mario José testa
1962

Titulo: POSSIBILITIES OF ECONOMIC PROGRESS

Capitlo II : THE MEANING AND MEASURABILITY OF ECONOMIC PROGRESS

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Editor: CAMBRIDGE UNIVERSITY PRESS 1959

CURSO: DESARROLLO ECONOMICO

PROF: JORGE AHUMADA

SOLO PARA DISTRIBUCION INTERNA.

THE MEANING AND MEASURABILITY

OF ECONOMIC PROGRESS

Whatever exactly we understand by economic progress, whether or not it is the same as economic growth, economic expansion or economic development, it is economic change possessing dominant characteristics approved of by those of us who speak of it as progress. In the long run, such change involves, almost always, increase in total output. In this sense, economic progress, like economic valuation, is one of the fundamental concerns of political economy. The study of political economy is for the most part, indeed, an exploration and an elaboration of these two topics. The analysis of value, and of the forces determining market prices and hence the allocation of the factors of production and hence the composition of the national product, is essential to an understanding of how economies work; and this understanding, in turn, helps to explain how the national product becomes what it is; helps, that is to say, to clarify the possibilities of progress, which it is the other great task of economics to comment upon and, in some sense, to explain.

The attention of economists is seldom equally divided between the study of value and the study of progress. Some of the greatest names in economcs, such as von Thünen, Walras and Menger, are associated almost from first to last with the analysis of value. On the other hand, economic progress is conspicuous not only as a major theme in the work of such writers as Smith, Mill, Marshall, Wicksell and Schumpeter, but also as the ultimate practical concern of almost all mercantilist and post-mercantilist writers. It is for this reason that, even in those cases in which, in Cairnes's well-known phrase, economics is designed to 'stand neutral... between competing social schemes', the problems which economists choose to study are seldom selected without some regard to the probable usefulness of the results in judging institutions or formulating policies. In numerous cases, however, the concern with the nature and processess of economic change is explicit and direct, with attention concentrated on those changes which are held to be for the better. Thus Adam Smith, from whose work so much of latter-day economics can be derived, viewed the national economy rather as an eighteenth century improving landlord might have viewed his estate, and sought to explain among other matters 'the causes of (the) improvement in the productive powers of labour... the nature of the capital stock... the manner in which it is gradually accumulated'. (1) The group of writers whose influence in practical affairs succeded Adam Smith's in the 1830's and 1840's and whose ideas were most tidily, most fully, and in some ways most ably expressed by John Stuart Mill, conceived the subject-matter of political economy in a somewhat different way; but the contrast which they drew between the working of the economic system in their time and that stationary state towards which they pictured it as moving shows that for them too progress was a fundamental characteristic of the contemporary economy and of their own theoretical analysis:

Whatever may be the other changes which the economy of society is destinated to undergo, there is one actually in progress, concerning which there can be no dispute. In the leading countries of the world, and in all others as they come within the influence of those leading countries, there is at least one progressive movement which continues with little interruption from year to years and from generation to generation; a progress in wealth; and advancement of what is called material prosperity. (2)

It might be argued, admittedly, that in many cases this attitude to economic progress was largely a reflection of the then common conception of progress itself as a providencial fact: 'it is universal, it is durable; it eludes all human inter-

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(1) An Enquiry into the Nature and Causes of the Wealth of Nations (Cannan's ed.), Introduction, Vol. I, pp. 2-3.

(2) J.S. Mill, Principles of Political Economy (Ashley's ed.) p. 696.

ference'. (3) But in the case of the best writers this is simply not true, and that it was not generally true is proved by the way in which the idea of progress maintained its importance in economic discussion and analysis long after simple-minded faith in the inevitability of progress in general had disappeared. Marshall, for example, at the end of the nineteenth century, could still conceive of economics as the study of those forces tending to reduce or eliminate the causes of poverty, and his treatment of economic problems is shot through and through with the idea of change and adaptation, of extension, improvement and enlargement taking place through time. The mid-twentieth century is more explicitly concerned than was the nineteenth with economic development, and much more doubtful about its spontaneity or, in some cases, its continuance through the foreseeable future; but even today few statistical projections are made which do not contain a large element of income growth; and, while no one expects the economic system half a century hence to be the same as today, few, if any, economists write as if they thought that future change would not be accompanied by enlargemente and improvement.

Yet in spite of the great importance of the idea of economic progress, and in spite of the considerable volume of attention which economic progress, as a practical problem, has been attracting in recent years, the content of the idea is often left nebulous and uncertain. What are we to understand by the words, economic progress? This question is often left un-answered, except by implication, or in an aside; and such answers are seldom satisfactory.

