

## DYNAMIC THEORY AND PLANNING

Has dynamic theory, as it has been developed in recent years, any corollary in the realm of practice favourable to the desirability of economic planning? There is an impression, which is vague and not yet sufficiently based on precise reasoning, that dynamic theory has such an implication. This view is to be found among academic economists, and even has some influence in a wider sphere. For instance, the British Chancellor of the Exchequer, having had his attention called to the fact that British economic growth has been rather unsatisfactory in recent years, has put forward, as a recipe, that there should be some kind of forward programming of the potential increase of national income and of the rate of investment required. This appears to imply some lack of faith in the tendency of the forces of free enterprise to achieve, without guidance, the maximum growth that is obtainable. The United States has not yet gone so far. But the new Administration (1961) has set down the achievement of a higher rate of growth as a specific objective. It may still be thought there that this can be achieved by what are known as orthodox methods within the ideology of private enterprise, namely monetary and fiscal policies. There has been some disappointment at what has been achieved during the summer months of 1961; and graver disappointments may well be in store. There is the idea that the successive French "plans" have made their own contribution towards the remarkable growth of production that the French economy has achieved in the last decade. It is proposed in what follows to consider these ideas from a theoretical point of view.

There is no doubt that the advocacy of *laissez faire* has, since ADAM SMITH, been closely associated with the findings of static theory. It is held that private enterprise, without the assistance of public or central guidance, will tend to direct available resources into channels that will make them yield optimum economic fruits. This general dictum is recognized as being subject to two serious limitations, namely (1) a distribution of income that is not optimum and (2) distortions due to monopoly. It is held that for these shortcomings there are appropriate remedies. An unsatisfactory distribution of income can be remedied by taxation; and monopolistic

distortions by anti-trust legislation. There are also more subtle failings due, possibly, to cobweb action, or to cyclical oscillation. These again have been the subject of specialized study. There is also the vexed, and rather obscure, question of external economies and diseconomies.

Those brought up in the tradition of static theory will doubtless be inclined to argue that the forces of private enterprise should, by the same principles, tend to ensure growth also; these forces should tend to secure the best allocation of *additional* resources to productive use, in accordance with the tendency towards a long-run equilibrium as postulated by static theory, and to achieve also the maximum rate of growth rendered possible through resources becoming available in increasing quantities. At second remove, according to the classical scheme of ideas, the driving force towards growth was thrift. As a result of thrift, a capital was built up, and its owners would insist on keeping the whole of it profitably employed. A sufficient degree of enterprise to do this was pre-supposed.

It cannot be denied that there have been great historic examples of growth achieved in a regime of almost complete *laissez faire*. These would belie the proposition that there is anything in the regime of *laissez faire* necessarily obstructive to growth. We have, above all, the British example in the nineteenth century. A number of other countries have also achieved strong growth under *laissez faire*—the United States and the continental countries of Europe. It is true that these, unlike Britain, anyhow in the later phases of her "Industrial Revolution", have adopted the recipe of "protection". HAMILTON for the United States and LIST for Germany argued that pure *laissez faire* would obstruct growth in the critical early phase of development and that protection was an interference needful to secure it. A regime in which *laissez faire* is modified only by protection, may be regarded as a first cousin to a regime of complete *laissez faire*. The interference involved by protection falls far short of that implied by the type of planning that is postulated by some contemporary thinking as needful to secure growth in accordance with the potentials of the economies in question. Thus the existence of protection in certain industrial countries that have manifested strong growth may be thought of as consistent with the general view that, by and large, private enterprise is an economic system that can secure growth, with only a limited amount of adventitious aid.

Looking further back, however, than the Industrial Revolution, we may find certain phenomena that cause qualms. We hear much in the history books of enlightened monarchs, who are praised for bringing their countries forward by vigorous programmes of public works. They made themselves responsible for the investment of large capitals in what we now call infra-structure. Was all this display of energy, this vigorous initiative, in fact otiose? Did they take all this trouble in vain? Or may it be that their countries were indeed brought on to a higher level of national income by these efforts by monarchs, which have had so much praise from historians? I recall that, long ago, Dr. MELCHIOR PALYI put the point forward to me, tentatively, that FREDERICK II of Prussia had received undue praise. Historians, he argued, might have been glamourized by the initiative and driving force of FREDERICK II into thinking that, because such masterful effort was needed to achieve what he did, the results must have been good for the country. They did not stop to ask themselves whether the resources, thus mobilized by the monarch, might not have been utilized by private investment in ways that would have redounded more to the economic advancement of Prussia.

