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ECONOMIC THEORY

MAN AND SOCIETY SERIES

ECONOMIC THEORY

by

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FREDERICK MULLER LTD
LONDON

FIRST PUBLISHED BY FREDERICK MULLER LTD
IN 1954
PRINTED AND MADE IN GREAT BRITAIN BY
WILLMER BROTHERS & CO LTD BIRKENHEAD
BOUND BY THE DORSTEL PRESS, HARLOW

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PREFACE

THIS book is intended for that large army of ordinary folk who use the non-fiction sections of our public libraries. Since many serious-minded citizens are unfamiliar with mathematical techniques, it contains no algebra or diagrams. Readers who prefer a more mathematic treatment of the subject should use the grade two texts recommended later in this book.

The primary purpose of the book is to discuss those economic problems which interest the majority of people to-day. No attempt is made to cover the whole field of economics or to exhaust the topics discussed, and it must be emphasised that for the serious reader the book is only the first step into a vast store of important and exciting ideas. Those who wish to read more on the topics discussed should work through the recommended reading beginning with grade one and moving towards grade three. Some of the topics not discussed here, especially those concerned with the level of activity and the maximising of welfare, may be dealt with later.

Questions have been appended to each chapter. These are intended to stimulate thought and discussion and to persuade the reader to analyse problems. They cannot be answered by simply memorising the text: they can be answered by the intelligent application of economic theory. As some questions may yield more than one answer, depending on the assumptions made, it may help if the relevant assumptions are recorded as they become apparent.

The book has grown out of work done with University Tutorial Classes organised by the Workers' Educational Association. The encouragement and stimulus required to write it were provided by Professor S. G. Raybould, Head of the Department of Adult Education and Extra-Mural Studies at the University of Leeds. Dr. Raybould also made several suggestions for improving the text and to him I owe a special debt of gratitude. I also wish to thank Professor A. J. Brown for valuable criticism of the text, Miss Newell for typing it, and my wife for incidental assistance.

INTRODUCTION

ECONOMICS

MOST people living in Britain to-day would not object to an increase in their personal incomes. Many of them are anxiously seeking for ways and means to secure such an increase. The great majority of us feel that we only need a small addition to our income to give us contentment. Those who earn five pounds a week feel that seven pounds a week would solve their problems, those already earning seven pounds a week feel that ten pounds a week might be just sufficient. This feeling that a small increase in income would solve most of their monetary problems seems to exist in most people no matter how large their incomes.

Those who earn a relatively small income find it hard to believe that any decent person receiving ten or twenty times their income can still be dissatisfied. Many poorer people believe that the rich could be perfectly happy with much smaller incomes, and they also believe that many of the existing income inequalities are unnecessary and unjust. They know from experience that it is the unskilled workers doing the physically exhausting and unpleasantly dirty jobs who usually receive the lowest monetary rewards. It is useless to suggest to them that there is "plenty of room at the top" because they know that most unskilled workers live and die as unskilled workers.

Many people in the lower income groups feel that their problem can be solved most rapidly by a redistribution of incomes. They see no real reason why the lowest wages should not be raised, even if it means reducing some of the higher salaries. Some unskilled workers believe that their wages should be increased by reducing the difference between their wages and those paid to skilled workers.

A great number of skilled workers, and of higher paid salary workers, would agree that the lower paid workers need an increase in their incomes. Certain of these higher paid workers would be agreeable to some slight redistribution of salaries and wages to reduce the severest poverty amongst the lowest paid, but this does not mean that they are satisfied with their own standard of life, or convinced that their wages and salaries are a just reward for their skill and ability. Many of them believe that the wages and salaries of all workers should be increased, although some further and more rapidly than others.

The wages and salaries paid to the workers by their employers are payments for services rendered. These services rendered by labour impose a mental, nervous and physical strain; they consume a large proportion of the worker's waking life and usually require that he should accept some discipline imposed by the needs of his employer. In addition he and his family may have to "set up home" in a drab and unhealthy urban area so that the worker can be reasonably near to his place of employment. Because of the inconvenience and strain imposed by work, the worker not only feels that he needs a bigger income, but also that society owes him a bigger income.

Many workers feel that the rewards of industry are unfairly distributed. They know that some people live without working because they receive unearned income. When the worker feels that he is not being paid a just reward for his labour he frequently concludes that he is being exploited for the benefit of people who receive unearned incomes. He knows that some people who receive unearned incomes not only live without working, but also that they live at a standard of comfort which very few workers can ever hope to attain. Influenced by this difference in the standard of life enjoyed by the wealthier recipient of unearned income and that of the lower paid worker, some workers become convinced that if they could only secure their just reward they would have that little extra income necessary to contentment.

A large proportion of the people who receive unearned incomes appear just as anxious to have their incomes increased as are the workers. Most people who receive unearned incomes believe that they have every right to receive them. Usually the income is paid to them for allowing their property to be used in the service of others, as for example when we rent a house, ride in a bus, or use a wireless set before paying for it in full. It seems fair to assume that the property owners accept their unearned income with the same spiritual tranquillity with which we receive interest on our Savings Certificates and Co-operative Society shares. Usually they, like us, have only one regret and that is that their unearned income is not larger. The individual property owner may increase his unearned income either by receiving a higher reward for the use of his existing property, or by increasing the amount of his property used by others.

This latter possibility will strengthen his desire to obtain the highest possible current income.

The right to, and the desire for, income, are not restricted to individual men and women. In Britain to-day we have a great number of companies and societies which also have the right to, and the capacity to use, income. Many people are paid their personal incomes for services rendered to such corporate bodies, but it is usually legally possible for such corporate bodies to retain some part of their total income for adding to the property of the company or society. When current income is large enough to give them any choice, the people who determine the policy of a corporate body may wish to accumulate reserves for paying out expenses in a future period of slack business, or for financing expansion of equipment to increase sales in periods of good business. Frequently the people who control such organisations are just as anxious to increase the corporate income as the individual is to increase his personal income.

Some corporate bodies such as Water Boards are owned by local committees; others such as British Railways are owned nationally. Sometimes such corporate bodies incur losses, but to judge from the public statements of managers and executives connected with public enterprises, they take greater pride in making profits and in expanding activities, than in losing business and incurring trading deficits. In so far as there is pressure from the outside public it is for better service and equipment. The total result is that publicly owned enterprise is under pressure to increase its income as much as possible.

Certain services are provided for us by the local and central governments. Most of the officials who plan and administer these services take a great pride in the achievements of their own departments. Usually they are looking for ways of improving the service. Experience suggests defects, scientific development suggests the need for various extensions in activity. When the official is fairly certain that improvements are possible, he has to seek authority to spend the necessary money, from laymen serving on committees. Usually these committee members are very proud of the service with which they are associated and support good officials most enthusiastically. The desire to improve and extend public services gives us another demand for increased income.

It seems certain that if we could add together all the incomes

which individuals and corporate bodies would like to have, the total would be much greater than the total value of current income now being received. But if we add up all the money incomes now being received for services currently rendered, they will equal the value of current production. Everybody is paid for what he sells, everything produced already belongs to somebody. Consequently there is no surplus of unwanted wealth available to meet this apparent demand for an increase in incomes.

If everything being produced already belongs to some person or corporation, we can only increase our share of that income by reducing someone else's share. There are at least two ways by which we might increase our share of a given national income. We can persuade those who buy our labour to pay us a higher price for each service we render, as for example, when trades unions raise wages more rapidly than other prices rise; or the Government may take some of the income from certain groups by taxation and use it for our benefit. But within a community where almost everyone would like an increased income, such attempts at redistribution may be resented and resisted, and this opposition may set a limit to the possible peaceful redistribution of income.

Despite the resentment and resistance provoked, some countries may gain in well-being from a change in income distribution. Even so, however, there may be other methods available which would give a greater and more certain increase in well-being. Such information as we have, about economic development in the western capitalist democracies, suggests that when national income increases the great majority of individual incomes share in the increase. It may be that in some countries the workers would benefit more from an increase in national income than from intensified pressure for income redistribution.

If our well-being can be improved either by a further redistribution of income, or by an increase in the national income, which shall we choose? The answer we give will depend very largely on our social ideals. If we are mainly concerned with increasing our personal income, or the income of some group in which we are personally interested, we may support policies which increase the national income, even though they increase the income disparity between the very rich and the lower income groups. If we are mainly interested in income equality we may

resist all policies which increase inequality. Probably the policy which would command most support would be one which simultaneously increased the national income and reduced income inequalities.

Having decided what it is we want we must then look at the obstacles which stand in the way. The easiest solution to our income problem would be a world in which everybody had enough of everything, including leisure. But what are the obstacles which stand between us and that sufficiency which always seems so near, so desirable and so elusive?

Most of us when we talk about our income are thinking about our money income, the size of our wage packet, our salary or dividend cheque. These payments are made to us by individuals or enterprises in return for the use of our labour or capital. When we sell our labour, or lend out our property to business men, those who hire these resources from us are usually selling some product or service. The income of the business comes from the payments made for this product or service.

The employer who organises and controls a business usually hopes to derive some monetary benefit. He can only do this if his income from selling the product exceeds the cost of making and marketing it. The day to day conduct of the business will require outgoing payments for raw materials, for light and heat, for labour, for use of property. There may also be bank charges and payments for the use of money lent to the business. Over a long period of time machinery and equipment will have to be repaired and ultimately replaced. A business man who continually fails to cover these costs will be heading for bankruptcy.

When those of us who supply labour or capital to a business man try to make him pay us more, what choices are open to him? If he has been making a large profit he may accept less, if his profit has not been large he may seek to increase the selling price of his product, if he expects better prices shortly he may reduce the amount he sets aside for replacing wear and tear of machinery, and if he is very hard pressed he may use up raw materials without adequate replacement. Most soundly-based businesses will cover current running expenses out of current income. Businesses which fail to do this can only continue their activities by borrowing and consuming other people's capital or by using up the capital already in the business.

The economic system of a country is made up of a great number of productive enterprises. These enterprises use labour, equipment and raw materials to produce goods and services. The flow of goods and services thus currently produced provides the National Product. If we so desired we could, by exporting the products of our machine-making and similar industries and accepting consumer goods in exchange, use the whole of the National Product for current consumption.

By using all current production to meet consumer needs directly we could raise our standard of consumption immediately, but throughout the country businesses would be wearing out machinery and equipment without making any provision for replacement. If this continued year by year we should in time cease to have aeroplanes, ships and locomotives; hand-filing would replace machine-grinding while crane-lifting would give way to man-handling. We should find that we were producing less and less per man-hour and that our National Product was decreasing.

Since very few of us prefer a world in which man instead of the machine does the hard work, we would not deliberately create a situation in which worn-out machinery could not be replaced. If it is agreed that we would not deliberately create such a situation, is there any danger of one arising by chance or through thoughtlessness? Whenever current consumption exceeds current net production (that is after adequate allowance for depreciation), we reduce our capital resources. We can do this by reducing stocks of material and finished goods or by failing to replace machinery. Decisions to increase or decrease the quantity of machinery and stocks are not made directly by the community but by the controllers of private businesses. The economic influence exerted on the controllers of private industry by the community in general consists of pressures which increase or decrease outgoing and which increase or decrease income from sales. Simultaneous pressure for reduced selling prices and for increased wage and dividend payments, if successful, could force the individual business controller to reduce his provision for capital maintenance.

There are three possible ways for the community to safeguard its capital resources. Individual businesses may keep a certain amount of current income within the business and use this to maintain and increase the capital resources of the enterprise.

Private individuals who save a part of their income and allow it to be used for capital purposes also help to maintain our capital resources. The same is true of central and local government authorities when they accumulate excess income from taxation or from public enterprise and allow it to be spent on capital equipment.

The capital resources of the country are in danger whenever the total desire to spend on current consumption equals or exceeds current production. If it is true that most of us have consumption demand that we cannot satisfy out of our present income, there must be continuous pressures threatening to deplete the capital resources of the community. This pressure expresses itself in the desire to increase real personal income out of a given National Product. We increase our real personal income when we can buy a more valuable group of articles. We can buy more whenever our money income rises faster than prices or when prices fall faster than our money income. But if production is not increased and we increase total consumption, less will be left for other purposes.

We increase real personal incomes when private individuals can buy a more valuable supply of goods and services. This can result from successful pressure on employers by individuals and organisations to increase wage and salary payments chargeable against a given output. Or distributed dividends, or the personal expenditure of business men, may be increased without any compensating increase in the income of the enterprise. Real personal incomes can also be increased if the central and local authorities take by taxation some of the income intended for capital expenditure and use it to reduce the price of consumable goods. This reduction of capital accumulation by taxation may be made directly as when the state takes a percentage of undistributed profits; or indirectly as when the taxation of certain incomes causes people to sell investments, thus converting the new savings of others, which would have added to capital, into current income to offset taxation.

The capital resources of the country may also be reduced when an increase in government expenditure for non-capital purposes is not fully covered by a reduction in private consumption. Private consumption can be reduced by increased taxation, if this is not offset by reduced savings or the sale of investments. Increased taxation will not usually be welcomed by

people already unable to buy all they desire. If the government fails to impose adequate taxation it must cover the deficit by borrowing, but if all the available savings are already being borrowed any increase in government borrowing must reduce the capital available for the other borrowers, including private industry.

The foregoing brief survey suggests that by trying to secure an adequate present income for our friends and ourselves, we may destroy the resources necessary to maintain income in the future. We may do this not because we desire to reduce the volume of capital, nor because we are evil and irresponsible, but because we fail to appreciate the collective results of our individual activities.

The kind of repercussions which may follow from the attempts of individuals to maximise their income and well-being is a major interest of the economist. During the last two hundred years economists have been trying to show how these repercussions work themselves out within the Economic System. We all exert some influence on the Economic System, many of us are anxious to make the system subject to consciously applied controls, and most of us are aware of features in it that are inconvenient for us. For these and several other obvious reasons many of us ought to try to understand the workings of the system more thoroughly. This book may assist some who desire to do so, to obtain a greater knowledge of the way it works.

ECONOMICS

BOOK LIST

Grade 1

Hicks, J. R.—*The Social Framework,* Chapters 14-17.
Samuelson, P. A.—*Economics,* Chapters 4-5.
Meade, J. E., and Stone, R.—*National Income and Expenditure.*
H.M.S.O.—*Economic Survey* (Annual).

Grade 2

H.M.S.O.—*National Income and Expenditure.*
Worswick, G. D. N., and Ady, P. H.—*The British Economy 1945-50,* Chapters 8 and 14.
Pigou, A. C.—*Income,* Chapter 1.
Seers, D.—*The Levelling of Incomes Since 1938.*

QUESTIONS FOR DISCUSSION: ECONOMICS

1. Do you think productivity in the United Kingdom could be increased without the people working harder or longer?
2. Would an increase in productivity (*a*) reduce the volume of employment, (*b*) reduce or increase the income of the manual workers?
3. Does a tax gatherer work? Does he make the community any richer by collecting from the rich to subsidise the poor?
4. If overtime earnings were tax free would this increase productivity? If so why do not employers of labour agitate for the removal of such taxation?
5. If you wanted to increase the amount saved out of a given national income would you (*a*) increase taxation and let the government save? (*b*) decrease taxation on incomes and increase taxation on spending? (*c*) redistribute income so that either larger incomes or smaller incomes received a larger share of total income?

CHAPTER I

FORCES DETERMINING THE SIZE OF THE NATIONAL PRODUCT

I

NATURAL RESOURCES

THERE are certain forces which limit the size of the National Product irrespective of the kind of society in which we live. We begin with the forces of nature such as soil fertility, mineral wealth, climatic conditions, the natural vegetation and animal life. The combination of natural forces which make up our local environment may be more or less favourable to human life, but will rarely if ever present man with an abundant supply of all the goods and services he wants, in the form and the place in which he wants to use them. Before he can begin production man has to recognise the potentialities of his physical environment. He has to distinguish between favourable and unfavourable forces; he has to discover which plants and animals are suitable for food; he has to learn which rocks and timber are suitable for buildings. Everything he gets that is of value to him, or that he can exchange for something of value to him, is real income, and real income is heavily dependent on the material resources provided by nature.

The great agency for creating real income out of natural resources is labour. When we live and work in a great industrial nation we sometimes forget this basic relationship between man and nature. We are tempted to equate production with processing. Increased production suggests to us workshops and factories with faster working machines and conveyor belts. But all these complex processing units are dependent on supplies of raw materials extracted from nature, without which there would be nothing to process. These raw materials have to be taken from nature and this frequently entails hard work under unpleasant and dangerous conditions. But this price must be paid if we are to maintain real income, since the volume of production will

be limited at any given time by the available supplies of raw materials.

These raw materials which we take from our physical environment may be created during our life-time, as with the growth of trees and grasses. This source of supply may continue indefinitely so long as the fertility of the soil is maintained. The extraction of minerals from the earth is different. It is a destructive process impoverishing the earth, and once the minerals have been extracted the process cannot be repeated. When we have used up the more accessible deposits of a given mineral we must then either work the less accessible and less productive deposits or substitute some more abundant and accessible mineral.

We help to maximise our incomes by taking our raw materials from the places where they can be got with least labour. Coal can be dug in a great number of different places but we get more per man-hour in some places than in others. Wheat can be grown in many different places but we get bigger crops per man-hour worked in some places than in others. We are sometimes told that our income is unnecessarily small because all the land capable of growing wheat is not used for that purpose. One test to apply to such statements is to ask what would be the return in real income per man-hour worked.

When land can be used to grow any one of several different crops how are we to know what must be grown to obtain the maximum benefit from it? We can measure its relative efficiency for wheat production by comparing the yield per man-hour with that given by other wheat farms, and we could also make comparisons for other crops. We might decide that it was second grade wheat land and third grade pasture. But this would not allow us to say for certain that its best use for us would be in growing wheat, since milk and meat might be so much scarcer than bread that we should be prepared to convert second grade wheat land into third grade pasture. We would then give up a relatively large quantity of wheat for which we had little demand, to obtain a relatively small increase in our supply of meat and milk for which we had a keen demand.

Man has access to natural resources but these are limited in extent and differ in fertility. The use of less fertile natural resources reduces production per man-hour, so we prefer to use the most fertile, but there are limits to the volume of materials

we can produce from the most fertile source , while still maintaining high productivity per man-hour. If we sow seed too thickly on the land the plants will choke and smother one another, if we keep too many cattle per acre they will all go hungry and lose weight. By trying to overwork the fertile resources we reduce the producitvity of our labour. We can avoid this greater loss by using some of our labour on less fertile land. The productivity of labour per man-hour on the less fertile land will be less than that of the labour used on the more fertile, but the total product of the labour force will be higher than if we had overworked the more fertile.

II
LABOUR

Our real income is made up of goods and services, the goods having been made out of raw materials taken from natural resources. Both the goods and the services are the product of human labour. The major cost to most of us in acquiring our real income is the labour we have to expend on producing goods and services for our own or for someone else's use. Most of the work we do is done not because we enjoy the effort of creating income but because we hope to enjoy using the income. The strain of working is less burdensome at some times than at others; nevertheless work is usually regarded, by those who do it, not as a form of enjoyment, but as a sacrifice to be made to secure further instalments of income.

Human activity becomes burdensome when we must persist in it even though we are tired or bored. When we are tired we would prefer to rest, when we are bored we would prefer other activities. Sometimes we must continue with our work when we are both tired and bored. Industrial psychologists try to reduce the rate at which particular jobs create a sense of tiredness and boredom, but few of us would expect them to remove all strain and effort from human labour. Yet some of the increases in productivity achieved by the removal of unnecessary grievances and misunderstandings suggest that we are frequently capable of producing a bigger output with no real addition to the physical and psychological strain of working.

When we are working to maximise our income we are conscious of forces within ourselves which limit the amount of

work we can do in a given time. After we have worked for a certain time we need to rest, and the length of time we can work without resting depends on the intensity with which we work. The amount of energy the individual can create and use in a given period of time is limited. If we try to use more energy than our bodies can generate we create mental, physical or nervous breakdowns which reduce our total productivity in the long run, while in the short run the accident rate and the proportion of faulty work is increased. By trying to work beyond our capacity we produce less. Capacity for work varies greatly between individual workers, some being stronger, more intelligent, more energetic or more dexterous than others. If all work required exactly the same personal qualities some of us would be at a grave disadvantage, but fortunately production requires many different capacities. By organising production so that each individual can use more fully those physical and mental qualities with which he is most richly endowed, we can increase the volume of production without increasing the effort, but such a distribution of labour would not necessarily maximise our real income. We want to use our labour to produce the greatest possible volume of that combination of goods and services we value most. The production of this combination of goods and services will require a certain combination of labour and skill, but there can be no guarantee that the labour required will just enable each one of us to concentrate on the processes we are best fitted to perform. When we have to accept jobs for which we are not especially suited, physical output will decrease because the community has decided to forego a larger quantity of a good it desires with less intensity to produce a smaller increase in the supply of a good it desires with greater intensity. Similarly in a community where there is a greater shortage of doctors than gardeners, men who can become either first rate doctors or first rate gardeners will add most to the national income by becoming doctors.

The intelligent use and development of the human qualities used in production can help to increase the national product. Most of these qualities can be increased in productive efficiency by regular use and this is easily arranged when the worker specialises on a task or limited range of tasks. The specialisation which helps us to use the differing abilities of individuals facilitates the accumulation of knowledge and judgment about

the task, encourages the development of greater manipulative dexterity, and saves mental and physical energy by reducing movement between jobs. Time and Motion Study experts try to maximise the productivity of a given labour effort by minimising the unnecessary movement of men and materials. Specialisation may not be beneficial if it increases boredom in the worker, if it makes the worker mentally passive, if it increases the incidence of industrial disease, or if it produces goods the consumer will not refuse, instead of goods he keenly desires.

III

CAPITAL

The production of the goods which satisfy our wants takes time. We plant seed and in time we reap a harvest. The seed we sow for the harvest is itself the product of a previous harvest, so at least two years are needed to create a harvest. The making of tools and machinery takes time to produce the raw material and to fashion it into tools and machines. The work of the men who extract the raw material and that of those who make the machines do not add to the flow of consumer goods until the machines increase the productivity of the labour employed on making consumer goods. But the workers have consumer needs which must be satisfied daily; they cannot leave these unsatisfied from seed time to harvest or until the new machinery adds to the production of consumer goods. We can accumulate the resources to feed and clothe us while we work on capital projects, and the materials for making tools and machinery, when our current income exceeds our current consumption, but whenever current consumption is equal to current production there can be no increase in our capital resources.

We can increase productivity per man-hour by adding capital to labour and natural resources. With a spade a man will break more soil than with his hand, more still with a plough, and even more with plough and tractors. This is not all net gain since some time during which he could have broken soil was used to make the spade, plough or tractor, but that there is the possibility of net gain is shown by the increased income per head in those countries where capital equipment has been increased. If tools and machinery do not increase the productivity of a given labour effort it is futile to make them as we may always lose

the labour embodied in them if they break or are superseded.

If by increasing the proportion of our income that we save and invest we can increase the future productivity of labour per man-hour ought we to try to reduce current consumption? The answer will depend on the adequacy of our present income. The less adequate our income the more we desire an increase, but the greater our reluctance to save. If we can only just secure the necessities of life we shall be reluctant to save. If our income is comfortably adequate we shall save more willingly, but what of the people whose incomes are adequate without being generous?

When we deliberately curtail our consumption to increase our rate of savings, we hope that the gain in our future real income will be greater than the present sacrifice. The larger the prospective gain relative to the present sacrifice, and the more certain we are of receiving it, the more willingly we try to save. When we expect the disparity between income and the desire to consume to be greater in the future than it is in the present, as for example when a holiday is impending, or in anticipation of reduced earning power in old age, we try to save; and if we succeed, and if our judgment is sound, we increase our real income. But if the future disparity between our income and our desire to consume will be less than it is now, we shall lose in real income by saving, unless we receive some other consequent addition to our income.

If because of our increased saving we are able to use additional capital equipment which raises productivity per man-hour, we should receive a consequent increase in our real income. Within a society containing men of inventive disposition there may be more possible labour-saving devices than can be produced out of current capital accumulation, and even with accumulation at an increased rate some selection may be necessary. Our real income will gain most if we use our capital where it will give the greatest increase in production per man-hour of that combination of goods and services we desire most keenly. But if our savings increase so rapidly that we exhaust the possibilities of the investments which give the largest increase in real income we shall receive a smaller increase in our real income from further investment. This decrease will make those who value present income more than future income less willing to save and invest, but for those who value future income more

than present there will still be the possibility of an increase in the real value of their income and an increase in production per man-hour.

IV

ORGANISATION

The real income produced by using land, labour and capital depends on the efficiency with which these resources are used. If we use them to produce goods and services no one wants we completely waste the resources used. If we make goods people accept reluctantly because we failed to anticipate their desires correctly there is partial waste. To maximise real income we must produce the goods and services people desire with greatest intensity. Statistics showing increased physical productivity are no clear indication of economic progress, for to produce a greater quantity of goods which neither I nor anyone else wants will only annoy and frustrate us. Wrong anticipation is always possible in a world where production goes on ahead of demand, but it is important to reduce it to a minimum.

Most of the goods and services we produce require the combined use of land, labour and capital, and the maximising of real income depends on the efficient combined use of these factors of production. The productivity of a combination of land, labour and capital is influenced by the quality of each unit of each separate factor and the efficiency with which they are combined together. No matter how efficient they may be as individuals, if we employ too many men on an acre of land they will impede one another, if we employ too many in a workshop each may waste time waiting to use machines and tools. If we employ too few men the land will become weed-infested, while in workshops tools and machines may stand idle for part of the working day. From amongst the many combinations of land, labour and capital which we can use to produce a particular good there will be some that make fuller and more productive use of all the individual factors. The more successful we are in finding and using the most fruitful ways to combine the factors the greater will be our real income.

In a country where the size of the working population is changing, and where the rate of capital accumulation is subject to change, it may not be easy to find the combination of land,

labour and capital which makes the most productive use of the available resources. If in each industry we combine the factors so that we maximise the productivity of the employed factors, we may find that we have an unused surplus of land, labour or capital. By combining the factors together in a way which lessens the productivity of some factors already employed, we may bring into productive use some of the idle factors, and their combination may more than offset the loss due to the lessened efficiency of the individual combination. We may find that the most efficient combination of factors varies from one product to another and that by making more of some goods and less of others we can absorb the idle factors while retaining the most efficient combination. This will enable us to produce a bigger volume of goods but not necessarily of that combination of goods and services we value most highly.

