THE THEORY OF ECONOMIC GROWTH

by W. Arthur Lewis
Stanley Jevons Professor of Political Economy in the University of Manchester

1955
RICHARD D. IRWIN, INC.
HOMewood, ILLINOIS

pg. 420 - 425
APPENDIX

IS ECONOMIC GROWTH DESIRABLE?

Like everything else, economic growth has its costs. If economic growth could be achieved without any disadvantages, everybody would be wholly in its favour. But since growth has real disadvantages, people differ in their attitude to growth according to the different assessment which they give to its advantages and disadvantages. They may dislike the kind of society which is associated with economic growth, preferring the attitudes and institutions which prevail in stable societies. Or, even if they are reconciled to the institutions of growing societies, they may dislike the transitional processes in the course of which stable societies are converted into growing societies; they may therefore conclude either that the benefits of growth are not worth the cost of the disturbance it involves, or also that growth should be introduced slowly, so that the society may have as long as possible to adjust itself to the changes which economic growth requires. We shall begin with the advantages of growth, and then consider the costs of growth in terms of the attitudes it requires, and in terms of the disturbances involved in the process of transition.

(a) The Benefits of Economic Growth

The advantage of economic growth is not that wealth increases happiness, but that it increases the range of human choice. It is very hard to correlate wealth and happiness. Happiness results from the way one looks at life, taking it as it comes, dwelling on the pleasant rather than the unpleasant, and living without fear of what the future may bring. Wealth would increase happiness if it increased resources more than it increased wants, but it does not necessarily do this, and there is no evidence that the rich are happier than the poor, or that individuals grow happier as their incomes increase. Wealth decreases happiness if in the acquisition of wealth one ceases to take life as it comes, and worries more about resources and the future. There is, indeed some evidence that this is the case; in so far as economic growth results from alertness in seeking out and seizing economic opportunities, it is only to be expected that it should be associated with less happiness than we find in societies where people are not so concerned with growth. There is evidence of much greater mental disturbance in the United States of America than there is in other countries, and, even when allowance is made for differences in statistical reporting, it is at least plausible that the higher suicide rate is causally connected with the drive for greater success in an already rich community. We certainly cannot say that an increase in wealth makes people happier. We cannot say, either, that an increase in wealth makes people less happy, and even if we could say this, it would not be a decisive argument against economic growth, since happiness is not the only good thing in life. We do not know what the purpose of life is, but if it were happiness, then evolution could just as well have stopped a long time ago, since there is no reason to believe that men are happier than pigs, or than fishes. What distinguishes men from pigs is that men have greater control over their environment; not that they are more happy. And on this test, economic growth is greatly to be desired.

The case for economic growth is that it gives man greater control over his environment, and thereby increases his freedom. We can see this first in man’s relations with nature. At primitive levels, man has to struggle for subsistence. With great drudgery he succeeds in wresting from the soil barely enough to keep himself alive. Every year he passes through a starvation period for several months, because the year’s crop barely lasts out until the next harvest. Regularly he is visited by famine, plague or pestilence. Half his children die before reaching the age of ten, and at forty his wife is wrinkled and old. Economic growth enables him to escape from this servitude. Improved techniques yield more abundant and more varied food for less labour. Famine is banished, the infant mortality rate falls from 300 to 30 per thousand; the death rate from 40 to 10 per thousand. Cholera, smallpox, malaria, hookworm, yellow fever, plague, leprosy and tuberculosis disappear altogether. Thus life itself is freed from some of nature’s menaces. Not everybody considers this a gain. If you think that it is better to die than to live, and best not to be born, you are not impressed by the fact that economic growth permits a reduction of death rates. But most of us are still primitive enough to take it as axiomatic that life is better than death.