Economic historians, when comparing the economic achievement of one period with that of another, usually content themselves with some reference to an index of real wages, or sometimes to the



(3) A. de Tocqueville, De la démocratie en Amérique, (Paris 1835-40), Preface to part I.

the behavior of one or two conspicuous indices of production, such as for coal, steel or electric power. This summary method of procedure is unobjectionable so long as the figures are not represented as proving the existence of economic progress, but only as helping to indicate the nature and to some degree the extent of economic change. But if we concern ourselves with something we explicitly label economic progress, we are bound to ask what the difference is between economic progress and economic change; and, for that matter, we are bound to ask whether the terms economic progress, economic growth, economic development and economic expansion should or should not be used interchangeably.

There is a natural inclination, up to a point very justifiable, to understand economic progress in some measurable sense. The very idea of there being more of something--whether of goods, leisure or economic welfare in general--seems to imply measurability; and it can moreover be claimed that the statistical approach does 'record results that can be tested, accepted' and accumulated and to that extent is an improvement over verbal descriptions and documentary annotation of the succession of individual historical events'. (4) But alas! the degree to which the results can be 'accepted' depends chiefly on the extent to which agreement is reached regarding the definition and significance of what is being measured. The statistical approach, that is to say, depends for its worth upon prior and subsequent analysis of the economic and perhaps also philosophical issued involved. Figures alone are meaningless, except in terms of other figures. We may be able, by means of measurement, to show when and by how much the magnitudes in which we are interested have altered; but

(4) Income and Wealth of the United States; Trends and Structure, Income and Wealth Series II, edited by S. Kuznets for the International Association for Research in Income and Wealth (New York, 1952), p. 15.

we can only choose, define and justify our interest in these magnitudes on independent grounds. And the trouble is that while we can achieve a tolerable amount of agreement concerning the measurement through time of certain economic concepts (e.g. the national income) when carefully defined, the more strictly defined and the more easily measurable the concept the less confidence we can have that what we are measuring is economic progress. It is one thing to say that economic progress is most easily and least questionably measured in terms of changes in the size of, say, the national income; it is another to say that economic progress means an increse in the national income.

An there is another point. If, ultimately, we are trying to get at the causes of economic growth, measurement can in no circumstances be an alternative to explanation. It can be of no help in tracing changes in personal and institutional relationships, although such changes may be a cause of changes in the magnitudes which we measure. The social aggreates dealt with by statistical methods are, we have been reminded,

> only results en gros and cannot reveal the underlying motivations and aspirations of the human agents and of the intitutional factors at play. What is worse, they necessarily drown the strategic, the revolutionary, the dynamic, in the mass actions of groups and thus tend to obscure the elements that may most deserve emphasis.(5)

Yet, although the best measure of economic progress may be imperfect, may be misleading as to the best definition of economic progress, and may be a poor guide to causation, it is certainly better to have analysis based on good and plentiful data than on none at all. Such data can often demolish erroneous arguments and

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(5) S. Kuznets (ed.), op. cit. p. 14.

suggest promising new lines of thought, if nothing else. It is worth while, therefore, to consider economic progress at first in a quantitative sense.

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We start from the proposition that a rise in the national income denotes economic progress. It is assumed that the national income figures are corrected for price changes in some way--a point to which we shall return. What qualifications must be made to this proposition?

economía y cambio

I. Not all change is economic change. Man does not live by bread alone, and although in one situation everyone might agree that the economic position was preferable to that which had preceded it, any number of people might qualify their agreement by adding that so many other things had altered for the worse that the net effect of all the changes was, in their opinion, adverse. For example, everyone in a country might grow wealthier while tyranny increased, or while the incidence of mental disorders or of such diseases as cancer or poliomyelitis grew much more burdensome.

contabilización cambios sociales de estructura

2. Some economic changes are reflected inadequately, if at all, in national income statistics. Suppose, for example, that income rises but that certain 'free goods', such as fresh air, or access to the countryside, become difficult for many people to obtain. In such a case, the net effect of change, even of economic change, may be deemed negative, and not, as the statistics by themselves would suggest, positive. Likewise, statistics of the national income or of gross national product do not take account of changes in the quantity or disagreeableness of work done. More generally, increases in the national income are liable to be accompanied by increases in uncertainty and what might be called the rate of dislocation of social and economic life. A community in which national income rises to the accompaniment of unprecedented spells out periodic and widespread unemployment

not necessarily an economically better-off community, even though the unemployed should suffer little monetary loss as a result of their unemployment. Rising income may similarly be paid for the elimination of traditional and well-liked ways of living and working, or by the scattering of people from their homes into living quarters new and alien to them.