When we watch men working in the field or at the bench we can see the immediate results of their labour, and when they work faster or slower we can see the result is increased or decreased production. The contribution made by management is much more difficult to detect, especially when this exerts an influence on the productivity of a team of men by the better integration of their individual efforts. The failures of management are usually more obvious than their successes. When the flow of work between departments is badly organised and men stand idle, when special trains run half empty, and when promotion within the labour force depends more on social graces than on any capacity to increase production we know that management is not perfect.

Discontent with management in public or private enterprise usually results in the demand for a reduction in the numbers of non-producers. The unnecessary duplication of managerial processes is wasteful, so is any other unnecessary duplication, but adequate management and co-ordination is a highly necessary function. The most economical production of some commodities requires large-scale plant employing an army of workpeople within an intricate pattern of specialised processes. This large-scale plant may simultaneously increase productivity per man-hour worked at the bench and increase the need for managerial supervision and the co-ordination of processes, but it will look as if more non-productive personnel is living on the product of labour at the bench.

Management is largely concerned to use equipment and resources inherited from a previous productive period to produce the goods the consumer will want in the future. Managers can proceed on the assumption that the desires of the consumer are already known from past experience. They can then use existing equipment to supply the consumer's established demand. Immediately managers proceed to experiment and innovate, on the assumption that the needs and desires of the consumer are not necessarily being satisfied at the highest possible level of attainment, they will introduce a great element of uncertainty. There is always the possibility that the goods which give greater satisfaction will differ in shape and texture from those previously made, leaving an obvious legacy of unused machinery and materials. This appearance of waste may hide from us the increase in real income which comes from the greater satisfaction given to present and future consumers.

FORCES DETERMINING THE SIZE OF THE NATIONAL PRODUCT

BOOK LIST

Grade 1

Hicks, J. R.—*The Social Framework*, Chapters 6-10.
Pigou, A. C.—*Income*, Chapters, 2, 3 and 4.
Benham, F.—*Economics*, Chapters 7, 8 and 18.
Cairncross, A.—*Introduction to Economics*, Parts 1 and 2.

Grade 2

Meade, J. E.—*Economic Analysis and Policy*, Part 6.
Boulding, K.—*Economic Analysis*, Chapters 2 and 3.
Robinson, E. A. G.—*The Structure of Competitive Industry.*
Hutton, G.—*We Too Can Prosper.*

QUESTIONS FOR DISCUSSION

1. If you were administering funds available for the development of backward countries would you give priority to (*a*) educational development, (*b*) the development of manufacturing industries, (*c*) the improvement of agricultural stock and equipment?

2. In a country where there is full employment, what effect will subsidies which encourage the use of more less-fertile land have on the size and composition of the National Product?
3. Why do many countries impose a heavier rate of taxation on unearned than on earned income? Does this suggest that earned incomes are socially more desirable than unearned incomes?
4. When an amateur footballer becomes a professional does play become work, and if play can become work can all work become play?
5. If in any country we have an increase in productivity per man-hour and an increase in both real wages and profits, does this suggest (*a*) that earlier generations of workers were lazy, (*b*) that the workers are now being more severely exploited by the capitalists, (*c*) that the workers are sharing in the increased productivity of capital and management?

CHAPTER 2

EXCHANGE

I

THE size of our real income is determined by the quantity and the value to us of the goods and services we receive. Some increases in our real income are difficult to measure and record, as when we produce with a new use of land, labour and capital an equivalent quantity of goods, but goods which because they are more in harmony with our desires give us greater satisfaction. For example, a certain craftsman working with similar materials and with similar intensity of effort, on two different days makes two differently shaped articles, one of which he gives to his mother and one to his brother. When, however, the mother and brother compare the two articles they both find that they would prefer the other. If, therefore, they exchange, they will each give up something they value less, and receive something they value more, thus increasing their real income from the gift.

Exchange may be essential if we are to receive any income of value to us. When individuals specialise they may attain their highest physical productivity making things for which they have no personal demand, but the total output of the group may contain the several combinations of goods which each different individual most keenly desires. Under these circumstances, without exchange we should become encumbered with what we considered lumber, but with exchange this would be converted into valuable real income.

Even when what we produce is of some value to us, we can benefit from exchange if our needs and desires are such that we cannot attain our highest standard of well-being from the use of one commodity. We may derive great satisfaction from using a part of our product, but after we have used that amount we may derive less and less satisfaction from the use of similar additional amounts. The desire for other things, originally sought with less intensity, may thus come to equal or exceed in intensity the desire to use further portions of our own product.

But if the additional satisfaction we derive from additional quantities of any and every good decreases after we have used so much of any one, we may need many different goods to attain our highest standard of well-being. Consequently when men specialise there is great scope for exchange, and everytime we succeed in exchanging some portion of our product for something else that will give us greater satisfaction we increase our real income.

We can rarely make the exchanges which benefit us without some inconvenience and effort. To make a direct exchange of something we produce for some part of another person's product, we must find someone who wants what we have and is prepared to give in exchange something we want. If we want a hundred different things it may take a considerable time to make all the necessary exchanges. Sometimes we can reduce the time and effort involved by exchange if we are willing to make do with goods that are something like those we really want, but these goods being less suited to our desires will have less value for us. The more time it takes to effect the necessary exchanges, and the greater the risk of not getting the kind of things we really want, the less willing we shall be to specialise.

The physical quantity and the quality of product can be increased by specialisation, but the higher the degree of specialisation the greater the number of exchange transactions. The increased productivity of the specialist is partly dissipated by the time consumed in making the necessary exchanges, and when as much time is consumed in making the necessary exchanges as is saved by specialisation there is no net gain. An efficient method of exchange, combined with the efficient use of our productive resources, will enable each one of us to secure out of the goods being produced that combination which will give us individually the greatest satisfaction.

If different people desire different things, and if some desires are subject to change, provision must be made for choice; and we can only have choice if there are more goods and a wider variety than we wish to buy. If five people want hats and only five hats are available they will have little or no choice. When a number of people live relatively close together some people can specialise in arranging the exchanges of goods, and they can gather together in one place an assortment of exchangeable articles. This will enable specialist producers to make their

exchanges with the minimum use of their time, and enable the exchange organisers to acquire considerable knowledge of consumer taste in the neighbourhood.

People who devote their time to organising exchange transactions will have less time to work at the production of goods and services, while specialist producers will have more; consequently we cannot necessarily increase the volume of production by transferring men from the task of exchange into production. We can have more men working in production but each one may spend less time in production, and work less efficiently, when he has also to engage in exchange. The provision of goods for the consumer must be seen as the result of the joint labours of those who work in production and of those who work in distribution. We can only justify transferring labour out of one occupation into another if there is some net gain in well-being. If the same quantity and variety of goods can be distributed with equal satisfaction to the consumer with the use of less labour, then well-being can be increased by transferring men from distribution into production. An increase of efficiency in distribution may be far more difficult to measure than increased efficiency in production, because we may unwittingly sacrifice some well-being by accepting goods less in harmony with our desires.

MONEY

II

No matter how skilfully we organise direct exchange, problems will arise, as when, for example, a man is prepared to exchange ten small pigs for a pony, but the owner of the pony wants one small pig and several other things. This transaction could only be completed when nine pigs had been exchanged for the other goods desired by the owner of the pony. The things men wish to exchange are not all equal in exchange value, and consequently one party to the exchange, if it is made directly by barter, may have to accept something for which he has little or no use, and which may not be easy to exchange for anything he desires more keenly. The obstacle to exchange here is the difficulty of converting the things we accept into the things we would prefer to have.

If there were some commodity in such regular and widespread

demand that men would accept it because they were confident of being able readily to exchange it for any other goods available for exchange, we could divide the complex direct exchange of barter into the two separate transactions of selling and buying. When we had something to exchange we would then look for a buyer, when we wished to buy we would seek out a seller; the task of finding someone who would buy what we had to sell, or of finding someone who would sell what we wished to buy, would be easier than that of finding someone who both wanted what we had and offered what we most wanted in exchange. We would accept anything men used as a means of exchange not because it had specific value in use for us, but because of what other men would give in exchange for it. Providing enough men would accept it as a medium of exchange, it need have no specific personal value for anyone.

Of the many different things used as a means of exchange some have, and some have not, had a use value apart from facilitating the exchange of other goods. Men have used as exchange media consumable commodities such as tobacco, salt and smoked fish, ornaments of gold and silver, and tokens made out of stone, base metal or paper having little if any other use value. The important consideration is that whatever is used should be generally acceptable. This requires that each man should believe that other men now and in the foreseeable future will continue to accept the medium of exchange, and that the quantity of other goods they will give in exchange for a given quantity of it will remain constant or increase.

The medium of exchange most of us are familiar with is the monetary token of coin or note issued with government approval. All this money issued with government approval is held by some person or group of persons. When we hold money we forfeit the services we could have derived from the goods the money would have bought. Why then do we hold money? We hold money because of certain payments we know must be made in the future, or to cover part of the expenditure that may be necessary if we encounter some misfortune such as an accident, breakdown, or breakage, or to enable us to take advantage of any good fortune such as an exceptional bargain that may occur in the future. In making provision for probable expenditure in the future, we visualise a certain quantity and combination of goods, the various articles included each having a price. When

we decide that we ought to buy more goods or goods of better quality, or when we decide that although prices have risen we ought to buy just the same goods as before, we shall require to hold a larger sum of money to sustain our intended expenditure.

When the money used has no value except as a medium of exchange we cannot increase the well-being of the community simply by increasing the physical quantity of money. If there is no increase in the output of goods available to buy, and if we try to spend our money as readily as before, the result of increasing the volume of money will be to raise prices. Whoever brings the new money into circulation will be able to buy goods with it, and this will strengthen the demand for goods relative to the available supply; consequently shortages will occur and eager buyers will bid up prices. This rise in prices will cause people who intend to maintain their future volume of buying at its previous level to increase their holding of money. Prices will rise less, the greater the ability and readiness of producers to increase the goods available to satisfy the increased demand, but if we expect to buy more goods with prices unchanged we shall again increase our holding of money.

Society's demand for money is the total of our several individual desires to hold stocks of money, to meet future payments. We shall try to increase our stocks of money when we intend to spend more in the future, but unless more money is put into circulation, we shall spend less now so that we can accumulate money. This struggle by individuals to hold money for longer periods will reduce the speed with which money is passed from person to person, thus reducing the money value of the exchange transactions facilitated by a given quantity of money in a given period of time. For example, if a million pounds which formerly changed hands twice a week is now held twice as long by each recipient, it will only transact one million pounds' worth of business in a week instead of two million pounds' worth as previously. If the sellers of goods were determined to sell the same output of goods each week as before they would have to cut prices in half.

We may decide to hold smaller stocks of money even though we do not intend to reduce our future consumption of goods. This we can do by holding stocks of the goods we expect to want in the future instead of holding the money with which to buy them. When we begin to convert our money income into

stocks of goods more rapidly the length of time each of us holds money will be reduced; it will pass from one person to another more rapidly, and perform exchange transactions of greater total money value in a given period of time. Underlying this movement out of money into goods will be the feeling that goods at present prices are preferable to money, and if the quantity of goods available to be bought cannot readily be increased sellers will be able to increase their selling prices. Sellers who share the general preference for goods over money will prefer not to sell goods unless higher prices are paid.

If we believe that in the near future prices are going to rise, we shall prefer to hold more goods and less money, but if we believe prices are going to fall we shall want to hold more money and fewer goods. In a community where opinion about the future movement of prices is equally divided some people may be increasing their stocks of money while others are reducing their holdings, the result being no change in the total demand for money. When a high proportion of the people believe that prices are going to rise, the demand for money will tend to decrease, but if it is generally believed that prices are going to fall then the demand for money will tend to increase. Consequently the tendency for prices to rise when the supply of money is increased without any accompanying increase in the supply of goods, is strengthened by an increase in the velocity of monetary circulation stimulated by the prospect of rising prices. If a decrease in the quantity of money relative to the quantity of goods available to buy creates the prospect of falling prices, this downward pressure on prices will be strengthened by the reduced volume of buying as people try to accumulate stocks of money to benefit from future price reductions.

At any given time there is a capacity output for a given system of production. If monetary demand exceeds this output capacity we shall have rising prices, and if demand falls seriously below output capacity we shall waste the productive power of redundant men and machinery. Consequently changes in the supply of money which create the prospect of limited price changes, by increasing the irregularity of demand for goods and services help to reduce the realised volume of production. One of the principal objectives of monetary policy should be to help the economy to run for long periods at a high and stable level

of activity as near to capacity as possible, without impeding desirable changes of product and method. This level of activity cannot necessarily be maintained by pursuing the same monetary policy all the time, since the attempts of masses of private persons to increase or decrease their monetary balances alter the problems which the monetary authorities are trying to solve.

BANKING

III

We use up some of our scarce materials and labour on the making of monetary tokens because when barter is replaced by monetary exchange there is a net saving of time and effort after allowing for the cost of producing the monetary tokens. The essential characteristic of money is its ready acceptability in exchange. This is both an advantage and a disadvantage: the advantage is that money makes exchange easier, the disadvantage is that the tokens are so similar and so readily accepted that stolen money can be disposed of more easily than many other forms of property.

If each individual or family tried to provide a burglar-proof safe, or if society tried to employ enough policemen to make housebreaking impossible, the cost of protecting property in money would be formidable. The cost in labour and materials of adequate protection for stocks of money can be greatly reduced by the provision at banks of strong-room facilities where customers can deposit their money repayable on demand.

We can reduce the number of monetary tokens we collectively need, if those holding stocks of idle money can without serious personal inconvenience lend them to someone wishing to make an immediate payment. The managers of banking institutions have recognised the possibility of letting others use the temporarily idle balances deposited with them, and of persuading the borrowers to pay for the use of such money. When the banker gives a borrower the right to draw money he can fix a date on which he expects repayment, and providing those who have borrowed are able to repay before the depositors wish to withdraw their money, depositors, borrowers and bankers can all benefit. The assets of the bank will not consist of a strong-room full of idle monetary tokens, but of borrowers' promises

to repay loans, and of interest-bearing securities which can be sold for cash.

All or part of the money paid into some banking accounts can be withdrawn by presenting a cheque. Having opened such an account, depositors wishing to make a payment can withdraw the cash by cheque, and take or send the cash in payment; or they can if they wish, and if the persons to be paid agree, send a cheque in payment. The advantage of sending a cheque is that it will avoid a journey to the bank, and save the trouble of sending coins through the post. It will also be much safer as the cheque will be payable only to a named person or group. Because of these great advantages payment by cheque can become the normal method of payment except for small sums where such payments would be cumbersome.

Payments made by a person with a banking account to someone else who has an account need not involve any movement of cash. The account of the person or group making the payment will be reduced by that sum in the ledger of the bank, and the amount standing to the credit of the person receiving the cheque will be increased by the same amount. In a community where a number of people have banking accounts a great volume of payments can be made without cash being passed over the counter of any bank.

Once a section of the community has developed the habit of making payments by cheque, it is possible for the bank to grant people the right to draw cheques in excess of the cash deposited in the bank. When such facilities are granted the customer will promise repayment, and the bank will try to make certain that the promise can and will be kept. This procedure will cause no difficulty so long as a large proportion of the people able to cash cheques do not withdraw cash from the bank but allow the extra cheques to increase their deposits at the bank. This increase in the size of customers' accounts will allow them to pay larger sums to one another and so transact trade of greater monetary value.

If for any reason the customers of the bank decided to revert to cash payment the bank would not have enough money in hand to pay everybody out immediately. If, however, it could persuade all to whom it had granted the right to draw additional cheques to repay their liabilities to the bank, and if it could sell all the interest-bearing securities for at least the

price paid for them, everybody could have all their money back. There would be a difficulty if the depositors demanded the return of their money more rapidly than the bank could recall its loans and sell its securities, but this could be met by increasing the community's supply of the kind of money in demand, using the assets of the bank as security.

Banks help to enlarge the national income by enabling money to be stored and payments made with greater security, and by mobilising temporarily idle funds for use in production.

EXCHANGE

BOOK LIST

Grade 1

Henderson, H. D.—*Supply and Demand.*
Hicks, J. R.—*The Social Framework,* Part 1.
Cairncross, A.—*Introduction to Economics,* Chapters 10-13.

Grade 2

Eastham, J. K.—*An Introduction to Economic Analysis,* Chapters 3-7.
Wicksteed, P. H.—*Commonsense of Political Economy,* Vol. 1.

MONETARY EXCHANGE

Grade 1

Robertson, D. H.—*Money,* Chapters 1-4.
Eastham, J. K.—*An Introduction to Economic Analysis,* Chapter 18.
Crowther, G.—*An Outline of Money,* Chapters 1 and 2.
Cole, G. D. H.—*Money, Its Present and Future,* Chapters 1-5.

QUESTIONS FOR DISCUSSION

1. Would you agree or disagree with the following statement? "We are told that a planned economy by reducing the diversity of goods produced would increase productivity per man-hour, but surely private enterprise will not produce goods that cannot be sold at some price? If some of the goods have to be sold at a loss that must be of benefit to the community."

2. Would you agree that Spring Sales ought to be stopped as they force shopkeepers to sell goods at low prices and cause customers to buy things they do not want?
3. Would you expect an increase in productivity per man-hour in manufacturing to be accompanied by an increase, or by a decrease, in the number of people employed in the distributive trades? Do you think the two are related in any way?
4. Why do prices tend to rise during a war? By what means, other than a relaxation of the war effort, can a government impede the price rise?
5. What effect will changes in the value of money have upon income distribution? Who will be likely to benefit most from an increase in its value and to suffer most from a fall in its value?
6. If there were a great extension in the use of cheques, and no reduction in the volume of legal tender, how would you expect this to influence the general price level?
7. In answering the previous question what assumptions did you make about the rate at which money circulated? What different assumptions could you have made and how would they have affected your answer?

CHAPTER 3

THE PRESENT ECONOMIC SYSTEM

BY the middle of the twentieth century, within many countries and internationally, the way in which economic activity could best be organised had already become a controversial political issue. The economic system by that time was divided into privately and publicly owned enterprises, with the governments of the different countries exercising differing degrees of influence on the organisation and on the level of economic activity. In the preceding one hundred years there had been growing dissatisfaction with an economic system based on the organisation of economic activity in response to the motive of private profit. Critics of this system asserted that private enterprise encouraged undesirable inequality of income, introduced harsh commercial considerations into human relations, used some productive resources wastefully and made only occasional use of a portion of the available productive capacity. Most of the critics suggested that these defects could and should be remedied by the use of the political power of the state, some advocating complete state ownership of the means of production, while others merely desired some income redistribution or the legal control of certain commercial practices.

Those who supported private enterprise and opposed public ownership or control emphasised the need for some powerful and sustained stimulus to encourage producers to use the means of production efficiently and in the service of the consumers. They thought that a high degree of security for the producer would reduce unnecessarily the intensity with which men pursued efficiency and innovation. In their opinion the waste of resources by the competitive duplication of products would be exceeded by the internal inefficiency of large centrally-controlled corporations intended to eliminate such duplications.

Within an economy based on the private ownership and use of property, the immediate decisions as to how the available means of production shall be used are made by business executives seeking private profit. The business executive incurs

certain costs of production by using land, labour and capital to produce some good or service, and he hopes that his revenue from the sale of this product will exceed his cost of producing it, and leave him a net profit. His cost of production will vary with the amount of land, labour and capital he needs to use to attain a given product, and the price he must pay for each unit that he uses. His total revenue will depend on the volume of the output and the price at which each unit of output is sold. The size of his profit can be increased by using less land, labour and capital to produce a given output without any accompanying reductions in revenue; or by using the same land, labour and capital and paying less for its use; or by selling the product for more without incurring an equivalent increase in production costs.

Success in private enterprise depends on the ability of the business man to sell his product at a remunerative price. The people to whom he hopes to sell it will have a great many other needs and desires, most of them reducing their willingness to spend money on buying his product; consequently even if no one else is selling an exactly similar article, his product will have to compete against other forms of spending. Potential customers will compare the amount of satisfaction they would expect to derive from a similar money outlay on other products and try to select those which promise the greatest satisfaction in return for a given expenditure. The combination of goods they decide to buy at one time as compared with another may be changed if the prices of some commodities are altered while others remain unchanged. As purchasers try to select the goods which offer greatest satisfaction in return for a given money outlay, the sale of goods which rise in price relative to others will tend to decrease, and the sale of goods which fall in price relative to others will tend to increase.

The individual business man can usually increase the demand for his product by reducing the relative selling price. When only one firm within an industry reduces prices it may take business away from other firms producing identical or similar commodities. If the other firms were producing an exactly similar commodity, and if the customers knew the goods were similar and were only influenced by the wish to obtain the best value for money, the firm that reduced prices below those of its competitors could secure all the business in the market. Until

such time as the other firms producing similar goods reduced their prices, the demand for the product of the price-cutter would be equal to the demand for the product of the industry. But if all the other firms within the industry reduced their prices to the level of the lowest, the demand for the product of the industry would only increase in so far as buyers now substituted this commodity for some other, where price had not been reduced, or in so far as they increased their total spending. It seems highly probable that such an increase in demand would be spread over a number of firms and that any one firm would only have a slight increase in its sales.

A reduction in the price of a firm's product may increase the volume of sales without increasing the revenue derived from sales. If a firm selling 99 cars a month at £200 each wished to increase its sales to 100 a month, it might be able to do so by reducing the price to £198 each. This would neither increase nor reduce sales revenue since 99 times £200, and 100 times £198 both give the same total of £19,800. Unless the 100th car added nothing to costs the producer would be poorer. The effect of a price reduction on the revenue of a manufacturer of nylon stockings may be quite different, and he may find that when he reduces his prices from 10s. to 9s. 9d. a pair the volume of sales will double. In return for a reduction in price of 2½ per cent. he receives a 95 per cent. increase in revenue. If in a year when the wheat crop was exceptionally large, the flour-millers determined to mill and sell within the year all the available wheat, they might find their total revenue considerably reduced, since to sell 10 per cent. more flour they might have to reduce their prices by 30 per cent.

The difficulty of fixing a price which will maximise the volume of sales, and the revenue from sales, is most acute when the firm is marketing some product the sale of which is partly dependent on the consumer's inability to afford some preferable alternative. For example, suppose that a firm is manufacturing margarine, and that some of its customers want six pounds of butter fat a week without having to spend more than 9s. a week on this item, although for certain purposes they prefer butter to margarine. When margarine is 1s. 6d. a pound and butter is 2s., these customers will buy six pounds of margarine and no butter, but if the price of margarine is reduced to 1s.

and that of butter is unchanged, these customers can buy three pounds of margarine and three pounds of butter for their 9s. outlay.

Sometimes the business men within a particular industry are almost powerless to increase the sale of their commodity by any price action that it is within their power to initiate, since the use of and therefore the demand for certain goods is dependent on the consumer having access to some other goods. The demand for tennis balls is dependent on the accessibility of tennis courts. Consequently the decision of a local authority to allow the use of tennis courts, on days when they were previously closed, may do more to increase the demand for tennis racquets and tennis balls, than any conceivable price reduction initiated by local sports outfitters. It may be possible by reducing the price of tennis racquets to expand the demand for tennis balls still further, but this may be nullified by a rise in the price of tennis clothes. The effect of a change in the price of tennis balls on the total demand for them may be very slight indeed, and if racquets and tennis clothes rise in price the demand for balls may decrease despite the reduction in their price.

In considering the behaviour of the business executive, we can assume that within the limits imposed by certain social conventions, each will try to maximise his profits, but we cannot deduce from this that they will all behave in the same way, or that there is any one form of business strategy that all will employ. A small business may be faced by keen price competition from a great number of small rival firms producing similar goods, and to this may be added competition from alternative forms of spending affecting total demand for the industry's product. Within another industry there may be only a few large firms and the product of each may differ so much in quality, shape, etc., from that offered by the others, that the customers may be unable to make any worthwhile assessment of competitive values. Total demand for the product of this industry may be little influenced by what happens to the prices of other goods consumers may buy. In some industries one firm may control the entire supply for a particular market, as with a local gas supply, but there may be a highly competitive alternative such as electricity.

If at any moment in time we could compile a list of all the

problems then facing different business men who were trying to sell goods or services at a profitable price, the diversity would be impressive. Even then our list would not include many problems such as those resulting from the process of growth in some industries and from contraction in others; those caused by technological change; those which result from changes in income distribution as between individuals and between income groups; those resulting from changes in consumer's tastes, and lastly the results of major changes in the general level of economic activity with their accompanying widespread moods of optimism or of pessimism. The great majority of business men are not concerned simply with the immediate problems facing the business to-day, they are in business to stay if possible, and to make profits for an indefinite period of time. Consequently much time and energy must be given to trying to anticipate the effect on the future demand for their product of forces over which they can exercise little or no direct control.

Forces which depress the general level of economic activity, or which alter the buying habits of the public, may reduce the demand for a firm's product. No matter how enterprising business men may be, or how hardened by temporary adversity, most of them appear to desire some minimum of security. They know that if the market for a firm's product depends wholly on that firm's ability to sell at lower prices than its competitors, its future prosperity will be very uncertain, since immediately these competing firms sell at the same or lower prices the firm may lose its entire market. The individual business man tries to reduce this element of uncertainty by encouraging buyers to develop a marked preference either for the articles he sells or for buying from his enterprise. By providing good and efficient service, he may create a feeling of good-will towards his business amongst a section of the buyers, whom he comes to regard as regular customers.

The maintenance of this good-will depends on the buyer's faith that in the long run he will derive advantages from becoming a regular customer. This faith may be weakened or destroyed whenever the service offered by rival firms becomes noticeably superior in value. Although customers' good-will can certainly be lost to competing businesses, while it is retained it helps to stabilise the market for the business and gives the business man an increased sense of security. Whether the

regular customers of a business do or do not benefit from this emphasis on good-will depends on whether they or the business executive attach the greater importance to it. The existence of good-will for individual businesses may hinder the emergence of larger enterprises capable of producing a given output with less land, labour and capital, and of reducing the duplication of partially used equipment within the industry.

When several firms offer for sale goods that satisfy a similar need, but the competing goods differ in quality and price, many of the buyers may feel unable to select those which represent the best value for money. Many buyers try to escape from this difficulty by restricting their buying to firms with a reputation for fair dealing. Such firms may not try to offer the best value for money, but they may strive to maintain certain minimum standards of quality and value. A firm's reputation for fair dealing may be extended through the recommendations given by satisfied customers, by successful publicity campaigns or by a combination of both. Whenever the buyers are unable or unwilling to make a rigorous and exhaustive comparison of competitive values, there is the possibility that some firms may increase their sales more successfully by spending money on advertising than by reducing prices. If a firm increases the value of the goods it offers for sale without increasing the price the buyer will benefit, but when money is spent on publicity there can be no guarantee that the customer will receive better value for money, or be better able to compare and assess the relative merits of competing goods. It may even be that some sales publicity causes some people to spend their money in a less judicious manner.

