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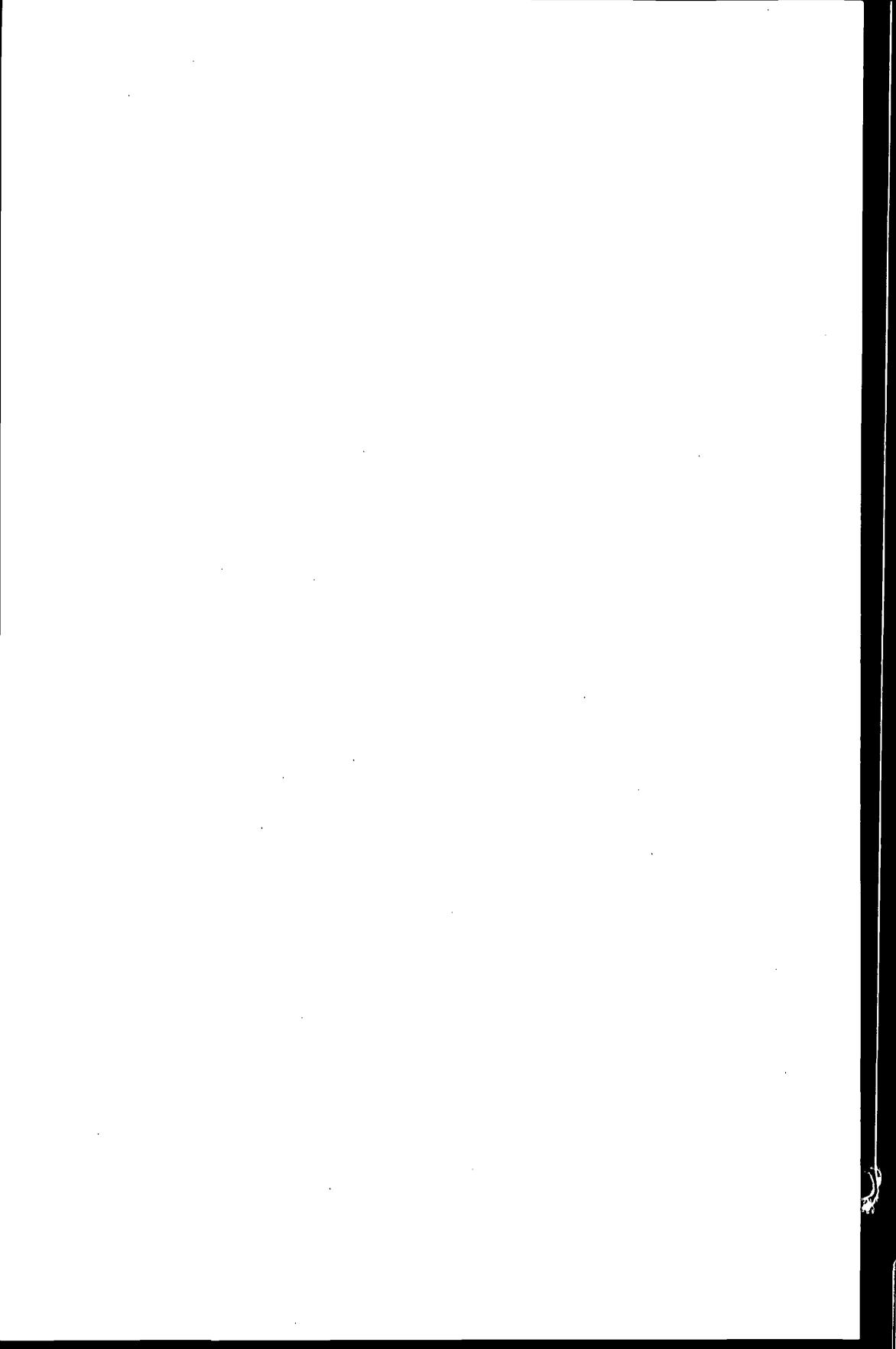
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Long-Range
Economic Projection