preferencias

3. While economic change is taking place, some people age and others are born. It is unlikely that the preferences of one generation will be those of the next, and hence it is quite possible that some people will hold that situation A was preferable to situation B, while others will hold the reverse, and this despite the fact that the real incomes of all have changed in the same manner and to the same extent. (6)

contabilización y cambio cualitativo de bienes

4. Economic change is likely to involve the improvement or the disappearance of old goods, and the introduction of new goods. Income statistics cannot reveal, except very approximately, the significance of such changes. Thus rises in personal incomes may be accompanied by the disappearance of goods which few consumers value highly; or constant personal money incomes and constant prices may go along with product improvement which raises substantially the real value of money incomes; or new goods may be introduced, their economic importance measured by their prices in the markets in which they sell, but not capable of being calculated by preference to those markets in which prices were settled in the absence of these goods. In the first of these cases income statistics may conceal a diminution of economic welfare, in the second case they may conceal an increase, and in the third they will reveal an increase, the size of which, however, is essentially indeterminate.

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(6) The exact meaning of the phrase 'real income' is discussed below.

soberanía del consumidor y efecto de demostración



5. The assumption that people know the ends which they desire economic activity to serve, and that they choose freely, may be erroneous. This basic assumption is seldom challenged in the theory of economic welfare, but doubt is cast upon it in other departments of economic study. It is a common place, for example, that advertising is designed to alter consumer preferences, and there is no doubt that is succeeds, to some extent, in doing this. Secondly, there is the point that the amount of their income which individuals allocate to saving is not independent of the practices of their neighbours. These points are usually kept separate from one another, the first being confined to the theory of price, the second to the theory of saving. But when they are put together it is a small step--if indeed it is a further step at all-- to conclude that the demand of individuals is not completely autonomous with respect either to volume or direction. Although this is a question of degree, it means that, in so far as the above is true, the economic system is not adapting means to ends. To some extent, it is not progressing, but merely functioning. Wants are satisfied; but new wants are created, and it is not enough to acknowledge that tastes may change, if it is a question of induced change. Change, of course, may come to be desired for itself, in which case the community, like Adam Smith's wage earners, will find it more agreeable that society grow richer than that it be ever so rich. To all this it may be objected that if there is any substance in these contentions (which are widely accepted in their particular spheres of economic theory) concessions to them would have been made long ago. But this is not the case, for the difficulties themselves are largely new. The comparative unimportance of imperfect competition used to minimise the significance of the first argument, while the maintenance of customary styles of living used to minimise the importance of the second. These critisims, however, can hardly be supposed to destroy,

although they undoubtedly weaken, the conventional bases of the statistical measurement of economic progress.

6. National income statistics are chronically liable to an upward bias for several reasons. The most important of these is that as an economy becomes more commercialised and economic activities more specialised, the importance of goods and services gratuitously provided--usually within the family--declines. An incfeasing proportion of an increasing supply of goods and services is exchanged against money, and hence the national money income increases faster than the supply of goods and services. It is sometimes suggested that a second important cause of distortion is the growth of transport costs, but this would seem to be incorrect. The argument is that transport services produce an income for those engaged in the industry; but than from the point of view of the community as a whole, these services are a cost, and a rise in national income due to their extention is, partially at least, a loss of economic welfare. The fallacy lies in supposing that transport services are less desired than production. What is wanted is wanted where it is wanted, and if a five per cent increase in the national product requires a 20 per cent increase in transport services, that is just too bad; the transport services are essential to consumers' satisfaction. All economic activity which enters into national income statistics is a cost from one point of view and income from another.

7. Most important of all, a rise in the national income may be accompanied--is almost certain to be accompanied--by changes in the distribution of that income. These changes may be such that in the view of any number of persons the economic situation is worse and not better than before. The national income may rise while 'the poor' grow poorer. Alternatively, the national income may rise while distribution becomes more equal, but some may regard this as threatening the powers of the economy to expand any further, and so may regard this change, too, as retrograde. It is