THE PRESENT ECONOMIC SYSTEM

BOOK LIST

Grade I

Samuelson, P. A.—*Economics,* Chapters 3, 19, 20, 26.
Cairncross, A.—*Introduction to Economics,* Chapters 14-18.
Cole, G. D. H.—*Socialist Economics.*
New Educational Library.—*Man and His Material Resources,* Chapters 1-11.
Bishop, F. P.—*The Economics of Advertising.*

Grade 2

Pigou, A. C.—*Income*, Chapter 5.
Worswick, G. D. N., and Ady, P. H.—*The British Economy 1945-50*, Chapters 13-19.
Marshall, A.—*Principles of Economics*, Book 5.
Lewis, A.—*Principles of Economic Planning*.
Andrews, P. W. S.—*Manufacturing Business*, Part 5.
Eastham, J. K.—*An Introduction to Economic Analysis*, Chapter 9.

QUESTIONS FOR DISCUSSION

1. How do we know when an enterprise is efficient? Who determines how efficient the enterprise will be, (*a*) if privately owned, (*b*) if publicly owned?
2. Would it be true to say that all enterprises which make a profit are conducted efficiently and all those which do not make profits are run inefficiently?
3. Would you expect the demand for margarine to decline as the standard of life improved? If more margarine were consumed per head in the United States than in the United Kingdom how would you explain that circumstance?
4. Tabulate in order of importance the things which may affect the attendances at any given cinema in any week. Distinguish between those which the management can, and those which it cannot, influence.
5. Try to tabulate the things bought for your home, and give the reasons why the present sources of supply are patronised. How do you know that these purchases represent the best value for money offered by the available market?

CHAPTER 4

OF WHAT VALUE IS ECONOMIC THEORY?

BUSINESS men, workers and reformers frequently unite together to criticise economists who write about economic theory, for not being interested in the problems of the real world in which men live and work. The answer of the economist to such criticism is that he is mainly interested in the reasons for and the results of changes in price, and that the forces responsible for and those liberated by such changes are vitally important to all who derive incomes from the sale of goods and services as well as to all with money to spend.

Probably the most important divergence of interest between the economist and the business man is that the economist is interested in certain general conditions exercising an influence over large parts of the economic system, while the business man is interested in knowing how to act within a specific local situation. The situation facing the business man will usually consist of a combination of local conditions permeated and influenced by the general economic forces. From the economist's view-point the local conditions may be a hindrance to the clear perception of the way in which the general economic forces work, and therefore in the interests of greater clarity he may deliberately separate them from the local conditions so that he can consider them in isolation. Immediately we begin to ignore the local conditions we can follow out the action and interaction of the economic forces until we have created a working model of the economic system, but this will not be an adequate guide for action in the real world by either the business man or the economist.

One of the most important economic forces at work in the world is that of competition. If we agree that most people wish to use more things than they can afford to buy, we can almost certainly say that they will try to maximise the purchasing power of their money by endeavouring to find the best value for it. By assuming that the buyers are able to compare the price and quality of all the goods offered in a market, that it

is equally convenient for them to buy from any supplier, and that none of them has any tendency to develop a personal loyalty to any supplier, we can consider the effect of a competitive reduction in price by one supplier. The first consequence will be that all the buyers will prefer to buy from him because his prices are lower than those of his competitors.

If we now assume that a large number of relatively small businesses supply this market, that there is no agreement of any kind between them for fixing the price or the volume of supply, that each one of them knows the price asked by every other supplier, and that businesses can enter or leave the industry easily and quickly, we can show that prices within it will yield neither exceptionally high nor exceptionally low profits, because high profits will attract additional producers into the industry and low profits will make firms move out of it. Under these circumstances the volume of supply will depend on the ability of the firms at least to recover the cost of making plus normal profits on each article made, out of the price paid for it. Clearly there will be no incentive for any firm to make any article whose production cost exceeds its selling price, and every incentive to produce any article whose production cost plus normal profit is less than the selling price. If we assume that the firms within the industry have rising costs when output expands beyond a certain point, once every firm in the industry has reached the point where the cost plus normal profit of any additional output exceeds the selling price, any further increases in output will depend on the willingness of buyers to pay higher prices. But if these higher prices enable firms to make abnormal profits on that part of their output where production costs are lower, other producers will be prepared to enter the industry until demand can be met without using the more costly productive capacity of any firm.

In this economic system the goods will be produced for us if we are prepared to pay the necessary price. The price any individual will pay rather than forego the goods will be determined by the intensity of his desire and the size of his income. If we assume that intensity of desire and size of income differ as between individuals the quantity demanded will increase as the price falls, but we have already assumed that price will not fall below the cost of production plus normal profits. Under these circumstances all who desire the goods sufficiently to pay

a price equal to the cost plus normal profit will be supplied, and we can say that supply and demand at this price will be equal. This is not to say that all who wish to use this particular good will have an adequate supply, since if production costs and price were lower more would be made and sold.

In a situation where income and intensity of desire differ as between individuals, it is probable that some people would be prepared to pay a price higher than that at which demand equals supply, rather than forego the commodity. The demand for this commodity therefore consists of people who would pay a higher price if need be, people who will buy at this price but not at a higher price, and others who would buy if the price were reduced.

We now have a system in which two forces are pushing one against the other from opposite directions. To increase supply we want an increase in price, but this will reduce demand. If we reduce the price demand will increase and supply will decrease. The interaction of these forces will push the price towards the point at which supply and demand are equal.

We have considered the inter-relationship of supply and demand for one product. Let us now assume that every other commodity is produced and sold under exactly similar conditions, so that supply is equal to demand in every industry and the supply of any product would decrease if the price were reduced. Within this system men would use privately owned land, labour and capital to produce goods for sale, and out of the revenue from the sales the owners of land, labour and capital would be paid for allowing these resources to be used in the production of these goods. The income received for helping with production would enable the recipients to buy all that had been produced, to use either for consumption or as capital. In such a system buyers could have the things for which they were prepared to pay a price at least equal to the cost of production, and the income of producers would be determined by the value placed on their product by the user.

We have now constructed an economic system which shows how competition would work under conditions perfectly suited to it, but does this system of perfect competition truthfully reflect what happens in the real world? Clearly there is competition in many industries although it is not necessarily price competition, and although it may vary in intensity as between

different industries and from time to time in any one industry. In some industries the intensity of price competition may be greater than would be experienced with perfect competition, as for example when so many producers try to remain within an industry that their total product can only be sold at a price which gives the producer a lower reward than could be obtained in most other industries. The struggle to remain in a relatively overcrowded industry may be perpetuated by the belief that, sooner or later, the prevailing intensity of competition will cause other firms to leave the industry, thus reducing its productive capacity, and that when this happens the price of the product will rise and the rewards of the remaining producers be increased. If the demand for certain products is decreasing and there is no compensating demand for other goods, the business man may prefer to stay and struggle where he is rather than incur the greater uncertainty of moving into some other industry whose problems he does not understand, and the future of which is uncertain.

In our model of perfect competition we also assumed that productive capacity could be easily and quickly moved out of one industry into another, but the world of reality contains many forces which impede the transfer of productive capacity. The attainment of high standards of productivity is frequently dependent on the use of plant and equipment especially designed for the processing of one or a narrow range of materials, and such equipment can often only be used for purposes other than those for which it was designed at the cost of great sacrifices in productive efficiency. Consequently producers established in an industry in which some productive capacity cannot earn normal profits may only be able to dispose of their equipment by accepting heavy capital losses; indeed some equipment may not even be worth dismantling and moving for recovery as scrap. Under such conditions producers will be more concerned with minimising losses than with earning normal profits, and the industry may work under relatively unremunerative conditions for a considerable period of time. These tendencies will be intensified if the labour employed in the industry uses highly specific skill and knowledge of little value elsewhere, and if movement out of the industry also involves the cost of movement to some other town or village. Even the land itself cannot always be easily and quickly transferred from one use to

another, as we would soon discover if we tried to convert old building sites into arable land.

We must conclude that a model economic system based on perfect competition, logical though its structure may be, does not give a realistic picture of the world in which we live; but this does not necessarily mean that we can dismiss it as useless and misleading. Structural changes do take place in the industrial pattern of this country, with some industries declining and other industries expanding. Some productive capacity is transferred from its original use, the industries which lose it being those which cannot use it so profitably as those to which it is transferred. In his study of perfect competition the economist draws our attention to certain tendencies at work in our present industrial system, and although these tendencies frequently encounter forces which impede or frustrate their influence, they remain powerful and significant.

OF WHAT VALUE IS ECONOMIC THEORY?

BOOK LIST

Grade 1

Smith, H.—*Introduction to the Study of Economics,* Chapters 1, 2 and 4.
Benham, F.—*Economics,* Chapters 12-14.
Samuelson, P. A.—*Economics,* Chapters 21 and 22.

Grade 2

Meade, J. E.—*Economic Analysis and Policy,* Part 2, Chapters 1, 2 and 3.
Boulding, K.—*Economic Analysis,* Chapters 4-6 and 18-23.
Robbins, L.—*The Nature and Significance of Economic Science.*

QUESTIONS FOR DISCUSSION

1. If every worker were equally capable of doing every job, and every job were equally unpleasant to the worker, what would happen if the workers in only one industry raised their wages by trades union action?
2. When we say there are too many firms in an industry, what do we mean?

3. Would you say that an employer who failed to reduce his labour force immediately demand contracted was ignoring economic realities in (*a*) the short run, or (*b*) the long run?
4. When structural changes are occurring within an economy, that is, when some industries are declining and others expanding, should the trades union movement try to speed up or to slow down the rate of change?
5. How would an ideal socialist society differ from the economist's model of perfect competition?
6. Does a philanthropist ignore economic realities, or does he simply organise his scarce resources to achieve ends different from those of most other men?

CHAPTER 5

WHY NOT PERFECT COMPETITION?

ONE characteristic of the present economic system which the economist tries to explain is that of competition. The great majority of goods are bought and sold in markets. In most markets there is more than one person or enterprise trying to sell goods which serve similar purposes and more than one person or enterprise trying to buy goods of the same kind. Those who come into the market as sellers can increase the income they derive from selling their product, if they can sell the same quantity of the article at a higher price without incurring an equivalent increase in the costs of production and distribution. Those who come into the market as buyers will increase the real value of their money income when they can buy the same quantity of goods for less money without experiencing any corresponding decrease in their own money income. If the income derived by the sellers is less than adequate to meet their desired expenditure, they will endeavour to increase their income from sales by trying to sell a given quantity of goods at the highest possible price, but if the income of the buyers is inadequate to meet all their desired outlay, they will try to buy any given quantity of goods at the lowest possible price.

If we can consider our own personal behaviour as buyers, most of us would prefer lower prices for the things we wish to buy, and when we act as sellers would prefer higher prices for the goods or services we have to sell. This is not to suggest that every buyer always exploits to the full any power he may have to reduce price, or that every seller always pushes prices up to the highest possible level. All kinds of human considerations influence the market behaviour of the individual. In some markets the relations between buyers and sellers are more impersonal than in others. If we attend an auction sale of miscellaneous goods, usually we know nothing of the personal fortunes of the seller, and we match our wits against those of

the auctioneer and of the other bidders quite ruthlessly. At another time we may buy from a seller, who must clear some stock to meet pressing demands from creditors, and we may deliberately refrain from pushing him down to the lowest level, that he, in order to avoid immediate bankruptcy, would accept. The more impersonal and transitory the relationship between the buyer and the seller, the more ruthlessly will the conflicting pressure of sellers against buyers, and buyers against sellers, be expressed.

When the individual buyer tries to assess the price he will have to pay to secure a given quantity of any commodity within a particular market, he is conscious that the chief immediate limitation on his power to fix his own price is the price that other buyers offer to secure the same supply. The power of the seller is limited by the possibility that other suppliers may offer similar goods at a lower price. Consequently if we sell motor-cars, the most immediate limitation on our power to fix a price we consider reasonable is the behaviour of other manufacturers of similar motor-cars. If we are long distance lorry-drivers, the main threat to our wage rates and working conditions comes from the behaviour of our colleagues in the same occupation. If this competition within the industry or occupation can be reduced, the bargaining strength of the sellers relative to the buyers can be increased, and the charge per unit supplied also increased. But it is also possible by reducing competition amongst buyers for them to increase their bargaining power relative to that of the sellers. The question naturally arises: if the competing members of a section of the community can increase the selling price of their product, and with it their personal income, how long will effective competition survive? Even if we agree that there are competitive elements in our present economic system, can we say with any certainty that competition is the dominant characteristic?

A cursory examination of a few different industries soon suggests that some industries are more competitive than others, and that few, if any, markets are characterised by perfect competition. The world in which we live is not characterised by the rapid movement of productive resources out of one industry into another that would be necessary to equalise factor rewards and the pressure of competition over the entire field of production. In some industries the volume of production may

be such that it can only be sold at a price which gives rewards per unit of output to the producers far below the average for the whole economy, while in others output is much lower relative to the demand, and the producers receive relatively high prices and rewards above the average.

When producers have resources available, such as labour and capital, they will prefer to use these in an industry where there is a good prospect of earning large profits, rather than to invest in an industry where the prospects are much less hopeful. This ought to give us a constant tendency towards the equalising of competitive pressure and of factor rewards, if we can assume that it is no more difficult to enter one industry than any other. Profits and factor rewards might never be the same in all industries but there would be a constant tendency towards equality. The differences in the profitability of different industries persisting for long periods of time, suggests that it is not equally easy for new producers to enter into competition with the established producers in any and every industry. Each industry has its own distinctive record of development, and some have a period of high profits followed by very low profits, which suggests a radical change in the relationship of the demand for and the supply of the product. In another industry output may remain much smaller relative to the demand, giving high profits for long periods of time, and in another a period of low profits may be followed by a long period of relatively high and stable profits.

The world in which we live is characterised more by imperfect competition than by perfect competition, and the degree of imperfection varies from industry to industry. In an economic system permeated by imperfect competition, the size of the income accruing to any individual may be determined more by his bargaining strength in the market than by the contribution he makes to the welfare of others. Under certain circumstances, given imperfect competition, he may increase his personal income by deliberately reducing the amount of service he renders to others. This is not to suggest that men who restrict output to maximise their own profit derive any sadistic pleasure from impoverishing their fellow men. Doubtless the great majority of people who decide to restrict output do so to try to secure what they consider to be a fair and just price. If the policy they pursue presses heavily on others, the advice they would give

to them would be "go and do thou likewise". Here we encounter the unpleasant possibility, that each section of producers may seek to increase its income per unit of output by restricting its total product so that higher prices may be charged. The total result of such a series of local restrictions on output would be to impoverish the community.

When we look at the structure of the economic system we see that it contains a great number of sectional interests, and that between some of them there are varying degrees of common and of conflicting interests. The members of any one group, selling a particular good or service, have a vested interest in maximising the real income they receive in exchange for the service they sell to society. This gives them an interest in maximising their bargaining strength relative to the rest of the economy. They can increase their bargaining strength by reducing the number of competing substitutes on offer to the buyers of their product or service.

It is probably true to say that within the existing economy there is no occupation or industry where freedom of entry and of exit is as great as it would be under perfect competition, but it also seems certain that no group of sellers in existence has the power to determine both the price at which their product shall sell, and the quantity the buyer will buy. A careful analysis of the nature of the demand for a product may enable the seller to forecast, with a high degree of accuracy, the demand at specific prices for his product under given conditions, but there is an important difference between the power to measure demand and the power to determine demand. Most sectional groups within the economy have to manœuvre in a market situation where they are neither completely at the mercy of the market, nor complete masters of the situation. At any given time the distribution of power differs from section to section. In so far as changes occur within the economy, any and every change may alter the bargaining power of some groups relative to others. The possibility of any such redistribution of bargaining power will cause some people to resist certain changes but it will also stimulate other groups to support such changes.

Within this imperfectly competitive economic system, output and human welfare are almost certainly less than they would be in a perfectly competitive system, and the waste which undoubtedly occurs within the system is a challenge to our

creative powers. But we must recognise that probably every degree of imperfection that exists appears justifiable and necessary to some section of the community, and that consequently the resistances to any large and rapid movement towards perfect competition may be formidable and probably insuperable. The gains resulting from a movement towards perfect competition will tend to accrue to the community as a whole, while the loss from the reduction of sectional bargaining power will strike at a more cohesive group with a greater sense of community of interests.

We have said that the bargaining strength of one sectional interest may be greater than that of another. What forces influence sectional bargaining power? If we consider the power of a seller to fix any price, clearly that is limited by the alternative forms of spending open to potential buyers. A rise in the price of one commodity relative to that of others will tend to change the buyers' pattern of spending as they try to find substitutes for the commodity that has risen in price. Custom and habit give a certain stability to customer outlay, but within the limits set by these, a number of adjustments are possible; we may buy less sweets and spend more on cigarettes, spend less on the cinema and more on travel. The great majority of sellers know that they will sell less at a higher price, and that therefore they may derive no net gain from an increase in price.

Most spenders have some freedom of choice but this is limited. We may resent a particular increase in price, but when we consider the alternative forms of spending open to us, a certain article, although now dearer, may still provide the most satisfactory outlay for us. If the same is true for the great bulk of purchasers, then the seller will have considerable freedom to increase price without seriously reducing the demand. We shall be less willing to alter the direction of our outlay when the alternative forms of spending satisfy quite different needs or desires. A boy who would substitute marbles for a whip and top might regard toothpaste as an undesirable substitute for either.

The seller's power over the market is limited by the existence of alternative forms of spending, and the more easily the buyer can turn to these substitute purchases, the smaller the amount by which the seller can raise his price without reducing the demand. Most sellers are surrounded by competing goods, some of which may be identical in every way with the first com-

modity, forming perfect substitutes, while others are more and more imperfect substitutes, and beyond these there may be other goods which are relatively distant and insignificant competitors. The seller who is surrounded by an easily increased number of perfect substitutes will have to organise his business to serve a market over which he has little or no control. The seller who faces competition from products which the purchaser can only substitute at great inconvenience will have much greater control over the market for his product.

There is a great incentive therefore for the sellers to try to establish unified control over the supply of perfect and near substitutes. If we have a small competing supply of near substitutes, followed by distant and insignificant substitutes, once we have control of all the near substitutes we shall be able to make a significant addition to price without causing any serious reduction in the volume of demand. If we control the supply of electricity our freedom to raise price may be limited by the use of gas as an alternative, but if we control both gas and electricity we may disregard competition from the use of candles.

Given unified control over the supply of perfect and near substitutes our bargaining strength can be greatly increased, but we can never hope to decide both the price that shall be paid, and the quantity that shall be bought. We can try to ascertain the probable demand at different prices within the market on which we sell our product, and these estimates may determine the volume of goods we try to sell at a particular price. The last word, however, will be with the potential purchaser, who can always decide to buy less of our product, providing he is willing to suffer the subsequent inconvenience. Most producers find that they sell less of their goods when they increase the price relative to the price of other goods. Usually therefore in order to increase the selling price we must reduce the quantity we try to sell. If this means that the available productive capacity is not being used beyond a certain point, and if there is more than one productive plant each owned by a different person or firm, producers may each be tempted to produce individual outputs, the total of which will exceed the demand at the price fixed. Under these conditions any agreement aimed at strengthening the power of the sellers will be in constant danger of breaking up with a return to competitive conditions. We have here two elements of conflicting interests, firstly the self-interest

of a group conflicting with the good of the community, and secondly a conflict within the group, because any one producer may benefit from dishonouring the agreement so long as the others continue to restrict their sales in accordance with the terms of that agreement.

Are we to assume that the great majority of sellers throughout the economy would prefer to sell as monopolists, and that the real reason for the continued existence of competition between sellers of close substitutes is the failure to create and maintain a unified control? If this is so, the different degrees of competition throughout the economy would appear to reflect the greater strength of the conflicting forces within the different sectional groups existing in the economy. But we may ask why should the forces which hinder the emergence of a unified control of selling operations be stronger in some groups than in others?

It seems fairly certain that the smaller the output of the individual business, and the greater the number of sellers, the greater the difficulty in replacing competition by agreement. The smaller the individual business, and the smaller the necessary expenditure on capital and equipment, the greater the possibility that new firms will enter the industry whenever profits begin to be abnormally high. To this we must add the greater difficulty and cost involved in attaining agreement amongst a larger number of sellers and of supervising and enforcing the agreement once it is made. Within an industry where the individual enterprises are small, one would expect to find more owner-managers, concerned with their personal prestige and independence almost as much as with adding to profit.

We usually find that the average size of the firm varies from industry to industry, and that within every industry there are considerable variations in size as between one enterprise and another. Clearly a number of forces are influential in determining the size of the enterprise, one of which is the size of the market served by it. Since we cannot assume that every firm has a national or international market for its product, these variations in the size of the productive unit do not necessarily indicate the intensity of competition within an industry. The important consideration for the seller is his bargaining strength in the market where he sells his product; for a cycle manufacturer this significant market may be a world market, and for a gas company the town where it is situated. Usually each gas

company has a monopoly of the supply of gas within its own market area because of the great amount of fixed equipment required to produce and distribute even a minimum quantity of gas throughout the area. Not only is it much cheaper to send a given quantity of gas through one set of pipes than to send half that quantity through each of two completely different sets of pipes serving the same area, but there is in addition a gain in general welfare from the elimination of the road-breaking that would be necessary whenever a consumer transferred from one supplier to another. When the most efficient output capacity of the fixed equipment necessary to provide a service is sufficient to meet most of the demand for that service, this will give a strong impetus to the development of a monopoly.

The costs incurred in running a business may be divided into fixed costs and variable costs. This is a convenient and useful division although it may sometimes be difficult to divide the costs of a particular business sharply into these two categories. By fixed costs we mean the costs that must be incurred, with any given plant, whether the plant is working below capacity or at full capacity. It will include items the cost of which does not vary with output, such as the rent of a shop, the cost of window lighting, and the payments made for keeping the premises clean and attractive.

Variable costs behave quite differently: they vary as output varies. For example, if we employed shop assistants and paid them on commission, our payments to them would increase as our sales increased. If we were taxi proprietors we would increase our income by running more passenger miles, but the amount we spent on oil and petrol would increase as our vehicles were driven more miles.

Assume that we buy one taxi vehicle which we intend to drive ourselves. We must live, therefore we debit our expected wage to the business at, say, £8 a week. The motor vehicle will lose in market value as it gets older, say at the rate of £100 per annum, and this we must also debit and in addition we must garage the vehicle. Our total fixed cost would be about £10 a week. Besides this fixed cost we have our variable costs for petrol, oil and tyres; probably we could say that our variable costs were 3d. a mile. We now have two costs to reconcile, one of 3d. a mile and another of £10 a week. At the beginning of any particular week we should never be able

to give a completely accurate forecast of what our total costs for the week would be or our total cost per mile.

We can only say what our total costs will be when we know how many miles we have run in the week. Immediately we know the number of miles run, we can add that number of threepences on to our £10 of fixed cost. The more miles we run the greater the total cost of running the business. We know how to calculate total cost, but how shall we calculate cost per mile of running?

If in one week we ran one mile, our total cost for running that mile would be £10 0s. 3d., but if we ran two miles the cost per mile would be £5 0s. 3d., and if we ran 200 miles the cost would be 1s. 3d. a mile. To arrive at the cost to us per mile, we must divide the fixed cost by the number of miles run, and then add this amount on to our 3d. variable cost.

The variable cost of 3d. a mile which we add to our total cost every time we do another mile, can be called the marginal cost, since it is added on at the margin. The actual cost to us of running a mile can be called our average cost, since if we multiplied it by the number of miles run, we should have the total cost of running the business.

There is a connection between this additional or marginal cost and average cost. If I earn £5 one week, £10 the next and £15 the next, my total earnings for the three weeks are £30 and my average wage is £10 a week. My average wage for the first week was £5 a week, and for the first two weeks £7 10s. Why was my average wage rising? It was rising because the marginal earnings I added on in the second week were greater than the average for one week, and because the marginal earnings added on for the third week were greater than the average wage for the first two weeks. The important relationship between marginal units added on and the average for any total is, that when the marginal unit added on is the same as the average, the average will neither rise nor fall, and the average can only rise if the marginal unit added on is greater than the average. For example, the total revenue of a business man who sells 50 cricket bats at £2 each will be £100 and his average revenue £2. If he sells one extra cricket bat he will add on a marginal revenue of £2 and his average revenue will remain £2.

In any business we conducted we would usually have as our minimum objective that total revenue should equal total cost.

If we were selling a uniform product at a uniform price, total revenue would equal total cost, if average revenue equalled average cost, and under these conditions average revenue and price would be the same. This would be true in the case of the cricket bats sold at £2 each if the average cost of making them was £2 each with an output of 50 a week. The distinction between marginal cost and average cost will help us to understand one reason why some services are much easier to organise into monopolies than others. If the most efficient output capacity for the plant necessary to provide a good or service is sufficient to supply all or the greater part of the demand for that good or service, the entire output for that market will tend to be concentrated on one productive unit. The total cost of producing and distributing a given quantity of gas in a town will equal the sum of (variable) or prime costs plus fixed cost, and the average cost per therm will be found by dividing the total cost by the number of therms generated and distributed. If our prime cost is 3d. a therm this will set a minimum to our average cost, but the amount of fixed cost to be added on to prime cost per therm will depend on the quantity being produced. As we increase output we divide our fixed cost by a larger and larger output figure thus reducing the amount charged to each therm generated. For example, with an output of 1,000,000 therms per annum the fixed charge per therm may be 4d. and the total cost per therm 7d.; when output from the same plant is 1,250,000 therms per annum the fixed charge per therm may be only 3d. and the total cost per therm 6d. If at a charge of 6d. per therm the local demand for gas is for about 1,250,000 therms and if more than this can only be sold at a price around 3d. per therm, there will be a strong incentive to supply the local demand for gas through one plant with a 1,250,000 thermal capacity.

As the output of this particular gas plant increased from 750,000 therms per annum to 1,250,000 by adding output on at the margin, the extra cost of producing the additional therms would be the prime cost of 3d. a therm, since the fixed costs do not increase with output. The cost per therm of these extra therms must be less than the average cost per therm of the first 750,000 since that consisted of prime cost 3d. per therm plus fixed cost 4d. Our marginal cost per therm therefore was less than our average cost, and as we increased output we added

on marginal quantities costing less than the existing average cost, and this reduced the average cost.

