CHAPTER I

INTRODUCTION

The origin of this inquiry was a decision of the Executive Committee of the National Institute of Economic and Social Research, in November 1950, to initiate a project called ‘An Examination of British Economic Statistics’. This was to have, as its main object,

‘the investigation of the statistical information (a) required for, or (b) actually used or available for, the formulation of economic policy in the United Kingdom.’

Economic policy was to be understood in a general sense—covering such things as employment policy or fiscal policy; the inquiry was not to concern itself with statistics needed solely for detailed administrative decisions. It was to be a review and assessment of existing statistics, and also an investigation of the statistical requirements for the formulation of policy.

Fifty years ago there were no production statistics outside a few staples, such as coal, pig iron and steel. International trade was reasonably well covered, and estimates could be made of the British consumption of commodities such as cotton, wool and wheat, of which a good part passed through the ports. The basic financial and fiscal statistics were published; wage rates were known for selected trades, and unemployment figures could be obtained from Trade Union returns. Indices of wholesale prices were available, and there was some scattered information about retail prices, mainly of food. General ‘activity’ could be seen reflected in the railway returns, the shipping clearances, or the bank clearings. But the items of this rudimentary statistical system were often of an unsatisfactory kind; thus the ‘consumption’ of raw wool was obtained by adding retained imports to the retained domestic clip, and ignored stock (inventory) changes. If one tries to extend a ‘modern’ statistical series back to the beginning of the century, all sorts of difficulties arise—a good example is provided by Dr A. R. Prest’s description of his preliminary estimates of national income for the period 1870 to 1914.

By 1939 things were substantially better; the Guide to Current Official Statistics of the United Kingdom, published annually from 1922, gives an

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1 The position a little earlier, in 1885, was described by Dr (later Sir) Robert Giffen to the Royal Commission on the Depression of Trade and Industry: see [93].

2 Prest [330].

3 [33].
idea of the wealth of information available. But the user was still faced by difficulties of inadequate coverage, of varying classification, and so on, and many areas of statistics now familiar were hardly developed at all. In the field of industrial production, for instance, the Board of Trade index of 1935 contained about 85 series; the Central Statistical Office index of 1952 contains 1,300. In 1939 national income statistics of a simple kind had been worked out by a few private investigators: in 1952 the extensive and complex information given in the National Income White Papers draws from the resources of almost every Government department, and forms a considerable part of the work of the Central Statistical Office. The information available on the Balance of Payments, though it is still (as we shall see in Chapter viii) in some ways confusing and incomplete, is incomparably better than the scanty estimates of 1939. In many other fields there has been a great increase of statistical knowledge, not only in the United Kingdom but throughout the world.

This change has not been uniform; some types of statistics have been developed almost to excess, while for others there may have been some retrogression. The growth of statistical information was, in fact, haphazard. Much of it came into being in response to some special administrative need, perhaps short-lived; some of the streams of facts coming in in this way have been diverted and ‘treated’ to adapt them for other uses. Co-ordination has grown, but this too has been a response to the needs of the moment. It seemed therefore useful that, after this period of growth, someone should take a general view of the whole subject. In deciding to attempt this, the National Institute realized that the Central Statistical Office would naturally, as part of its work, be keeping a watchful eye on the development of the statistical system. But it would not have been easy for the C.S.O., which is a user as well as a co-ordinator of statistics, and which is heavily burdened with its day-to-day work, to free personnel for the whole task which the Institute had in mind. There seemed to be a case here for using the resources and the wide range of contacts of a non-official body.

THE COMMITTEE AND ITS METHODS

The plan of research followed the Institute’s usual pattern: research workers (in this case the two authors, part-time) under the direction of a Committee. The Committee was not merely to decide the general policy of the inquiry, but to take an active part in it; and all of its members had themselves spent periods in the Government service, and knew at first hand the problem of providing a statistical basis for policy-making. The membership was:

1 Though a scheme for development appears in the 1944 White Paper on Employment Policy [58].
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PROFESSOR R. G. D. ALLEN, O.B.E., M.A., D.Sc. (Econ.) (Chairman)


PROFESSOR A. K. CAIRNCROSS, C.M.G., M.A., Ph.D.