INTRODUCTION

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IN RECENT YEARS it has become popular to say that since the essence of science is prediction, the ultimate objective of economic science should be to predict with accuracy and certainty the course of future economic events. In this vein, it might seem that progress to date in making projections is a measure of the real achievement of economics and that this volume on long-term projections should record the progress of economists in making such predictions. A careful reading of these papers, however, should convince even the most enthusiastic proponent of long-term projections that we are a long way from general long-term projections which can be regarded as unconditional forecasts of the future.

Indeed, we may never be able to make such forecasts of future economic events in any significant degree. For the determinants of future economic events may not be in the province of economics alone but also in the province of the physical sciences and the other social sciences, and prediction, therefore, may be fully as much the problem of these other sciences.

Furthermore, unconditional forecasts of future events can never have a completely scientific basis. There will always be factors exogenous to any observable system. It follows, therefore, that accurate unconditional forecasts of the future may be impossible. The inaccuracies may be small, or they may be large. Thus, for example, should the concept of free individual action, independent of all other stimuli, be correct, prediction in the sense of forecasting future events might well be impossible so long as human actions are not entirely random and some few individuals exercise an important influence on events.

For these reasons, the success or failure of long-term projections as accurate unconditional forecasts should not be construed as a test of whether economics is succeeding as a science. It would be entirely possible for economics to reach a high point of development as a science, even though long-term projections of economic magnitudes remained highly unreliable as unconditional forecasts.

Although the making of forecasts may never be wholly a scien-

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tific exercise, valid scientific observation about the nature of the relationships among the important variables in the system will be useful in improving the quality of forecasts. The absence of important exogenous factors alone is not sufficient for accurate forecasts; the theory of the economic relationships used in the forecast must be valid. Furthermore, economics as a science is not solely on the contributing end of this process of developing accurate forecasts. A great many problems in economics will be better understood if looked at within the framework of forecasting.

Such is the role of economics in the forecasting problem, but a major question still to be answered concerns, as Fellner points out, "the usefulness of specific kinds of theory for a definite problem of qualified prediction."¹ Reliance upon observed past relationships, assuming their continued existence in the future, may not be warranted on the basis of economic theory, but instead may be based on such factors as the availability of statistics relating to the different variables, and the need for obtaining a concrete method of projecting the future. Such *ad hoc* methods of projection, of course, may well be considerably less reliable than methods well grounded in both theory and statistical findings. Fortunately, it is not necessary that theory always find the complete set of determinants for each given situation. In many cases, a relatively small number of variables may suffice; although in fact there may be many other variables related to the situation, they may either be of minor importance quantitatively or tend to balance each other out. It may be possible in the area of projections to add variables as they are needed, much as additional cases are added to a sample following the principle of sequential analysis.

The contributors to this volume have concerned themselves mainly with the conceptual problems of long-term projections, and the manner in which economic problems are involved. Even those papers that present statistical information are generally more concerned with the problem of translating theory into statistical technique than with the problem of obtaining specific statistical projections. Therefore, no attempt has been made to separate the papers according to their theoretical or statistical nature. Instead, they are arranged according to the areas of the economy with which they are concerned. Kuznets' paper deals

¹ "Long-Term Tendencies in Private Capital Formation," Section B, below.

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with the problem of long-term projection as a whole. Wool's and Kendrick's papers deal with elements which are perhaps most basic to all long-term projection—the problems of population, manpower, and productivity. Cavin, Daly, Barnett, and Boschan are all concerned with the problem of projecting the growth of the various industrial parts of the economy. Fellner, Smelker, Smithies, and Polak are concerned with projections of different sectors of the economy. Finally, Isard and Freutel are concerned with a breakdown different from those in any of the previous papers; their contribution lies in the area of regional projections.

