

Karl Jungentfelt: The Methodology of Swedish Long-Term Planning

The economic long-term planning that is now being conducted in a number of West European countries has grown up wholly during the post-war period. The origins of this planning activity are partly to be found in the circumstance that, at the end of the war, many of the countries that had been engaged in the war were faced with extremely difficult problems, the rapid and effective solution of which was felt to require a more centralised and coordinated policy. This planning was thus intended to facilitate the reconstruction process, and in some cases (e.g., in England) it went no further. But in other cases, the most well-known example being France, the planning mechanism was developed and efforts were made to mould it into an instrument that could be used to guide development into the desired direction.

Our own economic long-term planning, carried out by the Long-Term Planning Commissions, is partly the result of outside influences: the Marshall Plan required recipient countries to draw up plans covering the uses to which the aid would be put.¹ Long-term planning has subsequently been made into a permanent institution and has gradually been extended through the studies made every fifth year by the Planning Commissions.

Fundamentally, the French and Swedish planning activities have the same goal, i.e., to set out the development tendencies for a free market economy.² This form of plan-

ning is thus quite different in character from the relatively inflexible long-term programmes of the socialist countries. In the following I shall try to give some idea of the problems involved and methods used in macro-economic planning in an economy of our own type — a free market economy.

The basic problems that long-term plans of this kind are intended to overcome can perhaps be described by reference to the post-war economic development, characterised by lack of balance in many areas. The start was ambitious, with plans for extensive investments. These plans were motivated, at least as far as Sweden was concerned, by two objectives: firstly, to raise the general rate of growth and, secondly, to make up for the lack of investments in certain neglected areas such as roads, houses, etc. The high level of investment made it extremely difficult for the authorities to keep a firm hand on the outer and inner balance. This was very much the case with our own country, but the development in France in the beginning and middle of the 1950s is perhaps a still better example of how excessively ambitious plans can easily give rise to serious imbalance. This lack of balance was a sign that the authorities, in their economic policy, had not managed more than one side of the development programme: investments had reached the required level, but the savings necessary for the attainment of equilibrium — public or private — had not increased to the same extent.

Since savings in this context is the same as "non-consumption", the planning must explicitly deal with consumption, too. It is in this balancing of consumption and investment that we find one of the basic problems of planning: are we prepared to increase investments — and thus

¹ See I. Svernlison and R. Beckman, "Long-Term Planning in Sweden", *Skandinaviska Banken Quarterly Review*, No. 3, 1962. This article also included a general methodological discussion, together with a presentation of the Planning Commission's Report covering the years 1960—65.

² This must not conceal the fact that French planning is more "programmatically" than Swedish planning.

the public sector. Here too it is important not to regard increased private consumption and more public consumption as alternatives between which one makes a free choice. For there is a fairly complex relationship between the two. Assume that, in Sweden, at any rate, we have to reckon in the next ten years on a continued strong expansion of the private demand for cars and houses (including weekend cottages etc.). This will necessitate, either as a subsequent adaptation or by way of advance preparation by the public authorities, a significant increase in such whole or part public investments as new roads and road improvements, the planning of suburbs (parking space, green belts, camping

places etc.), investments that can be said to represent collective consumption capital. The final outcome will probably be that a larger percentage of the total increase in consumption will refer to the consumption outside the household sector which is in part a function of the general collectivisation of our living and cultural patterns, of which urbanisation is only one expression.

But this is simply an additional structural shift within the framework of a continually expanding total consumption. The saturation of wants is not a factor to which we need allot a strategic role in our planning of production for satisfying the wants of tomorrow.

abstain from consumption today — so as to ensure a greater increase in our consumption possibilities in the future? In the first place, we must know how our future productive capacity will be influenced by different investment plans — a question on which our factual knowledge is at present extremely limited. In the second place, the "choice" of a rate of growth also entails a balancing and evaluation of the present generation's consumption requirements against those of coming generations. Here, economic theory is unable to offer us any well-established analytical instrument; in fact, it has not even been able to give a satisfactory theoretical formulation to the problems.

In solving this intertemporal problem, it is assumed that the given rate of growth should be attained at the lowest possible cost, i.e., with the smallest possible investments. This means that long-term planning is faced with another problem, i.e., it must aim at the optimum allocation of the resources of the economy. The desired structural development must therefore be studied and, against this background, the resources must be distributed between the different areas of use — between the public and private sectors, and between the component parts of these sectors.