We need to have more historians who are capable of economic analysis and criticism, spiced with scepticism, and who will not be bemused by the spectacle of a monarch putting energy into administrative work. Who can say what private enterprise would have done for Russia, after her recovery from the strains of the First World War? We need also to have historians with a sense of the quantitative importance of things. How much have the public works achieved by individual monarchs meant in relation to the size of the national incomes and of their potential growth? Unhappily these questions are not likely to be solved by the historians of what are now past times, owing to the lack of statistical information. We may hope for a better historical appraisal, in the light of our own more voluminous statistics, when we come to the point in the future at which our own times can be seen in perspective.

Meanwhile many regions of the world have not in fact made progress such as has been achieved by what we now call the industrial countries. Classical thinkers would doubtless attribute this to lack of thrift in the first instance, and lack of enterprise in the second. Can we be sure that this is the correct interpretation?

In the light of history it would certainly be unwarrantable for exponents of dynamic theory to aver that a system of laissez faire can not provide conditions allowing growth. But they are at least entitled to say that it is an open question whether laissez faire provides all the conditions necessary for growth, or only conditions that are favourable if other economic conditions are also present. It is possible that regions that have failed in their progress have done so, not only through lack of thrift and enterprise, but for other reasons also.

Modern dynamic theory is an outgrowth of Keynesian theory. It is well-known that KEYNES held that the system of laissez faire, operating within an appropriate framework of political stability and commercial law, would not necessarily secure full employment. Subject to certain qualifications of a subtle nature, it may be said that the Keynesian theory belongs to static economics. Now historians might have some qualms about his theory on the ground that, by and large, full employment did obtain in the countries subject to the Industrial Revolution. Basing themselves on the broad picture, they might argue that some special forces must have been operating in the period from 1929 to 1939 (and in Britain for the whole inter-war period), when the industrial countries were by no means obtaining full employment. KEYNES was inclined to argue, on the other hand, that it was the nineteenth century that was exceptional, and that the doldrums that were so manifest in the inter-war period were as likely as not to occur under a system of laissez faire, since that system lacked the mechanism for automatically securing full employment. This is not the place to set forth KEYNES's reasons for this view, although these are imperfectly understood by many contemporary economists, and still more by practitioners of economic policy. We are told that there is a good deal of unemployment, open or disguised, in many "developing" countries. One is entitled to ask the proponents of the view that laissez faire automatically secures full employment, why this is so.

In the Keynesian scheme a critical part is played by aggregate demand. He held that SAY's law is not to be relied on to ensure, as is claimed for it, that, whatever the surpluses or shortages of particular commodities may be, aggregate demand may invariably be trusted to match aggregate supply. All this is within the domain of static economics.

In dynamic economics this question of the sufficiency of demand comes out in a more acute form. The old view was that, given thrift and enterprise, which comprises a desire to keep capital profitably employed, production would be increased, as the corpus of capital increased, and, by increasing, would create a sufficient demand for its output. In other words, it was only needful to have the capital seeking employment and the enterprise present; the increased demand, without which increased output would be frustrated for lack of vent, would look after itself. Thus, according to this thinking, we have, not three prerequisites of growth, namely sufficient saving, sufficient enterprise and the prospect of a sufficient increase of demand, but only two, namely sufficient saving and sufficient enterprise. Those two would yield production on a rising curve, viz. growth; the products would be automatically absorbed. But is this really true? May not the failure of Say's law, which KEYNES postulated in his static system, apply also in a growing economy? And, if SAY's law is liable to fail, may there not be lack of growth, not because the thrift is not there, not because the enterprise is not there, but because entrepreneurs do not foresee that growth in demand, without which to pledge their resources to an expansion of output will involve them in loss?

