

The economics of industrial society

MICHIO MORISHIMA

Translated by

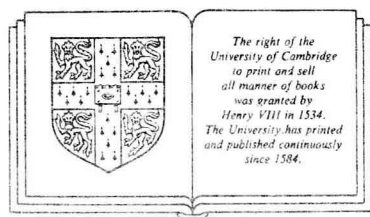
DOUGLAS ANTHONY, JOHN CLARK, and
JANET HUNTER

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Preface

This book has been written as an introductory economics textbook for first or second year students, but it is also intended to be used on occasions as a textbook for courses on the principles of economics for third or fourth year students, and as a supplementary reader for private study by MSc students. Furthermore, at the risk of setting my hopes too high, I hope it will also be of interest to fellow economists.

The content of this book does, in fact, reproduce the content of the lectures which I have been giving to first year students at the LSE for several years now. Many of these students come to us having already studied 'A' Level economics in the sixth form, and the proportion of our students who have done this has recently been showing a marked increase. It is therefore desirable to present to them lectures with a higher-level content than 'A' level economics – often P. A. Samuelson's *Economics* and R. G. Lipsey's *An Introduction to Positive Economics*, for example – or at least lectures which do not just repeat the content of such works. This book marks my supply in response to this sort of demand.

The approach of this book differs to a considerable degree from standard economics. If one really wishes to study economics at the present time one has to pay assiduous attention to consumer theory and the theory of the firm, dependent on the concepts of the marginal rate of substitution and marginal productivity respectively. That students should acquire 'the habit of rigorous thinking' through this kind of learning process is obviously an extremely good thing, but the rigour emphasized by these theories is no more than a geometric (or mathematical) rigour. All historical exactness or fidelity to the facts is either made light of, or totally disregarded.

We should, of course, be pleased that economics has increasingly 'progressed' towards an exact logical composition, but it is regrettable that this has resulted in at least one of the most important divisions of economics ending up as a grandiose philosophy seeking to find out the logical implications of the pursuit of utility maximization on the part of

the individual and profit maximization on the part of the firm – what we might call a philosophy of freedom.

In this book such theories as these are not discussed at all. The theorem of the realization of a Pareto optimum in a situation of competitive equilibrium has entirely been ignored. The same is true of the equation for consumer behaviour – income effect and substitution effect – and of the marginal productivity theory; they have either been disregarded or accorded only the barest mention. Instead this book attempts to analyse the price mechanism in accordance with reality and at the same time to introduce students directly to the major problems of economics – i.e. an analysis of the way in which the real economy operates and the best way to bring about a change in direction in this operation. For an analysis of such problems as these a high-level consumer theory is quite unnecessary, as this book makes abundantly clear. What is more important is a knowledge of historical experience and the observation and formation of the way in which actual institutions work.

As is stated in the introduction, the operation of the economy in 'middle-ranking' industrial nations such as Britain, Japan, Germany and Italy, differs from its operation in 'large-sized' industrial nations like the United States. Medium-sized nations have to be dependent on other countries for their raw materials, therefore have to export in order to raise this capital. Hence foreign exchange problems occupy a pivotal place in production theory, and friction – or, in the very worst cases open conflict – arises between financiers and industrialists regarding whether the exchange rate should be high or low. Such problems as these are not matters of life and death for the large industrial nations which can be more or less self-sufficient, and where imports and exports are very small in proportion to GNP, but for the medium-ranking industrial countries they are of primary importance. I therefore believe that we should have for these medium-sized nations economic theories (and textbooks) different from those we use in the case of the United States, and this book is my own first step in the direction of the quest for this kind of theory. For that reason I would like to recommend it not merely to university students but also to those who have already graduated and who now find themselves surrounded by the operation of the 'real economy'.

I suspect, however, that one part of the second section of the introduction to this book will be difficult to understand, not merely for students but also for those who have gone through economics courses. Should this be the case, I hope that although the reader may have encountered in the introduction passages which are difficult to under-

stand, he or she will not stick at that point but read on to the end of the book and then afterwards reread the introduction. It is likely to be a good deal easier the second time around. I have explained further in the Additional Note about those topics which are dealt with in normal textbooks but which here are either disregarded or given scant attention.

