

Arbeidsnotater

T A T I S T I S K S E N T R A L B Y R Å

WORKING PAPERS FROM THE CENTRAL BUREAU OF STATISTICS OF NORWAY

IR 63/1

Oslo, 30 December 1963

GOVERNMENT ECONOMIC CONTROL AND PLANNING .

IN NORWAY¹⁾

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1) Lecture presented at l'Institut Universitaire d'Études Européennes de Turin in March 1961. Mimeographed and brought up to date in December 1963.

The presentation is to a large extent based on a book written by the same author: Planning in Norway 1947-1956. North-Holland Publishing Company, Amsterdam 1959.

Norway may be known to you as a small country and as one of the Western European countries where government economic control and planning has been most extensively applied in post-war years. In fact, the economy of Norway with her 3.6 million inhabitants is of about the same order of magnitude as one of the largest business corporations in U.S.A. when measured in terms of gross product. Direct economic controls were extensively used ten years ago, but to-day they are not applied to a substantially larger extent in Norway than in other Western countries. However, preparation of plans and programmes for economic policy is considered as important to-day as in previous years. The particular method and procedure of planning used in Norway, the so-called national budgeting, has by now been applied through a period of 16 years and will in my opinion continue to be applied, even if the present labor government should be substituted by a conservative government.

Although Norway is a small country with a relatively simple economic structure and although the post-war period has been quite extraordinary as regards both economic climate and policy, the experience made in these years may to some extent be of general interest.

In the following I shall confine myself primarily to a description of the method and procedure applied in the national budgeting. However, I shall make some introductory remarks on the political philosophy of the government which has relied on

a Labor Party majority in the Storting (The Norwegian Parliament) since November 1945, and in conclusion I shall make an attempt at appraising the usefulness of national budgeting for economic policy.¹⁾

The economic problems confronting Norway at the end of the war were largely of the same nature as those facing the other war devastated countries of Western Europe. In particular, re-construction, inflationary price pressure, and balance of payments difficulties constituted very serious problems. The political stability and the possibility of arriving at a general unanimity of purpose as regards economic policy presumably explain the ability of the Norwegian government to adopt goals for its economic policy which were more ambitious than those of most other Western governments.

Full employment is accepted by all political parties as a major economic and social goal. A winter unemployment of about 2 per cent of the labour force and a summer unemployment of about half a per cent is considered tolerable, but these levels cannot be substantially exceeded before the party in power is criticized even by the conservatives.

A high rate of investment in real capital is another widely accepted goal which in turn is considered necessary to obtain a high rate of growth. At the end of the war there was general agreement that austerity for the sake of rapid reconstruction would be amply rewarded by a more rapid prospective rise in production and, consequently, in the standard of living. Since 1949, rapid economic development has replaced reconstruction as the prime objective of investment policy. Although the desirability of development is generally accepted, there is, of course, disagreement as to the amount and composition of the investments required for developmental purposes.

Equalization of incomes between agriculture, forestry, and fisheries on the one hand, and the manufacturing industries on the other was established as a major social goal by the Joint Program adopted by all political parties at the end of the war. At that time there was also general agreement on the

¹⁾ The Labor Party lost its majority in the elections held in September 1961.

desirability of a more equal distribution of income among income classes. The achievement of egalitarian goals has naturally been sought particularly through progressive taxation and regressive subsidization. Equalization measures are based to a considerable degree on the consumer unit rather than on the income receiver unit, i.e. both taxation and subsidization have favored families with children. Naturally, to-day there is far less agreement on the nature and degree of equalization than it used to be in the first post-war years.

Prevention of inflation and establishment of a long-term balance in the external economy have played important roles as goals of economic policy, although not as ends in themselves.

All political parties excepting the Communists have repeatedly declared that economic goals, regardless of their importance, must be subordinated to certain non-economic values, as for instance, freedom of speech, freedom of the press, and freedom of religion. Furthermore, freedom of occupational choice is strongly emphasized. However, the Labour Party does not consider certain other economic liberties, in particular freedom of entrepreneurship and freedom of consumers' choice, as being of equally great importance, and these have been subordinated to some degree to the goals already discussed. While consumers' free choice and free choice of occupation are regarded as ends in themselves, freedom from government interference with the entrepreneurial choice is accorded a lesser status.

During the early phases of the post-war period, when excess demand existed in almost all fields, a very comprehensive system of direct controls was used to prevent prices from rising, to prevent imports from exceeding exports by more than a given amount, and to allocate resources and redistribute incomes consistent with particular goals. Direct quantity controls were used primarily in a negative manner, i.e. by prohibitions and permits.

As excess demand gradually disappeared and prohibitions on use of resources became superfluous, direct quantity controls became correspondingly less essential for the prevention of price increases and less effective for the allocation of resources. However, rather ambitious allocative and distributive goals continued to be maintained, and therefore instruments other than

direct controls had to be more intensively applied for these purposes. For instance, indirect taxation and subsidization were used for redistributive purposes, and various forms of credit control, e.g. qualitative credit rationing, were applied for allocative purposes. Thus, although most direct economic controls were abolished in the course of the post-war period, governmental economic operations are still relatively extensive.

It is recognized that the more ambitious the economic and social goals, the more numerous means of control are required in order to achieve these goals. Put differently, the more controls available, the greater are the possibilities of achieving a desired set of goals. This explains why the Labor Government has considered abolition of direct controls to be preferable only on particular conditions as regards other means of economic control and why high taxes and low interest rates have been preferred to low taxes and high interest rates. In post-war Norway a rapid reconstruction and development and a considerable income equalization could hardly have been brought about simultaneously without resorting to a much more differentiated system of controls than that applied before the war. The changes which have taken place in the control system during the post-war period are partly responses to a redefinition of goals.