easy to think of cases involving distributional complications. Some years ago Professor Ashton pointed out that the conflict of opinion as to whether or not the standard of living in England rose in the first three decades of the nineteenth century depended largely on whether the changes were viewed from the point of view of the hand-loom weavers and similarly placed groups or from that of the majority of craftsmen or artisans. A similar case, frequently cited in theoretical discussion, is the repeal of the corn laws in 1846. It can be argued that this increased the national income, but also shifted its distribution in favour of industrial employees and to the disadvantage of landowners. Much ingenuity has been spent in trying to decide in what circumstances a change which is not, proportionately, equally to the advantage of everyone is to be classified as advantageous. No agreement has been reached. One proposition is that if the changed distribution which accompanies the increase in national income is thought not to be for the worse, then the overall change is an economic improvement. If, on the other hand, the changed distribution which accompanies the increase in national income is thought to be for the worse, then it is argued ~~either~~ that the new situation is unequivocally better than the old only if those who have gained by the change could compensate those who have lost, still themselves remaining better off than before; ~~or that the new situation is unequivocally better than the old only if those who have gained by the change can and do compensate those who have lost, still themselves remaining better off than before.~~ It is important to notice that these lines of thought depend on acceptance of the idea that evaluation of the national income apart from its distribution is meaningful; not all economists would agree to this. On the side of policy there is further debate about the desirability of income redistribution as an alternative to changes which produce an enlarged national income.

None of this seems to get us very far. It is seldom easy to decide by how much people have been advantaged or disadvantaged economically by economic changes. Even if this could be decided, the actual arrangement of financial compensation would alter the situation anew, and might have demaging effects on future national income. Agreement that there is a clear conceptual distinction between the size of the national income and its distribution, moreover, would not alter the fact that in practice changes in one of these cannot be affected without causing changes in the other; and this holds good whether or not the changes are carried out by a government seeking to restore some element of the status quo. Moreover, it makes a great deal of practical difference what timespan we are prepared to consider. For example, the removal of a tariff may at first reduce the economic well-being of workers in the hitherto protected industry and there may at first be no economic advantage out of which they could, even in theory, be compensated; but after some time the benefit to the economy as a whole may be substantial, and many of the workers may find their own compensation in better-paid jobs now available. Others, however, may be dead. The recognition which has been given in recent theoretical discussion to the fact that the pattern of income distribution is itself an economic good is important; but there are still no hard and fast criteria for deciding the case in which a larger national income is worse distributed, and while it is convenient to hope it is difficult to believe that this troublesome case is not also a fairly common one.

An unqualified acceptance of the proposition that a rise in the national money income corrected for price changes is a guarantee of economic progress is thus impossible. The difficulties are numerous, and they are not merely academic. Many of them have often been formulated with reference to particular cases. Sismondi, for example, criticised British economic development in the early years of the nineteenth century on grounds which are in effect numbers 2 and 7 above. His observations, although biased and rhetorical, are those of an eye-witness in a period of extraordinarily rapid and far-reaching change and are worth quoting:

In this astonishing country, which seems to be submitted to a great experiment for the instruction of the rest of the world, I have seen production increasing whilst enjoyments were diminishing....The high English aristocracy has indeed arrived to a degree of wealth and luxury which surpases all that can be seen in other nations; nevertheless it does not itself enjoy the opulence which it seems to have acquired at the expense of other classes; security is wanting....If I go into houses whose splendour is perfectly regal, I hear the heads of the families affirm, that if the corn monopoly is suppressed, their fortunes will be annihilated....Below this titled and not titled aristocracy I see commerce occupy a distinguised rank; its enterprises embrace the whole world....But have riches secured to the English merchant the kind of happiness which they ougut to ensure him? No: in no country are failures so frequent....All complain that business is scarce, difficult, not remunerative....Has, then, this natural opulence...nevertheless tended to the advantage of the poor? Not so. The people of England are destitute of comfort now, and of security for the future....The operative, to employ a word which the system has created, does not know what it is to have a station; he only gains wages, and as these wages cannot suffice for all seasons, he is almost every year reduced to ask alms from the poor-rates. (7)

Marx's strictures on the velopment of the capitalist system are in part similarly based: the substance of hi charges is that capitalist development entails the reduction of human relations to the cash nexus and the polarisation of incomes until economic break

(7) J.C.L. de Sismondi, Nouweaux principes d'économie politique (Paris, 1819), Preface.

down becomes unavoidable.

If it is so difficult to decide about economic progress, the obvious course is to discover whether there is to discover ~~whether there is~~ something less complex than economic progress which can be more easily defined and as usefully studied. Several authors have claimed that what is wanted is a magnitude variously described as aggregate real income, total real output or, quite simply, total production. If total production, which is the national output of goods and services valued at constant prices, that is, either gross national product or net national income, (8) increased, then, it is argued, there is demonstrable physical growth of the economic system,

