The functions of development planning

1 Perspective plans

The main functions of an office for economic planning were briefly outlined in section 2 of the previous chapter. We shall now look more closely at these functions, emphasising throughout the office's work in connection with the development of the national economy. Of all the various plans that have to be drawn up by the office the perspective plan has the widest scope. Its outlines are usually much broader than those of the shorter term plans. This is, of course, quite obvious – it is always more difficult to look ahead over very long periods of time than over short periods. Over terms of fifteen or twenty years many unpredictable events can occur in technological development and also in other 'data' of economic development. The main purpose of a perspective plan is to provide a background to the shorter term plans, so that the problems that have to be solved over a very long period can be taken into account in planning over a shorter term. A long-term appraisal can often throw a clearer light on the tensions in society. Thus Turkey's five-year plan for 1963-7 was preceded by a short perspective plan for the period 1963-77 which made it clear that the population explosion would necessitate a great increase in production if largescale unemployment were to be avoided in 1977. The long-term calculations made for India show that the development of the metal industry in that country can become strong enough for her to take over the design of metal-using plants. Various estimates, comparable to perspective plans, that have been made by the United Nations and the Secretariat of GATT have also revealed that considerable attention must be given to the problem of the balance of payments in the developing countries if it is not to assume unthinkable proportions.

Above all one can express in a perspective plan those forces, the effect of which can be estimated with reasonable certainty over long periods. These include the growth of the population, the influence of education, which is only apparent over very long periods, and the growth of general technological factors which have in the past shown a measure of regularity. Factors that are

exposed to rapid changes, such as harvest yields, which are dependent on the weather, and other factors that are exposed to fortuitous or irregular fluctuations cannot be, and for the most part also do not need to be, taken into account. It is neither possible nor necessary to forecast fluctuations in the economic cycle over fifteen or twenty years.

The significance of a perspective plan is directly proportionate to the radical nature of the aims that the government of the country is striving to achieve. Really fundamental aims cannot be expected of governments or political groups that are inclined towards laissez-faire. They can, on the other hand, be expected of governments aiming to change either the social or the economic structure or both and which realise that these processes are very slow.

A very well-known perspective plan is the Soviet Union's twentyyear plan for 1960–80, debated at the 22nd Congress of the Communist Party of the Soviet Union. This plan stated that there was every reason to hope that in 1980 the foundations would be laid for what communists call a communist, as opposed to a socialist, society. A distinctive feature of socialist, as well as of communist, society is the public ownership of the means of production. The system of remuneration, however, is different under socialism and under communism: the workers in a socialist society are paid by results, whereas in a communist society, they are paid according to need. The 1960-80 plan assumed that the annual rate of increase of 7 to 8 per cent in the national income during 1950-8 could be maintained. Consequently it was thought possible that a sufficient number of goods and services could be supplied in 1980 or thereabouts for these to be made freely available. This is an extremely ambitious plan, and it is disputable whether its aims can be achieved. Without wishing to discuss it in detail here, I have chosen it as a clear example of a perspective plan.

The developing countries too have every reason to formulate perspective plans. The principal aim of any such plan must be to make clear what efforts have to be made both by the country itself and by the other countries that are willing to co-operate to raise

the standard of living to a level comparable to that of the developed countries.

2 Medium-term plans

The second category of plans relates to the medium term, during which a large proportion of the investments made in the first years of the plan can show returns. They usually cover a term of four, five or six years, a period similar to that of a presidential or governmental term of office, provided that nothing comes in between. They are therefore comparable to government programs, although the earliest examples of five-year plans were provided by the Soviet Union, to which this comparison does not apply. One of the great advantages of the five-year plan is that it illustrates not only what can be achieved in a period of transition but also something of what can be accomplished afterwards. In other words, it focuses attention on possibilities that do not come within the scope of a one-year plan. What is more, compared with the perspective plan, the shorter term of the five-year plan makes for somewhat greater precision. The usual tendency in these plans is to emphasise the development of those industries that are regarded as fundamental to the country's prosperity. But experience has shown that it is very easy to make mistakes over the medium term. After initially stressing industry, both the Soviet Union and India have, in subsequent five-year plans, had to shift the main emphasis to agriculture, which lagged behind in the earlier plans.