Professor of Applied Economics, University of Glasgow, since 1951: Lecturer, 1935–9: Civil Servant—Offices of the War Cabinet, 1940–1; Board of Trade, 1941; Ministry of Aircraft Production, 1941–5; Director of Programmes, Ministry of Aircraft Production, 1945; Economic Advisory Panel, Berlin, 1945–6; Economic Adviser to the Board of Trade, 1946–9: Economic Adviser to the Organisation for European Economic Co-operation, Paris, 1949–50.

PROFESSOR E. DEVONS, M.A.


SIR DONALD MACDOUGALL, C.B.E., M.A. (Kt. 1953)


(Sir Donald resigned from the Committee in November 1951, when he joined the Prime Minister’s Statistical Section. He was therefore not present at the discussion of this report.)
BRITISH ECONOMIC STATISTICS

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The Committee met first at the end of November 1950, and mapped out a programme of interviews with statisticians in Government departments and with important users of British economic statistics, such as the London and Cambridge Economic Service and the Economic Co-operation Administration (later the Mutual Security Agency) of the United States of America. In February 1951 a letter was sent to a number of academic economists and industrial statisticians, asking for their help in suggesting points for investigation; numerous helpful replies were received. Interviews continued throughout 1951 and early 1952, and the Committee at its meetings (of which there were eleven in all) considered the results of these, and successive outlines and preliminary drafts of a report. A complete draft, prepared in the autumn of 1952, was submitted for comments to a number of Government statisticians. This enabled us to correct a number of errors of fact and emphasis, but those consulted are, of course, in no way responsible for what we have written, nor do we expect that this report carries their full agreement.

RELATIONSHIP TO OTHER INQUIRIES

Our task was made much simpler by the fact that we decided not to attempt a description of the statistics of the United Kingdom. The Royal Statistical Society is publishing, in its Journal (Series A), descriptive articles about the statistics available on particular subjects; their
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net is cast widely, to bring in industrial and some foreign statistics, as well as those of Government origin. A first batch of twenty of these articles was republished in book form in 1952. Certain descriptive guides to departmental statistics have been published by the Inter-departmental Committee on Social and Economic Research (commonly known as the North Committee, after its Chairman, Dr George North, C.B., M.C., Head of the General Register Office). The first of these, on Labour Statistics, was published in 1948 and revised in 1950; the second, on Census Reports of Great Britain, 1801–1931, appeared in 1951. The intention was, apparently, that there should be a series which would collectively act as a successor to the pre-war Guides to Current Official Statistics, but with much fuller information; progress has, however, been disappointingly slow.

We could therefore aim at an appraisal, not at a description. We did not search systematically for parallel work in overseas countries, but there is one overseas investigation which should clearly be mentioned here. This is an investigation undertaken in the United States in 1948 for the Commission on Organization of the Executive Branch of the Government, the ‘Hoover Commission’. The authors were Professors Frederick C. Mills and Clarence D. Long, then working with the National Bureau of Economic Research; their assignment was to prepare, within about six months, a survey of Federal statistical agencies. The resulting report is naturally largely concerned with organizational problems; but it covers much of the ground which we shall try to cover below, and we had frequent occasion to refer to it.

A previous report in the same field was that on Government Statistics, produced by a joint Committee of the American Statistical Association and the Social Science Research Council, 1933–5, and published by the Social Science Research Council in 1937. The American Statistical Association has a standing Committee on Statistical Standards and Organization, and in 1951 the Association reported that it had organized an Advisory Committee on Statistical Policy to the Division of Statistical Standards, Bureau of the Budget. This latter committee, composed of past presidents of the A.S.A. and with the late E. A. Goldenweiser as first Chairman, was to advise the Division ‘on broad matters of public policy in the statistical area’. It first turned its attention to the problem of confidentiality of individual statistical returns, which we discuss below (Chapter xi).