Economic growth also gives us freedom to choose greater leisure. In the primitive state we have to work extremely hard merely to keep alive. With economic growth we can choose to have more leisure or more goods, and we do indeed choose to have more of both. The opposite impression is created if a comparison is made between impoverished agricultural countries and rich industrial countries, since in the former labour is idle through much of the year, when the weather is unfavourable to agriculture, whereas in the latter men work regularly throughout the year; but this is a false comparison. If we compare not industry with agriculture, but the industrial sector
in rich with the industrial sector in poor countries, and similarly
the agricultural sector in both countries, we shall find almost invariably
shorter hours of work in each sector, as income grows; and also less drudgery, with increased use of mechanical power.

Also, it is economic growth which permits us to have more services, as well as more goods or leisure. In the poorest communities sixty or seventy per cent of the people are needed in agriculture to procure food; whereas in the richest countries twelve to fifteen per cent suffice to give a standard of nutrition twice as good. The richer countries can therefore spare more people for other activities—to be doctors, nurses and dentists; to be teachers; to be actors and entertainers; to be artists or musicians. Many of the 'higher' activities which philosophers value—art, music, the study of philosophy itself—are in a sense a luxury which society can afford to develop only as economic growth permits it to spare increasing numbers from the basic task of growing food. It is true that only a relatively small surplus is needed to support the arts, and that some of the highest artistic achievements date back to societies where the masses of the people were very poor. The raising of living standards over the past century has widened the opportunity to appreciate and practise the arts, without necessarily affecting the quality or quantity of the best art one way or the other. However, leaving aside the highest art, there has without doubt been an enormous increase in popular leisure and the popular opportunities for enjoying what were previously the luxuries open to very few. Relatively far more people hear the work of the best composers today than heard the work of Mozart or of Bach in their own times, or saw the work of Rembrandt or of El Greco.

Women benefit from these changes even more than men. In most under-developed countries woman is a drudge, doing in the house-
hold tasks which in more advanced societies are done by mechanical power—grinding grain for hours, walking miles to fetch pails of water, and so on. Economic growth transfers these and many other
tasks—spinning and weaving, teaching children, minding the sick—
to external establishments, where they are done with greater special-
ization and greater capital, and with all the advantages of large scale production. In the process woman gains freedom from drudgery, is emancipated from the seclusion of the household, and gains at last the chance to be a full human being, exercising her mind and her talents in the same way as men. It is open to men to debate whether economic progress is good for men or not, but for women to debate the desirability of economic growth is to debate whether women should have the chance to cease to be beasts of burden, and to join the human race.

Economic growth also permits mankind to indulge in the luxury of greater humanitarianism. For instance, at the lowest levels of sub-
sistence there is little to spare for those who cannot help themselves, and the weakest must go to the wall. It is only as the surplus increases that men take increasing care of the leper, the mentally de-
ranged, the crippled, the blind, and other victims of chance. The desire to care for the sick, the incompetent, the unlucky, the widow and the orphan is not necessarily greater in civilized than in primitive
societies, but the former have more means to spare for the purpose, and therefore do in fact display greater humanitarianism. Some
people are disturbed by this; they think that it is against the eugenic interest of society to maintain persons who are not able to keep up in a competitive struggle, and they consider that the long run effect will be to reduce biological vigour unless such persons are sterilized. But these are as yet in a minority.

Economic growth may be particularly important to societies where political aspirations are currently in excess of resources, since growth may forestall what might otherwise prove to be unbearable social tension. For example, in some countries, such as Great Britain, the working classes or their spokesmen are demanding ever larger wage-
packets, and ever increasing expenditure on housing, education, health and other amenities. If in such societies income per head is stable, the desires of one group can be met only at the expense of other
groups, and this is bound to lead to civil strife. In these democratic
days, most countries of the world are passing through a phase where
terrible civil strife is inevitable unless there is a rapid increase in pro-
duction per head, so that resources are brought nearer to aspirations.
This is the aspect of economic growth which impresses itself most
upon statesmen, so it is not surprising that democratic statesmen are everywhere very much convinced of the urgency of stimulating rapid economic growth. At the same time it must be admitted that economic growth does not always diminish strife. It may on the contrary have the effect of disturbing relatively stable social relationships, of stimulating envy and desire, and of precipitating class, racial or religious conflict. This is related to the proposition that economic growth does not necessarily increase happiness. Neither does it necessarily increase political freedom. It increases the opportunity for dictators to control men's minds, through mass communication, and men's bodies, through highly organized police services. So it is not possible to argue that economic growth necessarily improves political relations.

