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MONEY

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MONEY

and a changing civilisation

by

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JOHN LANE THE BODLEY HEAD LTD.
LONDON

First published in 1934

PRINTED IN GREAT BRITAIN
BY WESTERN PRINTING SERVICES LTD., BRISTOL

INTRODUCTION

FEW people remain to be convinced to-day that in the field of monetary phenomena there lies a considerable part of the origins of our present difficulties, and that economic progress waits upon a clear analysis of the nature and workings of money. Individuals and organisations whose social and political ends are diametrically opposed agree at least on this point, and from their agreement there has emerged in the last few years a spate of literature demanding the most revolutionary changes in the policy, structure and management of our financial institutions. The bulk of these demands would seem to call for little consideration if only because they appear to be based upon no clear understanding of the nature of money and of the connection between money as we know it and the present organisation of society. Part of this essay will attempt such an exposition.

The reformers can, however, legitimately claim that their endeavours have helped and stimulated the economist towards an understanding of the causal relations between the behaviour of money and the trade cycle. The trade cycle is perhaps the most pressing problem of our time, and for concentrating expert attention upon its monetary origins the layman deserves nothing but praise.

The post-war world has experienced alternations of boom and depression of unprecedented violence, and with them have appeared such a degree of industrial waste and such a depth of bitter unhappiness for the individual that we are now faced with retrogression in every sphere of life. A decade of economic chaos threatens to wipe from the public conscience and behaviour all traces of the purposes for which the best minds of all ages have striven. To the world of 1934 social equality, personal liberty, toleration and peace seem either the despised dreams of woolly-headed sentimentalists or else the resented snares of Machiavellian exploiters. They are neither. They are the ultimate moral realities, and in so far as the abandonment of these goals is a consequence of economic distress, and in so far as this distress follows from cyclical industrial fluctuation, the economist has an urgent duty to explain, as far as he can, the part played by money in generating these booms and depressions. Such an explanation will be offered in the second part of this essay.

And finally, how can economics and monetary theory help the social reformer? This world is an uncomfortable place for those who are still hurt by the sight of injustice and misery. London, New York, Paris, Berlin, a day's walking in any one of them in either prosperity or depression presents the ordinary sensible man with a hundred despairs and vicarious humiliations. When the basis of our social life is radically altered there need be few

regrets. The economist can help to make them fewer. As a scientist he is not concerned to formulate ethical precepts. That we can do for ourselves. His task is to make us aware of the essential economic problems that are common to all forms of society, and to teach us how progress towards our ends (whatever they may be) is conditioned by the relative scarcity of our resources. For the economist to condemn or to praise either socialism or capitalism as forms of social organisation is impertinent, but he fails lamentably if he omits to make clear the nature of the economic forces that apply to both. So far there has been little evidence that those who demand reform have appreciated the strength of these forces and the nature of the problems they set for a new society. Thus, the highly important work that to-day is done by the help of money will remain to be done. How far will the reforms contemplated hinder this work? Will the hindrance be sufficient to necessitate a new mechanism? If so, how shall the new apparatus be constituted and operated? These are some of the questions which the final section will ask.

MONEY

CHAPTER I

IS MONEY NECESSARY?

THE organisation of practically every relationship and activity in the western world to-day depends vitally upon the use of money. In almost every branch of life a cash nexus stands between the individual and his ends. He must pay over the counter if he would acquire food, clothing and shelter, satisfy his æsthetic and spiritual desires, organise a war, propagate his ideals, obtain anything more than a rudimentary education, or enjoy the company of his fellows. It is in terms of money costs and receipts that he decides how to use his energies and property, and it is in terms of money that society assesses and rewards his productive efforts. Money is the unfailing instrument through which the individual impresses himself upon society, and through which society recognises his existence.

Moreover, the impact and the recognition are directly proportionate to the amount of money used. All other considerations are obscured, if not obliterated. In the market place neither urgency of want nor nobility of purpose is relevant. "Under the all-covering cloak of money . . . all purposes and impulses, of love and of lust, of

narrow greed and of broad beneficence, of enlightened and productive insight, of blind, tangled and self-confuting gropings, all destructive and reckless passions, all wasteful and desolating vices, all noble ambitions, all vulgar or refined enjoyments, all fruitful enterprises, and all foolish or wicked schemes of industrial waste, enter the open market and draw to themselves the efforts and services of men in proportion not to their worthiness or fruitfulness," but in proportion to the amount of money by which they are backed.

To the moralist there is something shocking in this ethical neutrality of money, and condemnations of money and dreams of worlds that know no money abound in all literatures. But anthropomorphism is as regrettable and as obscurantist in the economic field as in any other. When the carpenter uses his yardstick to measure planks of timber he does not expect it to reflect any of the qualities of wood other than those that can be expressed in feet and inches. When the greengrocer weighs out a pound of strawberries he does not expect his scales to register whether they are good or bad, French or English strawberries.

The carpenter's yardstick measures mahogany and deal with equal precision and if his product is shabby and fragile the blame rests not upon the yardstick but upon either the carpenter or the timber.

Why, then, should we expect money, the measuring rod of economic preferences, to bear any relationship to the ethical qualities of the pur-

poses and desires of those who use it? If the consequences of buying and selling disappoint or outrage our moral standards the fault is not with our yardstick but with the social background and human desires that utilise money.

In thus insisting upon the essentially passive and tool-like nature of money there is no intention to deny that few of us are content to employ money solely as a piece of economic organisational machinery. Few of us refrain from using it as a standard wherewith to measure achievements and needs, merit and virtue, in all contexts. Since it costs much money to bring together a first-rate orchestra we tend to regard the most expensive concert as the best. Because a great deal of money can be made by selling mental excretion to morons we therefore regard the sources of such muck as paragons of wisdom, and so on; but with this aspect of money we are not here concerned. Our prime interest is with money as an economic institution, as a piece of apparatus whereby a modern society can organise its life.

It is unnecessary in an essay of this kind to go laboriously over the material that can be found in the first chapter of any text-book. The essential nature of money is revealed by defining its functions as being those of a medium of exchange and a measure of value (or unit of account). Any elaboration of these terms that is required here will, it is hoped, emerge in the treatment of the following three questions: What are the conditions that

necessitate the use of money? What changes in our present civilisation would make money unnecessary? Within what limits can money do its work efficiently?

The need for money as an organisational device appears with the conjuncture of three sets of circumstances. First, there must exist 'the economic problem.' Secondly, production must be based upon the division of labour; and thirdly, individual freedom must prevail. Thus, in examining the origins of money we are concerned with the economic, the technological and the political make-up of society.

What do we mean by 'the economic problem'? There is available, at any time, for the production of goods with which to satisfy human desires a certain stock of natural resources, of labour and of time. And these stocks (which may be called the factors of production), however abundant, may be insufficient to satisfy *all* the desires that would like to lay claim to their services. Wherever this condition of relative scarcity exists it becomes necessary to decide, in some way or another, which of all the desires, and to what degree each of them, shall be satisfied. This, the need for selecting, for rationing, is the economic problem, and wherever it occurs society has to economise in the use of its productive assets so as to get the best out of them. This has been achieved if we can look at the results of production and find it impossible to say, "Given the purposes we had in view, it would have been

better to have employed a little less of our resources at that point and a little more at this."

Now, as far as one can see, this problem will always exist irrespective of the purposes for which society is organised. It will always be necessary to decide which commodities shall be produced, what quantities of each commodity shall be produced, and in what proportions the factors of production are to be combined on each productive occasion. These tasks are not likely to disappear simply because society changes its goal or its political forms. In capitalist Britain and in Bolshevik Russia alike it is desirable to avoid waste and to maximise efficiency. The only difference is that 'waste' and 'efficiency' relate to different ends. In the capitalist world, the economic decisions are made by the owners of capital and the end that they set themselves is the satisfaction of profit-yielding desires. In Russia, presumably, the test for the validity of any desire is altogether different and runs in terms of physical need and social equality. In spite of this altruism, the directors of Russian industry still find it desperately urgent to be economical in their use of the factors of production and to limit and ration the demand for all commodities. And even in a society of millionaires the necessity for a constant choosing between alternatives would remain.

The presence by itself of the economic problem, however, does not ineluctably call money into existence. We do not find money in use in com-

munities where the output of the producer consists entirely of goods for his own consumption. A second prerequisite for the introduction of money is that production shall be carried on in such a way that many specialists co-operate to provide any one consumer with the whole range of goods that he desires. As soon as this division of labour appears it becomes necessary to evolve some common medium through which each specialist can exchange the goods he has produced for the goods he needs. And with each refinement of technological differentiation the appropriate circle of exchange widens, until to-day the forms of industrial organisation call for a medium of exchange that will enable the whole world to co-operate. A money that falls short of this scope must be declared inefficient since it fails to allow us to reap all the benefits that are available.

But it is conceivable that even when the division of labour is added to the economic problem, money, as we know it, may not appear. On a slave plantation or in a large monastery where the process of dovetailing the efforts of specialists is determined either by tradition or by the orders of a sovereign lord even the highest degree of division of labour would not call for the use of money. Before this becomes inescapable we require a third condition: that production be organised for the satisfaction of consumers who are free to spend their resources as they wish. At this point, markets, and consequently money, appear. The

desires that production has to satisfy become multitudinous, anonymous and volatile, and for the detailed guidance of the producer it is necessary that the weight and direction of these desires should be indicated clearly. This can only be done by allowing all consumers to express in some common unit the relative positions of all their various preferences. This common unit of measurement is money, and at any moment of time the general system of money-prices indicates to those in charge of production just how the available resources should be used. In a modern community where material equipment plays a tremendous part in production people and associations with money to spend are constantly deciding what share of their income shall be allocated to the purchase of consumption goods and what share shall be devoted to the purchase of productive equipment. To-day, as never before, a wasteless utilisation of society's resources depends upon an accurate registration of people's relative desires for consumption goods and producers' goods. Unless money does this job well the results of production will be chaotic and unnecessarily poor.

We are now in a position to turn to our second question—"What changes in our present civilisation would make money unnecessary?" It will be noticed that the conditions which necessitate the use of money are in no way peculiar to any particular social system. Relative scarcity, the division of labour and consumers' freedom might well

occur in any form of society, capitalist or socialist. Similarly, one of the three may be absent in either a capitalist or a socialist society, and then money would be superfluous.

The distinctive feature of capitalism is the private ownership of property; in this definition we have no clue that reveals whether capitalism requires to use money. But if fascism and planning are added to, and consumers' freedom subtracted from capitalism, then we can be sure that it will have no need of money.

Similarly, the essence of socialism is social equality achieved through the public ownership of the material equipment of industry. Once more, we are unable to say from this definition whether or no a socialist economy will find it necessary to use money. There is nothing inherently inconsistent between socialism and consumers' freedom, so that until the advocates of socialism make clear just what part such freedom is to play in their world we are unable to decide. When, however, they declare for planning on Russian lines then we know that the institution of money can have no part in their economic arrangements.

In a planned economy, whether capitalist or socialist, money is superfluous. The demand for and supply of commodities cease to be composed of a multitude of discrete and uncertain parts, and instead, an executive committee decides what kinds of things and what quantities of them shall be produced and consumed. As far as the need for money

is concerned we are back in the slave plantation or the medieval monastery.[1]

It is thus possible to consider money, as with all other economic phenomena, irrespective of social conditions and to take for granted its presence in every libertarian economy.

Our next question is, under what conditions will money do its work efficiently? Its work, as we have seen, is twofold: to act as a medium of exchange and as a unit of account.

Present-day means of transport and communication make it possible not merely for individuals but for whole nations to co-operate in production, and therefore an effective medium of exchange would be one that made possible a full and unhampered exploitation of the territorial division of labour. This depends upon the provision of fixed rates of exchange between the currencies of all countries in the world; centuries of experimentation have evolved in the gold standard a device that does this. The disastrous collapse of international trade in the last four years have made it clear that the alleged defects of the gold standard are insignificant as compared with the disadvantages of fluctuating exchange rates. So far no convincing substitute for the international gold standard has been put forward, and the world has to choose between

[1] This does not imply that planning is therefore undesirable. The mere absence or presence of money does not indicate the worth of an economy. It is true that the weight of orthodox economic opinion is entirely opposed to planning, and so far Russian and American achievements along this line have done little to discredit this opinion.

either its complete acceptance or its complete rejection. If the latter is preferred then we must forego the substantial advantages of world-wide economic co-operation.

It is often argued that such co-operation is unnecessary to-day when each country is capable of producing all the goods its inhabitants require. It is argued that because the United States is capable of producing anything an American may want to consume, she should therefore cease to specialise in the production of a few commodities. The weakness of this argument is made clear if we apply it to an imaginary business where three services are required—those of a general-manager, those of an accountant and those of an errand boy. Let us suppose that three men, A, B, and C, are available for the posts, and that A is better than either B or C at all three jobs. The personnel manager would be unusually stupid if he insisted on spreading A's labour over all three tasks. The most sensible course would be to give A the post where his superiority was most marked and to employ the others where their inferiority was least marked. Such a division would yield the largest total output. Thus, if we awarded marks to the three men for their proficiency at each job along the following lines the case for utilising the services of even the least efficient becomes clear.

Job	A.	B.	C.
General Manager	10	7	2
Accountant ..	9	8	2
Errand Boy ..	8	7	4
	10		

The greatest possible number of marks is scored (that is, the highest total of proficiency reached) when A is general manager, B the accountant, and C the errand boy; to change any of these appointments would reduce the score.

The second task of money is to act as a unit of account—a measuring-rod of different preferences. In most modern countries only a minor part of the community's resources is devoted to the production of consumption goods. By " consumption goods" we mean those commodities that are immediately available for the satisfaction of consumers' desires, goods that require no further treatment or modification before they become enjoyable. Most of our energies and equipment is applied to earlier stages of production. The labour of the miner, the cotton spinner, the shipwright, the mechanic, the engineer produces what can be called intermediate goods—goods that are only part way on the road to becoming consumption goods. They may also be described as producers' goods since they must be handled by other producers before they are of any use to consumers.

Now, the most important task for those in charge of production to-day is to decide correctly the proportions in which the available productive resources shall be divided between the production of consumption goods and the production of intermediate goods. To do this they must be able to perceive the true proportions in which income receivers wish to spend their money on the two

types of goods. If by some means or another producers are misled as to these proportions then the wrong type of commodities will be produced and the result will be wasteful.

There can be little doubt that it is mistakes in estimating the demand for intermediate goods that lie at the bottom of the trade cycle. A boom would appear to be a period when producers overestimate the market for these goods, and a depression is the time when such errors are liquidated. The industrial figures of all countries suggest this. In the United States the constructional trades are almost at a standstill; in the United Kingdom the industrial centres of the north have become centres of outrageous poverty and unrelieved despair.

The preferences for intermediate goods, like all economic preferences, are expressed and registered in terms of money; so that it is in the workings of our monetary institutions that we might reasonably look for the origin of misdirected production.

Money to the man in the street means dollar bills, pound notes and silver and copper coins; but the amount of buying and selling that is carried through with the use of cash forms only a small part of the total value of all transactions. The business man uses cheques and bills of exchange for the settlement of his debts, and the amount of buying that he can do with these instruments depends upon the size of his bank balance; this, in its turn, depends upon how much credit his bank is willing to grant him.

The supply of this money, bank money, fluctuates widely. From time to time, from various motives, the banks shower their customers with additional purchasing power with which to buy investments and industrial equipment. The result is a boom, and then sooner or later the banks are forced to regret their generosity and insist upon repayment and retrenchment; this decision leads to the panic rates of interest that characterise the break of a boom, and the depression follows.

It is this topic—the disruptiveness of a unit of account when its supply is flexible—that will take up the body of this essay.

CHAPTER II

MONEY AND PRODUCTION

"Debauch the currency of capitalism and you destroy the capitalist system."—*Lenin.*
"Capitalism needs defending against the capitalists."—*Professor J. Viner.*

INCREASINGLY during the last few years economists have forsaken the old problems relating to changes in the general value of money, and have applied themselves to a study of the effects of variations in the supply of money upon the structure of production. In most western countries only a small part of the available resources is used to turn out goods which are directly of use in satisfying human wants; the bulk of our energies is devoted to the production of capital goods, and the process of deciding the proportions in which the factors of production are to be shared between the production of consumption goods and the production of capital goods is both complicated and vitally important. In a world in which no economic errors were made the determination of these proportions would be decided by the amount of saving performed voluntarily by the members of the community. Unfortunately, errors are made; from time to time the structure of production is

fashioned in a manner that is not warranted by the amount of saving willingly undertaken; the discovery of such errors is the occasion usually of a financial crisis in the business world and their result is industrial dislocation and subsequent unemployment until the structure of production has been re-adjusted closer to the actual supply of resources.