DEFINING THE FIELD OF INVESTIGATION

The Committee found it necessary at an early stage to give careful thought to the right interpretation of its terms of reference. First of all, what does one mean by the ‘use’ of statistics in policy-making? A decision made in the Cabinet, in an official Committee or in a Government office may rest on an agreed rational assessment of facts, including statistical facts. It may equally be a compromise between opposed points of view, or it may be founded on the intuitions of a dominant personality, or upon an idea of what Parliament or the public expect or will tolerate. Every statistician knows how easy it is, by appropriate selection, to give statistical ‘proofs’ of contradictory points of view. It must be expected, therefore, that sometimes a policy decision not backed by any agreed rational argument will be dressed with a statistical justification. Occasionally, also, a façade of statistics may conceal an absence of policy—the statistics suggesting by their presence a scientific use of facts which is not in reality being made. We think that there may be some danger of this in the field of location policy.

The genuine use of statistics in the formulation of policy cannot therefore be taken as identical with the input of statistics into policy-making agencies. It would be interesting to examine the process of policy-making in some typical instances: to trace, for instance, the links of reasoning which join the facts of the Balance of Payments to a decision to make specific import cuts. But clearly such an examination is quite impossible. Even if one could listen to the process of policy-making when it takes place behind closed doors, it is doubtful if one could unravel the various strands which go into the making of a decision. The mechanical analogy, which regards statistics as the input into a machine whose final product is neatly packeted decisions, is a false one. The same policy decision can be reached by various ways and different people will reach it by different paths. Even within the mind of one policy-maker, various and perhaps inconsistent reasons for and against a given course of action will contend for acceptance, and once the decision is made it will often be difficult, even for the policy-maker himself, to recall the subtle balance of argument which led to it. We shall not usually be able to reconstruct that argument by studying only the reasons given in public justification for the decision.

We admit, therefore, the intrinsic difficulty of reaching decisions in the complexity of economic life—and the virtual impossibility of unravelling them, once made. But it remains true that an important part of the process of policy-making employs numerical facts or makes deductions from economic relations of a mathematical kind. It is with this simplified and partial aspect of policy-making that we are concerned.
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We do not suggest that decisions can or should be reached solely in this way; but we do claim that the type of argument which employs statistics is important, perhaps increasingly important, to the development of British economic policy today.

Our difficulties do not end here. What are the ‘policies’ whose statistical basis we are examining? Will they not alter as one party or another provides the Government? Will not the statistical requirements of independent experts who wish to assess policy be as various as their opinions and prejudices?

There is, of course, a large range of basic statistics which will be required by any modern state, in order that a watch may be kept on changes in the economy. But the elaboration and frequency of the information needed depend a good deal on the nature of the policies it is required to serve—in particular, on the choice (if it exists) between physical controls and a free price mechanism. Some of the wartime growth of statistics was not merely an administrative by-product of controls; the statistics themselves found their main use in guiding the operation of the controls, and (in a free market) might appropriately be collected in quite a different form. An example is the Board of Trade index of utility—furniture production. Again, the nature of the information gathered depends on the relative importance given to current decision and to historical study. The needs of the moment may require one form of statistics, comparison with past periods another.

It is interesting to note that Mills and Long give no attention to this difficulty, although they recognize that the willingness of Congress to finance statistical investigations, or of the public to submit to them, is not limitless. They seem to assume a tacit agreement about what is needed. This country is a long way from being able to spare time, men and money to collect and publish all the figures which might reasonably be wanted, now or in the future; a choice has to be made, and it seems to us that there are bound to be differences of view about how it should be made. Our own endeavour must be to keep to a middle path.

We have therefore tried to interpret the words ‘statistical information required for . . . the formation of economic policy’ in a broad and reasonable manner. We have perhaps assumed of our ideal policy-makers more adherence to economic principle than their real-life counterparts can be supposed to possess; and we have done our best to bear in mind the needs of different schools of economic and political thought, and of long-term study by the historians.

1 [166].
THE PLAN OF THE BOOK

A list of possible economic decisions, with the statistics required for each of them, would be tedious and could hardly be comprehensive. A list of existing economic statistics, each examined in relation to their possible uses, would not draw attention to the matters of fundamental interest. (A reference table of the principal British economic statistics and their sources will be found at the end of the book.) The approach we have used is a mixed one. Chapter II sets out some of the points of principle which seem, a priori, to be important, while Chapter III is a preview of the problems which are illustrated by the case-studies of Chapters IV–IX. The last of these, Chapter IX, examines the relation of statistics to a very general field of policy—namely, that arising from the assumption by the State of an obligation to preserve a right balance of aggregate supply and demand, and between the country and the rest of the world.