It is relevant here to bear in mind the proposition in Keynes's theory that thriftiness does not by itself cause saving. This is a vital link between static and dynamic theory. According to the classical view, there would be a corpus of saving which would be a constant incitement to its owners to find profitable employment for it, unless, with an oriental outlook, they preferred precious stones; this incitement would drive them on to action, viz. to increase the production of the economy and thus secure its growth. But, according to Keynes's static theory, and this applies equally well in dynamic theory, thriftiness alone will not necessarily cause a corpus of savings to come into existence. Unless investment of sufficient amount is undertaken, the thriftiness of individuals, while procuring a hoard of value to them, will be wasted so far as the economy as a whole is concerned. The individual savings will be spilt upon the ground. No global savings will occur. And accordingly no corpus of capital will be built up to incite its owners to employ it profitably. If they do not foresee rising markets, they will not make the investments; and, if

they do not make the investments they will not, as a collection, have any savings lying idle. How can entrepreneurs, who see no prospect of increasing demand and have no idle savings at their disposal, be relied on to ensure the growth of the economy in all circumstances?

Will there be any prospect of increasing demand? In regard to full employment in a static economy, Keynesians, when hard-pressed by astute critics like Professor VON HAYEK, were sometimes driven to the dictum, "It all depends on who takes up the telephone first". I do not say that this was correct. If it were, it would imply, at best, an indeterminacy as to whether private enterprise will secure full employment in a static system or not. This indeterminacy becomes much more critical when we look at a potentially growing economy. Unless entrepreneurs have overall what they regard as good reasons for anticipating growth, they will not make the investments, and the economy will not grow. The doctrine that "thinking makes it so" comes forward to a much more prominent position in the dynamic situation. One might hold that stagnation would occur, despite the potentiality of growth, unless some very powerful force driving the entrepreneurs into new investment, occurred, such as a Schumpeterian innovation or the discovery of some new gold mines.

The potential growth rate of an economy depends primarily on two things, (1) technological progress and (2) the increase of cadres of qualified personnel. In this respect one has to notice a profound difference between the dynamic situation and the static situation. If, for a period, growth does not occur, owing to lack of sufficient optimism by entrepreneurs, the ground lost is not likely to be made good. Continuous technological development essentially depends on experience. As new methods are put into operation and troubles occur, the resources of science are ransacked and technological research is set on foot. The problems that have to be solved in order to get further progress are only shown up as a result of applying earlier knowledge to industrial practice. Pure scientists cannot be bothered, and indeed will not have the ability, to solve problems *in vacuo*, that will arise only when the practical application of science to industry has already been carried much further. Solutions in applied science will not be forthcoming, nor solutions in technology

either, save as the result of past experience. Technological progress in years 4 to 6 will depend on the fruits of experience during the phase of technological progress from years 1 to 3; and, if there is no technological progress in years 1 to 3, just because the lack of prospective markets has prevented any new investment in those years, then the technological progress, that would have occurred in years 4 to 6, is postponed for another 3 years. In fine three years of progress are lost for ever to the human race, or at least to the economy in question.

The build-up of cadres of qualified personnel is subject to the same law. If the need for an increase in them is not currently felt, then they will not be increased. But there is a maximum possible rate of increase in these; they have to learn by experience and to teach novices. If there is no increase in years 1 to 3, it may be impossible to increase them at double the rate in years 4 to 6. Britain had bitter experience in this in the training of aircraft pilots during the Second World War, owing to an insufficient rate of build-up before the War broke out.

WILLIAM PITT, from his detached position as Prime Minister, showed a wonderful insight into the essential nature of the development of capitalism that was going on round him at the end of the eighteenth century, when he quoted in reference to it, the words: "Mobilitate viget viresque acquirit eundo"<sup>1</sup>.

There is a contrast between this state of affairs and adjustments in static economics. If the demand for a particular commodity, say rubber, is underestimated, stocks may be drawn upon and its price may rise above its cost of production. Producers may remain sceptical for a time about the maintenance of a higher level of demand and fail to increase production. But if demand is indeed sustained, and they finally get round to increasing production, they can make up for lost ground and bring supply into equilibrium with demand. Something similar may perhaps be achieved when the factor of growth is a mere increase of unskilled bodies who, having been temporarily left out of work, can be absorbed into employment later. But to the extent that growth is attributable to technological progress and the increase of qualified personnel, ground lost cannot be recaptured.

