THE LIMITS OF ECONOMICS

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LONDON EDINBURGH GLASGOW

WILLIAM HODGE AND COMPANY, LIMITED

1937

MADE AND PRINTED IN GREAT BRITAIN
BY
WILLIAM HODGE AND COMPANY, LIMITED
LONDON EDINBURGH GLASGOW

FOREWORD

The prevailing lack of understanding as to the significance of economics for practical economic life, and its usefulness for purposes of economic policy, makes it apparent that there are many unsettled problems connected with theoretical analysis and its application to concrete circumstances. The study which follows is intended for the general reader as well as the specialist, and it seemed therefore appropriate to refrain from any detailed discussion of the underlying theoretical apparatus since this would have introduced unnecessary complications into the exposition of the main theme. The really essential references are given in an appendix.

The book will have served its purpose if it succeeds in making clear that theoretical economics is neutral as between all the possible circumstances to which it may be applied. Economics can never, and should never, be made dependent on any particular ideology or attitude towards economic policy. Those who are concerned for the future of research in the sphere of economic science are becoming increasingly aware of the need for the clear recognition of this point. A further point which is emphasized in the subsequent pages is that although scientific formulations relating to economic policy are admittedly subject to limitations, there is little chance of achieving any sort of rationality in economic policy without the aid of economics: the obstacles that scientific analysis is unable to overcome can be dealt with no more effectively by any other conceivable means.

My exposition may seem to many to be unnecessarily sceptical. It will probably be argued that I have subjected economic science to too narrow limitations, and, besides, that economic policy is, even so, conducted on a higher intellectual level than I am prepared to admit. This would however be to miss the point of my remarks. One of the essential preliminaries to progress is to know exactly what are the questions at issue. If this is true in general it is all the more true that absolute precision of thought is necessary just at the present time, when we are forced to be the unhappy witnesses of an almost unprecedented decay of intellectual life in so many countries. Only if we know exactly where we stand, and have firmly entrenched our positions, can we hope to gain new ground. There are many problems which only give the appearance of having been solved, and that is why this book treats also of questions which many may consider to have been already settled.

I would point out further that my observations on economic policy are founded on very close associations with it. In the course of the last few years I have had occasion to deal with a wide range of practical questions, and the observations and comments which I have formulated in the following chapters are the outcome of these contacts.

As compared with the German edition of this book, which appeared in 1934, the present edition has been revised to a considerable extent. It is not therefore simply a translation. I have to acknowledge my thanks to Dr. Vera Smith for the trouble she has taken in the careful rendering of the original text. It is her merit if the translation conveys to the English reader some ideas and arguments with which he may not so far have been familiar.

OSKAR MORGENSTERN.

January, 1937.

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CHAPTER I

Introduction

Economic policy consists in all those actions and measures which aim, outside or quite independently of the economic interests of their framers, at bestowing advantages (rarely disadvantages) on a chosen group of economic subjects or entrepreneurs, and of which the motive lies primarily in this social effect.

All those who are concerned with the introduction of proposed measures of economic policy have to consider what will be their effects. For the purposes of the subsequent analysis the question of the aims or ideals involved will be disregarded, or rather they may be assumed to be given. The appraisal of the effects depends, firstly, on a judgment as to the actual condition of the economic system already prevailing, that is, on a fairly exact knowledge of facts. It depends, secondly, on the view as to how the course of economic events will be changed as a consequence of the acts of intervention as compared with what it would have been without them. As a result of these two views taken together, the measure in question is then either actually put into effect or is dropped (in the case that its non-application appears in the circumstances to be more advantageous). The evaluation of the facts requires a wide experience which can be further extended by special investigations, especially statistical investigations. These are almost invariably necessary since the more far-reaching are the aims of economic policy and accordingly the more comprehensive are the measures, the less adequate is the personal experience of an individual for thoroughly sifting the facts.

The process of estimating the effects of these measures is dependent likewise primarily on direct experience, as, for instance, where similar methods have already been applied in other circumstances. Often these experiences can be condensed into propositions of a general character, and capable of precise formulation, about the causal connexion between measures and effects. Rules drawn up in this way can be handed down from one economic politician to another and can be used to build up a groundwork of maxims for his guidance. It may be noted also that these maxims and opinions play an especially important rôle in the press.

The theories—as in fact they are—which originate in this way are no different from the propositions of general economic theory as regards their construction and the manner in which they are acquired, for pure theory is also, as was once aptly observed, "congealed experience." They do, however, differ from general theory by the fact that there exists between the single propositions no systematic coherence uniting the different maxims which they contain. Moreover, they do not display the same logical validity since they arise out of the mere observance of concrete facts and do not in general guarantee that the events singled out as the "effects" are the right ones and do in fact exhibit a causal connexion with the measures concerned. There is always therefore the suspicion that one and the same proposition is supposed to belong simultaneously to different levels of abstraction, which is impossible. This explains the permanent state of contradiction which is at all times and universally to be found in popular notions (using "popular" in the best sense) about the results of measures of economic policy. The opinions of economic politicians who frame such measures must equally, however high a position they may hold in Government or in business circles, be described as "popular," in so far as the strict criteria of scientific method and knowledge cannot be applied to these opinions. This is not to say that they may not frequently have the formal character of theories, but not everything which satisfies this condition is necessarily correct.

The case just considered of the formulation of maxims of economic policy was a matter of constructing theories; for the science of political economy or economics on the other hand the problem is exactly the opposite one of *applying* theoretical propositions. The application of any science to concrete problems always gives rise to its particular *problem of application*. In some sciences, such as chemistry or physics, this is a simple matter, but in others it is most difficult. It is to the latter that economics belongs: and in this science the problem of application as such has so far received but little attention. And yet the central problem of economic science is precisely that of establishing a direct connexion between deductions made on the basis of empirical postulates and further empirical data relevant to these deductions. Application and verification thus frequently overlap and, what is of utmost importance in an empirical science such as economics, this problem of application is continually cropping up at every stage and in every section of the theory. Consequently it is one of the fundamental prerequisites of scientific and practical work in this sphere that the connexions between theory and its application should be made clear. To do this—in so far as it relates to economics—is the task of the subsequent pages. It must be emphasized once again that the discussion will proceed on the assumption that we have to deal only with the elucidation of questions remaining after abstraction from the general meta-economic problem, that is, after the selection of aims. The aims will be assumed to be given: their validity is subject to scientific examination only if they are originally conceived as intermediate aims for reaching other more ultimate objectives. But the ultimate objectives must necessarily be left out of consideration because they belong to the sphere of ultimate values about which no pronouncements of an economic nature can be made. On the other hand, it is always important to detect cases where intermediary aims of an apparently purely economic character are in reality introducing additional value judgments into economic policy.

Quite apart from the necessity for a step by step verification of theory, there is one other—we may, if we like, call it moral—connexion between pure theory and practice. Economics as such does not fulfil its rôle as an empirical science, unless it offers a contribution to the mastering of practical life. It is but an intellectual plaything, at best a mental training similar to chess, and serves only to satisfy a perverted desire for purely mental exercise, if its possibilities of practical application are not continually being investigated and extended. It will be shown, as the argument develops, how extremely important the observance of this seemingly obvious and simple requirement must be for the actual form of concrete economic policy. Its form will depend, to some extent, of course, on the personal mentality of the investigator. The latter needs a certain instinct for reality and a well-developed sense of proportion and balance if he is duly to retrace his steps from the—of course, inevitable—speculations of theory to the actual facts and is yet not to get lost in a mass of detail. Here the artistic turn of mind which is latent in every science comes into play. For this reason it is only possible within very narrow limits to "learn" or "teach" economic theory and applied economics. Strange as it may seem, the relevance of the artistic turn of mind is particularly great in the social sciences since they are concerned with the understanding and control of *human* behaviour. And since there are so few people who are gifted in this direction, there are among the many people who are theoretical economists and economic politicians by profession but few, indeed, who prove to be so by vocation.

CHAPTER II

The Problem of Application

"*The treating as constant what is variable is the source of most of the fallacies in Political Economy.*"—F. Y. Edgeworth.

It should be clear from the beginning that the fundamental problem of economic policy consists in the application of economic theory. The modern theory of knowledge leaves no doubt that it is impossible to grasp reality without the construction of theoretical formulæ, and that every neglect of theory is attended by grave consequences. This fundamental truth is expressed with incomparable clarity by Professor Whitehead when he says: "The paradox is now fully established that the utmost abstractions are the true weapons with which to control our thought of concrete facts."* And it was Goethe who coined the immortal phrase: "Das Höchste wäre, zu begreifen, dass alles Faktische schon Theorie ist."† This is a truth which should constantly be impressed upon those who are responsible for economic policy. For if official economic policy is using and applying theory in this and every sense, then it comes down into the arena where the theoretical economist can challenge it, and it should allow itself to be put right, which it is much too unwilling to do.

The application of theory means acting in a

* "Science and the Modern World," New York, 1925, p. 48.

† "The greatest thing would be to realize that everything factual implies a statement of theory."

systematic way. Now, in the modern money economy *everything* in the nature of a social-economic occurrence consists in human actions and behaviour and the phenomena by which the occurrence is recognized—prices, quantities of commodities, production, &c.—are merely reflections of this behaviour. Measures of economic policy are therefore in the last analysis directed towards influencing this human behaviour. Generally, however, they have to reach that end not by directly affecting human behaviour, say, by advice or command, but by setting up or removing barriers or by conditioning complex economic quantities, as, for example, by fixing prices in such a way as to compel the desired behaviour. The path followed by economic policy is therefore always an indirect one even where "direct" measures are applied.* Systematic economic policy is based on the one side on definite expectations as to the psychological effect which its measures will have on the human beings affected by them, and on the other on expectations as to the behaviour of objective data of the external world. Here we come to the first gap which economic theory has had to bridge for itself by the process of isolation. The human mind is in reality subject to innumerable other influences, over and above those set out here, and they must all be taken into account. This gap, which is only quoted as an example, must not however be used as an argument against economic theory, for it has to do with things belonging to an entirely different level of abstraction.

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* This "indirect" type of economic policy should not, however, be confused with that explicitly indirect policy such as is represented by the case where a lowering of real wages is sought not by decreasing money wages, but by raising tariffs or depreciating the currency.

Pure economic theory consists of a number of propositions of a very high degree of abstraction. The same is true also of other sciences which have some practical application, but in these other sciences the gap between theory and practice can usually be bridged very quickly. The reason for this is that these (natural) sciences possess a number of *constants* on which they can rely as props to give them support in the practical sphere. Such constants—ranging from boiling points, through the constant velocities of light and sound and the dispersion of lines in the spectrum to Planck's coefficient h – lend a certain solidity to mathematical equations in the natural sciences. In the social sciences, and therefore in economics, they are lacking. There is a word which takes their place and eschews all difficulties—the word *relative*. The most that can be done in economic theory is to show relations between quantities (which themselves only represent relationships), and even this can only succeed under the assumption of a strict *ceteris paribus* which gives the illusion of the stability of constants but which is in reality only equivalent to the constancy of the degree of abstraction. Constants have to be replaced by historical data if we want to give even the simplest illustration of a proposition, and immediately we come to treat historical data an " isolation " in the strict scientific sense is impossible. The circumstance that economic knowledge can only take the form of establishing relationships contributes substantially to the difficulty of winning an intelligent following for it. Since, however, the starting point of all theoretical analysis is experience, and since the whole object must be to revert to experience as soon as possible, there is no reason to fear that *a* *priori* constructions, which lead to empty tautologies and make no contribution to knowledge of the real world, will find any place in this discussion. They are only to be considered in so far as they have given rise to mistaken criteria of economic policy.

To construct economics on the basis of experience does nothing to alter its *theoretical* character for it is bound to use the processes of abstraction and deduction in translating the ordinary facts of experience into general propositions. These generalizations are, of course, equally with the laws derived from them, constantly subject to correction as in all similarly constructed sciences. All empirical laws are subject to exceptions. The major propositions can best be dealt with by means of the axiomatic method. This means putting a minimum of factual statements at the top, and then rigorously deducing from them all the causal connexions which they show. Economics is thus as much inductive as it is deductive. It is, accordingly, not inferior to other sciences and certainly not as regards its " worth."

It is quite wrong to associate this appeal to experience and facts in any way with the long-displaced doctrines, and confused conceptions, of the so-called historical school. This school maintained that it was impossible to make generalizations from facts and thought it sufficient simply to describe the facts. The place that was in earlier decades occupied by history is to-day taken by statistics among the disciples of the historical school who still linger on disguised. There is no need to waste time on this old controversy, for it has long since been settled with the realization that theory is not only possible but is indispensable for an understanding of economic questions. None the less, the thoroughly empirical character of economic theory cannot be stressed too strongly. *A priori* theory would be very easy if it were possible to dispense with the necessity of dealing with reality and with the flux of economic events and if it were sufficient to lock oneself in a room and invent the world of facts, adopting the attitude that if theory and reality did not then agree, so much the worse for reality. "Theory" of that kind can neither be confirmed nor refuted: nothing easier could be wished for. But, unfortunately, it has nothing to do with the real world. The limits to the use of the *a priori* method in economics must be strictly drawn and as strictly observed. It is, moreover, worth noting that in practice the difference is one of method only, for the few surviving apriorists are obliged in practice to make so many concessions that in the actual theorems themselves they abandon their original position, so that in the end both they and the empiricists are speaking the same language. What is really the most unfortunate result of their methodological position is their tendency to identify economic theory with a particular system of economic policy.

The first question that arises in applying the conclusions of economic theory relates to the completeness of economic science. To suppose that this science is already complete and only awaits practical utilization would be foolish. No science can ever possibly reach this condition. It will never be possible to do more than pluck out incomplete propositions from the ideal system. Nevertheless, the question of completeness is just as relevant to these partial spheres. It means that it should be determined whether the theorems are "complete" for the range which they cover—and for this range only—in the sense that they are capable of comprehending and explaining all possible empirical events in this field. Expressing it in technical language, we must establish whether the system of economic analysis exhibits "*lacunæ*." Such *lacunæ* are to be found in every level of abstraction, including the highest, in relation to the one next below. The nearer, however, one approaches to economic data and seeks to fit them into the theoretical system the more extensive become these questions which are not covered by the generalizations of economic theory. The proper treatment of such *lacunæ* presupposes an appropriate arrangement of the data beforehand. It is in this that the real practical art lies. The latter can probably be acquired only in the course of long years of study and of laborious experimentation as in the chemical or physics laboratory. Consequently, economic policy is not at all the right thing for minds that are too "theoretical," as these are for the most part much too hasty with their judgment about the facts of reality. The handling of economic policy requires not only complete familiarity with the whole system of economic theory, but also, on account of the *lacunæ* where theory leaves the economic politician unaided, a continual readaptation of theory. This readaptation must moreover, since time is usually pressing, be assumed *ad hoc*. This is true, as will become evident later, at any rate for cases of refined measures of economic policy or unusual circumstances.

The main difficulty of theorizing in this way for a particular occasion is that such a newly formed special theoretical explanation at best only illuminates the factors connected with the single historical instance. It gives no guarantee either that it will be applicable to other instances or that it is capable of immediately being fitted into any definite place in the general body of theory. If these difficulties were not so great, economic science would be comparatively simple and could soon be disposed of by means of an accurate economic history kept well up to date.

It follows from what has been said above that economics is subject to a continuous process of change, which one must hope and assume to represent progress. This is due not only to the reasons already described but also to the circumstance that economic theory is necessarily influenced by the dynamics of our general process of acquiring knowledge. Now it is a strange paradox that the majority of economists seek to emphasize the finality of economic doctrines—their own doctrines, it should be noted. This might be attributed to the weakness of human nature, but it must have deeper causes as well, which we shall not search for here. Nevertheless, one is somewhat disagreeably impressed by the lack of modesty as regards their own science and as regards the capacity of the human mind which this attitude displays. It is, however, strange that the general public, and among them those who are most sharply contemptuous of theory, namely, the majority of business men, demand that theory should be of permanent validity. It never occurs to an engineer to demand that the results of physics shall be immutable—quite the opposite is the case. But the public demands more or less explicitly that economics should preferably have already fully explained *beforehand* everything that can possibly happen. Should some event contradict or even appear to contradict an economic proposition (usually in its popular formulation), or more often an economic sophistry or a misinterpretation of an economic theorem, the whole science is immediately " done for " and is held to have given a new " proof " of its uselessness. The situation of economics in this respect is probably quite unique, for there is no other science which receives a similar treatment from the majority of its students as well as from the public. It is therefore especially necessary to acknowledge quite frankly that the development of economic analysis often leads the scientist to present at a later date a different solution of a problem from that previously available. This does not mean that he is on that account either fickle or ignorant.

Quite often the necessity of changing one's views is the result of new and more complete knowledge of the data or of a totally different development of the framework of conditions adopted as " constants." We are here leaving out of account the serious possibility that the original investigation of the data may have been hindered by external limitations or inadequate training, for the real argument is much more serious than this. It has emerged out of the modern study of trade-cycle theory. In this field of study it soon became apparent to critical minds that the facts of economic life cannot be comprehensively described in terms of statistics. And this is so even if it be assumed that the economic process can be satisfactorily separated from the general social process. There are always forces at work which are masked, mainly by the *time factor*, and which, immediately they begin to operate, are already shaping the present and the future without yet having given any tangible manifestation. It is not only in the sphere of human psychology that this is true, although that is what naturally comes to mind first. Probably even more important is the circumstance that the time element often seriously falsifies the data that are available on the basis of present knowledge, but none the less is continually operating in the direction of revealing at a later date the real forces now at work. Thus at every moment of time there ensues an unmasking of the immediate past. Since, however, human action takes place not in the past but in the *present* and is directed towards obtaining results in the future which is never fully known, a vast source of error is opened up. At any moment of time economic events, like all events, seem to be proceeding in some particular direction. Only the future, often by bringing things to pass which are contrary to expectation, shows what numerous other possibilities at that time unrealized were present.

The inadequate knowledge of data is therefore part of the very nature of economic policy. In the study of the trade cycle, for example, we can rarely say definitely at any moment in what particular phase of the cyclical wave the economic system really is. Such insufficiency of data is in great part responsible for the fact that economic policy is so often lacking in rationality. This will obviously be all the more so the finer the methods which economic policy sets out to apply and, however paradoxical this may sound, the shorter the periods for which decisions have to relate. It is far less frequent for economic theory to be disproved in the long run.

The *lacunæ* of theory, the necessity which they impose of a continual readaptation of theory for concrete purposes of economic policy, and the fundamental difficulties of analysing the data (quite apart from the technical difficulties of assembling them), are thus the principal reasons why the ways and methods of economic policy are somewhat vague. It would, however, be an inexcusable error to believe that this element of vagueness would be less if economic policy were to be conducted *without* the help of theory and with less attention to the collection and utilization of current statistical and other material. Surely a flickering torch is preferable to complete darkness.

CHAPTER III

Rigid Systems of Economic Policy

Excessive use of either feeling or reason is generally a source of trouble. There are at least two economic systems posing as scientific which fall into this error: Socialism and Liberalism.

It is not desired here to make these two conceptions the objects of an investigation extending to their more general aspects and underlying principles. The purpose is merely to sketch their essential relations as systems of economic policy, relations that may be either positive or negative, to theoretical economics. Nor will any account be taken of the circumstance that many of their sponsors are guilty of a fault not uncommon in the newest social-philosophical systems, viz., what is called a "syncretism of method," that is, a jumbling together of different kinds of scientific method in the endeavour to "prove" or "refute" arguments. They are not the only people to fall into this error, but nowhere else does one find such a clear example of it.

The first fact to observe is that both these schools of economic policy are concerned with *systems*, that is, that all the individual maxims of economic policy are supposed to connect up with each other into a completely integrated whole, and this unity is supposed to derive from a clearly defined attitude to economic theory and from its application to economic policy. As it is such a definite and, as will be seen, categorical opinion which is here involved, it is convenient to distinguish these systems from all other possible systems by denominating them " rigid " systems. It is of the essence of both systems that they claim to know what is " best " for the whole, the State, the economy, or whatever the whole in question may be at the time. Both systems must have a clear conception of the thing in which this " best " expresses itself, in so far as the idea admits of clarity; it must also be possible to give some measure which is scientific as well as practical for the variations in the state of the general welfare. All this presupposes that it is possible in some way to define welfare. And this brings us to the first difficulty. Modern research, which has paid great attention to purity of method, has shown conclusively that all ideas which are ultimately reducible to the conception of a " social value," are untenable as scientific concepts. Moreover, it makes no difference whether these conceptions of social value come from adherents of modern theory or from earlier socialist writers. In the one case we have a defence, and in the other an indictment of capitalism. Both interpretations are scientifically meaningless, because they are based only upon opinions, standards of value, feelings, &c., and never on economic science, with which they have nothing to do. These systems of economic policy seek their support, however, not where they can in fact obtain it—outside of the sphere of science—but almost exclusively in economic science, where they cannot possibly find it. We are not concerned with the moral, ethical, or other merits of Liberalism or Socialism. Our interest is only in the difficulties of a logical nature in which they become involved as the result of their claiming support from economic science. What these difficulties are has never been made really clear. They will be illustrated here from the example of the economic policy of Liberalism.

It has already been pointed out that every attempt at the practical application of economics gives rise to the necessity of reorganizing and completing the data. This necessity is present even on the assumption that economic theory as such is in its highest degrees of abstraction perfect. It is a question simply of the corrections which are rendered necessary by the process of application. In any case such an assumption can be made only provisionally. It must be altered as we proceed, to allow for a twofold dynamic force: (*a*) the development of economic theory itself and (*b*) the development of the economic system. Besides these there is the change in ideals of economic policy and the economic attitude to be taken into account. Shifts in the organizational structure of the economic system have frequently received, and were bound to receive, a great deal of attention. The whole historical school was built up on them, and to-day it is the American institutionalists (themselves closely related to the historical school) who have selected this field for special study. Owing to its inherent difficulties, however, they have got no further than making ambitious plans. Meanwhile, the attacks which they launch against theory are based on a misconception of its nature and on an overestimation of their own haphazard sphere of work, and therefore do not come within the scope of the present discussions.

Nevertheless, it is regrettable that so many efforts have produced no acceptable schematic study of the stages of development of the economic system. It would be very convenient to be able to state concretely the characteristic differences between the structure of the present-day economic system and that of the economic system of fifty or a hundred years ago. At the same time, such a study of the stages of development is by no means a prerequisite for arriving at an understanding of the general tendency in the development, albeit a very stormy one, of the economic system of all countries during the last decades. Moreover, what particular direction this development takes is a matter of indifference, and for our purposes it is immaterial that the tendency is towards more capitalistic methods of production, that technical progress is being achieved, and that in almost every country the freely competitive system is being visibly replaced by a system with a strong tendency towards monopolies. All these trends could be exactly reversed, and yet there would still exist the fact of the continuous *change* in the economic organization to which our economic knowledge is to be applied.

As long as it is merely a question (as it is here) of considering formal relationships of the kind described, these facts are quite sufficient to enable us to formulate the essential propositions. We have only to point to the progress that has been made in economic science itself. This may not seem so simple, as there are but few sciences which are in such an objectively unsatisfactory condition as economics, particularly as it is characterized, in addition, by the fact that economists seem to hold such widely divergent views on many questions. It should be expressly noted that this condition is not a real and inherent condition of economic science. It is only as it appears from the outside to someone who sums up the contents of the views which individuals hold about it. For in reality there can be only *one* knowledge, *one* science, and consequently *one* doctrine; all others must be false or must implicitly mean the same thing.