3 One-year plans

The main function of both five-year and perspective plans is to specify the government's intentions. One-year plans, on the other hand, have the task of setting out how the government's policy should be carried into effect. They are drawn up in conjunction with the estimates of the budget and both form an obligation for the government. As it is essential for these intentions to be stated as

Figure 12. Capital-output ratios for various sectors in India. The capital-output ratios for different activities vary widely. The diagram illustrates a tendency for the so-called national industries, producing 'non-tradables', to

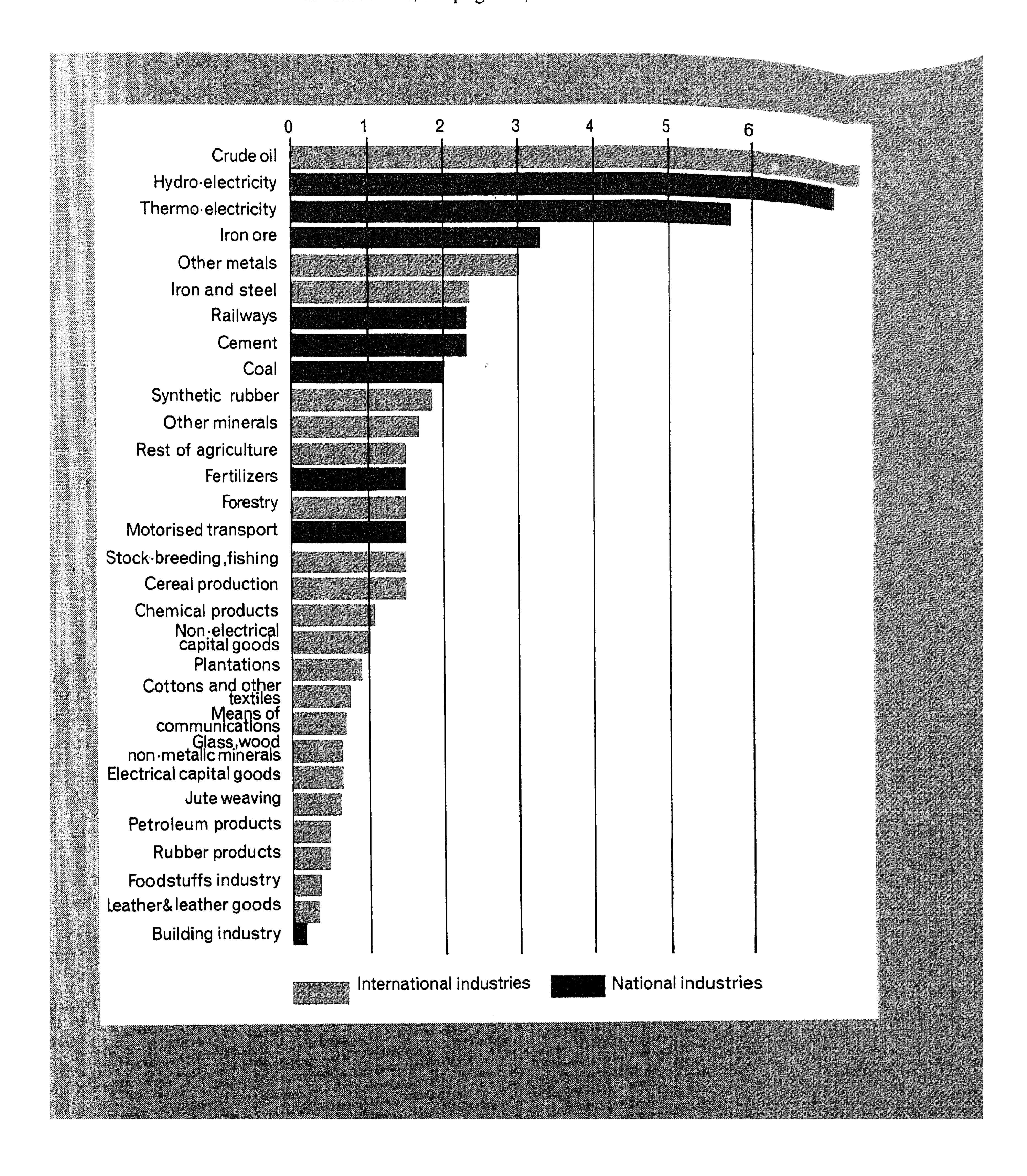
concrete investment projects or as proposed legislation if the administration is to carry them out, they must be shown in the one-year plan in this concrete form. It is, of course, not always possible to do this over a longer period of, say, five years.

One-year plans may thus be regarded as an extension of the budget to the whole national economy, or as national budgets existing alongside the government's budgets. Naturally, they do not have the same binding force for the private sector of society as they have for the government of the country, but they do in a sense face the private sector with the challenge of carrying out a task within a limited period. Because of their very short term, it is possible for a real interest in these plans to be kept alive.

4 Preparatory research work

It is obvious that a great deal of research has to be undertaken in connection with every kind of plan. This may be regarded as preparatory to the planning as such and can clearly be separated from it. This division between the planning proper and the research work which forms a preparation for it may even be seen as an example of the 'planning in stages' already referred to in section 3 of the previous chapter. Pre-investment studies form the very first task of this preparatory research. These studies, which will be discussed in greater detail in the following section of this chapter, are an initial attempt to define investment projects in the form in which these can be put into effect. The framing of projects is another example of this preliminary research work. This is generally not undertaken by the central planning office, but by ministerial departments and by private and public enterprises. Certain economic checks are, however, also made centrally, especially in the case of major projects.

