

ROUTLEDGE REVIVALS

The Stationary Economy

**Principles of Political Economy
Volume I**

J. E. Meade



Routledge Revivals

The Stationary Economy

First published in 1965, this is a reissue of the first volume in Professor Meade's highly influential *Principles of Political Economy*, which aimed to provide an overview of economic analysis in light of contemporary developments in the subject. This volume is based on models of economic systems in which conditions are such as to make possible a state of perfect competition, in which there are no capital goods, in which consumers' tastes, technical knowledge, and the size and composition of the goods are static.

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THE STATIONARY ECONOMY

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Being Volume One of A
PRINCIPLES OF POLITICAL ECONOMY

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PREFACE

When I set to work on my 'Theory of International Economic Policy' (*The Balance of Payments and Trade and Welfare*) I was already middle-aged, but still innocent. I thought that with a copious supply of paper and ink, great patience and perseverance, a clear head, goodwill, and a training in the methods of economic analysis one could derive from a few very simple realistic assumptions about men's behaviour a precise theory about the universally correct policy to adopt. In the course of the work it became increasingly clear that the vast number of possible combinations derivable from a very limited number of alternative institutional conditions and modes of human behaviour made it impossible to devise a correct policy without much empirical enquiry into the nature of the surrounding conditions. As my work was not empirical, it inevitably became taxonomic—a classification of the circumstances in which it was best to adopt policy A, of those in which it was best to adopt policy B, and so on. But even so it was bound to remain very incomplete. For the number of possible combinations of relevant conditions was so immense that it was impossible to give a complete classification; one could give only illustrative examples of the principles on which a classification might be made.

In this basic sense the 'Theory of International Economic Policy' must be judged a failure; and I am not now attempting to write on the same lines the 'Theory of Domestic Economic Policy' which at that time I intended to undertake. Nevertheless the 'Theory of International Economic Policy' was not, I venture to suggest, a total waste of time. It could in fact be recast, without any very great change of content, into the form of a series of simple exercises in which one was establishing such propositions as: 'If conditions α , β , γ exist, then policy A will lead to result W and policy B to result X; but if conditions δ , ϵ , ζ exist, then policy A will lead to result Y and policy B to result Z; and so on.' For reasons which are expressed at length in the Introduction to the present work (pp. 22–23 below), this now seems to me to be the better way of presenting the principles of economic policy.

The present work, therefore, makes no claim to universality. It claims only to present a series of 'models'—i.e. of economic systems, each built on greatly simplified assumptions about human motives, technology, and social institutions—and to undertake in each case a series of 'exercises'—i.e. to examine the links of causal relationship in each case. I am convinced that a systematic treatment of the whole field of economic analysis on these lines is worth while for two reasons.

First, while no final decision about policy should ever be taken without adequate empirical enquiry, experience has convinced me that a training in economic principles of the kind given by the examination of these simple models inculcates a way of looking at things which helps greatly in reaching a sensible final decision. The empirical researcher and the policy-maker are much more likely to ask the relevant questions.

Second, there have been very rapid technical advances in economics in recent years in many special fields—in the theory of growth, in dynamic control mechanisms, in applications of the theory of games, in linear programming, and so on. As a result of this in economics, as in practically every other systematic body of study in the modern world, two things have happened: work is increasingly apt to be expressed in highly technical language and often in mathematical form, and workers have become more and more specialized in narrow fields of study. But in the formulation of economic policy, when one is considering any particular decision, it is of basic importance to consider the whole range of economic implications and not merely the effect of the policy in one special part of the field. There is thus a crying need for attempts to translate, as far as this can be done, precise mathematical results into less technical terms and to relate all the branches of economic analysis to each other. There is a place now for the modern equivalent of the old Political Economist, namely the worker who, in the interests of those whose task it is to apply economic theory in policy decisions, specializes in generalization. The present work is designed to make a contribution of this kind.