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(8) National income may be defined as the net value of all economic goods produced by the nation during a given period of time. This definition raises two conspicuous difficulties; what do we mean by net value and what do we mean by economic goods? The second question can be given a brief if approximate answer: non-economic goods are those which are produced outside commercial enterprises and which are not for sale, e.g. the services of wives and relatives. The problem of net value is more difficult. Production involves the use and consumption of already existing goods. Since the market value of any good includes the value of other goods used in its production, it is not permissible to include in national income the full value of A as well as the value of B consumed in the process of producing A. In order, therefore, to arrive at the net value of any single enterprise's output it is necessary to deduct from the gross value the value consumed in manufacture, i.e. the cost of commodities and services of other enterprises used up in the productive process. The sum of the net values of the outputs of all the enterprises in the economic system constitutes net national income, and the sum of the full values of the outputs of the various enterprises is gross national product. The difference between net national income and gross nation product, in other words, is the value of products consumed in the nation's productive activity. Complex problems arise in defining this intermediate consumption, especially as regards the gradual consumption of durable products, and much discussion about national income centres round the questions, What fraction of durable capital is consumed during the relevant period? and, How is the value of a durable capital good best computed? an excellent introduction to all these problems can be found in S. Kuznets, National Income and its Composition 1919-1938 (New York, 1941), ch. I.

and all the awkward problems which arise in connection with human satisfaction (3,5 and 7 above) are side-stepped. The economy has an increased potential for providing economic satisfaction; we do not have to decide to what extent it is utilised. (Perhaps it is this kind of idea which those authors have in mind who write about 'economic growth' or 'economic expansion'.) The objection to the argument that this approach avoids some problems without raising any new ones is simple: how do we know that what the economy produces more of is not just rubbish? Output has to be valued, and the system of market prices prevailing in some period of time has to be adopted. This system of market prices reflects primarily the tastes of consumers, the distribution of purchasing power and the relative scarcities of the different services and commodities at that time. When output increases, it is as good as certain that all these determinants of price will alter. Such alteration may effect a major change in the system of relative prices, and hence cause a major change in the bases for calculation of the rate of economic progress. To try to allow for these changes, however, is to resurrect all the problems relating to satisfactions, and thus to return to economic progress. But unless we do return to it, the choice of any system of prices remains arbitrary, and the resulting calculations equally so. Only on one assumption, and that a very unrealistic one, would this objection lose its fatal force. If, in all circumstances, all factors of production are perfectly interchangeable with one another, then the composition of production ceases to be of any importance in this connection. More of anything can be converted without loss into more of anything else. A system possessing such characteristics would never have any specific scarcities. But it is, of course, quite unrealistic to suppose that if we can produce more coal we could equally well and at all times produce more green vegetables or provide an extended medical service. In other words, it is 'simply false' to suggest 'that there is something, called real income, which can be said to become larger or smaller in some perfectly objective sense'. (9) This is not a new discovery. 'Wealth', said Sismondi, 'is a modification of the state of man; it is only by referring it to man that we can form a clear idea of it.' (10)

It is therefore an illusion to suppose that the welfare problems involved in a consideration of economic progress can usefully be avoided. We shall therefore speak from here onwards only of economic progress or economic development, and shall not try to beg questions which are in reality unavoidable by talking about economic growth or economic expansion. On the other hand, we have to acknowledge that the statistical approach to economic progress must be the same as for 'economic growth', in the sense that in both cases we must adopt some system of market prices (or of marginal or average costs of production) at which to value output. The difference is that if we talk about economic progress we admit the existence of the welfare implications and problems inevitably involved in adopting any system. But the immediate question is, which system of prices ought we to adopt?

Perhaps most economists would agree that, were a free choice possible, they would prefer to estimate changes in the aggregate social income by using the aggregate index-number formula $\Sigma P_2Q_2 \gg \Sigma P_2Q_1$, where the P's refer to Prices and the Q's to total quantities of goods, the subscripts denoting respectively the earlier and the later period under consideration. (11)

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(9) I.M.D. Little, A Critique of Welfare Economics (Oxford, 1950), p. 76.

(10) J.C.L.S.de Sismondi, Political Economy and the Philosophy of Government (London, 1847), p. 127.

(11) This is by no means the invariable practice. British official valuations of the gross national product use 1948 prices.

This means that the criterion for income growth is that the money value of the real national income in Period 2 is greater than the real income of Period I valued at Period 2 prices. What is the significance of choosing Period 2 prices for evaluating the national income in both periods? Period 2 prices reflect the scarcity relationships and the income distribution then prevailing, and in using the criterion $\sum P_2Q_2 > \sum P_2Q_1$ we are therefore measuring change in terms of these prices and that distribution. But scarcity relationships (relative prices) and income distribution alter in the course of and because of economic progress. As far as the price structure goes, no base period is 'correct'. Different base periods yield very different results, especially during years of rapid industrialisation, because declines in prices and increases in physical output tend to be positively correlated in the course of industrial development. Thus the use of a base period at the end of several years of industrialisation almost always yields a lower 'rate of growth' than would the use of a base period nearer the beginning of the years under consideration. Hence there is no such thing as 'the' rate of growth; there are only rates of growth calculable in terms of a number of scarcity relationships and income distributions. The implication of the particular criterion $\sum P_2Q_2 > \sum P_2Q_1$ is that no redistribution of the $Q_1$'s in Period I could be devised such as to make everyone as well off as in Period 2. (12) This criterion does not guarantee that $\sum p_2q_2 > \sum p_2q_1$

