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TOWARDS A MANAGED MONETARY SYSTEM

By W. G. CRAIG, F.I.A., F.F.A.

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It is now widely recognized that the future must see far-reaching changes in our monetary system, and that these changes must be in the direction of a conscious and planned management, as distinct from leaving the system to be regulated in a more or less automatic manner by factors which reflect and are governed by international conditions; that the monetary system should in fact be made to serve and not govern the requirements of the economic system.

This changed view of the function of the monetary system is probably mainly the result of two economic phenomena which were witnessed in the ten years preceding the war.

The first of these was the immediate result of the great industrial depression, viz. the spectacle of the two wealthiest countries in the world, the United States and Great Britain, each with a highly developed productive capacity and a highly skilled population, each possessing vast resources of international currency or of foreign investments which represented the ability to purchase the products of other countries, and each with free access to markets in other countries which were overstocked with all manner of foodstuffs and raw materials—yet each in a state of acute economic depression with a large part of its population suffering from inadequate employment and want, because its monetary system proved inadequate to the task of circulating the superabundant commodities to the necessary extent, either between countries or within its own borders.

The second of these was the spectacle of other countries, such as Germany, also with a highly developed productive capacity, but with relatively small resources of international money in any form, which yet contrived to attain a high level of production and internal circulation of commodities by means of an efficient control and regulation of its monetary system. It is true that a considerable part of such production was devoted to military purposes, but nevertheless the production was achieved without the inflationary results which have in the past been associated with currency management not related to a metallic basis, and it provided a demonstration of the manner in which the monetary system could be made to serve economic requirements.

These and other experiences of the pre-war and war periods have led to the conviction that effective regulation of the monetary system in the interest of national production is not only practicable but is essential if a repetition of the past economic collapse is to be avoided.

It would thus seem that we are at the beginning of a new era in monetary science, that the old era of national monetary systems linked with one another and regulated simply and automatically by a common metallic basis is ended, and that the new era must be one of deliberate regulation, involving the use of a new technique and operating by means which are as yet untried and as to the effects of which experience is yet lacking.

The possibilities opened up by a conscious control of the economic system are great. It might form the basis of a great revival in the economic progress of this country: on the other hand, it might operate in such a manner as to engender economic stagnation, resulting in an acceleration of national decay. In these circumstances it is desirable that there should be the widest possible consideration and discussion of the new developments. This question should, moreover, be of peculiar interest to actuaries, not only on account of possible effects on investment conditions and on the future rate of interest, but also on account of the nature of the statistics which may be required, and with which they may at some time be called upon to deal. It seems appropriate therefore, that their attention should be directed at this stage to the means which may be utilized in the regulation of the monetary system, and to certain effects which may follow the use of these means.

WHAT IS A MANAGED MONETARY SYSTEM?

The description of a managed currency or monetary system may be applied to anything from a regulation of the volume of available currency or credit through manipulation of the extent of the monetary basis, to a complete control of the entire industrial and distributive system.

It may be said that we have had a managed monetary system in this country for many years in that, since the abandonment of the gold standard, it has been the custom for the Government to make, from time to time, arbitrary adjustments in the amount of the fiduciary note issue or in other factors in the credit basis in accordance with the requirements of the monetary position at the particular time.

The events of the decade immediately preceding the war showed clearly, however, that in a modern complex credit structure a system of regulation which operates only through the credit basis is too indirect and slow in operation to be effective, particularly in conditions of economic depression, when the effective demand for credit is greatly reduced, and that a more efficient system of monetary regulation is necessary if recurrent periods of economic depression and distress are to be avoided.

The problem of the efficient regulation of the monetary system would be a relatively simple one if the Government continued to exercise the far-reaching control of the national industry which it has done under war conditions. The question of monetary management would then become one of simply providing a supply of money adequate for the industrial policy which was being pursued. Even if the Government retained a direct control over certain industries or branches of industry, the problem would be simplified, as the Government would be in a position to expand or contract production over the controlled field, thus exercising a direct effect upon the volume of effective purchasing power.

There are, however, various objections which are commonly advanced to the State's entering directly into the field of productive industry: that it would involve, in effect, subsidized State competition with private enterprise; that the spread of State control over industry might place the economic system too much at the mercy of a political party or policy; that, if directed solely to producing a state of full employment, it might result merely in subsidizing inefficient methods and the creation of monopolies. For the purposes of the present consideration of methods of regulation, it is assumed in the first place, that these are confined to purely monetary measures combined with Government capital expenditure of the public works type for purposes which are normally regarded as belonging to the field of Government enterprise.

Assuming, therefore, that after the war the national industry in general reverts to private ownership and control, the Government taking no direct part in production other than in such forms as represent essential services of a national character, the problem of regulating the national economy becomes considerably more difficult. The proportion of the entire economy over which the Government exercises direct control is then much smaller, and the other means of regulation available are less direct in operation, and therefore slower and less effective in their results.

Even under these conditions, however, there are various ways in which the Government could exercise a considerable measure of control, both over the amount of money available for use—either for increasing the production or the circulation of goods and services—and over the manner in which that money is utilized.

In the first place it could, as in the past, vary the extent of the credit basis and the volume of credit which is available for new enterprise and production; secondly, it could by its taxation policy encourage or discourage new industrial expenditure in various ways, such as by special tax provisions in the case of sums spent on renewals and extensions of plant, etc.; thirdly, it could vary from year to year the amounts which it spent on national works of a capital nature such as road schemes; fourthly, it could abandon the principle of a Budget balanced annually, and reduce taxation in times of contracting trade, thus leaving more money in the hands of the public for the circulation of goods and services—the resulting Budget deficit being financed by borrowing—and reverse the process when a contractive correction became necessary.