It seems likely that these blunders are due neither to unlucky accidents nor to false optimism or slipshod thinking on the part of business men; more probably, they spring inevitably from the fact that to-day the bulk of the savings of the community reach the entrepreneur through the medium of banks, and that the transaction takes place not in real goods, but in terms of money; in other words, given our present banking system, more or less violent fluctuations between boom and depression are unavoidable. Moreover, any scheme to reform our monetary institutions so as to prevent these fluctuations would almost certainly destroy the essentials of capitalism as a social system; accordingly, those who think that such a destruction is undesirable must reconcile themselves to the knowledge that wasteless economic progress and capitalism are incompatible.

Before these assertions can be substantiated, however, it is necessary to turn back and make clear the relations between saving, the structure of production and the supply of money, and our starting point must be the theory of capital. When, in the early eighties of the last century, Böhm-Bawerk,

the famous Austrian economist, set out to construct such a theory he concentrated his attention upon two questions that till then had yielded only vague and conflicting answers. He asked: what is the nature of the productive work of capital, and what is the origin of capital. His answers are, or rather should be, the foundations of any reputable theory of production.

Let us imagine a group of people who are deported from this country and set down without any man-made equipment upon a newly discovered island in the Pacific; they have only their own capacities, mental and physical, for work, and fortunately the island contains a wide variety of fruits and vegetables; the soil is fertile; fish are found plentifully in the streams, and deposits of iron ore and coal are located near the surface. All these virgin natural resources we can describe shortly as land, and our exiles thus start out to satisfy their wants equipped with a supply of labour and land. But unless they are abnormally unimaginative the problem of how to use these factors in order to obtain food, clothing and shelter is not an easy one. The simplest solution is to apply them directly to the acquisition of consumption goods—to satisfy their wants by scooping fish out of the rivers with their hands, by intertwining the branches of two adjacent trees to form a shelter, by wrapping leaves round their feet to provide a substitute for boots, and so on. Production along these lines would certainly yield a supply of enjoy-

able goods quickly, but the standard of living attained would appear deplorably and unnecessarily low to the more intelligent members of the group. These would complain, not that the community lacked land or labour, but that with a little patience their stock of these resources could be made to yield a much larger income for all. They might point to the process by which fish were obtained and urge that many more could be caught and enjoyed if the ten islanders who were engaged in catching fish by seizing them by hand from the river bank devoted themselves to this same end of fish-catching in a much more roundabout manner; citizen A could be sent to dig for coal, citizen B for iron-ore; citizens C and D could work up the products of A and B to obtain steel; part of the steel output could be used by E to fashion fishing-hooks; another part could be used by F to make knives and axes and G and H could use these tools to fell a tree and shape the timber into fishing-rods and a boat. Then, I and J, equipped with these could devote themselves to the task of providing the community with fish; indisputably the new process of satisfying wants would yield better results.

For the benefit of those islanders who were still unconvinced the reformers might go on to describe how a similar roundabout process of production would provide better and more foodstuffs, cleaner and more pleasing clothes, warmer and stronger houses; and the essence of all these schemes for providing a larger supply of consumption goods would

be in the diversion of the greater part of the available land and labour to a preliminary construction of intermediate goods. These intermediate goods constitute capital; each and every item is produced from labour and land and its value lies in making more productive these original factors of production.

Such a definition of capital leads immediately to an understanding of the procedure by which it originates. Before the islanders can accumulate any capital they must forego the immediate satisfaction of some of their wants. If eight of the ten fish-scoopers are to be retired from this industry in order that they may produce iron, coal, steel, timber, hooks and boats, the community must make do with the output of only two fish-scoopers until the efforts of the other eight have actually produced fishing-boats and tackle. In other words, they must abstain from present consumption and wait before they can enjoy the fruits of the roundabout process. This is the essence of saving—the transference of resources from the satisfaction of present wants to the satisfaction of future wants.

At this point the meeting of the islanders would cease to be a lecture and would become a debate; as soon as they had realised that a more fruitful use of their resources lies in roundabout methods, that saving alone makes possible the construction of capital or intermediate goods, and that saving involves present abstinence, then they are called upon to settle the problem of deciding how much

saving shall be undertaken, and the answer will turn upon a comparison of the relative worth of different quantities of present consumption goods and future consumption goods. The problem might appear to them in these terms: they are able without any degree of roundaboutness to employ ten men who will each be able to scoop out ten fish a week; alternatively they can set eight of these men on to the production of capital goods, and at the end of two years they will produce sufficient equipment to enable two men to catch 200 fish a week. The choice thus lies between one method that provides 100 fish a week from the first week of production onwards, and another method that provides 20 fish a week for two years and 200 a week afterwards. It is impossible to have both a 100 fish now and 200 fish at the end of two years.

At the same time, the decision, in real life, has to be made not between *the* direct form of production and *the* indirect form, but between a great many possible indirect techniques that differ in their degree of roundaboutness and consequently in their need for savings. Herein lies the economic problem; a choice has to be made because of the relative scarcity of means available for satisfying all demands.

The demand for savings springs primarily from a realisation that roundabout methods of production ultimately yield a higher output of enjoyable goods. It is augmented by the fact that most people, perhaps foolishly, overestimate the urgency

of their present wants and underestimate the urgency of their future wants and therefore prefer to satisfy the former. For these two reasons those who are engaged in production are willing to give part of their future incomes to those who save, that is, to those who postpone their purchases of consumable goods and place their claims on these at the disposal of the producers who are thus enabled to devote their energies to the more productive roundabout methods of production.

On the other hand, the supply of savings is limited. If we were all living at a level where any reduction in present consumption leads rapidly to death from starvation, there would clearly be no supply of savings. But at any point above this primitive standard of living any saving would still mean denying immediate satisfaction to some want or another, and most people are unwilling to do this; they will only save if offered some compensation for the sacrifice involved.

We thus have all the conditions of a market; one group of people offering to pay something for a service and another group ready to supply this service if they are paid something. The service dealt in is saving and the price paid for it is interest; and the rate of interest will be established at a point that expresses the marginal significance of the service. The forces commonly described as the laws of supply and demand will operate in this market in the same way as in any other. There will emerge an equilibrium rate of interest, that is, a rate at which

the demand for savings and the supply of savings coincide. If the demand for savings increases while the supply remains constant, then the equilibrium rate of interest will rise. If the supply of savings increases while the demand remains constant then the rate of interest will fall since the additions to the supply of savings can only be used in those extensions of the period of production which could not bear the old, higher rate. And finally, if the rate of interest falls artificially below the equilibrium rate, then the demand for savings will be unjustifiably expanded—unjustifiably in the sense that since there has been no increase in the supply the new demands cannot be satisfied without dislocation.

Thus, the rate of interest can be regarded as an expression of the community's balancing of the value of consumption goods as expressed in prices at different points of time. The rate of interest rises as the balance tilts in favour of present goods, and it falls as the preference for future goods grows. Changes in the rate of interest are not of importance because they indicate changes in the desire for all goods; the prime significance of movements in the rate of interest is that they indicate *relative* changes in the demand for consumption goods and the demand for intermediate goods.

From another viewpoint the rate of interest can be considered as a brake. Each extension of the period of production yields an increased output of goods, but this increase is less than proportionate to the extension of time. Therefore, as the rate of

interest falls producers will be able to push forward to more roundabout methods, and as it rises they will be compelled to go back to less roundabout methods. It indicates in what proportions and to what degree our resources shall be divided between the production of consumption goods and intermediate goods.[1]

It is important to emphasise that the rate of interest is determined, as far as the supply side of the market is concerned by the supply of current savings. The mistaken view is quite widely held that the supply that helps to determine the rate is the community's existing stock of intermediate goods; from this it is argued that the rate of interest will be low in a country that has a large capital equipment and will be high in a comparatively new country. Such coincidences do frequently occur, but they are to be explained on entirely different grounds. That Ruritania has a considerable accumulation of intermediate goods does not directly help the Ruritanian producer who is looking for loans from savers in order to extend his business. It may even hamper him. The operators of any set of intermediate goods require savings in order to maintain themselves and also to renew their equipment as it wears out, and these requirements constitute part of the demand for savings.

[1] Of course, the alternative open to entrepreneurs when the rate of interest varies "is not between producing consumption goods or producing investment goods, but between producing investment goods which will yield consumption goods at a more or less distant date in the future."

Their demands along with those of the producers who wish to lengthen the structure of production can only be met out of the current supply of savings.

There are certain conditions under which the translation of savings into consumption goods through a preliminary construction of capital goods can be effected without any dislocation of the productive process no matter how large might be the volume of savings. These conditions, given the existence of borrowing and lending, are that the community should effect its exchange transactions either by barter or else by the use of a fixed supply of money. Since the former method is likely to strike citizens of the Western world as extravagantly fantastic, we need concern ourselves only with a society where the supply of money is fixed.

Let us turn back to our islanders and assume that by this time they have not only a stock of capital goods, but also that they have adopted a system of private property similar to our own and that they use a fixed quantity of money.

We can use as our basic illustration a division of the community's stock of land and labour into five equal portions that are applied successively in a roundabout way to the production of consumption goods. The portion devoted to the most remote stage of production turns out intermediate goods worth £8, and accordingly £8 is to be received as income by those who have participated in the making of them. These intermediate goods

then pass to the second stage where the services of the second portion of the original means of production are applied to them. As a result the intermediate goods become worth £16, and £8 of this is to pay for the product of those engaged in the first stage of production, and £8 is to remunerate the newly applied agents of production.

The same thing happens at the third stage of production where the intermediate goods become worth £24—£16 for the purchase of the products of the previous stage and £8 for the services that have turned these £16 of commodities into £24 of commodities.

At the fourth stage of production the £24 of intermediate goods become £32 of intermediate goods as £8 of additional services is applied to them.

Finally, the last portion of the community's original means of production is applied and £32 of intermediate goods becomes £40 of consumption goods. Each portion of the original means of production receives £8 income, so that there is available £40 of income to purchase the £40 of consumption goods to the immediate production of which one-fifth of the community's resources have been applied.

In real life, of course, the stages of production do not go on separately and consecutively, nor do the producers of intermediate goods wait until the final product is sold before receiving their incomes; all stages proceed simultaneously and there is a

continuous flow of consumption goods; consequently, while the community needs £40 to buy the output of consumption goods, it also needs £80 to enable all the stages of production to effect their purchases of intermediate goods (£8 + £16 + £24 + £32 = £80). Thus, the community's total stock of money is £120 and twice as much is spent on intermediate goods as upon consumption goods.

The following diagram may help to indicate the position:[1]

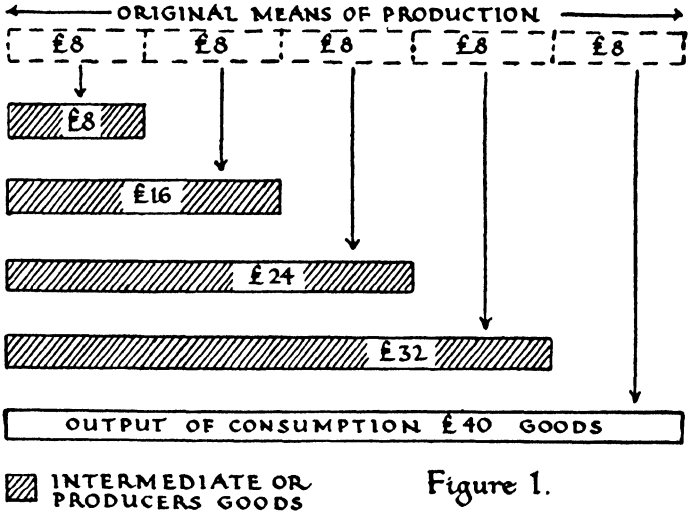

Figure 1.

[1] This and the similar diagram that follows are taken from Prof. Hayek's *Prices and Production* (London, George Routledge & Sons, Ltd., 1931). Indeed this whole general analysis is based upon his work. It is almost unnecessary at this date to add that no discussion of money, no matter how humble or ambitious its scope, can hope to achieve any worth-while results unless it uses the machinery that Prof. Hayek has so brilliantly put at the disposal of English-speaking students in the last few years.

Let us now consider the effects of an increase in savings while the quantity of money on the island remains constant at £120. Let us suppose that consumers decide to save one-quarter of the amount they previously spent on consumption goods, that is, to spend £30 instead of £40 buying consumption goods, and £90 instead of £80 on intermediate goods. How does this shift work itself out?

Clearly, the total demand for labour is in no way affected. The fall in the demand for labour to produce consumption goods is completely offset by the increase in the demand for labour to produce intermediate goods.

What about prices? If the community is going to spend £30 on consumption goods instead of £40, then the price per unit of these goods fall, and the producers engaged in turning them out naturally decide to produce fewer consumption goods and they will tend to reduce the output in the same proportion as the demand has decreased. Thereupon the price of each unit of consumption goods will be the same as before the additional savings took place. The only difference will be that fewer consumption goods are turned out, but this in no way inconveniences the consumers who have voluntarily decided to cut down their purchases of consumption goods in order to save.

What about the prices of intermediate goods? £90 is now spent on these instead of £80. Accordingly, their price per unit increases and it becomes more profitable to produce them. Thereupon,

those engaged in these stages of production demand more working resources, and these are available because of the reduced employment in the stages that make consumption goods.

Next, the increased volume of saving has reduced the equilibrium rate of interest and lengthened the structure of production and has thus reduced the costs of production. Therefore, when the expansion of the stock of intermediate goods leads sooner or later to a larger flow of consumption goods these can be sold at a lower price per unit without in any way impairing the profit-margin of the producers. They are not at all disturbed by the falling price-level; at the same time, the non-savers find that the £30 they are still spending on consumption goods will buy much more than it did before. In short, all sections of the economy are perfectly satisfied. The conclusion seems to be then that if there is no change in the supply of money (in this example, if it remains at £120) the result of an increase in the amount of saving is to establish a new economic equilibrium where real income per head is larger and where the prices of consumption goods are lower.

In the new structure of production the number of stages will increase from four to six just as the relative lay-out of the community's money as between consumption goods and production goods has changed from 40 : 80 to 30 : 90. In the new equilibrium one-seventh instead of one-fifth of the community's resources is devoted immediately

to the production of consumption goods. The new position can be represented thus:

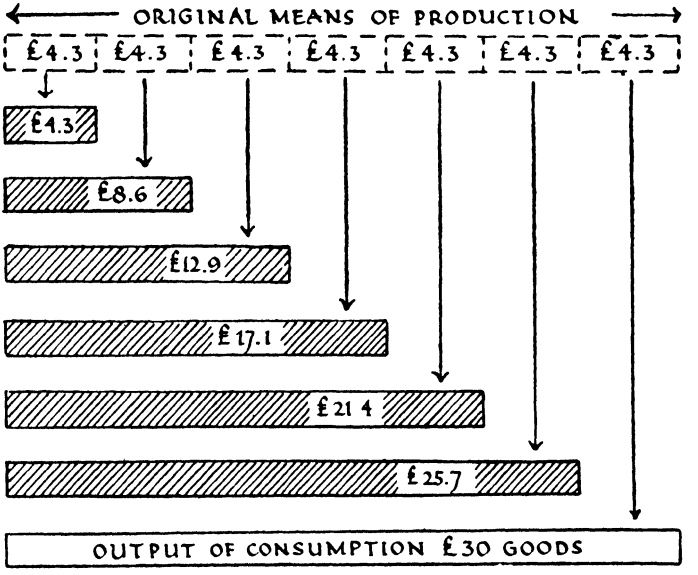

Figure 2.

Let us now drop the assumption that the supply of money is fixed and see what happens when it varies. As part of the new situation let us assume that when any of the islanders save, they do not themselves use the savings to engage in the production of intermediate goods, but that they hand over the money they save to producers through the medium of banks. As long as these banks are completely passive agents, merely receiving so many pounds from savers and passing on exactly the same number of pounds to producer-borrowers

there can be no possibility of mistaking the equilibrium rate of interest, and so of over-extending the roundaboutness of production. We are now assuming that the banks of the island are not only the intermediaries between savers and borrowers, but they are also the money issuing authority of the community, and are thus in a position to lend out more pounds than have been entrusted to them.