If factual statements and the conflict between the narrower technical views—which, as in every science, is one of the marks of development—are to be avoided, the progress of economic science must be illustrated *indirectly*. This may be done by pointing out a paradox in the views of the schools of thought which are convinced of the identity of economics with Liberalism or Socialism. The dilemma is a simple one, only it is never clearly stated. The fundamental claim of Liberalism is that of non-intervention, the demand that complete freedom should be left to all economic activities, so as to attain the maximum welfare of all the separate individuals and therefore of the community as a whole. This claim has—apart from quite unimportant variations in its formulation—remained the same from the beginning: it is the only one which satisfies the demands of the Liberal economists for strictness and logical accuracy. Neither does it matter which of the two variants of the Liberal attitude one chooses, whether it is that according to which the "right" economic policy claims that economic events must be allowed an entirely free course, even at the risk of the original state of completely free competition being removed by the rise of monopolies and trade unions; or whether it is that which demands that the state should not be merely in the position of a "night watchman," but should do more, and see that the original state of free competition is kept unimpaired.

In order to maintain free competition, in the case that there are tendencies towards monopoly, the Liberal state must, then, intervene, although intervention is in general radically opposed to economic Liberalism. From this it follows that there must evidently be two kinds of intervention, or, to speak in terms of systems, two kinds of interventionism, a "good" one and a "bad" one. Where the economic conditions are complicated, it obviously needs a very thorough investigation in order to establish to which of the two categories any particular measures belong. It is still more difficult to discover what *concrete* measures should be applied, in order that the whole economic system may develop more and more closely in the direction of the Liberal system of competition. The doctrine of economic Liberalism fails, however, to prescribe any rules whatever concerning this.

When we come to Marxian Socialism, the dilemma is exactly analogous. If one is really convinced that the law of the concentration of industry and the impoverishment of the proletariat is true, and that this state of affairs is followed by the nationalization of the means of production with its alleged good results, then the desire of Marxian Socialists must be to see this process run its full course. Thus the worse the condition of the workers, and the larger the business firms making gigantic profits, the better. Any interference in the form of social insurance, or unemployment relief, &c., would be to delay the process and should be rejected. The Socialists themselves would have for the time being to pursue a policy inimical to the workers, in order to hasten the realization of their well-being at a later date. Apart from the paradox that Marxism is really anti-interventionist and that one of the types of Liberalism would have to enforce at least *one* large group of interventions, it would be very hard on the living generation of

Marxists if the era of the beneficent nationalization of the means of production were not to come in their life-time.

The rise of economic Liberalism belongs to the period of classical economics and dates back more than a hundred years. In so far as it bases itself on an application of economic theory, undoubtedly the best it could do was to appeal for support to the then prevailing "classical school" of Adam Smith and Ricardo; and, furthermore, it could only be a question of the application of *that* theory to the economic conditions of *that* time. Lastly, in so far as the economic theory of its time also was only an empirical science, just as to-day, and therefore lacked the lustre of the theory of ultimate reality, *a priori* display, or anything of that nature, it could only have arisen through observation and scientific elaboration of the empirical material which was actually available at that time. True, it may already have been possible in this early, and in many respects glorious, period to formulate some quite general propositions, but it was clear even at that time that these propositions were not necessarily final. Thus, if one tried to deduce canons of economic policy from the then current interpretation of economic relationships, they had obviously to be of a transient nature and were always open to revision.

Hence we have the curious dilemma that Liberalism either cannot be justified by reference to modern theory, or that this enthronement (ostensibly based upon economic theory as such) of economic Liberalism has arisen *independently* of all economic theory, or, as it were, *intuitively*, in anticipation that it would later be corroborated by economic theory, when once the latter was perfected. We shall here disregard the prognosis also resulting from this attitude, to the effect that no later changes in the economic system could possibly have any influence on the principle of economic policy once it was set up. If economic science was already so far completed at the time of Adam Smith and David Ricardo that its real moral-philosophical problem—for after all it is a science of life—which consists in finding application, was already solved, all later work in the building up of this science can only be in the nature of quite unessential embellishment, painting of details, and so on, but can never yield a single grain of further knowledge which could be *relevant* to economic policy. If one were concerned only to deduce the basic rules of economic policy from economics, one could draw up a canon which need contain nothing but the rule that all interference with the economic system is harmful and must therefore be abandoned, or (for the second kind of Liberalism) that the original conditions of free competition must be maintained at all costs. If the State then still wants to provide the luxury of instruction in economics, all well and good, but it must be aware that its only purpose is the satisfaction of intellectual requirements. The practical significance of such studies would be somewhat like that of studying the shifting of consonants in the Indo-European languages for the purpose of dealing with the business correspondence of the large export firms. This example should suffice to show the untenable position into which economic Liberalism is pressed when it relies on a rigid formula, appeals to " economic theory," and asserts that this situation can never change.

If, however, it is once admitted that it is possible, through the later development of economic theory since

Ricardo, to reach *other* primarily purely theoretical interpretations, diverging from Ricardo's, of the course of economic processes, then the fundamental claim of economic policy also totters. An *a priori*, immutable conception of the "nature" of the economic system is replaced by the chance, the mere possibility of a certain degree of probability, that the original principle will still be verified in the future. Economic Liberalism is, however, thereby stripped of the absolute validity which it has autocratically bestowed upon itself, and falls into definite dependence upon the day-to-day *development* of economic theory.

It would, indeed, have been a miracle: as Pallas Athene sprang from the head of Zeus, so the eternal principle of the "right economic policy" would have had to spring from classical economics. But almost all the fundamentals taught by the classics and the physiocrats were improved, changed, rejected, or reconstructed by later economic theory. The classical system as such, as a body of interdependent propositions, has had to give way to another system, and, in spite of this, the practical application is supposed to have remained the same! Can knowledge, then, be preceded by application? It is as though Archimedes, when he discovered the principle of hydromechanics while stepping into his bath, had at once been able to put it into practice, and produce a miracle of electro-mechanics, such as wireless, although the Hertzian waves were only discovered, and the radio theoretically explained, 2000 years later. This alone is sufficient to show the *theoretical* absurdity of any fixed postulate of economic policy which is ostensibly based upon the application of *science*. And the same applies to Socialism—where God is merely called by another name—as its logical position is no different. It is even more crassly visible there, especially in Marxian Socialism, and may be disposed of in exactly the same way.

It is especially important to grasp these points clearly, because they lead to the corollary that the alleged necessity of a political-moral Liberalism as an essential correlate to economic Liberalism—a necessity which is said to be such that the latter can succeed only if the former appears in its train—is untenable historically as well as theoretically. Political Liberalism rests on quite different bases from economic Liberalism; for in political Liberalism it is a question of values and, it may be assumed, of never-varying human nature, as opposed to the constantly changing artifice of the economic system.

If intelligent champions of economic Liberalism try to justify it by asserting its identity with economic theory, they are treading upon dangerous ground in a twofold sense: first, they are sacrificing the absolute validity of their principle, and are subjecting their attitude towards economic policy to the state of the economic knowledge prevailing at the moment, and, secondly, they are implicitly exposing themselves to the reproach of obliterating the difference between the planes of the " is " and the " ought to be "; in other words, they do not understand that from the mere statement of a fact it is impossible to deduce whether this fact is good or bad, or whether it should continue to exist or disappear. This proves that the " purification " of the social sciences, which was begun with great success by certain methodologists, has unfortunately not yet been completed in every sphere.

Moreover, the sovereign contempt for economic-historical changes, which was not out of place with a tautological formulation of economic laws, and rigid dogmatism in the matter of economic policy, can no longer be tolerated. As economics is a purely empirical science, the changes in the structure of the economic system, already spoken of above, must play an important part in the structure of the theory. To-day it is our experience that semi-monopolistic forms of economic organization are being investigated more and more thoroughly with respect to their theoretical effects. This is only one example to which many more might easily be added.

It will be unnecessary to do more than indicate other reasons, which lie outside of economics, for the inadequacy of rigid systems of economic policy. Quite obviously these two systems leave two things out of account: the alteration in the whole conception of the aims of economic policy, and changes in the so-called "economic mentality" or "economic attitude." History, particularly of recent times, gives plenty of examples of the case where people simply no longer wish to be independent and have individual responsibility, but desire the State to maintain them and declare them eligible for a pension, if possible from birth. There are examples as well of their turning away again from such ideas. Sometimes it is not considered dignified to take any interest in economic affairs at all, while at other times the passion of the whole world is focused upon them. Consequently the scope of the task of the State and thus also the extent to which it intervenes, its preoccupation with the incomes of its citizens, &c., varies. This is quite apart from the fact that these variations are already to a large degree forcibly determined by the quantitative expansion of the State itself, the growth of population, and new technical data.

These quantitative or qualitative changes in the scope of State activity sometimes involve new claims on the services of economic theory. Clearly it is not a matter of indifference whether economic theory has already thoroughly investigated the effects which follow upon such great changes in the economic attitude, or whether it is only ready to furnish an adequate and new interpretation at the last minute. "Economic attitude" is not, of course, an exactly definable concept, but its meaning will be sufficiently clear.

Naturally, one must be careful not to fall into the widespread error of concluding that economic theory is not applicable because it belongs to pre-War days for instance, and therefore cannot interpret the present. When it is emphasized that important changes take place in the economic system, it must at the same time not be forgotten that the majority of things and functional relationships remain unchanged and thus the majority of propositions and principles still retain their applicability. Here again one must guard against extremes. The weight of the argument given above thus rests not on the economic-historical changes, which are neglected by the rigid systems, but on the development of the theory, in particular in so far as the latter assumes the form of making statements, which are an improvement upon previous ones, about an *invariable* empirical object. To avoid misunderstandings, let it again be emphasized that the "historical" method is not applicable. This is mentioned here because proponents of the *a priori* method, which has here been rejected, are liable to see in every appeal to experience and reality the ghost of the negation of theoretical, *i.e.*, scientific, work.

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The question whether there can be any *system* of economic policy at all will still have to be raised. The only form this question can take is to ask whether

(a) it is possible for the individual measures to be related to each other logically: *i.e.*, whether they are governed by a single leading principle of such a kind that the adoption of any one measure can be brought into an objective logical relationship with all others; or whether

(*b*) it is only possible to establish a *relationship of results*, an interdependence of economic effects whereby individual acts are brought into harmony with one another.

CHAPTER IV

THE DISTRIBUTION OF EFFECTS OF ECONOMIC POLICY

The considerations which follow are devoted primarily to the question of whether it is possible to determine the manner in which the effects of interventionist measures are diffused over the economic system. The best way of treating this problem is to start out from the assumption that there is to be a transition from one existing state of the economic system to another state the nature of which has to be worked out anticipatorily on the basis of new data, namely, the proposed measures of intervention. In accordance with our remarks on the freedom from value judgments of scientific concepts, it must be emphasized that it is not a question of stating whether state B is *in general* " better " or " of a higher value " than state A (for that is the postulate), and it follows that it is also unnecessary to show whether a greater or lesser total welfare results. The problem here is rather to show the course of effects. These can be expressed in terms of the maintenance, gain, or loss of economic positions expressed in money, goods or prospects. This is the exclusive task of economic science and not to establish whether the totality of these shifts represents a plus or minus for the *community as a whole.* Whether the effects described by the scientific analysis are to be considered good or bad is a matter for general politics to decide.

The fulfilment of the task of determining the effects of measures of economic policy requires the application of economic theory: in *practice* the place of economic theory is likely to be taken by some kind of amateur economics (what is called in German "Vulgärökonomie"), which is a combination of bald assertions and the gleanings of practical experience. The investigation of the distribution of effects is of importance for the added reason that it almost automatically reveals the nature of the sectional interests involved. In general, the reactions of those who are affected by the measure will be such that the man who anticipates a profit from it will be in its favour while the man who believes himself adversely affected by it will be against it. So long as individuals, whether they be private persons, firms, branches of industry or social groups, classes, &c., have a voice in some way or other in determining the composition and aims of economic policy, these factors are of immense importance. It is only in an absolutist State that they can be pushed into the background and, even then, that is possible only as long as the effects are not such as to lead to a violent political upheaval or a general economic collapse. There are examples of this in history from time immemorial and it seems that history is likely to repeat itself in the future.

The effects of the adoption of a measure of economic policy have a place-incidence and a time-incidence. By the former is meant that the effects are felt by various people, and by the latter that the effects felt by a given group of people are spaced out over time or that similar effects are felt by different people at different points of time. Now it depends on the manner of diffusion what the reaction will be, and—what is of primary importance—how visible will be the results of the measure of economic policy. The totality of the measures may be designated economic policy *simpliciter*, and the term "interventionism" may be used to denote an attitude embodying the desire for permanent protection and continuous interference. As was remarked at the beginning, it is always a question of fixing new data of which the effects are not dissimilar in principle from those of the rest of the data. Changed economic data may originate in nature (as, for example, bad harvests and a rise in the price of grain) or may spring from human actions (as, for example, an increase in the price of grain resulting from the formation of a pool). It is all the same to the consumers of the grain which of the two is the cause of the increase in price or whether it is attributable, in the third place, to Government intervention (such as the introduction of a tariff or the prohibition of imports). The interest of the theorist in the matter is, however, quite different: it does not stop at the question as to whether those favourably or unfavourably affected have a share in determining the economic policy and, if so, in what form. It makes a difference whether the influence is transferred in a general way to some place such as Parliament, or whether it is still possible for the individual groups to have a direct voice in the measures directly or indirectly affecting them. The latter may be regarded as the normal case, but for the sake of simplicity we shall leave it out of account for the present and shall assume that the economic politician will wish to form his own opinion quite independently.

Let us start out from a state of equilibrium and assume, by way of example, that the aim of economic policy is to preserve this equilibrium against external disturbances caused, say, by a very rapid advance in the technique of production, achieved by some country abroad, resulting in a substantial reduction in the price of a commodity which is also produced at home. Now, according to our methodological assumptions, it is not possible to demonstrate "scientifically" that something must or must not be done since it is no part of the business of science to make programmes.

Nevertheless, these are the alternatives: (1*a*) either the home industry may at once reduce its costs correspondingly by introducing a similar improved or cheaper method of production, or (1*b*) it may not; or (2) the invasion of its market may be prevented by a sufficiently high tariff or a prohibition of the import of the commodity. Hence it follows that in case (1*a*) everything proceeds in the ordinary way: but those incomes which are identical with the prices of the reduced cost elements (for instance, wages) will have suffered a reduction. This will be wholly or partly compensated by the increased demand for the product caused by the fall in price, and it will depend upon the so-called elasticity of demand for this commodity whether the changes balance each other. In (1*b*) there is nothing else to do but to close down the home factories at a rate roughly depending on the extent to which their plant is already depreciated. This means dismissal of workmen and managerial staff, loss of capital, and a fall in the value of the shares of firms in the industry, reduced tax revenue, and a falling-off in consumption on the part of those immediately affected. If, however, alternative (2) is chosen and a tariff imposed, nothing is *apparently* changed in the economic system in question, for the price remains the same, the workers keep their jobs, the foreign product is perhaps entirely pushed out of the home market, and everything seems to be in perfect order.

These are, other things being equal, the three possible courses. Now the economic politician has to decide first of all which one he considers to be technically possible (he has to establish, for instance, whether as required by (1*a*), the wages and other cost factors can in fact be reduced quickly and sufficiently, or whether trade unions and other influences are likely to prevent this); and, secondly, he has to decide which seems to him the desirable course to take by reason of its conforming to what is considered to be a superior objective. It may also happen that, even given the possibility of an immediate adjustment, an import duty will be introduced, because the "general welfare of the community" or the political constellation demands the keeping up of wages. From this it follows that the first fact necessary to realize is that every advantage has to be purchased at the price of a sacrifice. Thus in (1*a*) the price of the cheapening to the consumer of the commodity concerned is the decline in income of the squeezed cost factors, and, inversely, the keeping up of the price of the commodity by the imposition of a tariff is the cost which the consumers have to bear in order that the incomes of the workers in the industry concerned, which would otherwise be reduced (in (1*a*)), may remain the same. These are the chief effects which may tentatively be called "visible" effects; but as there exists a reciprocal interdependence over the whole of the economic system, there will also be present invisible effects which the conscientious economic politician cannot leave out of account. Even in the case of the effects just quoted, it generally happens that anything in the nature of damage or loss makes a deeper impression upon the mind, and so here the decline in wages makes more impression than the satisfaction of the consumers in being able to buy more cheaply, which may even be condemned if the commodity in question falls under the category of a "luxury article."

If—to keep to the example already cited—things are allowed to run their course in accordance with (1*b*), it becomes evident that there is a local and temporal distribution of the so-called favourable and unfavourable effects, which may be regarded as typical and which is of supreme psychological importance. In their place-incidence the unfavourable effects are confined to a narrow, easily assignable area (the closed factories, the unemployed, the machines which have become valueless, &c.); the same is true of the time incidence, as these unfavourable effects usually set in at the moment when the whole situation is at its climax. Now one of the most important empirical principles of human life—one which has therefore come to play an important rôle in economics—teaches us that any occurrence which belongs to the present, like all present events, is estimated and felt more deeply than one which lies in the future. The more distant things are in the future the less they are taken into account and used as a basis for conduct, until, finally, very remote possibilities no longer enter into the calculations at all, or are considered only by a few isolated individuals. The massing together of the disadvantageous effects within a small area, *and* their characteristic of being concentrated in the present, thus gives them a much greater significance psychologically than would be the case if they were distributed evenly along with the other effects. (Note that "disadvantageous," "unfavourable," &c., are always to be understood in the above-defined sense of a change in money values or incomes, and not, therefore, in any meta-economic sense.) There may, moreover, be unfavourable elements whose effect is postponed; but even if they were more extensive than the immediate effects, the politicians would but seldom accord them proportionate attention.

Now when we come to consider the *advantages* accruing from these events, the opposite becomes evident—and the case is again typical. The favours which the consumers enjoy in the form of the lower price are distributed over a number (often extraordinarily large) of people, who can only in the rarest cases be counted and identified (in sharp contrast to the *concretely* calculable number of factory workers losing their jobs). The consumption of the commodity takes place only gradually over time, for the most part in the future, which is underestimated. Thus, psychologically, the situation is much more unfavourable. This holds good even when, as here, we are thinking primarily only of the possibility of ascertaining and not of appraising the repercussions. Finally, there are psychological factors also entering in. The economic politician who is seeking after knowledge should, of course, be able to overcome impediments of that kind, but even if the spirit is able and willing, the flesh, as we all know, is often weak.

Without making any judgment as to its ultimate value, we may call the course of affairs described above "the 'right' one in the *laisser-faire* sense." In contrast to it there is the "interventionist" economic policy, which—on the basis of the psychological circumstances just outlined and the lack of a precise realization of the more remote effects—purposes to solve the difficulties by means of a tariff. Now this time the typical distribution of advantages and disadvantages is exactly reversed. There is a local-temporal concentration of advantages, as the factories again become busy, and a local-temporal dispersion of the damage to the consumers, who, moreover, apparently suffer no "real" harm, that is, no positive deprivation of something they previously possessed, but merely do not come into the enjoyment of a reduction in price, which would otherwise have accrued to them. It is superfluous to elaborate these effects further, as the result is the exact converse of the state of affairs described above.

So far we have spoken only of the direct, more or less immediately detectable effects. It is, however, the task of economics to go beyond this point and to make a thorough examination of the secondary effects and repercussions, which necessarily also enter into the question. For otherwise it would, of course, be a simple matter to survey the effects and would not require the aid of science. It will shorten the argument, and will at the same time give the right emphasis to the great complications arising out of the investigation even of a quite simple case, if we drop the assumption so far made of equilibrium as a starting point. Up till now it was assumed that the disturbance under discussion was the only one present, so that all movements away from equilibrium in the economic system concerned were attributable to this one known cause. Actually, in the concrete reality to which our propositions must apply, the matter looks essentially different: the idea that one has to do with an equilibrium as a starting point is misleading. We ought rather to assume as starting-point a situation which may, perhaps, be termed a "disequilibrium," that is, one which merely tends towards an equilibrium. But even the word "situation" is not quite appropriate, as what is involved is simply a short phase of a rapidly moving process. Important as the event described in the above example in its relation to economic policy may be, its true significance can only be appreciated if we know in addition, the forces that have brought the process to the phase in which the event occurs. This is extremely difficult. As soon as we have to do with movements of economic quantities which derive from other often unknown causes, it is generally quite impossible to ascertain whether occurrences which may seem to be direct or immediate effects are actually so, or whether they are not due to entirely different circumstances. To make the right choice here requires a very wide knowledge and experience, and a gift for seeing things in their right proportions.

In order to give a further elucidation (unfortunately only of the difficulties) let us go back once more to the example of the introduction of a tariff. A direct loss could not be proved under the given assumptions; but economics must draw the economic politician's attention to the fact that the ousting of the foreign goods from the home market causes a curtailment of the total volume of international trade carried on between the two countries, so that the foreign country is now no longer in a position to import the same amount of some other commodity. Goods must be exchanged for goods; but what commodity the other country will no longer buy is a *quæstio facti*, just as it is likewise a *quæstio facti* whether the loss suffered by the export industries of the country introducing the tariff does not cause more workers to become unemployed, and a much greater fall in the value of fixed capital, than would have happened had the line of business originally affected by the foreign competition been closed down. The point, however, with which we have been dealing from the outset, namely, the establishing of the local and temporal distribution of the effects, again comes into the foreground, even though in the nature of things we cannot achieve absolute certainty in ascribing the individual events to others of more remote origin. The detriment to the export industries is not precisely ascertainable. It is distributed over a large number of firms and industries, and stretches out over unknown periods of time. Even those affected by it cannot in the early stages either exactly foresee their own fate or prepare themselves for it.

Economic theory rightly eliminates from its considerations so-called "frictions," that is, its considerations hold good as a rule under the hypothesis that during the period of time which must be allowed for the working out of the various factors influencing the individual processes, no impediments appear which escaped inclusion in the original assumptions. Thus if we say, for instance, that when the wages in an industry are reduced the workers will leave that industry and migrate to other trades, then all the inferences which are based upon this statement assume that these migrations actually do take place. In the domain of economic policy it is not possible to proceed in this way, since it must be taken into account that this high degree of abstraction is not valid, as it becomes apparent that people do not move away immediately, partly because they are ignorant of labour conditions elsewhere, and partly because they are induced to stay, even at much lower wages, by extra-economic factors (family reasons, for instance), or because they have not at their disposal the means necessary for moving, &c. These circumstances (which must be introduced into the formulæ of pure theory somewhat in the nature of what is called in modern logic a " quantificator ") mean something more than a mere shift in the degree of abstraction. If the degree of abstraction is lowered, the alleged tendencies while being, it is true, limited and slowed down, are *not* completely diverted from their course and, as it were, reversed. As in the above example the forces dealt with by economic theory still operate.