It is clear that by means such as these, the Government could exercise a very great influence in various directions over the industrial and monetary position of the country without taking any direct part in industrial production. In the past, a position in which regulation of the monetary system was entirely in the hands of the Government has been regarded as a somewhat dangerous one, in that the power of regulation would tend to be exercised for political rather than for economic ends, with possibly disastrous results to the position of the country. Indeed, one of the advantages of the gold standard was considered to be the supposedly automatic manner of its operation, regulating the supply of money according to requirements without management or control by any authority or Government.

If, however, management of the monetary system is held to be necessary, the authority performing that function must be given adequate power of regulating it to the extent necessary to ensure the desired degree of stability, and even under a managed system certain of the features and advantages of an automatic system could be preserved.

Thus, under a managed system, a specified measure of the object of the management might be fixed, and the powers of the managing authority limited to attaining that object. Under present-day conditions, we have statistical measures of many aspects of the industrial position, such as the general level of prices, the state of unemployment, of industrial activity, etc. One of these criteria might be adopted as the measure of economic well-being, say a given index price level, and the management restricted to the maintenance of that level, by being obliged to adopt an expansionary monetary policy by the defined means if the index of prices fell below the stabilization point, and a policy of contraction if the index rose above that point.

It would appear, therefore, that, so far as the actual machinery of management is concerned, means already exist whereby the Government, or other authority, could exercise the necessary degree of regulation of the monetary system without either taking any direct part in productive industry or making any fundamental changes in the character or operation of our existing financial system; further, that the management could, if desired, operate in such a manner as to retain many of the advantages of an automatic system.

FULL EMPLOYMENT AS AN OBJECT OF MONETARY MANAGEMENT

Presumably the general object of monetary management is to facilitate the increase of the national income and, through its equitable distribution, the improvement of the general standard of living, and further to stabilize these conditions by the elimination as far as possible of recurrent booms and depressions.

In practice, it will probably be found convenient, as suggested above, to relate the monetary control to some criterion of the economic position, such as the amount of the national income, an index of industrial activity, the level of prices, or the state of employment.

So far as this country is concerned, the measure of the economic position to be adopted would appear to be already decided. The Government is committed to a policy of maintaining a high and stable level of employment, and monetary management must necessarily be one of the principal means used in achieving that object. The question therefore arises, first, of the nature and extent of the regulation of the monetary system which would be required to maintain such a state of full employment, and second, of the effects of the necessary regulation on the economic system generally, and in particular, whether the state of employment is the best criterion to adopt.

As regards the nature of the necessary regulation, the methods which the Government propose to adopt with the object of maintaining the total national expenditure at a level which would ensure an adequate volume of employment are stated in the recent White Paper on employment policy (Cmd. 6527); these are briefly as follows:

(*a*) Variation of the rate of interest, tax concessions, and other measures directed towards influencing private concerns to regulate their capital expenditure in accordance with the requirements of the policy;

(*b*) Advance planning of public capital expenditure by the Government, local authorities and public utilities so as to off-set deficiencies in the volume or timing of private capital expenditure;

(*c*) Variation of the rate of social insurance contributions with a view to influencing the volume of consumption expenditure—reducing the rate of contributions as unemployment increases and increasing it as unemployment decreases.

Consideration is also being given to the question of varying the rates of taxation—by a system of deferred credits or otherwise—and of regulating public purchases of consumer goods, and also hire-purchase transactions, according to the state of trade.

The means of regulation which are proposed, or which are available, without direct participation by the State in industry, may therefore be said to be of three types:

(1) Those which indirectly encourage or discourage new enterprise and production, e.g. variations of the volume of available credit and of the rate of interest, special tax provisions in respect of capital expenditure, etc.

(2) Those which operate indirectly on consumption, and, through this, increase or decrease the demand for labour and goods; in this category would be included variations of the rates of direct and indirect taxation and the creation of Budgetary deficiencies or surpluses as a means of monetary expansion or contraction, variations of the rate of social insurance contributions, etc.

(3) Those which operate directly on the demand for labour and goods, such as direct Government and local authority expenditure on all kinds of public works.

Of these three classes of regulation, it will be seen that only class (3) reacts directly and immediately upon employment. Except in conditions such as are likely to prevail immediately after the war, when there will be great arrears of public works—such as housing and road schemes—to be overtaken, it seems unlikely that schemes of this type would of themselves be sufficient to exercise any pronounced effect on the employment position. It is true that the expenditure involved would, by increasing consumption, exercise an indirect effect on the general position which might possibly be almost as great as the direct effect. Even so, however, the scope for such unproductive work in normal times would represent a small part of the capital expenditure which the country would require under conditions of active production, and it seems unlikely that expenditure of this type could exercise other than a subsidiary effect, either in creating employment in times of depression or in releasing labour in times of over-expansion.