Although based on my lectures at LSE, this work was first published by Iwanami Shoten for Japanese readers, which accounts for the large number of examples taken from the case of Japan. For the English translation I am indebted to the efforts of D. Anthony, J. Clark and J. Hunter and would like to express my gratitude to them.

March 1984

MICHIO MORISHIMA

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Introduction

1 Which economics?

The variety of economics

There are, fortunately or unfortunately, a large number of schools within economics. Each school possesses its own particular theories, hence there is a great diversity of economic theories. They can be roughly classified into such schools as, for example, classical economics, neoclassical economics, Marxian economics, and Keynesian economics, but these can then be further classified into sub-schools such as the neo-Ricardian, neo-Marxist, neo-Keynesian and even neo-Austrian. On top of that we have institutional economics, the historical school as well as power school of economics.

There are, in effect, a galaxy of plausible theories, but they all aim to analyse and explain the capitalist economy, so very few economists indeed even think that these theories can be used to shed light on socialist economies. What is needed for this is a quite separate theory. Similarly, when considering a capitalist economy which incorporates a relatively high degree of planning the theory of competition used for the free enterprise system cannot possibly be applied without substantial modifications. It is taken as a matter of course that for analysing different systems different theories must be used.

This approach is regarded as the common sense one by economists of socialist countries. No one is likely to believe, for example, that the theory used in analysis of the Soviet Union will, just as it stands, be appropriate to Poland, Yugoslavia or China. Among economists in capitalist countries, however, you are unlikely to find many opportunists who make assertions along the lines of 'Classical theory is the most valid for country A, Marxian theory for country B, and Keynesian for country C'; if an economist is a Marxist then that economist is likely to claim without any flexibility that Marxian economics is the correct theory for all capitalist countries: the United States, Britain, Japan and so forth. And in that respect neoclassical economists and Keynesians are no

different from their Marxist counterparts. They remain loyal to the theory in which they themselves believe and are convinced that the real capitalist economy must in each and every respect operate in the manner prescribed by their theory.¹

When looked at closely socialist economies differ tremendously from one country to another and possess considerable individuality. Free enterprise economies likewise are not completely uniform. The real economy is not managed by an abstract ethereal being known as *Homo economicus*. Countries may share a capitalist economy, but their historical experience and cultural traditions differ, and the lives, beliefs and modes of behaviour of their people are certainly not the same. Not only that, but the methods and attitudes of organizations such as companies, banks and labour unions are quite different. They encounter, as a result, very different problems. The problems of wage differentials between large and small enterprises and of unpaid family employees, for example, which have been more or less solved in Britain, remain very severe difficulties in Japan. Furthermore each of these countries can also react in a different manner to the same stimulus. Where the difference in reaction is not more than a matter of degree it is possible to handle these economies with models of the same type using

¹ Lionel Robbins' famous definitions of 'economic' was probably connected with the establishment of this sort of conviction. According to Robbins economics is the branch of learning which is concerned with the allocation of scarce resources among the various aims competing with each other for them. Those who define economics in this way as the study of the management of scarce resources are likely to consider that the most efficient way of administering these resources will be the same in any country. They therefore usually tend to regard neoclassical theory as the most appropriate scholarship to teach this kind of means of management, and apply it to all countries, on occasions even to the Soviet Union. Hence the conviction that neoclassical theory, and neoclassical theory alone, is the true economics. (This is the sort of reason why many Western economists have ended up by subscribing to Kantorovich's theory of production planning as one element of neoclassical theory.) My own tacitly adopted definition of economics is different: It is that economics is the branch of learning which concerns itself with elucidating how the elements of the material life of the people of a country compete with each other, and how they are mutually interdependent. Therefore whenever people are directly confronted by some difficulty relating to the management of their material lives, economists are under an obligation to look into how that particular problem can be removed. In view of the fact that the way in which the material lives of the people are related to each other differs from system to system, and the difficulties which crop up also differ according to system, the content of economic theory may also be expected to differ accordingly. In considering matters of policy, there are frequent cases where the conclusion is unavoidable that a difficulty cannot be dealt with without changing or amending the system, so it is essential that whatever their country economists should be guaranteed a wide measure of freedom to criticize the system. Robbins, L., *An Essay on Nature and Significance of Economic Science*, 2nd edn., London, Macmillan, 1949; Kantorovich, L. V., 'Mathematical Methods in the Organization and Planning of Production', (1939), *Management Science*, 6, pp. 366-422.