This first volume, *The Stationary Economy*, covers only a small and preliminary part of the subject. It is based on models of economic systems in which conditions are such as to make possible a state of perfect competition, in which there are no capital goods, and in which consumers' tastes, technical knowledge, and the size and composition of the population are static. It is my present intention to follow it up with a second volume on *Capital, Growth, and Fluctuations* which would allow for the modification of a number of the restrictive assumptions of the present volume, but which would still be based on the assumptions of constant returns to scale, of no external economies or diseconomies, of no objects of communal consumption (such as defence, police, etc.), and of the other conditions which make perfect competition possible. It would need to be followed by a third volume on what happens *Beyond Competition*. There might even be room for two further volumes—the first to relate important acts of economic policy simultaneously to the influences stressed in each of the first three volumes, and the second

to consider the 'international' relationships between the independently formed policies of separate 'national' authorities. But how far in fact the work will proceed is a matter of great uncertainty.

There are two main branches of economic analysis on which I have relied in the present volume. On the first of these, namely what may be broadly described as the indifference-curve techniques, there is a vast wealth of literature in the learned journals, much of which stems directly or indirectly from the work of Professors R. G. D. Allen and Sir John Hicks in 'A Reconsideration of the Theory of Value' (*Economica* 1934). For the second, namely the application of linear programming, I have relied largely on Dorfman, Samuelson, and Solow *Linear Programming and Economic Analysis*. But in both cases I have learned a thousand and one things from many other books, articles, and colleagues. I make no claim to basic originality; but it is impossible for me to acknowledge the source of each particular idea. Indeed I do not know precisely whence I have acquired them. But I would like specifically to acknowledge the great help which I have received from my colleague Mr C. J. Bliss who read the whole of this volume in MS. and made a number of helpful suggestions.

J. E. MEADE

Christ's College
Cambridge
June 1964

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INTRODUCTION

Many students of economics come to the subject because they are interested in the possible improvement of society. The author of this work (like many others in the late twenties and early thirties) came to economics because he abhorred mass unemployment and wanted to know why society was failing to avoid the stupidity of idle men and machines combined with crying real needs for the products of those men and machines. The problems of the present age are different. The huge and growing disparities of wealth between the rich developed and the poor underdeveloped countries of the world would be the problem which would be most likely to attract him to economics if he were now starting once more at the beginning.

For tackling any major economic problem of this kind one must be in a position to understand the causal relationships in an economy. For example, would a reduction of the rate of income tax increase or decrease the volume of employment? For this purpose a well-furnished tool-box of instruments of economic analysis is a necessary but by no means a sufficient part of one's equipment. Economic analysis as such is merely a process of logical deduction whereby one says: 'Given certain assumptions about economic and social institutions, about the nature and size of economic resources, and about the way in which individuals react in given situations, then such-and-such a change at such-and-such a point in the system will have such-and-such effects upon other variables in the system.' For example, given certain assumptions about the population, the existing capital equipment, and the available natural resources, about monetary and fiscal institutions, about free enterprise or socially controlled institutions for production and trade, about the psychology of persons in their reactions to changes in prices and incomes, and about many other relevant matters, a change in the rate of income tax—when one has taken into account all the manifold interactions between one section of the economy and another—will have such-and-such effects upon the level and the rate of growth of employment and production, upon the level of money prices and incomes, upon the distribution of incomes, upon the balance of payments with other countries, and upon many other important variables.

To reach conclusions of this kind one must have two rather separate types of skill and knowledge.

First, one must have had practice in the logical analytical processes involved in studying interrelationships between variables in systems of the kind which economic life constitutes.

Second, one must have knowledge about the actual resources, institutions, and behavioural reactions in the actual situation which

is under study. Much, but not all, of such knowledge will be quantitative in character and subject to statistical examination.

This work is confined to the first of these two types of investigation. The reader should be warned that it is, therefore, a most incomplete guide to the real world. Before any worth-while decision can be reached about any particular economic policy in the real world, institutional, historical, and statistical investigation of the actual situation is an essential complement to the general education in economic principles which it is the sole purpose of this work to promote. But it is claimed that a general education in general economic principles will in fact help towards a correct interpretation of the facts in any particular situation. For this purpose what is needed is a synthetic view of all the main ways in which various economic policies and institutions may interact on each other; and with the many notable, highly technical, and still rather separate, advances which have been made by economic theorists in different parts of the field of economic analysis in recent years, a restatement in the simplest possible terms of the broad synthetic view is now much needed. This work aims at contributing towards such a restatement.