The Labor Government considers formal government ownership of the means of production as only one of many possible ways by which a government can exert influence on employment, production, allocation of resources, and distribution of incomes. The Norwegian economy is primarily an economy of privately owned enterprises in spite of the fact that a socialistic labor party has been in power for 26 years. Planned use of indirect controls and establishment of new government or semi-government enterprises are preferred for a socialization of private enterprises as means of economic policy.

A very comprehensive system of direct controls was imposed on the Norwegian economy during the period of German occupation from April 1940 to May 1945. During the first post-war years war-time price and quantity controls were maintained and some were strengthened. The only major direct

controls which ended with the occupation, were those on manpower and wages which had operated primarily to the benefit of the German war economy. In 1949, the supply of many consumers' goods had increased to the point where rationing could be abolished on these goods, e.g. shoes, gasoline, milk, cream, and eggs. But a large part of total gross investment was still under the direct control of the government, partly by import licensing and partly by rationing of building materials and other means of production. However, direct controls were now gradually demobilized, and at the end of 1952 there remained practically no rationing of consumers' goods and very slight rationing of raw materials and fuel; control of building was partly decentralized and relaxed; only one-fourth of the imports from OEEC-countries was quantitatively controlled; and the direct control of prices was also substantially relaxed. In 1954, a more contractive budgetary and monetary policy was initiated, primarily geared at restricting investments by rationing of the supply of credit and by making investments more expensive.

The last rationing of consumers' goods, viz. rationing of cars, was abolished as late as in 1960, and at the same time licensing of dwellings was abolished. However, some building licensing is still maintained. At the present time, only a minor part of the imports is controlled by licensing, and before long all import licensing is to be abolished. Approximately 30 per cent of all loans granted by credit institutions are granted by government banks. Prospective granting of credit by government banks is restricted by means of so-called loan-budgets which specify limits to the banks' new grants of credit. The granting of credit by private credit institutions is influenced by direct negotiations between associations of these institutions on the one hand and representatives of the government on the other hand.

For the four year period 1961-1964 an agreement has been made between the government and the associations of private credit institutions imposing upon the latter obligations as regards purchase of government bonds and interest rates. If required, ceilings may be imposed on credit granted by these institutions, and to some extent the agreement also implies some qualitative credit rationing. The issue of bonds by credit institutions, private enterprises, and local governments

is controlled by the Ministry of Finance which also has the legal power to fix maximum rates of interest, a power that has never been made effective.

The ambitious goals established for economic policy in the first post-war years, and the extensive system of economic controls applied to achieve these goals, required better analytical tools for the design of policy and new procedures of communication and coordination within the government administration. This motivated the application of national economic programs and plans prepared in advance of the control operations. These programs and plans describe how the controls are to be used in a succeeding period of time.

Governmental plans are prepared in both qualitative and quantitative terms. The former are verbal directives from superior to subordinate bodies and policy statements of other kinds. The latter are the national budgets which are prepared both annually and for longer periods. In addition to these global plans, separate regional plans have been prepared for particular parts of the country, and also partial long-term industry plans have been published. I shall confine myself to the national budgets.

Both the preparation and the presentation of the national budgets are made within the framework of a comprehensive and rather detailed system of national accounts. The national accounting system as such, of course, provides only a set of defitional relationships, and the number of these relationships is by far not as large as the number of variables included, i.e. there exists a large number of degrees of freedom within this logical system.

The variables taken into account in national budgeting may be classified into three major groups, viz. data variables, government variables, and private variables. Data variables are the variables that are, from the point of view of the government, exogenously determined, so that the central government cannot influence their size either directly or indirectly. In the short run the value of exports represents an important example of such variables. Government variables are those variables whose magnitude can be set directly by an agency of

the central government, e.g. grants of building licenses, tax rates, and the amount of government expenditures on goods and services. Variables that are neither data nor government variables are regarded as private. Private variables cannot be directly determined by the central government, but may indirectly be more or less influenced by the size chosen for government variables.

The logic of economic decision making within the government may in general be described in terms of (a) a set of economic variables including both data variables, government variables, and private variables, (b) a preference function expressing the relationship, in the government's judgement between social welfare and these variables, and (c) a set of definitional relations and a set of relationships describing behavior of the non-government part of the economy. In these terms decision making means the determination of those government variables which, subject to given data variables and to constraints (c) maximize the social welfare function (b). The behavior relationships in (c) represent relationships determined either by the technical structure, the institutional set-up, or the preferences of individuals and groups of individuals. A complete model arrived at by maximization of a preference function subject to given constraints may be termed a government behavior model since it contains relations expressing not only behavior of private groups, but also behavior of the government.

The explicit numerical model applied in Norwegian national budgeting is of a much more primitive kind. As already mentioned it includes the main definitional relations implied in the Norwegian system of national accounts. In addition, it includes a set of numerically formulated behavior relationships, but by far not all of those which have to be taken into account by the government in designing economic policy. Thus, the number of degrees of freedom in the explicit national budget model is large, considerably larger than the number of government variables. This implies that in applying the national budget model as a tool for design of policy, the government must make assumptions^{as} to the magnitudes of a larger number of variables than the existing number of government

variables. These assumptions must, inter alia, rest on considerations as to the functioning of the economy. Since not all of the behavior relations are taken explicitly into account in the model, the solutions for government and private variables may be more or less inconsistent with the complete system of relationships existing in reality. Thus, even if the numerical relationships explicitly included are correctly formulated, solutions made by the use of an incomplete model may contradict unspecified relationships and may therefore turn out to be more or less erroneous.

The method of preparing projections which appear in the Norwegian national budget may be characterized as a process of improvised successive approximations within the explicit national budget model, a process having as its object the determination of optimal values of the government variables and consequently of the private variables. Since in this reasoning the government more or less intuitively attempts taking into account not only its own preferences, but also all data and behavior relationships existing in reality, we may conceive the existence of an implicit national budget model which describes this reasoning.