From what we know of our own world it is reasonable to expect that among the leaders of opinion on the island—its politicians, journalists, business men, etc.—there will be found many who are convinced that the main function of the banks is to provide the community with perpetual prosperity. But within this general agreement there will probably be found at least three schools of thought. One group, obsessed by the conviction that productive activity, simply because it is productive activity, is laudable and should therefore always be encouraged, will urge that the banks should be prepared to grant credit to those in charge of industry and trade whenever their demands are "legitimate." A second group, obsessed by the same conviction under a different guise, will be primarily impressed by the fact that whenever a consumer spends money he is buying something that has been produced; this group, therefore, will urge that the money-issuing authorities should maintain or restore prosperity by augmenting the money-incomes of consumers. As in

the Western world, these two groups of islanders will probably take it in turn to be popular. After a period of fashionableness for the "be-generous-to-the-producer" policy, there will come a clamorous demand for more money for the consumer. A third group of island leaders will be convinced that whenever prices fall the people who sell goods will make losses, and that they will therefore reduce production and general employment.[1] This third group, accordingly, will urge that the money-issuing authority manipulate the supply of money so as to prevent any fall or rise in prices. Thus, all three groups come together again in the belief that the most productive utilisation of the community's resources can always be engineered by appropriate changes in the supply of money.

Let us test out their policies. The position is that the banks of the island are able, at least in the short-run, to make loans at less than the equilibrium rate of interest because of their power to lend more money than savers have deposited with them. How will they use this power?

We can take as our starting point the state of affairs set out in Figure 1 where the community spends £80 on intermediate goods and £40 on consumption goods. This structure represents an equilibrium, that is, no productive resources are unemployed and, at the same time, given the whole scale of preferences of the community, it is not

[1] "Falling prices and unemployment are inseparable bed-fellows." H. D. Henderson, *Supply and Demand*, London, 1922, p. 34.

worth the while of any unit of the factors of production to change its employment. It follows, as part of the general equilibrium, that the rate of interest is at a level that represents faithfully the community's relative desires for present consumption goods and future consumption goods, and that there are no savings available for the many producers who are anxious to lengthen the structure of production if only they could obtain loans at less than the current rate of interest. These people will be able to present to the banks an abundance of schemes which show a profit as long as the promoter can assume in his calculations that the schemes will be financed with loans obtained at less than the equilibrium rate of interest.

Prompted by the advice of the "be-generous-to-the-producer" group, the banks decide not to wait until the community saves more, but to satisfy these extra-marginal demands by increasing the sums of money they are lending. Let us suppose that they make available for the purchase of capital goods an additional £40. This will be added to the £80 already spent on these goods to make a total of £120, and to alter the relative expenditure on consumption and intermediate goods from 40 : 80 to 40 : 120. The structure of production will be lengthened in the same degree, that is, from four to six stages. This structure is thus the same as when the community decided voluntarily to save an additional £10; the only difference seems to be that all prices are higher by one-third.

The resemblance, however, is only superficial. The new structure cannot be maintained in so far as it is based on "artificial" savings. This becomes clear if we follow out the results of the banks' "expansionist" policy step by step. Before the expansion took place one-third of the community's purchasing power was spent on consumption goods and two-thirds on intermediate goods; after the expansion only one-quarter of the community's money is spent on consumption goods and three-quarters is spent on intermediate goods. There will result both a relative and an absolute rise in the price of intermediate goods, and the people who make them will compete for and bid up the prices per unit of the factors of production. Those engaged in making consumption goods will find that their costs have risen but that no more money is being spent on their products; therefore, in an attempt to avoid losses they will reduce their output and put up the price per unit of consumption goods. That is, those who are spending the £40 on consumption goods find that they are getting less for their money; they are being forced, willy-nilly, to "save," to consume fewer present goods, because a smaller proportion of the community's productive resources is being used to produce consumption goods.

Meanwhile, an additional £40 is being spent on intermediate goods, and sooner or later the bulk of this money is paid out as net incomes to consumers—to wage-earners, etc.—and these people

use their higher money-incomes to recover their old standards of consumption; since the additional money passes into the hands of consumers before the lengthened process of production has completed itself and turned out a larger flow of consumption goods, the newly enriched consumers can only carry out their wishes through a restoration of the old structure of production. To do this, however, considerable disturbance is created. The means of production have already been diverted from the making of consumption goods to the making of intermediate goods. Consequently there will be a sharp relative rise in the price per unit of consumption goods, and in their turn the producers of these goods will increase their offers of remuneration to the factors of production; those productive resources that are unspecialised will then move from the higher stages of production to the lower stages. The specialised ones—factories, machines, etc.—will be left high and dry since their owners will be unable to pay the higher rates necessary to obtain the services of the complementary factors needed to keep the specialised factors operating. And so the community finds itself with a stock of unemployed plant[1] that has been constructed as part of a degree of roundaboutness of production that was never warranted by the community's real desire for future goods as compared with present goods. This state of affairs is what we know as a depression.

[1] The fact that this plant is *technologically* excellent in no way affects its *economic* position.

It is possible, of course, that the banks, having started on a policy of granting loans to producers below the equilibrium rate, will decide to pump even more credit into circulation when they find that consumers refuse to permit any extension of the period of production.[1] Such consistency, however, on the part of the banks can only postpone the inevitable readjustment and make it more violent. Every additional loan granted by the banks lengthens the process of production and makes more distant the arrival of an adequate supply of consumption goods; at the same time, by stimulating activity among those engaged in making intermediate goods, they indirectly provide consumers with more and more money-income. Theoretically, the banks could pursue their expansionist policy to the point where the bulk of the population is starving to death and at the same time receiving very high money-incomes for devoting all their energies feverishly to the construction of capital goods. The German money-issuing authorities did their best to achieve this situation in 1923 when the real rate of interest charged by the banks was practically nil and grotesquely below the equilibrium rate.[2] The outcome of their generosity was not to enrich the German people, but to impoverish them desperately and to provide them

[1] This refusal is transmitted through the pricing process.

[2] At one point the bank rate reached 900 per cent., but by then the equilibrium rate probably ran into tens of thousands per cent. Most normal attempts by banks to maintain their initial burst of undue generosity are brought to an end when the bankers become alarmed about their reserves.

with a stock of capital equipment that has never been used fully to this day. And these are the inevitable results, in a greater or less degree, whenever the banks pursue the policy of providing business men with loans below the equilibrium rate of interest.[1]

When the islanders have thus been brought to a state of industrial depression and after a preliminary period while their leaders simultaneously deny the existence of the slump and assert that their political enemies have engineered it, there will appear a demand for Vigorous Action. If the depression is long and deep enough the islanders will form Ginger Groups, Brain Trusts, Zip Societies, Pep

[1] A simple parable may help to illustrate the argument. John Doe has long coveted a gramophone, but his salary is only £15 a month. On the last day of each month he pays the £15 into his bank account and withdraws £3 10s. each week. After he has paid his rent and insurance premiums and bought food and clothes there is nothing left out of this with which to buy a gramophone. Unfortunately, however, John Doe has a friend who thinks it a pity that John should not have a gramophone when he so clearly wants one. The friend being also a poorly-paid clerk is unable to lend Doe the necessary £10, so that to carry out his good intentions he is driven to hoaxing him. On the 31st of January Doe pays his usual £15 into the bank and then receives what seems to be completely reliable and authentic information that his favourite aunt is paying £15 into his bank account as a present. He at once thinks of gramophones and next morning spends £10 on buying one. In the evening his friend tells him that the information was false, and John Doe is left with £5 to live on for the rest of the month. Bread and tea take the place of chops and beer. For consolation there is a gramophone standing in the corner; but the solace will be purely visual since he cannot afford to buy records or needles; to get these, and therefore some enjoyment out of his gramophone he would have to cut down his standard of living still further. His visitors will murmur about the paradox of poverty and plenty as the poor man eats his dinner of bread and cheese in a cold room adorned by a splendid but unuseable gramophone, and some will advise him to eat more, and some to play the gramophone, and yet others will advise him to do both; all the advice will be completely fatuous.

Parties, and as these organisations show themselves inadequately equipped with Ginger, Brain, Zip and Pep they will be displaced by leaders whose history, promises and methods guarantee at least vigour. The call for economic action may or may not run in terms of "balancing production and consumption" and "planning," but, in any case, the programme will demand either that the "idle" factories be set going again by compelling the banks to be generous once more to the producer, or else that consumers be given "enough" purchasing power to buy the products of industry.

The policy of easy credit may be tried but from our vantage point we can tell the islanders that the cause of the depression was this very policy of granting loans to producers below the equilibrium rate of interest and the consequent artificial expansion of the constructional industries. The utmost success then that the expansionists can hope for is to restore production for a short time to its old distorted structure where it was on the verge of collapse; and even to do this will involve in a country that has previously enjoyed a protracted boom the creation of bank money on a tremendous scale until the discrepancy between the equilibrium and the money rate of interest is even greater than before. The ultimate and inevitable crash will accordingly be more calamitous than the one that the islanders are trying to get out of.

What advice can we give to those who insist that the islanders can effect a recovery from the

depression by augmenting the incomes of consumers? The immediate cause of the crash was that industrialists discovered that the rate of interest at which they were borrowing from the banks was not justified in the light of the community's readiness to save; the supply of savings was inadequate to give a rate of interest low enough to allow production to continue in the newly expanded stages of production. It is now proposed to give consumers more money to spend; that is, to change the proportions in which money is spent on intermediate goods and consumption goods even more in favour of the latter. This means, on the one hand, shortening the structure of production and so ultimately reducing the output of consumption goods, and, on the other hand, raising the costs of production of those engaged in the higher stages of production since the makers of consumption goods can offer the factors of production better remuneration. To enable producers to start up again in a healthy way there is needed more saving, not more consuming; and to raise the real income of consumers during a depression is to vitiate, at least in part, the efforts of the savers.

Unless the citizens of the island are substantially more receptive of new thought than we are they will reject these warnings and will experiment expensively and dangerously with their "Recovery Plans." They may even succeed—if by success we mean that all the factors of production are at work again, and if we ignore the precariousness of the

basis on which the work proceeds, and if we accept unnecessarily low real incomes for all in the long run.

But even success of this sort can scarcely be achieved if the islanders decide to follow both plans simultaneously, to provide entrepreneurs with loans that have not been saved voluntarily, and consumers with incomes that have not been earned in a competitive market. The two distortions—one making for a longer structure of production, and the other for a shorter structure—will simply cancel out. The net result of such futility is merely that the depression must be suffered at a higher price level, and this benefits neither short-sighted consumers nor short-sighted producers.

CHAPTER III

CAN PRICE STABILISATION HELP?

THERE is to-day a considerable body of reputable opinion that is convinced that such distortions of the structure of production and dislocations of economic life as we have described can be avoided by manipulations of the supply of money so as to produce a stable price-level. They urge that a rising price level provides producers, since they are largely borrowers, with windfall profits and the result is an unhealthy stimulation of production; and, conversely, a falling price level imposes unmerited losses on producers who then reduce production. Such adventitious gains and losses, and consequently booms and depressions, it is urged, can be eliminated by increasing the supply of money when prices are falling and decreasing the supply when prices are rising; the objective is to ensure that the dollar or the pound shall always be able to buy the same complex of goods and services.

On this side of the Atlantic the influential advocates of this policy include among economists Prof. Gustav Cassel, Sir Josiah Stamp, Sir Basil Blackett

and Prof. Bellerby, while in the United States the answers received to a questionnaire sent out in 1927 to 281 professional economists showed that 252 "consider stabilisation of the price level to be a matter of major importance."[1] Prof. Irving Fisher has devoted the greater part of his abundant energy to propagating this doctrine in the belief that "when we really get stable units of money we shall have the greatest economic boon of all time"; and the present monetary advisers of President Roosevelt have organised the whole resources of the country in a spectacular attempt to construct a "rubber" or compensated dollar. Their work is inspired by the same chain of reasoning that led Prof. Fisher on the eve of this depression to write:[2] "Our prosperity has been looked on with pride by natives and with envy by foreigners, and almost as many explanations of it have been given as there have been onlookers. American genius, and inventiveness, capitalism, labour efficiency, horse power, the mechanisation of industry, democracy, prohibition—all these have been mentioned as factors in our prosperity—but the cause which is probably the most important of all, that is, stable money since 1921—approximately stable—has been all but overlooked. But it is no mere coincidence. I believe that, of the ten periods in our history since 1849—the tenth (1922-1928) has been

[1] Irving Fisher, *The Money Illusion*, London, 1928, p. 201.
[2] Op. cit., p. 136.

unprecedented in prosperity and unprecedented in stability."[1]

Side by side with these economists there stands an equally impressive host of business men and politicians. The *Midland Bank Review* of June-July 1927 wrote: "History has shown that apart perhaps from wars and religious intolerance no single factor has been more productive of misery and misfortune than the high degree of variability in the general price level. This may sound like an extravagant statement, but so far from being of the nature of demagogic outburst, it is clearly demonstrable from the course of events in various countries ever since money became an important element in the life of civilised communities. A stable price level is a thing to be desired, second only to international and domestic peace."

The famous memorandum on economic policy signed by one hundred of England's leading industrialists in May 1928, declared: "We believe that a more stable system of currency credit and a means of stabilising the price level are prerequisite to the restoration of prosperity of the great basic industries of the country."[2]

[1] In fact, the price stability perceived by Prof. Fisher has been declared to be an hallucination of the author of *The Money Illusion*. Mr. Walter W. Stewart, ex-director of research for the Federal Reserve Board, stated: "There is no period during the last quarter century, except the war period when prices have fluctuated over so wide a range as from 1922 to 1926." This has been substantiated by the analysis of Prof. Wesley C. Mitchell in *Recent Economic Changes in the United States*. A good deal depends, of course, on which price level we are looking at.

[2] Recent annual conferences of the Labour Party have demanded that "the average level of prices shall remain as nearly as possible constant, so that the pound shall buy roughly the same basketful of goods to-day, next month, next year and ten years hence."

On the other side of the Atlantic similar pronouncements have been issued by Chambers of Commerce and Merchants Associations, by bankers like the late Paul M. Warburg and by the editor of the *Saturday Evening Post*, and regularly and frequently bills have been introduced in Congress to provide that Federal Reserve Banks should: "Establish from time to time, subject to review and determination of the Federal Reserve Board, a rate of discount to be charged by such banks for each class of paper, which shall be made with a view to accommodating commerce and promoting a stable price level for commodities in general. All of the powers of the Federal Reserve system shall be used for promoting stability in the price-level."[1]

What is the worth of these opinions? I believe that it can be shown, firstly, that those who foresee an approximation to economic paradise as the result of a stable price-level have failed to suggest convincingly any efficient mechanism for attaining this stability; and, secondly, that even if such stability were achieved either by accident or design it would aggravate rather than eliminate industrial fluctuations. The price stability which Prof. Fisher and his allies[2] have in mind is a mistaken policy except perhaps in a stationary economy; it will

[1] Mr. C. O. Hardy, of the Brookings Institution, Washington, D.C., quotes this preamble in his *Credit Policies of the Federal Reserve System*, Washington, 1932. It is, I am sure, no exaggeration to say of this book that no more penetrating or clearer analysis and history of the Federal Reserve System has yet appeared.

[2] The bill referred to above was actively supported by Profs. Cassel, John R. Commons, James H. Rogers and J. W. Jenks.

produce all the evils of inflation in a progressive economy and all the evils of deflation in a decaying economy; in short, it will generate all the disorders that they are convinced it will abolish, and therefore their precepts are based on an inadequate diagnosis of the relation between money and the trade cycle.

First, we have no reason to be anything but extremely sceptical about the value and reliability of any of the existing methods of measuring changes in the price level. In the opinion of J. M. Keynes, one of the world's acknowledged experts on the subject, "there is at present a most serious lack of satisfactory index numbers of Purchasing Power. . . . An index number of the purchasing power of money should include, directly or indirectly once and once only, all the items which enter into final consumption (as distinct from an intermediate productive process) in proportion to the amount of their money-income which the consuming public devote to them. Since it would be a matter of great complexity to compile a completely comprehensive index on these lines, we should be satisfied in practice with an index which covered a large and representative part of total consumption. But we have not at present even this."[1]

Next, which price-level are we to adopt as our guide? In nearly all countries to-day there is to be found a bewildering collection of price index

[1] J. M. Keynes, *A Treatise on Money*, Vol. I, p. 5. London, 1930.

numbers, both governmental and private. Some of them are concerned merely with retail prices, or the cost of living, others refer to wholesale prices, and recently, Mr. Carl Snyder on behalf of the Federal Reserve Bank of New York has produced a composite index number that takes account of retail prices, wholesale prices and the level of wages. Which of these is to be regarded as *the* price level that must be stabilised? And certainly a choice is necessary because the movements of these various indices are not always either parallel or even in the same direction. For example, in England during the three years 1923-4-5 the Ministry of Labour's index number of the cost of living rose slightly but steadily from 169 to 170 to 171. During the same three years the Board of Trade's index number of wholesale prices jumped from 158.9 in 1923 to 166.2 in 1924 and slumped again to 159.1 in 1925. Similarly, in the United States, from 1925 to 1927 the cost of living index number declined by barely 2 per cent.; the Bureau of Labor's index number of wholesale prices declined about 12 per cent.; while Mr. Snyder's index showed hardly any fall at all.