Another aspect of the disproportion between aspirations and
resources is to be seen in the political attitudes of countries of low international status. Peoples now in colonial status are anxious to
become independent. Independent nations, numerous in population but poor in income, are anxious to have a higher status in the councils of the nations. Rightly or wrongly such peoples think that if they were richer, and especially if they were rich enough to have powerful armed forces, they would count for more in international affairs, and there would be more respect for their nationals and for their way of life. There are some nationalists whose reaction to the modern world is to turn away from it, and to urge their people to return to the old ways of life. But most of the nationalists who have acquired power believe that it is necessary to have rapid economic growth. Many people believe that great differences between countries in wealth or economic development provoke war, and that the world would be nearer to peace if there were not wide disparities in standards of living. This is a very doubtful proposition, since societies which are undergoing rapid economic growth are often tempted to fall upon their neighbours. In any case, the causes of war are so numerous, and so indirectly related to economic considerations that it hardly helps to discuss the case for economic growth in terms of possible effects on peace or war.

It is sometimes argued that any expectation that all the nations of the world can raise their standards of living continuously must be illusory, since the effect would be only to exhaust rapidly the world’s accumulated stocks of minerals and of fuel. This argument rests upon two uncertain assumptions. First it presumes that human ingenuity, must in due course fail to find new substitutes for what is used up, an assumption which is rendered increasingly doubtful by what we are learning about the nature of the atom, and about the transformation of one element into another. And secondly it assumes that future generations have an equal claim to the world’s resources. Why should we stay poor so that the life of the human race may in some centuries to come be extended for a further century or so? Is there not as good a case for the present generations to make the best of the resources they find, and to leave the distant centuries to look after themselves? Even if these questions are answered negatively, there remains the further point that it is not the poorest nations of the world who are using up the minerals and fuel rapidly, but the richest. If the argument has validity it may be taken as a counsel to Europe and to North America to stop raising their standards of living any further, but it is much less forceful as counsel to Asians and Africans, whose current draft on accumulated reserves is so small, to continue in their present poverty.

(b) The Acquisitive Society
If the benefits listed above were available without cost, nearly everyone would favour them. Many people, however, consider that the attitudes and institutions which are necessary for economic growth are undesirable in themselves; they prefer the attitudes and institutions which belong to stable societies.

In the first place, they dislike the economizing spirit, which is one of the conditions of economic growth. If other things are equal, growth is most rapid in those societies where people give their minds to seeking out and seizing opportunities of economic gain, whether by means of increasing earnings, or by means of reducing costs. And this propensity to economize, though it might equally well spring solely from a desire to reduce drudgery and increase the leisure available for enjoyment or for spiritual pursuits, seems in practice not to be well developed except when it is associated with a desire for wealth, either for its own sake, or for the social prestige or the power over people which it brings. It is arguable that economy is a virtue, in the sense that there is the same sacred duty imposed upon man to abhor waste and to make the best use of his resources as there is to abhor murder and to look after the widows and orphans—in fact the parable of the talents says that this is so. Not everyone agrees that we have a sacred duty to fuss and bother about resources, or about fleeting time; these would say that economy costs too much in nervous energy and human happiness, and is rather a vice than a virtue. They might admit a duty to economize or work enough to reach some minimum standard of living, necessary for health and comfort (a dubious concept) but would argue that economy beyond this level is not worth the effort. Moreover, even those who accept economy to be a virtue may nevertheless deplore the fact (if it is a fact) that this virtue is found only in association with the vice (if it is a vice) of materialism. It is possible to desire that children should be taught to make the best use of the resources and opportunities available to them (the virtue of economy), and at the same time not to want more than they already have (to avoid the vice of cupidity). If this were done, and if the teaching were effective, there would still be economic growth; only, instead of its showing itself in ever rising material standards of living, it would show itself in ever increasing leisure at constant material standards; and if this leisure were not to result also in the ever-increasing vice of idleness (if this is a vice), children would have also to be taught to use their leisure in ways which resulted neither in idleness, nor in the production of economic goods and services. We cannot, in practice, get very far by pursuing lines of enquiry which depend on assuming human nature to be other than it is. Man likes to have more wealth, likes to economize, and likes to be idle. None of these desires seems to be intrinsically either virtuous or vicious, but any one of them pursued to its extremes, in dis-
regard of other duties, obligations or rights results in unbalanced
personalities and also in harm to other persons. It is just as much
possible for a society to be 'not materialistic enough', as it is for it to
be 'too materialistic'. Or, to put the matter the other way round,
economic growth is desirable, but we can certainly have too much of
it (more than is good for spiritual or social health) just as well as we
may have too little of it.