Regulation of the class (2) type would not act directly upon employment—or necessarily even upon consumption. A state of under-consumption, however, is seldom the result of voluntary action on the part of consumers, and an increase in the purchasing power in the hands of consumers through a reduction in the amount taken from them as taxpayers would almost certainly result in an immediate increase in consumption. The effect on employment might be of a delayed nature, particularly in times of excessive stocks of commodities; but subject to a certain time-lag the effect on consumption must react sooner or later on employment. Moreover, in the conditions likely to prevail in the future as regards the proportion of taxpayers to population and the proportion of the national income taken in taxes, the width of the field over which this method of regulation could be operated and the extent to which it could be applied would provide a means by which a relatively large and rapid monetary expansion or contraction could be exercised.

Regulation of the class (1) type is the most indirect and slow in action of all, as it merely facilitates and does not induce the desired adjustment in the monetary system. This was demonstrated in the great industrial depression, when a prolonged expansion of the volume of credit was carried out—with a corresponding fall in the rate of interest—without exercising any considerable effect upon industrial activity and employment. Indeed, the nature of the conditions tends strongly to restrict the efficiency of this type of regulation, as it is precisely in conditions of contracting trade and falling prices that there is least inducement to make use of additional credit for new production, whatever the facilities may be for obtaining such credit. It would seem therefore, that measures of this type cannot be regarded as a primary means of regulation, but rather as a subsidiary means of extending the effect of other methods operating more directly upon employment, and that in actual practice any regulating authority would be mainly dependent upon the methods of classes (2) and (3).

As regards the extent of the regulation which may be necessary, it appears to be now regarded as a generally accepted principle that industrial activity falls when the new investment of the country as a whole falls short of the national savings; it follows that to ensure a state of full employment monetary regulation would require to provide for the investment—whether on productive or unproductive purposes—of an amount equal to that of the national savings under a state of full employment. As the part of the national income which is not saved is already engaged in circulating a corresponding part of the available labour in some form or other, this principle seems merely another way of saying that enough money must be provided to circulate all available labour at a given level of prices.

The proportion of the total labour supply which would normally be engaged in fulfilling the demand created by current consumption will depend upon the proportion of the national income devoted to consumption, and this, in turn, will depend largely upon the manner in which the national income is spread over all classes—the more evenly it is distributed the greater will tend to be the proportion devoted to current consumption, and the less will be the proportion of savings the expenditure of which would require to be ensured by monetary management. The maintenance of equality between 'savings' and 'investment' can, therefore, be achieved by operating either on the national savings or the national investment: the more savings are reduced, the less is the amount for which investment must be provided.

Of the three types of regulation dealt with it will be seen that (1) and (3) operate on the amount invested, while (2), which has the effect of increasing or decreasing the proportion of the national income devoted to current consumption, operates upon savings.

It is to be noted, however, that while type (3), expenditure on public works, represents investment in that it is capital expenditure to increase national amenities and welfare, it is not investment in the productive sense that it results directly in the increased production of consumable goods; and from the point of view of the relation between the supply of and the demand for consumable goods, it cannot be regarded as productive investment, and its effect will be similar to type (2) in that it will increase current consumption in a greater degree than production and diminish the amount to be invested productively.

The only method of regulation, therefore, which operates in the direction of increasing productive investment is type (1), and, as has been seen, this is the least direct and least effective method of all, as it merely facilitates and does not compel the required adjustment in conditions. Further, the two more direct and effective methods of regulation will tend to discourage the operation of type (1), owing to their effect in increasing wages and costs of production.

It has been estimated that, in the years immediately prior to the war, the amount of investment expenditure which would have been necessary to maintain full employment would have been approximately £1200 millions per annum, whereas the amount actually expended on capital goods was about £900 millions per annum. Under similar conditions, therefore, a management authority would be faced with either making or inducing an additional expenditure of about £300 millions per annum in order to maintain a state of full employment.

This expenditure could be carried out, either by providing for increased consumption and so diminishing savings, or by increasing investment expenditure for either productive or unproductive purposes. It seems clear, however, that, unless there were great arrears of public works, it would be extremely difficult, without direct participation in industry, to provide for increased expenditure of this magnitude on capital works of a national character, and, in order to maintain a state of full employment, the managing authority would almost inevitably be compelled to resort to the creation of Budgetary deficits on a considerable scale to provide the necessary monetary expansion.

THE EFFECT OF A FULL EMPLOYMENT POLICY

It is suggested in the foregoing that monetary management, if it is to react quickly upon employment, must operate, in its primary stages at least, by increasing consumption. The secondary effect will be that the increase in consumption will stimulate production through increasing prices, but the effect of operating by means of consumption must always be that the effective demand for consumable goods is increased in a greater degree than the supply, and that, except in times of acute depression and redundant stocks of commodities, the stimulus to production must come through an increase in prices.

This increase in consumption and prices will have the effect of a double stimulus to the country's imports. The increase in prices will tend, in the normal course of trade, to encourage imports generally, and at the same time the wider distribution of purchasing power will of itself result in a greater consumption of various classes of foodstuffs and other commodities which cannot be produced in this country and which can only be supplied by means of increased imports. Further, the increased demands on labour (including the less efficient types), together with the increase in prices, must result in increased costs of industrial production, thus hampering our competitive ability in international markets and injuring our export trade. These factors thus all operate in the same direction, viz. that of increasing our imports and reducing exports, with, in all cases, an adverse effect on our international trade position.

It is of course possible that these adverse influences might be offset to some extent by new developments, such as greater technical progress in methods of production in this country than in others, or a considerable increase in the world volume of international trade. Failing such developments, of which there is yet no concrete evidence, it is clear that the resulting disturbance of the national balance of payments would inevitably present the same problem as similar conditions have done in the past. Either we should have to revert to the policy of trade restriction by means of tariffs, quotas, etc., which had such calamitous results in the decade before the war, or else the international value of our currency would have to be allowed to depreciate.