The part played by frictions has not yet been sufficiently investigated by economists. In recent times there has emerged the still very obscure idea that alongside the hitherto prevalent economic theory, which is of the " long-run " type (that is, it deals with such long periods of time that the forces tending to a new equilibrium can work themselves out quite undisturbed by other forces), we must place a second " short-run " theory. And there may be some who desire to treat frictions similarly. One should be vastly sceptical of such an attempt at division, as in its present form it would amount to trying to find two kinds of truth. What is more probably needed is an attempt to fix the *time-element* into its proper place in general theory. If that were done successfully, the difficulties would fall away of themselves. As is well known, the time element has long been regarded as the chief crux in economics. Nevertheless, it may be noted here that it is quite permissible to talk of " frictions " as long as the hindrances or impediments to which we give this name do not become *independent* causes of an economic kind, of the same category and order as those which were taken into account at the outset of our investigations.

In dealing with economic policy as opposed to economic theory, things are, of course, somewhat different. If it is a question of evaluating decisions of economic policy, the period of time to be taken into account generally plays a quite decisive rôle. It should be clear from what has been said above that it is always a difficult matter to calculate for long periods, not only because the number of coefficients of uncertainty which enter in, and which have to be taken into account at various points, increases with the length of the period, but also because every event which lies in the more distant future is discounted. The concept of the "time period" must, of course, be taken in a purely relative sense depending on the purpose of the measure. The economic politician—let us assume the Government—is often faced with a serious dilemma: a measure may be recognized as correct in principle, but the period necessary to ensure its success may be so long that before that time is passed undesired secondary effects emerge which make it practically impossible to take what is recognized to be the right course. As long as he is dealing only with general theory, the economist is in a much better position, as he does not require to bother about this aspect of the matter. He lets industries pass away, migrate or spring up without having to care what happens to the participants as *individuals*. He is in a position similar to that of any statistician examining mass phenomena, who has perhaps to calculate a percentage of accidents, but would be greatly embarrassed if he had to select a definite group of persons or even definite individuals to whom these accidents were to happen.

A typical illustration is the so-called compensation theory which teaches that the workers who are thrown out of their jobs by technical progress will in the course of time again find employment elsewhere, particularly in the production, directly or indirectly, of the labour-saving machines themselves. Assuming that this thesis is correct, it means, if we act according to it, that we must disregard the *individual* fate of those affected, who become unemployed. This would demand a hard decision, which is, however, generally made impossible by the fact that this process which the theorist may rightly regard as "harmless" and "unimportant" in a higher sense, is precisely the first to call for action and for a definite policy, since it is the individuals affected who arouse the sympathy of the general public. Countless incidents of the kind are known to economic history, from the machine wreckers of the first industrial revolution to the most recent enemies of progress. They bring with them also characteristic popular theories, such, for example, as the current doctrine of "technocracy," which in its absurdity distracts attention from the real questions involved. The nature of the decision, then, will depend solely upon the general conceptions of value upon which the Government bases its general policy. The position will often be such as to make it obvious that some branch of industry is irremediably doomed to extinction—as, for instance, coachbuilding or wharves for sailing ships—and that it would be utterly foolish to prohibit automobiles and steamships. The decision, however, will not always be so simple, because it may happen that there are too many people (who are, what is not least important, voters) attached to the declining industry, too much sentiment clings to it, or too much capital is invested in it; in short, there are too many "vested interests," so that, in the vague hope that some sort of miracle may happen, no definite stand is taken, or at any rate not at the right time. The reader need only be reminded of the struggle between rail and road which is at present taking place in every country.

The questions touched upon here have an extremely important, general, political aspect. The more unstable is the system of government and the greater the influence of topical problems upon its behaviour—the nearer, in fact, it is forced into contact with the changing fortunes of the ups and downs of every kind, political and other, in economic activity—the less it will be inclined to pursue a long-term economic policy. In any case it will not often be able to do so, as it is never certain that the succeeding Government will not take up an entirely different attitude, and interfere with the long-term measures introduced by it, an occurrence which would result in the loss of the capital already invested, &c. It is only where a long-term policy is based upon fairly *general opinions* that a certain degree of continuity is guaranteed, as, for instance, in the State management of forests, where it would scarcely occur to a Government suddenly to have all the woods cut down. As a rule, financial policy, of course, is much more mobile in character! It may be concluded, quite apart from any political valuation, that the Government, which will be able to make the most use of the propositions laid down by economic theory, will be the Government whose economic decisions are directed by some definite and immutable State purpose. In many countries, therefore, liberal democracy is the form of government most inimicable to the use of economic theory, a state of affairs which is particularly noticeable in times of economic stress. Contemporary history offers a number of striking examples of this. In periods of rising economic prosperity these things do not play anything like such an important rôle; but still this is true only if one is not obliged to acknowledge the real cause of crises as being the existence of an excessive economic boom, which it may very well be correct to do.

We may now apply this analysis to estimating the importance, for the actual course of economic policy, of the distribution and accumulation, as described above, of effects of interventionist and other measures of economic policy. For, however paradoxical it may seem, it is possible to make pronouncements about the "trend" of economic policy, that is, about the general direction of its development, without dealing at all closely with its concrete details at any particular moment. Such propositions are necessarily of a general nature, but there are plenty of examples to support the observation that the course of economic policy is determined, in the first place, by the nature of the technical opportunities for obtaining representation of the various sectional interests, and, in the second place, by the resultant effective representation of those interests. This also holds good for States with highly autocratic and absolutist Governments. In fact, in such States the experience has frequently been that one or several "pressure groups" have succeeded in exerting a determining influence upon the form of government itself. In general, this is dependent upon whether it is technically possible or not to organize the interests. This possibility is practically non-existent in the case of the so-called "consumers' interests," which cannot even be precisely defined. The repeated abortive attempts, in various countries, of associations of consumers in the towns to defend themselves, for example, against an increase in the cost of living brought about by an agrarian-protectionist economic policy, are sufficient to illustrate this fundamental point. It is easy (given, of course, the suitable apparatus such as unions) for those interests to make themselves heard which can be clearly distinguished and easily made public, and the injuring of which is followed by a concentration of effects in the present or in the immediate future. As we know, in such circumstances the other interests which would be "favoured" if the natural course of events were unimpeded are in a perceptibly unfavourable position. Their case is considered to be much less deserving, and, owing to the distortion of the estimation of future events, it is almost always impossible for those who believe they can foresee their future detriment, for example, to stir up their fellow-sufferers to a course of action equal in effectiveness to that of their doubly favoured opponents.

It has been shown that the clustering of the effects, and their incidence in the present, always works in favour of a policy of interference. As a consequence of this and of the principle mentioned above relating to the organization of the representation of sectional interests, it follows, in diametrical opposition to the prevailing opinion, that where the forces are allowed free play the economic system tends to become increasingly rigid as a result of continuous protective interference. This condition would remain unaltered even if representation and co-ordination of all the interests in economic boards and councils or permanent corporations were to be in some way forcibly imposed. Once such a condition is created, what generally happens—a point which cannot be discussed in detail within the confines of this essay—is that each group lets itself be bribed by all the others to vote dishonestly for measures not in conformity with its own interests. This is the true interpretation, however much the proceedings may be clothed in beautiful generalities. This observation refers particularly to the domain of commercial policy, but it applies, as experience shows, to all other spheres also. Thus if " consumers " were also represented as an organized group in such a corporation, it would not make the slightest difference to the principle set out above; indeed, it is to be presumed, on the contrary, that the mere mention of the " purchasing - power argument " would ensure the other groups of the upper hand, for there is nothing before which " consumers " stand in greater awe than the threat of a loss of purchasing power. And it has just been shown that this is quite often destroyed *locally*, however fallacious the theory of purchasing power otherwise is.

Therefore a higher court of appeal is required if a stop is to be put to the process of the continuous growth of intervention, which, as must again be repeated, stamps all economic policy with the tendency to create rigidity in the economic system. This court of appeal can only lie in the general government of the

State itself, which sets the aims that the measures of economic policy are intended to achieve. But here it becomes a question of the creation of aims and ends, and no longer merely of the problem of the appropriateness of various means to given ends, and of what services economic theory can render in the solving of that problem. The way in which we find ourselves obliged to overstep the original confines of our analysis when investigating these questions is of itself very significant. For it expresses a fact that is almost always completely neglected in discussions of economic policy, namely, that economic policy is *eo ipso* policy in the wider sense. That is to say, that all the interventionist measures of economic policy taken together merge into the whole social framework, and must therefore be regarded from a much wider angle than that of the possible application of a single discipline. We shall have something more to say of this later.

CHAPTER V

The Mutual Interdependencies of Measures of Economic Policy

The question of whether a rigid and immutable system of economic policy can be justified by reference to a rational and continuous application of economic theory has been answered in the negative. This, however, still leaves unanswered the further question as to whether the measures of economic policy form a logical whole. It is to this subject that the considerations of the present chapter are devoted.

It is expedient to distinguish two kinds of such an integral interdependence: a *logical interdependence* and an *interdependence of effects*. We shall first examine the meaning of the former. General mention of such an interconnexion has already been made in our discussion of the possible rigid systems, and it was shown to be present in these systems inasmuch as they postulate a logical coherence of all the measures. That postulate can only be satisfied if the problem of the " optimum of social welfare " can be satisfactorily solved. This task exists not only for the rigid systems but also for any other system that may be chosen, and that is the reason why it must be discussed again here. A logical interconnexion presupposes that all the measures of economic policy harmonize with one another in such a way that the advantage which accrues to group A is, for instance, judged just as great as that experienced, perhaps at a later date, by group B, it being possible to combine the two groups in a variety of ways according to character and numbers. Such a statement means scientifically that all assertions of this kind are dependent on a definite idea of what is "best socially." This may be possible in the sphere of ultimate values or aims, but has nothing at all to do with anything connected with or deduced from economic theory. But even the ruling aim is extremely vague, as is proved by the state of uncertainty in which all administrators of economic policy always find themselves in the long run, as well as by the fact that no system of government has ever arrived at effectively establishing a scale of valuation of intermediate aims or ends. This is no mere accident, for the economic process is dynamic in nature and the tasks of economic policy, no matter what the scale of values laid down, are shaped only by this dynamic force. The variety in the nature of the empirical event is so great that it is never possible to work out beforehand either in general or in detail all the guiding principles which may be required later on. There is thus a problem of application, as it were, for the sphere of the objectives of economic policy as well as for economic theory.

This is not intended to deny that it is possible to have a rational structure of aims of economic policy. For the present, however, we must content ourselves with saying (1) that this structure is not an inference from economic theory and, further, (2) that it has no *a priori* character, but (3) that it embraces all possible or already adopted concrete measures (relating to an actually given concrete empirical economic system). Hence it follows that the same kind of problem of completing the aims crops up every time the relevant changes in the economic system have taken place. No further argument is necessary here to show that the situation is then exactly analogous to that which arises in the application of economic theory. It is enough to establish as a fact that even if, in spite of all the difficulties, a theoretical scale of values could be drawn up, empirically-factually there is no unique determinacy of the " optimum of social value." This means that other ways of establishing a unifying principle in economic policy must be sought. The necessities of the moment are too varied and too changeable for it to be possible to do without a casuistry for filling the gaps in the theory and a day-to-day revision of the scale of valuations. It must be pointed out once more, however, that the analysis given here proceeds under the assumption that, even while the empirically conditioned changes and the refinements of the value concepts rendered necessary by them are actually taking place, no change takes place in the actual system of ultimate values. By that is meant that there is no change in the primary principles from which all others have to be deduced. It is, of course, possible for this to happen and it frequently does happen, but it is sufficient for present purposes to refer back to the earlier part of the exposition.

If we want to lessen the degree of abstraction of the lines of thought just developed and come closer to reality, we must recognize that there is scarcely a single economic system for which economic policy has been arranged according to any such strict scale of values. It is true to say that economic policy follows a large number of conflicting points of view all at the same time, that it is continually changing its motives, that very dissimilar means (in the sense of their technical suitability) are applied for the individual aims in view, and that the rationality of the measures adopted, taking regard to the aims, fluctuates violently from time to time. The situation in practice might be likened to the building of a bridge over a raging torrent to an unknown bank, at night, by the light of a flickering torch, with constantly changing materials and according to plans and ideas that are continually altering.

The state of affairs just described is far from satisfactory. If the possibility of establishing a logical cohesion of the measures is very slight and if, on the contrary, there is a certain amount of justification for the presumption of almost complete anarchy among them (rendered inevitable by continual dissolutions and changes of the forms of government, for example) questions will still remain open which are the more urgently in need of scientific analysis in that they are of lasting practical importance. Such are the two questions whether there is not after all some unifying principle and, if there is, whether further deductions can be made from it.

The answer is that there definitely is a systematic interconnexion in the indirect sense of the material interdependence of all the economic measures that are put into operation. Just as all economic acts are interrelated in the case of the single individual, and all individuals are in turn connected up with one another in the exchange economy, and every exchange act influences every other in some way or other, so each measure of economic intervention has an effect upon all the others whether they are already in existence or as yet only planned. This at once brings out an important fact, namely, that it makes a great deal of difference whether a measure is imposed when the initial conditions are those of an entirely free equilibrium or whether it is imposed when at the outset there is only a tendency towards equilibrium in which, however, various types of measures of economic intervention of various " ages " have already been put into operation. The latter cannot, as should be clear from the preceding arguments, be regarded as spontaneous " changes in data," as the data created by them are of a different kind from those previously in existence. Moreover, it is a point worthy of special emphasis that the measures of economic policy adopted at any time work themselves out at different speeds within the same economic system. Thus forestry policy is a matter of several decades, and will only come to fruition at a distant date, whereas the devaluation of the currency, for instance, is a matter of a few hours and may to a certain extent make all the other measures illusory, or may strengthen some measure in their effects, and so on.

This interdependence is the characteristic feature of all economic measures actually put into operation. We might, therefore, speak of the " principle of the fusion of effects of economic policy." This does not mean either the existence of a strictly observed plan or the achievement of complete harmonization of the individual steps and measures in the sense of their being unified under some common principle. It merely expresses the fact that all the economic quantities and events in large measure, if not entirely, automatically fuse into one another, and are thus linked together without the intention and even contrary to the expectations of the framer. We have then to deal with an interdependence of effects. Now it would be incumbent upon economic policy to take this connexion, which is sometimes already known, into account when dealing with new measures. This is an extremely difficult problem, which is insoluble, or at any rate not soluble exactly. Let us assume that x acts of economic policy have taken place at various points of time in a certain economic system; it then makes a great difference whether the $(x+1)$th act takes place soon or after a considerable lapse of time, as the extent of the fusion of all the earlier acts into one another and into the general framework of the economic data will be very different at the two periods. Economic policy, however, would in turn have to take this fusion itself into account as a new datum. It is unnecessary to describe the difficulties in more detail, although the state of affairs is one where the most complicated theoretical and methodological problems rise up like the heads of the hydra. From the point of view of practice—which alone concerns us here—they are almost insignificant for the reason that the degree of precision of economic policy in general is so small that it would be indulging in gross self-deception to attach any weight to them.

However negative these lines of thought may seem for the moment, they give one important positive conclusion from which a number of others may be deduced. The integral interrelatedness in every economic policy expresses itself in the price movements and relative price shifts; it is therefore necessary *to keep economic policy free from inconsistencies.* For if this were not done, the effects of the individual measures would clash with each other, and this would perforce find expression in unforeseen price movements, which would destroy the bases of the separate measures. Now it is at this juncture that scientific criticism can usefully begin and with some prospect of success (even among large sections of the public). Even if it is admitted that the many hindrances which stand in the way of rational economic policy, and which have been indicated in the course of this discussion, are all present, it is still possible, taking various degrees of abstraction and, if circumstances are favourable, taking the particular concrete cases, to prove whether measures are inconsistent with each other or not. If it is our intention to reduce the cost of living, and at the same time we introduce agricultural tariffs; if we want to keep the currency stable and yet do something which increases the money circulation; or if we want to decrease unemployment and at the same time preach that wages should be kept up, we shall not reach our goal. In these and a thousand other cases there is always an *either-or*: you cannot have your cake and eat it.* In the examples quoted the incompatibility can be clearly seen because of its obvious character. In general, however, the interconnexions are much more complicated and it often requires a real flair to discover the inconsistencies in more remote places. There is much for economic theory to do in this sphere, but at present little opportunity is accorded to it in the pursuit of what should be its primary task.

The principle of the *freedom from inconsistency* of economic policy is the only scientific-economic prin-

* In 1928 the mere enumeration of some such inconsistencies in the economic policy of a certain country cost an internationally famous economist his professorship.

ciple which can be formulated without passing value judgments. Its validity is quite independent of the specific content of the measures. This principle gains a peculiar importance from the fact that from it may be deduced rules of more general application which are capable of giving some sort of guiding line to economic policy without ever infringing the precept of freedom from value judgments. In view of the extreme difficulty just pointed out above of proving first of all that effects of economic measures can be unchallengeably determined and traced to definite causes, and, secondly, of finding a tolerably reliable measure of these effects, it is clear that the fulfilment of this principle is not a matter which is within the province of the layman. If economic science is ever to obtain a place in the world, this is the place. There is a vast territory, indeed, open to the scientist who keeps his laboratory of ideas, theories and experiments at the disposal of the practical man.

Only he whose mind has fully grasped the complex of factors described here will realize in what a shocking condition so-called " economic policy " is in most countries. There can scarcely be any other department of social life that is such a mixture of noble endeavour and the most unscrupulous, yet short-sighted, advancement of self-seeking interests, amid a flaunting display of ignorance of every kind. It would be making a mistake and indulging in romantic optimism to believe that this condition will ever improve effectively, permanently and universally. The reasons for this lie deeply rooted in the structure of the exchange economy as such and will be dealt with in more detail in a later chapter. They reach, moreover, into the innermost core of human nature to that point where it seems essentially unchangeable.

So far, we have built up only formal propositions, that is, such as are independent of the concrete content of economic policy, propositions which may be applied, whatever the aims of economic policy in view. Our most important conclusion related to the unvarying nature of economic theory in the face of all conceivable economic aims, and hence the error of all those opinions which, based upon a syncretism of method, claim that economics is identical with liberalism or socialism. It is a conclusion which, however, should be obvious rather than surprising, and is one which it is most essential to keep always in mind. It relates to a condition which can never change, and which remains as inflexible as the fact that $2 \times 2 = 4$. This is a simple enough fact, but the proof of it is, according to modern mathematics, very complicated. It is fortunate that the proof of the seemingly very difficult thesis of the unvarying nature of economic theory is quite simple and will always remain so.

If, as was shown, there is no bridge between theory and policy, in the sense that "scientific" liberalism, collectivism, or socialism can be deduced from science, the reverse of this state of affairs is also true. This means that a repudiation of liberalism, socialism or collectivism, on political grounds, proves absolutely nothing against economic theory. And that holds good for every kind of economic theory, independent of whether it has been taught, developed or discarded simultaneously with the system of economic policy under attack. The fact that these elementary relationships have to be pointed out and emphasized at all to-day shows the low intellectual level on which discussions on vital questions of the social sciences are at present being conducted in an increasingly large number of countries.

In this point, of the independence of economic theory from its practical application, economics is no different from any of the other sciences. The situation here is so universal that it is strange to have to lay so much emphasis on it in economics. In physics it makes no difference how the law of gravity is applied; and it is all the same whether the laws of gas are utilized for the building of motors to drive agricultural machines or to drive tanks. Thus example might be added to example, and all the sciences passed in review, and yet the result would be the same in every case. It is probably a defect of will that makes one want to find an exception in economics. With regard to the validity of economic propositions, it is likewise irrelevant whether one introduces tariffs on the basis of them, or proclaims free trade; the law of supply and demand operates in both cases; the conditions of exchange between the countries are always regulated in accordance with the laws of comparative costs.

Now when we come to the concrete constituents of economic policy, it is important to observe first of all that whatever may be the nature of the practical situation, whether the economic situation to be changed is to be considered good, bad or "catastrophic," only a few means and methods, in the last analysis, are ever proposed and utilized. Rough rules of thumb, such as tariffs, import prohibitions, maximum prices, subsidies, depreciation of the currency, moratoria, strikes, lock-outs, inflations, and things of that kind, are the limits of what wisdom is capable. Even the formulation of the reasons for the decision for or against such a measure is correspondingly primitive, and always makes use of the same arguments. The development of economics goes on almost entirely unheeded, except that in the monetary sphere there appear signs of a closer union between the progress of theory and practical monetary policy, which, however, is not always the most fruitful. In particular, it was this which in the years just after the war produced the unfortunate idea of stabilizing prices and economic activity, an idea which, however, soon suffered the discredit it deserved. (This is not to be confused, of course, with international currency stabilization.) If the idea reappears to-day in the form that the aim of a rational economic policy is not the stabilization of all prices, but "only" of those of the factors of production, such a proposal shows that the lessons of the great depression of 1929-19?? have obviously been without effect upon the sponsors of this idea.

The fact that these rules of thumb are the sole methods employed by economic policy is in some respects a comforting one. Some of them are right (*i.e.*, they are appropriate to their purpose) and some are wrong. Economic theory will already have accomplished a great deal when it, or rather its representatives, succeeds in securing that only the right methods (those adequate for the aims involved) are applied. There is nothing much more that can usefully be said about this here. One may rest assured that it is to a great extent a question of the technique of presentation, of the personal influence of the economists, and particularly of the application of modern statistical material, which can slowly but surely bring about a change in this matter in countries with an educated public. But even apart from that, there is room for a little hope: the simple fact that one is limited to rules of thumb is in no wise the outcome of an immutable principle, but merely bears witness to the fact that there is very little chance of being able to deal with new situations better than has been done up to the present. Why should better educated people not discover new ways, by rapidly finding new rules to fill the gaps which may come to light during the application of the theory? Of course, the realist (who is in such cases called a sceptic) will find ample reasons for declaring that this is improbable, and many of these reasons, which we, too, shall discuss later, may speak in favour of his thesis. Looked at from the point of view of method alone, there are no fundamental difficulties here, and nobody is to be robbed of the hope that what difficulties there are could be overcome.

Applying an analogy from mathematics, the task of economic policy might be described thus: the problem is one of reaching a definite goal, as, for instance, maximizing the volume of trade with another country. The ideal solution would be the introduction of complete free trade, even though it were one-sided. From the practical standpoint, however, we will assume that this course is impossible, because, for example, one of its accompanying effects would be the ruin of an important section of the population, which for political reasons must at all costs be kept in its present position. This exigency must therefore be inserted in the data and modifies the problem of economic policy substantially, along the lines that it is necessary to find that method which conforms as closely as possible to the ideal, theoretically best solution, but still guarantees the existence of these particular groups of the population under the required minimum conditions. Instead of the shortest line, the " geodetic line " must therefore be found, " geodetic " being the name given in mathematics to those lines which form the shortest distance between two points when the space in which they occur is no longer euclidean. These geodetic lines comply with the conditions of non-euclidean spaces: they belong to the systems of " elliptical " or " hyperbolical " geometry. It is just the same in economics, where the general propositions must, so to speak, be transformed into " elliptical " or " hyperbolical " ones if they are to be applied in concrete practical cases. The error made by many people has been that they have tried in doctrinaire manner to discover the comparatively simple relations of theory exactly repeated in practice. It is probably superfluous to mention that though the relations illustrated by this analogy are closely connected with the differences between different levels of abstraction more explicitly discussed at the beginning, they by no means coincide with them.