Clearly, it is at least ambiguous to talk about stabilising *the* price level; there are many of them, and we must ask the stabilisers to choose carefully which one they intend to stabilise, otherwise the result will certainly be chaos. Thus, accepting for the moment the stabilisers' somewhat naive views as to the simple way that changes in the supply of

money affect the price level, if the financial authorities of this country had decided to stabilise the cost of living in 1924 and 1925 by decreasing the supply of money they would have increased the considerable fall in wholesale prices over those two years; and conversely, if they had chosen to stabilise the value of the Pound Sterling spent on wholesale commodities by increasing the supply of money there would have been a substantial fall in the value of the Pound spent on buying consumption goods. How do the stabilisers propose to solve this dilemma? So far the bulk of them have not even noticed its existence. The central fallacy of the stabilisers, in fact, springs from their inability to see that there are essentially different price levels. The key to the understanding of the part played by money in influencing production is the realisation that money can be spent either on consumption goods or on producers' goods, and that these two classes of goods are competitors for the available supply of purchasing power.

Next, even if we have a general price level and an index number that truly reflects changes in the purchasing power of money, how can this price level be kept stable? Changes in the cost of living have been and are likely to be frequent and substantial. What facilities have the government and the banks for changing quickly and considerably the amount of money spent by consumers? The stream of money in circulation consists of bank money and currency. Bank-money is used pri-

marily by business people so that if the banks increase or decrease the amount of credit they are issuing the main result will be to increase or decrease expenditure on intermediate goods, and to leave, at least in the short-run, the amount of money spent on consumption goods unaltered. So that we can expect little help from the banks in stabilising the "general" purchasing power of money. But what about the government? The government does indeed hand over money at frequent intervals to consumers in the form of salaries for civil servants and other employees, pensions for the old and disabled, and relief for the poor and unemployed. Can these sums, which admittedly are spent largely on consumption goods, be altered from week to week? Quite apart from the disorganising effect upon public finance, it is almost undeniable that neither the general public nor the recipients of government money would tolerate such manipulations. Why, at a time when the index number threatens to rise should civil servants and the unemployed be singled out to suffer income cuts? And why, when prices are about to fall should this minority alone benefit by increased purchasing power?[1]

Next, the stabilisers are, for the most part, convinced that the price-level can be influenced rapidly by appropriate changes in the open market

[1] To be effective, of course, the increased purchasing power of civil servants, etc., must come from a creation of new currency. If it comes from additional taxation, then the gains of the civil servants are exactly offset by the losses of tax-payers.

operations of the central bank and thus by the amount of credit made available by the other banks. But recent American experience suggests that during a period of sharply falling prices and depression even a gigantic expansion of the reserves of commercial banks will not bring about rising commodity prices. The truth is that "the quantity of bank credit outstanding is . . . only one factor in the determination of the price level. Equally important is the willingness of the community to hold a larger or smaller part of its available resources in the comparatively unproductive form of cash and bank balances. The greater the demand for till and pocket money and bank balances as a form of saving, the larger the amount of credit that must be outstanding to support a given price level. These demands are affected by changes in population, by the growth of the use of cheques, by the multiplication or consolidation of individual business units, by changes in the banks' requirements as to average balances, and above all (so far as short period changes are concerned) by anticipated changes in the level of prices. When prices are moving up or are expected to move up, depositors prefer to carry small balances and keep their funds invested; when falling prices are anticipated bank balances are deemed better investments than commodities or securities."[1] The lesson seems to be that an

[1] Hardy, op. cit., p. 220. Presumably even when the price level is stabilised, the price of securities will fluctuate and therefore people will vary their bank balances.

effective stabilisation of any price-level must involve a considerable amount of interference, not only with the supply of money, but also with the demand for it. Very few stabilisers are prepared to permit the government to decide when and how the ordinary man is to spend his money, and those who would permit this are wasting their time in striving after a stabilised price level; for the simple reason that as soon as the government controls the spending of the citizens' money and consequently controls the employment of the factors of production, money as we know it ceases to exist, and to talk then of changes in the price level affecting production becomes an anachronism.

Finally, there are still some stabilisers who do not realise that price stabilisation is completely incompatible with the maintenance of any international monetary standard and with stable exchange rates between different countries. The world has had since 1931 an excellent opportunity to learn what happens when governments decide to abandon an international standard and to let exchange rates fluctuate in order to stabilise internal price levels. Comparing the world's international trade in 1930 and 1932 we find a fall in the value of the total of over 52 per cent.;[1] this fall has increased during 1933. Another year or two of wildly uncertain exchange rates and world economic

[1] League of Nations: World Economic Survey 1932–33, p. 210. Geneva, 1933. Part of this fall is due to a fall in the prices at which commodities were bought and sold, but this explains less than half the decrease.

co-operation—the fruit of centuries of economic progress—will be abolished. Almost simultaneously with President Roosevelt's decision to restore American prices to their 1926 level by depressing the value of the dollar in terms of all other currencies, America's competitors decided to place further restrictions on international trade. Unless the world grows tired of this insanity very soon, it will become a collection of poverty-stricken isolated economies where the Dane refuses to drive any car that was not made in Denmark, the Englishman refuses to drink any but English wine, the Frenchman refuses to use medical instruments not made in France, the American refuses to read books not written by an American; the people of Iceland will start growing wheat, and Brazil will abandon all its industries that are dependent on imported coal. Only if the price stabilisers are prepared to push national isolation to these lengths, only if they are prepared to cut their country off completely from international trade does their policy become workable. Given international trade and a world monetary standard (whether it is the gold standard or any other standard does not matter), money will flow in and flow out of a country with no regard to the stabilisation of prices.[1]

These, however, are not the most serious deficiencies in the equipment of the price stabilisers.

[1] The reasons for this are developed in the section dealing with the gold standard.

Even if we grant them an isolated state, an adequate method of measuring the general price level, and the means to regulate this price level delicately and fairly quickly, there remains, and this is of decisive importance, their inability to appreciate the effects of changes in the supply of money upon the structure of production.

In an economically progressive community, that is, one where the real costs of production per unit are falling and output per head is increasing,[1] any additions to the supply of money in order to prevent falling prices will be hidden inflation; and in a retrogressive community, that is, one where output per head is diminishing and real costs of production are rising,[2] any contraction of the supply of money in order to prevent rising prices will be hidden deflation. Inflation and deflation can occur just as well behind a stable price level as when the price level is rising and falling.

Since the experience of the nineteenth and twentieth centuries has been almost entirely with economically progressive communities our argument will approximate closely enough to reality if we deal merely with a state of affairs where output per head is increasing. If we start from an equilibrium position there are only two ways in which such progress can be made; either by an increase in the supply of savings so that the available stock of labour and natural resources can be used

[1] Economic progress may be defined shortly as the process of satisfying more wants with a given effort.

[2] For example, because natural resources are becoming exhausted.

in a more roundabout way in the production of consumption goods, and every extension of the period of production, as we already know, leads to a larger ultimate output; or economic progress can be made by improvements in the community's stock of knowledge applied to the utilisation of the available factors of production. In real life, of course, both causes, additional savings and inventions are often at work simultaneously; for purposes of analysis, however, we must separate them.

Let us take first the results of increased saving. We have seen that if a community decides to save a larger proportion of its income the result will be to lower the equilibrium rate of interest and to make possible a more roundabout and therefore a more productive utilisation of the original factors of production. In the new equilibrium the price level of consumption goods is lower and the supply of consumption goods has increased in a greater proportion than the total amount of money spent on them has fallen. Figure ii[1] expresses the new conditions; let us turn back to it for a moment and suppose that a government of price-stabilisers are faced with the situation shown there. Their index number of the cost of living will record a considerable fall, and since they regard such a fall partly as the prelude to, and partly as an indication of dislocation, they will at once move to correct it. The increased saving meant that the proportionate

[1] On p. 28.

expenditure of the community's money as between consumption goods and intermediate goods changed from 40:80 to 30:90, so that to "correct" this position, that is, to make a Pound spent on consumption goods go as far as it did before, the stabilisers must provide consumers with an additional £15 to spend; when they do this the figures return to the old ratio that existed before any additional saving took place and become £45:£90.

But when this correction is effected the whole of the benefit of the increased saving is destroyed. Once more only two-thirds of the community's purchasing power is spent on the production of future goods, and the roundaboutness of the process of production must be reduced to its old structure of four stages, that is, no more productive use is made of society's stock of labour and natural resources in spite of the increased willingness to save.

Now let us turn to the other form of economic progress—improvements in technical knowledge. From the entrepreneur's point of view the esssence of an invention is that it reduces his costs of production; from the consumer's point of view the important consideration is that such a reduction in the producer's costs must sooner or later be passed on in the form of reduced selling prices. The entrepreneur who is responsible for introducing the invention finds that as long as selling prices are not reduced he makes on each unit he sells a bigger margin of profit than before. These

exceptionally high profits will either induce him to expand production so as to make larger total profits, or else they will attract new rivals with similar ambitions. In any case, the total output will be enlarged, and the selling price will tend to fall to the point where there is no undue margin of profit left even on the reduced costs.

If the improved knowledge is introduced into the island where the community's money is divided into proportions of £40 spent on consumption goods and £80 spent on intermediate goods there does not result, if the supply of money remains constant, any change in the structure of production. The only difference is that the £40 spent on consumption goods is able to buy a larger quantity since the price per unit of these goods has fallen. But as soon as the index number registers this the stabilisers will at once prepare for action. The consumer will not be allowed to enjoy the lower prices at which entrepreneurs are ready and able to sell; instead, more money will be rushed into circulation. In the hands of consumers this will mean that a larger proportion of the community's purchasing power will be devoted to buying consumption goods. Accordingly, the structure of production will be shortened, so that the improvements in knowledge will be applied to a less roundabout process of production and will probably yield an output no larger than when the old stock of knowledge was applied in a more roundabout process.

Thus, in the case where a fall in prices due to increased saving is corrected by additional money for consumers the result is to prevent any extension of the roundaboutness of production; and where a fall in prices due to improved knowledge is corrected by additional money the result is to force a transition to less roundabout methods. In both cases the fruits of progress are rejected because of a determination to keep prices stable. Moreover, in both cases the correction of the attempted advances has involved the abandonment of some of the higher stages of production where certainly some of the factors used are highly specialised and these will therefore become unemployed as a result of the transition.

We have taken it for granted so far that the stabilisers in seeking to raise a falling index number constructed largely on the prices of consumption goods will adopt the remedy of providing consumers with more money to spend. They may not, however, be so logical, and may attempt to raise the falling prices of consumption goods by giving more money to entrepreneurs. Such action, as we already know, will cause a shift in the employment of the factors of production to more roundabout methods of production. If we start from an equilibrium position entrepreneurs will only be induced to take up additional loans at less than the equilibrium rate of interest; that is, there will be an unjustifiable increase in the construction of capital goods. This will proceed

while the general price level remains approximately stable, and so the stabilisers will be able to deny that any inflation is taking place. Hidden inflation of this sort probably occurred on a large scale during the post-war decade when technical progress was advancing rapidly.[1] Its effects are just as inevitably a depression as when inflation shows itself in a rising general price level.

[1] It seems likely that a not inconsiderable part of the technological unemployment that we have heard so much about recently was caused by the fact that employers were induced to displace labour by capital goods because of the artificially low rate of interest. Many of the inventions adopted were not commercial propositions as soon as an equilibrium rate of interest was charged. Any attempt to offset the additional money given to employers by insisting that consumers be given extra money in the form of higher wages would clearly have encouraged employers to adopt even more labour-saving inventions.

CHAPTER IV

IS NEUTRAL MONEY POSSIBLE?

WE are now in a position to summarise our conclusions. The maintenance of a stable economic position depends upon allowing the members of any community to register faithfully their preferences for present goods and future goods. These preferences are expressed in terms of money, so that, except in exceptional circumstances, if any new money is thrown into circulation or any withdrawn the effect must be to distort the layout of society's productive resources so that it no longer reflects truly the decisions of income receivers. If we want economic stability the supply of money must be kept constant, and this will mean that prices will rise and fall as the real costs of production rise and fall.

Certain minor fluctuations in the supply of money are obviously permissible because they will not disturb unjustifiably the structure of production; that is, they will leave money neutral in its relations with the productive process. For example, part of the money supply becomes superfluous when the total population of the community declines, or when two firms formerly engaged in different stages of production amalgamate and so make

unnecessary the money previously used to carry out the buying and selling between these two firms. These, however, are comparatively minor difficulties in the way of securing a neutral supply of money. Much more important is the fact that the supply of money that is to be kept approximately constant is the *effective* supply of money, that is, the amount actually in use, and the rate at which it is used. "The effective money supply is a product of the decisions of innumerable individuals, not merely of the action of banks. Hoarding and dishoarding, buying on credit and debt liquidation, rapid circulation of currency and the holding of idle balances, shifts in spending and saving—these suggest the complex factors involved. To devise a scheme of control which will so affect the decisions of competitive commercial bankers, of hundreds of thousands of entrepreneurs, of millions of income receivers that the end result will be a constant effective supply is a task for the Olympians."[1]

The nearest approach we have to Olympians are dictators—from whom heaven preserve us. It is probable that an authoritarian state could eliminate those economic disturbances that are due to monetary causes. The simplest means apparently would be to abolish all money and to leave the decisions concerning the allocation of the community's productive resources in the hands of a Supreme Economic Council. But how is the

[1] Alvin H. Hansen, New York *Nation*, September 20, 1933.

S.E.C. going to arrive at its decisions? On what principles will they work? To-day, the problem is solved simply enough; the production of any commodity is pushed to the point where the selling price just covers the costs of production, and the factors of production tend to move towards those employments where they earn most. The machinery is simple enough, even if the results are not always pleasant ethically. The authoritarian state then must devise a new "rationing" method, and, so far as I know, the advocates of reform and revolution have failed to do so. It is unfortunate for the socialists that they have accepted so uncritically the current cant about planning; it has certainly alienated the sympathies of many economists, but I see no reason why a socialist state should not retain the pricing process much along the lines it works to-day.

All this, however, takes us outside the scope of this book; the only relevant point to be made here is that even in an isolated society the attainment of a neutral supply of money is amazingly difficult. The only practical advice we can give to the banking system of an isolated community will consist mainly of "don'ts." It should not attempt to stabilise the price level unless it is convinced that both economic progress and retrogression have been eliminated. It should not work on the principle of advancing credit freely simply because the borrower is able to show that he has or will have something to sell. It should

try to avoid handing over to industry more than the voluntary savings of the community, and it should not charge interest below the rate indicated by the conditions of supply and demand of these voluntary savings.

But the last two precepts cannot be obeyed by any modern banking system. By their very nature they must lend more than is saved and they must charge an artificially low rate of interest (these two, of course, go hand-in-hand). Why is this?

Perhaps at some time in the early history of banking, bankers behaved like furniture depositories; they acted, for example, as the custodians of £100 of gold and gave the owner a receipt for this sum and kept the £100 stored away for whenever the receipt was presented. Presumably, they very soon outgrew this stage since all the historical evidence available shows them behaving differently. When a sufficient number of people deposited money with them they found by experience that only a fraction of the total deposits were called for at any one time, and that therefore they could increase their earnings by lending out part of the money entrusted to them. Thus, when £100 in gold was brought to them by Mr. X they could lend out, say, £50 of this to Mr. Y since X would be unlikely to come back for more than half his money at any one time. A later imaginary stage is reached when Y borrows not £50 in gold but borrows only a promise from the banker to let him draw up to £50. Thereupon

the banker has £100 in gold in his vaults and his liabilities are £150. This need cause him no inconvenience if his two customers trade almost exclusively with each other and effect their transactions not by using gold but by giving each other cheques drawn against the same bank. As the use of cheques becomes more and more common the bank can decrease the ratio between its cash reserves and its liabilities. The present position, at least as far as Great Britain is concerned, is that bankers feel safe if they have in cash, or in something that can very easily and quickly be turned into cash, an amount that is approximately one-tenth of their liabilities. This means that every additional £1 entrusted to the banks results in the appearance of an additional £10 of deposits throughout the whole banking system. The process can be illustrated thus: let us assume that there are five banks in the community, each with deposits of £300 and working with a reserve cash ratio of 10 per cent. Someone comes to Bank A and deposits an additional £1. The position of Bank A becomes, deposits £301, cash £31; that is, its ratio has increased to 10.3 per cent. Accordingly it will seek to expand its loans; if the other banks did not exist it could immediately lend an additional £9 and raise its deposits to £310 and still have a reserve of 10 per cent. But the other banks do exist, and therefore it is probable that part of any new loan made by Bank A to one of its customers will be used by him to settle bills that

he owes to people who are customers at the other four banks, and accordingly these other banks will have to receive some of Bank A's cash.