The most important target variables usually specified in the national budget model are the national product, private and government consumption, private and government investment, the import surplus, and variables describing the structure of income distribution. The behavior relationships explicitly taken into account in the national budget model are largely of a technological or institutional nature.

In the preparation of the National Budget for 1961, an extended numerical model including a relatively large number of behavior relationships, was for the first time applied as an analytical tool for the national budgeting.¹⁾ This extended analytical model, comprising 634 equations and still

¹⁾ This model has been arrived at as a result of a co-operation between the Central Bureau of Statistics of Norway, the University of Oslo and the Ministry of Finance.

more variables, is framed on the basis of the following main groups of questions:

1. From which sources of production or imports do the commodity and service inputs in the various sectors of production and the final deliveries for consumption, investment and exports originate?
2. How large incomes do the various income groups dispose and how do these groups dispose with regard to consumption, investment and commodity input?
3. How large are the exports to be expected?

The first group of questions is answered by means of the input-output model of the Central Bureau of Statistics of Norway. This model is mainly based on national accounts figures for 1954 and founded on a systematic study of the structure of production in 129 sectors. It was considered necessary to modify some of the coefficients of this input-output model, for instance many of the import coefficients, in order to cover in a better way the conditions expected to come into play in 1961.

The disposable real income for wage and salary earners is determined by the coefficients of wages and salaries in the input-output model, but these coefficients were modified for expected changes in wage rates, prices and productivity in 1961. Furthermore, a separate tax relation is also included in the extended analytical model.

As to the use of income, private consumption is for the largest part considered as an endogenous variable, while government consumption, fixed capital formation, and exports are exogenously determined.

The model includes a behavior relationship where the change of total private consumption is a linear function of the change of disposable wages and salaries and of the exogenously determined owner income in agriculture, forestry and fishing. Furthermore, the change of total private consumption is allocated on delivering sectors of production and on imports by means of a set of Engel-elasticities. However, for some commodity groups where special circumstances prevail, for example television and cars, exogenous estimates are made.

The exogenous estimates of government consumption, fixed capital formation, and exports are made in the traditional manner of national budgeting, but the inclusion of these national budget projections in the extended analytical model

requires that they are distributed according to category of goods corresponding to the sectors of production and the groups of imports specified in the input-output model.

In the case of some industries, such as agriculture and fishing, production is exogenously determined. The possible difference which may appear between final deliveries thus determined and those likely to be derived from the conditions of demand is, inter alia, to be adjusted to the estimates of inventories for the sector of production concerned.

Imports of goods and services are endogenously determined, within the model with the exception of the imports of ships and the expenditures of the merchant fleet abroad, which are exogenously determined.

It will be understood that the extended analytical model is a so-called open model, i.e. it includes more variables than relationships so that a part of the variables have to be exogenously determined. However, this analytical model is characterized by a much larger degree of completeness than the explicit national budget model. In preparing the national budget for 1961 the Norwegian government applied both methods in a parallel manner and both contributed to the national budget figures finally arrived at.

The ex post national accounts for the pre-plan year represent an indispensable basis for national budgeting. In fact, projections for the plan year as a rule represent changes above or below the respective preliminary ex post figures for the pre-plan year, although in form they appear as estimates of levels. Furthermore, practically all kinds of official economic statistics and also labor and population statistics are utilized, inter alia, for the purpose of exploring behavior relationships which may exist between the variables of the national budget model.

Surveys of individual plans or expectations, particularly investment and export plans of private and public enterprises, are to some extent used as background material for economic programming and planning. These more or less systematic surveys are confined to plans which represent the intentions of respondents at the time and under the conditions prevailing when they are being questioned. Surveys of expectations appear

to be of particular interest with respect to data variables since individual entrepreneurs may be better informed than the government on prospective development in their fields. Exporters and their associations, for instance, are usually well informed on foreign market conditions, shipowners and their associations on prospective deliveries of ships from foreign shipyards, etc. Information on relationships (ratios) between output and the stock of fixed capital as well as statistics on the available amount of fixed capital are of considerable interest as a basis for projections of production. Statistics on capital equipment are of particular interest in the case of industries, e.g. shipping and electricity production, having a relatively large input of real capital. For some of these industries quite up-to-date statistics on capital equipment are available; but in general it must be admitted that satisfactory statistics on capital equipment are still lacking for most industries.

Great importance attaches to the promptness with which ex post statistics for periods preceding the plan period become available, because of the significance of such statistics as a basis for planning. In Norway, the most up-to-date statistical series are on commodity imports and exports, for which preliminary monthly totals are available 10 days after the end of the month to which they refer. The monthly production index of manufacturing is published after one month, and the indexes of retail trade after 2 months.¹⁾ These three time series are of extreme importance for the preparation of quick preliminary ex post national accounts. For the other time series the lag is considerably longer. In the beginning of October when the national budget and the preliminary national accounts for the pre-plan year are published, some important series of current economic statistics are available for the first 7 - 8 months of the pre-plan year. Other monthly series are by far not as well up to date. Consequently, for the last 4 - 5 months of the pre-plan year the preliminary national accounts in fact represent projections and not ex post statistics. Experience shows that the margins of error for preliminary

¹⁾ Since 1962 after $1\frac{1}{2}$ months.

national accounts of the pre-plan year are rather large relative to the rather small year-to-year changes that usually take place.

Annual national budgets have been published for every year since 1946 inclusive. Long-term national budgets have been published for four periods, viz. 1946 through 1950, fiscal year 1948-49 through fiscal year 1951-52, 1953 through 1957, and 1958 through 1961.¹⁾ Both the national budgets and the verbally formulated programs are published in special parliamentary reports, viz. the national budget publications. The programs presented in such a publication must be conceived as temporary in the sense that the Cabinet may modify them if the Storting so desires or for other reasons.