It is not difficult to find a simple example of the misinterpretations which laymen constantly put upon economics in this respect. One need only think of the usual discussion on free trade. This generally proceeds along the lines that it must be granted the free traders that, with free trade, the total volume of trade in society would be considerably increased and the economic system would be much better provided with goods, *but*, so the argument continues, " free trade could not suddenly be introduced overnight." The supposition that it would have to happen so suddenly comes from listening to a theory which was formulated under the conditions most favourable to it (that is, they were also the most abstract conditions), and from naïvely and directly transferring that theory to concrete circumstances. Now it is in this application that the very problems which interest us here lie, as should have been brought out very well in the example of the geodetic line. It is extremely wearisome to encounter the same foolish objections reiterated over and over again. The free trader, as the general public or industrial federations usually conceive of him, is scarcely more than a legend.

It is the same group of misunderstandings which cause it to be said from time to time that someone has, say, radical economic views, but repeatedly turns traitor to them when put in the position of carrying them into effect. The fact that all radicals, once they are members of the Cabinet, become tame after a while, does not necessarily mean a "betrayal," but merely that even they have their "problems of application" to solve for their various species of radicalism, and that, as they have to fit their own methods into those of others, they have to make substantial modifications of their programmes. Great reforms in the economic system can only take place gradually.

Incidentally, it is worth noticing that the feeble echo which economic theory customarily finds among the public is in the end due very largely to the economists themselves. Several circumstances are to blame for it. The public insists that a scientist who builds up theories about economic affairs, should be in closest touch himself with these affairs, and should know what is going on around him, just as a sick man does not like being treated by a doctor who is himself ill. And it is true that it is absurd for theory to be out of touch with practical life; unfortunately, however, it is a common and distressing experience to find theorists who are in this position. However great the gap between the theoretical and the practical mind may be, it must to this extent at least be bridged. The further and much more weighty reason, however, is that economists who have sinned against the spirit of their science have repeatedly either surrendered their scientific knowledge under pressure of political forces or strong interests (in particular, all those who possess no really deep grasp of theoretical analysis are exposed to this danger), or—and it is difficult to know which is worse—have asserted that economic theory is identical with some chosen attitude towards economic policy. Economic theory has always to fight on several fronts at once, so that hard-won territory has easily been lost again here and there. If to-day the thesis is prevalent that economic theory and economic—and ultimately even political—liberalism or socialism have something in common, the effect must be to prejudice theory for a long time to come, and to an extent which cannot yet be estimated. Hence it should be one of the first duties of the economist to defend the thesis that economic theory is independent of systems of economic policy. The claims which this makes upon methodological discernment and general intelligence are surely not overwhelming.

After this short digression we turn now to the question of whether there is not after all a solution of the dilemma which still remains. This dilemma consists first and foremost in the fact that the concentration of the unfavourable effects in the present, both where measures are applied and where they are not, and the dispersion of the advantages in the future, or alternatively of the disadvantages in the present, belongs to the normal character of economic policy, independent of its specific details. The practice of economic policy in the past has lessons to teach which, while not perhaps ranking as principles, are nevertheless worthy of the closest attention. They speak against the popular opinion in matters of economic policy, which is without any doubt in favour of a maximum of intervention. Though it may be impossible to deduce economic liberalism logically from economic theory, liberalism has certain practical advantages. On the other side, the method of specially chosen measures of intervention in the economic system is the logically superior type of economic policy, which nevertheless appears to be encumbered with countless practical difficulties and disadvantages.

This great contrast would really give a rightly conceived liberalism the better chances of success. It has many practical advantages. Its principle of allowing as much freedom as possible in the economic system is suited to general and long-run application, there is no waste in isolated actions, and it has been tested tolerably well and over the widest areas and longest periods of all the methods of economic policy ever consciously applied. Interventionism, on the other hand, constantly finds itself faced with new situations, it is full of inconsistencies, never guarantees a complete survey of all the factors involved, and never finds confirmation in practice, because what should constitute proof always represents nothing more than a new situation. Liberal economic policy is therefore often a sign of the strength of the State's power, and is thus quite consistent even with an authoritarian form of government.

Interventionism, on the other hand, is weakness, not only on the part of those who beg for the intervention, but also of the State, which allows itself to be persuaded into granting special privileges.

As it is beyond the scope of this study to concern itself with the setting of aims, perhaps this contrasting of economic systems will suffice, and the thread which leads from here to other provinces of social life may be allowed to drop. Instead, we turn to other problems.

CHAPTER VI

The Limits set by Power

What is perhaps the most widely prevalent doubt as to the appropriateness of economic theory as a basis for a rational economic policy is summed up in the comment that all economic affairs are only part of a much more comprehensive issue and that the validity of economic laws, moreover, is considerably limited, if not altogether nullified, by the phenomenon of " power." This is a grave objection which must, seeing that our purpose here is to define the sphere of applicability of economic theory, be subjected to critical examination.

The problem of " power and economic law " is an old one in economics but it was Böhm-Bawerk's last work, bearing that title (" Macht und ökonomisches Gesetz "), that first gave a strictly scientific formulation of the conflict involved. The essence of it is this: economic theory lays down, for instance, laws of the distribution of the social product among the co-operating factors and shows that these factors are rewarded according to the measure of their importance in securing the results of production (*i.e.*, in technical terms, according to their marginal productivity). On the other hand, " power " of various kinds may be able to enforce a different distribution.

It is evident that it is here, first of all, necessary to eliminate those cases of " power " which are not generally to be classed as part of normal economic life, as, for instance, the taking away of a part of the product by force of arms, threats, deprivation of freedom, and so on. We are in fact concerned exclusively with cases of economic and social pressure, such as, for example, where the workers are alleged to be able, through their trade unions, to obtain higher wages in the market than would correspond to the marginal productivity of their labour. In order to parry this advantage, the employers may on their side also found unions, which would cause the price laws to be altogether nullified in the labour market, and only the pressure of power would determine the height of the wages. Obviously a scientific treatment of the problem is possible only so long as we are dealing with prices and the process of their determination. The question we have to ask is this: do economic laws still hold good in the presence of the power factor or does the latter introduce an element of incalculability into economic policy, such that the proceedings are likely to become entirely irrational?

First of all, it must be borne in mind that all economic action is adjusted to take account of the *duration* and in general the repeatability of the individual economic acts (the latter, however, need not necessarily always be the case). This eliminates all "successes" which bear within them the seed of later detriment to the person who is achieving the momentary success, and the only possibilities remaining are those of imposing permanently changed conditions in the market and tracing out new limits within which the price must be determined. This was also the answer that Böhm-Bawerk gave: it was his opinion that the only way in which economic power could make itself felt was that the parties might succeed in increasing the range between the maximum and minimum offers of the buyers and sellers respectively, within which the price can be fixed. Thus power is for ever setting new *limits* for the economic laws, but nothing more than limits, and it is possible for economic theory to determine them. Given these limits, everything must proceed as economic theory maintains. Where, in the case of absolutely unequivocal conditions (as in the case of free competition, for instance), this range is so narrow as to be negligible, it is possible to speak, *ceteris paribus*, of complete determinateness of the process concerned. Power (which need not be more closely defined) is capable of increasing this range, thereby creating a new range of indeterminateness within which it is left to the skill of the parties making the exchange, to chance, &c., to fix the final price. It may be generally accepted that the strength of economic "power" may be measured by the amount of indeterminacy which it introduces into the economic process. Formally, all the economic laws remain the same; everything called "power" goes into the data on which the laws hinge, so to speak. Pure theory has nothing *additional* to say about the new situations thus created, since they conform to its own conditions in extended form. The case of complete monopoly, which represents a quite specific kind of exercise of economic power, is a chapter of economics which has been very successfully worked out over the period of the last hundred years. From Cournot till the present time, monopoly problems have occupied economists in ever-increasing measure. It was not long, either, before the many sub-species of monopoly which arise when the monopoly is incomplete (*i.e.*, when the monopolized commodity is, for instance, unequally divided among two or more producers) were investigated. More than that: an attempt was made to work out the case of bi-lateral monopoly (*i.e.*, the terms of exchange between a monopoly on the supply side and a monopoly on the demand side). In all these problems, the present-day importance of which is shown by the actual development of the economic system in favour of these forms of monopolistic competition, many difficult points emerged which have by no means been fully solved even up to the present time. But in no case has the power-factor been found to necessitate a major refutation of economic theory.

The conclusion which may be drawn from the above regarding economic policy is that the presence of "power" slightly alters the problem of application as compared with all other simpler cases in as far as it becomes necessary to work out a detailed casuistry. This alone allows us to determine the economic significance of every concrete case by classifying all the types of power that have to be dealt with, according to the measure of indeterminacy which they create. At the present time there are probably only very scanty contributions to such a casuistry available and no attempt has been made to systematize them from the standpoint of the principle formulated above. This is a fact which is all the more regrettable when we consider that the long-drawn-out discussion on this subject has scarcely advanced it beyond the position which it may be said already to have reached in 1914. As, however, the formal solution given here is the only possible one and there is little more that can be said from the scientific economic point of view, we cannot do better than continue the analysis on that basis. Following on the preceding discussion, it will suffice to make the following comment: Although it has been shown that the parties exercising the "power" are in a position to increase the range of indeterminacy or the amount of "play" allowed by the laws, and it is thus possible for them to obtain a greater share of the social product than hitherto, that is not to say that they have thereby fully attained their real object. This object is to be understood, generally speaking, in the sense that the parties making the exchange wish to obtain more of the product, not that their intention is to do away with the validity of economic laws. Whether these hold good before and after is a matter of complete indifference to them—they are interested only in the success of their own action.

In general one would expect the "power" factor to reduce the range or scope of the laws instead of increasing it, and this is also true in a certain sense. An extension, in the sense to which we have been referring here, must be equivalent to a *diminution* in the value of the law in question in as far as its propositions admit of more exceptions than before.

It is a piquant fact that the public, which constantly delights in denying the existence of any economic laws whatsoever, appeals to their existence in cases of the intervention of "power." Actually the most effective limitations on the power element are connected with the time factor, which exercises an important modifying influence. The remarks of the preceding paragraph ought really to be followed up by a theory of the time element, which would show how this element works against all intervention of power by calling forth adaptations which gradually, often very slowly, weaken the relative strength of the power factor (take, for instance, the development of substitutes for monopolized goods, the introduction of labour-saving methods and machines to counterbalance the excessive raising of wages, &c.).

The wielder of the power—and all this is equally applicable to the economic politician—is, of course, theoretically in a position to estimate the *duration* of his success as well as other factors, and, if he looks so far ahead, he will endeavour to maximize his returns over the longest possible period. Generally, however, the periods of time which are planned for are so small that it seems justifiable to separate the immediate from the more remote effects. A typical example is undoubtedly the wage policy of trade unions, which failed to take account of the fact that the excessive raising of wages, synonymous with an increase in the share of those workers *remaining in employment*, would not necessarily raise or even keep constant the share of the group as a whole (inclusive, that is, of the share of the workers in the industry concerned who become unemployed as a result of the excessive rise in wages). This is what was meant when it was said, a little paradoxically, that though power as such may make its influence "successfully" felt in the first instance, this does not guarantee that the wielder of the power will reach his objective.

There is one other measure by which the excess share of the social product enjoyed by individual groups can be expressed in comparison with the unrestricted operation of the principle of marginal productivity under general competition. A suspension of privileges of any kind, whether it be subsidies or the right to form a combine, will meet with very unequal resistance. The extent of this resistance is an infallible sign of the additional gain assured by power or privilege. It would be an attractive exercise to apply this idea to present-day problems, but this would lead us away from our immediate topic.

The fact that there is such a thing as economic power is weakened by the knowledge that this power is confined within strictly definable limits. Hence the existence of this factor gives no foundation for the argument that economic theory is useless for purposes of economic policy. It is, on the contrary, truer to say that in such cases the need for ascertaining the range of indeterminacy of economic laws is actually much more intense than it is under conditions where power does not make itself felt. Investigations which are carried out first abstracting from the power factor remain valid, with appropriate qualifications, when the power factor is operative. Incidentally, the way just indicated is the only one in which any sense can be attached to the demand for the inclusion of the power factors in the explanation of the economic process. If, however, economic theory should not be able, under the new conditions, to explain and to follow out all the issues in detail, then nothing and nobody could. Recognition of this fact is of cardinal importance, and more particularly of great practical relevance, as will become evident in the further course of our exposition.

The consciousness of having formally solved a problem should not mislead us into estimating the remaining material difficulties too lightly; for it must again be emphasized that there is not only an integral interdependence of all measures of economic intervention, as was shown in the previous chapter, but that in addition each act of economic intervention represents at the same time an interference with the *whole* social fabric and the social framework of power. This interdependence of effects—for that is what we are chiefly dealing with—introduces a new element of uncertainty into economic policy, as the small degree of *ceteris paribus* which it must still assume is liable to be disturbed from a side which is not indeed independent of the particular measures in as far as it relates to repercussions of these measures, but which follows from the fact that these repercussions are for a time deflected through a medium which is not subject to control and scarcely to observation. We may take as an example the lowering of the level of education of a nation as a result of a change in financial policy (*e.g.*, reduction of the teaching staff from motives of economy). This may lead to a decrease in working efficiency in consequence of poorer education and less knowledge, but the latter is one of the harmful results which the economic system suffers many years later, because it was not willing during the previous period to continue paying the higher taxes. Countless cases of this kind may be found; but only in very few of them is the relation between the two separate events as patent as it is here.

Every act of interference with economic life is also, as has already been shown, interference with the rest of social action and *vice versa.* In all previous investigations of interventionism this aspect has either been entirely neglected or has only inadequately been taken into account. In general, there will be very few cases where economic policy will be in a position to make quantitative assessments of the diffusion of the effects of its measures beyond the economic sphere, since in the case of the majority of the measures it is a question of manifestations of a very long-term nature. There is, moreover, the additional fact that the smaller repercussions cannot, in any case, be immediately ascertained, and for that reason alone escape calculation.

The existence of this interconnexion between interventionist measures of a purely economic and a general social character is fairly self-evident. We shall not take up its investigation at this point. It is enough to know that it exists; the mere fact of being aware of many things often creates the caution which is necessary in order to avoid damaging higher interests. For the rest, it would probably be too optimistic to expect that economic policy will in the near future be carried on with so much thoroughness—as regards the taking into consideration of the teachings of science—or that the discussion of further subtleties of the kind could have any practical importance.

We must now pass on to the investigation of the inherent difficulties standing in the way of the application of economic theory for purposes of economic policy, by reason of the constitution and the organization of the economic system and the manner of the representation and assertion of the economic interests.

CHAPTER VII

Inherent Difficulties of Economic Policy

One of the outstanding and most important features of economic policy is the fact that its development shows an unmistakable trend in the direction of increased interventionism. This is true largely independently of the time and actual content of the economic policy, and the reason is to be sought in the current economic ideology or economic attitude. Nor can there be any doubt that such forces as these do exist and that they are able to exert a very strong influence. At times people simply do not want certain things, or—what is more—do not even want to recognize facts. It is not expedient, however, to discuss these matters here, not because their importance is to be denied, but because they are far too changeable, and it would, moreover, necessitate entering upon " meta-economic " ground, which is generally not advisable as long as there is still much to be contributed to the subject in the purely economic sphere. That is how things stand at present. Economic organization itself contains a large variety of elements which force economic policy again and again into the same groove, so that a knowledge of these elements would in most cases provide sufficient explanation of the policy.

First, it has to be realized that economic knowledge is the prerogative of only a very limited number of people. Hardly any other science—not even mathematical physics—is as esoteric, as exclusive as economic theory. For this there are good reasons, which need to be examined more closely.

In contrast to the natural sciences, economics boasts of no physical constants, no fixed relationships, but is based exclusively upon the establishment of *relative* changes, which can in turn be comprehended and expressed only in terms of other relationships. There is no doubt that thinking in terms of purely logical relationships is one of the most difficult tasks with which the human mind has to contend, and if a science is based predominantly upon such a mode of thinking, it is clear that it will not be easy to popularize that science. Furthermore, even the passing on of scientific doctrines from one generation to another within the narrow circles of those who seriously pursue the study of this science is more difficult than in other sciences. It seems to be inevitable that the rising generation should have to re-think out all the errors ever made in economics. Otherwise it would be inexplicable how again and again, often at short intervals, works could appear which contain old errors in some new guise, and are yet supposed to represent a fresh contribution to knowledge. Every individual economist must always start afresh for himself right from the beginning; he can rely upon no " established results " in the way the natural scientist, for instance, can. This takes time and is a laborious task, which explains why one must be extremely distrustful of any economists (particularly young economists) who come forward with patent solutions. What is here the fate of the individual on a small scale, is repeated on a large scale as the fate of nations, if only in the, perhaps, comparatively limited sphere of economic policy.

Still more difficult than the passing on of economic knowledge from one generation to the next is the handing down of experience obtained in the field of economic policy. Though it is obvious that the generations do not follow each other at sharp intervals, but that there is a sort of "synchronization" of young and old, this is mainly true only in a physiological sense. Intellectually the cæsuras are generally much greater, as is particularly evident at the present time. This explains why the same stupidities in economic policy are committed and vigorously upheld over and over again, with pathetic regularity. The disasters of an inflation remain in the memory only for a short time and a few years later a new inflation is begun in the same country, and is looked upon as the last word in wisdom. Although we have already had one experience of the breakdown of a system of foreign exchange control, ten years later the same thing happens again in the same countries, and this in spite of the fact that some time ago international conferences plainly and clearly showed the utter futility of this kind of monetary policy. Tariffs far from warding off economic crises only augment their intensity: nevertheless, exorbitant increases in tariff protection, in the form of quotas and import prohibitions, are time and again believed to be the remedy for the most severe depression. A nervous juggling with measures which are, for the most part, mutually inconsistent is a permanent characteristic of what is supposed to be super-rational procedure. It may be seen from this that it is not only a question of further developing the theory (in doing which it is assumed that the theory is actually familiar in the form which it has at the time); but of securing the effective acceptance of what has already been worked out. These inherent difficulties of economic policy will only be properly appreciated by the man who has himself devoted a long time to the study at first hand of the economic ideology of the leading groups of various camps and countries.

The repetition of all the errors at frequent intervals —by " errors " is meant the inappropriateness of the means for obtaining given ends, *including all the secondary effects*—can nevertheless have its good sides, in so far as it is possible to learn from these errors. It is conceivable, for instance, that in the future, at least a " catechism of rules of thumb " will be drawn up, the constant application of these rules being, as has already been described, one of the principal characteristics of the actual practice of economic policy. The reason for the permanency of these rules of thumb is not only that economic policy is difficult to conduct; it lies also in the representational structure of sectional interests in the economic system, a structure which is in large part quite independent of the form of government. The point is not only that, as has already been remarked, consumers' interests, for instance, can always, and, whatever outward form they may take, only be asserted with much less vigour and success than, say, producers' interests. The organizability of the various interests is always unequal and will always remain so, no matter in what framework they may be set (*e.g.*, Parliament, economic councils, the corporate state, &c.). In accordance with the degree of these differences in organizability a kind of " trend " will manifest itself in the actual course of economic policy in each country, or at any rate a preponderating influence will emerge, which gives the economic policy a quite definite stamp, and which is largely independent of the form of government.

That is how things are in reality. The fact that certain interests always secure strong representation creates a tradition and produces people practised in the art, who are generally far superior to the chance partners with whom they have to deal (members of Parliament for instance), in skill, knowledge, eloquence, and so on. Politicians are often and certainly when they are new-comers, completely at the mercy of these men, as was repeatedly evidenced in many cases in the post-war period. The trend of economic policy as thus determined undoubtedly lies in the direction of strong discrimination in favour of all those interests possessing distinctive organizing potentialities. In the front of these there rank agriculture, the primary products industries, and in general those branches of industry which are engaged in producing intermediate products.

There is nothing incomprehensible about all this; for it follows from the mere fact that interests are represented at all, that economic policy will always exhibit a highly "interventionist" feature. Closer examination of this state of affairs shows it to be determined by the structure of the State and many other concrete circumstances too numerous to permit of detailed comment here. The whole object of the activities of the group represented is to secure for itself as large a share as possible of the social product. The mere fact that organizations are formed, supports the assumption that the free mechanism of effecting distribution would result in the receipt of a smaller share, and that the share obtained by means of representation must be greater. It makes a difference, of course, whether the organizations were created for reasons of State, or came to life because others were already in existence, which assured other groups of the upper hand. It is, of course, clear that in a democratic State with a strongly socialist leaning, the rôle played by the wage-earning classes will be different from that in a State in which, by reason of a purely political distribution of power, the rhythm is set by the agricultural interests, for instance. All these remarks are platitudes, but, nevertheless, if they are taken altogether, an important lesson may be learned from them. This lesson will be briefly developed in Chapter X.

It might well seem as if these statements contained a contradiction. A few words more may therefore be added to make the point quite clear. The contention is that there are interests which are easy to organize and interests where organization is difficult or quite impossible. This may be taken as an indisputable fact. It is further contended that according to the form of government certain interests can outweigh others. Here again there is nothing to question. It follows, therefore, from these two facts that, if the State wishes to create special privileges for certain groups, it will only succeed without difficulty in doing so if groups can be easily brought together in some form of organization. If, on the other hand, it wishes to take away a certain preponderance from organizations already in existence (without suppressing them altogether), it can only do so effectively if the organizations which it sets up in opposition are at least organizable in the same way as those already in existence. Nothing much can be expected from the method of creating an association of consumers as a counter-blast, say, to the monopolistic misuse of power by certain industries. Other ways must be found which are technically less objectionable. Now in every economic system the number of these methods is strictly limited. Which methods will in point of fact be chosen is a matter of politics or even of chance. Hence it follows that, however political ideas may oscillate and develop, the economic organization exhibits an important element of constancy.

This, of course, is subject to the general assumption that the individual governments which succeed each other in office, or the successive forms of government, do not happen to wipe out the fundamental principle of capitalist economy along with the whole institution of private property. How apt these considerations are is proved by the events of the post-war period in many European States. Even Fascism has created no fundamentally new machinery of economic representation: to realize this, of course, one must not only look at the texts of the laws, but must observe the effective functioning of the corporations. The same applies to the constitutional development in other countries, where the entire alteration in the bodies representing economic interests usually took the form of giving them new names and changing their leaders. It can thus be safely claimed that if we look somewhat more closely at the outcome of the two seemingly mutually exclusive principles of organization, no inconsistency can be established. In any case such an inconsistency would be, as always, extremely undesirable.

However many inherent obstacles may stand in the way of the application of economic theory to economic policy, there yet remains considerably more scope for it than is at present granted to it, and this scope can be still further enlarged by the energy of its advocates. Public activity, for instance, can be much more strictly supervised than it is to-day. I am not thinking here of the control which the State exercises at the present time by sending out inspectors, for example, to banks of issue or other forms of enterprise; nor am I thinking even of planned economy, but of a process of constantly reviewing the economic situation and the influence which economic policy exercises upon it. Since, as we have seen, even a well-informed economic policy seldom gets beyond the application of those measures which we have described as "rules of thumb," it follows that the situations to which they are supposed to be suited must be presumed to be identical or at least analogous. Now this is where the first problem arises and the similarity or difference of this initial situation can be much more accurately ascertained by reference to science than by reference to anything else. Modern statistical methods, which have advanced particularly far in the field of business research, take us a good part of the way. Thus there have already been credit expansions in former times, years ago import prohibitions were imposed and abolished again, tariffs were increased and removed again, and so on, so that it is possible without further ado—even if the results no longer belong to living memory or become intermingled with other matters and events—to establish *ex post* what was the nature of the effects and whether they harmonized with the *original intention.*

It is strange that the memory of economic subjects is generally so brief that even within the shortest periods, say, from one to two years, it is forgotten what promises were bound up with the passing of particular measures, and what results actually followed. A typical example of this is to be found in foreign-exchange control, which was introduced *expressis verbis* in order to hold the value of the currency at par. Scarcely two years later the same authorities announce that it has been possible to do away with this control, while foreign-exchanges rates have actually risen by several per cent. The satisfaction over the removal of an irksome, self-imposed fetter which throttled trade wipes out every memory of the initial situation, so that the whole period must seem to a distant observer to be a time of complete arbitrariness and anarchy. At the same time, it contains no exceptional features; but all the typical factors, which are always to be observed, stand out more markedly because of the greater quantitative importance of the transactions. And there is nobody there to bring the authorities responsible to account; nobody to hold the true facts of the matter before them and to show them the grotesque absurdity of most of recent policy.