Let us assume that when Bank A receives the extra £1 cash it creates an additional loan of £1; its deposits then become £302 and its reserves are £31. But it is reasonable to suppose that four-fifths of the new loan will be used by the borrower to pay people with accounts at the other banks, so that Bank A will lose £.8 of its extra £1 cash to them; its position then becomes, deposits £301.2, cash reserves £30.2; that is, it is well within the 10 per cent. limit. What is the position of banks B, C, D and E? Assuming that their customers share equally in the £.8, each has £300.2 in deposits and £30.2 in cash that is, each has a reserve ratio of 10.06; and each accordingly is able and anxious to expand its loans. Supposing these four banks move together; each can safely increase its deposits by loans up to £302, and this will restore their ratios to 10 per cent. At the same time, Bank A with deposits £301.2 and cash reserves £30.2 will find that it can safely, that is, without losing any of its cash, also increase its loans until its deposits are £302.

So that the final result of adding £1 to the reserves of Bank A is that each of the five banks has increased its deposits by £2 and that £9 is lent to entrepreneurs instead of £1.

This is the essence of all modern banking systems. The multiplication is not done by a

single bank acting alone but by the whole banking system, and the ratio of multiplication will depend upon the reserve ratio that the banks consider reasonably safe; the lower the ratio the greater the multiplication. Moreover—and it is this point that is so important in the later stages of a boom—the greater the degree in which the new loans are used by borrowers to withdraw cash from the banks the smaller the amount of multiplication possible; as long as the new deposits are used merely for sending cheques between bank customers the banks need have no fear of any drain upon their cash.

The process by which the multiplication originates varies; sometimes new depositors appear; more usually an old depositor decides to spend less cash and to leave a larger balance in his bank. Again, the impetus to unjustified[1] credit expansion may come not from any increased saving, but may be the result of an attempt on the part of the banks to satisfy new demands for loans without waiting for any increased saving. For example, during a period of technical progress the demand for bank loans will often increase, but if there is no simultaneous and offsetting increase in savings the equilibrium rate of interest goes up just as the price goes up in every market when the demand increases and the supply remains constant. The new demanders go to their bank and the manager, on

[1] "Unjustified" has been used throughout to describe action that leads to disequilibrium.

the one hand, is agreeably surprised that he can get new customers without lowering the rate of interest, and, on the other hand, he is afraid of losing these new customers to a rival bank if he advances his rate. Presumably, the community's entrepreneurs are divided fairly evenly among the banks as customers, and so all the banks experience this increased demand together and satisfy it by reducing their reserve ratio. So long as they are all working along the same lines none of them loses any of its cash to the other banks, and no one of them will attempt to check this expansion since it can only act by foregoing some of its profitable customers. Sooner or later, of course, the increased loans will lead to an increased demand for currency on the part of the general population, and then if the currency supply is highly rigid, the banks are forced to stop their inflating and to recover their liquidity by putting up the rate of interest nearer the equilibrium level. The more elastic the currency supply the greater the lengths to which the boom can go, and the greater the subsequent collapse.

Another possible originating point for unjustifiable credit is a situation where the supply of savings falls off without any change in the demand. This raises the equilibrium rate of interest, but no one bank will undertake on its own the unprofitable task of choking off customers by asking a higher rate; it prefers to retain them by reducing its liquidity. The subsequent developments are the

same as in the preceding paragraph where we followed the consequences of a rise in the equilibrium rate of interest due to an increase in the demand.

So that, even in an isolated community, unless it is prepared to scrap the whole banking system, the attainment of a neutral supply of money is almost impossible. The greatest value of the concept is that it supplies us with an ideal. It teaches us to establish as far as possible a rigid supply of currency, and to reject any expansionist banking policy. We can reasonably assume as long-run trends, at least in the western world, a stationary population, considerable progress in technical knowledge, an increasing use of cheques for the settlement of everyday transactions, and possibly further vertical integration in industry. All these developments in combination call for an active contraction of the supply of bank money in an isolated economy if money is to remain neutral in its effects on the structure of production. In practice the money-issuing authorities should adopt as their currency standard some commodity of which the supply is highly inelastic, and the best guide for the central banks' credit policy is probably an index of security prices since any inflationary extension of credit will almost always be reflected fairly quickly in a rise of Stock Exchange values. When such a rise takes place the central bank should at once move to reduce the volume of bank credit.

This is about as much as can be done even in an isolated economy towards eliminating the monetary causes of trade depressions. Accordingly we need not be too fearful in abandoning isolation and adopting some form of currency that links us up with the rest of the world, especially if this linking-up of itself provides considerable benefits.

CHAPTER V

THE GOLD STANDARD

IN the modern world currency, for the most part, takes the form of notes[1]—slips of paper printed and issued either by banks or by governments. The cost of producing such notes is practically negligible but they can be used by the issuing authority in settlement of nearly all debts and claims. A note that costs a fraction of a penny to produce can buy £1 worth of goods and services, and a note that costs less than one cent to make can buy $5 worth of goods and services. Clearly, such profits are so attractive that few organisations, whether they are democratically elected governments or privately owned banks, can be trusted to be discreet in the issuing of such notes. Even the best of intentions are likely to waver before the claims of expediency and the desire for popularity. It therefore becomes necessary to create a more substantial check upon the natural desires of the money-issuing authority to keep the printing press constantly at work. The device commonly adopted by the twentieth century was to forbid any extension of the quantity

[1] All bank deposits are withdrawable in notes, so that whatever we say of notes applies also to bank money.

of notes in circulation unless the issuing authority had previously gone to the expense of acquiring a certain amount of gold; in other words notes had to be backed either completely or in part by gold and the price at which such gold could be acquired was fixed—an ounce of gold must always be bought or sold by the note-issuing authority for a constant amount of the national money; consequently, the purchasing power of a given weight of gold and the purchasing power of the country's money unit would always be equal. The essence of a gold standard system is this declaration that the nation's money unit shall always be equal in value to a given weight of gold, and the standard operates just so long as this declaration is made effective.

Thus, while post-war Britain was on the gold standard the Bank of England (the note-issuing authority) was always obliged to buy gold, if anyone wished to sell, at the rate of £3 17*s.* 9*d.* per standard ounce ($\frac{11}{12}$ fine), and equally it was obliged, if called upon, to sell gold at the rate of one standard ounce for £3 17*s.* 10½*d.* As long as unrestricted convertibility was maintained at these rates it was impossible for the value of £3 17*s.* 9*d.* in money to be different from the value of one ounce of standard gold. If Mr. X, the owner of gold, thought that £3 17*s.* 9*d.* in Bank of England notes bought more goods than one ounce of standard gold could buy if he sold it, say, to a jeweller, he would take his gold to the Bank and exchange

it for notes. This increase in the supply of notes in circulation would lower the purchasing power of each one of them, and Mr. X would go on making the exchange of gold for notes until there was no gain to be made by the transaction, that is, when the buying powers of the two were once more equal.

Conversely, if Mr. A, the owner of notes, thought that one ounce of standard gold brought more than £3 17*s.* 10½*d.* when sold to a jeweller, he was free to take his notes to the Bank of England and obtain gold for them at the legally fixed rate. This reduction in the supply of notes in circulation raises the purchasing power of each note and Mr. A's business of changing £3 17*s.* 10½*d.* in notes for one ounce of standard gold stops when the purchasing power of the two quantities are once more equal.

An essential part of free convertibility is that the owners of notes and gold shall be free to take into consideration the value of gold throughout the world. Thus, when Mr. A, the owner of £3 17*s.* 10½*d.*, contemplates changing it for one ounce of standard gold he may have reached his decision on the basis of a consideration of what an ounce of gold will buy in the United States. If an ounce of gold buys more in the United States than £3 17*s.* 10½*d.* in Great Britain,[1] then Mr. A., will change his notes for gold and spend the gold in the United States.

[1] The difference must more than cover the cost of transporting and insuring the gold sent to the United States.

Given, then, in any country free convertibility of notes and gold at fixed rates and unhampered opportunities to export and import gold, the monetary unit of that country will be so limited in supply that in fact it will always be approximately equal in value to the value of the declared weight of gold, and the gold standard will be effective.

If more than one country adopts such a gold standard then their currencies become interchangeable at approximately fixed rates. Thus, if in Britain £1 is equal to 113 grains of fine gold, and if in the United States 113 grains of fine gold is kept equal to $4.86, then £1 becomes equal to $4.86, and ample forces are at work to maintain this rate of exchange between the two currencies. Thus, if prices rise in Great Britain and the purchasing power of the pound falls, and prices in the United States remain constant, then holders of pounds will change them for gold and transfer the gold to the United States in order to change it into, and make their purchases in, dollars. The decrease in the quantity of pounds will cause a rise in their value; that is, the British price level will fall; and the increase in the quantity of dollars will cause a fall in their value; that is, the American price level will rise. These two movements will go on until there is no further gain to be made by the transfer and the rate of exchange is stable at $4.86 to the pound.

Two important points emerge from this: first, the world supply of gold has a considerable in-

fluence on the value of money in all countries on the gold standard; second, the price levels of all countries on the gold standard are linked together so that they fall and rise together.

The first point has received considerable attention lately from the large group of people who believe that the present depression was caused by falling prices due to a world scarcity of gold. I believe that this diagnosis can be rejected on the grounds that falling prices during the last three years have been a symptom and not a cause of depression, and that, given the possible fluctuations in the world's gold supply, the quantity available would always be adequate if the gold standard were working effectively, and the money-issuing authorities allowed price levels to fall and rise with fluctuations in the supply of gold. But before we elaborate this let us first examine the relationship between gold and the price level.

We have seen that in a gold standard country by means of free convertibility the value of a unit of money is kept equal to that of a given weight of gold. Now, the value of an ounce of gold will be determined in exactly the same way as that of a ton of coal. If the supply of gold increases while the demand for it remains constant, the worth of each ounce of gold in exchange for all other goods will fall; and conversely, if the supply decreases while the demand remains constant the value or worth of an ounce of gold will rise. If we take the first situation, the position is that the supply of

gold is increasing; therefore, jewellers and dentists will offer less and less per ounce. But the price paid for gold is fixed in one market—the Mint. The Bank of England would and must always buy at the rate of £3 17s. 9d. per ounce. Accordingly, the new supply will converge on the central bank. The total supply of notes in circulation increases and thereupon the purchasing power of each £1 note falls and the price-level rises because there is more money being bid for the same quantity of goods and services. The final position is that while £1 and 113 grains of gold are still equal in value, the purchasing power of both has fallen.

The reverse happens when the supply of gold decreases. Each ounce of gold becomes more valuable for general purposes, and the holders of notes present them at the Mint and demand gold in exchange since this is the one market where gold can always be acquired at a fixed price. As the central bank's stock of gold dwindles it is forced to contract the supply of money. Thereupon the value of the £1 note rises and the price level falls.[1]

When the gold standard was first adopted over a hundred years ago by Great Britain it was generally believed that the conditions of supply and demand

[1] President Roosevelt's aim presumably in arranging for a fluctuating price in dollars for gold is to offer more dollars for an ounce of gold as gold becomes more valuable and thus not only prevent any fall in American prices, but also to raise these prices. It is difficult to understand why inflationists should adopt such an elaborate tactic when their country is off the gold standard.

for gold would remain fairly stable and therefore that any price level based upon gold would also be stable; the annual addition to the world's stock of gold can, in fact, never be more than a minute fraction of that stock. For some time this belief in the stability of the conditions of supply and demand for gold was justified, and then the discovery of very large deposits of gold in Australia and California in the middle of the nineteenth century began to arouse fears of a rising price level. These fears were allayed as more countries adopted the gold standard and so offset the increased supply of gold by an increased demand. Then during the 'seventies and 'eighties the annual output of gold began to fall off. Over part of this period there was also a general trade depression and falling prices. To many of the most vocal personalities of the period the causal connections seemed glaringly clear: decrease in gold output—falling prices—depression. It seems likely that those who argued in this way were making only a superficial study of the phenomena and confusing both the time sequence and the causal relations of the three occurrences. At the time, however, they organised, and particularly in the United States, an insistent popular demand for the abandonment of the gold standard and the establishment of a currency based either wholly or in part on silver.

Thanks largely to the oratory and personality of William Jennings Bryan, the battle for silver and easy money became a fight for justice, freedom and

equality—at least, in the minds of the advocates of silver. When, at the convention of the Democratic Party in Chicago in 1896, Bryan declared with all the eloquence of a thousand rehearsals, "Having behind us the producing masses of this nation and the world, supported by the commercial interests, the labouring interests, and the toilers everywhere, we will answer their demand for a gold standard by saying to them: 'You shall not press down upon the brow of labour this crown of thorns—you shall not crucify mankind upon a cross of gold,'" when he declared this he was in fact offering to the workers and idealists of his country a fantastic diagnosis of their wrongs and a flimsy panacea for their removal; both his diagnosis and his panacea have dominated and distorted American politics ever since. Behind President Roosevelt and his Brain Trust there stand the hosts of unhappy and poverty-stricken farmers and workers incanting ceaselessly the rhetoric of their prophet and demanding the magic that will bring the millenium.

Even such a fine and critical mind as Henry Adams saw the issue between the gold standard and silver as a titanic struggle between two antithetic civilisations where the victory of the gold standard meant the victory of capitalism. "He fell headlong into the extra session of Congress called to repeal the Silver Act. The silver minority made an obstinate attempt to prevent it, and most of the majority had little heart in the creation of a single

gold standard. The banks alone, and the dealers in exchange, insisted upon it. . . . On the evening of the final vote . . . all (were) in the gayest of humours as though they were rid of a heavy responsibility. Adams, too, in a bystander's spirit, felt light in mind. He had stood up for his eighteenth century, his Constitution of 1789, his George Washington, his Harvard College, his Quincy, and his Plymouth Pilgrims, as long as anyone would stand up with him. He had said it was hopeless twenty years before, but he had kept on, in the same old attitude, by habit and taste, until he found himself altogether alone. He had hugged his antiquated dislike of bankers and capitalistic society until he had become little better than a crank. . . . For a hundred years, between 1793 and 1893, the American people had hesitated, vacillated, swayed forward and back, between two forces, one simply industrial the other capitalistic, centralising, and mechanical. In 1893, the issue came on the single gold standard, and the majority at last declared itself, once for all, in favour of the capitalistic system with all its necessary machinery."[1]

Adams gave up the struggle, but lesser minds were not so fatalistic; with his temper and his analysis they still charge the windmills and the results have been to make anæmic and vapid the purposes and achievements of America's liberals

[1] In a similar mood some rare English squire may have contemplated the repeal of the Corn Laws in 1846.

and to give its agricultural masses ranting buffoons for leaders.[1]

Capitalism had attained its victories long before the falling price of wheat began to deprive the independent middle west farmer of the ownership of his land. Nor was the gold standard the cause of the slump in the prices of agricultural produce; on any standard in any society, a considerable increase in the production of a particular commodity while the demand remains constant will result in a fall in the value of each unit of the commodity; and the more inelastic the demand the greater will the fall be. Moreover, capitalism in any of its aspects, economic, social or political, is not bound up necessarily with the maintenance of the gold standard. Great Britain has not changed noticeably since she abandoned gold.

But all this is perhaps irrelevant here; the important point for our purposes is that many people in the late nineteenth century disliked fluctuating prices and believed that these fluctuations could be removed by using silver either alone or with gold as the standard money. Why silver should induce more confidence than gold as a monetary standard, it is difficult to see. The supply, and consequently the value, of silver has certainly fluctuated much more wildly than has that of gold, and the proposal that, because gold is

[1] In spite of many superficial resemblances, the leaders of American industrial labour are a different genus. They do not simply reflect the intellectual errors of their followers; for the most part they are such men who "touching pitch are not defiled, but actually defile it."

unstable, therefore the two metals should be linked together as a joint standard is comparable with the suggestion that the best way to support a drunken man is to get another drunken man to hold him up; they *may* both achieve an upright balance, but only by a miracle.

Fortunately for the world, the silverites lost what seemed to them to be the substance of their case when new gold discoveries and new mining methods lead to a tremendous increase in the output of South African gold in the 'nineties. In 1884 the output of gold from this area totalled 2,376 ounces. In 1888 it had increased to the still insignificant figure of 8,171 ounces. By 1890 it had jumped to 440,152 ounces; from then on the increase in output was rapid. In 1895 it reached 2,017,443 ounces, and in 1910, 7,527,108 ounces. The world's average annual output during the years 1908-1917 was 600,000 kilogrammes.[1] This rate of production was maintained during the "normal" post-war years 1924-1930 and was easily surpassed when the collapse of international confidence led to a scramble for gold after 1930.