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(12) This may not be clear at first glance. The obvious implication of $\sum P_2Q_2 > \sum P_2Q_1$ is that a redistribution of the $Q_1$'s might have been effected so as to make everyone less well off than in position 2; for if $\sum p_2q_2 > \sum p_2q_1$ for everyone, then $\sum P_2Q_2 > \sum P_2Q_1$. But if a redistribution making everyone worse off would have been possible, a redistribution making everyone better off would have been impossible. Therefore, as compared with any possible distribution in position I, if $\sum P_2Q_2 > \sum P_2Q_1$ mere redistribution could not have raised everyone to the level achieved in position 2. The reader who remains puzzled may refer for a fuller explanation to Hicks, 'The Valuation of the Social Income' in Economica (1940).

would hold good for every individual. Certainly $\Sigma p_2q_2 > \Sigma p_2q_1$ would hold good for every individual if in the second situation the output of no good was less than before, a most unlikely condition; it would also hold good if every consumer of every commodity which was no longer produced found the new substitutes for the old commodities perfectly acceptable. There is, therefore, always the possibility that $\Sigma P_2Q_2 > \Sigma P_2Q_1$ would be accompanied by $\Sigma p_2q_2 > \Sigma p_2q_1$ for every individual; but the one does not entail the other. And since the criterion $\Sigma P_2Q_2 > \Sigma P_2Q_1$ is based on the distribution of welfare obtaining after change has taken place, we still have to consider whether distribution is better or worse than it was before the change and whether redistribution could be attempted. Thus $\Sigma P_2Q_2 > \Sigma P_2Q_1$ can never be taken as a proof of economic progress.

Does it, then, make much difference whether we use $\Sigma P_2Q_2 > \Sigma P_2Q_1$ or some other similar index-number criterion for making a provisional measurement of economic progress? The answer is that in most cases it does not, because in the final analysis, whatever we do, and apart altogether from possible deficiencies in the statistics, we cannot measure economic progress. Whatever index-number criterion we use, allowance still has to be made for distributional changes, for the introduction of new goods and the disappearance of old ones, for the fact that some people die while others are born, and for the fact that the disutility of work may have altered. On the other hand, an increase in the social income in the sense that $\Sigma P_2Q_2 > \Sigma P_2Q_1$ affords prima facie evidence for supposing that economic progress has taken place, particularly if we think that income distribution has changed in a favourable sense. An increase in terms of some similar criterion affords similar, though, we may think, less good, prima facie evidence. In subsequent chapters we shall accept all such prima facie evidence, not neglecting the fact, however, that the rate of progress which it indicates may be illusory. As Little says, 'suppose that an index number of consumption seems to indicate that consumption rose....if the index number showed a terrific rise, the person who maintained that consumption had fallen would look silly...but he could never be proved wrong'. (13) No one is obliged to believe that economic progress is not consistent even with $\sum P_2Q_2 > \sum P_2Q_1$.

These are not all the difficulties which must be faced in reaching an understanding of the nature and usefulness of the idea of economic progress. There are two other variables in the economic situation which require to be taken into account. These are the size of the population and the quantity of capital.

Changes in the size of the population raise the kind of problem which hedonistic utilitarianism never solved; which for that matter, it never even faced. The greatest happines of the greatest number is, strictly speaking, a meaningless formula. If it is economic progress for an economy to support the same number of people at a higher income level per head, is it also and equally economic progress for it to support a larger number of people at the same level per head? In each case the national income may show a rise of exactly the same amount. There is also the problem that if population increases, then, even if income expands proportionately, as long as distribution remains unaltered one result of such a change might be a large increase in the number of very poor persons. In this case many people would argue that economic progress had not taken place. (14) The attitude which we adopt to these questions depends on our notions of what is desirable and what is not. Our judgments in such cases are judgments of value, althought not entirely, not everyone would describe them all as ethical judgments. Mercantilist writers frequently took the view that population was a good in itself.

(13) I.M.D. Little, op. cit., p. 218.
(14) See J. Viner, International Trade and Economic Development (Oxford, 1953), pp. 99-100.