We now come to a third type of problem that must also be taken into account. A problem of this type has already been mentioned: the balance between savings and investments. If the long-term plan in itself is not to lead to changes in the price level, planned savings and planned investments must equal one another in the accepted plan. Even if the objective of an "unchanged price level" is perhaps of a short-term nature, it can in this way guide the development in the long run. A target for the balance of foreign trade has, in principle, the same importance for long-term planning.

There are also other magnitudes that must be brought into balance in a non-contradictory, or a consistent, plan. The labour required for the planned volume of production must be equal to the supply of labour.¹ Natural growth of the working population and the extent of foreign migration are clearly factors that set an upper limit to the growth of the labour force in the economy as a whole.

These balance relationships refer to the whole economy. However, with respect to the distribution of resources which

in this given total framework, there exist a number of similar problems owing to the general interdependence between the development of the various sectors. If planning is to be consistent, it is necessary, for example, that the forestry sector in the plan should be "allocated" sufficient resources to satisfy the raw material requirements of the forest industries. In recent years, both the French and Swedish plans have taken problems of this nature into account.

Planning in stages

There is clearly a very strong interdependence between these three basic problems in that the solution of one problem ties down the solution of the others. In order to get a real grasp of this interdependence, the plan should perhaps be formulated as a strict mathematical model, where the solution to each individual problem is obtained simultaneously. However, it must be said straightway that this is not practically feasible: we certainly do not have access to such information that would make it possible to describe, in a total model, these complicated relationships in a way that is meaningful for the planning activity.

Both the French and Swedish long-term planners have instead used a planning model which, by means of successive approximations, arrives at a consistent solution to the problems. The method might be referred to as "planning in stages".² This means that first of all the basic development trends are set out, trends that can be assumed to be of importance for the individual firm's appraisal of its future development. Examples are the growth of total income, the growth of foreign demand, and perhaps the level of interest rates and the wage development that can be expected during the planning period.

In the light of these perspectives, the plans of the individual economic units are then determined, i.e., their plans in respect to their demand for and supply of productive resources and goods. The methods that have been applied here have varied for different types of sectors. As far as

private consumption is concerned, it has been determined — both totally and, to some extent, broken down by a number of product groups — on the basis of the assumed income development. Enquiries have been conducted to ascertain the future demand of individual industrial enterprises for productive resources — labour and investment goods — as well as their planned production. These "micro-plans" have then been aggregated into plans for sectors or industries, at the same time as they are reviewed by experts in the areas concerned.³ The plans of the public sector have been determined in a similar way. As regards the rest of the economy, use has been made of expert studies which throw light on the future development in respect of the above factors. What is involved here is thus not a direct "fixing" of the plans of the individual units, but rather a "predicting" of the future demand for labour and capital, and the volume of production that can be attained. Similarly, it can be said that the supply of labour is "predicted" on the basis of expected population growth and foreign migration. In the planning process these forecasts are considered to be the aggregated results of the individual entities' plans for production, consumption, investment, and supply of and demand for labour.

However, a basic condition for the fulfilment of these plans is that they must be mutually consistent, so that the planned production on the micro-level gives an income development equivalent to that assumed in the "raw" perspective. The next step is to see how far the total, "aggregated" plan is in harmony with the previously mentioned balance relationships. One of the most important points in this context is, of course, the test associated with the question of stability: does the planned development mean an increase in incomes and thus an increase in consumption and savings, which will make possible the volume of investments planned by the business sector and the public sector? As mentioned earlier, we have the same problems for labour, foreign trade, the interdependence between different sectors, etc.

If we find that we have a gap in the balance relationships, then the aggregated plan is obviously not consistent; all of the units cannot have their plans fulfilled, and the

problem will then be to decide which of the possible lines of development the economy should follow. This means that it is not only the final plan that is of interest for the planning activity. The step-by-step corrections that must be made to the original, aggregated plans are of high informative value. For obvious reasons, these have been drawn up on the basis of a "reasonable" appraisal of the future development. If disequilibrium is obtained in one or more of the balance relationships when the plans of the individual units are aggregated, we have put our finger on the "tender points" in the development. The way in which the gap is closed is also an important part of the plan, since this determines the direction of economic policy. A gap between savings and investments can thus be closed by measures aimed exclusively at savings or exclusively at investments, or at both savings and investments. The plan must therefore indicate the economic policy weapons that must be employed if the balanced development is to be attained.

Planning "in stages" thus means that we feel our way forwards to a final macro-economic plan that fulfils all the balance relationships. The final product will be just such a plan, which really represents one of many possible outcomes of the above-mentioned economic model. However, as the Swedish long-term surveys are neither formally nor in practice raised to the status of "public plans", there is no guarantee that the economic policy will be formulated in such a way that the final plan will be realized. In this respect, the French planning seems to be somewhat more reliable, due partly to the firmer institutional and organisational planning forms that have been developed there. A more serious obstacle to the realization of the plans — and, for obvious reasons, this is the case with all planning countries — is that the imperfect information on which the planning is based gives extremely wide margins of uncertainty as regards the relationship between economic policy and actual outcome.