In the annual national budget publications practically no attempts are made at indicating a time schedule of prospective government action, and only infrequently is quantitative expression given to the long-term effects anticipated as a consequence of planned government action. While the magnitudes of major government variables are specified for the particular calendar year to which the national budget relates, no specification is for instance made of the expected prospective time path for the target variables from which, in principle, the magnitudes of the government variables are deduced. However, the long-term budgets in a sense represent this kind of dynamic long-term planning.

The national budget publication for a given period presents the figures of the national budget for that period, a set of verbal directives, and in addition an analysis of both the ex post economic development in the pre-plan year and the anticipated development in the plan year.

The main entries of the national budget are, in principle, prepared at two different sets of prices, viz. at average prices prevailing in the pre-plan year and at prices existing at the time when the plan decisions are made (alternatively at prices which will be paid in the plan year provided that these prices are already known from contracts). Ex ante value figures estimated

¹⁾ In 1961 a long-term national budget for 1962 through 1965 was published.

at the average prices of the pre-plan year represent volume indexes relative to the corresponding preliminary ex post value figures of the pre-plan year. The prices at which these figures are estimated represent weights of the volume indexes and nothing more. The purpose of the second set of ex ante figures is to indicate roughly prospective magnitudes at prices prevailing at the time of planning.

The set of budget entries for government variables represent a program which directly indicate how instruments of economic policy are to be used. As direct controls have been gradually relaxed or abolished during the post-war period, the program character of the Norwegian national budget has lessened. However, the budget as a whole must still be characterized as a program budget and not as a mere prognosis budget.

The national budget publications present government plan decisions up to the time of publication. However, since the decision making is a continual process, plan decisions are frequently revised before final action decisions are made.

Within the plan year reports on the implementation of the national budget are prepared. These reports describe economic trends in the preceding months of the plan year and make comparisons between ex ante figures of the national budget and such corresponding ex post figures as are available for preceding months. Plan revisions may also be indicated in these reports.

Since the conditions underlying the national budget frequently change, one might argue in principle that the national budget figures should be revised correspondingly. However, in practice this would require the attention of too large a number of civil servants at the sacrifice of other important work. The cost of plan revisions must be weighed against the need for up-to-date and consistent plans. General revisions are urgent only when deviations between the ex ante and the ex post figures become so large that a general reconsideration of policy is required or when large changes in underlying conditions occur unexpectedly.

So far, we have abstracted from problems due to the fact that the preparation as well as the implementation of plans

for economic policy is divided among a number of government bodies, i.e. we have confined ourselves to those problems of policy design and planning which would remain even if all government economic decisions were made at top level and could be automatically and correctly executed by subordinated bodies. We now proceed taking into account the fact that decision making is decentralized within the government.

The main ministries responsible for economic control are the Ministry of Finance, the Ministry of Industry, the Ministry of Commerce, and the Ministry of Labor, Housing, and Municipalities. The preparation of the national budget is divided among the ministries according to the principle that projections regarding a particular entry in the national budget are to be first prepared by the agency having the most effective control, directly or indirectly, over that item.

Planning is coordinated on the administrative top level by a Cabinet Committee for economic affairs, headed by the Prime Minister. The Cabinet Committee is assisted by a committee of civil servants, the so-called national budget committee, representing various branches of the government administration. In fact, most of the work of this committee is done by a sub-committee which convenes at least once a month. The chief of the Economizing Planning Department of the Ministry of Finance is chairman of the national budget committee, and the national budget division of this department serves as a secretariate for both the Cabinet Committee and the national budget committee.¹⁾

The national budget committee has advisory functions only. The members of this committee are the liaisons of the secretariate to the various ministries, their task being, inter alia, to assure that the budget is actually prepared by the ministries and that progress reports are presented to the secretariate. The liaisons represent the interests of their respective ministries, when component budgets are being coordinated. The sub-committee of the national budget committee

¹⁾ In 1963 a Department for long-term planning was established within the Ministry of Finance and the undersecretary of this ministry was appointed as the top civil servant chief of economic planning in Norway.

may also on their own account initiate investigations on particular problems and make recommendations. The more technical work of coordinating plans falls mainly on the national budget division.

The actual preparation of the succeeding year's national budget is launched in the late spring. At that time a preliminary formulation of basic objectives is adopted by the Cabinet Committee and directives are issued for the preparation of component budgets. The first preliminary component budgets are submitted to the national budget division in the month of July. However, some coordination of component budgets takes place in advance of this submission; for instance, all parts of the commodity import budgets are coordinated by one division of the Ministry of Trade, and all parts of the commodity export budget by another division of the same ministry on the basis of initial projections for entries in these budgets made by a number of other government agencies. The plan for allocation of rationed building materials used to be similarly coordinated by the Housing Directorate of the Ministry of Labor, Housing and Municipalities. The manpower budget is similarly coordinated by the Labor Directorate, and so forth. However, not until the component budgets reach the national budget division can the final coordination take place.

The Cabinet Committee through its advisory bodies examines the preliminary component budgets in order to ascertain whether the directives have been adhered to, whether the assumptions of the various agencies regarding government action are consistent with one another, etc. Further, it reconsiders decisions on basic objectives in the light of the new information that the various component budgets provide. This coordinating activity results in a number of decisions and suggestions concerning changes in the preliminary component budgets. Consequently, the planning agencies must often reconsider and revise their first projections. In this manner successive modifications are made in the component budgets, in part through negotiations between high level coordinating bodies and subordinate government agencies, in part through direct horizontal contact between the subordinate agencies themselves. Of course, most of this coordinating activity is carried out by the advisory

bodies. The main function of the members of the Cabinet Committee are to make decisions on policy questions and to back up the administrative authority of the national budget committee and the national budget division.

The last administrative review of the national budget before its presentation to the Storting takes place in the Cabinet, and the conclusion of this review is the adoption of the national budget publication as a formal report to the Storting. This report is presented to the Storting in the beginning of October, together with the Government's fiscal budget.