different numerical values for the coefficients (parameters) constituting the framework, but where the reactions are qualitatively different they have to be analysed using quite separate models. As the peculiarities of each economy become more and more well-defined we become more and more dissatisfied with these ready-made, conventional models – be they neoclassical or whatever – and the development of more appropriate models becomes a matter of primary concern to economists.

Large, medium-sized and small industrial countries

In this book we shall leave aside completely the differences in the characters of the people and the disparities in their cultural traditions, and instead classify economies quite simply according to scale, dividing them into three groups: large, medium-sized and small.² Large capitalist countries will be deemed to mean countries such as the United States which are rich in natural resources, which are more or less self-sufficient, having virtually no dependence on any other country, and whose economies can develop any industrial sector that should be necessary. Countries whose land area is small and which are perforce dependent on other countries for many of their industrial raw materials and fuel are designated 'medium-sized industrial nations'. These countries, however, are by no means small, and are strong enough to be able to develop domestically all sectors of industry. The ratio of the volume of raw material imports to the level of production of manufacturing industry was in the case of the USA in 1977, 2.5%. The same figures for 1978 for Britain, Italy and Japan were 12%, 10% and 9% respectively, so these three countries are classed medium-sized industrial nations in our sense of the term.³ The same year the figures for West Germany and France were 5.6% and 6.6% respectively, so these countries, too, can be said to demonstrate a marked 'medium-sized' tendency in comparison with the United States. Moreover in our 'medium-sized nations' the agriculture and mining sectors are weak, with the amount of production of these sectors comprising only a very small percentage of total GNP. In the case of both Britain and Japan these percentages in

² The ethos of a people frequently governs their destiny. For discussion of this problem, see my *Why has Japan 'Succeeded'?*, Cambridge University Press, 1982.

³ To obtain these figures imported fuels should, strictly speaking, be included. However, since many imported fuels are consumed outside the industrial manufacturing sector very detailed statistics are needed for any calculation of the proportion of the price of the products of manufacturing industry accounted for by imported raw materials and imported fuels. If we here for the time being regard all imported fuel stuffs as being used by manufacturing industry the figure comes to 16% for the USA, 26% for Japan, 30% for the UK, 16% for Germany, 24% for France and 31% for Italy, providing us with almost the same conclusion as the text. (Figures relate to 1977 for the USA, 1978 for the other countries.)

1978 were 4%; for West Germany, France and Italy the figures were 7%, 9% and 12% respectively, so that both Britain and Japan can be said in this respect to be archetypal 'medium-sized' nations. Of the other three, however, both France and Italy have fairly sizeable agricultural sectors and in this sense cannot be regarded as typical of 'medium-sized industrial nations'.

Small industrial countries are unable to produce all industrial commodities. Some of them may be unable to produce capital goods, and have to purchase machines from abroad, while others may be unable to produce certain kinds of consumer goods and have no choice but to import these consumer goods from other countries to satisfy demand from the people. In as far as its population is small, a small-sized country will not possess the labour force adequate for the domestic production of all kinds of industrial products, so such small countries are likely to be forced into the position of 'small industrial countries'. However, there also exist countries, which, while they may be sizeable in terms of population, cannot, for reasons such as the low level of education, develop those sectors of industry which require particular skills. Some industrial countries in the process of development become 'small industrial countries' for this reason, and many of these countries may easily before long become 'medium-sized industrial countries' if the opportunity offers. Some may even progress to become 'large countries'.