Exactly the same comment can be made in relation to individual-
ism, which is the second score on which economic growth is attacked.
It seems to be the case that economic growth is more likely if indi-
viduals attend primarily to their own interests and those of their
more immediate relations than if they are bound by a much wider
net of social obligations. This is why economic growth is associated,
both as cause and as effect, with the disappearance of extended
family and joint family systems; with the erosion of social systems
involving concepts of caste, age, family, race) and their
substitution by systems based upon contract and upon equality of
opportunity; with a high level of vertical social mobility; and with
the decline of tribal bonds, and the reduced recognition generally of
the claims of social groups. This is another problem which cannot
be solved by making a virtue of one side of the argument and a vice of
the other. There are some rights which all individuals ought to have,
and which should be protected against all social claims; and at the
same time every individual belongs to a group, or whole series of
groups, whose existence is necessary to his own social health, and
whose continuance depends upon his recognizing the claims of the
group and loyally accepting its authority. The growth of individual-
ism in the past five hundred years has had its evil side, but it has also
been a valuable and liberating influence. Economic growth cannot
therefore be attacked for being associated with individualism as if
the only good things in human relations were tribalism, social status,
extended family relations, and political authoritarianism.

A third line of attack upon economic growth derives from its
association with reliance on reason. Economic growth depends upon
improving technology, and this in turn is greatest where men have a
reasoning attitude both towards nature and also towards social rela-
tions. Now the reasoning mind is suspect, either because it is believed
to result in religious agnosticism or in atheism, or also because it is
considered incompatible with the acceptance of authority. As for
religious belief, it is an open question whether decline of belief in God
or gods is to be blamed for the evils of our time, or even whether the
evils of our time are greater than those of previous ages in which
religious belief was commoner. But, in any case, it is not true that
belief in the importance of reason is inconsistent with belief in God.

The existence of God cannot be proved or disproved by rational
means, so there is no reason whatsoever why the most rational of
men should not also believe in the existence of God. Reason erodes
not religion but authority, and it is only in so far as religion is based
upon authority that the reasoning mind is hostile to religion. But in
this sense the reasoning mind is just as hostile to science as it is to
religion; for it is hostile to any attempt to claim that current doctrine
is not open to re-examination from the roots upward, or that only the
initiated have the right to question its validity. Here again, however,
as with materialism and with individualism, so also with reason;
truth is not to be found by identifying virtue with one only of two
opposites. For, just as materialism and spirituality are both desirable,
so also society needs to have both reason and authority. The good
life is founded in weaving a pattern of opposite principles, not in
rejecting some and using only the others.

A fourth line of attack is pursued by those who do not like the
growth of scale which is associated with economic growth. The
economies of scale show themselves, in the first instance, in the
division of labour, and in the use of machinery. This is disliked by
some who dislike machine made goods, and who prefer the products
of the skilled handicraftsman. Economic growth destroys old handi-
craft skills, and though it creates even more new skills, machine skills
and others (for specialization greatly increases the range of skills)
there are many people who regret the passing of the old skills and the
old craft products, and who find no consolation either in the growth
of the new skills or in the multiplication and cheapening of output
which mass-production makes possible. The principle of specialization
is itself attacked, for specialization results in people having to do
the same thing over and over again and this, whether it be turning
nuts on bolts, or packing chocolates into boxes, or repeating the same
university lecture, or practicing musical scales, or taking out appendixes,
is necessarily boring, until one gets so used to one's job that one
can do it without giving the whole of one's mind to it.