When by increasing output we reduce our average cost, we have a strong inducement to increase output. If we can sell any output we wish without having to reduce our selling price, then clearly we shall desire to produce that output which gives us the lowest average cost. But with competition the producers may find that the share of the market won by each of them is too small to enable any one of them to attain an output large enough to minimise his average cost, and that the competitive market price is such that average revenue is only equal to lowest average cost. The competing suppliers will then find that average revenue, although in excess of prime cost is not sufficient to cover fixed costs as well, and that therefore profits and depreciation allowances will be less than the producer had expected to receive.

This unprofitable kind of situation may be perpetuated for some time by several different considerations. The different producers may face such heavy capital losses if they scrap equipment that they will struggle to minimise losses by continuing the business so long as total revenue exceeds total prime cost. Attempts to preserve the prestige of the owner-manager may also perpetuate such a situation, but as a permanent arrangement this is untenable. One producer may pursue a price-cutting policy which pushes the others into a position where they cannot cover prime costs, or one producer may combine such pressure with a policy of buying up the others. The odds are that in the long run a monopoly will emerge and the price charged for the service may be reduced nearer to prime cost than would have been possible with competition, while at the same time the wages rate paid to the employed labour may be increased and higher profits earned.

It will be much more difficult to create and maintain a monopoly if the least average cost output of the individual productive plant is small relative to the demand for the product. We have seen how average cost falls as larger outputs reduce the amount of fixed cost chargeable to each unit of output, and the logic of this appears to suggest producing more and more within the individual plant. It is true that the larger the output, the smaller the fixed cost per unit of output, but the saving in fixed cost per unit is less and less with each increase in

output. With a fixed cost £50 and an output of 50 articles, fixed cost equals £1 per article. If we produce 100 articles instead of 50, the fixed cost per unit is 10s. By producing 50 more we save 10s. per unit. If we increase production from 100 to 150, fixed cost will fall to 6s. 8d. per unit, and the saving per unit will be 3s. 4d. instead of 10s. per unit. With an output of 1,000, fixed cost would equal 1s. per unit of output and an increase of output by another 50 to 1,050 would only reduce fixed cost per unit to 10½d., a saving of 1½d. per unit. The saving per unit falls as we continue to expand output.

But within the buildings which house our machinery, space is limited, and as we try to produce more and more with the same equipment, men begin to jostle one against the other. Their output per man-hour worked will decrease, and to stabilise their earnings we shall have to increase piece-work rates. Two opposite and conflicting tendencies will now be at work; fixed cost per unit of output will decrease at a decreasing rate as output expands, while prime costs will increase at an increasing rate as the congestion and muddle are intensified. We shall reach a point where the increase in prime costs exceeds the saving in fixed costs and forces up our average costs per unit of output. When the increase in prime costs exceeds the saving in fixed costs, marginal cost will exceed average cost and average cost will begin to rise.

When the average cost for a particular firm rises above its lowest average cost of output, it may be able to increase its charges to cover the increased cost. But if it does so, it may pay another firm to open up in competition. If this new firm can produce enough to reach its lowest average cost output, it may undercut the price of its established rival and still cover depreciation and earn normal profits.

In face of this competition the established producer will tend to contract output back to his lowest average cost output. Under these circumstances there are strong influences working on the side of competition and although many producers may win a share of the market, the competition may not be sufficiently irksome to stimulate any attempts to replace competition with monopoly.

Because certain technical considerations favour the continuance of competition in some industries, it does not necessarily follow that competition will persist in these industries. If we

bring under the same ownership several plants each with a similar organisation of production, we may reduce sales costs per unit of output by unified advertising, and if the market is dispersed and the separate plants are situated in different sections of the market we may save on the total transport charges. But all this pre-supposes that a manager can be secured whose organising and co-ordinating capacity is sufficient to supervise the activities of more than one plant at any given time without any loss of internal efficiency. There should be some net gain in efficiency within the organisation, or some power to gain from increased bargaining strength, if the salary of our super-manager is to be paid without any increase in average cost per unit of product. But this is on the assumption that net gain in money terms is the motive. If our super-manager is mainly animated by the desire to be a super-manager, the structure may be created and sustained although his salary represents a net addition to costs and the return on capital is consequently less than it otherwise would have been.

WHY NOT PERFECT COMPETITION?

BOOK LIST

Grade 1

Samuelson, P. A.—*Economics*, Chapters 3, 10-23.
Pigou, A. C.—*Income*, Chapter 4.
Cairncross, A.—*Introduction to Economics*, Part III.

Grade 2

Meade, J. E.—*Economic Analysis and Policy*, Part II. Chapters 1-3.
Boulding, K. E.—*Economic Analysis*, Chapters 18-23.
Eastham, J. K.—*An Introduction to Economic Analysis*, Chapters 9 and 10.
Levy, H.—*The New Industrial System.*

QUESTIONS FOR DISCUSSION

1. What are the main obstacles which hinder the movement of productive resources within the economy?

2. Is all collective action to secure a "fair and just price" monopolistic?
3. What forces favour a growth in the size of the productive unit?
4. What difficulties would you encounter if you tried to compare the cost of carrying passengers on a railway with the cost of carrying them in buses?
5. Under what conditions would you have constant average costs?
6. Would you expect the iron and steel industry to be more or less competitive than the window-cleaning industry? Why would you expect there to be more competition in one industry than in the other?

CHAPTER 6

THE NATURE OF IMPERFECT COMPETITION

WE have competition when a number of sellers are offering perfect or near substitutes for sale in the same market, but with some commodities there is much less selling competition than with others. For the development of competing supplies, several producers must have access to the raw materials and the equipment essential to production. But the supply of natural resources is subject to physical limits and the supply of some is much more restricted than that of others. On the one hand we have a mineral of use to man the supply of which is limited. On the other hand we have man's desire to use the mineral. The degree of scarcity is determined by the supply relative to the size of the demand. When a mineral is very scarce the development of competition in products which need this mineral for their construction may be limited. We have two possibilities: one is that the mineral shall be monopolised and its rate of exploitation and marketing restricted; the other that a group of processors shall control all, or almost all, of the mineral and refuse to supply competing processors. Under these circumstances the monopoly will only have to fear the development of near substitutes, but this can be a very real fear in view of the achievements of modern science.

When a society tries to safeguard the rights of inventors by patent laws, another powerful stimulus to monopoly may be introduced. Usually the patent law gives the owner of the patent control over the construction, sale and use of the apparatus he has invented. This may encourage people to try to improve the material apparatus available for use by man, but it may mean that for some years the bulk of the gain from the invention goes to one man or a small number of men associated with its exploitation. The actual amount of power conferred on the owner of the patent will depend on the demand from society for its services. There is always the possibility that specialist companies may be created, interested in marketing patented devices associated with the manufacture of some product, as

for example with machinery for the manufacture of boots and shoes. If such a company comes to control a number of key patents, it will have formidable power relative to the buyer.

Other examples of power resulting from the inability to provide substitutes for something in great demand can be taken from the demand for and the supply of human ability. In almost every kind of human ability there is, at any given time, a small number of people who are exceptionally gifted, and it is the ability of these people at the top of their own particular vocation on which demand is most heavily concentrated: the sporting enthusiasts want to see the champions, and the music lovers the outstanding performers of their time. By the very nature of things the number who can be the best is limited absolutely, and perfect substitutes cannot be supplied; the power of supply over demand is expressed in increased charges for admission and high fees for the performers.

Often combined with and supplementing great ability we have great acquired skill. If particular skills are very scarce relative to the demand for the services they perform, the possessors of such skill will be able to sell their services at relatively high prices. The outstanding practitioner may earn much more than his colleagues, but the average earnings of all the members will also be higher than they would have been had their acquired skill been in more plentiful supply.

Although the forces which favour the development of monopoly differ in strength from one industry and occupation to another, we cannot regard this as a full explanation of the differing degrees of monopoly or of competition that exist. It may be that the opportunities for restricting competition have been more fully exploited in some industries than in others, so that in some industries where one would expect monopoly we have imperfect competition, and in others where we would expect keen competition we have monopoly. We may find that a particular industry which had been keenly competitive and relatively unremunerative for many years was then transferred into a tightly controlled monopoly. Certainly the organisation would be easier to create because of the unprofitable trading, but even so we might find that the decisive new element had been the emergence of an industrial leader able to persuade traditional rivals that they had a common interest which could best be served by increasing their bargaining power as against

the purchasers of their product. The creation of such an organisation need not necessarily reduce the welfare of the community any further, since a profitable industry may secure new capital and produce more efficiently than an impoverished over-crowded industry incapable of earning attractive profits.

Free competition can result in some industries becoming over-crowded and impoverished, using relatively obsolete equipment and unable to accumulate or attract new capital. This situation may persist because the managerial personnel can see no alternative, and even after it has been modified by agreed restriction on competition, individual producers may be willing to risk the return of severe competition by secretly breaking the agreement. The organisers of agreements to restrict competition try to deter firms from breaking the agreement by systems of deposits out of which fines for infringement can be deducted automatically. If one assumes that all competition is good and the more the better, then all such devices will appear as unmitigated evils, since they prevent firms that would otherwise do so from increasing their sales. Those who believe that resources are relatively immobile, and that the decisions affecting their distribution in production are made by imperfectly informed men, may believe that such agreements represent one way of mitigating some of the consequences of a maldistribution of productive resources in the immediate past.

The power of any group of sellers to exert pressure on the buyer, and the keenness of their desire to organise marketing to do so, will be partly dependent on the nature of the demand. For example, if the demand for a product is highly inelastic, so that a 1 per cent. decrease in price will increase the amount sold by much less than 1 per cent., the total income of the producer will decrease although more is sold. The intrusion of additional firms into such an industry will generate an intense struggle to take trade one from another, and if a price war results the total income of the industry will fall. The older established firms may find that they now sell less at the lower prices, and all the firms may realise that by reducing the output capacity of the industry they could all have a larger income.

Similar difficulties arise when the size of the product over any given period is not wholly under the control of the producer, and these difficulties may be especially acute if the product is

perishable. When several trawlers are out fishing who can predict the catch? If a big proportion of the trawlers make large catches on the same day, and an attempt is made to sell all the fish in the same market on the same day, prices will tend to fall steeply. The demand is relatively inelastic and the amount coming on to the market is uncertain. Much the same problem exists with vegetable products when the size of the crop is influenced by climate and pests. If the demand for such products is inelastic, the producers as a whole may receive more revenue by marketing less, and may benefit from destroying a part of their product in the years when crop yields are high, as for example when by destroying 1 per cent. of the total they can sell the rest at a price more than 1 per cent. higher.

When we consider restrictions on competition most of us think immediately of restrictions imposed by sellers at the expense of the buyers. We know that day by day millions of people each buy small amounts of goods at the retail end of trade, and feel that anyone of them is powerless to exert an influence on price. It is not denied that if a great number of users unexpectedly refused to buy fish on a particular day, that the retailers would accept lower prices rather than allow it to waste, but it is felt that such general movements would be spontaneous and difficult to organise or sustain. We shall also distinguish between a movement away from one fishmonger to another because of a difference in price, and an attempt to compel all fishmongers to reduce their prices. We would expect the movement away from one shop to be fairly strong and rapid. Sellers may cause the buyer to pay a price higher than he would wish to pay, but they have no power to compel him to pay a price that he is determined to resist by refusing to buy the product.

When we shift our attention away from customer purchases in retail trade and begin to consider buying and selling in wholesale trade, we are concerned with markets where the size of transactions between the seller and the buyer are much larger. Organisation amongst buyers is less difficult than in retail trade because fewer people are involved; the buyers are keener to force price concessions since a small reduction in price may make a big difference to the amounts earned in reselling large quantities; besides which the buyers are specialists with a much fuller knowledge of the market conditions within which they operate.

Markets for wholesale trade are many and varied, ranging from those in which a number of small buyers on credit are practically tied to one supplier, to those in which there are some large buyers, any one of which by transferring its orders from one firm to another can seriously influence the trading activity of those firms. Within such a market we may have sellers offering one set of terms to the smaller traders, and the larger buyers trading on a different and more advantageous footing with the same suppliers. Any one of these large buyers may be able to bargain with a number of sellers each one of whom feels that it is vitally important to secure this particular custom. We then have competing sellers under pressure from a large and powerful buyer.

A similar unequal distribution of bargaining power may exist when a product passes through several different hands on its way from the raw material stage until it reaches the user of the final product. Suppose that we successfully prospected for oil, but before the oil was ready for the consumer it needed refining, and that almost all the oil refining plant was owned by companies with an agreed buying policy, what could we do other than accept their price or go out of business? What if we are cattle ranchers in an area where most of the cattle are sold for canning to one large firm? Clearly they cannot prevent us from selling to another buyer if we can find one, but what if we can't?

Suppose that we manufacture shoes which we sell to wholesalers who sell them to the retail trade. Although the value of our product will be an important influence, our ultimate chance of success will be heavily dependent on the trading ability of other people over whom we have little or no direct control. There is always the possibility that one particular sales outlet may become so important to us that if we lose it we shall have great difficulty in securing enough trade to work at an output of least average cost. Consequently the threat to close this outlet to us may be sufficient to compel us to accept orders designed to minimise losses rather than to make profits. We may try to avoid this dependence on others by selling our product with a registered trade mark popularised by sustained large scale publicity. If we succeed in creating a customer loyalty to and preference for our branded goods, we can sell these through recognised agents selected by us. In this way we escape from buying pressure, but competition is not necessarily less imperfect

since we have ourselves created a monopoly because only we can make our branded goods, and only our recognised agents can sell them, usually at prices fixed by the manufacturers.

In many countries including our own there is a strong body of public opinion which believes that the limitation of competition by private business men is a bad thing. Many critics of private enterprise believe not only that such restrictions are evil but that they will increase both in extent and rigour. Private monopoly is considered undesirable because it places great economic, social and political power in the hands of a few private individuals, because it will use the economic resources of our society with less than optimum efficiency indefinitely, and because it will tend to increase the share of the national income going in earnings on capital.

If we consider the question of power in the hands of private individuals, it is clear that one person owning an industry will have far more power than would the owner of one of several competing plants. In particular he will be able to spend far more effectively on publicity, and may use publicity to combat suggested developments of public policy which might have an adverse effect on his particular industrial interests. A propaganda conflict between industrial monopolists and the advocates of social change is put forward as a distinct possibility by the critics of private enterprise. Such a possibility cannot be ruled out if we believe that the organisers of restriction on competition believe that their organisations represent improvements within the industrial order.

Much attention has been given to the way in which imperfect competition might affect the value and distribution of the national product. The yard-stick by which the adverse effects of imperfect competition have been measured is that of perfect competition, and the contrast is rather disturbing. It seems quite clear that an economy working with the mobility of resources which characterises the perfect competition model would be more productive and rational than any of the existing economic systems. It would respond more readily to changes in consumer demand and changes in productive techniques, and it would use the productive resources fully all the time. If we make an unstated assumption that the rest of the economic system is characterised by perfect competition, we can make a devastating criticism of the restrictive practices pursued by any person or

group, but such a procedure is clearly unfair if we are examining the behaviour of a section of an economy riddled with imperfect competition. Nevertheless the contrast between perfect and imperfect competition is of use if only for judging the value of legislation intended to improve the working of the economic system. The aim of such legislation should be to push the system nearer to the conditions that would exist with perfect competition.

Why are the productive resources used in a less satisfactory manner with imperfect competition than with perfect competition? With perfect competition no single buyer is able to influence the market price by increasing or decreasing the volume of his purchases, and no seller is able to influence the market price by selling more or less of his product. The result is that the marginal revenue of the seller will be the same as the selling price. The selling price will be the average revenue, and anyone willing to pay this price will be supplied. The individual producer will maximise his profits when marginal cost equals average cost, and average cost equals price. When marginal cost equals price, the rewards paid to the productive resources employed to produce the marginal unit will be just sufficient to attract and reward them, and thus the cost to society will equal the benefit derived by society. Under these circumstances anyone willing to put productive resources at the service of the community, for a cost not exceeding the value the ultimate user places on the product, would find remunerative employment.

With imperfect competition the seller or the buyer, or both, may be able to influence price by increasing or decreasing the amount which they individually sell or buy. If when the seller increases the volume of his sales he has to reduce the price of every unit he sells, including all those he was selling before, his marginal addition to his total revenue will be less than the price he charges for the marginal goods added to total sales. If he is selling 100 cars at £200 each, and to sell one more he must reduce the price of all the cars he sells by £1, his marginal addition to revenue will be £199 less £100 deducted from his previous sales revenue. Although the marginal purchaser is willing to pay £199 the car will not be made unless the marginal cost is not more than £99.

If the car manufacturer was the chief employer in some town he might find that as he increased the number of his employees, he had to pay higher and higher wages to attract additional labour. His demand for labour relative to the supply would be so large that an increase or decrease in the volume of his demand would raise or lower the local price of labour. If we assume that when he made 100 cars he had 500 employees, giving labour costs of £100 per car, he might find that to secure five more workers to increase output by one car, he must pay 1s. in the pound more in wages to these extra workers. The labour cost of this extra car would then be £100 plus 100 shillings—a total of £105. But as he already employed enough labour to make 100 cars, and to preserve the good-will of his labour he must pay them all the same rate for the job, his extra labour cost for making one more car will be £105 labour employed on that car, to which must be added £5 on each of the other 100 cars—a total extra labour cost of £605 instead of £100.

All this may sound very unreal, but what in fact do we suggest when we say that to increase the output of coal we need more miners, therefore we must make the industry more attractive by paying higher wages to coal miners? The extra men who come in will receive more per week and give us a few million extra tons of coal. But the cost of this extra coal will be the wages of the new recruits to coal mining, plus the increase in the wages of all the other miners, and the total bill to the community for the extra coal might be quite formidable.

The important result of imperfect competition is that although the cost of making one extra car may be £205 instead of the £200 each when the output was smaller, it will be no use offering to pay £205 for this car when the manufacturer's total labour cost has risen by £605. To secure the extra car everyone else must also pay £205 instead of £200, or we must pay something like £750 for a car previously sold at £200. We have two forces here hindering the use of the productive resources to produce what the customer would demand and receive with perfect competition. On the side of the demand price offered, if £199 was offered for the extra car added on to an output of 100, and if this covered the full cost of all the plant, material and labour used in its production, it would not be made, if the price of all the others had to be reduced by £1. The extra cost

to the car manufacturers would be £199 and the net addition to his revenue £99.

On the side of supply, if the employer bought his labour in an imperfect market, the extra labour cost of each addition to output would exceed the payments made to the additional labour employed to make the extra unit of output. Under the influence of rapidly rising marginal costs, as output is increased, and of sharply falling marginal revenue, as sales are increased, the output at which marginal cost is equal to marginal revenue will be less than under perfect competition. Consequently, consumers prepared to pay the cost of producing the extra unit (ignoring the increased cost of the previous output), will not be served, and factors which could produce at a cost less than the customer would pay will not be employed on that product. Even if we had full employment with imperfect competition therefore, it would not mean that realised welfare was as high as it would be with perfect competition, since the goods produced, if sold at uniform prices, would not be so ideally related to the tastes of the consumer.

The difference between the combination of goods that would be supplied to the consumer under perfect competition, and those supplied under imperfect competition, may be reduced by taking a further step away from the market behaviour relevant to perfect competition. The difficulties under imperfect competition arise, because some will sell at a lower price than others, and because some buyers will only buy at a lower price than others are prepared to pay, but only one buying and one selling price are allowed in the same market. If we could divide up the market and charge each person the price he was willing to pay, and pay each seller the price he was willing to accept, the point at which cost and price were equal would occur with a much larger output. Suppose, for example, we assemble motor-cars mainly by hand, the cost per car being £200 and an output of three cars; suppose also that the demand for these cars is £400 (if only one car on the market), £300 per car (if two cars on the market), and £200 per car (if three cars on the market). However many cars are sold the price per car will be uniform, e.g. if we sell two, each must be sold at £300 so that we receive £600 for two instead of £400 for one; thus the marginal addition to income and the marginal addition to cost are the same, namely, £200. If we sell three cars, all must be sold at £200

per car; thus we have no more revenue from selling three cars than from selling two. But if each customer were charged a different price our total revenue would be £900 (£400 + £300 + £200) instead of £600, and the marginal revenue for the third car £200 would be equal to this marginal cost.

Most of us have a deeply rooted objection to different people being charged different prices for the same thing at the same time. If there is a uniform charge our marketing is made much easier, but given certain elasticities of demand, and certain conditions of supply, we must either accept price discrimination or make it impossible for private enterprise to supply the service. Suppose for example that our motor-car business had a fixed cost of £600 and our variable cost was £50 a car, and that we could sell one car for £600, a second car for £300, and a third for £240. Our manufacturing costs would be one car £650, two cars £350 each, and for three cars £250. We could not afford to supply one car at £600, two cars at £300 each or three cars at £240 each, because costs would exceed revenue. But if we could sell one car at £600, one at £300 and one at £240, we should have a total revenue of £1,140 to set against production costs of £750.

The great difficulty with price discrimination is that if precisely the same article is on sale in the same place and at the same time, few buyers if any will pay the higher price. Some way would have to be found to segregate buyers into low price and high price buyers. Immediately we introduce administrative safeguards we begin to increase the real cost of distribution to society and thus dissipate some of the gain derived from discrimination. Such problems would not arise if the goods sold to each buyer were different. If, for example, field-glasses were sold at different prices, transfers would be possible, but with spectacles made to suit the individual, beneficial transfers would be far more difficult to arrange.

We have seen that the general tendency with perfect competition, or with any kind of imperfect competition, is for the producer to expand production to the output at which the cost of the marginal addition to output is as great as the marginal amount added to revenue by its sale. This does not mean that the total earnings of capital are the same irrespective of whether production is organised under perfect or imperfect competition. In some industries working under imperfect competition, the

earnings of capital would be greater with perfect competition, and with a different degree of imperfect competition the earnings of capital would be higher than with perfect competition. It is no doubt impossible to calculate the effect of imperfect competition on total capital earnings in our present society. One difficulty is that when businesses are resold the market price will include payment for profit-earning capacity attained. When the business has been sold, therefore, any abnormal profit-earning capacity which previously existed will only suffice to pay normal profits on the present capital. Monopoly profits would not necessarily express themselves in high dividends on the capital invested.

When some degree of imperfect competition is deliberately organised as with a sales agreement amongst the producers of some commodity, there is always the possibility of a public outcry. Public anger tends to be greatest when such agreements threaten to increase the share of current income going to the owners of capital. This is partly due to the belief that capital ownership is concentrated in relatively few hands, and because of the large size of some unearned incomes. The emphasis in most public discussions of these problems is on the effect on income distribution: the same person will support legal restrictions on the output of small producers such as farmers, while demanding that certain large scale monopolies should be legally disbanded. A distinction should be drawn between changes which increase the total income and changes which reduce the total income. Even when our main emphasis is on income distribution it is important to maximise the total income, and that requires us to use our resources as efficiently as possible.

THE NATURE OF IMPERFECT COMPETITION

BOOK LIST

Grade 1

Samuelson, P. E.—*Economics,* Chapters 3, 6, 21 and 22.
Cairncross, A.—*Introduction to Economics,* Chapters 14-17.
Worswick, G. D. N., and Ady, P. H.—*The British Economy 1945-50,* Chapters 4 and 18.

Grade 2

Meade, J. E.—*Economic Analysis and Policy,* Part 2.

Eastham, J. K.—*An Introduction to Economic Analysis,* Chapter 10.
Boulding, K.—*Economic Analysis,* Part 2.
Stigler, G.—*The Theory of Price,* Parts 1-3.
Andrews, P. W. S.—*Manufacturing Business,* Part 1, Chapter 3.

Grade 3
Robinson, J.—*Imperfect Competition.*
Chamberlain, E.—*Monopolistic Competition.*

QUESTIONS FOR DISCUSSION

1. If a monopolist cannot determine both the selling price of his product and the quantity bought, how do the members of a monopolistic organisation, such as a cartel, allocate output quotas?
2. If an industry of small producers, say agriculture, bought its supplies from monopolists and sold its product to a single buyer (monopsonist) how might the government try to increase the income retained by the farmer?
3. When, if ever, would the community benefit from a monopolistic organisation paying some producers to close down?
4. If some years after the formation of a monopolistic organisation the price of the product were reduced and both wages and profits were increased, would this enable us to say whether monopoly was or was not desirable?
5. Would you agree or disagree with the following statement? "If the trade union movement can divert some part of the profits of monopoly into the pockets of the workers a monopoly can help to raise the worker's standard of living."

CHAPTER 7

CAPITAL AND BANKING

I

THE UTILISATION OF BANK DEPOSITS

WITHIN an economic system we have a great number of markets each concerned with the buying and selling of a specific good or service, and the price ruling in each of these markets is determined by the distribution of bargaining strength. Besides the sense of unity which may exist amongst the buyers or the sellers in any one market, it is suggested that there also exists a sense of unity amongst the workers as sellers of labour, and amongst the employers as buyers of labour. This conflict of interest between labour and capital, it is further suggested, may manifest itself in local conflicts between the employees of one firm and one employer, between the employees and the employers within an industry, and more generally in the sense of a conflict between all workers and all employers. There is a fairly widespread assumption that, in a private enterprise economy where large quantities of capital are used, the suppliers of capital will usually be stronger than the workers. When it comes to bargaining in the market the suppliers of capital begin with the great advantage that individually they possess larger stocks of money and goods than the workers, and are therefore able to engage in prolonged bargaining even if it involves some immediate loss of income.

It seems highly probable that many of us overestimate the solidarity of the so-called capitalist class, if we include within it all who receive the greater portion of their income from returns on capital. There must be many investors who have never exerted any direct influence on the conduct of any business, people who wait patiently year by year hoping that the companies in which they hold shares will pay a dividend. The alternatives open to them as individuals are that they sell one investment and buy another, or that they keep their money uninvested with no prospect of any dividend and little interest. When the individual decides that the yield on his shareholding

in a particular enterprise is unsatisfactory he can only get his money back by selling the shares to someone else, so that he does not necessarily reduce total investment when he decides to hold his money uninvested. But we must distinguish between investment transactions which merely transfer existing securities from one ownership to another, and transactions which add to the total of invested capital; between decisions which will reduce the quantity of capital already in existence, and decisions which reduce the rate at which the existing stock of capital is being increased.

So far we have been concerned with the influence of individuals using their own wealth, but what of the power and influence of individuals and institutions when they control the use of other people's capital in addition to their own? What shall we say about the power of bankers, of insurance companies and investment trusts? If all these institutions advised against the supply of capital to an enterprise, what chance would that enterprise have of securing new capital? Could we say that these institutions along with the press are the main forces influencing the decisions made by the investing public? We cannot discuss these questions adequately without knowing far more about the means whereby capital is mobilised, but we can see that the suppliers of capital may exert a monopolistic pressure on the market if the great majority of them try to keep their individual investment programmes in step with the policy pursued by the more important financial institutions.