By adopting the latter alternative, a restrictive effect would be exercised upon imports and a stimulus given to exports, which would operate progressively as our currency became cheaper in terms of other currencies, until a lower exchange level was reached at which a balance of international payments was once more established. The effect of this lower level of our currency, however, would be similar to, and supplementary to that of an increase in internal prices. The increased imports would cost a higher price in terms of our currency, which would again react upon production costs, with the result that a given amount of our production would exchange for a less amount of that of other countries.

In either case, whether the amount of imports was curtailed by import restriction or by exchange depreciation, the result would be the same in that the total available amount of consumable commodities would be reduced and would cost more in terms of productive effort, and the general standard of living of the country as a whole would be correspondingly lowered.

It does not follow that the standard of living of the entire community would be immediately reduced. That of the section for which employment—and a considerable increase in purchasing power—had been provided, would be increased, but the effect of achieving this increase by means of an artificial stimulus to consumption is that it is achieved partly at the expense of a reduction in the case of the other sections of the community. This encroachment on existing standards would almost certainly be countered by demands for wage increases to maintain existing standards, particularly on the part of the more productive and the better organized classes of labour. This would lead to further increases in prices and costs, reacting again on the exchange position, and causing a 'vicious spiral' of costs and prices which might ultimately result in the last state of employment being worse than the first and in a condition being reached in which the enforced restriction of imports, or their increasing cost, would bring about a greater degree of want than existed before the introduction of the measures to abolish it.

It would thus seem that regulation of the monetary system towards the maintenance of full employment, by means which involve no measure of control over productive industry on the part of the regulating authority, is likely to result in a decrease in the economic efficiency of production, a deterioration in our international position, and a lowering of, or at least a check to any improvement in, the general standard of living. Any method of regulation which increases purchasing power without ensuring a corresponding increase in the production of, or the capacity to produce, goods must have this effect, as such regulation would tend to equate 'savings' and 'investment' by diminishing the former and thus reducing the amount devoted to maintaining and developing the national productive capacity.

It is to be noted also that schemes of improved social security will tend to accentuate these features: the effect will be to distribute the national income more evenly, to increase consumption in relation to production still further, and to reduce the savings available to increase productive efficiency.

These considerations in no way affect the question of the necessity to secure increased social security and greater stability of employment: it is now generally accepted that it is essential (*a*) that a reasonable standard of subsistence or means of consumption should be provided for all those whose productive capacity is, for any reason, inadequate to provide this for themselves, (*b*) that none should be denied employment of their productive capacity through defects in the economic or monetary system. A state of relatively full employment is, however, only of benefit to the country so long as it is not achieved at the cost of a reduction in the fruits of employment and a lowering of the general standard of living. It must also be remembered that national amenities, whether of the nature of improved housing, education, or social provisions of any kind, represent a charge on the national production on which economic progress and a continued improvement in living standards ultimately depend, and the real problem with which the country is faced is how the desired improvement in conditions can be achieved without the risk of injurious effects to the future of the country which might well render entirely illusory the benefits it is desired to secure.

PRODUCTION THE REAL OBJECT OF MONETARY MANAGEMENT

To avoid the danger of the creation of full employment resulting in a 'vicious spiral' of increasing real costs and deteriorating living standards, it seems essential that the regulation of the economic system should ensure that not only the volume of production, but also the efficiency of production in relation to that of other countries, be maintained in order that the imports which are a vital factor in our living standard may be obtained without involving a considerable increase in cost.

If this is to be achieved, it seems clear that the monetary regulation would require to ensure, not only that equality be maintained between savings and investment, but also that both be maintained at a level adequate to provide for the capital equipment of the country being kept constantly in a state which would permit of the maximum degree of progress in the economic production of commodities, and further that this level be kept relatively stable. If the amount saved and invested were to fall below the level necessary to maintain the most economic production, the unnecessarily high cost of commodities would react on the standard of living which might otherwise be attained, while, on the other hand, if savings and investments were in excess of the amount which could be employed economically, current consumption would be curtailed unnecessarily.

It is difficult to see how these conditions can be secured solely by means of what is described in this paper as monetary management. It would seem that the regulating authority would require to exercise a certain measure of control over industrial development in order to ensure that the national savings were invested productively, and for this purpose it would be necessary for the authority to be in a position to determine the amount of the national income which it was desirable to save and invest in relation to the existing state of industrial development of the country, i.e. the level at which savings and investment should be stabilized. In other words, if economic progress is to be maintained as the necessary basis for a steadily increasing general standard of living, it is essential that the management of the monetary system should be related primarily to a definite production policy leading up to the fullest productive employment. The mere provision of employment as an end in itself should be restricted to the case of such unemployment as might remain after the maximum employment of labour in economic production had been assured.

The general lines which such a policy of production should follow in the case of this country seem clear.

The general standard of living can only be raised—or indeed can only be maintained if consumption is to be distributed more evenly—if a greater volume of commodities per worker can be not only produced, but circulated, and this circulation depends upon their being produced at a cost comparable with that in other countries, as we require to sell an increased amount of our production to other countries in order to pay for the increased imports of foodstuffs, and other commodities, which an increase in our living standard—or a better distribution of our existing standard—would require.

