about causal historical relationships can be drawn from associational relationships shown to exist in cross-section data. Thirdly, the significance of the cross-section studies have been doubted: It has been argued, for instance, that a U-shaped curve is revealed by the data only because the sample of countries includes a number of non-typical countries with a mixed white - nonwhite population (South Africa, Rhodesia, Brazil, Venezuela and others) which happen to be at a medium level of per capita income while portraying at the same time an extremely unequal income distribution.

10. To me, the cross-section data seem to suggest the following generalizations:

(i) As far as we can tell, cross-section data are in a broad sense consistent with the Kuznets hypothesis: They do show inequalities of income to be low in poor countries, to be at a maximum in countries with a higher income level, and to be lower again in the high income countries.

(ii) However, it is equally evident that this is a rule with many exceptions, as is seen by the spread of countries around the regression lines in Figure 1.

11. I conclude from this that the relationship between inequality and development is certainly not a simple one. We may speculate that there are mechanisms associated with growth which operate universally to cause the regularities observed in the data. However, it is equally obvious that there are forces which are peculiar for individual countries and which, together with development, determine the actual distribution of incomes in any individual country at any point of time. This being the case, it is doubtful how far a general theory of inequality and growth can be developed.

Theories of Inequality and Growth

12. Most theories of inequalities and growth have in common that they stress the importance of income differentials between sectors and the effects of transfers of population from one sector to another. The explanatory power of this idea is illustrated in a particularly simple way by means of a two-sector model in an unpublished paper by Harold Lydall. I shall permit myself to quote from this paper. Professor Lydall writes:

13. "Suppose that everyone in sector A receives an income of $100 and everyone in sector B receives an income of $200, and that there are 100 persons in the population, all of whom initially are in sector A. Now, if one person shifts from A to B, this has the following effects: (1) aggregate income increases by $100 to $10,100; (2) the income of the top 20 persons increases from $2,000 to $2,100, and their share of total income rises from 20 per cent to 20.8 per cent; (3) the income of the bottom 20 persons is unchanged at $2,000, but their share of total income falls from 20 per cent to 19.8 per cent. Clearly, the tendency for the share of the top 20 persons to increase will continue until all of them are in sector B. At this point aggregate income will be $12,000, the income of the top 20 persons will be $4,000, and their share of the total will be 33.3 per cent. Meanwhile, the share of the bottom 20 persons will have fallen to 16.7 per cent.

14. Now assume that the transfer of population from A to B continues further. When an additional 20 persons have moved to B, aggregate income will be $14,000, the share of the top 20 persons will have fallen from 33.3 per cent to 28.6 per cent, the share of the second group of 20 persons will have risen from 16.7 per cent to 28.6 per cent, and the share of the bottom 20 persons will have fallen from 16.7 per cent to 14.3 per cent. It is clear that the share of the bottom group will go on falling until 80 persons have moved to B, and that their share will start rising only when it is their own turn to move to B. Thus, in this example, the share of the top 20 persons grows until 20 per cent of the population have moved to B and falls continuously thereafter, while the share of the bottom 20 persons falls continuously until 80 per cent of the population have moved to B, and only then begins to recover."

15. So far Professor Lydall. We probably can agree that the explanatory power of this simple model is surprisingly high. Of course, other elements have to be added if the model is to be realistic. For instance, we should certainly allow for some dispersion of incomes within each sector. We might specify how inter-sectoral and intra-sectoral income differentials are supposed to change over time. We should definitely distinguish more sectors than just two. Such modifications would certainly affect the numerical results to be computed by the model without necessarily changing them in any fundamental way. It seems to me, therefore, that we have available the framework of a model of inequalities and growth on which economists may agree.

16. However, when it comes to filling this frame with empirical content the situation is much less satisfactory. This is the impression I am left with by the middle sections of Professor Bacha's paper. For instance, authors are seen to differ considerably with respect to the industries selected to represent low and high income sectors respectively. Thus, Kuznets' fundamental distinction is between the agricultural and the non-agricultural sectors. Furtado, on the other hand, according to Bacha, stresses the productivity increases and high incomes resulting from exports of raw materials. Pento, still according to Bacha, may not disagree with Furtado but emphasizes at the same time the "structural heterogenity" provoked by import substitution - which points

in the direction of a many-sector models. At the same time, there are important differences in what authors have to say about the reasons for income differentials within sectors. Some stress inequalities in the distribution of property rights and wealth, others inequalities in education, and others the effects of the types of policies pursued in different countries.

17. The lack of agreed knowledge is probably even greater when it comes to quantification and actual measurement of key variables. Too little is known empirically about, say, the actual magnitude of income differentials between industries and changes in such differentials over time. We also know too little about the speed by which income differentials lead to the transfer of people and capital from one industri to another. Finally, we do not know enough empirically about how inter-sectoral income differentials come to be generated.

18. On the last point one comment may be in order. It is sometimes argued that inter-sectoral income differentials are simply a reflection of relative productivities. This is clearly wrong: Inter-sector income differentials do not depend on physical productivities only, but equally much on relative prices. We know that prices, in the case of traded commodities, are determined largely on the world market. Two things follow: First, the distribution of incomes prevailing at any one time in any one country is determined to some extent by forces operating entirely outside that country's control; these forces will include existing productivities of other countries. Second, since countries starting industrialization today are faced with relative prices very different from those which confronted the industrial pioneers decades ago, the experiences of the newcomers with respect to growth and equalities are also likely to be different.

19. I can only conclude this part of my discussion by stating that, in my opinion, economists are still very far from understanding fully the interrelationship between development and inequalities. It appears to me from research undertaken up to now that the mechanisms at work are complex, and that they show great variability over time and amongst countries. However, our empirical knowledge about this is extremely meagre. I whole-heartedly agree with Professor Bacha's conclusion at the end of section 5: "There is a high pay-off for future historical comparative studies of county experiences using a common methodological framework ...".

Policies for Equality

20. Finally a few words about policy. A cynic might conclude from what I have said above that neither do economists know for certain what the historical facts are, nor do they know much about how supposed "facts" are to be explained. If so (it might be claimed), economists are not really well placed to give authorative advice on policies for greater equality. I would not disagree fundamentally with such a view.

21. It seems to me that what does emerge from the literature on equality and growth is little more than some concensus that the distribution of incomes in an economy is largely the result of two groups of influences: First, the usual laws of supply and demand which imply that incomes will reflect the relative scarcity of various types of factor services, given the existing technology. Second, the social and political environment, which <u>may</u> influence the actual choice of technologies as well as the demand for and supply of factor services, and which certainly influences the distribution of ownership of the factors. But these are general statements from which no definite action program for increased equality can be deduced.

22. Laws of supply and demand are not easy to control. The scope for policies to reduce inequality, therefore, will seem to lie primarily in the second area - that of the social and political environment. Professor Bacha shows in the last sections of his paper that economists have offered a long and varied menu of policy measures which, they claim, will lead to a more even distribution of incomes. The list ranges from recommendations for the choice of particular technologies for the expanding industries, on the one hand, to proposals for improvements in the educational system, or land reforms, or nationalization of industries on the other. The trouble is that we have very little to say either on the exact income effects of each of these measures, or about their possible side-effects on total output.

23. Since this is the case, the advice which economists can give to policy-makers at present on the important issue of growth and inequality does not seem to be of much practical value. This, to me, is perhaps the most important conclusion to emerge from Professor Bacha's survey paper.