For the rest, this preparatory research may be concerned with the most widely different aspects of the social life of the country. It may, for example, be necessary to study migration between various parts of the country in order to find out what 'spontaneous'



population movements may be expected. It may also be necessary to study the spending patterns of various groups of the population – how much money is spent in each income group on various classes of goods, such as food, clothing, footwear and furniture, and to classify these according to the various industries which are being considered separately in the plan. Another example of this preliminary work is the study of imports in relation to the activity in various industries and other possible factors, such as the relative prices of imported goods compared with similar prices at home, transport costs, etc. Another important example of preliminary research is the preparation of an input-output table (see also appendix H). This shows how much in the way of goods and services each of a number of industries draws from other industries, the so-called inter-industrial supplies. By generalising from a table of this kind, it is possible to distinguish not only between industries and, for example, families, the government and abroad, but also between supplies for the current process of production and supplies for investments (in other words, for the increase in stocks of capital goods and in those of intermediate products). The last stage in this extensive research work is the preparation of what are known as econometric models for the activity of the whole or of certain parts of the national economy. In this work, an attempt is made to express in the form of mathematical equations, all the influences which various economic quantities can have on each other and to gauge the coefficients in these equations by statistical measurement. Since it would lie outside the scope of this book to set out in detail the methods used in this process, the reader who is interested in this branch of economics is advised to consult the book listed in the bibliography.^[5] All kinds of econometric models are possible. Some are very simple, 'macro-economic' models, others are very complicated and go into considerable detail. They may aim to elucidate either short-term or longer-term tendencies. Those which refer to movements over a longer period are of course the most important for development planning. Much of what is discussed in the chapters that follow will refer to models of this

kind or to parts of such models.

For an interesting application of econometric methods to the average process of development, as carried out by Professor H.B. Chenery, see appendices B and C and figures 10 and 11.

5 Pre-investment studies

It may not always be possible for the office for economic planning to carry out these pre-investment studies, but it often happens that the first impetus has to come from the planning office. It was, for example, on the initiative of the Turkish State Planning Organisation that preliminary studies were undertaken, for the purpose of framing the five-year plan for 1963-7, in connection with some forty industries from which an improvement could be expected in the balance of payments, either by an increase in exports or by an expansion of the so-called import replacing industries. These preinvestment studies can often be best undertaken by specialist firms of consultant engineers, by industries or by public services looking after a special activity such as road construction or electricity supplies. They often have to begin with geological or soil analyses for agriculture and mining, or with technical studies based, via technical manuals, on experience abroad and on a knowledge of the local population, the supply of water and energy, roads and transport and the market that can be expected. This last information will be based on market analyses, in which an attempt is made to estimate what is to be produced both for private consumption and for use by other industries, both at home and abroad. Estimates of production costs will play an important part, on the one hand because the personnel involved in production will be at different educational levels and consequently at different wage and salary levels and, on the other hand, because the cost of the raw materials and half-finished articles required and depreciation allowances will also have to be taken into account. Finally, an initial assessment will have to be made of the most suitable location, by comparing the costs of transport to and from the places where

the necessary raw materials and auxiliary materials and services are available.

A great deal of valuable material is gradually becoming available as a result of the interest taken by a number of institutions in these problems. It is, however, not easy to put this material into a form that is appropriate to the special requirements of concrete cases. The data have to be adapted and this is a costly process and one that is not always carried out by the institutions possessing the material. It is, moreover, often regarded as confidential.

At the pre-investment stage, all the possible projects are sorted out into those which are promising and those which, upon reflection, are not attractive. I shall discuss the criteria to be applied here in greater detail later on in this book. For the present, however, we may safely assume that a great number of data, mainly of a technical kind, are collected in this way, and that these data must be taken into consideration in applying the criteria.

6 The formulation of projects

A great number of more precise data must be collected for the projects which the pre-investment studies have shown to be promising and many decisions have to be made arising from discussion of these projects. Both the data and the decisions have then to be expressed in a form which will enable the ministry concerned and the planning office to come to a final decision on them and which will also make it possible for the projects to be carried out. A decision will now have to be taken on the site, scope and size of the undertaking. In the case of a number of industries, the minimum size necessary to keep costs down to a minimum may vary considerably. Both the cost of production and the customers' transport costs must be included in these costs. The production costs per unit of the product can usually be reduced by making the industry bigger, but if this is done the products will have to be transported over greater distances in order to reach more customers. The differences in average size, which

presumably gives some indication of the optimum size, are shown in table 3 on page 60.