Until recently, the national budget publication was presented to the Storting in the beginning of January, together with a fiscal budget which at that time was related to the fiscal year. Beginning with 1961, the fiscal budget has been changed so as to be related to the calendar year. This meant that the presentation of both the national budget and the fiscal budget had to be advanced.

The national budget and the Government's fiscal budget are simultaneously examined by a parliamentary committee and are later debated in a series of plenary sessions of the Storting. Whereas the fiscal budget is voted on item by item, the debate on the national budget is only concluded with a resolution stating that the Storting has taken notice of the national budget publication.

To the extent that the national budget is defined as a program for economic policy, it constitutes definite directives to control agencies, for instance directives concerning the lending of government banks, the granting of building licenses, etc. Government officials are obliged to comply with these directives just as they must obey directives issued in qualitative terms. One of the advantages of presenting directives within a national budget is the preciseness thus given the directives.

Decisions of administrative bodies directly affecting the magnitude of the variables included in the national budget are to be made in conformity with the figures of the original national budget publication if modifications have not been made by superior bodies. If such changes have been made, the new modified budget replaces the original figures as directives for economic policy. When projections of the national budget turn out to be false in some respect or another, it may be of

the greatest importance to revise them for the remainder of the period. It is the duty of the various agencies to be on the alert for developments that may require revision of a projection and to prepare for submission to the Cabinet Committee reports based on ex post facto accounts. In principle any important deviation from the policy defined by the national budget require approval by the Cabinet Committee.

For private individuals and groups the national budget has neither the authority of executive orders nor the force of law. At most, its directives may constitute a moral obligation. In other words, the national budget as such does not add to the body of enforceable direct control over the private sector of the economy nor to the legal obligations of citizens. Such controls and obligations are instituted by special laws. In the executive sense it is only a plan for the management of government administration. In a statistical and economic sense, however, it is a projection for the entire economy.

Since the national budget is published in the form of a parliamentary report, it is obvious that it in no way binds the actions of the Storting. The Storting may make decisions and adopt laws which imply substantial modifications of figures^{included} in the national budget publication. This is most evident with regard to those national budget entries which appear also in the Government's fiscal budget, and for which a change decided by the Storting obviously implies a modification of the national budget. A number of changes may be decided in the course of the plan year.

The resolution of the Storting on the national budget publication in no way restricts the actions of the Cabinet - neither by precluding amendment of the budget after the adoption of the resolution, nor by requiring changes if members of the Storting have suggested them. Consequently, the Cabinet is not bound by the national budget as it is by decisions of the Storting on the fiscal budget. This means, inter alia, that the Storting cannot be regarded as responsible for the policy implied in the national budget.

There are no laws requiring the Cabinet to submit to the Storting an annual report on the national budget.

These reports have been submitted at the initiative of the Cabinet. However, in 1947 the Storting adopted a resolution recognizing the usefulness of the national budget and recommending that the Cabinet continue submitting annual national budget publications. Later, the Storting has included in its rules of procedure provisions for the manner in which the annual national budget publications are to be treated.

The process of successive approximations which national budgeting involves may superficially seem to be concerned primarily with the definitional relations implied in the national budget, i.e. concerned with ascertaining that each debit item of the national budget turns out equal to a corresponding credit item (or a sum of credit items) or vice versa. However, attempts are made to take behavior relationships into account as far as possible. The persons taking part in budgeting here rely on their intuitive knowledge, gained through education and experience, of the behavior relationships existing between the various entries in the national budget. The main advantage of a decentralized planning organization is that a larger amount of specialized expertise is drawn upon than would be the case in a more centralized scheme. Application of the extended analytical model represents a more systematic method of taking behavior relationships into account, but as already mentioned, it does not exclude the application of the administrative method of national budgeting described above.

At this point, you may want to know a little more about the content of the various component budgets. The main component budgets are the production budget, the export and import budgets, the consumption budget, the investment budget, the budget for incomes and expenditures of central and local governments, the budget for grants of credit by government banks, and the manpower budget.

The production budget indicates projections for production in major industries and for gross and net national product. These projections are made both in absolute and relative terms. In the last national budget publication only relative

figures for the increase of production and projections for gross national product were presented. The projections of production are prepared originally by industry specialists, but in course of the approximation process these projections are generally modified as a consequence of considerations within the national budget model. The annual projections of production are to some extent based on information on production plans collected from individual enterprises or establishments producing building materials and other selected major goods, and in part also on information on export plans collected from major exporters.

The budgets for exports and imports include projections broken down by commodity groups. In the first post-war years projections for a large number of commodity groups were published. But the last national budget publication includes projections only for total commodity imports and exports, total exports and imports of ships, total net freight incomes, and an item indicating net exports of other services. In addition to a projection of the import surplus, it also includes some projections indicating lending to and borrowing from foreign countries.

The annual budgeting of commodity exports and imports is initiated by the Ministry of Commerce. In preparing a complete ex ante budget of commodity exports and imports broken down by major commodity groups, the Ministry relies quite heavily on information collected by the Norwegian Export Council from most major exporters, and on information from other ministries concerning prospective imports, for instance, information from the Ministry of Industries as regards imports of raw materials and other factors of production.

The export and import budgets for ships and shipping services are prepared in the first stage by the Shipowners Association of Norway in the light of information on contracts for purchases of new ships; available tonnage by types of ships and by major freight markets; existing time charter agreements; anticipated development of freight rates; etc.

As long as exports and imports were directly controlled by licensing, budgets for prospective licensing were also included in the national budget publication. These budgets indicated to which extent the government planned to grant licenses for

exports and imports as regards a relatively large number of major commodity groups.