First principles are helpful; but there remain many reasons why it is impossible to lay down *a priori* from first principles any one economic policy as being the one which it is best to adopt in all conceivable circumstances.

In the first place, the choice between different economic policies must depend upon the relative weights which are placed by the policy-makers upon the various possible (and often conflicting) objectives of policy. The various objectives which it may be hoped to attain by means of economic policy may usefully be grouped under the three general headings of the Efficiency, the Distributional, and the Social aspects of economic life.

(1) An economic system may be said to be inefficient in so far as it would be possible with the given resources of the community to make some citizens at any one point of time better off without making any others at that same or some other point of time worse off. The involuntary mass unemployment of the 1930's was an outstanding example of economic inefficiency, since it would clearly have been possible to use the products of the unemployed men and machines to raise immediately the general standard of living of all consumers and/or to produce capital goods which would enable future generations to be better off.

A less glaring example of economic inefficiency occurs when all resources are employed, but when there is a misallocation of resources between various uses. This occurs when too many of some resources are employed in one occupation or industry and too few

in another. Thus there may be an overproduction of one product (say, bread) and an underproduction of another (say, clothing), so that some consumers could be immediately better served without any one being worse off if less bread and more clothing were produced. Or too many ploughs and too few looms may be produced now in the sense that future consumers would be better off if they had less ploughs (and so less bread) but more looms (and so more clothing). A rather more subtle case of misallocation of resources occurs when one industry (say, the food industry) has too much of one resource (say, labour) and too little of another resource (say, land) while some other industry (say, the clothing industry) is suffering from a shortage of labour and a surplus of land. The output of both industries could then be increased simultaneously if labour moved from the food industry (where it is over plentiful) to the clothing industry (where it is scarce) while the use of land was shifted in the opposite direction.

Economic arrangements may also affect the technological efficiency of the production system. Inventions and innovations which lead to the production of a greater volume of output by a given amount of resources are directly the concern, not of the economist, but of the engineer. Nevertheless some economic arrangements may provide strong, and other arrangements only weak, incentives and opportunities for research and development and for the use of newly discovered methods of production. An economic policy which promotes technical progress may itself be said to increase the efficiency of the system.

(2) Economic policies which lead to the full employment of available resources, to the efficient allocation of resources between different uses, and to a high rate of technical progress will all help to raise the general standard of living. But policy-makers are not concerned solely with the general average standard of living. They are also interested in its distribution between individuals. Here problems of equity and of the comparison of one man's welfare with that of another are involved. The basic principles upon which income and wealth would be distributed in an ideal community are not for the economist as such to determine. But it is the economist's concern to consider how any given economic policy is likely to affect the distribution of income and wealth and thus to make it more or less like the pattern which the policy-makers consider desirable.

Distributional issues always involve a clash of interest. Should citizens A, B, and C be made better off at the expense of citizens D, E, and F? The most obvious and direct distributional issue of this kind is the distribution of the community's income and wealth at any one period of time between the existing citizens of the com-

munity. Should the standard of living of the poor be raised at the expense of that of the rich? But this is not the only type of distributional issue that arises in society. The distribution of income and wealth between the present generation and future generations presents a similar problem. How far should the present generation cut back its consumption in order to accumulate capital in order to increase production and so the standard of living for future generations? The decision, through the choice of appropriate economic policies, of the 'optimum level of savings', i.e. of the amount of its current output which the present generation will refrain from consuming but will invest in capital available for future use, raises the same sort of problems of comparison of the needs of one set of persons with those of another set of persons.

There may be yet another instance of this same sort of 'distributional' problem. It may be possible by governmental policies of one kind or another to influence the birthrate and so the size and rate of growth of the total population. If full employment is maintained, a change in the size of the population will normally lead to a change in the same direction in the total output of the community. But it may well be that output will not go up in the same proportion as population. If output per head will be lower with a higher population, then there is a 'distributional' issue between the born and the unborn. With the smaller population each citizen will enjoy a high standard of living; with a larger population each citizen will have a lower standard of living but there will be more of them. It is not for the economist as such to determine which is the better state of affairs. But the economist is nevertheless concerned with this question of the 'optimum size of the population'; for it is his concern to consider both what are likely to be the effects of different economic policies on the size of the population and what are likely to be the effects of a given change in the size of the population on the average standard of living.