When we consider the way an individual may employ his capital we see that he can invest it in an enterprise, or lend it for use by an enterprise. Capital used for the purchase of durable equipment must be invested in the enterprise for a great number of years, usually for the life-time of the enterprise. Once the equipment is purchased the enterprise will need capital to pay the current expenses of using the equipment productively, such as payment of wages and for raw material; this capital may be borrowed for short periods of time or with a promise of repayment at short notice. The continued activity of the enterprise may require that when one short-term loan is repaid another can be secured. From time to time an enterprise may try out some experimental development which may take from one to five years and for this they may use capital borrowed for

a fixed period of from one to five years. An enterprise may therefore require long-term capital for periods over and above five years, short-term capital for periods of less than one year, and medium-term capital for periods of between one and five years. Almost every enterprise requires long-term and short-term capital, the demand for, and the supply of, medium-term capital being quantitatively less important.

At any given time we have a mass of fixed capital equipment, the product of long-term investment made in earlier periods, we have some enterprises engaged on medium-term experiments, and we have a great flow of materials and energy helping to drive, or being processed with the aid of, the existing fixed equipment. Out of the product which emerges from this creative activity, a part may be used to add to the capital resources of the society as long-term, short-term or medium-term capital. For this to happen, two decisions are necessary. Firstly someone must decide to leave part of his current income free for use as capital by not consuming it, and someone must decide to use this unconsumed income for capital purposes. If within the economy there is a great multiplicity of enterprises and of potential borrowers with differing capital needs on the one hand, and on the other a great number of individuals refraining from consuming some part of their income to maximise their personal convenience, there is always the possibility that we may have more short-term capital than borrowers require and not enough long-term, or vice versa. There is also the possibility that the amount of current income not used for consumption may be greater or less than the amount needed to finance the intended increase in capital resources. We are back now to the problem of elasticity and substitution. What is the elasticity of demand for capital, and how far can one kind of capital be substituted for another? In a society where the increase in the amount of current income not consumed exceeds the desired increase in the use of current income for capital purposes, the total effective demand for the current product will be reduced and some business men will find their goods selling at a slower rate, and their stock of unsold goods accumulating. Consequently the efficiency with which the capital market works may seriously influence the total of effective demand and the volume of employment.

The geographical centre of the capital market in England is

in the City of London. In the City we have a great concentration of banks and financial institutions some of which are competitive one with another, but there is also considerable specialisation of functions as between one group of institutions and another, so that many of them are complementary one to another. For example, a firm of exporters may wish to secure cash immediately against a customer's written promise on a trade bill of payment in sixty days. If they get this money in the City they will require the services of one out of the many Accepting Houses to guarantee the bill, and one of the Discount Houses to buy the bill for cash. The Discount House will probably use money lent to it by some banking institution. If the firm had gone to the City for long-term capital, then it might have acted through its bank giving an introduction to an Issuing House, the House in turn seeking aid from Underwriters, and finally the shares might have been resold on the Stock Exchange by the original subscribers.

The City of London is the geographical centre of the capital market in England, but the investing public and the borrowers of capital are dispersed over the country, so that the task of mobilising and lending capital requires a nation-wide system of contacts. So far as short-term capital is concerned, the development of banks with national networks of branch banks has made possible the transfer of funds from one centre to another. Primarily a bank is a place where money can be deposited, repayable on demand, but to this basic function the English Banks have added many other functions, and important amongst these is the ease with which their customers can benefit from the financial organisation of the City.

The customers of a bank benefit from the financial organisation of the City as depositors. As depositors they are more concerned with the safety of their money, and with the ability of the bank to pay on demand than with the interest paid on the deposit. Generally speaking, the greater the industrial and geographical dispersion of bank loans within the national economy, the less the risk of the banks being unable to repay deposits on demand. If a bank had to use all of its resources within the industrial region in which the depositors lived there would always be the possibility that the peak demand for the withdrawal of deposits would occur when the local borrowers were least able to repay their bank loans. A bank using its

assets on a national scale by making minor reductions in its loans to widely dispersed borrowers may secure the cash to meet deposit withdrawals in one area which would have compelled a purely local bank to denude local industry of its working capital. When the loans made by a bank can be spread over a national economy, which contains several distinct and specialised industrial regions, there is always the possibility that the peak demand for loans in some regions may coincide with the period of lowest demand in other regions. The largest deposit banks consist of immense chains of branch banks extending into almost every corner of the national economy. Such a chain of branch banks is better able to meet any abnormal local demand for loans or withdrawals than a purely local bank because of its ability to move money into such areas from other localities where deposits exceed the immediate local need. When banks also use a part of their resources in the City some of them may secure additional money to meet a sudden withdrawal of deposits by recalling some of this cash from borrowers in the City. The existence of banks having a nation-wide system of branches and able to use some of their funds in the City means that with highly skilled management the danger of loss or of inconvenience to the depositors is practically non-existent.

If we are going to walk to the street corner and open a banking account, we shall want some compensating gain. There should be a gain in security against burglary, and if we accept certain conditions limiting the speed with which unlimited amounts can be withdrawn we may also receive interest on our deposited money. If the money we pay into the bank is part of the working capital of a business, we may be less concerned with earning interest on this money than with the ease and convenience with which it can be paid over to those who supply us with goods and materials. The existence of a nation-wide system of branch banks makes it possible for the money we deposit in a current account to be transferred to the account of any other person we indicate. All we need to do is write out a cheque in favour of some other person and the bank will either pay cash in exchange for the cheque or credit it to that person's banking account according to his personal preference.

In retail trade when "A" sells goods to "B", money passes in the opposite direction, going from "B" to "A". When we

consider the sale and resale of goods on their way from natural resources to the retailer, there is little physical movement of cash, but a great transfer of items in bank ledgers from one customer to another, as cheques are sent to pay for goods received. A small amount of cash is required to pay wages, but most of this is spent by the wage earners on goods sold by business men who keep their cash balances in a current account at the bank. Transfers between current accounts involve certain costs for cheques and for bank charges, but the great majority of business men show by their use of current account facilities that they consider the service worth the cost.

The great bulk of cheque payments between current accounts in England is concentrated on the Midland Bank, Barclays Bank, Lloyds Bank, the National Provincial Bank and the Westminster Bank, often referred to as the Big Five. It is clear that if "A" had a current account with the Midland Bank at Newcastle, and "B" had a current account with the Midland Bank at Dover, a payment from "A" to "B" would only move a claim to cash between branches of the Midland Bank; but what would happen if "A" had an account with Lloyds Bank in Newcastle and "B" with the Midland Bank at Dover? To the customer of the banks the fact that they bank with different banks is of no significance, and from the view-point of the bankers, the operation of transferring the claim between banks causes little additional work. The cheque-using banks each have a banking account with the Bank of England, and after the value of the cheques drawn by customers of the Midland Bank in favour of depositors with Lloyds have been offset against the cheques drawn by Lloyds depositors in favour of customers of the Midland Bank, the difference can be paid by a Bank of England cheque drawn by one bank in favour of the other. The net result of all the inter-bank transactions will then be a transfer in the ledgers of the Bank of England.

The capital resources at the disposal of a bank consist of the subscribed capital of the bank and any reserves of capital it may have accumulated, the monies deposited with it by customers, and its ability to allow people to draw cheques in excess of the legal tender at its disposal. Most of the capital resources owned by the bank will be invested in the buildings and equipment necessary for the banking business; most of the money paid into the bank by depositors appears to remain there as

till money, but this till money supports a great volume of cheque transactions performed within the banking system. If we go to the bank for a loan the banker will give us the right to withdraw a certain sum of money, but we may leave this money in the bank until our outgoing payments are due. If we get an overdraft we shall be given the right to draw cheques up to a certain total amount in excess of the money we have paid into our account, and we shall only be charged interest on the amount we actually use. The great bulk of people who use overdrafts appear to pay cheques to people who themselves have banking accounts so that the overdraft, when used, goes into someone else's banking account. The demand for loans and overdrafts may fall below the amount which the bankers think could safely be lent, and they may use this surplus credit to purchase interest-bearing securities. These securities can be paid for by cheque, and the seller may pay the cheque into a banking account.

When a banker makes us a loan and we leave the loan in his bank, we have left the loan deposited in his bank. Should the banker try to add up the total rights of his customers to withdraw money from his bank he must include all the unused loans. From his view-point there are three ways of making a deposit: by paying in legal tender, by paying in a cheque, or by leaving part of a loan at the bank unused. The Big Five have found by experience that in normal times they can accept deposit liabilities at least ten times as great as the cash they hold in the till. One possible result of this is that the deposit liabilities of the banks may exceed the amount of legal tender in the country.

We may wonder how a banker can balance his accounts if he gives people the right to withdraw more money than they have deposited, and then regards this loan as a deposit. When deposit liabilities increase because there is an additional deposit of cash, deposits may rise by £100, but assets also rise by £100 additional cash in the till. Against a loan which creates a deposit the banker also has an asset; this at the very lowest will be a fairly reliable promise to repay the loan, and this promise may be further strengthened by the deposit of securities which can be sold to reimburse the banker in the event of any default. Considered purely as a question of balancing the account there is no problem, since every loan is covered by a promise

to repay and therefore every additional liability is covered by an additional asset. If every time a banker makes a loan he acquires an asset, why does he limit his deposit liabilities to a figure of almost ten times his till money? This limit is imposed by two considerations, firstly by the need to maintain the depositor's faith in the bank's ability to repay deposits on demand, and secondly by the monetary habits of the community, for example, the proportion of total transactions requiring legal tender. So long as the depositors remain convinced that deposits can be readily converted into cash whenever the depositor wishes, people will regard deposits as being almost as good as legal tender; but immediately a bank is unable to pay cash to a depositor who demands it, faith in that bank will be destroyed. The British banks are so strong and efficient that any failure to meet the demands of depositors seems unthinkable, and this faith in the banks is a tribute to the skill of those who manage their affairs.

Success in banking depends on the skill with which the loanable resources of the bank are employed. This requires the capacity to sift out the reliable from the unreliable promises of repayment, and the ability to strike the most advantageous balance between investments that can be converted into cash when necessary, and longer period investments which, because they are more difficult to convert into cash, yield a higher rate of interest per annum. There is the constant choice between liquidity and profit. A timid policy of excessive liquidity will sacrifice profits, and a policy which freezes too high a proportion of the resources in investments which cannot readily be liquidated without severe capital losses may inconvenience the depositors or weaken the bank financially.

The distribution of the bank's resources will be influenced by the proportion of deposits repayable on demand. A bank with 75 per cent. of deposits repayable on demand will need to hold more of its assets readily convertible into cash than another that has only a small proportion of deposits subject to immediate and full payment on demand. Similarly, a bank which holds a large proportion of till money to deposits will be able to hold more long-term relative to short-term investments. It would be quite wrong to assume that the large cheque-using banks, with their smaller ratio of till money to deposits, ought to earn more on the money deposited with them than a savings bank. As a

rule the savings bank is receiving deposits of money that are expected to remain at the disposal of the bank for several months, but the cheque-using banks are utilising a highly-volatile flow of money which the depositors expect to need shortly. The shorter the period for which the depositor leaves his money at the disposal of the bank, the greater the amount of ledger and counter work and the higher the cost of operating the bank; the shorter the period for which deposits can be invested the lower the return per annum on the security.

Any generalisation about the pattern of bank investments may not give an exact picture of the way in which any one bank distributes its investments. Bearing this caution in mind, we can say that the clearing banks will use some of their resources in the City, and will lend some to business and professional men working in the neighbourhood of the various branch banks throughout the country, either as loans or overdrafts. The funds that are used in the City may be spent directly on the purchase of securities or may be lent to other persons or institutions for the purchase of securities. Some money may be lent to money brokers who will relend it for short periods to others, usually for use in buying securities. A large amount may be lent to the Discount Houses operating in the Bill Market, who pay the trader here and now the sum, less discount, that his customer has promised to pay him on a specified future date, say three months hence. These promises are made on trade bills and arise chiefly out of international trade.

When a Discount House buys a trade bill, the person who has sold goods on credit immediately receives the sum, less discount, which the debtor has undertaken to pay him in three months' time. When the recipient of the goods discharges his debt, he will buy back the trade bill and the Discount House will recover its outlay plus the discount charged. But as trade bills can be bought and sold in the Discount Market, any one Discount House can usually repay a bank loan by selling some of its stock of trade bills either in the Discount Market or to the Bank of England. New trading transactions involving the supply of goods on credit are taking place every day, therefore there is a continuous flow of new trade bills on to the market and a continuous repayment of discounted bills as they mature. Between the newly-issued bills and the matured bills, there is a large stock of discounted bills, some with almost three months

to go before they mature, and others due for repayment tomorrow. The existence of a large stock of trade bills, some of which mature each day, provides a splendid opportunity for using funds profitably while still maintaining a high degree of liquidity.

When the government of a country has a large national debt it may finance part of this by borrowing for short-term periods, getting the money to repay one lender at the end of a given period by borrowing from someone else for another similar period. If we assume that this money is borrowed for twelve-week periods, and that some is borrowed every week, there will be a continuous flow of new borrowing on to the market and a continuous repayment of debt as it matures. Between the newly-contracted debt and the matured debt there will be an accumulation of debt maturing at dates ranging from one to twelve weeks hence. A body of debt maturing in this way reduces the extent to which invested resources are frozen, and if, as with British Treasury Bills, the securities can be resold before they mature, the degree of liquidity for any one investing institution will be further increased. In the City there is the further possibility of reselling these partly-matured securities to the Bank of England, thus drawing additional money into the market and increasing the liquid resources of all holders of such securities.

A part of the resources invested by the bank in the City may be used to purchase securities which represent long-term investments. Some of these long-term securities may be repayable by the issuers at a certain future date, but the great majority of them carry no specific promise of repayment. As the long-term securities which carry a promise of repayment approach maturity, they acquire more of the characteristics of the short-term investment of special interest to the banks. The loss of liquidity incurred by holding long-term investments is greatly reduced if the securities can be easily resold to other investors, and there are many such securities which can be readily sold on the Stock Exchange on almost any day we care to choose. There will inevitably be a greater risk that the bank may have to sell a long-term security at a price which involves some capital loss, than would occur with matured short-term securities, but in normal times this may be compensated for by the higher rate of return earned on the securities.

The banker investing his liquid assets on any given day has to try to visualise the future demand for legal tender. A study of the business transacted in past years may suggest certain seasonal fluctuations in the demand for legal tender, as in August for the holiday season, or at Christmas for the increased shopping expenditure. When an increased demand for cash appears highly probable, the banker will buy a larger amount of securities which mature just before the increased demand for cash begins to drain money out of the till. The banker cannot anticipate precisely either the size of the increased demand for cash or the day when it will become important, but in normal times his investment pattern allows him sufficient elbow-room to meet all the depositors' increased demands.

Theoretically the banker can repay every deposit at any time, because every deposit is covered by some asset such as cash, a saleable security, or a promise to repay a loan. If the bank could sell all its securities at about their purchase value, and secure the repayment of all its loans, then all depositors could be paid in full on any given day. But it can only sell its securities if there are buyers; and many of the people who have borrowed from the bank can only repay their bank loans if they can sell some of the goods in their possession at about the price they anticipated. An abnormal rise in the community's desire to hold larger stocks of legal tender tends to express itself in a reduced willingness to buy securities or stocks of goods, and coinciding with this there is a rapidly increasing withdrawal of deposits from the bank. Under these circumstances the banks cannot sell securities at adequate prices, and their customers cannot sell assets at reasonable prices to repay their bank loans. The inability of the bankers to meet the demand for cash under such circumstances does not indicate any inefficiency on their part, because such an abnormal demand for cash, if maintained indefinitely, would simply show that that society was unwilling to use banking facilities, and we can hardly expect the banker to organise his investment policy on that assumption.

An abnormal demand for legal tender may be an irrational response to a widespread sense of impending crisis, and any event which strengthens these popular fears will tend to increase the demand for cash. The remedy consists largely of the restoration of confidence, and the more quickly that it is restored, the better. Probably the greatest single stimulus to the panic would

be the refusal by a bank to meet in full the clamour for cash, and the surest antidote the immediate and full payment of all claims, but an abnormal increase in demand can only be fully met by an abnormal increase in supply. Ultimately the power to meet this situation is in the hands of the authorities who control the supply of legal tender, and in England that means the Bank of England and the Treasury. Providing they are prepared to issue more legal tender, the bankers can sell securities to the Bank of England in return for newly printed notes. When the panic has subsided, the Bank of England can buy these notes back out of circulation by selling securities to individuals and institutions who prefer interest-bearing securities to non-interest yielding legal tender.

CAPITAL AND BANKING

BOOK LIST

Grade 1

Samuelson, P. A.—*Economics,* Chapters 13 and 14.
Cairncross, A.—*Introduction to Economics,* Chapter 24.
Truptil, R. J.—*British Banks,* Chapters 2, 6 and 7.
H.M.S.O.—*Report of Committee on Finance and Industry Cmd. 3897,* Part 1, Chapter 4.
Benham, F.—*Economics,* Chapter 22.

Grade 2

Crowther, G.—*An Outline of Money,* Chapter 2.
Balogh, T.—*Financial Organisation,* Part 1.
Lavington, F.—*The English Capital Market,* Chapters 19 to 22.
Ellinger, B.—*The City,* Chapters 12 to 21.
Sayers, R. S.—*Modern Banking* (Third Edition), Chapters 1, 2, 9 and 10.

QUESTIONS FOR DISCUSSION

1. What would be the effect on the economic system of making the use of cheques illegal? How could some of the undesirable consequences be mitigated?
2. What changes outside the control of the deposit banks might make them wish to reduce their deposit liabilities?

3. State the case for and against a municipally-owned bank.
4. If a government faced the alternative of either printing more notes or borrowing from the banks, which course should it take? If borrowing from the banks would increase bank deposits by £1 million would this have precisely the same potential influence on the total supply of money as a £1 million increase in the note issue?
5. It was said of one international financier that he borrowed money by the day and lent it out for periods of twenty years and upwards. Do you think this would be possible, and if so how? What advantage would the financier derive and what risks would he run?

THE SHORT-TERM MONEY MARKET

II

IN any great money market like that in the City of London, liquid funds are paid over in exchange for securities. So great is the volume of such business that it provides regular employment for several thousands of people wholly engaged in facilitating the exchange of securities for money. The direct result of a day's work in the City will be that securities and money change hands, and that some ledger totals are increased and others reduced. Many people believe that because the City has no physical product to show for its labour the net result of its existence is to reduce the income of other people who make no direct use of the City. Such an approach to the problem ignores the fact that income consists of services as well as goods, and that the incomes of many people employed in the City come from fees paid for facilitating an exchange in precisely the same way that an auctioneer receives fees for selling second-hand furniture.

We may say that those who sell securities clearly prefer money to securities at the ruling price, and those who buy securities clearly prefer securities to money at the ruling price, and that therefore it is in the interests of both those who desire to buy and those who desire to sell that some mechanism should exist to facilitate such transfers. This is not to say that all who sell securities will always be able to sell them at what they regard as a desirable price. All that is said is that at some price they

can be sold. Those who sell securities at the ruling price, no matter how unpalatable the decision may be, clearly prefer money to securities at that price otherwise they would keep the securities.

When we buy securities for money we usually hope to derive some benefit. This benefit may come either in the form of interest on the securities, or as an increase in their selling price. To secure this increase in money income or capital value we have to part with a stock of money we know for certain we can use when we want, and accept in exchange a less certain chance that we can secure money for the securities at a time convenient to us. The more easily and readily securities can be exchanged for money and vice versa, the smaller the degree of inconvenience associated with exchanging money for securities. This lessening of possible inconvenience will reduce the strain and tension experienced by lenders and so contribute to their well-being, and it may also increase the volume of lending called forth by any possible rate of interest or capital gain. An increase in the volume of loanable funds called forth by any given rate of interest will mean that a larger volume of borrowing can take place than before without increasing the rate paid by borrowers. But if any part of the resources used in an enterprise are obtained at less cost, this must either result in a reduction of the selling price of the product or an increase in the net income of the enterprise, and either of these developments may increase total economic activity and total real income.

If we decide that it is desirable to minimise risk and inconvenience, we may find it more difficult to criticise the money market mechanism than if we ignored this consideration. We shall still have at least one critical test left because we shall want to know whether the money market provides a cheap and efficient means for reducing risk and inconvenience. In particular we may ask how many financial institutions are necessary for optimum efficiency? Have we too many separate institutions in the City resulting in wasteful duplication of buildings and equipment? How highly specialised must a given financial institution be to attain optimum efficiency? What effect will it have on the real burden of risk-carrying if one firm carries it for a year, or if twelve firms each carry the risk for one month? What effect will it have if six firms each carry one-sixth of the risk in any given month rather than one firm carrying the whole?

Do we reduce the real burden of risk by spreading it over a greater number of persons or institutions?

Most people who defend the existing structure of the City would maintain that a large reduction in the number of institutions would reduce its technical efficiency and increase the real burden of risk-carrying. They may argue that a Merchant Bank can only attain a high degree of efficiency in so far as it functions as a highly specialised institution, having exceptional knowledge about a particular market. They can see nothing wrong in the fact that one Merchant Bank's main activity may simply consist in putting its name on the trade bills drawn against some of the traders living in Denmark, while another Merchant Bank does the same for bills drawn against some traders in Greece. But we must remember that when the Merchant Banker puts his name on a trade bill he can be called on to pay the bill if the trader defaults. The value of the bank's name on a bill will depend on its past record in honestly meeting the liabilities it has undertaken. In accepting the bill, a bank well known in London guarantees any holder of it against default by some foreign trader whose name and credit have no general standing in the London Bill Market.

When a Merchant Bank accepts the responsibility for ensuring that a bill will be paid it incurs a risk, and for doing this it charges a fee. The Merchant Bank is a profit-earning business and therefore it will try to ensure that the fees it charges are commensurate with the risks run. Because of its detailed knowledge of the credit worthiness of the traders in a particular country, it can assess the risk of default more accurately than a general finance institution could, and this appears to enable more credit to be obtained by foreign traders at lower charges. It may also be that when one Merchant Bank does a lot of the acceptance business for a given centre, that the traders will value the use of these facilities so much that any temptation to default will be reduced.

Immediately a reputable institution has accepted responsibility for a bill it can be sold on the Bill Market. Here we have a number of institutions largely concerned to buy bills with short-term money lent to them by other persons and institutions. They have to pay for the loan of the funds they use and then earn expenses and profits out of the charges made for discount-

ing bills. They do this by carrying a risk. This particular risk arises from their undertaking to repay loans, if called upon to do so, before the bills bought with the loan have matured. If the Discount House overestimates the future supply of loanable funds, it may have to re-discount some of its trade bills at figures which seriously reduce its net earnings to secure the money needed to repay loans. If its estimates are proved correct, then it should be able to borrow elsewhere within the market, to repay any loans that are called, without incurring any net increase in working costs.

The risk of loss by default on a stock of bills may be lessened by holding fewer bills drawn on any one country and substituting bills drawn on a greater number of different countries. Similarly, with acceptance names, the greater the variety of good names on a stock of bills, the smaller the loss if any one should default. These considerations are more important for the clearing banks than for the discount houses, and a large part of the clearing banks' holding of bills is bought from the discount houses. This enables the clearing banks to hold bills which mature at convenient dates and carry the minimum risk of large scale default. These bills will also carry an extra name as the selling discount house will also have endorsed the bills, thus giving an additional guarantee of repayment to those to whom they have resold them.

When at any given interest or discount rate there is a scarcity of short-term loanable funds, this will express itself in a demand by lenders for the repayment of loans made to the bill market, and the discount houses will be unable to meet these demands in full by borrowing from other lenders at the existing rate of interest or discount. They will then find themselves faced with the alternative of either defaulting or of re-discounting bills at the Bank of England. As they will usually wish to avoid default at almost any cost, we can say they are forced to go to the Bank of England. When they go to the Bank of England they must expect to be charged the Bank Rate ruling at the time, and this will almost certainly be a higher rate per annum than the discount houses charged for discounting the bill in the first place. The possibility of financial loss ensures that the market will only rediscount with the Bank of England when all other sources have failed to produce the required cash, and in this way helps to minimise pressures on the Bank of England which might

otherwise cause an increase in the volume of currency notes in circulation.

The institutions in the City using short-term capital have to work under a ceiling fixed by the Bank of England in the form of the Bank Rate. The Bank Rate is usually the highest short-term rate, otherwise loanable funds would soon be increased by the rediscounting of securities with the Bank of England. It is at rates less than Bank Rate that some part of the legal tender is accumulated, being gathered up by one of the various saving agencies and channelled into the City, where it is lent out for the purchase of securities arising from the ownership and use of material goods. A Bank Rate of 4 per cent. can be considered fairly high, so it will be seen that the financial institutions must work on fine margins, and yet these margins include payment for both inconvenience and risk.

THE SHORT-TERM MONEY MARKET

BOOK LIST

Grade 1

Benham, F.—*Economics,* Chapter 23.
H.M.S.O.—*Report of Committee on Finance and Industry, Cmd. 3897,* Part 1, Chapter 4.
Leaf, W.—*Banking,* Chapters 8 and 9.
Truptil, R. J.—*British Banks,* Part 1, Chapters 3, 4 and 7, Part 2, Chapters 1-3.

Grade 2

Ellinger, B.—*The City,* Chapters 39 and 40.
Balogh, T.—*Financial Organisation,* Part 2.
Sayers, R. S.—*Modern Banking,* Chapter 3.

QUESTIONS FOR DISCUSSION

1. What is the cost to the community in real terms of the existence of the Money Market? What contribution does a Money Market make to the real income of the community?
2. What movement in prices would make you suspect that the supply of short-term capital, relative to the demand for it, had increased more rapidly than that of long-term capital? Would this movement in prices influence the distribution of

capital resources as between the long- and short-term markets?

3. Which risks would be increased and which decreased if the Discount Market were replaced by a government corporation?
4. State the case for and against the following expression of opinion: "All financially-strong businesses should provide their own short-term capital without borrowing."
5. If a nationalised concern borrowed money at lower rates than the average paid for short-term loans by private business would this prove that the Money Market favoured nationalisation? What would it prove?

THE STOCK EXCHANGE

III

WE have seen that one part of the money market is concerned with the buying and selling of securities which mature about three months after the date of issue. When these securities mature they are redeemed at their face value, and if we want cash for them before the redemption date, we have to sell them for less than their face value. The difference between their face value and their current price is the discount rate. Two of the main forces determining the volume of short-term securities are the volume of trading activity and the size of the government's short-term debt. As one lot of securities mature others are created by the continuous flow of trade and government expenditure. Doubtless most of us would agree that there is a need for short-term capital, and that as far as possible this should be financed by mobilising funds that are temporarily idle.