Model for countries lacking natural resources

In this book I intend to try to analyse those countries we have defined as 'medium-sized industrial countries', and in an effort to reach greater clarification of the concept of a 'medium-sized country' I shall venture to make a somewhat bold abstraction along the following lines. Let us consider the case of a country which possesses no natural resources whatsoever of its own. There exist, therefore, no agricultural sector and no mining sector. This country's industry, however, is capable of producing sufficient goods – both in the consumer goods sector and in the capital goods sector – to satisfy the demands of its people. It therefore imports no finished industrial goods from any other country.

However, these industrial sectors require raw material and fuel. A country with no natural resources of its own has no choice but to import such raw materials and fuel from elsewhere. Given that imports of this kind are unavoidable this country is going to have to export part of its industrial production to pay for its imports. The problems of earning through exports such-and-such an amount of foreign currency, and of how much foreign currency will be necessary to purchase imports, i.e.

the problem of trade receipts and disbursements, is a significant matter, literally one of life and death, for the country. Should the foreign exchange rate change the cost of imported raw materials and fuel will also change, thus influencing the costs of production of industrial goods and hence their price. In this way, in a country lacking in natural resources, industrial production (which is the same as that country's total national production) is directly linked to the exchange rate.

Since there is no agriculture, foodstuffs have to be imported from other countries, but in our no-resource country there will be no importing of agricultural products for immediate food use. Despite this there is unlikely to be any shortage of food, because according to our model one section of the consumer goods production sector, that manufacturing tinned goods, has as its raw materials imported agricultural and marine products and supplies the people with these tinned goods.

Clearly this kind of model is a distorted one, one which represents in an utterly deformed way the realities of a medium-sized industrial country. Nevertheless this kind of crude abstraction is absolutely imperative if we are to reveal the essentials of the economy which we have selected as the object of our analysis. Just as the twisted faces drawn by Picasso expressed very well the individuality of their subjects so in science does one gain a more precise grasp of the real fundamentals by exaggerating one side of the reality through abstraction and eliminating completely the other side. In this work we will not be concerned with the other sizes of industrial country, but if, while studying the theory of 'medium-sized industrial countries' we bear in mind the question of how to reach a model for the large and small industrial countries, then this will develop our ability to conceptualize.

2 The outline of this book

Part one: The theory of prices

This work is divided into two main parts. Part One discusses the way in which prices are determined. Ordinary textbooks tend first of all to state that a price is determined at the point where the demand curve and the supply curve intersect, and then move on to an explanation of each of these curves (expounding the utility or indifference-curve theory of consumer demand and the theory of firms based on the principles of profit maximization; these theories yield the demand curve and the supply curve, respectively). However, this means of determining prices fits only one group of goods: agricultural, forestry and marine products, and some minerals. The prices of many industrial products are not

regulated by the market so as to equate demand and supply; prices have already been decided at the factory at the time of shipment, and the amount of shipment is regulated according to the volume of demand. Of course even when the price is determined in this way by the supplier (the factory) there is frequently price competition between suppliers, competition which is in some cases so fierce that it can be more appropriately termed a 'price-war', and there is no question of such price competition being a revision of prices to regulate supply and demand. It is aimed at bringing down competitors. Any equating of the supply and demand of these goods is achieved not by price regulation but by regulating the quantity available (the volume of shipments).

On top of this the foreign exchange rate is determined by the dealers of the various banks according to particular formulae. Furthermore in the real economy wages are not determined by the congruence of supply and demand, being bid up and down in the manner described by the textbooks. In short, in the real economy the price of each good is decided according to a number of formulae, and the first half of this book will attempt to explain the manner of determining the prices of those goods which have the greatest bearing on our 'country without natural resources'. Discussion will include the means by which the prices of agricultural, forestry, marine and mining products which constitute the raw materials of our industrial sector, are determined on the (foreign)-commodity markets; the nature of the full-cost principle which supplies the formula by which each factory decides on the price of its products; and how the exchange rate is determined on the international interbank market. Discussion of the labour market and the financial markets will be reserved for Part Two of the book.