Have these changes in the supply of gold affected seriously general economic conditions? There is little evidence to suggest that they have either greatly influenced the long-run, secular trend of economic development or caused the cyclical booms and depressions of the last hundred years.

[1] In 1896 world output was 300,000 kilogrammes; 1886–1895 annual average was 196,000 kilogrammes.

It is unlikely that the Australian and Californian gold discoveries of the middle of the nineteenth century could have raised world prices and generated prosperity since almost the whole of the world was not on the gold standard at the time. Again, historical research, if it could clear its mind of the conviction that falling prices mean adversity, would probably show that concomitant with the fall in prices during the last quarter of the nineteenth century there proceeded a steady advance in the general standard of living. The falling prices of that period can be explained much more satisfactorily in terms of technical invention in industry and transport, rather than in terms of declining gold production. The railway and the steel ship were making possible the exploitation of the virgin continents of the world and bringing cheaply to the consumer the wheat of the middle west and Russia and the refrigerated meat of Australia and the Argentine. This was the essential progress of the nineteenth century, and it is surely unreasonable to suggest that it would not have taken place if the gold supply had been a little more or a little less.

As for the cyclical depressions, the crash of 1873 can be adequately explained in terms of preceding inflation and war profits in the United States, Great Britain, Germany and France. The responsibility for the 1921 slump lies directly on the shoulders of war and post-war finance and industrial dislocation; and the present depression can be

attributed mainly to the hidden inflation of the years 1925-1929.

There seem to be no grounds for fearing that our economic activities will be thrown out of gear either by a world shortage or a world abundance of gold, and attempts to calculate what is an "adequate" supply of gold for the world are largely futile.

The most notorious of these attempts is that of Prof. Cassel, the Swedish economist. Cassel, who is a price-stabiliser, has argued that the world needs an annual increase of 3 per cent. in its stock of gold; it "needs" this increase because it will keep prices stable, and price stability, he believes, is a guarantee of economic stability. He arrives at his percentage by using an index number that shows that the same price-level prevailed in 1848-1851 and 1908-1911. In 1850 the world's gold supply was £500,000,000; in 1910 it was £2,600,000,000. This works out at an annual compound rate of increase of 2.79 per cent., and after an allowance is made for gold lost by wear and tear, the increase becomes three per cent. per annum. So we arrive at our normal and adequate rate of gold increase.

It is unnecessary to repeat that in an economically progressive world, stable price-levels are an indication of credit inflation; they do not make for stability or equilibrium. We need concern ourselves here only with Cassel's technique. In the first place, his choice of the periods that he is comparing is quite arbitrary; by choosing another pair

it could be just as easily shown that an annual increase in the world's gold of 3 per cent. coincides either with a falling price-level or a rising price-level. Further, he assumes that the demand for gold remained constant and this is improbable since in 1850 only the United States and Great Britain were on the gold standard, and in 1910 almost the whole world was using this standard. His second assumption is that the supply of money other than gold increased at the same rate as the increase in the supply of gold, and this is equally improbable if one thinks for a minute of the considerable growth of banking and consequently of bank money that took place between 1850 and 1910.

We need not waste our time juggling with figures in order to discover what is an adequate supply of gold for the world if the gold standard is to work satisfactorily. We know that probably changes in the annual output of gold will be so small as not to affect seriously the size of the total stock and therefore we can face with equanimity the fact that, if all other factors in the money situation remain constant an increase in the annual supply will lead to a slight rise in world prices, and a decrease in the annual supply will lead to a slight fall in world prices. If, therefore, these prices move freely so that the necessary adjustments are made quickly and easily, we have no reason to fear the gold standard.

This brings us to our second feature of the gold

standard, that the price-levels and money-income structure of all countries on the gold standard are linked together.

The international trade of any country falls completely within the following categories:

1. The buying and selling of tangible goods.
2. The buying and selling of services. If Frenchmen use British ships for the transportation of their goods, then Englishmen are selling shipping services to them. Another common type of service that enters into international trade is insurance. The same Frenchman who used an English ship to transport his goods may also insure them with a British company, and he may also effect other types of insurance with British companies. Again, the financiers of a particular centre may sell their financial services to foreigners as well as to their own countrymen, and thus contribute to their country's total of exports. Another significant service in the international trade of some countries is the provision of hospitality to foreign tourists and travellers; on a par with these are the remittances sent home by emigrants.
3. The buying and selling of long-term and short-term securities. When Englishmen invest in Argentine railways they are buying Argentine securities. The interest and dividends paid on these investments can be considered as payment for the service of "waiting" supplied by the investors.

All these items necessitate payments from buyers to sellers, and the principles underlying the payments are exactly the same whether they are for goods or for securities. If a merchant in New York sells $4,866 of cotton to a merchant in Liverpool, the latter must provide the New

Yorker with dollars. And if an exporter in London sells £1,000 of books to an American book collector the latter must provide the Londoner with pounds. The American naturally wants his debts paid to him in dollars and the Englishman wants his in pounds. If the selling of cotton and the buying of books are the only two transactions that take place it is obviously possible for them to be effected without the Liverpudlian changing pounds into dollars and the book-collector changing dollars into pounds, and without the movement of any money between the two countries.

The New York cotton merchant has a claim for $4,866 against an Englishman; the American book-collector at the same time owes £1,000 in England. On this side of the Atlantic a bookseller demands £1,000 from an American and a cotton importer owes $4,866 to an American. If 113 grains of gold is equal to £1 in Britain and to $4.866 in the United States so that the rate of exchange between the two currencies is £1 = $4.866, then the American book-collector can pay $4,866 into the account of the American cotton exporter, and the Liverpool cotton importer can pay £1,000 into the account of the London bookseller, and everybody would be satisfied.

In fact, of course, the settlement of international debts is not quite as simple as that. There are hosts of unrelated importers and exporters in every country, and as between any two countries the

exports and imports very rarely balance.[1] We can only expect such a balance between one country and the rest of the world or between two countries if they are the only two who participate in international trade. Let us assume that the United States and Great Britain are the only two countries in the world and that they are both on the gold standard.

When an American exporter sells something to an Englishman he draws a bill of exchange against him for so many dollars, and then probably sells the bill to his banker. Similarly, when an English exporter sells something to an American he draws a bill of exchange against him for so many pounds and sells the bill to his banker. There is thus available a quantity of bills drawn against Americans (that is, documents indicating indebtedness of Americans to Englishmen) and a quantity of bills drawn against Englishmen (i.e., documents indicating indebtedness of Englishmen to Americans). The two totals of indebtedness, given a rate of exchange of £1 = $4.866, may be exactly equal to each other at any particular time, and then the banks can simply and completely offset the debts between Englishmen and Americans.

[1] Though there are still people who feel aggrieved if, say, Russia does not buy as much from England as she sells to England; these same people would never suggest that the coal-miner should spend all his wages on buying coal from the person who paid him his wages. How can the coal-owner stand this unfavourable balance of trade between himself and the coal-miner? One has only to think for a moment to see how absurd is the demand that the imports and exports between any two countries should be equal.

But supposing the two quantities are not equal? What if Americans have sold more goods and services to Englishmen than they have bought from them? That is, the amount drawn in bills of exchange in dollars against Englishmen exceeds the amount drawn in pounds against Americans. The consequence will be that some of the debts of English importers cannot be offset by the simple and cheap process of altering bank accounts. Consequently English debtors will begin competing among themselves for the relatively scarce supply of bills drawn against Americans. Instead of asking for a $4,866 bill in exchange for £1,000 they will be prepared to accept a few dollars less; they may be willing to accept only $4,850. But if the premium on dollar bills of exchange becomes much more than this they will probably decide that it is cheaper to settle their debts by taking their £1,000 to the Bank of England, obtaining 113,000 grains of gold for it and paying the transportation and insurance costs of sending this gold to the United States where it can be exchanged for $4,866.

Before we go on to see the results of this transference of gold from Great Britain to the United States it is worth asking why Americans are selling more goods and services to Englishmen than they are buying from them. The obvious answer is that there is a general feeling that people get more goods and services by spending their money in the United States than by spending it in Great Britain.

We have seen that the excess of American exports over imports leads to a rise in the value of the dollar in terms of pounds, and that consequently gold moves from Britain to the United States. Since both countries are on the gold standard and determined to stay on it the consequences of this gold movement will be a fall in the supply of money in Great Britain and an increase in the supply of money in the United States. In other words, prices will fall in Britain and rise in America.

But this reduces peoples' preference for American goods and stimulates their demand for British goods. American exports fall off and British exports increase; the supply of bills of exchange drawn against Americans increases because they are buying more goods in Britain, and the supply of bills drawn against Englishmen decreases because they are buying less American goods. There is no longer any need for Englishmen to accept less dollars for a pound in order to acquire enough bills of exchange to settle their debts and consequently the outflow of gold ceases. Equilibrium in the exports and imports of the two countries is reached when there is no longer any need for gold movements at all. This, crudely and superficially, is how the gold standard game is played.

While the game is played, that is, as long as the central bank of each country allows gold inflows and outflows to have their full effect upon the general price-level, then, by the ordinary competition of trade, gold will be distributed among

the gold standard countries so as to accommodate itself "to the natural traffic which would take place if no such metal existed, and the trade between countries were purely a trade of barter." Gold flows are never the cause of a departure from this natural distribution of world trade; nor can they ever be the cause of a new natural distribution of trade. They are always the consequence of a trade dislocation and the response to changed conditions.

Moreover, these gold movements will always be self-liquidating; they will always lead to changes that remove the cause of the gold movement. "What gold movements do is not so much to settle the payments, as to set in motion certain forces calculated to restore the balance in financial relationships between countries losing the gold and the other countries."

If the gold standard is to behave in this way, however, the monetary authorities of every gold standard country must adhere to two rules: the international movements of gold must spring solely from economic origins, that is, because the use of gold is the cheapest way of settling trade debts. Since the war we have had a ceaseless crop of more than half-true allegations that the central bank of country A has encouraged shipments of gold in order to embarrass its country's political opponents or to assist in the fashioning of some diplomatic or military alliance; that the central bank of country Y has discouraged gold shipments because they would aggravate the difficulties of the central bank

of some friendly power; that the central bank of country X has acquired gold in order to stabilise its price level. As soon as such motivation becomes the basis of gold movements then the gold standard is heading for disaster.

The second rule is that when genuinely economic gold movements take place they must be allowed to act freely on the price levels of the countries concerned, "so that on the one hand an influx should raise and an outflow lower the price-level, and on the other hand an isolated increase in the price-level in one gold standard country should lead to an outflow of gold from that country, and an isolated fall in the price-level of a similar country should lead to an inflow into that country." Any attempts to check the effects on the price-level of gold movements merely prolongs and aggravates these movements and sooner or later leads to the collapse of the gold standard. Thus, if a country is losing gold because of an adverse balance of international payments caused by the fact that its price structure is inflated in relation to the price structures of other countries, then the attempt to compensate for the loss of gold by an expansion of bank credit will merely maintain the excessive price structure, and lead to further losses of gold. Probably, the catastrophic movements of gold since 1931 have been due to the persistent efforts of nearly all countries since 1925 to offset by credit expansion and contraction all gold losses or gains. Each country has claimed for itself the

sovereign right to fix its internal price-level independently of the other gold standard countries. It is impossible to maintain the gold standard on such principles.

One would have thought that 1931 would have driven home to most people the essentials needed for a successful functioning of the gold standard. Far from it; the attitude of many people to the gold standard is still that voiced by Irving Fisher in 1928: "If we wish to make its blessings permanent we must see to it that the gold standard is made elastic enough to permit the stabilisation of the price-level through credit control. In short, the essence of gold control is to prevent gold from hampering credit control."

And it is not only American professors of agriculture who accept these pernicious views. Certain members of the Gold Delegation appointed by the Economic Section of the League of Nations suggested that when the international gold standard is restored each country should divide its gold stock into two parts—one being the legal reserve against the supply of money, and the other being available for the settlement of unbalanced international payments. The object of this scheme was to ensure that gold movements in international trade should have no effects upon the monetary supply of the countries concerned. It need hardly be pointed out that such a system would bear no resemblance to the gold standard and would lead to its breakdown.

The failure of the gold standard to work after the war cannot be attributed to any lack of knowledge or experience. For over half a century before the war the Bank of England was experimenting with and using a more or less satisfactory technique for the maintenance of the gold standard. The instrument it evolved was variations in the discount rate. As gold left the country the bank rate was raised; the result was to reduce the amount of loans in use and to make less profitable the operation of those who continued borrowing at the higher rate. The reaction of entrepreneurs to these forces was to reduce their money costs of production—either by reducing the rates of remuneration of the factors of production or else by using them more efficiently. This proceeded until prices and money incomes were at a level where gold was no longer leaving the country. Thereupon the Bank reduced its discount rate once more. The reverse would happen when gold was flowing into the country and the Bank lowered its discount rate. More loans would be taken up and prices and money incomes would rise to the point where exports fell off and gold ceased to come into the country. Where a country was losing gold and therefore aiming to reduce its prices by raising the bank rate, its task was made easier by the fact that the countries receiving gold would be simultaneously raising their price-levels by lowering their discount rates.

This was the method used by the Bank of

England before the war with considerable success. Since then a subsidiary weapon—open market operations—has been widely adopted not only as a supplement to ensure the effectiveness of changes in the bank rate, but often as an alternative. If the central bank finds any reluctance on the part of the ordinary banks to follow its lead in raising or lowering the rate of interest it can compel obedience by open market operations. Thus, if a central bank wishes to force upon unwilling commercial banks a policy of higher rates it can sell some of the Government securities that are among its assets to the general public. The buyers of these securities are usually customers of the commercial banks, and therefore, when they buy they reduce their balances and hand over cheques drawn against their banks to the central bank. If this goes on for long the commercial banks find their balances at the central bank seriously depleted and are therefore forced to reduce their loans and charge higher interest rates as the central bank originally wished.

Since the war most central banks have used open market operations of this sort on a large scale; and, unfortunately, they have also used them not as an alternative to changes in the bank rate, that is, sold securities when gold was leaving the country and bought securities when gold was coming into the country; they have frequently engaged in open market operations in order to offset gold movements. Thus, when a country

was losing gold because its imports exceeded its exports, it did not raise the discount rate and sell securities; instead, it kept the discount rate constant and actually bought securities. That is, instead of stimulating exports and checking imports by setting in motion forces that would lower internal prices, it actually held up these prices by creating more credit through the purchase of securities from the public.

Such a policy is, of course, a complete negation of the gold standard and its contribution to the collapse of that standard in 1931 cannot be overestimated. If the world decides to restore the gold standard it must allow it to work along the only lines that it can work, and not complain after all the central banks in the world have thrown sand into the machine that it is a wicked or an obsolete machine.

To those who are unwilling to assist in the restoration of the gold standard we can answer that it is only by some such an institution that we can obtain, even during times of economic disturbance, stable rates of exchange between the currencies of the different countries of the world; and only if we have stable rates of this sort can international trade be maintained. The opponents of the gold standard may urge that they do not want any international trade. Such a position is logical, but it is hard to imagine any modern country—Japan, Argentine, Canada, Britain, France, Germany, the United States—with all its

export industries shut down. They can, if they wish, adopt such a policy and reject the fruits of the international division of labour, but the result must be a considerable fall in the standard of living.

It is widely believed that the advantages of, and therefore the need for, international trade are destroyed when all countries become equally capable of producing all goods. It is often urged that now that most goods are produced by machines, and since machines are standardised and can be run just as well in one country as in another, therefore there is no economic harm in economic nationalism. But this ignores the true nature of the division of labour. The fact that Mr. A is just as good as Mr. B at turning out either boots or bread is no reason why both would not be better off if Mr. A specialises in producing boots and Mr. B specialises in producing bread. Each will be able to organise production for a market twice as large as would be available if each was self-sufficing, and the advantages to be derived from specialisation are limited only by the size of the market. The larger the market the greater the extent to which the economies of the division of labour can be exploited. And this holds true just as well for a world of socialist states as for a world of capitalist states. In the former, if it were wise, there would be no restrictions on the international division of labour, so that its monetary arrangements would almost certainly include some international currency standard.

For the modern world, so long as it retains the use of money, and so long as it refuses to accept completely the reactionary ideal of economic nationalism, the most sensible monetary policy is for each country to maintain as rigid a supply of money as is compatible with the maintenance of the gold standard.

How far have the nations of the world followed such a policy since the war?