1. It thrives by its motion and acquires strength by the process of going forward.

I am not suggesting that lack of thriftiness never plays any part at all. In its absence, a spurt of enterprise and optimism may peter out in inflation.

Central to the problems of dynamic theory is the impotence of the rate of interest to play the part assigned to it in static theory. Although one is bound to regard KEYNES's system as predominantly a static one, it does postulate a positive quantum of investment and savings, which is formally inconsistent with a static system. Some have found his critique of the classical theory of interest not altogether unsatisfactory. Whatever may be said about that, I suggest that his view that interest could not be an equilibrating factor in securing full employment was partly caused by his hunch that it could not be an equilibrating factor in the dynamic theory towards which he was feeling. The equilibrium rate of interest is of course indeterminate, unless the equilibrium rate of growth is specified. Let us suppose, first, that there is an individual propensity to save which is weak in relation to the growth potential of the economy and, secondly, that the amount of investment (equals saving) is determined by the aggregate of individual propensities to save. (It is quite obvious that this cannot be relied on to secure a dynamized Paretan optimum for saving, since private propensities to save will be so much governed by institutional arrangements, e.g. by how much the state provides for old age and free education and by the structure of company organization.) To obtain an equilibrium rate of advance, presumably the rate of interest should be high enough to encourage such labour intensive methods of production as to leave enough savings over to finance a "widening" of production in accordance with the growth potential of the economy. But is there anything to guarantee that it will rise so high? Is it even likely to rise so high? If it does not, and if the authorities take steps to avoid inflation—and if they do not, matters will be worse—, there will not be enough saving to finance the potential growth, as rendered possible by technological progress and the maximum possible rate of increase of cadres of qualified personnel, because productive processes will be excessively capital intensive. Furthermore we may ask whether there is any rate of interest sufficiently high to render productive processes sufficiently labour intensive to leave enough savings over for optimum growth.

If there is not, potential growth will not be realizable, unless there is some compulsory saving.

We may also ask whether it would be right to have so high a rate of interest. This may discourage the provision of infra-structure. I have always thought "external economies" a difficult and obscure concept. They often seem to be introduced as a *deus ex machina* when clear reasoning breaks down. But if there is any investment from which a substantial quantity of external economies may reasonably be expected, surely it is investment in infra-structure. This is quantitatively important. Thus a high rate of interest that discouraged it might twist the economy far from its optimum path of growth. It seems likely that in developing countries the optimum path will not be achieved without some compulsory saving.

This may also sometimes be true in mature countries, although there caution is needed in reaching such a conclusion. It must be remembered that consumption is the prime mover in inducing investment by private enterprise. Enterprise may not be initially sufficiently optimistic to jack growth up to its optimum level; a clamping down of consumption may further discourage it. In mature countries it is quite possible for total saving, viz. compulsory saving (budget surplus) plus private saving, to be less than it would be if there were no compulsory saving at all. For, in the absence of compulsory saving, there would be more private investment and saving on account of a higher estimation of prospective consumption increases based on current experience. It is well-known that in the New Deal period in the United States, public plus private investment fell far below private investment in the earlier period; and there is every reason to believe that private investment alone could have been greater (without any inflation) than private plus public investment together during the New Deal period, if only private enterprise had had a better view, based on current experience, about the prospective rise in consumption. A higher total of investment and consumption would have been quite capable of being implemented from the unemployed resources available. In my opinion, it is possible that a similar result could have been achieved in Britain between 1955 and 1961, had compulsory saving (budget surplus) been less. Part of the compulsory saving would have been switched over directly into private saving, had taxation been lower,

and also, in addition to this, there would have been more private saving had real incomes been higher and had consumption been higher and rising more rapidly.