Many decades ago Alfred Marshall pointed emphatically to the possibility mentioned here of extending the rôle of economics, but did not follow up this idea. In the last ten years the suggestion should have found an intensified echo, but instead of developing economic statistics, aided by the eagerness of the present generation, in such a way as to derive permanent utility from them, the economists have gone to extremes and have betaken themselves to the dangerous field of economic prognosis. I myself was perhaps one of the first among the very few who protested sharply against this abuse of science. I emphasized in place of it the need for the maximum dissemination of information, with a view to improving the degree of rationality in the conduct of individuals, and with the idea of being able to utilize the gradually accumulating material as the foundation for a scientific laboratory of economic policy. The position remains unchanged, and my plea, with all the arguments which were advanced at that time, still holds; only economic prognosis has come to belong to the pathological department of economic policy. For that reason the few words devoted to this subject are relegated to the next chapter.

It is clear that the exercise, in this sense, of a closer inspection of economic policy means a certain slowing-up and impeding of that policy. This, however, is in no case a disadvantage, for it has been shown above that, because of the extraordinary difficulty in obtaining a general view of economic policy as a whole, there is more chance of hitting upon the right thing if nothing is done on the spur of the moment, and, furthermore, it is apparent that the loss of time which may be caused by somewhat deeper reflexion will only in very rare cases have an unfavourable influence. There is a much greater probability of making a mistake by acting hastily than by selecting and adopting a measure which has been decided upon after fairly lengthy consideration as being really appropriate for the aim in view. This is, of course, dependent upon the fact that it is always necessary first of all to determine the lay-out of the actual situation from which one starts. However simple this may seem to be, it is in fact an extremely complicated problem, as is shown by the labours of the various Institutes for Economic Research—labours which for purely technical reasons can never, as will be easily understood, be absolutely up to date. It may be added that one cannot hope successfully to comprehend the situation at any moment solely by means of statistics, because the whole economic process cannot be statistically portrayed. And, moreover, in framing measures of economic policy, all the forces operating must be taken into account, including those which can no longer be properly described as "economic."

It is fitting here to refer once more to a difference between economics and the natural sciences or medicine. This time, however, the difference relates not to the inner construction of the sciences, but to their application. What intellectual effort, what an enormous amount of reflexion precedes the building of a ship or an automobile, an operation on a human being, even the laying out of a street! The intellectual work involved in every single case of this kind is truly impressive. No one risks starting a productive process haphazard, without utilizing the technical equipment which science places at his disposal. It is only in questions of economic policy that the case is otherwise. Here the decisions are hardly preceded even by more than momentary reflexion, let alone careful scientific preparation. The "preparations" consist almost always only in lending an ear to the *interests*. The "Royal Commissions" in England are perhaps the first point from which a new development might branch out. Yet these commissions are often too restricted in their operations, or the choice of their members is too often governed by political considerations, to allow us to expect much more from them than they have accomplished so far. The possibilities of development in this sphere are, nevertheless, very great; this applies, however, predominantly to democratic States.

This chapter has dealt only with those inherent difficulties of economic policy which have their roots in human nature and consequently adhere to, and are reflected in, all social organizations. Compared with many other obstacles that may be detected, they are theoretically not very important, but in practice their influence is all the greater since these other obstacles only begin to exert an effect when we are already close up to them. In the case of the obstacles that we have been considering here, however, it is clear that before the scientific treatment of economic policy can begin at all, there are already forces at work which are continually recurring with renewed strength and always pressing in the same fateful direction. The consequence is that the practical rôle of economic science is constantly being impaired. It is completely beyond the power of science and scientists to do anything to bring about a lasting change in this state of affairs. On the other hand, it *is* within their province to undertake, and without being officially commissioned to do so, the impartial investigation of the relation between the promises which were bound up with measures of economic policy and the actual results. No greater service can be rendered to the general public than this. It would, moreover, be fairly easy to carry out and would have beneficial results both practically and theoretically. Clearly these are the lines we must follow if we want to suppress demagogy in economic policy and expose and defeat those who, under pretext of working for the good of the community, are bent on creating special privileges, either of a temporary or of a permanent character.

It is the task of the general public, on the other hand, to *force* the economic politicians who advocate particular projects to furnish at least historical evidence that their opinions have proved correct on earlier occasions. Surely they must be in a position to give such evidence, for where else could their knowledge come from, if not from " practice " or logical reasoning? This evidence should then be submitted for continuous examination and criticism to entirely unbiased scientists who command public confidence and have the necessary technical apparatus at their disposal. The economic politicians and interested parties would be really obliged to comply unresistingly with such a demand on the part of the public, since it is but a fair request. Moreover, it makes claims only upon the knowledge which the politicians in question must profess to possess, for otherwise they could not very well make the attempt to put ideas of economic policy into practice. That, at least, is the most generous interpretation to put upon the matter. There is another reason why the task which would thus be set them is not too difficult. As we have seen, they generally keep on applying the same old rules of thumb over and over again, so that, if a new kind of measure comes up, this can easily be brought under a formula incorporating a principle contained in the methods hitherto used.

Another of the most important tasks belonging to these supervisory functions is the unmasking of catchwords of economic policy, a subject to which we can only refer very briefly here. The exposing of catchwords shows at once how extraordinarily intricate problems of economic policy are. The most effective method is to analyze as completely as possible all the assumptions and implications of the catchword, at the same time emphasizing the positive forces which are necessary to keep the economic system in working order. If these conditions are fulfilled with all that detail which conforms to the particular historical-concrete situation to which the catchword is being applied, the manifold nature of the possibilities will show itself. It is only when one is in a position to introduce quantitative evidence into this scheme of assumptions and conceivable effects that a reliable judgment can be made. This procedure does away with the over-simplification of the argumentation, which is so liable to be a danger in economic policy, and kills all mere catchwords, because it is never possible to draw up such a scheme for them which is free from inconsistencies.

The " de-bunking " of economic catchwords is a very useful exercise—and perhaps even one of the most urgent tasks of the present time. For the scientist, to be sure, it is not a very attractive occupation, for it is a matter of battling with nothing but old material. I am thinking, for example, of the thesis that the balance of trade must in all cases be made active, or of the maxim, which gained currency in post-war Europe as a brilliant discovery, that countries should buy only from those who bought from them. In both cases we are dealing with quite elementary misunderstandings or with incomplete interpretations of very involved economic relationships, but to the economist this does not offer an interesting sphere of activity. It is as though the physicists had to keep on declaring that there is no *perpetuum mobile*, that the sun does not revolve round the earth, and so on. All other scientists can work undisturbed at the real constructive work of their sciences. Early mistakes have no longer any place in their labours, either scientifically or practically. It is only the economist who in this respect finds himself in a totally different position. He is the only one who is not granted the privilege of concentrating his efforts on the real problems of science from which new knowledge may be obtained.

CHAPTER VIII

The Special Features of Trade-Cycle Policy

The preceding analysis may have appeared complicated enough, but it was, nevertheless, marked by one simplifying assumption. This assumption must now be dropped. We shall no longer proceed from an " equilibrium situation " as a starting-point and shall no longer assume that it is possible to isolate the politico-economic problems concerned to the extent of ignoring movements of the economic system *as a whole,* the " changes of position " of the economic system. It is in fact in just these movements that the predominant interest of economic policy is often centred. They take the form of a succession of cyclical fluctuations and consequently come within the scope of problems of trade-cycle theory. Although it is only in the last few years that trade-cycle research has received serious attention, its study has made considerable progress; yet little headway has been made in the application of this new knowledge. It may be appropriate, therefore, to make a brief comment on trade-cycle theory and at the same time to complete the remarks made in the beginning on the rôle and progress of general economic theory.

Trade-cycle theory belongs right at the end of economics, a fact which was very pertinently expressed by Böhm-Bawerk. As a formal discipline, it must incorporate the whole of prior economic analysis of which it represents the quintessence as applied to the phenomena of fluctuations. The more complete this analysis is, the more complete can trade-cycle theory also be. If the analysis undergoes important changes, if new knowledge is acquired, then trade-cycle theory will be correspondingly affected. It will be subject to a continual process of transformation as general theory develops. Nowhere else, of course, is there such scope for decisive progress as here where the work of innumerable investigators is helping to lay the foundations. The fact that all theories in the main body of economic analysis are relevant to trade-cycle theory further indicates the *general* character of trade-cycle phenomena and of the formidable obstacles that must lie in the way of applying the methods of partial equilibrium. Trade-cycle theory would in principle be associated with the methods of general equilibrium (in so far as there is no objection to be raised against the whole idea of general equilibrium). Earlier exposition has shown the problems arising in the application of a theory when the data lack homogeneity. Trade-cycle theory represents the extreme of this situation and this makes its problem of application different from the general problem, although the difference is purely quantitative in kind. There are, however, cases—as we know from other sciences—where the quantitative shades into the qualitative.

The position of trade-cycle theory as an interpretation of the phenomena of fluctuations will differ according as it can or cannot be proved that the cyclical movement follows a strict rhythm with cycles taking place within a fixed number of years and with the causes remaining the same from cycle to cycle. So far, however, no such proof has been found possible. This is no reason for underrating the importance of trade-cycle research. It will never be possible to establish a fixed rhythm of the trade cycle and it signifies a serious misconception of the possibilities of trade-cycle theory when layman and scientist alike attach these expectations to it. How incorrect such a view is becomes all the more obvious when the authors hold theories according to which the causes of industrial fluctuations are to be found solely in the monetary mechanism of the economic system. This idea may be correct—that is no concern of ours here—but it excludes fundamentally the possibility of a regular rhythm. This could only be the case provided it were possible to discover one *single* cause and provided this were of a natural kind (such as a rain cycle, an astronomical constellation, &c.). Since no such single natural cause can be found, the attractive theories based on such assumptions, even in quite recent years, must from the outset be dismissed from the scope of these considerations. As a matter of economic policy, such explanations of the trade cycle would be ideal, for the conclusion implicit in them is that no measures whatsoever could be taken against these industrial fluctuations so long as it is not within the power of man to change the weather, to change the course of the stars or to prevent sunspots. All conceivable correctives of the course of economic affairs would then be of the nature of the system of corn storage as practised in ancient times. If, on the other hand, the alleged single cause is determined by human action, as, for example, by the note-issuing banks, the situation is quite different. This is evident from the melancholy fact that in periods of crisis and depression the governments of many countries have, unfortunately, been able—we have only to think of the course of the recent depression in America, for example—to take successful measures *against* a recovery.

If then the convenient hypothesis of a *regular* cycle falls to the ground, there remains only the possibility of explaining the course of the cycle, with its recurrent booms and depressions, anew for every case and of allowing only for a loose rhythm. This does not necessarily mean that it is impossible to formulate and apply any *theory* at all, but only means that this theory must exhibit a lesser degree of internal consistency than the general economic theory on which it is based and of which it is the continuation and the offshoot. The number of variables involved becomes so large as to be sufficient in itself to cause a different distribution of emphasis in successive historical cases. A change-over of determinants takes place because the emphasis of the facts has shifted. All these circumstances must be taken into account by trade-cycle policy. Here it is even more necessary, than in the cases discussed earlier, to develop the theoretical analysis *ad hoc*. Often this need only take the form of constructing new combinations of already known and available elements of a potentially general trade-cycle theory. How closely this fits in with reality is evidenced by the high correlation between the progress of trade-cycle theory and the actual course of the depression. This " progress " is, in part of course, only relative, in that while it may indeed contribute to the better elucidation of the sequence of events which stimulated it, it still does not promise to represent more than one stone in the mosaic of all theoretically possible variants of the theory of the trade cycle. Thus the formulation of a new variant of the theory gives no assurance that in the course of the next depression we shall be able to appeal again to this same theory rather than have to fall back on a much older variant.

The conclusion that trade-cycle theory is in this sense subject to a continuous process of transformation and that the procedure appropriate to it is essentially a development of casuistry, means the death-blow to all schemes—to which there are also objections on other quite general grounds—of rigid trade-cycle policy. The idea that, if we want to base trade-cycle policy in some way or other on economic theory (that is, to give it a rational foundation), we can do so by formulating a single recipe guaranteeing a patent and rapid swing-over from the depression to the boom is obviously absurd. Such inapt conceptions do not merit further concern and we may pass on to the examination of the effective possibilities, positive and negative.

The considerations on economic policy so far outlined have been of a purely formal character. Two statements of a more factual nature can however be made which, without contravening the principle of keeping scientific economics free from value judgments, help to clarify both the positive and the negative sides of the argument. *Firstly* we should keep in mind the following: Trade cycles in modern economic life are phenomena of an international character. They spread from country to country by way of the trading relations of every conceivable kind which subsist between these countries. International trade, however, means international competition, even when every country applies itself to the production of only those goods which fall to its lot under the full application of international division of labour and when no other country competes with exactly the same goods on a *common* third market. The competition is in that case a process taking place inside the country, and through it is determined whether the so-called " real terms of trade " turn out in favour of the country or not, and so whether they correspond to its international position; in other words, whether it is in a position to obtain large quantities of foreign goods in exchange for small quantities of its own. When permanent changes take place in any country—we are thinking here not of cyclical movements but of changes due to an alteration in the technical conditions of production, for example—other countries are likewise affected by way of the terms of trade. The widening of markets gives rise to a much closer connexion than formerly between different producers. The Canadian farmer secures an advantage from being able to sell his grain in any of the countries of Europe against which he must balance the circumstance of having to reckon not only with the direct competitive factor of the returns and production costs of the European grain producer, but also with the risks associated with changes in the structure of industry in Europe (such, for example, as an altered distribution of purchasing power and demand, a shift of demand from grain to other agricultural products, European tariff policy, &c.). The inhabitants of the older countries of Europe for their part are generally even less inclined than the American farmer to accept the risks to which they are correspondingly exposed, although they want to have the advantages of the larger market.

It may happen that some one country, though similar in structure to another, feels the effect of an industrial revival earlier because it has been fortunate enough already to have secured an adjustment of costs to the lower prices of the depression and so to have eliminated the expectation of a further fall in prices as a factor making for depression. Now a second country can only follow this first country and pick up and take advantage of the impulse emanating from it if it proves to be *flexible* in like measure. Different economic systems are, however, as is evident from experience, of varying flexibility, and this is undoubtedly one of the reasons why some countries succeed in making contact with an incipient world-trade cycle much more rapidly than others, quite independently of the *positive* conditions which may prevail in the various countries. So far as it is to be presumed that the people of a country wish to share in the improvements of the general economic situation, one may deduce a maxim from what has just been said which, if followed as a long-run policy, would give prospects of an increase of general economic welfare. This maxim is that in periods of depression every effort should be made to increase the flexibility of the economic system. This obviously includes getting rid of all the rigidities which so easily develop in the boom period, diminishing the power of monopolies and cartels of all kinds, reshaping budgetary policy, removing as many as possible of the rigid factors in costs or at least damping them down to the minimum technically achievable, &c. In this way business prospects may be improved without any influence being exerted on the material composition of the objectives aimed at except in so far as they are indirectly affected by way of the change in distribution of income which is generally bound up with measures for increasing flexibility. The individual entrepreneur can, however, in no case do more than include this as a kind of datum among the things he bases his decisions on.

The *second* general observation of the kind mentioned which can be made in regard to trade-cycle policy is closely linked up with the first, and is, if anything, more important. At the same time, since it appears to find practically no echo at all in the practical decisions of economic policy, there is additional reason for giving it its proper emphasis. What is referred to here is the fact that adjustments of this kind, even the most fundamental—which are, of course, always associated with material sacrifices—can most easily be effected at the *bottom point* of a depression or crisis. However paradoxical this contention may seem, the reason for it is not far to seek. It is explained by the fact that in an economic system which has reached the bottom point of a cycle so much capital has already been written off that this fact itself gives the incentive for adjustments going far beyond those necessitated by a short-lived crisis. The inflated figures of the boom period give a deceptive idea of the value of industries whose existence is perhaps dependent on extremely high tariff protection. The small value which these industries show in periods of depression, despite all protective measures, makes it comparatively easy to decide their fate in a manner which, indeed, means for them a permanent contraction or even complete stoppage of their activity, but which gives such a stimulus to all industries dependent on their products—which become cheaper as a result of the removal of the tariff, for example—as many times to compensate the loss. The importance of the changes may, for instance, be measured by the number of workers employed and by changes in the value of capital invested, although this does not, of course, give any " scientific " justification for them.

This argument applies in greater measure the more prominent the position in the general economy of the more important raw materials of production, such as coal, iron, steel, tin, yarns, &c. So long as the necessary impetus is present for getting rid of psychological and pseudo-moral obstacles, fundamental reorientations of economic policy can be best effected in periods of economic depression. In fact, however, what usually prevails in these periods is a wild confusion of mutually inconsistent measures especially in the sphere of foreign trade, measures which are, moreover, planned for a very short period only and are perpetually being succeeded by others of even shorter duration. Contemporary events provide a shocking example of this in most countries.

The type of adjustments referred to here belongs to the sphere of a reorientation of the productive structure in industry and agriculture. They do not proceed from the initiative of individual firms, for the task of these has been fulfilled when they have adapted their production plans to the existing or perhaps anticipated data, whereas it is a question here of what may perhaps be called the setting up of the *outer framework* of data. The contention that this kind of change in the economic structure can take place most easily in time of depression leads to the further conclusion that the longer a boom lasts and the more violent its character, the greater will be the extent of rigidity introduced into the economic system. This is so despite the fact that the boom period is characterized by the setting up of new factories and the extension of old ones. Such changes as these take place exclusively on the foundations left by the liquidation of the previous depression, whereas the phenomenon now being considered is a reshaping of the foundation itself. In other words, the sharper and the faster the boom, the more slender are the possibilities of securing effective recognition of the new place which the given economic system holds in a fundamentally changed world-economic order. Consequently, it is the economic boom itself which often turns out to be the greatest hindrance to the taking account of long-period conditions of the economic system. To pursue further the theoretical aspects of the interconnexions here indicated would lead to a number of problems which are extremely inconvenient from the point of view of the methodology of business-cycle research and which, unfortunately, play very little part in current expositions.

There is yet a *third* problem, or rather group of problems, which is of very considerable importance for trade-cycle policy. To make its meaning clear, a brief observation on trade-cycle theory is necessary. As already indicated, despite the difficulties connected with the concept of the trade cycle here enumerated, it is, nevertheless, clear that the causes of the crisis and of the depression following it do not originate in the period immediately preceding the actual crash but operate throughout the *whole* period of the boom. The germ of the crisis is already sown in the moment when the economic system raises itself above the level of the depression in greater degree than corresponds to the trend factors (increase of population, diminution of the death-rate, &c.). The greater the strength, and especially the speed of the boom, the more nourishment does the first crisis germ receive. It is evident then that a rational trade-cycle policy should be directed toward preventing the boom from becoming too marked and toward cautiously damping it down. If it can be shown that a credit expansion leads to a rise on the securities market, then credit restriction and the raising of the rate of interest will offer a suitable method of putting on the brake. If it is discovered, for example, that an overestimate of an increasing foreign demand due to incorrect information leads to increased investment by *every* individual producer to an extent corresponding to the total increase in demand, then information as to the real circumstances, as well as consultations of the entrepreneurs among themselves, will help at least to delay the extension of productive capacity. These examples could be increased indefinitely.

The enormous opportunity which an incipient boom offers for rational economic conduct goes still further afield. It has become apparent in the present world-economic crisis that one of the principal factors making for its protracted duration lies in the extraordinary height of State budgets and social charges (both being taken in the widest sense). These two factors lengthen the depression because they become higher absolutely, and still higher relatively, the more prices fall. At the same time the political conditions for the reduction of these charges become the more unfavourable the smaller are the prospects that dismissed State employees can be absorbed by private enterprise. If State employees receive a pension, this provides but a limited and slow working relief of the burden of expenditure. Furthermore, the proportion of production costs accounted for by State expenditure and social charges forms the absolutely most rigid element in the whole cost system, so that all adjustments appropriate to a policy for the trade cycle, discussed above, are long delayed if not impossible, the result being a continuous process of capital consumption. Accordingly, the smaller the charges imposed by State expenditure on production, the easier is the adaptation of the economic system to the rise and fall in economic activity, and the smaller are the actual fluctuations in economic activity. (Of course, it would be a grave mistake, as should be evident from the study of public finance, to regard *every* tax as a charge on production.) The burdening of industry with taxes and charges of all kinds, which have risen to many times their pre-war level in almost every country, may have not a little to do with the very special gravity of post-war crises.

The art of the statesman in face of such a concatenation of things will have to consist not only in making a virtue of necessity, but also in exercising this virtue more especially in the fat years. It will not be possible to go on indefinitely augmenting budgets, raising salaries and giving better conditions of employment; that would be possible only if the boom conditions lasted for ever or if these changes were limited to the movement of the trend.

The general experience is that all achievements in the way of economies and simplification made at the bottom of the depression are abandoned at the moment when economic recovery has progressed beyond its first beginning. The foregoing analysis has disclosed a principle of trade-cycle policy which is remarkable for its simplicity and ready for application to all practical cases, based as it is on principles of public finance which are all along of a predominantly concrete character. This principle—especially in association with the two others mentioned previously—has the great practical advantage over almost all other proposals for trade-cycle policy that it fits in with every tolerably reasonable explanation of the trade cycle. It would, of course, not be very acceptable to the "expansionists" who look to large deficits to "keep the wheels moving."

In this way the principle helps in some measure to cover the *special* problem of trade-cycle theory which is otherwise so exceedingly difficult and which falls outside of the problem of application dealt with up till now in this essay. It may be noted also that the rule is of a general politico-economic nature. Not only is it applicable to cases of oscillations and disturbances of equilibrium; but it is indifferent whether the percentage which public expenditure bears to the national income is great or small.

The theory of international trade teaches that the kind of goods a country exports sums up all advantages and disadvantages in production; that is, only those goods find a sale in the world market which embody all the cost and other advantages present in the productive structure of the country concerned. The more markedly, for example, the various stages of production are burdened by taxes and monopoly profits, the fewer goods will that country be able to export, provided that the burden in other countries is smaller. An analogous case of the summation of all the existing advantages and disadvantages may be made out in the sphere of scientific analysis with respect to trade-cycle theory and trade-cycle policy. These synthesize all the advantages and disadvantages of the preceding stages of analysis. We have already mentioned the politico-economic difficulties which general economic analysis has to surmount at every stage of its development; and some of the special complications of trade-cycle policy have already emerged. It remains now to develop certain ideas which, apart from their general significance, touch on some of the newest flights in "pure theory."