(3) The main objectives of economic policy are no doubt concerned with either the efficiency (size-of-cake) or distributional (division-of-cake) aspects of the society concerned. But there are a number of other social effects of economic policies which the policy makers will undoubtedly wish to consider in the choice between various policies. Two such social objectives of basic importance are individual freedom of choice and security. An economy in which individuals are free to choose what jobs they will take, where they will live, and what particular goods and services they will consume may—other things being equal—be considered better than one in which these things are determined for them by some superior authority. Similarly, a society in which the individual citizen faces

great risks and uncertainties (that he may lose his job or that his income may be reduced) may—other things being equal—be considered less desirable than one in which economic policies are so devised that he is less uncertain about the future.

It will be a major theme of this work to point out the possible conflicts between different possible objectives when one is choosing between various economic policies. At this stage it is necessary only to give one or two basic examples. A tax-cum-social-security system could be devised which produced absolute equality in the distribution of income; but if it meant taking away all the additional income earned by the exceptionally energetic and making up the deficient incomes of the exceptionally slothful it would clearly blunt most individual incentives for economic efficiency. Or, to take another example, measures which stimulated inventiveness might increase economic efficiency by leading to more effective methods of production; but the individual worker's security in his job might well be reduced, since anyone might at any moment turn out to be the handloom weaver who had to give up his job to the mechanical loom. All that can be done is, in the choice of a policy to deal with any particular evil, carefully to consider its effects upon the other objectives of economic policy. The final weighting of objectives is, however, a political and not an economic decision.

Different societies will no doubt give different weights to these final objectives; and for that reason one cannot say that a policy which is 'right' for one society is necessarily 'right' for another. But even if the weights given to the final objectives of policy were the same in all societies, there would be other reasons why the policy which was appropriate in one society might differ from that which was appropriate in another society. One of the main sources of such differences is variations in the endowment of communities with the basic economic resources for production. As a first broad approximation the basic resources needed for production can be divided into land, labour, and capital, if we mean by land all natural resources, by labour all human productive activity, and by capital all man-made instruments of production or improvements of land and labour. We can then divide economies according to the relative supplies of these basic factors of production into the six main types shown in Table I.

The first three economies shown in this table are all richly endowed with man-made capital equipment, and we may therefore call them all developed economies. On the other hand, the last three are all undeveloped economies because they have little man-made capital. But each of these two broad types of developed and undeveloped economies can be divided into three sub-categories.

Type of economy	Relative factor endowment in		
	Capital	Labour	Natural resources
(1) Simple Developed	+	—	—
(2) Malthusian Developed	+	+	—
(3) Empty Developed	+	—	+
(4) Simple Undeveloped	—	+	+
(5) Malthusian Undeveloped	—	+	—
(6) Empty Undeveloped	—	—	+

+ means richly and — means poorly endowed with the factor in question.

Table I.—*Factor Endowments and Types of Economy*

Thus in economy (1) there is much capital equipment relatively to both the other factors; and this we may call the simple developed economy. In economy (2) capital development is great relatively to the community's natural resources, but there is also a large population pressure on those natural resources; so we may call this the Malthusian type of developed economy. In economy (3) there is much capital per head of the population, but the population is spread over large open spaces; so we may call this the empty type of developed economy. Similarly, economy (4), having little capital relatively to both labour and natural resources, is the simple type of undeveloped economy; economy (5), having little capital but also much population pressure relatively to its natural resources, is the Malthusian type of undeveloped economy; and economy (6), having little capital and little population relatively to its land and other natural resources, is an empty undeveloped economy.

Different types of problem may arise in different types of economy. Here it is sufficient to give only one broad example.

Compare the Simple Developed Economy with the Malthusian Undeveloped Economy (economy 1 with economy 5). In economy 1 there being already much capital equipment relatively to both labour and land a main problem may be to find profitable uses for more capital equipment; every man and every acre may be already fully equipped. If people are saving out of their incomes, it may therefore be difficult to find useful outlets for the expenditure of these savings on new plant, buildings, machinery, tools, and so on. As a result there may be a deficiency of total demand for goods and services; people are not buying enough consumption goods because they are saving a large part of their incomes, but they are not buying enough new capital goods (machines, etc.) because everyone and every place is already fully equipped. This deficiency of demand may lead to unemployment of capital, labour, and land simply because there is

an insufficiently high level of demand for goods and services in general. In economy 5, on the other hand, the problem will be to find profitable employment for all the available labour because capital and land both being so scarce there is not enough land or enough machinery and tools to equip everyone for productive work. Here again as in economy 1 there may be unemployed labour.