The economies of scale show themselves also in the growth of the
size of the administrative unit. Thus businesses, units of govern-
ments, and other organizations grow in scale. In the process, men are
separated from the ownership of their tools, and are proletarianized.
Large scale organization brings with it also peculiar social tensions;
such organizations have to be run on hierarchical lines, which means
that a few command while the majority obey, however much one may
seek to democratize the process; these organizations have also to find
some means of distributing work and reward which is at the same
time efficient and accepted as just. We have not yet succeeded in
learning how to run large scale organizations without creating unrest,
and many people therefore think that we would be better off without them.

Large scale organizations are also disliked because of the discipline they impose; day after day men must rise at the same hour, arrive at their place of work at the same hour, do much the same things, and return home at the same time. Some think that this makes life drab and monotonous, and reduces human beings to the mechanical role of cogs in some vast wheel. They would prefer that men should not be tied to the clock, and should have greater freedom of choice from day to day, though it is by no means clear either that the man who works in the one-man business is less a slave of the clock, or that having regular habits is something to be deplored.

The economies of large scale organization also result in the growth of towns, especially when this is associated with growing real income per head, which increases the demand for manufactured products and for services relatively to the demand for agricultural products. In so far as the revolt against large towns is associated with a preference for agricultural occupations, it is really a revolt against technological progress. For it is technological progress which enables a country to produce with fifteen per cent of its population enough food to feed the whole, and if we are to return to the days when seventy per cent of the people were needed upon the land either we must abandon all that agricultural science has taught us, or else we must reduce hours of work to about ten a week. It is technological progress in agriculture which results in the growth of urban occupations, but it is the economies of large scale organization which result in these urban occupations being concentrated in ever larger towns. That this is undesirable is by no means clear. The majority of people, when given the chance of working in the town or in the village, choose the town—this is why towns grow at the expense of villages; only a minority prefer the village to the town, and many of those who denounce the town are in fact careful to avoid living in villages. If towns are thrown up in a great hurry, without proper planning or control, they can indeed be slummy, drab, ugly and unhealthy; but in these days there is no reason why new towns (or even old ones for that matter) should not be as beautiful, gracious, healthy and inspiring as any village, as well as providing far wider opportunities for exercising body, mind and soul than any village could ever hope to offer.

Finally, economic growth may be deplored in so far as it is dependent upon inequality of income. That this dependence exists cannot be denied since growth would be small or negative if differential awards were not available for hard work, for conscientious work, for skill, for responsibility and for initiative. It is arguable in any given situation whether the existing differentials are too great or too small, in the restricted sense of being greater or less than is required to achieve the desired rate of economic growth. But it is not arguable, as the rulers of the U.S.S.R. soon discovered, that significant economic growth could be achieved even if there were no differentials at all. Now, part of the revolt against economic growth on this score is no more than an argument that in some particular place or time the differentials existing are greater than are necessary for the achieved level of growth, and are due to faulty social organization. To this extent the argument simply becomes one of altering social institutions (inheritance of property, ownership of land, taxation, educational opportunities, etc.) in ways which alter the distribution of income of or of property without reducing the rate of economic growth. But there are also situations where the degree of differentiation which economic growth demands is not acceptable even when it is fully admitted that smaller differentiation would reduce growth—for example, situations where foreign teachers or technicians cannot be had except at salaries which are high by local standards, or where pioneering foreign or domestic entrepreneurs are unwilling to initiate developments unless they are allowed the chance to make and keep profits at a rate far in excess of what is locally thought to be 'reasonable'. The economic test in such matters is that of supply and demand: 'reasonable' differentials are those salaries or profits which are objectively necessary in the situation to secure the required supply of skill or initiative. But what is 'reasonable' on this test may well be 'unreasonable' by some other standard of merit or social justice.