So far trade-cycle theory has been almost exclusively conducted on the same level of abstraction as general economic theory. This is apart from the exclusively quantitative-statistical-descriptive type of trade-cycle analysis which, on account of its far too narrow connexion with a historical situation which occurs only once, could not arrive at propositions of general validity. There are more gaps among the stages between these two extremes than would seem necessary, judging by the position of general theory. Trade-cycle theory should, for example, take account of monopoly factors. Whether we consider the development of trade-cycle theory to take note of the fact that the economic system with which we are confronted in practice is not one of strict competition (as in the Paretian sense), as being on the same level or on a lower level of abstraction, is of no consequence. What is important is that work is being done at the present time along these lines in pure theory and that it is producing astonishing results. Thus even the applicability of what has up till now been the usual demand-supply construction (best illustrated by the highly developed cost-curve apparatus) has been called into question. This is sufficient to show that the developments in pure theory of which we are speaking are by no means of a trivial nature.

Such lines of thought also indicate how far removed modern theory is from classical theory. This is a thing that should constantly be impressed on the minds of the adherents of so-called " scientific liberalism " to make it clear to them in what untenable contradictions they have entangled themselves. It must be emphasized that the question here is not primarily a matter of taking account of the circumstance that the economic systems of the great commercial nations have become monopolistic. It is simply a question of creating an instrument of analysis for cases of imperfect competition or for those weak forms of competition which were present as types even to the mind of Ricardo or John Stuart Mill.

Even the classical writers should have been in a position to formulate, on the basis of their analysis, a law of price formation for the product of a small baker's shop instead of confining themselves to the simple case of the corn market for which perfect competition may be assumed. It is simple, and therefore fundamental relationships such as these that are in question. " The tendencies towards the development of monopoly " in modern economic systems mean nothing else than that an increasing number of markets, which previously approached the ideal type of free competition, begin to conform to the type of demand and supply configuration equivalent to the competitive position of the little baker's shop which competes with the baker at the next street corner for a narrow local demand. The apparent triviality of the example itself shows the importance of the advance which economic theory is in process of making but which has as yet made but little, if any, impression on trade-cycle theory.

Under the stimulus of the slow fall of the index of "controlled prices" (the prices of monopolized goods, cartellized and proprietary articles) compared with other prices since 1929, some attention has, indeed, been given to the application of pure monopoly analysis to the recent depression, but there is no sign of any systematic incorporation of such ideas into a *general* analysis of the trade-cycle. We have only to think, for instance, of the schematic exposition of the monetary theory of the trade cycle which leaves no room for these elements, a fact which gives grounds, so far disregarded, for considerably depreciating its significance.

Of course, the view of some circles, based on defective knowledge and often voiced only for political purposes, that there no longer exists any competition worth the name merits the most decisive rejection. Because people do not experience competition in its pure form they fail to understand that even if it has changed its form and its way of manifestation, it has, nevertheless, far from disappeared and often breaks forth with greater force and more unexpectedly than before. Denial of the existence of effective competition represents an offshoot of Marxian ideas and must be dismissed as false.

A second element of at least equal importance in the process of reconstructing general economic theory is the growing interest in the so-called "time factor." This was mentioned already in Chapter IV where reference was made to the way in which it complicates problems of economic policy. The position as regards economic theory is that the introduction of the time element leads to the discovery of new connexions between events, connexions which had previously been unobserved. Moreover, it appears that in spite of the discovery of these new connexions the economic process is characterized by a much higher degree of *indeterminacy* than had previously been supposed. Much can be said about the time element as it relates to trade-cycle theory. Here, too, a synthesis of the isolated fragments into a system of propositions is still lacking. The theorems relating to the time element must be connected up into a systematic whole before they are entirely relevant for trade-cycle policy and the same applies in other fields that are still new. We may look for a real leap forward in economic theory in the near future once these at present still disconnected fields are classified and linked up with each other from a single angle of approach. The time factor and monopolistic competition really have a great deal in common.

Closely allied to the time factor is the factor of anticipation and foresight. We are concerned here with the extremely important circumstance that all the single individuals in an economic system entertain certain views about the future. Without this element of expectation, the smooth running of economic affairs would be inconceivable. Now the difficulty is that the future is to everybody very largely unknown, but that at the same time it is itself dependent on, and partly determined by, these expectations, since they form the basis for the behaviour of the individuals. The degree of foresight varies from individual to individual according to his experience and environment and it has a different effect according to his position in the economic process. Add to this the fact that all the anticipation coefficients of the separate individuals are mutually interdependent and it becomes clear, even to the layman, what an extraordinarily complicated matter it is. But what is particularly troublesome is that economic theory has so far given very inadequate attention to it. It is not too much to say that nobody has yet gone so far as properly to formulate the problems involved. It is thus not known precisely how these factors come into theorems where so far their presence has been unobserved. Consequently, we can hardly talk of a real solution of the problem. Attempts have recently been made to introduce anticipations into theory, but in a very inadequate way.* We cannot yet know whether the rôle of expectations is greater in the movement of the trade cycle than it is under the rigid static relationships assumed in the construction of general theory. It seems, therefore, that trade-cycle policy has here a field before it of which we can only say at present that its potentialities are enormous but that it is, unfortunately, for the most part unexplored. A great deal more reflexion will probably be necessary before trade-cycle policy can be set on a more definitely rational basis in this respect.

The main defect of trade-cycle policy is not, however, due to the incompleteness of economic theory. Even more important is the problem how far the concrete historical *instance* to which trade-cycle policy has to apply, as, for example, the situation in the United States in 1933, can be made the object of learning and experience. Reference has already been made in Chapter II to what was called "every-day experience," that is, the experience gained gradually by everybody through his daily life. It was pointed out that such experience may afford an excellent basis for certain branches of theory, as, for example, the theory of the simple economy (or in other words value theory), but it is far from an adequate basis for decisions of

* Compare references to articles and books in the appendix.

economic policy. Otherwise there would be a peculiar disparity between the elementary character of the experience and information and the refined nature of the instrument (in so far as this is given to us in the form of advanced economic theory). Every-day experience must be amplified with the aid of history and statistics. The practical importance of statistics in our daily life is seldom fully realized. It may, in fact, be said that our social existence as a conglomeration of millions of human beings would become impossible in the moment when statistics in all their forms were to be removed from it. Such statistics are, indeed, needed in all possible forms for economic and trade-cycle policy. There arises, however, the following difficulty.

Only such things can be statistically analysed as can be somehow measured in the form of figures. However many elements in economic life may be of this kind, certainly not all are so. Moreover, it cannot be assumed in advance that the processes and events which are possible of description in terms of figures are also really more important than those that are not statistically measureable. It is, for example, impossible—which means in this case *inconceivable*—to determine the feelings and expectations of individual economic subjects and entrepreneurs in this way. These feelings and anticipations play, however, an important rôle in the course of the trade cycle, a rôle which so outstanding an economist as Professor Pigou holds to be so great—and certainly not without much justification—that he sees in these factors the *leading* cause of industrial fluctuations. A striking proof of the enormous importance of the psychological factor is given by the course of the depression in the United States especially since the advent to power of President Roosevelt, and yet this element cannot be measured statistically. All that we can do is to show laboriously *ex post*, by way of the repercussions it causes, that it existed at a *previous time*. In the moment when it is desired to adopt a measure of trade-cycle policy, there is no reliable quantitative material available relating to it. This is perhaps the easiest way of all of demonstrating that the totality of economic events cannot be portrayed statistically. But there are still more important grounds. Economics is not in the same position as mathematics where, for example, if we take a sphere, for every point in space outside the surface of the sphere a point can be found on the surface of the sphere itself which determines this point in space. A description of this kind is theoretically possible without more ado; it can even take place in a " one-one relationship " as the most up-to-date mathematical analysis has shown. To set about it in practice, on the other hand, would give rise to insurmountable difficulties by reason of our not being in a position to construct the necessary apparatus. When we speak here of the difficulties of statistics, however, we are not thinking of the analogous difficulties of collecting the figures, of having to classify them and above all of keeping them up to date, but of their inherent difficulties even if all the other obstacles were surmounted. There are, however, such obstacles as never can be surmounted. Consequently, economic policy must always remain unexact.

The enormous difficulties which have to be faced are attributable once more to the time factor of which Alfred Marshall has justly said that it is to be found everywhere where there are unsolved and frequently insoluble problems. It would mean penetrating much too deeply into theoretical economics and would, therefore, be too much of a digression were we to go into a more detailed exposition of the influences of the time factor in respect to this group of problems. It may suffice to point out that the difference introduced into economic data by time, as compared with the conditions of the economic system which seem to rule according to the picture portrayed by the figures as such, can never be described—or in many cases at least not with any tolerable degree of accuracy—in terms of statistics. In price theory I have designated the properties of the most important economic quantities in this respect, their " time qualities." The demonstration that these are not explicit but are only deducible from other premises (empirically obtained, of course) has not been challenged.

The most serious misuse which has been made of business-cycle research are the attempts at " scientific," detailed " economic prognosis." These have been made on the basis of an attitude which is anti-theoretical and, consequently, entirely misguided as to the uses of statistics, and have rested on the appeal to a completely mistaken empiricism. It must be emphasized, to avoid misunderstanding at the outset, that the kind of prognosis to which objection is made does not of course include that which is implicitly made when any particular theorem is being applied to a concrete case under the strict assumption of *ceteris paribus*. This kind of prognosis takes place in every science that has any connexion with empirical events; it raises no *practical* problem as long as it proves possible to isolate the initial conditions and so long as there is assurance that the latter do actually remain constant throughout the period under consideration. In this case it is simply a question of the application of scientific analysis pure and simple: *this* situation is the same for all sciences. The special difficulties which economics presents in this respect have been made only too clear in the course of the preceding analysis. We shall not go into them further here, but shall only add a few words on general economic prognosis.

It is understandable that people should be curious as to how the trade cycle will develop. The idea behind economic forecasting—apart from the forecasting which was carried on and followed in business in America—was more exactly that it should serve as the instrument for a general "stabilization" of economic activity, more particularly of the price level. The course of events in the recent depression has somewhat discredited such ideas of stabilization everywhere, except in the United States, and the false hopes raised by attempts at economic prognosis have likewise suffered a setback, but only temporarily, since they push their way again into the foreground with the growing popularity of the idea of a monetary system based on an index number and similar things that are even worse than economic prognosis.

Every economic prognosis must needs be based on the discovery of symptoms which in turn stand for more fundamental causes. The analysis of symptoms would, therefore, need to be in complete harmony with general economic theory. That this is not the case follows directly from the circumstance that theory belongs to one of the high planes of abstraction spoken of previously, whereas the symptoms belong to a completely different, that is, *historical,* plane. To revert again to the monopoly theme, the facts are that trade-cycle theory describes the movements of a purely competitively organized system of equilibrium and reality diverges widely from this ideal schematic description by the presence of all types and varieties of monopoly. Even if the set of symptoms used for describing economic changes should harmonize, it is still not directly suited to theoretical purposes. This would also seem to be the real reason why the adherents of the mere statistical type of business-cycle research were unable to make much use of theory and therefore betook themselves to an emphatic denunciation of it, only, however, to make practical claims for the "practical economics" they had in view which placed the most daring dreams of former theorists in the shade.

Since prognosis must work on the basis of symptoms, it becomes necessary to distinguish between primary and secondary symptoms according as they lie nearer or farther from the real causes. It is often just the secondary symptoms which, even if they occur at a later time, make themselves most visible and, therefore, enlist the attention of economic politicians. Economic policy is often conducted for a long time entirely on the basis of these secondary symptoms although they are not always indicative of the forces operating most actively. Thus, for example, if the unemployment insurance fund shows a deficit, the responsible authoritv corrects this on the basis of quite secondary economic conditions instead of investigating the state of production costs generally in the country concerned and aiming at improving the finances of the insurance authority by way of making a *total* adjustment adapted to these much wider conditions. Such a procedure is quite understandable: but it illustrates the fact that the prevailing tendency in the conduct of economic policy will be to " treat for symptoms ": the course of the recent depression, at least in its earlier stages in all countries of the world, provides a glaring example of this.

I dealt in detail with the whole range of the extremely difficult and complicated problems that crop up in connexion with economic prognosis some years back in a special monograph (" Wirtschaftsprognose," Vienna, 1928). I have nothing essential to add to-day to the arguments I advanced at that time, although the march of events in the years between and the new developments in economic analysis would make it possible to reformulate certain statements, yet without changing any of the basic theses.

I shall, therefore, here content myself with the few short remarks above and for the rest may refer the reader to the special study on the subject, the conclusions of which I still maintain.

To sum up this discussion, we may say that the propositions formulated at the beginning on the *special* problems which trade-cycle policy raises over and above the problems of general economic policy are confirmed both in theory and practice; its special features are evident the whole way through. We reached this conclusion without making more than quite small excursions into the field of trade-cycle theory, thus digressing but little from the main theme of this exposition which is concerned with the formal relationships between theory and practice.

Nevertheless, there is no cause for regarding the situation as in any way hopeless. It is the aim of this essay to mark out the limits to the application of economic theory, in the first place, and so to secure that, within the field thus won, theory may come fully into its own. There is nothing else that can replace this science: it possesses an exclusive monopoly. Neither can it be pushed out of the saddle by the large group of people who fall a prey to the dangers which economics holds. In what these dangers consist will be treated in the next chapter.

CHAPTER IX

The Dangers of Economics

" You take for truth only the maddest miracle "

The manifest services of the natural sciences, medicine and technology have gradually given rise to a belief in a certain curative effect of science. Occasionally, however, faint signs are to be detected which seem to testify to certain dangers of science and of its doctrines, dangers which always exist when the particular science is misunderstood or wrongly applied. But these signs are usually confined to a narrow sphere which is well guarded by the science. In medicine there is the prohibition of quack practices, in astronomy there is a strict bar on astrology and not infrequently it is forbidden to make prophecies based upon it. Such mistaken applications of scientific knowledge or the formulation of non-scientific propositions which laymen are prone to take for scientific have always been a source of serious trouble to sciences which suffer from being intentionally misused or whose significance is often completely misunderstood. It has not so far been suggested, however, that economics might also belong to this group of sciences which are protected to a certain extent by legislation. Economics will probably never be able to acquire such a privileged position and will always have to remain particularly exposed to charlatanism. The purpose here is to examine this situation in somewhat more detail. Such an investigation is the more profitable, since scarcely anything of the kind has been done, and it casts illuminating sidelights on the most crucial problems of the social sciences. The word " dangers " is used in a double sense of the dangers to which the science itself is exposed and those which arise out of it—grossly misunderstood and misinterpreted—for the user.

One of the foremost dangers to which a science is subject arises out of its lack of perfection and completeness. This is a condition which must always exist so long as there is still room for any scientific progress, and all empirical sciences will find themselves in this condition since the problems which are brought before them in the world of reality are never-ending. Only a purely *a priori* deductive science which has nothing to do with experience could *theoretically* (or so it seems, at least) emerge from this state and could in fact do so if there came a supermind which succeeded in thinking the whole science out right to the very end. For many centuries it looked as though logic had actually achieved this state until suddenly a few decades ago it appeared that even here not all the possibilities were exhausted and so to-day we are witnessing a great process of reconstruction of the science of logic, a thing that Kant would have thought impossible. The development of modern logic during the last decades will prove to be of the most far-reaching importance for all sciences even if it has not proved so already. But it has other less convenient consequences: " A universal logic which, on the basis of a few principles, can provide the solution to all conceivable questions, and of which Leibniz dreamed, cannot exist " (quoted from Karl Menger, " Die Neue Logik " in " Krise und Neuaufbau in den exakten Wissenschaften," p. 112, Vienna, 1933). Consequently, the chance that we can ever reach such a condition of rest in any other science, even mathematics, is exactly nil.

Economics, since it is a young science, is liable to changes in particularly large measure. Those few authors who deny it the character of an empirical science in their endeavour to lend to it the " higher " value of an *a priori* science are in a most unenviable difficulty, because, on the one side, they cannot and do not want to deny the progress of theory and, on the other side, they see in it a serious challenge to the validity of the inferences regarding economic policy drawn from that allegedly *a priori* character. There is every cause, however, for leaving them to their plight. An additional point of importance is that every one of the authors who adopt this attitude must *quasi ex definitione* be convinced that anything he personally has published on any topic of economic theory must be the last word on the subject. *A priori* theoretical economics does not exist and even if it did exist it would have nothing to do with the formulation on a scientific basis of economic policy and programmes of economic policy.

Lack of completeness of scientific knowledge entails also the possibility that single statements and axioms may be mutually inconsistent. So far as concerns theoretical investigation, the discovery of such an inconsistency is always the point of departure for obtaining new knowledge. So far as concerns the practical application of scientific knowledge, the mere suspicion that the prevailing doctrine may contain inconsistencies is a particularly serious hindrance when there are various aims to choose from springing from conflicting interests and in the selection of which the practical possibility of a means has played a decisive rôle. Even more difficult is the case where there is a choice between two or more ends and this choice is governed by the condition that a previously prescribed technical means must be employed in the attainment of such ends. If such a case gives rise to inconsistencies from the scientific point of view, the choice can only be made on the basis of extra-scientific factors. There is no doubt that from the theoretical point of view these gaps in completeness are very significant, but upon closer examination they prove in very few cases to involve matters which are of *direct* interest for the problem of application. Here again we are helped out of the dilemma by the circumstance that economic policy is mostly a matter of dealing with very broad events (with the possible exception of monetary questions in periods of stability). It follows that the already oft-tried rules of thumb, of which we spoke further back, are not particularly exposed to dangers of this sort, a fact which provides an added incentive for being highly suspicious of all revolutionary proposals in economic policy. With respect to such revolutionary proposals, about which we shall have a few words to say presently, the endeavour should always be to reduce complicated plans and ideas to the simplest possible propositions and in this way to demonstrate what economic axioms lie at the basis of them or—much more frequently—with what axioms they conflict. Moreover, it has already been proved that the extra time which may be entailed by more careful analysis and deeper thinking will be amply rewarded.

It may be concluded then that there is no need to exaggerate the inner difficulties of economic theory. The world to-day would be much better off if the all too numerous individuals who laugh at economic theory, selecting it as the object of their petty scorn —and among them are many who are responsible for economic policy—were only in the position of being able to work through and understand a serious book on economics. The real difficulties and great dangers confronting economic theory are in fact closely connected with this deficiency, but they have their roots in a sphere of life which is entirely outside of science and its practice. This is not to say that scientists themselves, as single individuals, merit no share of the blame for the situation about to be described. But if this is the case, it is because they are not merely abstract scientists, but are also, simply in their capacity as human beings, politicians, party members and so on, and do not possess the necessary moral and intellectual qualities sharply to separate these capacities from their scientific sphere. If the will to do this is lacking, then they sin against the fundamental laws of science itself.

The danger on which we have been commenting is contained in the views and opinions aptly described as the economics of the man in the street, or amateur economics. It may facilitate the understanding of what follows if we pause here to make some further remarks on the special difficulties of economics. Reference has already been made, in Chapter VII, to some of the peculiarities which complicate the study of this science. The greatest difficulty which economics entails for the layman is probably (*a*) the necessity of submitting to the stringent discipline of difficult analysis; (*b*) the large number of relationships and data that have to be considered even in the case of the most elementary and commonplace economic proposition.

The large number of possible combinations to which this gives rise makes it very difficult to formulate general laws and rules which are simple and yet something more than truisms. There is no doubt that the layman and the practical man is less capable of taking up such a science, in which the number of factual things which can be *learned* is very small, than he is of taking up most of the other sciences. But this is where one of the most characteristic features of economics comes to light. It has a high value in the sense that it applies a special *technique of thinking* and represents a distinctive type of *training of the mind.* What we are taught by the study of economics is not so much concrete statements which can be taken home in black and white as how to tackle a problem and apply tools which have already been used in similar problems. The emphasis is consequently on the technique of thought and analysis. It is probably, therefore, no mere accident that questions of methodology play an important though admittedly often exaggerated rôle in economics as, indeed, they do in all other social sciences where the situation is similar. The handling of this method of procedure requires a great deal of practice and skill neither of which can be gained in a short period of time. The person who occupies himself with a science only for amusement and out of general interest will consequently find economic theory a particularly unsatisfactory and inhospitable subject, because it does not lead to tangible results until after a long time. A short study of the fundamentals of mechanics or the facts of astronomy, on the other hand, is sufficient for a tolerable understanding of the doctrines of these disciplines, although the difficulties of these sciences are not to be underrated.

The other obstacles which are continually cropping up in economics may be classified under two heads: those which are created consciously or unconsciously by the professionally trained students of the science and those which are created by laymen. We shall consider the first type separately: all the rest fall within the category of lay economics. On the peak of all the possible mistakes which the professional economist can ever commit stands the identification of economic theory with some particular form of application, the use of scientific propositions, which are supposed to contain nothing but pure knowledge, to support the ideas which rule in social groups or classes, in political parties or similar places. The analysis of the whole of this essay is intended to show that economic theory is free from any such association, so that any more explicit negation of misuses of this kind should be unnecessary. To the same category belongs the thesis that a certain economic policy must be associated with a certain form of organization of world affairs, as, for example, that economic liberalism presupposes as an indispensable prerequisite the most general political liberalism. This is a thesis which is very frequently advanced by scientists but has never been *de facto* proven. If such views were advanced by politicians—who consider such a situation as worthy of seeking or as deserving of condemnation—the harm would not be great, but there are economists of high rank who are the first to introduce such ideas into the political field and so, of course, quite automatically make the science the sport of political interests.

Reference has already been made in another connexion to the exaggerated expectations, often promoted and acclaimed by professional economists, which are frequently attached to the mere existence of a very modest group of economic theorems. They are mentioned here again only for the sake of completeness. Not the least important factor in leading the general public to expect too much from this science is the unwise and sometimes positively harmful behaviour of many economists who have a ready-made answer for every concrete situation without further reflexion. The public demands more of economic science than the present state, or any conceivable future state of knowledge allows it to give. Then when hopes turn out to be illusory, the mood veers round to the other extreme. There can hardly be any other science which is exposed to such oscillations of estimation. But this is a situation which can and should be changed.

The attempt made in this essay to mark out the limits of economic policy renders it necessary to give repeated warnings against all kinds of exaggeration. But only the superficial reader could interpret this procedure as an unqualified denunciation of economic theory or rather of economists. On the contrary, the aim is to secure that economics may be able to hold its own on its own proper territory. This aim would be reached if we could imbue all those who talk and write about economics without understanding anything about it with the conviction that they understand *nothing* about it. In other words *in rebus economicis* people must be brought to the "socratic point." There are, of course, many reasons why it is improbable that this end will be lastingly attained. The existence of amateur economics is consequently of the greatest practical importance: it represents the most grievous danger at once for economic science and for economic policy. The danger is especially great in the case of the latter because the circles in which the ideas of amateur economics are current are usually in closer proximity to practical life and political activity than can be said of the professional economists.