With this governing consideration in view, there are two dominating factors which any production policy for this country will require to take into account: (1) the vital necessity of an increased volume of exports to pay for the imports on which the maintenance and improvement of our standard of living depends, and (2) the fact that many other countries, with a lower standard of living, are now producing to an increasing extent commodities of a manufactured nature which were formerly imported from this country.

As regards (1), it is widely recognized that, even to maintain our pre-war standard of living, a considerable increase in exports over the pre-war volume will be required. Before the war, of the total payments due to this country—amounting to about £900 millions per annum—only about £550 millions was represented by actual exports, the remainder being accounted for by 'invisible' exports, of which the principal items were interest payments on our investments abroad amounting to about £200 millions, and our shipping earnings which accounted for over £100 millions; these two sources alone provided over one-third of the total. During the war, we have sold about £1000 millions of our pre-war investments abroad and incurred external debts which it is estimated will amount to £3,000 millions by the end of 1944, while our shipping tonnage has not only been considerably reduced, but will represent a much smaller proportion of world tonnage than it did before the war.

Future developments may mitigate the adverse effect of certain of these factors, but it is clear that the bare re-establishment of our pre-war import position will necessitate an increase in the volume of our exports of well over 50%. Moreover, the necessity for imports is not confined to the bare attainment of our pre-war position, which in itself reflected a period of widespread economic nationalism, self-sufficiency, and restriction of imports. If we are to provide for the increased consumption which the desired betterment of conditions will entail, it seems likely that an increase in exports to approximately double the pre-war volume will be necessary. Such an increase can only be attained and maintained, after the period of world re-equipment which will be necessary after the war, by concentrating on the more valuable forms of production and so increasing the value of our production per worker, by exporting the maximum amount of this class of production for which the current position of world development affords scope, and by importing to the greatest extent which our exchange position permits such commodities as can be produced more cheaply abroad, even though it might be possible to produce them in this country.

As regards (2), the spread of industrialism which has been going on for many decades, and which received a considerable impetus as a result of the last war, will undoubtedly be further accentuated after this war. The time when this country was 'the workshop of the world' is definitely past: the development of mechanization has facilitated many forms of manufacture, and the mechanization of war has increased the importance of industrialization to such a degree that a steadily increasing number of countries are becoming industrialized to an ever greater extent. The future will undoubtedly see many of the highly populated countries of the world, which in the past have provided a market for the industrial products of this country, producing many of these products themselves, and, because of their lower standard of living, producing them at a cost with which a relatively 'high standard' country such as this cannot compete, either in foreign markets, or (without protection) in its home market.

Such is the position with which this country will undoubtedly be faced in the future. Attempts to maintain our exchange position by any form of so-called protection, whether against 'unfair competition' or 'dumping', or on any other popular excuse, will only serve to restrict improvement in our standard of living, because they will contract the market for our exports abroad and lead to unnecessarily high costs of consumable commodities in this country.

The process of industrialization, however, while restricting markets in certain directions increases markets and creates new markets in other directions.

This occurs in two ways. First, in the early stages of industrialization, a country normally commences production of the simpler types of consumable commodities by mechanical means, thus giving rise to imports of the necessary machinery, e.g. a country commencing production of textiles creates a market for textile machinery; further, industrial processes are constantly evolving, always in the direction of increased mechanization involving the use of newer and more elaborate machines, with the result that the market for new or improved machinery is always there. Second, industrialization normally involves a rise in the general living standard of a country, thus creating new markets for primary and industrial products of types which are not produced within the consuming country.

In conditions of spreading industrialism among countries with a lower standard of living it would, therefore, seem that this country can only maintain its relatively higher standard by concentrating to an increasing extent upon those forms of production which are the natural products of the more advanced stages of industrialization, and which therefore represent the higher value in terms of labour—such as the more evolved types of capital goods, equipment and machinery, or commodities which involve the use of these in a high degree in their production. Any attempt to maintain production of the less valuable types by artificial means such as illusory forms of 'protection' (which in reality merely protect some particular interest at the expense of the community) can only result in restricting improvement in the general standard of living.

Whatever form of policy is adopted, however, it appears essential that any management of the monetary system should be based on some definite production policy and not simply on the creation of employment as an end in itself, if we are to avoid the risk of setting in motion influences which might have a far-reaching and disastrous effect on the future national and international position of this country.

Such a policy would inevitably involve a certain measure of planning and of direct or indirect control over some classes of industry; it would also involve a certain amount of research and the creation of a statistical machine designed, not merely to facilitate the equalization of savings and investment, but to show up the types of production best suited to increase to the maximum extent the real national income of the country in the existing stage of world development, and also to afford a basis for determining the level at which both savings and investment should be maintained. The alternative to such a policy would seem to be a continued misuse of our productive resources in experience and skill, and a solution of the problem of the prevention of want by a process of levelling down rather than levelling up the national standard of living.

At the same time, it must be recognized that no national policy to abolish want, to provide useful employment, or to raise living standards, can be fully effective without international conditions which will permit of a greater volume of international trade than has ever been attained in the past. When the dislocation caused by the war is over, the productive capacity of the world will be considerably greater than ever before, and, unless the resulting production can be circulated, any general and permanent betterment of economic conditions will be impossible. This increased circulation of commodities may well necessitate the formation of the larger economic units which the present position of world developments appears to demand: it will require at least (1) the establishment of a more satisfactory international monetary system capable of providing a form of international currency which will not be subject to adverse effects resulting from internal conditions in any individual country to the same extent as in the past, and (2) that the governments of the principal countries—particularly of the creditor countries—recognize by more practical measures than verbal statements the necessity of reducing artificial restrictions to international trade.