Three conclusions follow from this analysis. First, some of the alleged costs of economic growth are not necessary consequences of growth at all—the ugliness of towns or the impoverishment of the working classes, for instance. Secondly, some of the alleged evils are not in fact intrinsically evil—the growth of individualism, or of reasoning, or of towns, for example. As in all human life, such things can be taken to excess, but they are not intrinsically any less desirable than their opposites. From this it follows, however, thirdly, that the rate of economic growth can be too high for the health of society. Economic growth is only one good thing among many, and we can take it to excess. Excessive growth may result in, or be the result of, excessive materialism, excessive individualism, excessive mobility of population, excessive inequality of income, or the like. Societies are not necessarily wise to choose to speed up their rate of growth above its current level; if they do, they will enjoy substantial benefits, but they may also incur substantial costs, in social or in spiritual terms, and whether the potential gains exceed the potential losses must be
assessed separately in each situation as best we may. It is because economic growth has both its gains and its losses that we are all almost without exception ambivalent in our attitudes towards economic growth. We demand the abolition of poverty, illiteracy and disease, but we cling desperately to the beliefs, habits and social arrangements which we like, even when these are the very cause of the poverty which we deplore.

(c) Problems of Transition

Special problems arise when it is a matter of introducing economic growth into societies which have existed for some centuries at low levels more or less of economic stagnation. For it is then necessary to transform beliefs, habits and institutions, and though in due course when the new beliefs, habits and institutions have been going for some time, and have become firmly rooted, a new dynamic equilibrium may be reached which is in every sense superior to the old static social equilibrium, nevertheless the transition may produce temporary but very painful situations.

One of the more obvious of these is changing peoples’ habits of work. For example, suppose that copper is discovered in a very primitive country where all the people have land of their own which enables them to live to their own satisfaction, though at very low levels of health, of material standards, or of culture. These people do not want to work in copper mines, and it may be that they will not voluntarily accept employment at any wage which would make it remunerative to work the mines. On the other hand, it is also possible that if they were forced to work in the mines the wealth they could thereby produce would make it possible to give them very much higher standards of material well-being, of health, of education and of culture. Suppose also that if initially forced they would after a while acquire such a taste for the new kind of work, such an appreciation of their high standards, and such contempt for their previous ways of life that in due course they would be glad to work in the mines after the force was removed. Is the temporary use of force justified in these circumstances? This abstract example is by no means a mere academic exercise, since it is not at all dissimilar to what has happened in some parts of Africa, where the people have been forced to work in mines or on plantations, whether by orders issued through their chiefs, or because this was the only way of earning money to pay the taxes imposed on them for this purpose, or because they were driven off their lands. What actually happened in these cases is more complicated than the facts given in our abstract example, because of the additional fact that those who exercised force in these circumstances did it primarily to enrich themselves, and not because they wished to benefit the Africans. In some of these cases there is also the further fact that the Africans have not even benefited materially; on the contrary, their former villages are ruined economically, their way of life has been destroyed, while they themselves live in barracks, slums and shanty towns in material no less than in spiritual impoverishment. We have always emphasized in this enquiry that it is possible to have economic growth, in the sense of increasing output per head, without the majority of the people being any better off, because the increased output enriches only a powerful few. Most people in the world would agree that such developments are immoral, and would condemn economic policies which benefit the few at the cost of the many no matter how great the increased output that would result. This, however, is quite different from the abstract case we are examining, since it is one of the presuppositions of this case that the effect will be greatly to increase both the material and the cultural standards of the people involved, and that they themselves will in due course prefer the new way of life to the old. Faced with this example people react in different ways. Some rest their case on opposition to compulsion: however good the ultimate effects, they say, no man should be coerced for his own good, or for the good of his descendants. Others rest their case on happiness; even if the people come to prefer the new way of life to the old, they say, they are not really any better off because they are not any happier; hence they have had a painful transition to no purpose, since they have gained nothing that matters—a questionable argument, as we have already seen, since it is doubtful whether happiness is an appropriate test of change. Still others react differently, and would justify coercion if it greatly benefited the coerced. Thus, Negroes in the New World condemn the act of slavery which took them there, but in truth not all of them regret that their forefathers were not left in the jungle villages of West Africa. So also there will always be politicians and statesmen, while the world lasts, who will not hesitate to coerce their subjects for the ultimate good of the coerced.