And so we come to the *raison d'être* of "planning". It may be desirable in certain circumstances—viz. failing large Schumpeterian innovations or other important incitements to new investment—to have some kind of plan in order to give the necessary assurance to enterprise in various fields, that its markets will in fact increase over a term of years. This may be more important now than it has been in earlier phases of capitalism, since more investment is of a character that can be justified only if its initiators can foresee a rising market over a *number of years* ahead. In fact the time horizon for profitable investment is lengthening. That makes the uncertainty as to whether the economy will in fact continue to grow more important in determining investment. In Britain recently the situation has been quite the other way round, since private investors have had what is tantamount to certainty that within a comparatively short period ahead, the British authorities would impose another "credit squeeze" and thus blast the prospects of marketing increasing quantities of end products.

If some feasible rate of growth is postulated, it may be possible to deduce, to a very rough, but nonetheless sufficient, approximation, what the rate of expansion of demand is likely to be in the various categories. This may give sufficient guidance and encouragement to entrepreneurs in the various branches of industry, even if there is no compulsion whatever in the plan. Mistakes will be made, but not necessarily greater than the mistakes that are made anyhow, if there is no plan at all. It is of course absolutely necessary that the authorities should be committed in their general economic policy (monetary, fiscal, etc.) to applying damping measures only if orders are running ahead of the planned rate of growth and are manifestly, on an overall average, greater than the economy can meet. It must be absolutely committed likewise to adopting expansionist measures in its general policy, if orders are not growing as quickly as the plan postulates. This would give the entrepreneurs in their various fields of action a better assurance that demand will grow sufficiently to justify investment. Thus the whole growth rate could be jacked up. What is inadmissible is to assert that there is any

mechanism in the private enterprise system, free of interference, that guarantees that demand will grow at a rate to match the potential growth of output.

It is essential in dynamic economics to distinguish demand-inflation from cost-inflation. Demand-inflation should be defined as a condition in which the aggregate demand for goods and services at current prices is greater than the economy can supply. If prices rise despite this condition not being present, the phenomenon should be called cost-inflation. It may well happen in many cases that a fairly high demand, even if this falls short of the demand required for full growth, may cause an upward movement in wage rates in excess of productivity increases, and therefore a price inflation. This upward movement may not be confined to excess increases in "standard" wage rates, as determined by collective bargaining or arbitration tribunals. It may also be the case that, when employment is fairly full, employers offer increases of wages in excess of any increases in bargained rates, in order to make sure of their labour supply. This phenomenon is a component part of what has come to be called in Britain the "wages drift". It is not permissible to consider a wages drift, whenever it occurs, as a symptom of demand-inflation. On the contrary, a wages drift may occur when demand is fairly good, although still much below what would be needed to keep the economy fully active. We are not quite sure how far this phenomenon of excess wage increases, with its corollary of price inflation, is due to greater rigidity in the wages field than existed in the nineteenth century. Classical economists may have over-rated the amount of wage flexibility that prevailed in their period. It seems probable, however, that there has been some hardening.

Now if it is the case that fairly full, although by no means over-full, employment tends to set up wage increases in excess of productivity, and if, as is the case, price inflation ought to be avoided, it seems that there is a case for some kind of wage "planning". The older doctrine that, if the authorities keep the quantity of money constant or prevent its increasing by more than a certain amount, wages will automatically be held at a given level, or at a given rate of increase, and that price inflation will thus be avoided, is no longer acceptable.

Although not much yet is known about the details of the initiative of the British Chancellor of the Exchequer of July, 1961, it seems that his intention is to get cooperation from both sides of industry for an approach to what may be called a "planned" wages policy. This bristles with difficulties; and no immediate success must be expected. But it is important that economists should view this initiative favourably. It is to be feared that those not yet accustomed to the modes of thought of dynamic economics, may regard this initiative with a cynical eye, on the ground that the Chancellor could get the same result in a much simpler way, namely by an appropriate regulation of the quantity of money. I am not suggesting that a proper regulation of the quantity of money is not of supreme importance, but only that it cannot be relied upon to solve this particular problem.

There is no need to seek to disparage what was true in the old static system of thought; the need to avoid doing this makes it all the more incumbent on us to sharpen the concepts and propositions of dynamic economics to a far greater extent than has yet been achieved.

*Christ Church, Oxford*

ROY HARROD