CHAPTER VI

THE GOLD STANDARD SINCE THE WAR

IN the spring of 1914 practically the whole world was on the gold standard and as a piece of international machinery it was working altogether satisfactorily. On the outbreak of war financial panic seized upon all the belligerents and in all the great financial centres of the world the banks were exposed to demands that threatened chaos. Most governments moved at once either directly or indirectly to abandon the gold standard. In all the warring countries the Press and the politicians made it clear that any citizen who asked the central bank to redeem its notes in gold, or who wished to sell his gold abroad was a traitor. This boundless determination on the part of all the belligerent governments to corner gold sprang, in part, from mercantilist notions as to the unique value of gold as a war chest. More importantly, most of them knew or guessed that inflation was necessary, and the convertibility of notes into gold and the unhampered export of gold stood in the way of this method of financing the war. Presumably few governments were prepared to rely solely upon appeals to patriotism as a means of removing this barrier. In France, Germany and

Russia the gold standard was formally abandoned by the suspension of convertibility and the prohibition of private exports of gold. In Britain convertibility was legally retained but the right was of little value to the unpatriotic since they were forbidden to melt down gold coin or to use it for any purpose except as currency, and finally, the export of gold was forbidden.

Throughout Europe paper notes displaced gold coins as the ordinary medium of exchange, and, since these notes were unfettered by any promises on the part of the issuers to redeem them in gold, their supply increased rapidly. These notes in their turn became the basis of credit expansion on the part of the banks. Prices rose everywhere—in the belligerent countries because of the inflation of paper currency, and among those neutrals who remained on the gold standard because of the gold they received as payment for sales of war materials to their neighbours.

The end of the war found all the great powers except the United States off the gold standard, and unbacked paper had become accepted by the general public. Prices everywhere had increased and the rate of increase many times exceeded the rate of increase in the world's stock of gold—a mere 20 per cent. Moreover, the price increases varied greatly from country to country and bore no resemblance to the evenly-spread price movements that the international gold standard had given to the pre-war world. To make conditions

even more confusing the various national price movements in no way reflected the relative gold holdings of each country. For example, as compared with 1913 the percentage increases in wholesale prices and gold holdings were:

	Wholesale Prices May 1919	Gold Holdings 1920
United Kingdom	136	— 16.6
France	227	— 50.0[1]
Italy	250	— 22.5
Germany	315	— 65.8
United States	108	+ 70.6
Sweden[2]	230	+ 177.7

Thus, a return to the pre-war gold standard and the pre-war rates of exchange would have necessitated world-wide deflation and gold movements on a scale never before experienced in peace time. The world, however, was in no mood in 1919 to return to pre-war conditions. For four years it had concentrated all its energies on the destruction of life and wealth and on the construction of goods whose only value lay in facilitating this destruction. In the relief that came with peace the poverty made inevitable by the war was ignored. The vic-

[1] There was also a large but unknown amount of hoarded gold in France at the time.

[2] The total gold holdings of all European neutrals increased from $353,000,000 to $1,131,000,000.

The total gold holdings of Japan increased from $65,000,000 to $556,000,000.

The total gold holdings of Argentine increased from $256,000,000 to $474,000,000.

torious statesmen had promised that the armistice would usher in the millennium and in the name of reconstruction they proceeded with monetary inflation on a scale that matched their irresponsibility in all other fields. 1919 and the first half of 1920 were the great boom months; everybody seemed to be making money—even the Clydeside workers who were on the verge of violent revolution. But the prosperity was unreal; like the political promises and achievements of the time it was merely part of a lunatic, feverish dream.

In the United States the inflation and boom reached such frantic heights that, although the country held almost two-fifths of the world's gold, the reserves of the Federal Reserve banks threatened by the beginning of 1920, to become inadequate. By April 1920, anxiety had reached a point where the Federal Reserve system decided to deflate, that is, to reduce the volume of bank credit outstanding. The index number of wholesale prices fell precipitously from 247 in May to 179 in December. The Bank of England, already contemplating a return to the gold standard, decided to follow this example and for the next two years deflation proceeded painfully and rapidly in these two countries.

The rest of the belligerents, however, were not yet ready for monetary restraint. In Germany, Austria, Poland and the Balkans inflation was carried to the point where economic activity was almost entirely suspended. In France and Italy too, the general populace acquired sufficient

experience of inflation to turn them into unrelenting advocates of deflation rather than inflation.

It is easy enough at this time of the day to despise the statesmen of 1919 and 1920, but a return to normality, except for a Warren Harding, was a task no less laborious than cleaning out the Augean stables. (The task was easy for President Harding since he thought that the stables had been cleaned when he converted them into pig styes.) The arrogance of the victors and the misery of the defeated filled the world with hatred and unrest. The activities of the Bolsheviks provided the Fat Boys and the credulous with enough scares to destroy all confidence. The belief that hegemony was more efficacious than the balance of power as a basis for peace generated enough discord and suspicion to make war an ever-present threat.

And it was not only political filth that bogged the feet of those who were anxious for a return to normality. The economic world was in an equally deplorable state. The task of balancing post-war budgets, thanks to war debts and war finance, threatened every government with unpopularity and defeat, and most of them chose to evade the task. Moreover, the whole structure of world debtor-creditor relations had been altered and the course of world trade permanently redistributed. Financially, the Great Powers were the United States, Switzerland, and Holland, and the pre-war creditor countries—Britain, Germany and France lay exhausted and bankrupt while their one-time

customers organised their own industries and borrowed in new centres.

From the point of view of a successful restoration and operation of the gold standard the most important post-war development was the high degree of dependence of the impoverished European countries upon foreign loans and the fact that these loans, as a result of political instability and the consequent lack of international confidence, were largely short-term loans. Even before the war the purchase and sale of foreign securities formed a large part of the balance of payments of many countries, but the bulk of them were long-term investments made through long-established and experienced channels. Since the war international investors have been reluctant to finance industries in countries that might at any moment have a revolution, or repudiate their debts, or embark on a programme of inflation. Instead, they have tended to provide business with short-term funds and have stood ready to withdraw these funds in gold at the first sign or rumour of insecurity. Such gold movements make extraordinarily difficult the task of the central banks in keeping their countries on the gold standard, and a highly plausible case has been made out to persuade central banks, on the one hand, to keep excessive gold reserves so that they can stand up to gold drains when investors become panicky, and, on the other hand, to ignore such gold movements when deciding the credit and price structures of

their countries. Frequently they have followed these courses; they would have been better advised if they had helped to remove the conditions that make investors panicky.

A second post-war development of considerable importance for the gold standard was that in many countries money incomes had become much more rigid since 1914. An essential prerequisite of the gold standard is that the price and income structure of each gold standard country should move quickly in the same direction as its gold holdings—gold losses being checked by falling prices, and gold inflows being stopped by rising prices. Such fluidity has certainly not existed in recent years. During the war governments everywhere created on an unprecedented scale high-yielding, gilt-edged investments for the rentier and every fall in prices increases his real income. The effect upon other income-receivers of the sight of the rentier's unfailing prosperity can well be imagined. They ask, naturally enough, why any necessary reduction in prices and incomes should take place entirely at their expense. And not only do they question; the post-war strength of trade unionism, the existence of unemployment relief, the wide acceptance of Ford's doctrine that high wages are the cause of prosperity, and the abysmal demagogy of post-war politicians have enabled at least the workers to resist nearly all attempts to lower wage rates even when there prevailed an exceptionally high rate of unemployment. Moreover, they

have been able to make their resistance so expensive to the employer as to dissuade him from using this means of making costs and prices balance except as a last resort and after he has tried methods that were clearly inadequte.

Thus, the determination to restore the international gold standard required an abnormal degree of courage, and the willingness to maintain it would require real heroism. The lead was taken by Great Britain, and her action as the world's pre-war money market was decisive for the whole world.

Even before the war ended influential opinion in Great Britain had suggested a speedy return to the gold standard. In the eyes of many people the gold standard was the outward and visible sign of normality and after the experiences of inflationary Germany in 1923 few people were anxious to retain a paper currency whose supply rested solely on the discretion of the government. Normality, moreover, meant, at least in the City, that the pound was restored to its pre-war value in terms of gold; that is, the pound should exchange for 113 grains of gold. Since the United States had remained on the gold standard throughout the war with $4.86 equal to 113 grains of gold, the criterion for Britain was a dollar-sterling exchange rate of approximately £1 = $4.86.

At the beginning of 1920, however, the pound was worth much less in terms of dollars. In February, 1920, the rate of exchange stood at

£1 = $3.20. Clearly, the policy for the British financial authorities was to deflate; that is, to reduce the supply of money so that British prices fell and the value of the pound rose and purchases in sterling rather than in dollars became more attractive. This task would have been relatively easy if American prices had remained unaltered, but in the late spring of 1920 the Federal Reserve authorities, frightened by the heights to which the post-war boom had risen in the United States, decided to deflate too. It therefore became necessary, if the British authorities wished to adhere to their objective—restoration of the pre-war parity with the dollar—for deflation to proceed even more drastically in Britain than in the United States.

The basis of British inflation had been the issue by the government of unbacked one pound and ten-shilling notes, and the Treasury acted quickly to reduce the supply of these. In 1920 their total stood at £320,600,000; by 1923 it had been reduced to £270,200,000, and by 1925 to £248,200,000. Concomitantly, the index number of British wholesale prices fell from 325.2 in April 1920, to 161.9 in April 1925, and the value of the pound in terms of dollars rose from $3.20 in February 1920, to $4.71 at the beginning of April 1925.

In April 1925, the British Government decided to restore the gold standard with gold at its pre-war value in terms of pounds. Gold coins, how-

ever, did not come back into circulation, since the public, very sensibly, was prepared to go on using paper money; and the Bank of England was not permitted to change gold for notes in quantities of less than 400 ounces of pure gold.[1]

Britain's return to the gold standard on these terms did not meet with general approval within the country. It was clear that, given the price-levels in the United States and Great Britain, if $4.86 was equal to 113 grains of gold then the pound was worth less than 113 grains of gold, and consequently less than $4.86. In other words, a return to the pre-war parity between dollars and pounds over-valued the latter. This could only mean that people would prefer to spend their money in the United States rather than in Britain, and that the Bank of England would be exposed to gold losses and would have to resort to deflation through a higher discount rate in order to retain its gold.

There were only two possible developments that could make deflation unnecessary in Britain after 1925. If prices had risen in the rest of the world and remained constant in Britain then there would have been no drain on the Bank of England's gold. In fact, prices abroad did not rise; in nearly all countries they fell, and this imposed an additional strain on Britain's gold and made

[1] Such a measure largely prevents the private hoarding of gold—a practice that has persistently disturbed monetary affairs in the United States.

even more necessary for her further deflation if she wished to remain on the gold standard.

A second *deus ex machina* would have been such an increase in efficiency in England that prices, but not money incomes, fell to the point where foreigners preferred to spend their money in Britain rather than withdraw gold. There was, in fact, an increase in British productivity per head after 1925, but it was outstripped by the rate of increased production in nearly all other countries, and this development set up an even stronger pull on the Bank of England's gold.

Thus, the logic of the situation made deflation inevitable for Great Britain if she wished to remain on the gold standard. The alternative was heavy and continuous unemployment in the export industries—since foreigners felt that they had to give an excessive amount of their own currency in order to obtain sterling exchange—and a strong tendency for gold to leave Britain; this latter force was only hidden, but not removed, as long as foreigners were willing to leave their money in London on loan and not withdraw it to a safer place. Given the panicky state of mind of the post-war world and the persistent refusal of the Bank of England to remedy by deflation Britain's weak position in international trade, it was unwise not to assume that sooner or later some scare would cause a sudden and large-scale exodus of funds from London.

In fact, almost immediately the gold standard

was restored the Bank of England found that any move on its part to reduce British prices by raising the discount rate was regarded by the great manufacturers, by labour leaders, by the popular Press and by politicians of all parties as a particularly malicious act of industrial sabotage whose sole objective was the enrichment of the rentier. Pressure was brought to bear upon the Bank from all quarters to prevent it from "hampering industrial recovery." Very soon the Bank closed its ears to the demands of the gold standard and became receptive only to the wishes of industry. Deflation was put off until it seemed as if the Bank of England had forgotten the existence of the gold standard and all the experience it had so expensively acquired in the nineteenth century.

The policy they adopted was to stabilise the bank rate, to stabilise prices and money incomes, to offset all gold movements, to provide business in good times and bad with abundant easy money, and generally to behave as if Britain—the largest participator in world trade—was an isolated state.

"An inspection of the Bank return shows that the Bank has attempted, within certain broad limits, to stabilise the total volume of credit available to the English economic system by offsetting the gold losses by an increased holding of securities, and, at times when gold was flowing in fairly freely, offsetting the increased supplies of

gold by a reduction in its earning assets. Thus between the second quarter of 1926, and the third quarter of 1928, the deposits of the Bank of England varied only by £4,000,000. This small variation in the aggregate deposits of the Bank was, however, accompanied by an increase of £38,000,000 in the reserve of the banking department, and by a reduction of £36,000,000 in the holdings of securities by the Bank. Similarly, between the third quarter of 1928, and the last quarter of 1929, the gold holdings of the Bank of England fell by £31,000,000, whilst the securities increased by £21,000,000, the deposits fluctuating only by £3,000,000. . . . The long run intention of the Bank is, therefore, fairly clear; it is to maintain deposits at a fairly steady level, while adjusting its assets in either direction according as gold flows in or out. . . . Apart from the troubled year 1929 and the period of readjustment at the beginning of 1930, the bank rate has, in fact, been remarkably stable. A short period of uncertainty in the autumn of 1925 was followed by a stable 5 per cent. throughout the whole of 1926, and a stable 4½ per cent. throughout nine months of 1927 and the whole of 1928."[1]

The result of this policy was that while prices were falling throughout the world, money wages in Britain remained above the 1924 level, and the army of unemployed, made up mainly of those

[1] Prof. T. E. Gregory, *Gold, Unemployment and Capitalism*, pp. 27–28. London, 1933.

attached to the export industries, remained unshiftable.[1]

Year	Nominal Wages	Real Wages	Unemployment percentage
1924	100.0	100.0	10.2
1925	101.4	100.8	11.0
1926	101.3	103.0	12.3
1927	101.5	105.7	9.6
1928	100.6	106.0	10.7
1929	100.1	106.8	10.3
1930	99.2	110.0	15.9

It is, therefore, not to be wondered at that Britain's export industries, even during the boom years of 1927-8-9 found it exceptionally difficult to sell their goods. Their difficulties, it is true, were aggravated partly by the contraction of certain old markets, for example, the cotton textile market in Asia, and partly by the conditions under which various other European countries returned to the gold standard. Just as Britain over-valued the pound and thus raised the cost of her exports to foreigners, so France, Belgium, Poland and other important competitors under-valued their currencies on returning to the gold standard and thus gave an exceptional encouragement to their export trades and became points of attraction for gold.

The post-war gold standard history of France is typical of these countries. In 1913 France held $1,400,000,000 of gold, or almost 22 per cent. of the world's monetary gold (as compared with 14

[1] These figures are taken from H. F. Fraser, *Great Britain and the Gold Standard*, p. 111, London, 1933.

per cent. held by Great Britain and 27 per cent. by the United States). After the war the finances of the government were in complete chaos, and, as it resorted to the printing of notes to help it out of its difficulties, Frenchmen turned more and more either to hoarding their gold or else to transferring their funds abroad in foreign currencies. By 1920 official holdings of gold had shrunk to $700,000,000. From then on inflation proceeded rapidly. In 1913 the franc was worth 19.5 American cents; by 1922 it stood at 8.2 cents, and by July 1926, it had fallen to 2.5 cents. By that time the confusion and injustice of inflation had produced a state of political crisis that was serious even for France. After the usual farce had been played of rapidly establishing and defeating half a dozen ministries, Poincaré, that most astute of post-war French politicians, felt that his rivals had been sufficiently discredited and he stepped to the front and offered to play once more the rôle of national saviour.

Under his guidance a National Government was formed and the business of monetary stabilisation and the return to the gold standard started in earnest. A return to the pre-war rate of exchange between francs and dollars was out of the question since it would have entailed reducing the French price level by approximately 80 per cent. Instead, it was decided to stabilise the franc at roughly its current low value in terms of gold. Moreover, this was not to be done suddenly, but was to be spread

over a long enough period to enable the franc to find its "natural" level where it was a true expression of French prices as compared with foreign prices.

The Bank of France began by buying gold at the rate of 19.75 paper francs for one gramme of fine gold. This, in the light of prevailing French prices, seemed an unduly high price for gold; gold began to come out of hoarding, and the Bank acquired it not only from its own citizens but also from foreigners who also felt that the franc was undervalued. Accordingly on November 6, 1926, the Bank of France raised the gold value of the franc by offering only 18 paper francs for one gramme of fine gold. Still gold flowed in and the Bank reduced the price of gold by offering only 14 francs for one gramme. Even this rate, however, seemed to undervalue the franc and foreigners expecting the Bank of France to continue its policy of raising the value of the franc began to speculate heavily in francs. France became a highly attractive centre for short-term funds; until, finally, on June 25, 1928, the government decided not to wait until the franc rose to its "natural" level, but to stabilise the gold value of the franc at 66.5 milligrammes of standard gold; that is, a rate of 124 francs to the pound and 22.5 francs to the dollar. This stabilisation of the franc checked for the time being the placing of foreign resources in France, but she remained an attractive refuge for the short-run investor. At the same time, the gold

stocks of France were no higher than they were in 1913 although they were maintaining a much higher level of prices and a larger population.