CONCLUSIONS

The conclusions to which the foregoing considerations lead are briefly as follows:

I. That means already exist by which the Government could exercise a considerable degree of regulation of the monetary system without altering the existing machinery of that system, and that such regulation could if desired be designed to operate in an automatic manner.

II. That if the primary object of monetary management is to be the maintenance of a high and stable level of employment, the principal means by which the regulation is likely to operate is the stimulation of consumption in a greater degree than the production of consumable goods.

III. That the result of this must be to injure the country's international exchange position, increase the real cost of essential imports and lower, or at least retard any improvement in, the general standard of living; further, that schemes of improved social security by means of a redistribution of the national income must accentuate these effects.

IV. That if these effects are to be avoided, it is essential that the monetary regulation should be related to a definite production policy aimed at increasing not only the volume of production in relation to consumption, but also the efficiency of production in relation to that of other countries.

V. That such a production policy in the case of this country should be based on increased production of capital goods and equipment, or on manufactures the production of which involves the use of plant to an extent large in relation to the use of labour.

ABSTRACT OF THE DISCUSSION

Mr F. W. Bacon, in opening the discussion, said that the paper represented something of an innovation, and an innovation which he was sure they would all heartily welcome. It was not the first time that the Institute had discussed economic questions, but hitherto discussion had tended to be confined to the bearing of economic developments on their own professional work. The author had invited them to forget their own problems for a moment, and to devote their attention to the general economic framework within which those problems had to be solved.

Up to about fifteen years ago, actuaries could and did take the economic framework for granted, as something which lay outside the sphere of their discussions. That was not simply because they did not feel qualified to discuss it, but rather because the general consensus of opinion at the time was that the best results would automatically be achieved by abstaining from interference with the free play of economic forces. There had been individual economic problems to be solved, but no economic problem as a whole. Opinion in that respect had undergone a remarkable change in recent years, partly as a result of the developments of economic theory, and partly as the result of experience. Automatic economic progress was no longer taken for granted, and it was widely recognized that its pursuance had to be a matter of public policy. That view had been recognized in the White Paper on employment policy, where for the first time the Government explicitly 'accepts as one of their primary aims and responsibilities the maintenance of a high and stable level of employment after the war'. The proper framing of policy to deal with the problem would require the best ability and experience which the country possessed, and success would, in the words of the White Paper, 'ultimately depend on the understanding and support of the community as a whole'. He felt that actuaries, priding themselves as they did on the value of their particular training, had their part to play in helping to mould and carry out the requisite policy.

The author had applied the description 'managed currency or monetary system' to anything from the regulation of the volume of money to the complete control of the economic system. That was a wide definition, and it might be helpful to trace briefly the way in which the conception of monetary management had evolved.

Before the last war, the concept was comparatively simple. Monetary control was the function of the Bank of England, and it was directed primarily to one objective, namely the maintenance of the external value of sterling, which, since Britain was on the gold standard, meant maintaining its gold value. Broadly speaking, the Bank had one simple criterion, the fluctuations in its gold stock, and one principal weapon with which to enforce its wishes, the Bank rate. Thus, monetary control at the time could have been said to be virtually automatic. Since the volume of currency and credit was also regulated by the size of the Bank's gold stock, internal monetary conditions could not be separately controlled, but were automatically made subservient to the need for maintaining the external value of sterling. After the last war, monetary policy was directed first to returning to, and then to maintaining, the gold standard at the old parity. The flexibility of control was increased by the development of the technique of open-market operations. After the abandonment of the gold standard in 1931, the old objective of maintaining the stability of the exchanges still remained, although sterling was no longer tied to gold. More important, a new objective emerged, which could perhaps best be described as the maintenance of 'cheap money'. Initially, he suggested, that was desired mainly because it enabled the Government to reduce its debt charges, but increasing emphasis was laid subsequently on its value as a stimulus to trade and employment. The significant thing was that by the device of the Exchange Equalization Account the control of internal monetary conditions was to a considerable extent made independent of external conditions, and so an internal monetary policy was made possible. The main weapon in maintaining 'cheap money' was the provision of an ample supply of credit so that the 'weight of money' should force down interest rates. That, however, was not the only weapon. It was supplemented by the deliberate regulation of Corporation issues and conversions with a view to keeping down interest rates by preventing congestion in the gilt-edged market.

For the post-war period, as the author had pointed out, the aim of internal policy had widened from 'cheap money' to 'the maintenance of a high and stable level of employment'. Furthermore, in comparison with that aim, the maintenance of the stability of the external value of the currency became a secondary consideration, although an important one. It was to be noted that the policy involved a complete reversal of the earlier practice of making the stability of the exchanges of primary importance and of leaving the internal position of the country to adapt itself to the correctives applied. As a result, economic policy had passed beyond the purely monetary sphere and had become a matter for the Government rather than for the Bank of England. Monetary control would in future be one, albeit a highly important one, of a whole series of measures designed to carry out the economic policy of the Government. It would be a means to an end, rather than the end itself.