The question of the limits of permissible force is currently very acute since it has been demonstrated by the U.S.S.R. that a ruthless government can raise real output very rapidly if it is willing to deal severely with those who oppose its plans. All under-developed countries are being invited, by communist or other propaganda, to yield up their liberties in return for a promise of rapid economic growth. The invitation is somewhat misleading. They are told that the loss of liberty would be temporary; that the ‘dictatorship of the proletariat’—or the caudillo, or the army leader, or whoever it may be—is only a transitional phase, to be followed by the ‘withering
away' of the state; but we may well doubt whether liberties once surrendered are ever so easily regained. Neither does the invitation guarantee a rising standard of living; output may rise rapidly, but the dictator may decide to use it for purposes other than raising the standard of living of ordinary people. In any case, it is quite clear that it is not necessary to have a dictatorship in order to have economic growth. One or two democratic governments of under-developed countries—Burma, the Gold Coast—have shown that they have the will and the courage to find the resources which are necessary for growth, and that this can be done within the democratic framework by leaders who enjoy widespread confidence and support. It is up to other democracies to show that they can do the same.

Another painful transition is that which has to be made in social relations. The opposition of reason to authority, the movement from status to contract, and the change from social stability to vertical social mobility all upset existing relationships, whether in the matter of class, religion, political obedience, or family ties. This is clearly enough the case if the transition comes to a head in violent revolution, but even without this the transition is painful because it frustrates existing expectations and rights in every sphere. Many people are opposed to economic growth on this account. Some take the view that the old relationships are as good as the new or even better—they dislike the new freedom of family relations, the alleged 'rights' of the 'common man', and the destruction of the old social harmonies. Others, who do not believe that the old relationships were particularly harmonious, and who prefer the new, nevertheless question whether the difference is worth the cost. This, clearly, is an issue which can be decided only in terms of the valuation which one sets upon such matters as increased knowledge, equality of opportunity, better health standards, longer life, and the other fruits of economic growth.

Then there is the transition which has to be made in moral values. In the old society children are brought up into a code of behaviour, of duties, and of loyalties. The new society has a different code. Good behaviour in one society may be bad behaviour in the other. The duties and loyalties shift from one set of persons and institutions to another set—from the age-group to the trade union, or from the chief to an employer, or from the family to impersonal customers. In due course the new code may be established, and may work as smoothly as its predecessor, but meanwhile the community may pass through a trying time, during which the old morality has been cast off before the new has taken hold. Such transitions have been particularly painful in the past because we have not understood what was taking place. The transition is made much easier if the morality of the old society and the morality of the new society are both well known, and if those who are responsible for setting or guarding the moral standards of the community (especially the priests, the teachers and the legislators) deliberately set out to preach the new morality, right from the beginning of the change. But, in the first place, it is only recently that we have come to understand these matters, and to appreciate in particular the extent to which moral codes are bound up with and appropriate to particular social and economic patterns. In the second place, those who guard the moral standards of the community usually consider it to be their duty to guard the old code; they are hostile to the change, and regard the new code as immoral. And thirdly, even if they were won over to the new code, much of their authority disappears in the transitional phase, because of the growth of reliance on reason, and because of the public's loss of confidence in the institutions and practices with which these guardians have hitherto been identified. Thus the new code is not introduced systematically, or authoritatively. It is picked up only gradually, and in parts. New beliefs and old beliefs mix inconsistently. And there is much frustration and bewilderment when people do what they know to be the right thing to do, and find themselves ridiculed, scolded or punished for behaving in that way.