Planning models of this type thus entail a concentration of interest on one of the three problems that were earlier described as the basic problems of planning. The primary purpose of planning is to give a picture of an attainable development. The choice between different possible plans is hardly made to any great extent against the background of the other two basic problems. The suggestions in both the French and the Swedish long-term plans regarding the balance between consumption and investment have, for obvious reasons, become no more than suggestions. As was

¹ It should perhaps be pointed out that this method is not entirely the same as Tinbergen's "planning in stages" method, which seems to be a wider concept. Tinbergen's different stages refer more to the treatment of the basic problems outlined above, and only partly to the successive approximations. (J. Tinbergen, "Planning in Stages", *Statistiska Tidskriften*, 1962, page 14)

² For a more detailed account of the procedure used in determining the plans of the individual economic units, see I. Svennilson and R. Beckman, *ibid.*

mentioned by way of introduction, this problem has not even been given a satisfactory theoretical formulation. As regards the allocation of productive resources among the various areas of use, the plans are — only to some extent — intended to give resources the most productive employment. For example, it is recommended that priority be given to certain public investments — roads, schools, hospitals, etc., where the market mechanism cannot function. As regards the whole of the private sector, however, we have to rely on the forces of the market as an effective allocation instrument.

In view of the above, it seems natural that the much-debated problem regarding the "programme" or "prediction" character of the Swedish long-term surveys is of limited interest. On certain points a survey of this kind must be a programme — this is the case with the public sector's programme for consumption and investments. As far as the private sector is concerned, on the other hand, the plan looks like a prediction much more than a programme. The presentation of the plan in the form of a single final figure for each individual item, without giving alternative outcomes, can probably be justified to some extent by the volume of work that is thereby avoided. The most interesting alternative would be a radically "different" alternative; and this would require an analysis at least as penetrating as that for the main alternative.

The practical significance of long-term planning

It is clear that, if this form of "consistent planning" is to be developed into "optimum planning", greater knowledge is required on both the empirical and theoretical matters. It is perhaps the theoretical deficiencies that are presently the biggest problem, since all the well-formulated optimization criteria that economic theory has to offer seem, from a planning viewpoint, to be far too abstract. What we need here is a specific planning theory which gives these criteria an operative meaning and thus makes it possible for our planners at least approximately to estimate the gains that can be made through a redistribution of resources. In the second place, we must find the economic policy instruments that will enable us to turn these gains to full account.

However, we must not allow these circumstances to conceal the fact that today's planning furnishes us with very valuable information. Through its development alternatives

it provides us with a framework for our actions, and through the "gap analysis" we learn about the weak points in the development, etc. In addition, we have the extremely valuable detailed information on the economic development that is presented in the Swedish plan. This material must be of importance not only for those responsible for economic policy, but also for individual enterprises. The latter's possibilities of drawing up relatively effective long-term plans must be considerably improved if society is planning the general economic development.

From the viewpoint of the business enterprises, it is perhaps the predictions regarding the various commodity markets that are of primary interest. It is evident that, for enterprises dominating a market, a survey of the expected development of total demand must be of immense importance. Of course, it is not always the case that plans of this kind contain specific, detailed forecasts for individual goods. Instead, we have to put our trust in known relationships between changes in incomes and changes in demand in order to determine the future demand for an enterprise's products in the light of the income change indicated in the plan. However, an enterprise's possibilities of expansion do not only depend on the development of total demand. The competitive situation and the dynamic behaviour of competitors in the given situation are at least equally important. It is possible that information on the existence of a gap, i.e., surplus demand or supply, can give some indication of the future development of the market.

If we consider the market for the factors of production, our interest in the gap analysis is more pronounced — perhaps to the same extent as in the information on the "planned" employment and investment in the enterprise's own sector. An analysis of the saving-investment balance can give valuable information on the development of the credit market. In this way we can, first of all, learn whether the development as a whole will be inflationary or deflationary, but the analysis can also tell us something about the "difficulties" in financing via the capital market and the costs involved, i.e., the level of interest rates, although the conclusions must of necessity be extremely uncertain. The way in which the gap is closed is also of interest, as can be illustrated by an example from the latest Swedish long-term survey. In the original plans there was a surplus of demand for labour, which was assumed to be chiefly localised to industry. This surplus was eliminated in the final plan through industrial investments being increased so much that