The lessons of these chapters, foreshadowed in Chapter III, are examined and discussed in Chapters X–XII under the general headings of Quality, Presentation and Organization. Chapter XIII shows the main conclusions to which our inquiry has led us.
CHAPTER II

STATISTICS AND ECONOMIC POLICY

We have already pointed out\(^1\) that the relation between statistics and policy may be partial, obscure, and difficult to trace; and that when a country is developing a statistical system, it will need to have in mind the needs of differing policy-makers in varied future circumstances. But now we need to think more carefully about the nature of the help which numerical facts can give in developing or guiding policy.

A policy is a course of action; that is to say, something which runs through a period of time, during which there is repeated application of the principles or rules defined or implicit in the policy. These repeated applications are the individual ‘administrative’ or ‘executive’ decisions, of which millions are made in Government offices each year; a typical instance would be a decision to allocate Messrs A.B. ten tons of steel. Such a decision may be the automatic result of applying a precise rule, or it may involve considerable judgement in interpreting policy. Unless this judgement influences future decisions (for example, by ‘creating a precedent’) we may class the decision as concerned with administration and not with policy. A considerable apparatus of statistics—what might be called ‘operating statistics’—is needed to keep a check on administrative action. Thus if allocations of steel add up to much more than the amount of steel available, this provides some evidence that the machinery of allocation has gone wrong.

We are not directly concerned with these ‘operating statistics’, though, as we shall show, they can often be diverted and made to serve wider purposes. Policy itself may employ statistics in three quite distinct ways. The first is to provide the background of facts into which the policy is fitted; the second is to elaborate implications, to set out the results which will or may flow from the operation of a possible policy; the third, to indicate how a policy already adopted is working. In order to decide a course of action in a complex and interconnected economy it will usually be necessary to simplify—to ignore distant and tenuous connexions and small indirect effects, and to concentrate on a few essentials. In the terminology of the econometricians, the policy-maker will employ a model—a simplified mental picture of the way in which the elements essential to his problem are related to each other.

There will be different ways of selecting what is essential, and differences of view about the relations of the essential elements. This is

\(^1\) P. 6 above.
especially natural, because a policy is designed to run over some future period, and is affected by all the uncertainties of the future. There will be possible variations in expectations about future events. The ‘parameters’ of the models—that is to say, numbers which define numerical interconnections in them—will, to a greater or less degree, be subject to this uncertainty. It is here that statistics have their first function; by summarizing certain aspects of the experience of the past, they help to establish probabilities for the future. They limit the range within which it is reasonable to expect the parameters of the models to lie—or, to look at the matter another way, they exclude certain models, certain mental pictures of the problem, from practical consideration. But it is important to realize that there are many non-statistical problems of policy, and that even where statistics can help they cannot finally decide the choice of model on which the policy decision is to be based. There are three reasons for this: the necessary uncertainty of the future; the element of choice involved in deciding how to simplify a problem; and the usual inadequacies and uncertainties of the statistics themselves.

Suppose now that the mental picture is already drawn. Then it may be possible to use statistics to elaborate the implications of a particular policy. Chapter xx is in effect an example of this process, in which past experience, and expectations and assumptions about the future, are brought together into estimates of the size and use of the national product for the coming year. These estimates can be varied to take account of the results of alternative policy decisions—for example, different changes in taxation. Some of these policies will then be seen to set up strains and stresses in the system—shown in this case by an inconsistency in the interlocking set of social accounts—and the further results of these strains (for example, an inflation of prices, or a deficit on overseas accounts) may be predictable.

The first use of statistics may help to exclude from consideration certain ideas of reality, and therefore certain policies; the second helps the policy-maker to make a choice between the reasonable policies, by showing in a numerical form results likely to flow from each. When a choice has been made, statistics have a third important function to perform—to throw light on the success or failure of the policy, and to give timely warning of a change in circumstances which may render necessary a change in policy. Thus the success of the policies aimed at general balance in the economy, discussed in Chapter xx, would be judged by the course of prices, industrial production, imports and exports, consumption, retail trade and so forth.

But, as in the first use, so in the second and third it is important not to claim too much for what statistics may achieve. There are many aspects of policy-making other than those which can be put in a