The consumption budget includes projections of consumption both by local and central government and by private persons. The budget for private consumption is broken down by major commodity groups. Previously, projections for a number of major commodity groups were published. The last national budget publication presents projections only for government consumption broken down by purpose and for total private consumption. The annual projections of local government revenue and expenditures are based on information collected from local governments as regards both ex post accounts and budget estimates.

The investment budget includes projections of investment broken down both by industry and by kind. In the last national budget publication, projections only for investment in building and construction, machinery and equipment, ships and boats, and changes of inventories are presented; but in previous national budget publications projections of investment in quite a large number of industries were also presented.

As long as the building activity was controlled directly by licensing, budgets for the licensing of buildings were included in the national budget publications. Since licensing of building now is limited to industry buildings and a few other types of buildings, the budget for building licensing presented in the last national budget publication naturally includes figures only for these types.

The budget for government income and expenditure presented in the national budget publication includes a classification of fiscal budget expenditure which corresponds to the usual classification in national accounts, and a classification of government incomes by major types of income. From 1961 the central government accounts and budget are for all practical purposes logically integrated with the national accounts and budget.

The budget for grants of credit by government banks indicates the sum which each government bank is permitted to grant in total for all kinds of loans, and as regards some banks, total grants of loans are also to some extent specified by purpose.

The manpower/^{budget}includes projections of employment by major industries and also projections for the natural increase of the labor force. In addition, unemployment is also projected.

Before concluding, I shall make an attempt at answering some of the questions frequently asked concerning the usefulness of national budgeting. These questions are mainly concerned with the degree to which the main purposes of national budgeting have been satisfied. These purposes are improvement of the design of policy; promotion of administrative communication, coordination and control; and dissemination of information.

Some opponents of the Labor Party in power in Norway have asserted that the national budget represents only a prognosis of economic events and not a program of economic policy. Some even maintain that the national budget publications are primarily political propaganda material and have little significance for policy. Nevertheless, the facts remain that in Norway the Cabinet officially declares the annual and long-term national budgets as programs for its economic policy, and that the opposition feels justified in criticizing the Cabinet if stated goals are not achieved. Indeed it cannot be questioned that the national budgeting has been used in post-war years - and is still being used - in the design and execution of economic policy by the Cabinet and its economic committee, by the national budget committee and the national budget secretariate, and by the ministries, in particular the Ministry of Finance, the Ministry of Commerce, and the Ministry of Labor, Housing and Municipalities (which is responsible for the building licensing budget and the manpower budget). The national budgeting technique is used less by the Storting, although the national budget publications (and sometimes some of the component budgets) are debated at length in special sessions, and although national budget entries are frequently referred to in other parliamentary debates. In my opinion, national budgeting as such is in Norway used as a very important tool both for design of economic policy and for execution of policy. However, the role of the national budget as a means of administrative communication and control was, of course, substantially more

important at the time when a number of direct controls were applied, than it is to-day when the government's economic policy is carried out mainly by indirect means of control.

One of the most common arguments against the preparation of quantitative plans well in advance of action is that they become outdated before action is to begin, and that for this reason the costs of preparing the plans are not justified by their usefulness. The most common answers to this argument are that even if circumstances change so that the government must act otherwise than planned, the plan may nevertheless be useful as a frame of reference, that it is easier and quicker to modify an existing plan for action than it would be to prepare an entirely new one; and that planning in advance of action represents a trying-out on paper of alternative solutions to governmental decision problems before action must take place, thereby reducing the waste of trial and error in the governmental decision making. In other words, decision making may be improved because preparatory work is completed well in advance of action, and this is true also when the problem is to modify policy.

The Norwegian experience certainly confirms the proposition that changing circumstances may make a plan outdated before it can be used. Economic events frequently develop otherwise than anticipated, and the social welfare preferences of the Cabinet are also likely to change. When a national budget publication is outmoded because of such circumstances, the budgets for government variables are as a rule revised, but not all other national budget entries. Nevertheless, the existence of a national budget, even though largely unrevised, seems to facilitate analysis of the probable effects of changes in the government variables as compared with plans. Of course, a particular national budget publication becomes less useful in the plan period the more circumstances change, and one can conceive of such radical changes, e.g. the outbreak of war or an election landslide against the party in power, that it may be justified to characterize as useless the national budget published for the period. However, so far the Norwegian experience seems to be that the national budget publication represents a basic instrument for executing policy as planned and

for designing modifications in the plans.

Another Norwegian experience appears to be that the advantages gained through the preparation of a national budget are about the same whether or not the budget becomes outdated. This might not be the case if the preparation of plans were divorced from the execution of these plans - i.e. if plans were prepared by specialists who do not take part in the current work of the ministries.

Popular discussions on national budgeting frequently take for granted that deviations between national budgets and accounts necessarily indicate bad budgeting and policy. In my opinion this view is based upon misunderstandings both of the purposes of national budgeting and of the manner in which national budget projections are used as a basis for economic policy.

Of course, deviations between projected and actual figures for data variables suggest in general that the numerical basis for porjections of other national budget variables has not been satisfactory, but possible harmful effects of such errors are not necessarily proportionate to the magnitudes of the deviations. Norwegian experience is that the magnitudes of data variables frequently turn out significantly different from anticipations. For example, the prospective increase in the volume of exports, the terms of foreign trade, and the possibilities of foreign borrowing at given loan conditions, all of these variables often have turned out more favorable than assumed. Certainly, to the extent that these deviations were not intended, policy might have been better if they could have been avoided.

As regards deviations for government variables and private variables, these may even signify good policy, viz. to the extent that they reflect adaptations to improved knowledge concerning data variables. Both theoretical and numerical analyses indicate that deviations for government variables and private variables cannot a priori be interpreted as indicating failures in national budgeting other than those indicated by deviations for data variables. Correspondingly, if both government variables and data variables are regarded as exogenously determined, deviations for private variables may

signify good policy if they only reflect deviations for the former two groups of variables. The Norwegian experience is that observed deviations for exports and gross investment have caused deviations for gross national product, imports, and total consumption which would account for a large part of the deviations observed for these variables. In other words, a large part of the observed deviations for the latter variables may be regarded as due to two causes of deviations: unrealistic assumptions concerning data variables (in this case exports), and modifications of policy as compared with original plans for government variables (in this case gross investment).