In order to isolate what is to be called "pseudo" or amateur economics it is first necessary to know the opinions prevailing among the public as to the definition of an "economist." Unfortunately, the public is in this respect very generous. This is particularly true of Anglo-Saxon countries where everybody is called an "economist" who has any chance connexion with economic affairs and the explanation of economic relationships. A doctor is easily recognizable, but none of the usual criteria (a doctor's degree or published work) suffices with the same infallibility in the case of the economist. Consequently, if "the economists" as a body often enjoy a bad reputation, this is mostly because some quacks or other are taken for the real guardians of the scientific tradition. The celebrated saying (for which Mr. Ramsay MacDonald is supposed to have been responsible and which he is said to have aimed at an English author of international repute) that four economists present four and, in the presence of the said person, even five opinions at the same time, casts a dismal light on a lamentable situation. The longer one stands by and allows such ideas to become fixed in the minds of the public, the more will confusion correspondingly reign in setting the aims of economic policy. Among "real" economists the differences in the explanation of any given economic situation are much smaller than the variety of cures recommended by the doctors, although the public surrenders to the latter, even one after the other, with complete naïvety and perfect confidence.

In the esoteric circles of "pure theory" the division between real science and amateur economics is quite clear: the occasional outbursts from outsiders, especially people trained in mathematics and engineering, who advance monstrous ideas, does not alter this to any great extent and is not a factor causing any considerable disturbance in the pursuit of the science. In public life where this division is not achieved the existence of amateur economics is the more significant for the reason that it contributes to the *setting of the aims* of economic policy. It is not necessary—and will only occur in infrequent cases—that sponsors of economically spurious ideas and doctrines should deliberately, out of malevolence and self-seeking, make use of seemingly plausible explanations of economic relationships to lend support to economic measures based on these explanations in order to secure special advantages for themselves. In general, people who want to increase the amount of purchasing power and yet do not want it to raise costs, who want to give unlimited amounts of credit without jeopardizing the stability of the currency, who want to create new employment without interfering with employment somewhere else, who place restrictions on imports but would like to stimulate exports, who want at all costs to balance trade on a bilateral basis and only to buy from those who buy from them, and all the thousand and one madnesses of that kind, genuinely believe that all these aims can be achieved simultaneously and that there is an unobjectionable way of reaching them. These people are not malevolent but simply ignorant

—though, so far as end effects are concerned, it is, of course, the same thing.

All amateur economics claims to be what real economics necessarily is: the explanation of connexions between facts. Since then both intention and subject matter are identical, but since there is a disparity of results, the impression is given that "the economists" are to this extent not in agreement. To the public the ideas of amateur economics are much more striking, usually because they contain something akin to magic. (For example: "if only *x* were being done then all human beings could obtain employment and have an agreeable life," where ultimately *x stands for something pleasant*). Since every person is in some way or other a producer or entrepreneur, or is at least connected with economic affairs, the incentives for all people to occupy themselves with things economic are strong enough never to permit amateur economics to die out. It may be presumed that the next decades will see an even closer drawing together of the economists than has already taken place in the past decades; but it would be false optimism to believe that amateur economics could meet with anything more than a slight set-back. Its persistence is of the most far-reaching importance, because, bv putting resistances in the way of the adoption of the measures necessary to reach a given aim, it causes a continual deflection of the course of economic policy something akin to the way in which the magnetic needle is deflected by the magnetic pole.

This tendency in economic policy is quite independent of all value concepts since it concerns only the defectiveness of the understanding or of the will to understand, and it is as inherent in any conceivable economic system as are the tendencies which were set forth in another place, tendencies which all work in the same direction, mutually strengthening each other. This trend, whatever outward show it may make of reason and reflexion, is essentially irrational. That is no doubt the reason why it has recently received such a strong upward impulse.

Another important factor is that the application of amateur economic opinions and catchwords (largely the latter), quite apart from their effect on economic policy, exercise the same kind of influence on the data as the application of *true* propositions about economic relationships. It can to-day no longer be questioned that in the sphere of social life knowledge once expressed is liable to shift the bases of that same knowledge, just as even in physics an experiment sometimes changes the bases of the experiment itself. This is a fact which has become of great scientific import. So, for example, amateur economics may be misled into interpreting the phenomena of an ordinary economic depression as the break-up of the economic system or "the end of capitalism" whereas in reality they are perhaps only the usual features of the downward phase of the trade cycle, *but should this view find acceptance,* it is bound to happen that a stone really will be knocked out of the foundation of the economic system which is being indicted. Even if the effect is not so far-reaching as this, it will at least lead to aggravation of the crisis or protraction of the depression. Every belief of mankind, whether true or untrue, whether correct or false, helps to shape the social world, since the latter is ultimately made up of human behaviour, and human beings act according to their *opinion* of how they ought to act. The investigation of these factors is not as yet at a very advanced stage and presents an important field for research which has close links with psychology and modern logic. It may be mentioned further that not only the persistence of amateur economics, but above all its powerful influence and driving force present a considerable hindrance to the mediation of economic knowledge and to its handing on to the rising generation. This hindrance adds itself, possessed of mythical force, to those which were enumerated previously and which are rooted in the very heart of economic policy.

We must now turn from this general description of amateur economics to a description of the specific characteristics by which it is recognizable. There are predominantly two of these: its methodological character, and its manner of manifestation. Let us take the first of these. To go into the specific content of amateur economics more than is absolutely essential would take us even further outside the scope of this essay than to go into the details of economic theory. In any case the hopeless confusion of the mass of propositions, assertions and claims of amateur economics is sufficient to prevent it. Yet it may be said that a book setting out the main body of " doctrines " of amateur economics would probably be the best seller of all the publications that have ever had anything at all to do with economic matters. Unfortunately, the majority of readers would give the praise that is due to such a collection without noticing that it dealt with quack science. It would be similar to the way people were deceived a few years ago when someone collected together in a museum all the rubbish imaginable with the intention of shocking the public. The visitors were for the most part wildly enthusiastic to acquire the various works of " art "! A museum of this kind does not take long to arrange if only one sets about the work with a little skill, but a *seriously* intended collection of amateur economics would at once come up against a serious and characteristic difficulty which upsets the whole apple-cart. The individual propositions would have to be interconnected with each other, harmonize with each other and accordingly be free from inconsistencies. Now this is—if they make any attempt to conform to the facts—*ex definitione* impossible, for the result could not be anything else than economic theory. Freedom from inconsistency is therefore unattainable in the sphere of amateur economics, and it follows that an application of these doctrines to economic policy can never give freedom from inconsistencies either. Amateur economics receives with this its condemnation, and it is imperative that all possible means should be used to defeat this pseudo-science and those who propagate it. On the burial of amateur economics there depends perhaps the whole material welfare, and together with it ultimately a good deal of the cultural and spiritual welfare, of peoples. This is justification enough for strong words, but perhaps the cause is best served by sobriety.

So much for the methodological side of the question. If we turn to consider the practical aspect, we find that here also, as soon as any sort of application of amateur economics is attempted, the crucial point arises when we come to criticize the internal consistency of amateur economics with its premisses, a criticism which, as such, is of course completely conclusive. It is essential that it should appear to have this consistency and that is why all its statements have to be alleged to possess such a precision that every question relevant to, or significant for economic policy can always be answered. There is no problem which amateur economics does not claim to be able to solve. In contrast to this, anyone who is intellectually honest will often find himself in the position of having to say: " For this or that situation we do not yet know of any solution, or any given solution carries with it a certain degree of uncertainty." Neither does the scientist lose one iota of his prestige by making such an admission, for every man is at liberty to test his whole chain of reasoning and to follow out the results of such a statement into the most refined ramifications of economic theory—even if it is an incomplete system of knowledge, as it seems to be to the critical eye. An amateur economist, however, who is on any single occasion misled into admitting that there is something he does not know, immediately provokes doubts which swallow up one by one all the propositions of his system of doctrines and opinions. That is why it is absolutely necessary to assert completeness. For science, on the other hand, there is no such obligation to assert completeness, certainly not when the incompleteness of scientific knowledge is admitted from the outset. Any system of amateur economics would of course have to belong to the same sphere of explanation, the same level of knowledge, as economic theory, which means that they would both have to be of the same level of abstraction.

Reference may be made here to an interesting similarity with the view explained and refuted earlier in this book, which asserts that economic theory is identical with a definite form of economic policy. We called this conception the " policy of the rigid systems " under which there fall those systems of economic liberalism and " scientific socialism " that are conceived in this way (not all of them are so conceived). In this one point there is complete affinity between amateur economics and the concept of the rigid systems of economic policy. Apart from the necessity arising out of the historical development of economic theory, these two systems of economic policy must on purely methodological grounds postulate the gapless completeness of their theses. This is in the last analysis only another way of looking at the concept of the rigid systems. If doubts as to the completeness were to arise, if it were conceivable that the liberal or socialist politician working on this basis might decide either for A or for B or C or for one eventuality after the other, then the basic axiom would become open to attack. It is important to emphasize that this limitation on the system is independent of all ideas and conceptions of social value or inferences therefrom. On the other hand, it must be pointed out that, as should by now be fairly obvious, there is a close formal similarity to *programmes* based on value judgments. Such programmes must indeed in all cases be "complete." A party programme, or a political idea, which lays claim to covering a particular sphere of social life must be prepared for *all* possibilities that may arise in this sphere. In value concepts this is always possible. No matter how little socialism or liberalism can be regarded as corollaries of the application of "the" science of economics—*nota bene*, apparently the *same* science for both—they are none the less feasible as *value systems* and as such they cease to be exposed to the paradoxes which were pointed out earlier on. In that case it is indeed logical for them to claim, or to let themselves be presumed to have an answer to everything, and always to have had such an answer ever since they have existed. These answers are value judgments and therefore of a political nature. They can be accepted or refuted, but never do they spring from an explanation of facts and of logical relationships.

We have now explained the methodological position of amateur economics and have demonstrated its untenability. For this purpose it was unnecessary to go very deeply into its content. It consists of nothing else than economic sophistry, half-truths, or at best platitudes. It is the playground and the Mecca of all the pseudo-intellectuals, it is the *demi-monde* of economics. This fact would be of very little importance if it were not for the circumstance that amateur economics holds sway over a large section of the press, of politics, and so of the whole of public life. Highly respected people, full of honourable intentions and keen endeavour, work untiringly, and without being conscious of what they are doing, to win new ground for it and to keep it from dying out. But it is necessary, even at the risk of hurting feelings and injuring vanities, to expose the protagonists of this pseudo-doctrine unrestrainedly. We shall now turn our attention to the second of the characteristics mentioned above, namely the way in which amateur economics finds expression.

Amateur economists are to be found scattered over all spheres of public life, but there is a preponderating group with fairly well-marked characteristics. The trouble is not that amateur economists have an influence on the framing of economic policy—every nation gets the economic policy which it deserves and desires—but what is so iniquitous is the attitude which these people take up against impassionate.

unbiased, scientific treatment of all questions. How lightly they cast aside explanations that are too complicated for them or which are disagreeable to them practically, as "*theory*"! This is the most pernicious and at the same time most ridiculous expression of condemnation that is used in economic life. And what *are* these people in reality? Quacks who hawk patent medicines, "pseudo-scientific bravados" who present their own interests in the name of the community, who bring out the oldest junk of amateur economics and, if they think it is time, hang a new label on it in the hope of thereby doing better business.

At the present time the world is living through a rare feast of these things, and the happy condition in which it finds itself corresponds throughout to the material and moral worth of the ideas that are promulgated, and the usefulness of the measures that are adopted. No better proof is needed of how completely uneconomic the policy has been in the last decade than the actual course of events. All the authority of the men responsible for it is destroyed: the ground gives way under their feet. But a particularly bad influence continues to be exerted by certain practical men, among these "economic politicians," who have managed their own firms so badly that they apparently infer the right from their business failures to discuss economic policy more than ever. It must be emphasized that the voices which were raised against this economic régime were few in number and lost in weight by the fact that those who opposed it had no powerful support other than reason behind them. The worst circumstance was, however, that for many years past. in fact ever since the war, the ruling administration has been so weak that the natural limitations which would otherwise have stood in the way of these pseudo-economic politicians have been entirely broken through. The higher authority of State purposes was not detectable because the State was misused in order to bestow momentary privileges on particular individuals.

It may not be out of place to emphasize at this juncture that economic policy is in the overwhelming majority of cases *politics* in the real sense, that is, that it adopts aims and methods which are dependent on *extra*-economic determinants. This is a fact which is unduly neglected in considerations of economic policy with the evil consequence that purely political activities—as, for example, the giving of a bonus to certain groups for the purpose of gaining the country's support for the government in office—are "explained" in terms of economic policy. It is entirely mistaken to try and attach such events to economic categories in any other sense than to describe that this or that effect results from such measures. It is a particularly bad mistake to call attention to the politico-*economic* grounds for such acts which are probably thoroughly justifiable politically. The purpose of justifying and giving reasons for them in this way is usually to hide the inner *political* intentions. In order not to let the real political motive become too noticeable, all kinds of embellishments are sought and the specious arguments which are advanced often give rise to a strange medley of ideas which could only deceive pedants. Here we cannot do more than remark how interesting these facts are from the sociological point of view. The probability that there will ever be any decisive change in these things is very small. Consequently, it should be the duty of everybody who is engaged in describing and analysing economic policy, everybody who writes or reads economic history, to take account of this factor and not to take things more seriously than they are intended. To do the latter would give a higher degree of determinacy to the economic process than is warranted and attribute a higher measure of rationality to economic conduct than belongs to it. The history of economic policy is thus inseparable from political history. There is, of course, no " scientific " basis for condemning the control exerted over the economic system by politics because it is the right of human beings to arrange their lives as they think they ought and can. Any other attitude would involve a definition of what is meant by " social value " and this goes beyond the confines of pure science.

There are, finally, two further fundamental statements which we are now in a position to make. The first relates to the degree of determinacy of economic policy and of the propositions concerning economic policy, and the second to the problem of the replacement of theoretical economics by other categories, either logical systems, or the learnings of experience, or autocratic decision.

The first proposition is one of considerable importance, but although it has not yet been stated explicitly, we shall not need to devote much space to it since it follows automatically from the analysis of the preceding chapters. The process of discovering that the determinacy of the economic system is *much* less than the quantitative systems with which other sciences have to deal (*e.g.*, mechanics, chemistry, even medicine) is sure to break more new ground in the next few years. Anybody who is thoroughly conversant with the latest developments of theory will not fail to find tendencies towards this already, even if somewhat veiled, in a number of the newer scientific theorems. The whole of the foregoing exposition provides a series of striking examples of this. But even if the position were more favourable, we should still have to conclude that no proposition of economic policy can ever be more, or even as definitive in what it affirms as the most formal propositions of economic theory.

This axiom is of decisive importance both theoretically and practically: it is the culmination of the whole problem of application and corroborates the statement that economic policy is an "art," and this indeed in something more than the narrower sense that the application of economic theory is all along associated with a process of filling up gaps. The validity of the strictest economic theorems is always dependent on the exact perception of the data, the rigorous adherence to them, and as complete an isolation as possible of the event under observation from all those other events with which it is in reality bound up. In the case of economic policy, no matter what the sphere, these same conditions can never be fulfilled to satisfaction. Consequently, propositions concerning economic policy must diverge from the degree of determinacy of theoretical axioms, at least to the extent that they are removed from these indispensable and most favourable pre-conditions. This is almost invariably in large measure the case.

It might seem as though this situation were only disadvantageous to the application of economic theory and that some substitute must take its place. Brief consideration shows that it would be no better for any other sort of economic policy based not on economic theory but, say, on amateur economics. This is under the assumption that the theorems of economic policy are built up on the basis of experience and that no other experience is obtainable than is available to the economist. This assumption accords with the facts. The "practical man" can then, *theoretically*, have no advantage over the theoretician, however much he may behave as if he could. The whole world of facts and practical activity is just as well open to the theoretician for his perception, his notice, and his study, whereas the opposite is not necessarily true. Of course, whether the theoreticians always make the effort to obtain the necessary experience is another question and there is no doubt that many of them have seriously sinned in this respect and continue to do so because it involves endless occupation with a never-ending process. To be fair, however, we ought always to place only the best protagonists of the various camps and viewpoints opposite each other.

This brings us to a complaint that is continually being raised by the practical man and the political world against theoretical economics—the accusation of "doctrinairism." This apparently means nothing else than a rigid adherence to propositions of economic theory and their continual repetition whenever theoreticians are called upon to pronounce on matters of economic policy. This may seem to be a sign that the theoretical economists are unable to keep pace with the march of time. The practical business man is caught up in the flow of events and is constantly having to adapt himself to new data. The economic politician is likewise always confronted by new problems and the whole of his activity or inactivity is overshadowed by the vagaries of politics. It is psychologically very understandable that both should be rather displeased always to hear the same things from the side of the economic scientist. These are things which, nevertheless, do not betray a lack of adaptability as the prevailing opinion contends, but actually give expression to immutable fundamentals, and what is a monstrous event for the practical man often represents for science only a typical illustration of a much more general phenomenon. An inflation, for instance, means a colossal disturbance of the whole existence of all those whom it affects, whereas for the theoretician it is unlikely to contain anything interesting from the standpoint of new knowledge. Consequently, he can do no more than repeat in the most appropriate way the statements previously formulated about inflations, even if this should get on the nerves of those who hear them repeated—it is not often that they understand them!

When protectionism and autarky are the fashion of the time, it may be very disagreeable to be told repeatedly that these policies lead to impoverishment and misery. People would like to hear something "new" for a change, and this is one of the reasons why amateur economics finds such willing ears everywhere. If it then becomes obvious in the course of time, that a new turn must be given to economic policy, there takes place in practical circles an avowed change of attitude, an exchange of the old-fashioned theories for the new. This has the appearance of "new learning," but is, however, very seldom anything to be learned. Meanwhile, economic theory remains unchanged. This particular accusation of dogmatism is thus unjustified. It is evidence only of discomfort in face of facts which are inconvenient at the moment, or else it covers up a feeling of inferiority which it is hoped in this way to remove.

There remains now the question of the possibility of finding a substitute for economics. It is easy enough to assert that economic theory has shown itself to be too narrow and altogether inadequate for the enormous tasks entrusted to it, and that for purposes of economic policy something must be put in its place. But what else is there or could there be? Amateur economics has already been ruled out as a possible substitute for economic science and cannot therefore provide the answer to this question. Amateur economics would only be a conceivable substitute if it could attain to a systematic structure of propositions about economics, and its dismissal—precisely for the reason that it cannot establish any sort of coherence between its single " axioms " or propositions and runs hopelessly aground with the mere attempt at doing so—means that anything else that there is to take the place of economics would consist in a series of disjointed fragments. This would be tantamount to complete anarchy in our reasoning, knowledge and conduct of life. Consequently, these possibilities are to be rejected as impracticable. There is no such thing as a body of knowledge separate from and co-existent with the science. The axioms of the practical man, which often contain much that is intuitively correct, are only not always dressed in the forms really appropriate to them: by this is meant, not, of course, any cloak of learning that should be hung on them, but their logical formulation. This is a matter of the technical details of the apparatus of thinking of the science and does not need to be considered further here. There can of course exist, alongside the science, beliefs and opinions which are not based, and do not need to be based, on reasons, arguments, inferences, and logical sequences, but only on other antecedent statements of beliefs. To try and deduce rational politico-economic propositions from such a source is, however, absurd.

Nevertheless, intuition evidently plays a stupendously important rôle in the field of economic policy. This follows from the fact that an enormous number of politico-economic schemes are drawn up off-hand by the strangest people and, since these schemes have no rational justification, their only justification must be an intuitive one. In the present age of contempt for reason it may be possible to create an impression in this way, but even intellectual lies ultimately have " short legs," and those of our generation will sooner or later meet their end. Furthermore, it might be useful to watch more closely to see *whom* it is that Providence is alleged to select as the possessors of such a great gift of intuitive insight into the interconnexions of things, which reveal themselves only very laboriously to serious scientific work and research. . . .

Intuition in economic policy—let us assume it for the moment, however absurd it may be—could, however, only be connected, like all intuition, with the *acquisition* of knowledge. An intuitive insight is not even achieved, as knowledge usually is, through logical processes, but is obtained by a spontaneous act which evades logic or rational thinking. This irrational process must, however, be in some way obtained from the same world which is opposed to the irrational; it must be related to the same scientific and practical knowledge as is embodied in economic policy. Consequently, the intuitive judgments must take the form of *propositions* which avail themselves of the expressions of the ordinary terminology of knowledge and cognition and use the instruments of logic, the schema of hypothesis and conclusion. Intuition is thus "denatured," so to speak, and its content is exposed to criticism. It is not necessary to go far in order to recognize that here also there is no gap through which amateur economics or any similar pseudo-science could slip in. Apart from economic theory, there is nothing, absolutely nothing, that has anything to do with reasoning about economic affairs. At all events, "intuitive economic policy" is no alternative.

Recognition of the exclusiveness of economics, of its unchangeable monopoly position, and its application in the sense outlined here are the necessary prelude to the scientific epoch of economic policy. Nobody can be the possessor of superior knowledge, and apart from what we can *know* there is only chaotic belief and opinion, both of which fall out of the discussion by reason of their inadequacy, as demonstrated above. And if somebody claims to *know* something, this must either already be contained in economic science or can be incorporated into that science; but apart from it and separate from it there can be no other knowledge. It is, as has already been remarked, very conceivable —and it happens more frequently, unfortunately, than is desirable—that the science does not yet know many things or may never be able to explain them; but what science cannot know, nobody and nothing can. This conclusion is not a very comforting one but is ineluctable.

If, looking back, the conclusion is that the probability of the realization of an economic policy which is systematically and rationally conceived—by which is meant not a " planned economy " but an economic policy in which there is harmony between the motive, means and result of any single measure, and all the measures are in harmony with each other—is extremely small, the only inference that remains to be drawn, and which immediately forces itself upon us, is that every effort must be made to promote the study of economic theory, with emphasis on the *theory*. The road is steep and stony, but there is no other way. How necessary is the study and development of economic theory was made clear in the preceding exposition, which indicated the narrowness of the limits within which we are moving to-day and the ungratifying state of current economic affairs as they present themselves to the contemporary onlooker.

What has been described here is the situation regarding rationality in economic policy as it really is. A procedure which is based on the facts, instead of reflecting the things that are most desirable, is to-day all too often interpreted as pessimism because it is difficult in these times to get people to acknowledge the facts. In conclusion, it may be remarked that the assistance which economic science is already capable of affording in matters of practical policy has up till now been only very infrequently turned to account. It is first of all necessary, therefore, to make adequate use of the already available possibilities and to secure their full development. Of course, the recommendation is not that the scientist should construct programmes—for that is the task of the practician—but that the programmes formulated should be submitted to the scientists for their critical examination so that they may have the opportunity of saying what science allows them to say.

The warning against such programme-making cannot be too often emphasized. Programmes should never be put forward in the name of science. But, still, this does not exclude the independent personal co-operation of the scientist. Another source of considerable danger is also to be found in those programmes which are drawn up in general terms without direct connexion with any concrete historical motive. A good example is provided by the various "norms of monetary policy." There are a large variety of such pseudo-programmes, ranging from the plan for stabilizing the general price level, or for stabilizing single prices or groups of prices, to "neutral money." The study of monetary theory is uncongenial, apart from other grounds, for the very reason that explanation and pseudo-application are so often intermingled. The more the economist keeps free from such things the greater will be the effectiveness of his analysis and the greater the respect he will command if ever he takes part in public affairs and makes proposals which link up with general value concepts.

At this point we revert to the problem of the *control of science over policy*, a subject which was, so far as economic theory is concerned, already touched upon by Alfred Marshall. There are some further concluding remarks to be devoted to this topic in the course of which a short excursion must be made into the influence of the form of government and State administration on the specific direction of economic policy.