Painful transitions are inherent in the transformation of a society from one way of life to another; they cannot be altogether avoided except by avoiding change itself. This no one can do. The propensity to change is inherent in the nature of man. For man is essentially curious, and therefore forever accumulates knowledge, which alters his way of life. He is also prone to dissatisfaction, wanting more than he has, or moving about, or coveting his neighbour's status or possessions. He has also a sense of adventure, which makes him take chances, and a sense of rebellion, which is a constant challenge to hierarchical relations. It is therefore a waste of time to think in terms of stopping social change, and a waste of sentiment to regret that all established institutions must pass away. For social change arises just out of those parts of our nature which distinguish us from the rest of the animal kingdom.

All the same, though we cannot prevent change we can accelerate it or retard it. We have already emphasized that the rate of change can be too high, as well as too low. In the present context our problem is not the appropriate rate of growth of output, but rather the appropriate length of the period of transition from one pattern of social attitudes and institutions to another. Here there is no easy generalization; there is as good a case for getting transitions over quickly as there is for allowing plenty of time for adjustment.

In practice, we have no opportunity to choose retardation. The
leaven of economic change is already working in every society—even in Tibet—thanks to the linkage of the world which has been achieved in the past eighty years by steamships, by imperialism, by aeroplanes, by wireless, by migration, by Hollywood and by the printed word. There have, in particular, been two developments which make it imperative not to retard but to accelerate further growth. One of these is the fact that aspirations have grown faster than production. And the other is the fact that death rates are falling faster than birth rates.

In all the under-developed world aspirations now greatly exceed production, and the gap is growing. The masses of the people are beginning to believe that their poverty is unnecessary, and that it could be ended by changing their allegiances. Some few believe that it could be changed by their own individual endeavour, but many more believe that the solution lies in repudiating their landlords, or their employers, their priests or their present political rulers. Some politicians also have great aspirations, whether it be to raise the material and cultural standards of their people, or also to raise the standing of their country in international affairs. Now a large gap between aspirations and production can be very dangerous, since it produces frustrations from which almost anything may emerge. Many people fear that the result will be 'communism' (a word which no longer has any precise meaning). Some fear the spread of native breeds of 'fascism' (a word which has to be interpreted to include the traditional warlordism of many eastern countries, as well as the Latin American 'caudillo'). Others again see a strong likelihood that power will pass to religious fanatics (to mullahs, Mahasabas, rabbis and the like).

It is therefore not surprising that the leaders of many under-developed countries give a very high priority to measures for rapidly increasing production. Whether they will have the courage, and the necessary internal and external support, to raise the necessary resources may be doubted. And it is also doubtful whether in any case aspirations will not continue to outdistance production. But those who believe that it would be wrong to speed up production because of the effects on social relations, or on moral codes, usually forget both that these are already changing rapidly, and also that the results of frustrated aspirations may be even more dangerous to existing patterns than speeding up production would be.

The population dilemma is even less escapable. Under-developed countries untouched by external influences seem to have stable populations, with birth and death rates both very high by current standards. Once these countries are drawn into the modern world, with the consequent eradication of local famines and introduction of public health and medical care, the death rate begins to drop rapidly, and may fall from forty to ten per thousand in less than two generations. It then becomes necessary to begin to increase total production by rates of one or two or three per cent per annum, to keep up with rising population. Also, unless there is plenty of land available, it also becomes necessary to take steps to reduce birth rates to the same spectacular degree as death rates. This seems, however, almost certainly to require that production should grow even faster than population, since most of the explanations of the reasons why people adopt family limitation ultimately turn upon rising standards of living. In such a situation we cannot really choose to retard the growth of production; on the contrary in practically every one of the countries usually called under-developed the situation is that the current rate of growth of production is not adequate to permit the population problem to be tackled seriously. Again those who argue for retardation have usually overlooked what is happening to population, and have forgotten that the consequences of a population explosion may be much more damaging to existing social structures and moral codes than the consequences of any likely increase in production would be.