This seems to have been principally, although not entirely, a political judgement. Today, in Western Europe, it is customary to assess economic progress in terms of progress per individual. One again, it is not necessary to agree about the answers to these questions. In all the examples with which we shall be dealing, fortunately, both income per head and total population were increasing. Nor is there an instance in Part II of a substantial increase in the number of the wretchedly poor being a conspicuous feature of years of rapidly rising national income. The possibility, however, that in some cases such difficulties may occur has to be borne in mind when considering economic progress in general.

As to the quantity of capital, that is important because the rate of capital formation is not only related to the rate of economic progress but also is not uniquely related to that rate. In other words, if capital is accumulated at a steady rate it does not follow that the national income will grow at a steady rate. Suppose, for example, that the rate of gross capital formation falls. National income may grow as fast as before because of a favourable change in the terms of trade, or because the new capital coming forward is much more productive than the old. But there are dangers in concentrating attention too exclusively on the national income and on standards of living. It is probably true, for example, that in Britain between 1920 and 1940 the national income was successfully (albeit in part fortuitously) protected from the long run forces tending to weaken the economy; but that in some ways, despite the immediate advantages, this only made subsequent difficulties worse. On the other hand, if favourable behaviour of the national income should not be regarded with too ready satisfaction, neither need a diminished rate of capital formation be thought of as an ultimate threat to prosperity. For the capital ratio, that is to say, the ratio of the value of the stock of capital to the value of the year's output, may fall as a result of the development of less capital intensive methods of producing goods or services, or as a result of a rise in the importance to the economy of goods and services which can be produced with comparatively little capital, or as a result of more intensive use being made of the stock of capital. Changes in the capital ratio are an almost certain accompaniment of progress, although the calculation of such changes remains a matter of great theoretical and practical difficulty.

A varying rate of capital formation is important for the present discussion, however, chiefly in that it makes standard of living statistics untrustworthy as aguide to economic progress. A high rate of capital formation, even of net capital formation, may be associated with a stationary or even with a falling standard of living. Something of this sort took place in Soviet Russia in the inter-war years. If net capital formation is taking place in an economy with a constant standard of living, it is of course within the power of the economy to raise the standard of living of its members whenever it is decided to realise economic progress in this form. But that economic progress is not realised in this form within any period does not mean that there is no economic progress. Conversely, a rise in the standard of living due to a fall in the proportion of resources currently devoted to net capital formation might constitute economic progress in a worthwhile sense, but would not do so if the diminished rate of capital formation reflected merely a postponement of the creation of required capital. (15) And it seems to be the case that those

(15) A rise in the standard of living due to a fall in population would be a case sui generis. The improvement in living would constitute progress, but unless the changed circumstances were to facilitate an increase in the productive powers of the economy, national output might remain stationary; and economic progress with a constant national output certainly sounds a little odd.

periods of economic history which are traditionally marked out as periods of rapid progress are distinguished from the rest not by the rate of increase in the standard of living but by the rate of net capital formation; while those periods which are not traditionally singled out as periods of rapid progress (for example, the years from 1873 to 1896 in Great Britain) sometimes contain an extraordinarily rapid rise in the standard of living. Indeed, the substance of complaint in periods of 'secular depression' seems to be either that profits are low or that there is a reduction in the rate of net capital formation. And this last--if justified--seems areasonable complaint, for, bearing in mind the qualification already mentioned with regard to the rise of lightly capitalised industries, it is an increase in the volume or an improvement in the quality of real capital which, leading to an absolute increase of production or to an economising in the means of production, is perhaps the commonest basis of economic progress however understood.

Most of the difficulties which we have so far considered in connection with assessing economic progress in terms of the national income originate in the fact that economic change gives rise to conflict between the interests of different individuals or different groups of individuals. Hence economic progress from the point of view of some people is not economic progress from the point of view of others. Hence there can nevel be economic progress in an absolute sense, unless all individuals agree that what has happened is economic progress; which is unlikely. And this is often the reason why divergent recommendations as to economic policy can result from perfectly sound economic analysis. But divergent views do not stem only from divergence in the value-analysis of changes in the national income. More radical differences of opinion are possible. As Wicksell said, there is a confusion of advice arising from 'divergent views and a more or less acute sense of what ought to be the goal of the economic evolution of society. (16)