He was not sure how far the author would accept that view, but if it were accepted that monetary management in the future would be a part of, and subservient to, general Government policy, any automatic method of operation would appear to be excluded. In any event, as soon as there were two or more objectives which might conflict (as, for instance, the maintenance of full employment at home, and of a stable exchange value for sterling), or more than one method of regulation, so that there was a choice of different combinations of methods, then it seemed that an automatic system of regulation was no longer feasible.

In his analysis of the White Paper proposals, the author had divided the measures suggested into three classes. Those in the first class, which indirectly influenced employment through their effect on investment, were considered by the author as likely to be too slow and indirect to be decisive. With that view he agreed, although he thought that the author had underestimated the effect of 'cheap money' in stimulating industrial recovery in the 1930's. That, however, was partly due to the fact that interest rates in the 1920's had been abnormally high, and it was doubtful whether a reduction in interest rates from the current level would have the same effect. It was also necessary to bear in mind that a contraction of the volume of credit could have decisive effects on the level of employment and activity; in other words, cheap and sufficiently plentiful money, though by no means the only factor involved, was certainly a *sine qua non* of a full employment policy. Nor had the author much faith in class (3), which consisted of measures involving a direct demand for labour by public authorities. The reason given was that, once the abnormal demands of the immediate post-war period had been met, the scope for public expenditure of that type would be too limited to be effective. He found it difficult to accept that argument. In his Appendix to Sir William Beveridge's recent book, *Full Employment in a Free Society*, N. Kaldor had estimated that full employment in 1938 would have increased the national income by £500 millions, and that it could have been secured by an increase in public expenditure, if financed by loans, of £290 millions. Actual public expenditure in 1938 on goods and services (i.e. expenditure involving a direct demand for labour) was £837 millions, so that the required increase would have been just over one-third.

The author had treated class (3) as if it were all expenditure on investment, but from the point of view of promoting employment it did not matter whether the extra public expenditure was spent on consumption goods or on capital goods. Nevertheless, he agreed with the author that so long as regulation of the class (3) type was limited to varying public investment to offset opposite variations in private investment (which was what the White Paper appeared to contemplate), then it was not likely to be effective, for two reasons. First, a large part of public investment could not be varied in the manner suggested, since it was, to quote the White Paper's own words, 'dictated by urgent public needs, the satisfaction of which cannot readily be postponed to serve the purposes of employment policy'; secondly, the offsetting of fluctuations in private investment was only one part of the problem. The other, and in some respects the more important, part was to avoid the chronic under-utilization of resources, which had characterized the inter-war period, by an appropriate expansion in total effective demand. A policy of expanding public investment, as distinct from varying it, did not appear to be contemplated in the White Paper.

He wished to protest against the author's characterization of expenditure on national amenities and welfare as 'unproductive'. Surely, even from the narrow point of view of increasing the national income, it was just as important to improve the efficiency of human resources through better housing, education and social security, as it was to improve the efficiency of mechanical equipment.

The author considered that the most potent, and therefore the most promising, methods were those of class (2), which operated indirectly on consumption, a prospect which the author viewed with some alarm. But the only measure of that type specifically proposed by the White Paper was the variation in social insurance contributions, and it was not claimed that the reduction in contributions would do more than reduce 'by about a quarter' the fall in aggregate demand brought about by an increase in unemployment.

The author had objected to methods of that type on two grounds, one of which was that they would equate 'savings' and 'investment' by diminishing 'savings'. He thought that the author accepted the general contention of the White Paper that unemployment was the result of a deficiency in total effective demand (i.e. in the community's total expenditure on goods and services), and his argument appeared to be that the deficiency could be made good by increasing expenditure either on investment (i.e., broadly speaking, on means of production) or on consumption. The latter course would diminish savings and so, presumably, would diminish investment. If that were indeed the argument, it seemed to him that it was only valid under conditions where full employment already obtained. If all productive resources were fully employed, then it was true that the proportion of resources devoted to producing means of production could only be increased by cutting down the proportion devoted to consumption goods, and vice versa. The situation with which they were concerned, however, was precisely the one where productive resources were not fully employed, so that it was physically possible to increase the production of both types of goods. In those circumstances, consumption and investment were complementary, not alternative. An increase in investment expenditure would increase employment and the amount paid out in wages, and hence the demand for consumption goods. Alternatively, an increase in the demand for consumption goods would not only bring into use idle productive resources in the consumption goods industries; it would also tend to increase new investment, since the demand for means of production was derived from the demand for the consumption goods which they were intended ultimately to produce. It followed that, given unemployment, an increase in expenditure would increase both consumption and investment, irrespective of which it was initially spent on, and, by increasing total incomes, would also increase the total of savings. It was true that the proportions in which the two were increased would be affected by the form of the initial expenditure, and there was room for argument as to the proportions which were desirable, but the important point was that consumption, investment and savings would all be increased absolutely over their previous level. It seemed to him, therefore, that the first of the author's objections failed.

The other objection was that the use of methods of the class (2) type would increase consumption in relation to the production of consumable goods, which would increase their price and adversely affect the balance of payments. That, again, seemed to be valid only in a situation of full, or nearly full, employment. It was true that, since goods took time to produce, there was an interval between an increase in demand and the corresponding increase in the supply of goods, during which the increased demand would have to be met out of stocks. That was the only sense in which consumption could be said to increase in relation to production, and it was an inevitable result of any revival of trade activity, however induced. Nor need prices be increased until the stage of shortages of labour or materials, at least in particular lines, was reached; in fact, an expansion in production might result in a reduction in the cost of production per unit. He agreed that an increase in the national income was likely to raise the demand for imports, but that again was inevitable, however the increase was brought about. In fact, it might be argued that a policy which aimed at a maximum expansion of capital goods and a minimum expansion in the immediate production of consumption goods would cause a bigger expansion of imports than would the opposite policy, since consumers would have a smaller volume of home-produced goods on which to spend their extra incomes.