But the problem of economy 1 is nevertheless totally different from that of economy 5, as can be seen from a consideration of the policies which would be appropriate to cure the unemployment. In the case of economy 1 what is needed is a set of measures which will induce people to spend more money on goods and services in general, whether these be consumption goods or capital goods. An increase in money expenditure in general will bring into productive employment the unemployed capital, the unemployed labour, and the unemployed land in the community. But such a policy for the general expansion of monetary demand would do no good in economy 5; for it could not draw unemployed labour into work in the conditions of that economy where capital and land are already fully employed and where there is no more capital and land to provide the necessary equipment for a larger employed working force. In order to give full employment in economy 5 measures must be designed to decrease the size of the working population or to increase the amount of capital equipment or to induce a shift in the economy from industries and processes of production which use a high ratio of capital and land to labour to those which use a high ratio of labour to land and capital.

But in order to decide what is the best policy to adopt in any circumstances it is not sufficient to know what weight is to be given to the various possible objectives of policy and what are the real resources at the disposal of the community. It is also necessary to know how the community is organized for economic purposes. For the relevant institutions may differ very widely from community to community. One of the most relevant matters in this connection is the method of organization of the various markets in the economy. There may, for example, be (i) completely free competition between a very large number of buyers and sellers in a market, or (ii) only one or two large monopolistic buyers or sellers in the market, or (iii) a single socialized organization producing and rationing supplies to consumers, or (iv) any one of a large number of State controls (like the setting of a maximum price) in an otherwise free market. Thus the community's farming may be carried out by capitalist tenant-landlord farms or by small peasant proprietors or by collective farms; or the wage rate may be fixed by a bargain between a monopoly trade union and a monopoly employers' federation or by

individual competition in a completely unorganized market or by some governmental wage-fixing authority.

There are many other possible institutional variations. Thus, in one economy practically all real property may be owned by the State; in another economy it may all be owned by private persons; and in yet a third economy private persons may own not only all the real property of the community but also in addition a large volume of paper debt owed to them by the State (the so-called 'National debt'). Or, to take another example, in one economy social attitudes and educational arrangements may be such as to make the movement of men from one job to another easy and frequent, whereas in another society occupational and geographical movement may be rare and difficult. Finally, in one community the State may be under the necessity of raising a large proportion of the national income in governmental revenue to finance a heavy expenditure on armaments, whereas in another community expenditure on armaments and, as a result, the general level of tax rates may be low.

Clearly some of these differences in institutions may themselves be considered as being the results of conscious acts of economic policy; for example, the setting of a legal maximum price in a market is likely to be an act which can be decided on economic grounds by the government itself. But not all the differences in economic institutions are of this nature; for example, the level of expenditure on armaments cannot be considered to be solely or even primarily an economic decision. And it is difficult to know where to draw the line between institutions which can and those which cannot be altered by the government on economic grounds; for example, to make employers and workers compete for labour in a fully competitive labour market by making trade unions and employers' federations illegal may be a theoretically possible line of economic policy, but in fact it may well be totally impossible politically. In many choices between different economic policies a large range of relevant institutional arrangements must be taken for granted; and the effect of any given economic policy will clearly greatly depend upon the institutional set-up within which it has to operate.

Finally, societies may differ very much in the behaviour and motivation of their citizens. In one society the main motive in life may be to make as large an income as possible; in another it may be to acquire as much power over others as possible; and in a third it may be to carry on with life as before in a traditional manner. One example of this sort of difference might be that in one society businessmen aimed at maximizing the profits which they could earn; in another society they might try, even at the sacrifice of profit, to expand their commercial empires to the greatest possible size; and

in a third community they might prefer simply to continue making the products and earning the income which their fathers had done before them. Clearly the effect of any given change in an economic policy is likely to be very greatly affected by the way in which the individual citizens react to a change in their economic environment.