Part two: Say's Law and the principle of effective demand

In Part Two we will discuss the circulation of both goods and currency. Since our country without natural resources has no agriculture no landlord class need be considered. The people make their living as workers, entrepreneurs or capitalists, or if they are unable to become any of these they become unemployed. The entrepreneurs are distinct from the capitalists. It is the capitalists who supply the capital for the enterprise, and the entrepreneurs who are responsible for its direction and management. Cases where capitalists are at the same time entrepreneurs are, of course, quite frequent, but in view of the fact that there are countless capitalists who despite contributing capital have no role in planning or management, and because there are also large numbers of entrepreneurs who possess no capital at all – or hardly any – and carry on their business with loans of capital from elsewhere, entrepreneurs

and capitalists must be kept distinct from each other. Enterprises normally raise funds through the issue of stocks, but we shall assume here that funds are raised through the issue of (fixed-interest) debentures. Hence the capitalists who finance the enterprise are rentiers.

There are in economics two fundamentally conflicting methods of thought. The first of these takes the view that overproduction is impossible when the economy is taken as a whole, that is to say if the total volume of production $p_1X_1 + p_2X_2$ is decided then a total demand in accordance with this level will always be generated.⁴ The second is the view that it is total demand which determines the total volume of output, and not vice versa. The former is called Say's Law, and the latter the principle of effective demand. Ricardo, who dominated the field of economics up to the first half of the nineteenth century, recognized Say's Law, so this law was called by Keynes the postulate of the classical school.⁵ Since such a postulate is necessary for general equilibrium to be achieved, theorists who believed in general equilibrium, including Walras, subscribed to Say's Law, but from the mid-nineteenth century, scholars denying the validity of Say's Law began to appear, for example Marx and his disciples. The ideas of these opponents of Say's Law eventually bore fruit in the form of Keynes' principle of effective demand.⁶ The basic theme of the history of economics over the century preceding the publication of Keynes' *General Theory* can be regarded as the attempt to overturn the world of Say's Law (Ricardian economics) and to construct a system not governed by this law (Keynesian economics).

This book is written from the standpoint of the principle of effective demand, but before coming down conclusively on the side of this principle I shall explain briefly what I regard as the deficiencies in Say's Law. Any decision on the level of output involves a decision on the wages to be received by workers and the income of entrepreneurs, and these individuals all consume part of their respective incomes, and save the remainder.⁷ If it can be always guaranteed that investment will be

⁴ X_1 is the volume of production of consumer goods, X_2 the volume of production of capital goods. p_1 and p_2 are their respective prices.

⁵ Keynes, J. M., *The General Theory of Employment, Interest and Money*, London, Macmillan, 1936, p. 26.

⁶ Walras' position is an ambiguous one. In the text of his *Elements of Pure Economics* (translated by W. Jaffé, Richard D. Irwin, Inc., Homewood, Illinois, 1954), he clearly refutes Say's Law, while affirming it in his mathematical model. Any denial of Say's Law in his mathematical model would have amounted to a recognition that such a thing as a situation of general equilibrium, far from coming into being, did not generally exist. (M. Morishima, *Walras' Economics*, Cambridge University Press, 1977, pp. 70-122.) Concerning Marx see his *Theories of Surplus Value*, part II, London, Lawrence and Wishart, 1969.

⁷ See Additional Note a.

equal to this volume of savings, then the total level of production will always be equal to the sum of the total amount of consumption plus the volume of investment, i.e. to the total level of demand. Hence Say's Law will operate.⁸ Overall surplus production is not possible; if there is overproduction in industries producing consumer goods there is bound to be underproduction in capital goods industries.⁹ In this way in order for Say's Law to take effect the amount of investment generated must be equal to the total amount of savings, regardless of the prescribed level of the total volume of output.