The short-term money market does not exhaust the activities of the City, and we may ask what useful functions the Stock Exchange performs? We may already know that although the London stock exchange is the best-known exchange in the United Kingdom, it is only the most important one out of a total of twenty-two in the United Kingdom. What is a stock exchange? It is a market where certain stocks and shares that have already been subscribed for, wholly or in part, can be resold. On relatively rare occasions a small amount of new capital may be raised when an established company sells a

block of new shares on the stock exchange, but such business forms only a very small part of the total business transacted on a stock exchange. The main purpose of the stock exchange is to enable people who have already bought securities to sell them to other people who now want to buy them.

A stock exchange usually consists of a building where the buying and selling of stocks and shares can be transacted; of stock exchange members who have the right to transact business within the building; of the listed securities that can be bought and sold there, and finally of the customers of the members, who, to make alterations in their holdings of securities, are prepared to pay the fees charged for the buying or selling of stocks and shares. The volume of business transacted on a stock exchange will depend on the number of securities listed, the number of people with holdings of some of the listed securities, and the frequency with which the customers desire to make alterations in their holdings of securities. The income of the members, and the income of the owners of the building will tend to increase as the volume of business transacted on the stock exchange increases, and most of the business will result from the desire of holders of securities to alter the composition or size of their holdings. In a world in which every purchaser of stocks and shares always secured a permanently satisfactory combination of securities the first time he bought, stock exchanges would be dull and empty places.

The owner of stocks or shares can only sell them if someone else is prepared to buy them, and therefore every time securities change hands we are presented with the fact that at the ruling market price "A" prefers to sell the securities, and "B" prefers to buy them; and furthermore, that at some earlier date "A" had chosen to buy the shares which he now prefers to sell. There are many possible reasons for the change in "A's" attitude towards ownership of these particular shares, as for example, the need for additional cash to meet some unforeseen increase in domestic expenditure, or a business need for additional liquid capital. Let us assume that "A" was fortunate, so that when he wished to reduce his holding of long-term investments, someone else wanted to hold an increased quantity of such securities, and that "A" was therefore able to sell them at a price about equal to their cost to him.

We put "A" in the fortunate position of being able to sell

his long-term securities to meet an urgent need for cash without incurring a monetary loss, but investors on the stock exchange know that there is always the possibility that they may only be able to sell at a time convenient to them if they are prepared to accept monetary losses. The only way we could be certain that investors would never suffer a monetary loss when they liquidated an investment, would be for no security to fall in price.

Let us look at some of the forces which influence the price of shares. We can assume that the intending investors have made certain rudimentary comparisons with other investment opportunities, and have decided that the purchase of certain shares at a given price represents the best investment opportunity open to them. One of the important considerations will have been the possibility that the price of the shares may rise or fall in the near future. This consideration may be more important than the yield per cent. on the capital from dividends, because a fall in the price by 6 per cent. will convert a dividend yield of 5 per cent. into a loss of 1 per cent. Under such circumstances the investor would have done better if he had hidden the money in some safe and accessible place. If there is a strong probability that the price of certain shares will rise in the near future, the intending investor may disregard the rate per cent. yielded by recent dividends, as a 6 per cent. capital gain when added to a 3 per cent. dividend will give a gross income of 9 per cent.

The income of the skilled or fortunate investor consists of dividends paid on the shares he holds, and of any increase in the market price of these shares. Given the possibility of an increase in the price of the shares, dividends could be ignored so long as prices rose far enough and the shares were sold after the rise had occurred. If the main motive animating a number of buyers was the possibility of capital gains, there could be an active market in a share which never earned dividends. The number of shares issued by the firm being rigidly limited at any given time, any increase in the demand will raise the price, giving capital gains to the holders. Successful buying for capital gain requires that the shares should be bought before the demand for them is further increased, and demand will increase when the price is expected to rise. The individual investor can gain if he is able to anticipate correctly an increase in demand, which

will itself result from an attempt by other investors to anticipate further possible increases in demand.

When money is being used as an income-earning asset we cannot ignore the possibility of capital gains or losses. The yield per cent. per annum on capital used to buy securities at market price may vary but little from one security to another, and yet there may be scope for much larger earnings from the successful pursuit of capital gains. An investor who, by buying and selling different shares can secure a net capital gain of 1 per cent. a month, will be earning income at the rate of 12 per cent. per annum. But the more any given security rises in price, the greater the possibility that it will rise no further, and any extensive belief that the future price may be lower will reduce demand and thus help to bring down the price, causing capital losses to those who hold the shares. So long as some investors are prepared to pursue problematical capital gains, no purchaser of shares can be certain that the price he has paid will remain unchanged for any considerable period of time.

A large part of the money originally paid for these long-term securities will have been spent on durable capital equipment. This equipment is used in the production of goods and services which the producers hope to sell at a profit. The payment of dividends on the shares can only come out of any excess of revenue over variable cost earned by the users of the capital equipment. But whether any firm will or will not earn any surplus over variable cost will depend on many forces outside the firm's control. Some of these forces may affect earnings adversely at one time and favourably at another, as for example changes in consumer income or changes in the general level of economic activity. A fall in the general level of economic activity will not have an equally adverse effect on the profits of all firms, since for some a contraction in output will cause only a small increase in average cost, but for others the increased cost may be so large that profits cannot be earned at that level of activity. The demand for the product of different industries may fall by different proportions, and both the date when the recession begins to affect different industries and the date of recovery may vary from one industry to another. Fluctuations in the general level of economic activity, in an economy using large quantities of durable and specialised equipment, may mean that there will be years when some businesses, because of

increasing average cost and falling selling price, will earn little or no profit. But other years may follow when the demand relative to the productive capacity of the fixed equipment is so great that average cost is reduced and the selling price increased, at the same time.

Firms sometimes encounter problems which increase in intensity and which not only prevent the earning of profits but also push the business into liquidation. Even if liquidation is avoided, the available profits may only allow of dividends far below the average for the firms listed on the stock exchange. The duplication of facilities by the development of road transport was mainly responsible for the reduction of railway dividends after 1920, and the development of techniques favouring larger capacity plants in the steel industry forced some of the less efficient and financially weaker firms to close down. People who buy shares to hold for the dividend are naturally prepared to pay more for shares of profitable than of unprofitable companies, especially if the profits are used to increase current dividends. Shares in a company that is doomed may be sold if the price is low enough, since it may be possible for such a company, by not making any provision for depreciation, to pay some small dividend almost to the date of closure. For example, if the firm is expected to last about five years, and during that time it is expected to pay a yearly dividend of 1s. 6d. on each £1 share, there may be buyers of such shares at say 5s. each, but the nearer the date for final closure, the lower will be the price at which such shares can be sold.

The two forces we have so far considered which may influence the price of a share are firstly, attempts to anticipate a rise in the price of the security, and secondly, the size of the known or expected dividend. This second force is clearly very powerful and gives a strong tendency for the current price of different shares to diverge from the issue price, until the yield per cent. on the market price of all the shares is about equal. Deviations from this general tendency may be explained by uncertainty about the future price of the security, but this uncertainty may not be wholly due to speculative influences within the stock exchange. It may well be that the activities of a particular company are exceptionally difficult to analyse in terms of potential profits. But when every possible concession has been made to such uncertainty, it remains true that the financial columns

contain such phrases as "the market price of this share does not represent its true value" and "the present price of this share will be difficult to maintain". Such statements, however, may only refer to "the exceptions that prove the rule", the rule in this instance being, that the market price of a security is expected to change when there is a change of dividend.

Price movements on the stock exchange can be divided into movements in the price of individual securities, and changes of a more general character which have a marked effect on the general level of security prices. A general movement of security prices is the result of a change in the desire to hold securities that is not offset by a change in the supply of securities. Under such circumstances an increased desire to hold securities will increase the market price and a decreased desire will reduce their price. The result of a general increase in security prices will be to reduce the yield on money used to purchase the securities after the rise, and the result of a general fall in security prices will be to increase the yield on money used to purchase securities after the fall in price. These movements in price therefore reflect a changed willingness on the part of investors to forego the convenience of holding liquid funds. This we may call a change in their liquidity or money preference.

We can say that at any given time, all the issued money will be held by someone, and that the rate of return on money used to purchase securities is a means of inducing those who have money to exchange it for securities. So long as securities show a return, anyone who holds money pays a price for so doing. This price consists of the return he could have had from holding securities instead of money.

The expression "a changed willingness to hold money" requires amplification. As it stands it may mean that some people now intend to use and hold for their personal convenience a smaller amount out of a given total supply of money. But if we look at a situation in which the quantity of money is being increased, and the effect of this change in the quantity of money is not being neutralised by an increase in commodity prices, we shall expect individuals to be less and less willing to hold additional quantities of money as the supply increases. But the alternative to the holding of money is the holding of securities, and therefore an increase in the volume of money unaccompanied by an increase in the general price structure, or by an

increase in the volume of securities, will tend to increase security prices and reduce the yield on money used for the purchase of securities.

A decrease in the quantity of money, not accompanied by an equally rapid fall of prices in general, will make people less willing to set aside any given amount of money for the purchase of securities. With a reduced supply of money not adequately offset by reduced prices, people would need to retain a larger proportion of this reduced supply to carry out their everyday transactions and for use as a reserve against possible mishaps. But they could only maintain the money value of their security purchases if they used less for all other purposes. This could only be done by the acceptance of some sacrifice of convenience and of immediate security, and this sense of being inconvenienced would grow at an increasing rate as people tried to perform a given total of monetary transactions with a smaller and smaller amount of money. The amount of money available for purposes other than the purchase of securities could be maintained constant by reducing the amount used for the purchase of securities. But if there were no reduction in either the size of the existing stock of securities, or in the rate at which new securities were being added to the existing stock, any net reduction in the supply of loanable funds would force down security prices. This reduction in the price of securities would increase the yield on money used to purchase securities, thus increasing the cost of holding money just when the desire to hold a larger proportion of the available supply for non-investment purposes was growing in intensity. The increased yield on security purchases, by increasing the cost of holding stocks of money, helps to minimise the reduction in the supply of loanable funds, but this fall in security prices which raises the dividend yield on security purchases, also inflicts capital losses, and a belief that these may continue will intensify any reduction in the demand for securities.

We can say that an increase in the supply of money, if it increases the demand for securities relative to the supply, will raise security prices, and a decrease in the supply of money, if it decreases the demand for securities relative to the supply, will reduce security prices. This is not to say that every increase in the supply of money will raise security prices, or that every reduction in the supply of money will reduce security prices.

An increasing supply of money might be accompanied by an irregular movement in share prices, or after a certain level of security prices had been attained there might be no further perceptible upward movement of share prices. The future movement of prices will be uncertain because any money that is issued can be spent or kept as an idle balance at the wish of the owner of the money. We have seen that if money is kept idle there will be a loss of income from dividends, and that if it is invested, there is the risk of capital losses should security prices fall. It seems that decisions about whether to increase or reduce idle balances must be influenced by the weighing of dividend losses against the possibility of capital losses. But when decreases in the volume of money reduce security prices, each fall below a certain price makes any further fall less likely, and increases the dividend income lost by holding idle balances. Increases in the volume of money which raise security prices beyond a certain point make any further increase less likely, and they also reduce the dividend losses from holding idle balances. This suggests that there may be some level of security prices at which the risk of capital losses would be so great, and the yield on securities at market price so low, that the whole of any further addition to the supply of money, not required for non-investment purposes, would go into idle balances and therefore not exert any upward pressure on security prices.

The combination of circumstances which form the investment opportunity may vary in complexity and stability from one time to another. At certain times the main movement of security prices may be so simple and direct that almost anyone can make capital gains, or the price fall may be such that almost every holder of securities suffers capital losses. It appears to be these simple movements understood by many people that arouse sufficient general interest to constitute news. But these simple phases then give way to more complex market situations where great skill is required to benefit from narrow movements in security prices, and there is always the danger that investors who try to exploit a simple situation may find themselves caught in a market situation where no price goes the way it was expected to go.

Securities are bought in the hope of monetary gain either from dividends or from capital gains. For either kind of purchase

the existence of a stock exchange can be a great help. The stock exchange provides a gathering ground for people who specialise in the marketing of securities, and some of their specialised knowledge is circulated at secondhand by the press, with the result that the security market becomes a better informed market. The regularly available market with its numerous customers, provides a greater choice of securities at any given time, and facilitates the division of blocks of securities into a number of small parcels, or the accumulation of large parcels of one security by means of several small purchases. The increased variety and divisibility of purchases enables any one investor to spread his risk by holding several different kinds of securities. Holdings of securities can be sold with less effort, and the price, although uncertain, will be predictable within a narrower range of prices than would be possible if securities had to be peddled privately. The fact that the ownership of a great quantity of long-term securities is frequently changing enables a limited substitution of short-term for long-term capital. The more easily long-term securities can be converted into money, the smaller the difference between them and short-term securities. Since interest rates per annum are lower on short-term than on long-term funds, any substitution of short-term for long-term capital will help to reduce the yield on the market price of long-term securities, and thus tend to reduce the cost of new long-term borrowing.

The question then arises, does the existence of a stock exchange increase price fluctuation? It seems highly probable that in an organised market where prices are finely balanced there will be a greater number of price fluctuations in a given period of time, but that each individual fluctuation will be of much smaller size. Therefore it may be true that share prices will fluctuate more often when there is a stock exchange than when there is no such organised market. But this does not necessarily mean that the fluctuation will cause greater inconvenience, since a number of small fluctuations may be less disturbing than a few large fluctuations. Whether or not the pursuit of capital gains will increase the degree of instability will depend on the way market opinion reacts. When opinions are divided about future price so that the quantity of shares offered for sale just meets the demand at the price then ruling, there should be no change in price, but if market opinion moves

solidly from widespread optimism to widespread pessimism, price fluctuation may be greater with than without an organised share market

THE STOCK EXCHANGE

BOOK LIST

Grade 1

Killick, S.—*The Work of the Stock Exchange.*
Wincott, H.—*The Stock Exchange.*
Samuelson, P. A.—*Economics,* Chapters 12 and 25.
Robinson, J.—*Introduction to the Theory of Employment.*

Grade 2

Lavington, F.—*The English Capital Market,* Chapters 34-41.
Ellinger, B.—*The City,* Chapter 36.
Eastham, J. K.—*An Introduction to Economic Analysis,* Chapter 17.
Sayers, R. S.—*Modern Banking,* Chapters 7 and Appendix 3.

Grade 3

Keynes, J. M.—*The General Theory of Employment, Interest and Money,* Chapters 12, 13 and 15.

QUESTIONS FOR DISCUSSION

1. Discuss the following: "In a private enterprise economy the stock exchange serves a useful purpose by providing a market where shares can be sold at any time. It is the gambling on price changes that creates the difficulties and this could be removed by only allowing shares to be resold five years from the date of any purchase."
2. Would you consider the stock exchange price paid six months ago for some of the shares in an industry a fair valuation basis on which to nationalise an industry to-day?
3. It has been suggested by some of the opponents of nationalisation that when the state compels a person to sell shares he should be paid more than the market price. Do you agree or disagree with this suggestion?

4. Discuss the following statement: "Banks and other financial institutions by their emphasis on liquidity increase the speculative element on the stock exchange and so increase the danger that depositors may lose their money."

5. Keynes General Theory, Page 159, says: "Speculators may do no harm as bubbles on a steady stream of enterprise. But the position is serious when enterprise becomes the bubble on a whirlpool of speculation." What does he mean and do you agree with him?

THE NEW ISSUE MARKET

IV

BUSINESS on the stock exchange consists almost wholly of the buying and selling of securities subscribed for at an earlier date. These transactions do not add directly to the total capital resources, although by enabling securities to be more readily converted into money they may indirectly increase the willingness of investors to purchase long-term securities. This will help to reduce the interest rate on long-term capital, and may thus increase the total volume of long-term funds used in the economy. The use of long-term funds within an economy will largely depend on the volume of such funds made available and the terms on which they are made available. We have to assume that for any given lender there will be some expected rate of return which will constitute his minimum lending price, and that if he is convinced that he is not likely to receive this minimum return, then the funds in question will not be used for long-term investment. This is not to say that with an expected return of, say, 5 per cent., an individual or institution would make no long-term investment, and that at 6 per cent. would invest all available funds. It seems more probable that any single investor would be prepared to invest less long-term with a lower expected rate of return and more with a higher expected rate.

The long-term funds at the disposal of the individual or institution may be lent out for a fixed period of years at a fixed rate of interest, and with a promise that the funds will be returned intact. In the event of any failure by the borrower to fulfil these conditions, the lender may be given the right to sell

some specified asset in the possession of the borrower such as buildings equipment or stores. Extensive powers of this nature are usually given to those who make Debenture Stock loans to companies. Most long-term borrowing by government is at fixed rates of interest and with a fixed date for redemption at the face value; with a stock like Consols, however, the rate of return may be fixed, but without any guarantee that the government will ever redeem the stock.

Instead of lending the funds, the owner may use them in some enterprise that he controls. One assumes that he will then debit the enterprise with the rate of return this capital might have earned if invested in one of the equally safe alternative investment opporunities. If the controlled enterprise is a company, the earnings on the additional capital, if accumulated by and employed in the enterprise, will increase the profits available to be distributed as dividends on the share capital, without showing any increase in the subscribed capital of the company. Unless we allow for the cost of using this capital, the declared dividends will overstate the profitability of capital when employed in the industry. To take an extreme example, a company having accumulated capital equal to its subscribed capital, then earns a dividend of 20 per cent. on its subscribed capital, but clearly the earnings on the capital employed will only be 10 per cent. In this example the shareholders have doubled their investment in the company and to equate employed long-term capital with share capital, they would have to be given bonus shares equal in value to their subscribed shares.

The purchase of shares in a limited liability company is one of the easiest ways of investing long-term funds. Shares may be bought in a private or in a public limited liability company. The shares of a public company can be held by any number of persons, but a private company must not have more than 50 shareholders. Consequently, the subscribed shares of a private company may be more difficult to resell than those of a public company. Public and private limited liability companies have two characteristics in common. Firstly, the company capital is broken down into small subscription units such as 1s. or £1 shares, and secondly the liabiliy of each shareholder ends once the shares he has bought have been paid in full. The working resources of a limited liability company are not restricted to the subscribed capital because the company can incur debts,

but these debts are debts of the company and not the personal debts of the shareholders.

Most of the shares in companies are either preference shares or ordinary shares. The broad differences between these two kinds of shares are easily indicated, but may be misleading unless we remember that the rights of shareholders in any company are determined by that company's articles. The broad differences between preference and ordinary shares are as follows. Preference shareholders have a prior claim on any profits distributed by the company of an amount necessary to ensure a specified return on their shares. This proposed rate of return on preference shares, of say 5 or 7 per cent., is made public when the shares are offered for subscription. Conditions may be attached to preference shares so that the claims of some, usually referred to as cumulative preference shares, are really claims against any future profits distributed by the company. If in any year the limited prior claim of the cumulative preference share is not fully met, the deficit is carried forward and added to the preference claim for subsequent years until it has been paid in full. Non-cumulative preference shares give a limited prior claim on the profits to be distributed in any one year, but if the profits in any year are insufficient to meet this claim in full, the deficit will not be added to the preference claim for any subsequent year. Any kind of preference share, depending on the articles of the individual company, may or may not give the holder a prior claim on the assets of the company, if the company should go out of business. Usually preference shares will not give the holder the right to vote at company meetings, except when dividends are in arrears.

Because dividends can only be paid out of profits there must always be some uncertainty about their future size, and in any particular company the main weight of the uncertainty will be borne by the ordinary shareholders. Dividends on ordinary shares will only be declared after the claims of the preference shares have been met in full, and therefore a decline in distributed profits may reduce the ordinary share dividend, although it leaves the preference dividend unchanged. Against the risk of receiving small dividends in the bad years must be set the absence of restrictions on the size of the dividend which may be paid on the ordinary shares out of the funds available in the good years. The ordinary shareholders have voting rights at

company meetings and anyone controlling 51 per cent. of the ordinary shares can control the policy and determine the election of the directors in most companies.

Legally a company belongs to the shareholders, and the major power of control is in the hands of those carrying the greatest risk, that is, the ordinary shareholders. The power of the shareholders to determine policy is more easily used when a large number of the shares are held by a few shareholders. By making a few large investments in a small number of companies, a wealthy investor may increase his influence in the affairs of the companies in which he does invest, but by reducing the range of his investments he may also increase the fluctuations both in his income and in the capital value of his shareholding. The investor holding shares in a wide range of enterprises may reduce the risk of violent fluctuations in income and in capital values if he is prepared to become a relatively powerless shareholder in any one enterprise. Some companies may be so large that no one shareholder could hope to hold enough shares to give him a controlling interest. The voting rights of the ordinary shareholder may have more influence in some companies than in others, but because of the cost and the inconvenience of attending company meetings in London, and of the ease with which shares can be sold on the stock exchange, many shareholders play little or no active part in determining company policy. This is not to say that the voting right is of no value. It is of value when enough people are determined to exercise it, and this possibility appears to have some influence on those who conduct the day to day policy of most companies.

When we look at dividends, we know that they are paid out of profits and that profits may vary from one company to another. The fortunes of different companies may vary so much from one to another that the ordinary share dividends paid by some companies may be more regularly maintained than the preference share dividends of another company. This does not mean that the division of shares into ordinary and preference serves no useful purpose, because its main purpose is to make it easier for a particular enterprise to raise the capital it needs, and within any single enterprise the future income of the ordinary shareholder is more uncertain than that of the preference shareholder. If at the time the shares are issued some investors are prepared to take bigger risks than others,

the investment demand may be so divided that some will only invest in ordinary shares and others in preference shares. By issuing both types of share, the company can draw capital from a larger investing public. The general circumstances influencing the investment market may be more favourable at one time than another, but these general conditions and the attitude of the market towards a particular issue cannot be foreseen with any high degree of accuracy, and there is always the possibility that the capital required by an enterprise will not be fully subscribed unless the interest of different types of investors can be secured.

The suggestion that the general conditions in the new issue market and its attitude towards a particular capital issue cannot be foreseen with any high degree of accuracy does not mean that there is no room for informed judgment. Informed judgment can greatly reduce the risk that an issue will not be fully subscribed, and in the City there are highly specialised institutions such as Issuing Houses whose business it is to persuade investors to buy new issues. The Issuing House, by arranging for the issue to be underwritten, can ensure that all the new shares will be subscribed for by someone. In return for a commission, the underwriters will agree to take any shares not bought by the investing public.

When any shares are left with the underwriters they will usually sell them out to the investing public at the market price ruling at a later date. Consequently the underwriter must set against his commission the possible inconvenience caused by the freezing of his capital in unsold shares, and the capital losses that may have to be incurred to resell these shares at a time convenient to him. When bad mistakes are made and large parts of an issue are left with the underwriters, we have an item of news value. But clearly underwriting facilities would not continue to be regularly available unless most issues were largely subscribed for by the investing public.

The willingness of the investing public to buy new shares is greatly increased when there is the possibility that there will be a market in the shares on the stock exchange. But such a market can only develop if the stock exchange committee allows the shares to be dealt in on the stock exchange. Permission to deal in shares is not granted automatically, and is usually restricted to issues which are fairly widely advertised in the

press. The conditions imposed by the stock exchange help to secure a fairly wide market for the shares, and to increase the investing public's knowledge of the records and prospects of the company. The more widely the shares are distributed, the greater the possibility of a really active market on the stock exchange.

There is a three-fold pressure for publicity when a new issue is being made. Firstly, the law usually requires that certain information shall be made public; secondly, the stock exchange committee insists on a certain amount of advertising in the press; and thirdly, to secure the necessary capital a great number of individuals and institutions must become interested in the issue. The amount of money that must be spent on publicity to persuade the investing public to take all or nearly all of a new issue of shares does not necessarily vary directly with the capital value of the issue. A large company of national repute may attract a lot of new capital with very little expenditure on publicity, whereas a medium-sized firm of local repute may have to spend as much or more to secure a far smaller amount of new capital. The general tendency is for the cost of raising new capital, expressed as a percentage of the total raised, to be less on the larger issues, and on issues of less than £150,000 for the initial costs of company formation and of raising the capital to become increasingly formidable as the capital sought decreases in amount. These initial costs, including legal costs, underwriting and publicity, may take from 1 to 30 per cent. of all the money raised by the new issue. It is almost impossible to pass any judgment on the efficiency of the market because if we take average figures of costs for all the issues made, and these prove to be low, this may only mean that the market is an efficient means of supplying capital to the companies which make use of the market. The very serious problem would then remain as to how many small and medium sized companies were growing at rates far below their potential rate because they could not or would not incur the heavy percentage costs necessary to raise capital on the London market. This is not to suggest that anyone is deliberately trying to impede the development of small or medium-sized firms. The difficulties and the expenses follow from the need to persuade a great number of individuals to invest in a little-known enterprise.

The difficulties of the small and medium sized companies

have not been ignored by either the City or the government. Hire purchase facilities for plant and machinery have been provided by the United Dominion Trust, and loans of from £100 to £50,000 by the Credit for Industry, Ltd. Companies wishing to expand their capital could, subject to permission from the Stock Exchange Committee, make use of the "Stock Exchange Introduction". With this method a company whose shares had not previously been registered on a stock exchange obtained permission for its shares to be dealt in. It then sold the newly-issued shares to some buyer who could either sell them out privately, or hold them until they began to be dealt in on the stock exchange, when they could be sold at some convenient date at the price ruling on the stock exchange. In 1945, certain banking institutions co-operated with the Government of the day to establish the "Industrial and Commercial Finance Corporation". This corporation was to supply long-term and medium-term capital, in sums ranging from £5,000 to £200,000 to small and medium-sized firms. In spirit the "Industrial and Commercial Finance Corporation" illustrates the relationship that exists between the City and the Government, and in structure it illustrates the way in which the existing facilities are slowly adapted or supplemented to meet some portion of an unsatisfied demand.

THE NEW ISSUE MARKET

BOOK LIST

Grade 1

Hicks, J. R.—*The Social Framework*, Part 3.
Samuelson, P. A.—*Economics*, Chapters 3, 6, 10 and 12.
Robinson J.—*Introduction to the Theory of Employment.*

Grade 2

Sayers, R. S.—*Modern Banking*, Chapter 7.
Lavington, F.—*The English Capital Market*, Chapters 28-33.
Ellinger, B.—*The City*, Chapters 31-35.
Balogh, T.—*Financial Organisation*, Chapters 15 and 16.
Andrews, P. W. S.—*Manufacturing Business*, Chapter 1.
Henderson, R. F.—*The New Issue Market.*

Grade 3

Keynes, J. M.—*The General Theory of Employment, Interest and Money*, Book 4.