The possible relevant variations of such reactions are almost innumerable. Here, once more, we shall confine ourselves to one or two examples. In deciding how much of their income to save and how much to spend on present enjoyments, are the citizens in the economy under study mainly affected by (i) the size of their current incomes relatively to their needs, (ii) past habits regarding the level of their consumption, (iii) what their neighbours the Jones's are spending on consumption, or (iv) the rate of interest which they could earn on their savings? Within a family budget of any given size do housewives and other consumers (i) have rather fixed habits about what they will buy, (ii) shift quickly and frequently from goods which have become more expensive to goods which have become less expensive, or (iii) determine their purchases from time to time according to changes in outside advertisement campaigns? Do a particular group of wage-earners demand higher pay mainly (i) because their employers have large profits out of which to pay them, (ii) because the pay of other workers has gone up, (iii) because the cost of living has gone up, or (iv) simply because there is a high demand for their particular work? Clearly it will be important in discussing the choice of an economic policy to consider the individual's behavioural patterns in the particular economy in question.

The study of the principles of economic policy is further complicated in the real world because there is more than one independent government determining the choice of policies. Because of differences in their final objectives, in the basic resources of their communities, in their institutional arrangements, and in the behavioural patterns of their citizens, different sovereign governments are likely to adopt different economic policies for their independent communities. But no economy is unaffected by what is happening in the other economies, though some will be more dependent than others upon what is happening elsewhere. Each government in choosing its own economic policy must take into account what is happening elsewhere. Moreover, in various ways it may through its own choice of policy be able to affect the choice of policy by other governments and thus indirectly make the outside conditions more or less favourable for the achievement of its own objectives. Such effects may be achieved by the direct exercise of economic pressure by one government upon another or by the threat of such pressure or by the conclusion of a

mutually advantageous bargain or treaty between two or more governments or even by the institution of a super-government endowed with the power to enforce (within certain specified limits) the adoption of particular policies by the subsidiary governments. In any case in the choice of an economic policy any one government must always take into account the facts (i) that it is not operating in a 'closed' vacuum but in an 'open' system in which the results of its policy will in any case be greatly affected by what is going on elsewhere and (ii) that its own choice of policy may directly or indirectly affect the choice of policies by other governments in ways which are of great importance to itself.

It should by now be clear to the reader that any economic system constitutes a very complicated set of relationships. There are a very large number of variables. Incomes, prices, outputs, levels of employment, savings, consumptions of various goods, additions to various forms of capital equipment, imports, exports, wage-rates, rates of interest, the amount of money, and many other quantities are all simultaneously affected by the independent decisions of individuals, business corporations, and governmental bodies. Thus a change in economic policy will set up a whole series of interrelated reactions. Not only are there a large number of variables and of interconnections between them; but there are a very large number of combinations of possible assumptions about policy objectives, endowments in basic resources, institutional arrangements, and behavioural patterns within an economy. It is this complexity which above all constitutes the essential difficulty for economic analysis.

How then can one proceed? The author of this work can think of only one method. One must construct a simple model which isolates one or two features of a possible real world; one must study their implications in this simple setting and then progressively elaborate and expand the model by making the assumptions less and less restrictive. But on each occasion there will soon come a point at which further elaboration will make the model too complicated for it to be of any more use than the real world itself in helping one to comprehend the forces actually at work. Then one must begin again with another simple model which isolates another set of relevant features of the real world and start the whole process of gradual elaborations over again.

In this procedure one should be extremely frank about the assumptions which are being made at each stage for each model. This will unfortunately make many students despair of a discipline which appears so unrealistic. But this risk must be taken. Any other course means that the economist bamboozles himself as well as his

students. One should always avoid the risk of claiming more for one's analysis than one can in fact rightfully claim. The art of political economy is to choose models which combine simplicity with relevance to certain important features of the real world. The economist can never be sure that he knows the answer. But if he has built a large number of models which between them incorporate in various ingenious combinations all the main features of the real world which he thinks are likely to be relevant to the issue which he is examining, and if each of these models passes the same verdict upon a given economic policy, then he may have some confidence that this verdict is more likely to be right than wrong. The author of this work is convinced from his own personal experience that, employed in this careful manner, economic analysis can help greatly to illuminate problems of policy in the real world.