The method of production will also have to be selected. There is, of course, very little choice in the case of many industries, in which only one process exists for the manufacture of the product and for which the installations can be obtained. But in other industries a choice can be made. The method resulting in the lowest costs will depend on the level of wages, the rate of interest, the cost of transport, the size of the market and various other factors. The differences in quality resulting from the different methods of production must also be taken into account. The following are a few examples of factors influencing the choice of production methods. In weaving, the number of looms that can be controlled by one operator may vary. Heavy objects can be transported inside a factory by means of men, belts or trucks. There are many different types of machine tools in the metal-manufacturing industry – some are single-purpose, others are multiple-purpose machines. The movement of building materials on a site can be accomplished by baskets, wheel-barrows, trucks and various other means. In the case of local transport, there may be a choice between omnibuses, trolley-buses, trams and underground trains. The choice of the methods to be applied will often be determined by other factors. These will be more fully discussed in chapter 9, section 1.

After settling these main points, a precise choice will have to be made of the means of production and staffing. A program of activities will have to be formulated, showing a definite period of time for all the activities, which will have to fit in as well as possible with each other. Certain financial calculations will be necessary here. What, for example, will be the expenses incurred in a number of successive months, and how will these be met? When can it be assumed that the revenue will begin to come in? How many of the payments will have to be made in foreign currency? The application for and the obtaining of a number of permits from the government and the time involved will also have to be taken into consideration.

Table 3. The average number of persons per plant employed in certain industries in the United States in 1947.	
Sugarrefining	6 950
Iron and steel	2329
Cotton weaving	594
Cement	230
Shoes	178
Furniture	59
Clothing	49

Detailed surveys of the time taken in connection with all these various operations have been prepared in the case of India. The general conclusion has been reached that it takes on an average four years from the time of the decision to go ahead with a project before production is in full swing. This is probably rather longer than in other countries, because of the longer time required to obtain government permits. A period of two to three years would, however, certainly be normal in the case of most countries. For very large projects, of course, like the construction of the Aswân High Dam, a much longer time, in this case as much as twelve years, is required.

7 The setting of rules and standards

As we have seen, the whole of the planning process is not carried out by the government planning office. An important part of this process is carried out in ministries, in private industries and possibly

even in the planning offices of public bodies at the lower level. The government office for economic planning has the task of coordinating these activities. This is partly a question of procedure, which will be discussed in chapter 11. It is also, however, partly a question of determining certain functions, in the sense in which this word is used here. In other words, the government planning office has to set certain rules which will promote co-ordination. These rules will, for example, be concerned with the method to be applied by the decentralised authorities in appraising investment projects, so that there will be no conflict in the appraisal. The Central Office for Economic Planning in the Netherlands, for example, discovered at one point that the criteria used by one of the ministries differed entirely from those used by other ministries, with the result that works commissioned by this ministry yielded far lower returns than works which were regarded by another ministry as unattractive. Ministerial appraisals of projects financed, either completely or partly, by the Federal Government of the United States are made on a basis of detailed instructions showing how a very great number of particulars must be set out in a uniform manner and what calculations must be made in connection with them.

Co-ordination can also be improved if the planning office circulates lists of those standard figures that determine the development of the national economy. These may include figures which must be accepted as data for economic development, such as figures showing the expected growth of the population or the expected development of foreign markets. These figures are circulated with the aim of ensuring that all the different authorities proceed from the same figures and that there will at least be no inconsistency caused by diverging assumptions of this kind. There may also be figures especially chosen by the central government to prevent public bodies at the lower level from making assumptions based on ignorance. These may be figures showing the rate of increase of the national income over several years and the distribution of the increase in production in various industries.

An important datum that has been ascertained in this way in the United States is the rate of interest against which future income and expenditure has to be discounted when deciding on projects.

One of the problems which the planning office will have to consider in connection with all this is which figures it should fix, thus how far it should go in imposing the details of a general development.

8 Adhocadvice to the government

As I have already observed in chapter 3, section 2, one of the functions of the planning office is to give ad hoc advice to the government on questions of economic policy. Because of the information and experience acquired in fulfilling its other functions, the planning office is particularly well qualified to advise on certain special questions of economic policy. These are in particular those problems in which the inter-dependence of the various sectors of the national economy are involved or in which the consequences are of importance to the general development of the country. Examples of such questions are the measures needed to combat a deficit in the balance of payments or inflation due to overspending, which comes to the same thing, or to deal with a sudden increase in unemployment. The planning office may also advise the government on its decision on new projects initiated by outsiders, such as foreign firms, which were not envisaged in the plan; or its decision on new discoveries of natural resources, such as petroleum or natural gas. Finally, unexpected difficulties do occasionally arise, for example between different ministries, when measures anticipated by the development plan are carried out; here too the planning office is in the best position to give advice.