CHAPTER X

(*Conclusion*)

THE STATE AND ECONOMIC POLICY

The central theme of this final chapter was alluded to previously when it was remarked that economic policy is essentially *politics in the real sense.* It was at the same time intimated that the relations between the State and the economic system are too manifold to be treated within the compass of this small work. The remarks of this chapter are limited to a few fundamental points, a fact which in itself testifies to the enormous scope of the topic.

Undoubtedly one of the most important lessons to be learned from the experiences of the last few years is that wisdom or stupidity in matters of economic policy are not linked with particular forms of government. Any neutral observer will be bound to acknowledge that the most democratic countries, as well as countries with dictatorial régimes, have pursued much the same economic policy. In the sphere of currency policy, for example, there are democratic States as well as dictatorships trying to maintain their currencies strictly at the old parities, while there are examples also of devaluation in both groups of countries. And it is possible to find many other illustrations of the same thing. Protectionism, for instance, is certainly not exclusive to any particular form of government, and all that there is to be said on this topic is equally applicable to most of past history. It would not be unuseful to draw up a detailed account along these lines for a number of differently organized States. In the first place, such a study would provide an empirical demonstration that, apart from communism, which is a very special case, all forms of State organization are compatible with all types of measures of economic policy. For this reason it is for the most part meaningless to make general statements about the relation of the State to economic organization and policy. This is, however, frequently done, and whole books are often devoted to the subject, books which of course lead nowhere. The only way of making headway in this sphere is to make a critical analysis of concrete historical circumstances as they occur. Any other method is "theorizing" in the bad sense in which we have rejected that practice. It is worth noticing, however, that amateur economists, encouraged by the lack of investigations of a scientific nature, are particularly inclined to let their energies loose in this field.

It is nevertheless possible, allowing for the limitations just outlined, to make certain statements which are highly significant. Thus, for example, it is noticeable that during the recent depression many countries have taken to legislating by the method of emergency decree, and parliamentary control has been greatly reduced. It was only by assuming plenary powers of this kind that the Government was able to force certain adjustments which the depression seemed to have made an urgent necessity. But the reason for this does not necessarily lie in the parliamentary system, which in many countries, such as England and Sweden, for example, seems to be functioning very satisfactorily. It lies in the economic structure of the countries concerned. Few countries have had so much rigidity introduced into their economic structure by monopolies, cartels and trade unions, as the Central European countries and Italy. Faced by this concentration of power, the State found itself obliged to adopt special counter-measures, at least in the form of shortening the process of legislation. It is obviously a great deal to ask that anybody should vote his own salary-cut when he has at the same time the power to shift this painful process on to the shoulders of the nameless general public. And one cannot always be sure that the measure will, in fact, produce an improvement in the economic situation. If, however, free competition, with sufficient mobility of all factors, effectively prevails in the country concerned, then the market takes complete charge of the necessary adjustments and politics need not bother with them. In that case it is immaterial what kind of State organization happens to prevail in the country. The form of State organization is important only to the extent that it strangles or interferes with the mechanism of the free market, as is manifestly the case in the vast majority of countries. The reasons for measures of State intervention are as various as the methods by which they are imposed. It is consequently of particular interest that no unique relationship can be discovered between economic policy and the form of State organization.

It appears then, in contradistinction to the commonly held view, that an absolutist-autocratic form of government, far from being necessarily inconsistent with a liberal economic policy, actually gives it, when once it is decided upon, much better chances than it has elsewhere. The reason for this is that a free economic system depends less on framing positive measures than in refraining from doing so. Politico-economic activities are almost always carried on with the object of securing someone in the country a larger portion of the national product than he has at the beginning; even at the price of the whole cake becoming smaller as his share increases. In contrast the authoritarian State is *theoretically* in a position to say "No" to manœuvres of this kind and so secure that the distribution of the social product shall be determined according to the shares that are implicit in the conditions of the market. It can also, what is particularly important, pursue an economic policy, like any other policy, of a *long run* character, whereas a parliamentary government is anxious to see the fruits of what it does during its own term of office. In this sense the form of government has a decisive influence on the general trend of economic policy.

Absolutist forms of government also have dangers, of course, which must be set against the dangers of democracy, and it is an open question which are the greater. What is especially likely to happen under an absolutist government is that a particular group with common economic interests will obtain control over the government and then use it shamelessly to its own advantage, or simply that there will be incapable, ignorant people and charlatans at the helm who may do untold harm out of their lack of understanding.

Another interesting field for discussion is opened up by the examination of the elasticity of the actual economic policy pursued by governments of different countries. It may be said in this connexion that a democratically governed country has the greater elasticity since a new ministry can easily drop the principles followed by its predecessors. If this happens frequently, of course, it is a disadvantage rather than an advantage, elasticity turning into instability. Dictators who, for example, have it carved in stone that they will "defend the external value of the currency to the last drop of blood," find it extremely difficult to agree to devaluation, and are exposed to a sharp loss of prestige if they do something which is thoroughly reasonable from the economic point of view and which they themselves probably consider equally reasonable. On the other hand, of course, dictators are able, especially if, for example, there is an important national ideal at stake, to demand incomparably more suffering from the public than would be possible in countries governed in a different way. This fact is only just coming to be realized which explains why it was so widely miscalculated when people maintained that certain countries would collapse within some limited space of time. These are factors which connect up very closely with the general theme of this book which is to ascertain what is the range of application of theoretical economics.

Governments need advisers in economic matters and the function of these advisers will vary with the form of government. In States where there is freedom of expression of opinion, everybody can gain a hearing, but how wide a hearing he will be able to find will depend on whether he has a " pressure group " behind him. In States with autocratic governments, and not only in those of them where public opinion is throttled, added importance accrues to all people who have the ear of those in power. A typical example is provided by the recent state of affairs in the United States of America. The circle of people who have been gathered round the President as the " Brain Trust " bears the outward responsibility for the economic policy when their recommendations are carried out. These seem for the most part to be so senseless and full of contradictions that the American experiment, if carried out as it was originally intended, is bound to be a failure. The blame will then be pushed on to the " Brain Trust," and rightly so. But it is not right that the blame should be put on the " economists " because there is not one of the members of this group who is an economist of any repute. (This recalls what was said in an earlier chapter on the difficulty of defining an economist.) Of course, it is at any time within the power of the leaders of the administration to take on really expert and capable men, so that ultimately the fault is not with those who have given the advice but with those who have followed the advice. The responsibility always lies only with the administrators. This is a point on which the brilliant analysis of Max Weber leaves little more to be said.

Finally, there is still the question whether and to what extent we are in the position of being able to " control " the economic policy of governments. It is necessary first, in approaching this subject, to be clear what is meant by " control." Obviously, it can refer to two things: *first,* it may mean ascertaining whether the actual course of events corresponds to the expected course. This is a form of control which is undertaken with varying degrees of thoroughness by the government itself. What is required is simply to find out whether or not the intended *aim* has been reached. This is admittedly not easy to discover because the sequence of events which are supposed to provide the proof or disproof cannot be set out in terms of any simple causal nexus. It follows that even this elementary kind of control must involve a certain expenditure which governments have up till now provided for only very sporadically. Besides, governments must always have an eye to propaganda and they will consequently always maintain that the measures they took were the best in the circumstances prevailing at the time. An independent " control " of the kind described requires continuous scrutiny and an apparatus appropriate to the purpose. The latter is available to-day in the form of the various Institutes for Economic Research to whom functions might be assigned which in a certain sense would go beyond those they at present practice, or rather would lend a deeper significance to the activities in which they have so far engaged. Since, however, these Institutes are only at the beginning of their career and generally speaking have so far only worked up a relatively small section of the field of investigation open to them, they have not yet occupied themselves with this important topic.

Secondly, " control " may refer to an examination of a more minutely objective kind which seeks to discover whether the *methods* applied are, or were as the case may be, appropriate to the ends, whether due weight was given to all the arguments *pro* and *contra,* &c. This brings us back to the theme which was analysed in some detail in the preceding pages. Obviously, the problem here is not that of balancing sectional interests either in the process of selecting the aims of economic policy, or, where these are already given, in choosing the distribution, which is always possible of variation, of the incidence of the burden involved in determining the means. This kind of adjustment can be taken care of by various bodies such as chambers of commerce, manufacturers' associations, economic councils, &c. The more far-reaching control of the type envisaged is concerned with the following questions: (*a*) whether all the relevant information available was used: (*b*) whether it was given its due weight; (*c*) whether analogous cases of an earlier date and comparable cases in other countries were examined; (*d*) whether quantitative estimates of the anticipated effects and repercussions were made; and (*e*) whether quantitative calculations were made regarding the specific measures introduced (*e.g.*, the height of the tariff, the amount of taxation).

Obviously, there are certain pre-requisites necessary to the successful undertaking of a "control" of this type. The person or organization responsible for it must have the same empirical material at his or its disposal as the government itself (or the other organs concerned), and as far as is possible the *motives* of the measures must also be made available. Should the not unlikely case arise that the government is in reality aiming at something quite different from what it pretends to be doing, or can for the moment disclose without causing harm, the task, if it is to be performed publicly, is so much the more difficult. Usually, however, the real intentions of governments do not remain secret for more than a very short time. It may be concluded that the difficulty only becomes serious when it is sought to link up the general idea of control with political control, which is certainly not essential, although the application of the general idea would necessarily give rise to very far-reaching political reforms in respect of the majority of existing systems of government. If the control of the kind indicated were established at all constitutionally, a very important factor making for stability in public life would also be created. This has extremely important economic aspects since few things do more harm than the frequent changes of direction which are constantly taking place in economic policy and which prevent the necessary processes of adjustment from ever being completed.

The kind of critical examination of economic policy described here could only be exercised by independent experts, since it would at the same time constitute a criticism of the government and would naturally not be regarded very favourably by the latter. Nevertheless, institutions appropriate to the purpose might be established after the style of the office of the Comptroller and Auditor-General in England, and the corresponding authorities in other countries, who each year render a detailed account of budget expenditure, thus giving the taxpayer in civilized countries periodical information on the way his money is spent.

One more question that may be asked is whether this "control" does not presuppose very specialized knowledge which we do not possess. The answer is simply that the difficulties of scrutinizing economic policy are no greater and no less than those of economic policy itself. This should be obvious from what has been said above. It is just the same as checking a mathematical exercise in which everybody has the same knowledge and in which everybody must be acquainted with the data. The whole difficulty of scrutinizing economic policy consists in getting hold of the facts. There is no theoretical problem involved. On the practical side, of course, as has already been indicated, a laboratory for economic policy, as I would call it, would need to be set up. This institution would be analogous to the technical laboratories possessed by all the larger firms, for in industry it is accepted beyond all doubt that there can be no production programme with only chance fragments of knowledge. And more and more of the larger firms are setting up economic bureaus. It would hardly be possible for the banks to do without them in these days and much the same applies to the railways and the chemical industry. It is only governments that continue to distinguish themselves by their passivity in this connexion. The culpable heedlessness which this fact displays is undoubtedly very largely responsible for the miserable state of affairs which has reigned in the world during the last few decades. To-day the preparatory work connected with legislation on economic matters is carried on in the individual departments, the work of any one being usually completely divorced from the work of all the others. Co-ordination of the discussion—which need not imply any co-ordination of responsibility—is inadequate even where it exists. This is a situation which is in need of thorough-going reform from which the public would have nothing to lose and much to gain.

The State sets the framework of economic policy in a wider sense than that it is itself the pillar of that policy. Individuals, associations, firms, &c., also conduct economic policies of their own, but these are conditioned throughout by the framework set by the State. Investigations of this aspect of economic policy are inevitably faced with difficulties which cannot be surmounted with the aid of economic science alone.

It would be necessary to write another book to show that the State, besides imposing limitations, is itself subject to limitations which have their roots deep in the very nature of life, and such as are described in the economic sphere by economic laws. To these there belongs especially the so-called theory of economic imputation (*Wirtschaftsrechnung*), in different types of State organization. All the limits have reciprocal interactions and hold together like an arch. The greatest wisdom of which economic policy and its framers could boast lies in recognizing what are the possibilities and what are the internal and external limitations as set out in economic laws, so far as these have up till now proved capable of formulation.

To make full use of these possibilities requires the untiring application and continuous development of economic theory. This is one of the tasks which most merits the attention of this and coming generations.

APPENDIX

It will be clear to the trained economist that the preceeding analysis, which as I mentioned in the foreword is intended for readers outside as well as within academic circles, is largely based on the results of the so-called methodological controversy and the discussion of the neutrality of economics as between different value judgments. It would be impracticable to attempt to quote all the relevant literature. It may be observed however that the works of Carl Menger, N. W. Senior, J. E. Cairnes, J. N. Keynes, Max Weber, Ludwig Pohle and so on are still pre-eminent in this sphere, although discoveries have been made since their time, especially in the science of logic, of which they, and indeed economic theory in general so far, have not taken account.

In the light of the most recent discoveries in the study of logic it can no longer be disputed that theoretical economics, far from being flawless from a logical point of view, is marked by much confusion of thought and expression. I have dealt with these questions in an article in the *Zeitschrift für Nationalökonomie*, Volume VII, 1936, entitled *Logistik und Sozialwissenschaften*, which also reviews a work by Karl Menger entitled *Moral, Wille und Weltgestaltung; Grundlegung zur Logik der Sitten*, Vienna 1934. This book, while not directly concerned with economic science, provides an introduction to a method of analysis which will in time prove very fruitful in economics.

Remarks on the relations between economic theory and economic policy can be found in almost any book on economics and especially in the introductory chapters to all the standard works and text-books. This is equally true of the literature in all countries and it is unlikely that any of the ideas formulated in the foregoing pages will not already have found expression elsewhere in some form or other. Even if the interest in methodological questions continues unabated, there seems nevertheless to have been a slackening off in the spate of writings linking up theoretical economics with all kinds of fashionable philosophical theories. This is certainly one favourable effect of the economic depression.

The problems connected with interventionism have been dealt with by W. Röpke in his article *Staatsinterventionismus* in the *Handwörterbuch der Staatswissenschaft* (supplement to fourth edition), and references are given there to the ample literature on this subject. Special mention should be made of the works of Ludwig Mises: *Liberalismus* (*Liberale Politik, liberale Wirtschaftspolitik, liberale Aussenpolitik, &c.*), Jena 1927, and *Kritik des Interventionismus, Untersuchungen zur Wirtschaftspolitik und Wirtschaftsideologie der Gegenwart* (5 essays), Jena 1929. His book *Die Gemeinwirtschaft* is now available in English under the title *Socialism*, London 1936. It contains a sharp criticism of socialism and restates many of the arguments, reflecting his general approach to economics, which are to be found in his previously cited works. Reference may also be made to Mises' latest work, *Grundprobleme der Nationalökonomie, Untersuchungen über Verfahren, Aufgaben und Inhalt der Wirtschafts- und Gesellschaftslehre*, Jena 1933, the first part of which, *Aufgabe und Umfang der allgemeinen Wissenschaft vom menschlichen Handeln*, is an attempt to find an *a priori* basis for economics. This is one of the points where he diverges fundamentally from the view point put forward in the foregoing chapters. The latter are also to a certain extent at variance with L. Robbins' book, *An Essay on the Nature and Significance of Economic Science*, London 1932 (2nd edition 1935). This essay, which is written in a very refreshing, if on occasions somewhat *fortiter in modo* style, acquaints the English reader with much of the literature of the Viennese economists, although Professor Robbins represents the Viennese authors in certain important points as being much more of a school with uniform views than they really are. What I have said in this book contains so many implicit divergences of opinion between myself and Professor Robbins as to render any further statement of my disagreement with his interesting book unnecessary. A. Löwe, in his *Economics and Sociology, A Plea for Co-operation in the Social Sciences*, London 1935, raises many questions which are closely allied to what has been discussed here. His position, especially his general conception of theoretical economics, lacks clear definition however. Perhaps a later study, which he has promised, will remedy this defect. Reference must also be made to the essay by F. H. Knight entitled *Economic Theory and Nationalism* in his *The Ethics of Competition*, London 1935. The penetrating, if not always easy, analysis of this outstanding author links up with many of the problems selected for discussion in the present book.

The problem of application has been treated shortly in a number of the writings of R. Strigl, as for example his *Die Aenderungen der Daten in der Wirtschaft* in the *Jahrbuch für Nationalökonomie und Statistik*, Volume 73, 1928, and *Wirtschaftstheorie im Dienste der Wirtschaftspolitik* in the *Archiv für Sozialwissenschaft und Sozialpolitik*, Volume 60, 1928. His book, *Angewandte Lohntheorie*, Vienna 1926, represents an attempt, essentially a successful one, to reduce the level of abstraction of the theory of wages by the insertion of concrete data. Another author worthy of mention is Sven Helander. His study of the *Rationale Grundlagen der Wirtschaftspolitik*, Nürnberg 1933, sets out a series of ideas with which I am much in agreement. Helander also gives a very intelligent discussion of a good many of the best writings from among the extensive literature on this subject. M. St. Braun's *Theorie der* *staatlichen Wirtschaftspolitik*, Vienna 1929, treats of the same topics and, based as it is on a good understanding of modern economic theory, touches on many interesting points. Especially commendable are a number of the writings of Edwin Cannan, such as are, for example, collected in his book *An Economist's Protest*, London 1927. Although he does not deal explicitly with methodological questions, he has, by examining important problems of the day, implicitly explained, with remarkable clarity, the rôle of theoretical economics. The same may be said of many of A. C. Pigou's essays. I shall mention only his course of lectures, *Economics in Practice*, London 1935, of which the first lecture, *An Economist's Apologia*, sets out very aptly the reasons why economists generally find so little favour with the public. Most noteworthy among the Italian writers are A. de Viti de Marco, L. Einaudi, and A. Cabiati. These authors, too, have bridged the gap between pure theory and applied economics with a success which makes the same process easy even for those who are much less experienced.

A book which has a certain connexion with the present study, and should therefore be mentioned here, is W. H. Hutts's *Economists and the Public, A Study of Competition and Opinion*, London 1936. Professor Hutt has written an interesting, if somewhat strange, book. Many as are the parallels between his ideas and mine, there is this fundamental difference, that he wants to assign to the economists tasks which they cannot fulfil. He proceeds from fixed politico-economic ideas, such as the concept of free competition, which he takes for granted, and then seeks to prove them by reference to economic theory. Obviously he is doomed to failure. Economics cannot determine whether unearned income is or is not "justified." Consequently his particular plea for the independence of economists carries no weight, for even if they are to be as independent, say, as judges in England, they cannot decide this point as economists. The independence which I ask is something different and in my opinion more fundamental, viz., that no obstacle shall be put in the way of the explanation of cause and effect. The economist should always be allowed to say openly and freely that A follows from B, that this or that commodity is becoming scarce because the State is producing something else (*e.g.*, armaments), that inflation is taking place despite government denials, that the fixing of maximum prices cannot prevent prices from rising if they are below the level dictated by the state of the market and so on. It is here that the freedom of science is needed, and it is easier to secure it here except where the form of government as such is from the outset incompatible with real scientific activity, as is the case in more than one country to-day.

Professor Hutt also underestimates the distance separating a theory from its application. In this respect he has, of course, much in common with many economists of the type described in a previous chapter. The practical sense of many people induces them to jump straight from an uncrystallized theory, formulated under very abstract and often insufficiently precise assumptions, to far-reaching conclusions, as, for example, that the price level should be kept stable, or that government expenditure should be increased, or that the quantity of money should be kept constant. The practical urge therefore needs to be diluted with a good dose of scepticism in order to prevent science from being dragged into things which only harm it and can do no good.

Another book which is relevant here is R. Wilbrandt's *Der Volkswirt als Berater der Volkswirtschaft, Erkenntniskritische und methodologische Grundlegung*, Stuttgart 1928. Wilbrandt gives an unusually lengthy exposition of the discussion of the principle of keeping economics free from value judgments and casts many interesting sidelights on economic history. His positive contributions, justifiable as the general idea underlying them may be, diverge considerably from my views in many fundamental points. W. Sombart's *Die drei Nationalökonomien*, München 1930, has given rise to a very animated discussion. It suffers not least from the fact that Sombart has no very deep knowledge of pure theory and is even less well acquainted with the natural sciences which he discusses so extensively, with the result that his views are often distorted. The book is a typical example of that kind of desultory writing about economic problems which has discredited economics in the eyes of the general public.

A vast number of books purport, according to their titles, to deal with the same problem, but closer examination shows that the authors either concern themselves almost exclusively with general methodological questions or else sidetrack the main theme in some other way.

I have referred several times in the text to two groups of problems which are very important at the present time and have received a great deal of attention in recent literature. They concern the time element, and the expectations factor. The inclusion of these two factors will involve a substantial reconstruction and extension of economic theory which, while on the one hand making it more realistic, will on the other hand raise very difficult problems of which the solution is not yet in sight. I may perhaps be allowed to refer to two articles of my own which deal with these questions in some detail: *Das Zeitmoment in der Wertlehre* in the *Zeitschrift für Nationalökonomie*, Volume V, 1934, and *Vollkommene Voraussicht und wirtschaftliches Gleichgewicht*, in the same journal, Volume VI, 1935. Mr. J. M. Keynes in the latest of his versions of the theory of money, *The General Theory of Employment, Interest and Money*, London 1936, has given a prominent place to the rôle of expectations. But his analysis relating to this point is so vague that I think we shall have to wait for further elucidations from his pen before delivering final judgment on it. Obviously it is not sufficient merely to refer to expectations and anticipations. We need to know how they are determined, on what factors they depend and the ways in which they are mutually interdependant. Mr. Keynes gives no real analysis of these points.

It remains to say a few words about the Swedish literature on the subject. First, there is an article, which Helander also quotes, by K. Wicksell in the *Ekonomisk Tidskrift*, 1904, entitled *Mål och medel i nationalekonomien*. This article still adopts an undisguised utilitarian attitude and shows very well the disparity between Wicksell's views and those of some of the younger members of the Swedish school. Foremost among the latter is Gunnar Myrdal with his book *Vetenskap och Politik i Nationalekonomien*, Stockholm 1930 (also published in German under the title *Das politische Element in der ökonomischen Doktrinbildung*, Berlin 1932), which is the product of an outstanding intellectual capacity and a thorough knowledge of the relevant literature. The book provoked a great deal of controversial discussion led by C. Hellström, F. Brock, H. Larsson and others. These writers deal to some extent with special questions which I have not touched on here. The most interesting contributions to the discussion are Johann Akerman's *Ekonomisk Vetenskap och politisk Economi* in the *Statsvetenskaplig Tidskrift*, 1931, and G. Myrdal's *Kring den praktiska nationalekonomiens Problematik* in the *Ekonomisk Tidskrift*, 1931. It is a pity that these, like so many other writings in economics, are only accessible to very few. Anybody however who is acquainted with the Scandinavian languages will benefit greatly by following up this literature.

These cursory remarks are not intended in any way to represent, or to take the place of, a bibliography. They can only serve as a guide to those who are not familiar with the literature and wish to straighten out their own ideas. For these every one of the works cited will open up new and interesting problems. The list given here does not and could not give the names of all the authors to whom I am indebted. My thanks are due besides to the many business men in various countries who, in the course of numerous conversations and discussions, gave me the incentive to deal with the problems which I have attempted to set out in the foregoing pages.