Deviations for government variables and private variables may, of course, be due to methodological errors. The Norwegian experience seems to be that methodological errors have been committed in a number of cases in projecting the volumes of, for instance, gross national product, imports, and total consumption at given magnitudes of exports and gross investment, in projection delivery of imports at given levels of licensing etc. However, in appraising national budgeting as a tool for design of policy, one must also consider whether methodological errors might have been reduced by alternative methods.

Deviations for government and private variables may also be due to shifts in the social welfare preferences of the Cabinet, to intended deviations, or to faulty execution of policy. Deviations due to such causes hardly indicate any weakness in design of policy as such. However, the significance of such causes of deviations must be taken into account in appraising national budgeting as an administrative and educational device. Thus, an appraisal of national budgeting cannot be made on the basis of information on deviations alone. The nature and causes of deviations, the point of time when they are detected, the government actions resulting from their detection, etc., are as important as the size of the deviations themselves, and analysis of these factors is difficult.

In order to answer the question whether national budgeting is an efficient tool for design of policy, it may be illuminating to compare the present Norwegian national budgeting procedure with two alternative methods for design of policy.

One is a method applied in many countries to-day, viz. design of policy ad hoc as problems arise, without integrating quantitative assumptions and projections within an all-inclusive logical model. The other alternative is design of policy by means of a numerical model which is significantly more complete than the post-war Norwegian national budget model, for instance, the extended national budget model or a model of the kind applied by the Government of the Netherlands.

In my opinion, we may a priori conclude that national budgeting of the Norwegian kind seems to be advantageous as compared with the ad hoc method for the following reasons: Regardless of the method used for design of government policy, the national budgeting procedure brings into the open assumptions and projections that must be made by the policy makers - if they want to pursue a policy at all. National budgeting thereby assures more careful consideration of the assumptions and projections than they would otherwise be likely to receive, particularly because the assumptions and the projections can be subject to criticism, and national budgeting facilitates adjustment of policy if and when assumptions or projections are falsified by actual development. The merits of the Norwegian national budget model do not seem to lie so much in the ability to predict prospective economic development and government behavior (which may not be better than in the case of other methods) as in the possibilities of applying the model for improving the consistency of a large number of assumptions and projections made by the different policy makers and at different points of time. Systematic national budgeting is also likely to give the policy makers more valuable experience than the ad hoc method, both as to the functioning of the economy and as to the possibilities of the central government to influence economic development.

The evidence gained from national budgeting in Norway after the war seems to be that when demand exceeds supply of resources - in total and in particular markets - national budgeting demonstrates to the policy maker in a more convincing manner than the ad hoc method the necessity of keeping ends within means. The post-war experience also seems to indicate that specialists in the various ministries are more or less

compelled by the obligation to prepare component budgets for their particular field to relate their problems to those of the economy as a whole. The last but not least important conclusion gained from the post-war experience which may be appropriately mentioned at this point is, in my opinion, that the economic thinking of policy makers and of politicians in general was remarkably improved due to the national budgeting. In addition, national budgeting improved communication and coordination within the central government.

With regard to the second method for comparison, design of economic policy by means of a numerical model which is significantly more complete than the particular national budget model applied in most post-war years, I may mention that I, some years ago, made experiments by means of a simple Keynesian model.¹⁾ These experiments indicated that for the period 1947-1956 projections of gross national product and its major components would hardly have been improved, as compared with the results obtained by the national budget projections, if the Keynesian model had been available and had been mechanically used for such projections in the years concerned. I have not yet made similar experiments with the extended analytical model.

Thus, the main conclusions arrived at seem to be the following: The logical integration of governmental plans within a system of national accounts provides definite advantages as compared with less systematic procedures. Untill recently more complete models for the Norwegian economy were not constructed which, used alone, would be better for design of policy than is the present national budgeting. Whether the extended analytical model would be better, one does not know. However, I believe that this model, when used together with the implicit national budget model, may be useful, and that improvements of this model may increase its usefulness in the future.²⁾

¹⁾ See Petter Jakob Bjerve: Planning in Norway 1947-1956, pp. 337 - 338.

²⁾ The experience made by application of the extended national budget model for the years 1961 and 1962 seems to be encouraging, but does not suggest that application of the administrative method of national budgeting ought to be discontinued.

As regards the usefulness of national budgeting as an administrative device, the experience seems to be that in particular the budgets for import licensing and building licensing have played very significant roles.

Before the budgeting of imports was initiated, the various divisions and sections of the Export and Import Directorate were guided by verbal instructions, but actual licensing frequently turned out so large that severe reductions had to be made in a succeeding period. Excessive licensing occurred primarily because subordinate bodies did not precisely know to what degree licensing in their respective fields was to be restricted. Also after the initiation of budgeting excessive licensing occurred, for instance in 1947, partly because of faulty execution. However, after only a couple of years' experience with import budgeting, this cause of deviations for imports was apparently practically eliminated both within the Export and Import Directorate and at a higher administrative level. The introduction of export and import budgets also strengthened the ability of subordinate bodies to resist pressure from applicants for licenses and reduced the risk that they would be blamed afterwards by their superiors for excessive licensing. The commodity import budget coupled with corresponding ex post accounts has undoubtedly also reinforced substantially the administrative control of superiors over subordinates.

Without the use of a licensing budget for building licensing, communication and administrative control also in this field would, in my opinion, have been substantially less effective than it actually has been. In an economy where building is controlled by government licensing, a budget for building licenses seems to be about as necessary for execution of licensing policy as is the fiscal budget for the expenditure policy of the government.