QUESTIONS FOR DISCUSSION

1. What influence will taxation which encourages companies to accumulate undistributed profits have on the distribution of new capital over the available investment opportunities?
2. Would you agree that most of the complaints against capitalism could be removed, (*a*) by the workers buying shares in the industries in which they are employed, (*b*) by the trades unions investing their funds in the industries from which their membership is drawn?
3. Discuss the following: "Investment would be increased and risk diminished if all shares were cumulative preference shares." What are the disadvantages, if any, of cumulative preference shares?
4. How would you judge whether the market was or was not likely to subscribe for an issue of shares?
5. In what sense does capitalism work for profits if the ordinary shareholders do not determine policy?

THE BANK OF ENGLAND

V

MOST of the busines transacted in the City is the result of efforts made by individuals and institutions to maximise their private good. There is one classic exception to this general rule and this is provided by the Bank of England. For a great number of years the Bank of England, both as a privately-owned and as a publicly-owned enterprise, has acted as if the prosperity of the national economy was more important than the maximising of its own profit. No doubt many privately-owned profit-making concerns have some sense of responsibility towards the national economy, but with the Bank of England this has been the main determinant of policy. This is not to say that the policy pursued by the Bank of England has always been successful in promoting the prosperity of the national economy. The repercussions of any policy pursued by the Bank of England are so far reaching and complex that errors of judgment may be inevitable.

The main reason for the public-spirited policy of the Bank of England is not that its directors are more virtuous than those

controlling other corporate bodies, but that certain of its functions could not be performed without exerting an exceptional influence on the national economy. Probably the most important general influence exerted by the Bank of England results from its function of government agent for the issue of paper money. Even if the final decision about changes in the size of the note issue are made by the government of the day, the need for such changes will be indicated by the movement of notes into or out of the Bank of England, and therefore government decisions must largely depend on the experience of the Bank of England.

When the community wants additional legal tender, money can be withdrawn from the Bank of England by those who have deposits with it. Another way in which the community can draw money from the Bank is by selling securities to it for legal tender. When the demand for increased supplies of money begins to draw cash away from the Bank of England, the officials can advise the government to sanction an increase in the note issue. The number of additional notes which the officials may consider necessary will depend on their guesses about the size of the demand for more legal tender and the conditions under which they have decided to make such extra supplies available to the community.

If we look at the Bank's balance-sheet, we shall see that the total deposits greatly exceed the value of the notes held in the Banking Department, and this may suggest to us that the Bank will be completely powerless to avoid an increase in the note issue when the community wants more cash. Some increase of the note issue may be inevitable, but even so, there are pressures which the Bank can exert that will help to curtail the demand for additional legal tender.

Pressure can be exerted on the demand for cash by raising the cost of holding cash instead of holding securities, that is by raising the discount and interest rates. The general pressure for increased quantities of cash to hold will help to raise interest and discount rates, and the Bank can strengthen any upward movement by raising the Bank Rate. Bank Rate is the charge made by the Bank of England for rediscounting first-class short-term securities. Since the securities rediscounted will have been discounted in the first place at a rate less than the lower Bank rate, which ruled before it was increased, they can only be rediscounted now at a loss. The prospect of such losses will

make Discount Houses and Banks desire to minimise the volume of rediscounting, but may have little or no influence on the demand for cash by the general public in the form of withdrawals from the Deposit Banks. If the general public is determined to convert its bank deposits into cash, the Deposit Banks must recall cash from the Discount Houses, and they will then have to rediscount securities with the Bank of England, no matter what the loss. Any immediate benefits then derived from raising the Bank Rate will come because the increased rates of interest persuade people to lend some money previously held in idle balances.

Will the greater cost of money also reduce the volume of borrowing within the community? It is difficult to say, because if an increase in Bank Rate is accompanied by a decrease in borrowing from the Deposit Banks, this may only reflect a reduced willingness on the part of the banks to lend because their till money is being reduced by withdrawals of cash. Even if more till money relative to deposit liabilities is now held, this may only reflect a more cautious lending policy. In so far as there are borrowers who are only prepared to continue in business on the existing scale so long as the rate of interest is not increased, the general increase in rates will reduce their demand for loanable funds. Obviously this will only be true when there is no possibility of passing on the increased interest charges in higher prices. Given these conditions the effectiveness of the increased Bank Rate on the demand for money will depend, in part, on the amount of business rendered unattractive by any given increase in Bank Rate.

A decrease in the supply of loanable funds which forces up interest rates will also reduce the price of securities on the stock exchange, causing capital losses. The higher interest rates will reduce the willingness of people holding liquid balances to buy securities until price reductions increase the expected yield. At the same time the reduced supply of bank credit, and the higher interest charges on short-term loans may make it advantageous for some holders of securities to convert part of them into cash at prices below those ruling earlier. A general reduction in the price of securities will reduce the amount of money needed to buy and sell any given quantity of shares on the stock exchange, and this will reduce one part of the demand for money. The increased yield obtained on existing securities at the lower

market price will make new issues of capital less attractive unless their prospective yield is similarly increased. The need for such an increase in prospective yields will be most apparent with fixed interest securities such as debenture stock and preference shares. But when new capital is raised at fixed interest rates, it may be difficult to secure any downward revision in the future, and therefore the demand for new long-term capital may be temporarily reduced. A temporary reduction in the demand for such capital is most likely if interest rates are expected to fall again in the near future.

The importance of the preceding discussion is that it was concerned only with the simple and direct results of the Bank of England raising its rediscount rate as money flowed out. At no time had the Bank taken any other initiative calculated to cause the changes which ensued, and the action it did take resulted almost wholly from its own failure to call for an increase in the note issue.

The conditions under which the size of the note issue may be varied are governed by law and can be changed by an alteration of the law. When a country is on the gold standard, the law gives all who hold legal tender the right to demand gold in exchange from the Central Bank at a rate of exchange fixed by law. This provision may be strengthened by ordering the Central Bank to maintain in normal times a stock of gold equal in value to the whole or some part of its note issue. Under such laws, when the Bank's store of gold is reduced it must reduce its note issue irrespective of the national need for currency. When gold is leaving the Bank at a rate which threatens to reduce the note issue so much that the level of economic activity may be severely reduced, the government may do either or both of two things. It may suspend or modify the right to convert notes into gold, and/or it may reduce the size of the stock of gold to be held by the Bank for any given size of note issue.

The law regulating the issue of notes may attach more importance to the local demand for currency than to the need for gold backing. The note issue may then be regulated by the setting of a legal limit to the size of the issue or by determining the procedure by which the Bank may increase or reduce the size of the issue. When the size of the note issue is not

determined by the size of the gold stock, the monetary authorities must devise their own objectives of monetary policy. They may decide to try to maintain the general price level unchanged; they may try to force the general price level down or they may try to raise the general level of prices. They may try to alter interest rates and find themselves compelled to accept certain changes in the general price level as the inevitable result of any such policy. It may, for example, be impossible for them to pursue a policy which will both raise the general level of prices and raise interest rates, or to pursue a policy which will reduce the general level of prices and reduce interest rates, since to reduce the general level of prices money must become scarcer, and to reduce interest rates, money must become more plentiful.

When the Bank wishes to take the initiative in exercising pressure on the economy by increasing or decreasing the amount of money in circulation, it can do so by Open Market Operations. With Open Market Operations, the Bank will buy securities in the City, thus increasing the volume of money available for use outside the Bank, or will sell securities for money, thus reducing the volume available for use outside of the Bank. Since every note that is outside of the Bank will be covered by some asset held in the Bank, all the notes could be gathered in by the sale of the appropriate asset. An increase in the volume of money caused by the purchase of securities simultaneously increases the power of the market to buy securities, and reduces the quantity available for purchase, and this tends to increase security prices. A reduction in the quantity of money by the sale of securities has the opposite effect. Open Market Operations which reduce the price of securities raise the yield on securities, and those which increase security prices reduce yields. This gives us another pressure on interest and discount rates.

Whether we are on the gold standard or not the national monetary authorities cannot ignore the possible effect of our monetary policy on our international economic position. At almost any time we care to choose there will be people living in other countries who either own money deposited in London, or securities which can be converted into money in the City. There will be many reasons why this money has not been transferred abroad and one amongst the rest will be the policies

pursued by the British Monetary Authorities. Broadly we may say that policies which increase interest rates in London relative to those in other countries will increase the foreign balances held in London, and so will policies which promise to raise the value of the pound in the near future. The monetary authorities can help to raise the future value of the pound by making British goods more competitive in world markets, that is, by making money scarcer here relative to the supply of goods, and such a policy will also tend to raise interest and discount rates in this country. But higher interest rates will cause capital losses to individuals and institutions holding securities in Britain, and will also raise the cost of capital to productive enterprise. In a simple example such as this the Bank of England may have to choose between a policy which will tend to reduce the level of activity here, or one which reduces the size of foreign balances in London. When foreign balances leave London, the pounds will be converted into gold or foreign exchange, thus depleting our stock of international money available for financing international trade. If this stock is already dangerously low, the Bank of England may have to raise the Bank Rate to try to discourage the outward movement of foreign balances, although such a policy may have other adverse effects on the domestic economy.

Many of us are tempted to assume that once a country has replaced the gold standard with a managed currency, the monetary authorities will be completely free to concentrate on a policy which tries to ensure a high and stable level of activity in the home economy. What a managed currency may give to the monetary authorities is greater freedom of manœuvre, but if the economy has to buy and sell goods on the world market, the monetary authorities will always have to keep one eye on the way in which domestic policy influences the relative value of the country's exports and imports.

THE BANK OF ENGLAND
BOOK LIST

Grade 1

Benham, F.—*Economics*, Chapter 23.
Leaf, W.—*Banking*, Chapters 2 and 3.
Cairncross, A.—*Introduction to Economics*, Chapter 24.

H.M.S.O.—*Report of Committee on Finance and Industry, Cmd. 3897,* Chapter 11.

Grade 2

Crowther, G.—*An Outline of Money,* Chapters 2, 5 and 6.
Ellinger, B.—*The City,* Part 1.
Truptil, R. J.—*British Banks,* Part 2.
Meade, J. E.—*Economic Analysis and Policy,* Part 1.
Sayers, R. S.—*Modern Banking,* Chapters 4, 5, 6, 8 and Appendix 3.
Worswick, G. D. N., and Ady, P. H.—*The British Economy 1945-50,* Chapter 9.

QUESTIONS FOR DISCUSSION

1. If you were in charge of monetary policy and there was serious unemployment heavily concentrated in your export trades would you try to increase or try to decrease the volume of money?
2. Is it possible to pursue a monetary policy which will increase the general level of activity without also raising the general level of security prices?
3. What effect will falling prices have on the profitability of business and on the willingness of employers to produce for stock?
4. Could you reduce the general level of prices by monetary policy and also maintain full employment?
5. Discuss the following statement: "If the backing held against the issued notes consists of interest-bearing securities surely the more notes in circulation the better."

CHAPTER 8

INTERNATIONAL TRADE

I

WHO BENEFITS FROM INTERNATIONAL TRADE?

PEOPLE will try to import goods into a country if there is a reasonable chance of selling them at a price which would maximise profits from trade. The export of goods from one country and their import into another will reduce the quantity available for sale within the exporting country, and increase the quantity available for sale in the importing country. One reason why profits could be maximised by the movement of certain goods out of one country into another is that the supply relative to the demand for the product may be greater in one country than in the other. This is not to say that goods will only be exported from one country and imported into another when the quantity of those goods bought per head in the exporting country is greater than the quantity bought per head in the importing country. For demand at any given price in either country will be influenced by the size of the national income, the way in which it is distributed between individuals, and any differences in tastes which may influence consumers' choice in either of the two countries. The export of a particular good out of one country and its import into another will be stimulated by any development which reduces the demand for it relative to the supply in the exporting country, or increases the demand for it relative to the supply in the importing country. If the goods are bought in one country under freely competitive conditions and sold in another under freely competitive conditions, the sellers in the exporting country must prefer the payment made for the goods to their continued ownership of them, and the buyers in the importing country must regard their purchase as a desirable use of that portion of their available resources. The transfer of the goods under these conditions will have benefited the seller, the ultimate buyer, and the profit-making trader. Under freely competitive conditions the profit-making trader will wish to maintain or increase the volume of imports until the relative scarcity of

that particular good in the importing country has been so reduced that the difference in its price in the two countries is only equal to the cost of transfer, including normal profit for the traders.

We cannot say what effect the movement of quantities of the good out of the exporting country will have on the selling price in that country until we know how quickly output can be increased and whether any given increase in output will or will not be accompanied by an increase or decrease in its marginal cost of production. If the export in question is produced with constant costs per unit, and its production can be rapidly increased, there may be no rise in price, but if marginal costs are rising there will be at least a temporary rise in price until new producers expand the industry, and there may be a permanent rise in price if production at the margin is less productive, or if the additional factors needed to expand the industry raise the cost of factors to the industry. If when the good is produced under conditions of decreasing marginal cost, and at a price equal to average cost plus normal profit, the home demand is not large enough to allow the most efficient plants to work at outputs of lowest average cost, then the addition of an export demand may be accompanied by falls in marginal cost so great that the home price may be reduced.

In an international economy each nation may produce within its own frontiers some goods sold only on its home market. It may produce other goods for sale either at home or abroad, and it may also produce goods for export for which there is no demand on its home market. The extent to which any of the national economies are dependent on the international market for the sale of their products, may and does vary from one nation to another, but most nations produce some goods for home consumption and some for export.

When a nation produces some goods for home consumption and some for export, the level of economic activity will depend on the export demand and on the level of demand on the home market. The export demand will influence the level of demand on the home market in so far as the incomes received by those engaged in the export trades are spent wholly or in part on goods and services produced within the home economy. The goods exported by one nation must be imported by some other country, and these imported goods will satisfy part of the

demand for goods and services in the importing country without requiring the employment of any local land, labour or capital to produce them. Consequently an increase in exports not accompanied by an equal increase in imports will help to raise the level of activity in the exporting country, and an increase in imports not accompanied by an equal increase in exports may lower the level of activity in the importing country.

The import of goods that are of better value than the local product will confer a direct benefit on the buyer of the imports, but it may have an adverse effect on those who produce the goods locally. The adverse effects may outweigh the benefits if those who formerly produced the goods locally become unemployed because the level of activity in the national economy is reduced. But if the level of effective demand is high enough to provide employment for these resources elsewhere, but their owners are unwilling to move them into these other employments, a temporary increase in unemployment may be necessary to push them into employment, the products of which can be sold on either the home or the foreign market.

When the national economy contains unemployed resources, the government may try to raise the level of activity by reducing imports. Having decided to try to reduce imports, it must then decide which imports can be reduced with the least inconvenience to the consumers to secure a given increase in national employment. If the government examines the various goods imported it will almost certainly find that there are some which could not possibly be produced within the national economy because the natural resources for their production do not occur within the national economy. There may be other imports which could be replaced by home-produced substitutes only at much higher prices than those paid for the imported goods. Further enquiries, however, may reveal other imported goods for which perfect substitutes can be produced by the home industries at prices but little greater than those of the imported goods.

Import restrictions which increase the home production of substitutes for imports will add to total home employment unless the effect is cancelled out by some other change such as a reduction in exports. The exports of a country imposing import restrictions may be reduced because the reduction in its imports reduces the exports of other countries, and this causes them to reduce their own imports. The imports of other coun-

tries may decrease when their exports decrease, either because their internal demand for imported goods falls as they produce less, or because as exports decline they have less foreign exchange to spend on imports. Their imports may also be reduced by the imposition of import restrictions by their government, either to encourage the home production of substitutes for imports, or as a reprisal to the restrictions imposed on its own exports by other countries. This is not to say that import restrictions will never increase total employment in any country. We could only say this if every reduction in any country's imports was always accompanied by an equivalent reduction in its exports. Clearly a country which contained the only deposit of some mineral essential to modern industry might encourage the development of substitutes for some of its imports without suffering any significant reduction in its own exports, whereas a country exporting a good which could be produced almost anywhere would find that import restrictions sometimes encourage damaging reprisals.

Before imposing import restrictions the government might try to estimate the vulnerability of its own exports to any similar restrictions imposed by other governments. The government would probably decide that some exports which were already difficult to sell because of keenly competitive alternative supplies would be highly vulnerable; that with certain other exports the greater cost of producing substitutes in other countries would make restrictions unpopular in these countries, and that restrictions were not likely to be imposed on the remaining exports because the provision of substitutes would either be physically impossible or the cost would be prohibitive. The freedom of the government to disregard the possibility of reprisals will be greater, the greater the proportion of its exports covered by the third category of exports, and this sense of freedom will be strengthened if the world demand for such goods is increasing, and weakened if the world demand is decreasing.

There is, it seems, no certainty that every import on which a trader can make a profit will add to the national income of a country, because the imported good may reduce the level of activity in the home economy. Consequently, when the level of activity in the international economy is so low that many productive resources are wholly are partially unemployed, any

one government may raise the level of employment within its national economy by any action which raises the domestic level of demand or which increases exports relative to imports. An increase in one country's exports or a decrease in its imports which increases employment in that country will not necessarily add to world employment, since the increase in employment in the one country is achieved by reducing employment in other countries. But policies such as government-spending on public works which raise the domestic level of demand can add to total employment. Any one government may hesitate to introduce such a policy because one immediate result may be to increase imports relative to exports, as would happen if a country imported more food whenever the domestic income level rose. It would seem that the greater the tendency for the increased income to be spent on imports, the greater the public works expenditure necessary to stimulate any desired increase in the national level of employment. Before we accept this conclusion we must ask what will happen to the money paid for imports. It will increase incomes in the supplying countries and help to raise demand and employment there, but as some of this increased income is spent and re-spent, some of it may be spent on imported goods or on goods which contain imported materials. Therefore the expenditure on public works within a country will increase domestic employment immediately, and there may be a further increase later when some of the money spent on increased imports returns as payment for increased exports. If the money which leaked out to other countries to pay for exports stimulated increased spending in the exporting countries over and above the re-spending of the receipts from the increased exports, it may happen that in the long run the exports of the country which increased spending on public works will increase by as much or more than the increase in its imports. If this should happen, employment within the country will be no greater with than without import restrictions, and the increased income from the increase in activity should be of greater value without than with restrictions.

If an international economy can have the same level of activity with or without national restrictions on exports or on imports, the value of the real income for the whole area will be greater if there are no restrictions. The real income will be greater in so far as the absence of restrictions enables the

individual countries to use more of their resources on the production of goods which can be sold on the international market. Individual countries will only be able to sell goods on the international market when they are cheaper than the buying countries could produce for themselves. The cost of producing the goods will be determined by the price and the productivity of the factors used in their production. The price that must be paid for the use of factors for the production of any one good will be largely determined by what those factors could earn in other occupations within the national economy. The amount that factors can earn in other occupations within the national economy will depend, firstly on the total supply of factors relative to total demand at any given level of activity, and secondly on how much employers are able to pay for the use of the factors in these other employments and still earn normal profits. We cannot assume that employment opportunities relative to the available supply of factors will be the same in all countries, because it is impossible for the factor, land, to be moved from one country to another, the movement of labour from one national economy to another is much more difficult than labour movement within any given national economy, and even capital is not moved from one country to another with complete indifference. Consequently, if the rate of increase or decrease in the size of the working population varies from one country to another, and if the rate at which the stock of capital increases or decreases varies from one country to another, there may never be any two countries with the same amount of land and capital available for use with each worker.

If there were only one possible combination of land, labour and capital by which goods could be produced so that every worker, for example, required the use of three acres of land and £1,000 of capital to produce anything, the fact that no two countries had the same quantities of land or capital to use with each worker could give us a world with unused land in some countries, unused capital in others, and some with unemployed labour. The only remedy for this would be the international movement of labour and capital into those countries where the shortage of these factors prevented the organisation of productive units. Fortunately the proportions of land, labour and capital used to produce goods can be varied, so that we can use more and more labour with a fixed amount of capital and land.

As we increase the amount of labour used in the combination we shall increase total output, but after a certain point each additional worker will add less to the total product than any one of those already employed. When the employment of more labour would result in decreasing marginal returns, and if the price of the product cannot be raised, increased employment may still be possible with reduced wage rates. The same considerations will apply to land and capital. In countries where one factor, say labour, was relatively more plentiful than land and capital, we should expect the cost of using it as a substitute for land or capital to be less than in countries where labour was relatively scarcer to land and capital. This lower cost would facilitate the substitution of labour for land and capital despite falling marginal returns.

If the most efficient method for producing different goods require the use of land, labour and capital in different proportions, the uneven distribution of factors between different nations can be partly eliminated by the development of national specialisation and international trade. The plentiful and cheap supply of a factor will then constitute a special attraction for the industry using relatively large quantities of that factor. A gain will accrue to the nation which specialises if at the national level of employment attained with specialisation the value of the marginal product of the plentiful factor is higher, and that of the other factors is no lower than it would have been if the nation had tried to be self-supporting.

If we call the factors of production used in making something its factor content, we can speak of the factor content of imports and exports. A country where labour is plentiful and cheap will tend to produce goods with a high labour content. Countries where land or capital is the relatively plentiful factor will tend to produce goods using larger quantities of these. They will do this because the cheapness of that particular factor gives them a price advantage in the production of such goods. Some of the goods which a country can buy more cheaply on the world market than it could produce for itself will be goods heavily dependent on the use of the factor which is particularly scarce in the importing country. In a country where land is exceptionally scarce the factor content of the imports will consist largely of services derived from land. By international trade man is indirectly redistributing the factors by moving

the products of a relatively plentiful factor out of the country where it is plentiful and taking the products into a country where it is much scarcer.

The total gain in income from specialisation to the combined economies of the two countries will come, in part, from the greater marginal physical product of the plentiful factor by using it in employments subject to less severe decreasing returns. The exchange value of this marginal physical return will be greater than the value of the goods no longer produced in one of the countries, and which are now acquired through international trade; otherwise the country would derive no benefit from international trade. Within the country importing the product of the factor that is more plentiful in the other, factors of production other than this will be moved into employments where they form a larger proportion of the factor content. For example, if in one country land to combine with the available labour and capital is scarcer than in the other, international trade will cause the movement of capital and labour into non-agrarian pursuits, thus reducing the amount per acre used in agriculture. The value of the products of these transferred factors in their new employment will be greater than the value of the goods they would have produced in their former employment.

Under the conditions we have assumed, international trade increases the total income of a two-country area by the better use of the total factor supply. This better use of the total factor supply does not necessarily mean that more of every factor will be used in both countries. It may well mean that in one the demand for land relative to the supply is increased, and the demand for labour and capital decreased, while in the other the demand for labour or capital is increased and that for land decreased. An increase in the employment of a factor at any given price per unit will increase the income of that factor, and a decrease in its employment will decrease its income. The development of international trade therefore may increase the income of labour or capital in one country while reducing that of land, and have the opposite effect in the other. Any development of international trade which reduces the income of the owners of a particular factor within a country is likely to be opposed by them, and any development which increases the income of the owners of a factor is likely to be supported by

them, regardless of the effect on the national income. As the more productive use of the total factor supply is achieved by reducing the national scarcity of certain factors, there is always the possibility of some opposition within both countries to a development of international trade which would increase the national income of both. This opposition will be more pronounced if a reduction in the employment of a factor is accompanied by a fall in the price per unit paid for those units of the factor still employed.

Imports which threaten to reduce the income of the owners of a factor may cause an agitation for restrictions to be placed on them. The arguments for such restrictions are usually based on allegations of unfair competition, or on the suggestion that there is no net gain in factor productivity from the trade. Imports may appear to constitute unfair competition and to add nothing to total welfare, when the output per unit of some factor in the national economy, if used in the production of a particular good, would be as great as that of the foreign factor used to produce the goods that are imported. For example, if an acre of land in the United Kingdom would produce as much dairy produce as an acre of land does produce in the countries from which we import dairy produce, or if the output per man-hour in our textile industry is as great as in the countries from which textiles may be imported, how do such imports serve any purpose other than that of transferring income from Britishers to foreigners? Such international comparisons of the productivity of any one factor will be misleading if the amounts of the other factors combined with it differ from one country to another. When production is organised differently in different countries, precise comparison of the productivity of any one factor may be impossible, but if this is so, how can anyone know whether international trade does or does not increase the total productivity of the employed factors?

Whether we think of the national economy as an isolated unit or as a part of an international economy, its income will depend on the productive use of its factors of production. Many of these factors can be used in one or other of several different industries, and the community, by redistributing productive resources between industries, can increase the production of some goods by reducing the output of others; for example, it can have more motor-cars and less clothes. When a

decision is being made to increase the size of some industries, and to reduce that of others, the important consideration for the community is not the productivity of any one factor but the productivity of some combination of factors. The movement of a given amount of land, labour and capital out of the clothing industry and into the motor-car industry may mean that one more motor-car can be had by foregoing 100 suits of clothes.

If we have two countries and trade is possible, we may import either cars or clothes if both are produced in the other country. In this second country, if both cars and clothes are produced, they also will have to compare the number of one good they must forego to secure any given increase in the quantity of the other. Let us say that they also can produce one more car by foregoing 100 suits. This can be true, although production in one country, because of greater efficiency, requires less of some or all of the factors to produce either commodity.

In either of these countries one more car can be produced for the loss of 100 suits of clothes, and the price of a car will tend to be 100 times that of a suit. If in either country a car is sold for more than the cost of 100 suits, factors would be moved out of the clothing industry and into the car industry because of the higher rewards. No merchant would be tempted to import cars from one country into the other when a car exchanged for 100 suits in both countries, because the cost of buying the suits would equal the selling price of the car. Trade between these countries under these conditions would not increase the productivity of the factors used, but since there would be no stimulus to trade there would be no demand in either country for import restrictions.

Trade between these two countries would increase the productivity of the employed factors if in one country they had to forego either more or less than one hundred suits to produce one more car. If in one country they only had to forego 50 suits to produce another car, the price of a car in that country would tend to equal the cost of 50 suits. But an enterprising trader, by taking motor-cars to the other country and exchanging them for anything over 50 and up to 100 suits, would then be able to secure anything up to two cars in exchange when he returned with the suits. Under these conditions the imported suits would ruin the clothing industry in one country, and the imported cars would ruin the car industry in the other, but

alternative employment would develop simultaneously as the car industry expanded in the one country, and the clothing industry expanded in the other. By the time one country had come to specialise wholly on the production of cars, and the other on clothing, the productivity of the employed factors would have risen from 50 suits and one car in the first country, plus 100 suits and one car in the second country, that is from a total for the area of 150 suits and two cars to an output of two cars in the first country and 200 suits in the second. This would give a net gain of 50 suits not because of harder work or improved techniques, but simply because fuller advantage was taken of the international factor supply.