This, however, is quite simply impossible. The decision on whether to invest rests with the entrepreneur, and neither the workers nor the rentiers have any part in it. When total production is at a high level the total volume of savings is accordingly high, so savings can without any problem exceed investment. Conversely when the volume of output is small total savings will be less than total investment. This being the case there is no question of total savings equalling investment at every level of total output. It will be no more than a case of savings equalling investment by chance at a certain level of total output. This stipulated value of output is known as the equilibrium output value, and since any volume of production differing from the equilibrium value generates savings which are either greater or less than investment, then overall overproduction and underproduction are very possible.¹⁰

It is this that serves to negate Say's Law. The entrepreneurs' investment decisions are devoid of any mechanism which might enable them to revise their investment plans to invest at exactly the same level as that reached by savings at any time, whatever the volume of output may be; they also lack any flexibility which might produce this kind of revision. Conversely, in the real economy the amount of production accords with the amount of investment decided on by entrepreneurs. In this manner production is carried out on a scale which will produce the

⁸ I_2 is the volume of demand for investment, $p_2 I_2$ the amount of investment funds. Should this amount of investment always be equal to savings, the result will be

$$p_1 X_1 + p_2 X_2 = p_1 (D_1^w + D_1^c + D_1^i + E_1 + G_1) + p_2 (I_2 + E_2 + G_2) \quad (*)$$

according to the (*) formula given in the Additional Note a. That is to say the total amount of production equals total demand.

⁹ Formula (*) in note (8) can alternatively be written

$$p_1 [X_1 - (D_1^w + D_1^c + D_1^i + E_1 + G_1)] + p_2 [X_2 - (I_2 + E_2 + G_2)] = 0 \quad (**)$$

If the part within the first square brackets has a plus value (i.e. surplus production of consumer goods), then the formula within the second square brackets has a minus value (i.e. underproduction of capital goods).

¹⁰ If $S > I$ then the left side of the formula (**) in note (9) has a positive value, so the sections within both the first and second square brackets are together likely to assume a positive value, hence giving rise to general overproduction and contradicting Say's Law.

equilibrium value of output, but production of this sort of scale is not necessarily such as will result in full employment among workers. At times when entrepreneurs are not particularly keen to invest the equilibrium amount of production will be small, and unemployment is, as a result, unavoidable.

Under Say's Law there are no obstacles to full employment. As long as production is carried on at the level necessary to realize full employment, then investment will adapt itself so as to equal the appropriate level of savings, and supply and demand are balanced at the full employment level of output; neither overproduction nor underproduction will exist. In an economy where Say's Law does not operate insufficient investment becomes an obstacle to full employment. And in an economy where the inclination to invest is insufficient the government must either positively generate demand to remove this insufficiency, or in some way encourage financial agencies into stimulating the desire to invest. Hence fiscal and monetary policy will constitute the main topic of Part Two of this volume, and there will also be some discussion of problems related to dealing with the ill effects of these policies (such as deficit financing, inflation, and stagflation).

The approach adopted by this book

This book is both theoretical and analytical, so mathematics is frequently utilized. The mathematics is, however, not difficult, and the level of knowledge attained with O-level mathematics is adequate for an understanding. My own belief is that economics is not a single pure science, but a grand integrated body of knowledge. Therefore in order to gain an understanding of economic theory it is not enough merely to be conversant with the mathematical framework of the theory. There must also be some considerable knowledge of the social, institutional and historical foundations of that theory. Any attempt to disregard this social, institutional and historical background, and to consider and examine economic theory as no more than formal logic and chains of mathematics, cannot possibly be the right way to study economic theory.

At appropriate junctures in this book, therefore, pages are devoted to the explanation of economic systems and attempts made to consider matters from an economic history standpoint. I am under no illusions that such discussions are adequate, but I have adopted this sort of approach here in the hope of persuading the readers of this book that economics is an integrated science. It expresses my own antipathy towards the way in which theoretical economics has become no more than a mathematical skeleton.