Broadly speaking, alternatives to the social income approach, with its masked conflicts of interest, are usually in some sense nationalistic or idealistic in character. For example, much French and German economic thought concentrated attention not on individuals, whose interests clashed, and who might be deemed unable property to aprenhed their own interest even if the economic system left them free to make the attempt, but upon nations, because the nation was 'the legal expression of the common good of man. But why merely the nation? Why not makind? Because nations exist and struggle, the dream of perpetual peace remains a dream.' (17) In such a view, the measure of social good is the power of the State, involving ideas of stability and justice; and this is not necessarily identifiable with private profit or some kind of sum of individual preferences. In this scheme of things, economic progress may become synonymous with a movement towards national economic independence and security; towards, for example, the development of the home market with a view to 'the creating in some instances a new, and securing, in all, a more certain and steady demand for the surplus produce' (18) of the various enterprises of the nation. According to this view, it is not the mere fact of an increase in income or in the rate of capital formation which is important, but the nature of this increase; there is a difference, it is argued, between 'the toy industry and the merchant marine, or between oil-cloths and agriculture'. (19) There are many possible varieties of this kind of approach. The

(16) Quoted in G. Myrdal, The Political Element in the Development of Economic Theory (London, 1953). p. xv.

(17) E.O. Golob, The Méline Tariff (New York, 1944),p.132

(18) Alexander Hamilton, Report on Manufactures (1791),Para 7

(19) P. Gauwés, Cours d' Economie Politique (Paris, 1893), p. 485. It is true that this may be presented as a purely economic, though a long-run rather than a short-run, argument. But often it has political or sociological overtones.

agricultural, the autarkic, the socialistic, the communistic , the 'balanced economy' ideal,all have their supporters, some of whom do, and some of whom do not claim that their type of progress will also bring, as well as its own peculiar blessings, that continued proliferation of goods and services which is the chief, and sometimes seems the sole, concern of modern capitalist economies. A more generally acceptable criterion of progress, bearing some similarity to these others, is reduction in the amplitude of fluctuations about a given mean level of economic activity.

Examination of such ideas as these would lead unnecessarily far afield. But such alternative approaches to the idea of economic progress bring out what is, after all, the essential point: a definition of economic progress which would, without question, serve as the basis of a programme for the future or an assessment of the past is impossible. There are too many opinions, too many conflicting interests. True, a generally acceptable formula can be devised: Economic progress is increase of the power to achieve the economic aims of the community concerned. But this at once requires two comments. First, acceptability is obviously achieved at the expense of content--because economic aims can be so various that economic progress can, according to this definition, mean widely different things in different cases; if, in the course of time, a society were to change its economic aims (passing, say, from an ideal of rising real income, to an ideal of stability), then what was progress from the first point of view might appear retrogression from the second. This class of objection holds good even on the narrowest interpretation of the word 'economic'. In the second place, the definition leaves unanswered all sorts of questions as to the extent of the meaning of the word 'economic'. It is true that as long as we adopt one meaning and stick to it we cannot do much better, and that finality in this debate is hardly to be looked for. But whatever the choice made, difficulties remain. And the definition does nothing to remind us of the very important fact that almost always there are two types of economic disadvantage to be considered: insufficiency of goods and services; disutility arising from production (e.g. disagreeableness of work, business and personal uncertainty, destruction of free goods, etc.).

Yet when all is said and done there is clearly a great deal of good sense in the view that the increase of goods and services is a large element in economic progress. It is true that as an economy develops, as well as satisfying more fully some 'old' wants and creating some new 'genuine' wants (generated, perhaps, out of the costs of economic progress itself, e.g. the need for more soap because of urban smoke), it raises up also 'gratuitous' ones (e.g. television). But even these 'gratuitous' or (from the point of view of the consumer) 'induced' wants must have a foundation in 'natural' want, and much value judgment is involved here. Moreover, it requires a peculiar viewpoint to declare, having regard to all the members of society, that the economic changes which have taken place in this country in the past one hundred years have not been economic progress. That we may not know how best to use our enlarged incomes is another issue; discussion of which must be tempered by the knowledge that transmuting economic activity from one form into another is not always as easy as it is often made to sound.

¡Je, je!

But even if we agree to accept an increase in the national money income (corrected for price changes by any normal index-number formula) as a preliminary measure of economic progress, and to confine ourselves to trying to account for economic progress in this sense, we must remember that this is only the beginning of the problem. It does not follow that in trying to understand economic progress we can be indifferent to the forms of investment, to the encouragement or discouragement of state or private enterprise, to the foundation and development of institutions, to the growth of a money economy, to the securing of markets by military conquest or commercial treaty. Nor does it follow that we must accept as our aim for the future the greatest possible rate of measurable economic progress. We must remember, too, that even within our chosen framework there are divergent objectives and divergent interests. It is almost certainly not the case, for example, that we can always redistribute wealth once created, or the power to create more wealth, without jeopardising the capacity of the economic system to grow further, or even to maintain the level of development which it has reached. Thus an increasingly equal, or an increasingly unequal distribution of income or of wealth, or of the power to create wealth, may be a condition, in one economic situation or another, for the continuation of economic progress.

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