There was one other major disturbing factor in the post-war gold standard. The position of Germany was that she was expected to transfer each year an enormous amount of money to the victorious allies. One way by which this could have been done was for Germany to increase her exports, but not her imports, and to use the resulting surplus of claims against foreign customers to meet her Reparation payments. But this surplus of exports necessitated a fall in German prices greater than was taking place elsewhere; that is, it called for an active policy of deflation. To some slight extent this was pursued, but any export surplus that the German balance of payments showed was largely fictitious. She preferred to put off or to lessen the rigours of deflation by selling securities in order to meet her Reparation payments. That is, foreigners indirectly paid Germany's Reparations. This, however, could not go on indefinitely, and as soon as international lenders decided that German investments were insecure deflation became inevitable.

Thus, the position of all the major European gold standard countries up till 1929 was highly unstable and ultimately untenable. Each nation assumed to itself the right to fix its internal price-level in complete independence of other gold standard countries and to remain oblivious to gold

movements in any direction. It is impossible to maintain the international gold standard on such terms, and the stage was set for a breakdown when in October 1929 the American Stock Exchange crash sent investors throughout the world scurrying for safety. The crash exposed the false position adopted by many of the gold standard countries, and it is since then that the redistribution of the world's gold has taken place. The following figures in million dollars bring this out.[1]

	Dec. 31 1913	Dec. 31 1924	Dec. 31 1929	July 31 1932
United States ..	1,700	4,490	4,284	3,977
Great Britain ..	900	748	710	670
France	1,400	710	1,633	3,221
Germany	760	181	544	183
Switzerland ..	33	98	115	509
Holland	61	203	180	408
Belgium	48	52	163	365
Argentine ..	256	444	434	249
Japan	65	586	542	214
World Total ..	6,404	9,279	10,537	11,466

It is a paradoxical situation that in the very countries which refused most obstinately to play the gold standard game, and particularly in Great Britain, the blame for the breakdown of the gold standard has been placed on the shoulders of the United States on the grounds that she refused to behave in accordance with the rules and "sterilised" her gold. The real truth seems to be

[1] These figures are taken from D. Davidson, "The Gold Standard" in *Ekonomisk Tidskrift*, 1933.

that the United States was the only country that, consciously or unconsciously, was using her gold in the way postulated by the principles of the gold standard.

It would be impossible here to give anything like a detailed picture of the factors that lead to the American crash of 1929 and the world depression that has prevailed since then. The broad outline, however, seems to be that between 1927 and 1929 the American banking system, motivated partly by a policy of price stabilisation and partly by a policy of generosity to business men, used its gold stocks to inflate bank credit on a tremendous scale. This inflation was hidden from the superficial eye by the fact that with rapid improvements in industrial technique, American costs of production were falling rapidly. But the results of this handing over of more and more purchasing power to the entrepreneur meant an unjustifiable extension of the roundaboutness of production—an over-production of capital goods, and an under-production of consumption goods. The consequence of this, as we have already seen, is collapse and depression.

The key position in the American banking system is held by the Federal Reserve system. The present organisation of central banking in the United States is not the result of long and slow experimental growth as in Great Britain. It is the fruits of political reform and is best understood as an expression of the surging wave of Progressivism

that overwhelmed President Taft in the 1912 elections and placed Woodrow Wilson, with the support of William Jennings Bryan, in the White House. In the monetary field the result of these forces was that not only did the government seek to remove the purely technical defects of the banking system, but they also sought to end those activities of Big Business that were supposed to be aimed at the strangulation of the small industrialist and that were believed to be the cause of financial crises. In the eyes of the majority who supported banking reform in the United States in 1912, the "interests" of Wall Street were a deadly menace to American ideals and American prosperity. Just as the bogeys of European folk-lore are werewolves and witches, dragons and giants, so the more recently conceived demonology of the United States ran in terms of gold-bugs and bankers, octopuses and millionaires; and from the ravishers of fair Columbia, the land would be saved not by St. George but by Prof. Wilson.

The victory of Wilson is comparable with that of the Fathers of the Constitution. These zealots, working with an erroneous understanding of the organisation of a State, sought to prevent despotism by a rigid balance of power between Legislature, Executive and Judicature; in fact, they produced a system that is not a balance and that is able to work only by the use of fiction and convention. Similarly, the framers of the Federal Reserve system ignored the real problem, fashioned a machine that

can only work with difficulty, and provided it with irrelevant functions.

The outstanding defect of the American banking system in 1912 was the existence of tens of thousands of small, independent and isolated banks, the vast majority of them possessed of slender resources, slender experience and dependent for success upon the continuing prosperity of some highly-specialised market. Its outstanding merit was the difficulties which stood in the way of a rapid increase in the supply of both notes and of bank money. The Federal Reserve Act of 1913 failed to remedy the weakness of parochialism and at the same time it eliminated the merit of inelasticity in the supply of money; indeed, the preamble to the Act declared that its purpose was "to furnish an elastic currency."

The new banking system, with its central Federal Reserve Board, its twelve Federal Reserve Banks and its thousands of smaller banks which were customers of the Federal Reserve Banks, began to function freely in 1922. From the beginning, the authorities have set out to produce business prosperity by credit control. Their efforts can be divided into two periods. In the first, from 1922 to 1927 they were concerned to satisfy the "legitimate" demands of business men, commercial, industrial and agricultural, for loans. In the second period, 1927 to 1929, their objective was the prevention first of depression, and then of excessive boom, by credit inflation.

The fallacies underlying each of these policies, their mutual antagonism, and the incompatability of either with the retention of the gold standard have gradually and expensively emerged since 1929.

When the Board set itself to maintain " sound credit conditions," it interpreted its task as " the maximum facilitation of the production and distribution of tangible goods, and the minimum facilitation of the accumulation of stocks." Credit was always to be available for any project that promised an increase in production, and the only limit to credit expansion was to be when such credit could no longer add to production.

This is the old delusion that production *qua* production is always desirable; and that any limitations suggested by the relative scarcity of resources, by income-receivers desires, by the rate of interest, can always be ignored. It was to deal with the dislocation and waste created by this policy that the Federal Reserve Board evolved its second and entirely different but equally mischievous theory. It was decided that depressions could always be liquidated by the provision of abundant and cheap credit for producers. As we have seen, the effect of maintaining a rate of investment in excess of the supply of voluntary savings is merely to postpone and magnify the inevitable breakdown.

The first big experiment by the Federal Reserve system in credit control was made in 1923-4. In the spring of 1925 business conditions in the United

States were booming, and the authorities, despite their assertions that legitimate trade would always be financed, began to fear a repetition of the inflationary excesses of the immediate post-war years. The Federal Reserve banks therefore reduced their holdings of government securities and raised the discount rate; either as a coincidence or as a result business activity slackened and the boom headed off.

From this experience, the Federal Reserve system emerged with a new and altogether unjustified confidence in its understanding of the trade cycle and in its power to control these through its credit policy.

During the second half of 1924 a boom was engineered by a reduction in the discount rate and an increase in the bank's holdings of government securities. These tactics were continued throughout 1925 and 1926 and by the end of the latter year the exuberance of the American stock exchange began to attract notice among investors abroad. In 1927 gold began to flow into the States from a Europe that had but recently and painfully returned to the gold standard. The paradoxical position appeared of rapidly mounting stock exchange prices and steadily increasing signs of industrial recession.

The obvious thing to do was to break the stock market boom by tightening borrowing conditions, but the Federal Reserve Board, seeking to "stimulate" industry and probably urged on by those

European central banks who were losing gold and were unwilling to retain it by the orthodox methods of forcing down internal price-levels, pressed still further and harder its easy money policy. Between July and September 1927 discount rates fell to 3½ per cent. and holdings of government securities increased by $80,000,000.

For six months this "cure" was persisted with, and then faint-hearted attempts were made to reverse it. From July 1928 onwards, some of the banks of the system began to realise that their preceding credit policy had been foolishly and disastrously generous. Holdings of government securities were reduced and discounts raised; but the rise was grotesquely insignificant, and stock exchange prices continued to soar. By October 1929, the crash that had been threatening since 1927 could be put off no longer; the net result of the delay was to add the dislocation of two more years to that that had accumulated in 1927.

Between 1921 and 1929 the banks of the United States were inflating the supply of credit on a tremendous scale. Over that period "the gold stock of the country increased by 29.4 per cent. The member bank balances increased 42.7 per cent., demand deposits 36.7, time deposits 109.3, investments 67.5, loans 41.2."[1]

To observers like Irving Fisher this inflation appeared completely harmless since it did not

[1] H. F. Fraser, *Great Britain and the Gold Standard*, p. 76. London, 1933.

result in any increase in general prices. But, of course, if there had been no such inflation American prices would have fallen because of the increasing output per head and falling costs of production; only with a falling price-level could equilibrium have been maintained. The Federal Reserve system's "hidden" credit inflation was as effective as any other in causing an excessive application of resources to the construction of producers' goods.

Lest we fall into the error of regarding the American banking authorities as the cause of the present depression, it should be remembered that the banking system makes inevitable an expansion of credit during a period of economic progress, and that almost all other bankers in the world followed the example of the Federal Reserve Board, and that everywhere the bankers were pursuing a policy that commended itself to the industrial community and to the government.

CHAPTER VII

THE FUTURE OF MONEY

MOST opponents of capitalism have devoted part of their time to the construction of a theory of social dynamics that establishes the inevitable collapse of the present order. There is the Hegelian mysticism of Marx, Veblen's doctrine of the conflict between business ends and industrial ends, and there is the more common socialist conviction that inequalities of income lead to excessive investment, mass under-consumption and general economic chaos. Unfortunately, most reputable economists will have nothing to do with any of these theories and are capable of demonstrating their fallacies with the greatest ease. The reaction of the average socialist to this discouragement has been to label all orthodox economists as capitalist lackeys and to ignore their criticism. He would have been better advised to have utilised the services of these despised scientists.

Many of them are agreed that a flexible supply of money is a disequilibrating economic force, that anything but a flexible money is impossible in a capitalist society and that therefore capitalism is inherently unstable as an economic system. Most socialists have overlooked this good news. Even

its irony has escaped them. Money, the progenitor of capitalism and the engine of its greatest victories is also its destroyer. Without the invention of money the market would never have displaced the manor, and without the gold standard the nineteenth century could not have organised an international trade whose wealth-creating advantages made tolerable the social injustices of capitalism. And now the capitalist bankers, capitalist industrialists and capitalist governments throughout the world have spent the last decade debauching the monetary system and magnifying its disruptive powers. They have produced and are maintaining a depression that threatens by its depth and persistence to wreck the whole capitalist order.

We have, it is true, had depressions before. Widespread strikes and unemployment occurred and disappeared frequently and regularly throughout the nineteenth century. These, however, were but slight jolts to an unshakeable belief in the limitless advance of capitalist civilisation. They could be regarded as the malaise of an overworked digestion; a little hot water and soda, a little fasting and everything was all right again. This time the bicarbonate is not working. The preceding orgy was too Lucullan and it is difficult to persuade the right people to fast. The recuperative powers of capitalism seem to have disappeared, and even the man who before 1929 was oblivious to the atrocious moral deficiencies around him has now been roused by economic distress to a temper

where he is ready for change on a revolutionary scale.

The methods adopted by the defenders of capitalism to ward off the socialist attack reveal clearly their inability to appreciate the economic nature and merits of the system that they are defending. The economic efficiency of capitalism sprang from the competitive organisation of production and the creation of a world economy, and only on these bases can it recover prosperity. Yet capitalists throughout the world are seeking to protect capitalism as a social order by organising parties and states whose programme is incompatible with either free competition or world co-operation. Everywhere the great industrialists are feverishly mobilising the blind loyalties and irrelevant traditions of national patriotism as a bulwark against the growing volume of discontent. The pompous stupidities of Empire and of Race are being dragged once more into the service of capitalism. These delusions served well enough in earlier centuries, but to-day the capitalist is not adventuring triumphantly and with the vigour of youth for undeveloped colonies and fabulous dividends; now he is struggling for life against the determined advocates of a new social order. The difference is important. The exploits of Frederick the Great and Clive lead to expanding markets; those of Hitler and Beaverbrook lead swiftly and surely to the collapse of markets.

Therefore we must look beyond the immediate

and superficial success of the fascist bag of tricks. It is true that in Germany any critic of capitalism is dealt with as a traitor to his country, that in the United States the socialists have joyfully abandoned their mental barricades in order to climb on to the Roosevelt band-wagon, and that in Great Britain anyone who speaks lightly of the Empire is regarded as a bounder. But capitalism needs greater victories than these. If it is to survive it must do more than submerge the discontented in a sea of hysterical nationalism. It must deliver the goods; it must work as an economic system and restore to the masses the standard of living of pre-depression days.

Its very success with fascism makes this impossible. The wealth-producing powers of the early twentieth century were largely the fruits of a world economy and of the establishment of a system of co-operation whereby the Londoner could draw on the resources of China, Cuba, Denmark, the Dakotas and Spain for his breakfast of tea, eggs and bacon, toast and marmalade. But the retention of such co-operation with all its material advantages is vehemently opposed by the economic nationalism that marches side by side with fanatical political nationalism. The modernisation of the army and the expansion of the navy is welcomed by Americans as a logical part of President Roosevelt's autarchic New Deal, and the repudiation of Germany's foreign debts seems to Dr. Schacht a fitting complement to Hitler's

rearmament programme. Fascist Japan hovers on the edge of overwhelming economic collapse and the distress in present-day Italy is beginning to disturb even Mussolini. If the capitalists elect to excite fascist patriotism then they must accept economic nationalism with its consequences of a general fall in the standard of living, and ultimately a revival of the discontent that was temporarily smothered.

Sooner or later the economic bankruptcy of fascism will present the socialists with fresh opportunities to make their great experiment. It is to be hoped that by then they will have decided upon forms of economic organisation that include freedom of choice for the consumer and that will therefore call for the use of money.

To-day the economic plans of socialism have been disastrously distorted by a mistaken apprehension of the true defects of the capitalist economic machine. The majority of socialists impute to the market and to competition the waste and dislocation that has, in fact, been generated solely by a particular monetary system and by State-encouraged attempts to ignore the market and to eliminate competition. Armed with this erroneous interpretation present-day socialists have become advocates of an economic authoritarianism which, if achieved, must vitiate that political liberty which is the prime concern of all true socialists. State-trusts, functional parliaments, and five-year plans can have no other end but to leave the citizen

impotent in those fields where the need for freedom is most urgent. The average man's life is, and will for a long time, be spent in producing and consuming goods, and if he is deprived of freedom in these two contexts then socialism becomes futile.

The ideals of democracy are as valid in economic life as in political life, and the essence of such democracy is that the opinions, desires and experience of all members of society shall contribute with equal weight, in the one case, to the formulation of political and social policy, and, in the other, to the utilisation of the community's economic resources. If this is so, then economic democracy can only mean that production must take its bearings from the freely expressed consumptive desires of the whole body of citizens; in short, that industry must cater for demands that are multitudinous, anonymous and volatile.

This, and not workers' control of industry or industrial parliaments, is true economic liberty. It is the counterpart in economic affairs of universal suffrage in politics. It is, of course, impossible of attainment in a capitalist society, since universal economic suffrage can only be real in a society where all incomes are equal; such a state of affairs will, presumably, be the first achievement of a socialist society, and then free consumers' choice will acquire a moral validity that it entirely lacks to-day.

If this is the path that socialism takes then the

new order will require to use money. It will need an international medium of exchange and a unit of account. And, just as to-day, money will tend, unless its effective supply is kept constantly rigid, to disturb economic life and to produce booms and depressions. It will, probably, be as difficult to neutralise money completely in a socialist state as in capitalist state, but the monetary causes of industrial fluctuations can be almost eliminated by a change that is unthinkable to-day: a socialist economy can dispense with banks entirely.

We have seen that the significant changes in the supply of money are caused by the normal behaviour of banks since they are in a position to lend to producers more than the community has saved. This fatal weakness can be avoided in a socialist state by making the state budget the only source of loans and by insisting that this budget always balances. Given these two conditions money can cease to be a faulty, chaos-creating mechanism and become an almost perfect instrument for the efficient handling of the economic problem. It can never be this in a capitalist economy.

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