By means of a simple example we have shown that international trade can sometimes enable two or more nations to obtain higher yields from their employed factors of production than would have been possible if each nation had produced only for its internal market. The example used has been so simplified that it makes agitation for import restrictions appear stupid. It is important to recognise that those who agitate for import restrictions are usually far from stupid. From their private viewpoint the restrictions may be desirable even if they do restrict the size of the national income. Furthermore, the problems created for factors displaced by competitive imports will usually be more difficult than we have assumed. Even in our simple example, where the displaced factors are immediately absorbed into an expanding industry, as soon as we allow for some of the imperfections of the existing economic system there is the possibility that some transferred labour will be better paid and some worse paid than before. From the employer's viewpoint there will be the problem of highly specific durable equipment maintained by detailed replacements, and most of which probably could not be transferred from the production of cars to the production of suits or vice versa. Within each national economy the industries may be located in different regions and therefore transferred workers will be faced with the need to begin a fresh life socially as well as economically. In the short run these difficulties must exert a strong influence on human behaviour, but their acceptance is part of the cost that someone must pay if the economy is to move forward, whenever there is the opportunity, to higher standards of productivity. There is always the danger that

economic behaviour, wholly determined by the narrowest of short run viewpoints, will provoke such a struggle to maintain the *status quo*, that economic stagnation will come to be regarded as the highest possible attainment of economic progress.

INTERNATIONAL TRADE

BOOK LIST

Grade 1

Samuelson, P. A.—*Economics*, Chapters 23 and 24.
Pigou, A. C.—*Income*, Chapter 3.
Benham, F.—*Economics*, Chapter 25.
Cairncross, A.—*Introduction to Economics*, Chapter 22.

Grade 2

Whale, B.—*International Trade*, Chapter 5.
Harrod, R. F.—*International Economics*, Chapters 1-4.
Brown, A. J.—*Applied Economics*, Chapter 5.
Meade, J. E.—*Economic Analysis and Policy*, Part 5, Chapters 3, 5 and 6.

Grade 3

Viner, J.—*Studies in the Theory of International Trade*, Chapter 8.
Haberler, G.—*Theory of International Trade*, Section B, Chapter 10.

QUESTIONS FOR DISCUSSION

1. In the text it says "an increase in imports not accompanied by an equal increase of exports may lower the level of activity". Under what conditions would it be false to say "will lower" instead of "may lower"?
2. Assuming wholly favourable conditions, tabulate the advantages which may accrue to a country that increases its exports without increasing its imports.
3. Would you agree or disagree with the following statement? "The benefits derived by a country from reducing import restrictions will be greater the greater the subsequent increase in its imports."
4. Would you say that both of the following statements are true, and if not is either of them true? "The export of capital out of Britain by not allowing home rates of interest to fall reduced the income of the British worker." "The export of

capital out of Britain by increasing the supply of raw materials and food increased the income of the British worker."

5. Would trade unionists in a young agricultural country increase or decrease the share of the national income accruing to their members by supporting tariffs on industrial products? Would you distinguish between the short run and the long run effects?

THE TERMS OF TRADE

II

THE development of trade between nations may enable them to produce more with any given use of the factors of production and so increase the income of the area. To say that international trade will increase the income of the area does not mean that the gain in income will be shared out between the participating nations on some agreed per capita basis, or that there will be any attempt to distribute the gain according to any principle of fair shares or mutual benefits. The share of the additional product received by any one nation will be determined by supply and demand on the international market. In our simple example of two countries trading in cars and suits, the demand for either will equal the home demand plus the export demand. How many cars will the first country wish to exchange for suits at any given rate of substitution, and how many suits will the second country wish to exchange for cars at any given rate of substitution?

Let us assume that in the first country there is such a keen demand for suits that the community is prepared to export 19 cars to secure 1,026 suits, but that in the second country when 18 cars have been imported and 990 suits exported there is no further demand for cars at a price equal to 55 suits each. An increase in the volume of trade will now depend on whether there is anyone in the second country who will give 54 suits in exchange for one more car. If so, the first country will receive 1,026 suits in exchange for 19 cars, and the exchange ratio will be 54 suits for one car. Of the increased product due to international trade, 8 per cent. will go to the first country and 92 per cent. to the second. This distribution of the increased product would be altered if the demand for cars in the second

country rose so that more cars were desired than the first country would supply at the rate of one car for 54 suits. If we assume that the second country now wants 30 cars, but that the first has a sharply decreasing desire for additional suits once it has got 1,026, it may be that 75 suits will have to be given per car to persuade the first country to export 30 cars in exchange for suits. Trade on these terms would share the increased product from international trade equally between the two countries.

The terms of trade on which a nation exchanges its goods for those of other countries may be affected by any of a number of influences. If the country is the chief supplier of some primary product for which the demand is highly inelastic, attempts to sell the bumper crops may even reduce total income. In some years the total quantity of a raw material that can be sold on world markets may depend more on the general level of activity than on price, but the value of, say, copra, to a native producer for any purpose other than for sale on the world market may be zero, and therefore any price may be accepted no matter how disappointing. The alternatives open to a country when the terms on which it can dispose of its exports worsen will depend on the ease with which its productive resources can be used to produce other things, but the supply of some of these, for example, capital, may be so small that the alternative to the continued export of some primary product at world prices may be semi-starvation. Within the range of choice open to them they maximise their income by continuing to export the primary product, but had they correctly foreseen future changes in the terms of trade, their allocation of resources would have been different, and the range of choice of occupation in the present would have been different.

Similar difficulties may face a manufacturing country, but in such countries decisions about price may be more complex. It will be the business man who will decide whether or not to reduce the price of the product, and he may be able to suspend or reduce the scale of his operations for a longer period than the peasant cultivator. But when he does so he will reduce the employment and income of the factors of production he normally employs. Whether or not these factors will be able to transfer to other employments will primarily depend on the willingness and ability of business men to expand production in other

industries. Under these circumstances the factors of production may be willing to accept lower incomes, but this will only increase employment if the demand for exports increases when prices are reduced, and if business men believe that a policy of price reductions will be the best policy for them. Sometimes the business man's reaction to a deterioration in his foreign market may leave the other factors of production no possibility of adaptation, and at other times the owner of the other factors may fail to recognise the need to accept the reductions in income imposed by the change in the terms of trade and may deter the business man from reducing export prices. If export prices are reduced, and the nation favoured by the changed terms of trade spends all its increased income on imports, employment in the export trades of the country whose terms of trade have worsened must be increased if it is to maintain the volume and composition of its imports unchanged. Consequently, unless there is a net increase in employment in the country whose trade terms have worsened, there must be a decrease in the income available for consumption in that country.

It may be that the change in the terms of trade will not be expressed in lower prices for exports, but in higher prices for imports. These higher prices may result in a higher rate of spending in the importing country, and if the increased income also increases spending on imports by the favoured country, it may increase employment in the export trades of the country whose terms of trade have worsened. The country with worsened terms of trade may therefore find that it suffers a reduction in real income from higher import prices, but that it offsets this by increased production in the export trades and that the most important final result is a changed income distribution accompanied by a higher rate of spending. But if the higher import prices cause a reduction in spending on home-produced goods, and if the favoured nation does not sufficiently increase the volume of its imports, the country whose trade terms have worsened may experience a decrease in both income and employment. If the higher import prices do not cause either a reduction in home consumption or an increase in production, and if the nation with improved terms of trade does not sufficiently increase its imports, the nation with worsened terms of trade may also have an adverse Balance of Trade and an adverse Balance on current account, resulting in a financial crisis.

TERMS OF TRADE

BOOK LIST

Grade 1

Benham, F.—*Economics,* Chapter 25.
Samuelson, P. A.—*Economics,* Chapters 23-24.

Grade 2

Whale, B.—*International Trade,* Chapters 5 and 6.
Harrod, R. F.—*International Economics,* Chapters 3 and 4.

Grade 3

Viner, J.—*Studies in the Theory of International Trade,* Chapters 8 and 9.
Haberler, G.—*Theory of International Trade,* Section B, Part 1.

QUESTIONS FOR DISCUSSION

1. What effect would an unfavourable change in the terms of trade of a country have on (*a*) a country with full employment, (*b*) a country with considerable unemployment?
2. Examine the implications of the following statement: "The government of a country should use tariffs to encourage the diversification of the economy if that country's exports consist largely of a commodity subject to violent price fluctuation."
3. Would you expect the terms of trade between primary producing countries and manufacturing countries to be the same with a world slump as with a world boom?
4. If the demand for certain primary products is governed almost entirely by the level of activity in the processing countries can the government of the primary producing country exert any influence on the terms of trade during a depression?
5. How might commodity speculation in, for example, wool, affect the terms of trade for a large wool-exporting country?

THE BALANCE OF TRADE AND PAYMENTS

III

WHEN people who live in one country sell goods and services to people who live in aonther, they receive in exchange either a money payment or the promise of such a

payment. The division into the sale of goods and the sale of services coincides with the division into visible and invisible exports. Payments for visible imports are made for goods actually delivered into a country. The people of a country may also make payments abroad when they travel in another country, or for the use of passenger or cargo space on foreign ships or aeroplanes, or to pay the premiums on insurance policies issued for them by foreign companies, or immigrants may send money back to the countries from which they came. There is also the possibility that some people or the government may make gifts to the people living in another country. The payments to be made by a country to satisfy the above items for any given period of time will constitute its expenditure on current account, and if we deduct from this any payments to be made to it by other countries under the same headings, and for the same period of time, we shall know whether its expenditure on current account was greater or less than its income on current account. The balance on current account is not the same as the balance of trade, since the latter only compares the value of the goods exported from a country with the value of the goods imported into that country, and excludes all other payments.

What will happen if, within any period of time, the payments to be made on current account by a country exceed the payments to be made to it? The country with a deficit on current account may hold some balances of foreign monies and some of this may be paid out in settlement; or if these balances of foreign money are insufficient it may have foreign securities which can be sold for foreign money, and if it has a stock of gold it may make some of the payment in gold. If it is unable or unwilling to meet the whole of the deficit by any combination of the above methods, it may try to persuade the creditor nations to increase their holding of its money, or of securities easily convertible into its money, and failing an adequate response the other nations must willingly or unwillingly become its creditors.

One country may become the creditor of another by granting it credit or by making loans to it. The loans may be short-term, medium-term or long-term. These loans or credits may be the result of a joint agreement made some time before between the nations concerned, or they may be the inevitable result of an unforeseen default by one of the nations. When a loan is made to meet an anticipated need, it may be used to increase the

capital resources of the nation, or it may be a first-aid measure to enable a nation that is living above its income to avoid a default. No matter what purpose a loan is intended to serve, it will enable the country which receives it to increase its imports without similarly increasing its exports, and it will allow the lending country to increase its exports without necessarily increasing its imports. If such loans are spent on merchandise they will make it easier for the lender to export more than it imports and therefore to have a favourable balance of trade; they will also increase the imports of the borrowing country relative to its exports and so help to ensure that it has an unfavourable balance of trade. But when the borrowing country begins to make interest payments on the loan, or to make capital repayments, it will tend to have a favourable trade balance and the country which made the loan will tend to have an unfavourable balance of trade.

The figures for a country's balance of trade deal only with one part of the country's commercial and financial transactions with the outside world. If we add the figures for invisible items on to the trade balance figures we have the account for current items, and if to these we add those dealing with the export and import of gold and foreign exchange, and those for the granting of credits by one country to another, we have the balance of payments. Each of these classifications of the items can be criticised. If we consider the balance of payments for a country we shall see that the two sides of this must always balance, because it includes firstly the exchange of goods and services for goods and services, secondly the payment of money to meet, wholly or in part, any difference in the value of the goods and services imported as compared with the value of those exported, thirdly the granting of credits to cover any unpaid deficit, and fourthly any increase in the international debts of a country as an export of securities and promissory notes to the country granting the credit. The balance of payments statement is merely a comprehensive statement of the items. We may criticise the statement of current account items because it omits the very important items of specie and capital changes, but clearly if we were given a balance of payments statement, one of our first steps in further analysis would be to separate off specie and capital transactions from the items in the current account. The most vulnerable classification is that of the balance

of trade, especially because of its ambiguous use of the terms favourable and unfavourable. But it has its uses, if only because the figures for physical trade are available sooner than those for other items, and so by estimating the value of the invisible items, informed guesses can be made about the possible balance on current account. Furthermore, when a country is failing to earn enough on current account to meet its current liabilities, it is useful to know which items have changed for the worse so that the reasons for the change can be discovered and appropriate action taken. These figures for the balance of trade, for current account or for the balance of payments, are really one part of the national income accounts, and the information they contain requires supplementing by the accounts for internal capital development and those for movements in the size of stocks. Even then we shall want to distinguish between the stock increases that were planned and those which occurred because intended exports could not be sold on world markets at sufficiently remunerative prices.

THE BALANCE OF TRADE AND PAYMENTS

BOOK LIST

Grade 1

Benham, F.—*Economics,* Chapter 26.
Samuelson, P. A.—*Economics,* Chapter 16.

Grade 2

Whale, B.—*International Trade,* Chapters 3 and 4.
Harrod, R. F.—*International Economics,* Chapter 6.
Crowther, G.—*An Outline of Money,* Chapter 10.
Sayers, R. G.—*Modern Banking,* Chapter 6 and Appendices 1 and 2.

Grade 3

Meade, J. E.—*Balance of Payments.*

QUESTIONS FOR DISCUSSION

1. When world prices in general are rising what effect would a fixed world price for gold be likely to have on the international accounts of gold-producing countries?

2. Discuss the following: "Since a favourable trade balance increases employment, the best thing for a country threatened with unemployment is a large international debt."
3. How can a country which has full employment remove an adverse balance on current items?
4. Is a country with an adverse balance on current items ever justified in reducing the supply of capital equipment to its own industries to increase exports?
5. What are some of the possible consequences of a sharp redistribution of income, taking from the larger incomes to benefit the smaller, in a country which imports most of its food and raw materials and whose exports consist largely of capital goods supplied on long-term credits?

RATES OF EXCHANGE

IV

IN international trade, goods produced in one country are sold in another, and as most countries have their own monetary systems, this usually means that someone has to translate the selling price of the commodity from the monetary units of the seller's country into the monetary units of the buyer's country. An Englishman trying to estimate the cost of a holiday in France will want to know the charge in francs for accommodation, entertainment and travel. Having ascertained these he will then want to know how many francs the travel agencies and banks are likely to give in exchange for one pound sterling. People who trade in commodities for which there is a world market will make similar calculations most of every working day. Such traders may use the currency of the country in which they live to buy that of a second country, and with this buy the currency of a third country, using this to purchase a commodity which, when sold in a fourth country, will show a profit after the proceeds of the sale are converted into the currency of the first country. The payments involved in the movement of goods or people from one country to another may only be possible if one country's currency can be purchased in exchange for that of another. This exchange of one currency for another involves a simultaneous selling and buying of currencies by each party, since the money of one country is

bought with that of another. Such transactions are not meant to reduce either person's stock of money, but to alter the national composition and the local acceptability of both.

The demand from people living in one country for some of the money issued by another will result, firstly, from the payments in that money which they know they will have to make within a given time; secondly, from any decisions to hold a safety margin against payments which may arise; and, thirdly, some of them may wish to hold some stock of such money because they believe that its value in terms of another currency is going to rise. This foreign demand for a country's money may be for its legal tender, or for a banking account against which cheques may be drawn in that currency, or for short-dated securities for which there is a ready market in it. When one country makes a loan to another or gives it credit, the immediate result is to reduce the amount of its money that the borrowing country needs to convert into the currency of the lending country, to pay for any given volume of purchases. The granting of loans or credits therefore can be regarded either as an increase in the supply of, or as a reduction in the demand for, the currency of the country making the loans or granting the credits. Any repayment of these loans or credits will increase the need of the debtor countries to exchange some of their currency for some of that of the creditor country, without necessarily causing any increase in the supply.

The supply of a nation's currency coming on to the foreign exchange market represents the demand of that nation for other currencies. The demand for that nation's currency represents the willingness of other nations to supply it with their currency. At any given time there will be a supply of and a demand for any particular currency, with some tendency for the supply of that currency to increase and for the demand to decrease when exchange rates rise and for the supply to decrease and the demand to increase when the exchange rate falls. An increase in the exchange value of one currency in terms of another may cause some of the currency that has risen in value to be used for the speculative buying of the currency that has fallen in value, thus increasing the supply of the dearer currency. Those who have payments to make which require the conversion of the currency that has fallen in value into that which has risen in value, may run down their stocks of the currency that has

risen in value, or postpone payment by obtaining longer credit terms, and this will reduce the supply of the currency that has fallen in value.

There will always be some rate of exchange at which the demand for one currency in terms of another will just equal the supply. This does not mean that there is a rate of exchange that will exist indefinitely without changing. We could only expect an unchanging rate of exchange if the relationship between the forces which determine the supply and the demand remained unchanged. But we know that a change in the terms of trade may increase the demand for one currency without increasing the supply, and that similar changes may occur with some of the invisibles such as freight rates. Furthermore when it seems likely that a particular exchange will become less stable, this possibility may stimulate speculation in the currencies, and such speculation may intensify the fluctuation in the exchange rate.

The value of a nation's currency on the foreign exchange market is determined by the demand for it relative to the supply. As the demand results from the need to make payments to a country, and the supply results from the necessity for that country to make payments abroad, if we exclude the influence of currency speculation, we can say that an increase in the value of a country's export of goods and services relative to the value of its import of goods and services, will increase the foreign exchange value of its currency. The value of imports relative to that of exports can be changed by increasing the value of exports more rapidly than that of imports, or by reducing the value of imports more rapidly than that of exports. But when the international exchange value of a country's money is increased, and its internal prices remain unchanged, the cost of its goods to other countries will increase. Will not this price increase reduce the demand for that country's exports, and by reducing the value of its exports relative to its imports, help to push the exchange rate back to its former value? Cannot we also say that an increase in the foreign exchange value of a currency will, by making imports cheaper, increase imports into the country where currency has risen in value, and so increase the international supply of that currency?

An increase in the international value of a country's currency will increase imports into that country in so far as the demand for imported goods increases when their prices fall. The total

expenditure of its money on imports will increase only if the price elasticity of demand for imports is greater than unity, so that a 1 per cent. decrease in price increases the volume bought by more than 1 per cent.

EXAMPLE

(*a*) The £ rises in value relative to the dollar by 1 per cent., the British elasticity of demand is unity and the American elasticity of demand is zero.

(*b*) The goods entering into trade are British stockings at 10s. per pair and American cotton at 50 cents a lb.

(*c*) The rate of exchange before the £ rises in value is 3 dollars to the £ so that £100 buys 300 dollars.

(*d*) At this rate of exchange £100 will buy 300 dollars and 300 dollars will buy 600 lb. of cotton. Similarly 300 dollars will buy £100 and £100 will buy 200 pairs of stockings.

(*e*) When the £ rises in value by 1 per cent. the Americans must give 303 dollars for £100 and the British receive 303 dollars for £100.

(*f*) America still buys 200 pairs of stockings at 10s. per pair and so spends £100 or 303 dollars. But Britain increases the volume of her cotton imports by 1 per cent. from 600 to 606 lbs. and these cost her 303 dollars or £100.

In this example the balance of payments between the two countries has not changed.

With a 1 per cent. decrease in the value of its currency the expenditure of a country's money on imports will only decrease if the price elasticity of demand is greater than unity.

EXAMPLE

(*a*) The £ falls in value relative to the dollar by 1 per cent. The British elasticity of demand is unity and the American elasticity of demand is zero.

(*b*) The goods entering into trade are British stockings at 10s. per pair and American cotton at 50 cents per lb.

(*c*) The rate of exchange before the £ falls in value is 3 dollars to the £ so that £100 buys 300 dollars.

(*d*) At this rate of exchange £100 will buy 300 dollars and 300 dollars will buy 600 lbs. of cotton. Similarly 300 dollars will buy £100 and £100 will buy 200 pairs of stockings.

(*e*) When the £ falls in value by 1 per cent. £100 will buy 297 dollars instead of 300 dollars and £100 will cost the Americans 297 dollars.

(*f*) America still buys 200 pairs of stockings at 10s. per pair and so spends £100 or 297 dollars. But Britain decreases the volume of her cotton imports by 1 per cent. from 600 lbs. at 50 cents per lb. to 594 lbs. at 50 cents a lb. and these cost her 297 dollars or £100.

In this example the balance of payments between the two countries has not changed.

We should have had the same result if the import elasticities of both countries had been half of 1 per cent.

EXAMPLE

(*a*) The £ rises in value by 1 per cent., Britain increases her purchases of cotton by half of 1 per cent. from 600 lbs. to 603 lbs. The dollar cost of this would be 301·5 dollars and these dollars would cost Britain £99 10s.

(*b*) The American decrease their purchase of stockings by half of 1 per cent. to 199 pairs and these cost her £99 10s. or 301·5 dollars.

In this example the balance of payments between the two countries has not changed.

For a 1 per cent. decrease in the exchange value of the £ in terms of the dollar, to make any contribution to future exchange stability the decrease in British imports plus the increase in American imports must be larger than 1 per cent., and with an increase in the value of the £ by 1 per cent. the decrease in American imports plus the increase in British imports must exceed 1 per cent.

An increase in the value of a nation's exports, when more can be sold at lower prices, will also depend on the ability of that country to increase its exports in response to the larger demand, without having to increase the selling price. The extent to which a country can increase its exports of a small range of goods without having to increase the price may be

severely limited in the short run. If any industries were previously working at the point of lowest average cost, every increase in output may involve rising average costs. If, however, production can be expanded with constant, or with decreasing average costs, the expansion of exports may cause no special difficulties for the industries concerned. There are other more general influences which may increase export prices, as, for example, if the exports contain any of the now dearer imported materials, or if the increased price of imports results in producers having to pay higher rewards to factors, or if the increase in exports, by increasing employment, reduces the marginal product of the employed factor. If the exchange value of the currency falls because the country's exports are not sufficiently competitive, any internal adjustment which cancels out the price reduction effected by the fall in the rate of exchange will weaken the exchange rate still further. Any alternative policy aimed at preventing a further fall in the exchange rate must prevent export prices from rising, and this may have to be done when employment is increasing and some internal prices are rising.

If an increase in the foreign exchange value of a nation's currency caused an immediate increase in its imports and a decrease in its exports, currency values would only be able to fluctuate within a narrow range. The possible fluctuations would be restricted, because the rapid change in a nation's balance on current account would quickly convert scarce currency into a plentiful currency. The speed and ease with which a country can convert an adverse balance into a favourable one are important factors, because if the movement from an adverse to a favourable balance is a long and difficult process, a nation's stock of gold and foreign exchange may be exhausted before the change is completed. Once the stock of gold and foreign exchange is exhausted, a continuance of the adverse balance will cause a greater demand for foreign currency in exchange for the national currency than before. This impending increase in the supply of a nation's currency, with the consequent threat of a fall in its value, will make other countries less willing to hold stocks of that currency. Anything like a complete refusal to hold a currency, or to give credit against it, could cause a serious breakdown within a national economy, especially if the nation's exports consisted largely of imported materials made up into manufactured goods.

The twentieth century has made us acutely aware of the foreign exchange difficulties which may perplex a nation. Without underestimating these difficulties, it still remains true that foreign exchange rates are not wholly chaotic. In fact, governments have fixed exchange rates and held them fairly successfully for more than a year at a time. This suggests that there may be some tendency for the imports of some nations to increase when their exports increase. An increase in a nation's exports, not offset by any internal decrease in investment or consumption, will increase the internal level of economic activity. This increase in activity by increasing employment and income will make possible further increases in demand if any part of the net addition to income is re-spent. Whether or not this increase in the national level of activity increases imports will depend on the propensity to spend income on imports, that is, on the preference for imported goods and materials. If imports increase with every increase in the national income, we can call this rate of increase the marginal propensity to import. This marginal propensity to import may not be constant and we may find that with some countries the rate rises as employment and income rise, but that with others the marginal propensity to import may decrease as income rises. It is the tendency for a country to increase its total imports when its exports have risen, which helps to restrict the size of the fluctuation in the rate of exchange.

The existence of forces which give some stability to exchange rates does not justify us in assuming that such rates could be fixed indefinitely. As we have seen, the factor resources of a nation may change in course of time, and these changes may modify or eliminate some of the comparative advantages which stimulated trade in the past. When such changes occur some nations may fail to make the internal adjustments that are necessary to maintain the volume of their exports. There are two possible adjustments. One is to reduce the factor cost of their established exports, and the other to re-deploy their resources to produce different exports. These changes in comparative advantage may cause acute problems when the productivity gains from current technical developments are heavily dependent on the increased use of capital, since the rate of increase in the supply of this factor is largely determined by the level of income per head and the willingness to invest. If

some nations have a larger income per head, a greater willingness to invest and a greater readiness to apply new technical discoveries than the other nations, the pattern of international trade may be subject to continuous change. The nations that are being left behind may then find that they can only maintain their traditional exports by a continuing process of price reduction, and that the easiest way to do this is by allowing some of the exchange rates to go steadily against them.

RATES OF EXCHANGE

BOOK LIST

Grade 1

Benham, F.—*Economics,* Chapters 23-30.
Samuelson, P. A.—*Economics,* Chapter 16.
Smith, H.—*Introduction to the Study of Economics,* Chapter 5.

Grade 2

Whale, B.—*International Trade,* Chapters 1, 2 and 8.
Harrod, R. F.—*International Economics,* Chapters 4, 5, 7 and 8.
Meade, J. E.—*Economic Analysis and Policy,* Part 5.
Crowther, G.—*An Outline of Money,* Chapters 7, 8 and 9.
Lewis, A.—*The Principles of Economic Planning,* Chapter 5.

Grade 3

Robinson, J.—*Essays in the Theory of Employment,* Part 3.
Ellis, H. S.—*A Survey of Contemporary Economics,* Chapter 6
Meade, J. E.—*The Balance of Payments,* Chapters 4 and 6.

QUESTIONS FOR DISCUSSION

1. Why might a country that devalued its currency also increase restrictions on imports? On what kind of goods would such restrictions be imposed?
2. Discuss the following statement: "If the demand for some exports is not responsive to price reductions a currency devaluation will only weaken the exchange rate still further in the future."
3. Would you agree that the trade union movement ought always to oppose currency devaluation because devaluation

only increases the demand for the currency, relative to the supply, by reducing real wages?

4. How can a change of government affect the international value of a currency?
5. Is the following statement true and does it prove that international loans increase economic instability? "If the more developed countries make loans to the less developed. the only thing we can say about future exchange rates is that, the weak currencies will be weaker and the stronger currencies will be stronger than they are now."