The analogy with fiscal budgeting may in fact be carried still further, both as regards import licensing and building licensing, and as regards national budgeting in general. As a number of government bodies take part in the preparation of the national budget, these bodies naturally to some degree attempt to gain particular advantages in their

field of interest. During the national budgeting procedure a reconciliation of such interests takes place in about the same manner as in fiscal budgeting.

There exists, in my opinion, sufficient evidence to conclude that import budgeting and budgeting of building licensing makes possible substantial improvement of communication within the government and of administrative control, and promotes reconciliation of interests, as compared with what can be achieved by means of verbal directives alone. The same conclusion obviously applies for the fiscal budget of the central government, but it is less clear to what degree it is valid for components of the national budget other than those discussed above.

Since many arguments in favor of the national budgeting are related to the existence of direct quantitative controls, particularly licensing of imports and of building, the question may be asked whether national budgeting is useful also in an economy without direct quantitative controls. In such a system the problems of communication and coordination within the central government may seem to be so small that they can be satisfactorily solved without national budgeting. However, this obviously depends upon the number of indirect controls applied to influence economic trends. For instance, in an economy of the Norwegian type where the government uses a complex system of taxes, subsidies, credit regulations, and other indirect means of economic control, the administrative advantages of national budgeting may be significant. Thus, the significance of national budgeting as an administrative device seems to depend more on the number of controls applied than on whether direct quantitative controls are applied or not. The same conclusion applies to the significance of national budgeting as a method for design of policy. Any government wanting to influence economic development in a particular direction needs an efficient method for designing this influence, and the more ambitious the goals the government wants to achieve, the more controls are needed, and the larger and more difficult the problems of policy design seem to be. The informative and educational value of national budgeting appears about the same regardless of whether direct control are applied. This seems

to lead to the conclusion that although the arguments in favor of national budgeting seem less important the less the government uses direct quantitative controls, they may still be significant if the government wants to use a complex system of other government controls. The arguments against national budgeting are hardly stronger in an indirectly controlled economy than in an economy where direct controls are used. Consequently, in my opinion, national budgeting and national budget publications may be useful in any economic system provided that the government wants to influence the economy on a current basis. However, the less direct quantitative control a government applies, the less detailed projections of real transactions does it need, and the more complex means of budgeting and monetary controls a government adopts, the more detailed projections of financial transactions does it require.

One way of appraising the usefulness of planning may be to investigate to what extent the various economic goals established by the plan have been achieved. While a successive achievement of economic goals does not necessarily imply that the planning has been successful, a negative answer would be a serious indication of failure.

Two of the five major goals for Norwegian post-war economic policy, viz. full employment and high rate of investment in real capital, were definitely successfully achieved. Unemployment was practically nonexistent. The rate of investment was extraordinarily high during the entire post-war period in comparison with both pre-war experience and the post-war investment rates of other countries. In some years the rate of investment was higher than planned.

As regards the achievement of the third major post-war goal, equalization of incomes, available information seems to indicate that wage earners in agriculture, forestry, and fishing received a substantially larger proportion of personal incomes than before the war (when these groups were among the lowest income receivers). The employers in agriculture, forestry, and fishing also improved their relative position as compared with pre-war years, when their incomes were relatively low. Furthermore, a very progressive system of direct taxation and a comprehensive system of government subsidies of various kinds

(including social security benefits) had the effect of equalizing disposable personal incomes both between income groups and between consumer units within the same income group, and enlargement of the government's supply of collective goods and services had also some equalitarian effects.

The two remaining goals, prevention of inflation and long-term balance in external transactions, were not achieved to the same extent. At the end of 1960 the official cost-of-living index was 64 per cent higher than in 1946. Until recently, imports were directly controlled in order to prevent too high deficits on the balance of payments. However, developments during the last couple of years appear to indicate that a long-term external balance has been achieved.

Considering the post-war period as a whole, there is no doubt that the main objectives for allocation of resources were realized. As already mentioned, gross investment was relatively high, partly at the expense of consumption and partly as a result of an import surplus; and non-military government consumption was on the whole restricted within the stated limits.

In average for the reconstruction period the volume of private consumption was maintained at a considerably higher level as compared with pre-war than indicated in the verbal statements on consumption goals. The increase in private consumption over this period was also stronger than anticipated. In the development period, the real increase of private consumption apparently conformed well with the qualitative statements. The volume of government consumption developed fairly well in conformity with the qualitatively formulated goals, except for military consumption, which from 1949 onward did not expand as quickly as indicated.

In individual years of the ten year period 1947 - 1956 the relative development of consumption and of investment was not entirely as indicated in the annual national budgets. Gross capital formation in these years as a rule absorbed a larger proportion of resources than indicated in the annual national budgets, and total consumption a smaller proportion. The declared intentions of the government to reduce investment have repeatedly failed to materialize.

The actual structure of investments conformed well with the qualitative statements on investment policy, but not as well with the quantitative proportions indicated in the annual national budget publications with respect to investment in individual industries. Statistics of investment show that the so-called "high priority industries" in fact invested a substantially larger proportion of available resources than they did in pre-war years, and that capital formation within manufacturing changed substantially, both from pre-war and in the course of the post-war years, in the directions indicated by verbal statements on investment goals. However, the proportions of total investment going to individual industries quite frequently differed significantly from the ex ante proportions indicated in the investment budgets.

Of course, the achievement^{of} goals does not imply that this is due to the national budgeting, since the goals might have been achieved anyhow. Nevertheless, the experience in post-war Norway seems to be that the allocation of resources on consumption and investment and on investment in various industries was determined to a large degree by intentional efforts of the central government. I do not doubt that by means of national budgeting a government can more successfully achieve particular goals for allocation of resources than by means of ad hoc planning.