He thought that all that the author's objection amounted to was that a single country, endeavouring to increase its national income by full employment of its resources, might have difficulties with its balance of payments, unless other countries were also pursuing similar policies. But that was an argument for international economic co-operation, not one against a full employment policy at home. In that connexion, he was surprised that the author had not referred to the proposals for an International Bank and an International Monetary Fund, since Great Britain's special difficulties in relation to foreign trade gave her a particular interest in the successful outcome of those first difficult steps in post-war economic co-operation. If such co-operation were unfortunately not successful in expanding world trade, and Great Britain's share in it, to the required extent, then the alternative would be to apply the author's prescription of a 'certain measure of planning and of direct or indirect control' to the foreign trade of the country, by limiting imports of luxuries or non-essentials, by reciprocal bulk-purchase agreements with other countries, or by direct measures to improve the efficiency of the export trades. He wished to stress that, in post-war policy, full employment would have to be the first objective, and the measures taken to maintain the external balance of payments would have to be such as to promote, and not to hinder, that objective.

The author had raised the question whether the state of employment was the best criterion to adopt for the purpose of monetary management. He thought that it could be assumed that the author's answer was in the negative; as an alternative, the author had proposed a policy which would concentrate on increasing the relative efficiency of production. He would not for one moment deny the urgency of such a policy—the fact that British productivity per head was only one-half of that of the United States demonstrated its importance—but it should be complementary to, and not a substitute for, a full employment policy. In fact, by itself, it might well result in displacing labour by machinery and so increasing unemployment. Increasing efficiency meant to a large extent saving labour, and it seemed illogical to concentrate on saving labour when a large part of the labour supply was being wasted in unemployment. The example of the United States—which, in spite of high productive efficiency, had been even more badly hit by the depression of the 1930's than Great Britain—was sufficient evidence that to increase efficiency without at the same time taking steps to absorb the increased production by expanding effective demand was likely to lead to disaster. Nevertheless, it was important to stress the need for increasing productive efficiency, since it showed that, for Great Britain at any rate, it was not sufficient merely to expand effective demand. The latter was the first and most important step, but it had to be supplemented by a production policy on the lines suggested by the author; he accepted the conclusion that 'such a policy would inevitably involve a certain measure of planning and of direct or indirect control over some classes of industry'. Indeed, if Lord Keynes's view that full employment could result in a fall in the marginal efficiency of capital (in other words, the rate of profit) to zero within a generation were accepted, such control might become increasingly necessary to secure even an adequate expansion of effective demand.

He found himself in the position of agreeing with many of the author's conclusions, while being unable to accept all of the analysis on which they were based. To some extent, no doubt, the differences between them were differences of emphasis rather than of substance. In any event, the science of economics was not, unfortunately, exact, and differences of opinion were inevitable; they served to stress the importance of discussion if suitable policies to meet the complex problems of the post-war world were to be evolved.

Mr A. M. Parker said that the general experience of the last two wars, and that of Germany and Russia in the intervening period, showed that full employment could be obtained with a minimum standard of subsistence, but there was no evidence that full employment could be accompanied by a high and improving standard of living. The proposals in the White Paper fell far short of what experience had shown to be necessary for full employment, regardless of its quality. Nevertheless, they were a great advance on the measures conceived and carried out in the depression of the 1930's, when 'economy' was the parrot cry.

The author carried them a stage beyond a policy intended merely to provide full employment. He was concerned, not only with a minimum standard of subsistence, but with securing a high and improving standard of living by means of a policy designed to promote efficient production. In war-time a production policy was relatively simple because the priorities were clear, but in peace-time the problem was not nearly so easily solved. In general, the aim should be to make the fullest use of the available scientific and technical skill and of capital investment in factories and machines, and to expand and develop those resources. To achieve that aim, economic and statistical experts, working in co-operation with industry, with a real understanding of one another's difficulties, were an outstanding need.

It had been calculated that Great Britain would have to export 50% more than in 1938, at 1938 prices, in order to secure the necessary imports. In a state of full employment there would be still more consumption, and exports would have to rise to about 70% above the 1938 level. Failing such an increase in exports, the choice lay between a reduction of imports and an adverse balance of payments equated by borrowing from abroad. The first of the methods, expansion of exports, was by far the best, because it made the widest use of world economic resources, but he was by no means certain that other countries would be willing to accept a large increase in exports. There would also be the possibility that technical advances in primary production overseas would alter the terms of trade in favour of Great Britain. It was not sufficient, however, to leave the export position to chance; an export policy was required in which the Government and industry would be partners, as they were in production. Export subsidies, direct or indirect, might be essential. Further, it might be necessary to enter into long-term contracts at fixed prices with other countries, or to depart from multilateral trade. That would also have the effect of insulating the country—in part at least—from the effects of a depression originating abroad. Certainly there would have to be machinery for permanent consultations with other countries.

It might be found that restriction of imports was unavoidable. Some restriction was always possible, and it need not have a serious effect on the standard of living. To take a war-time example, the substantial reduction of newsprint had had little, if any, effect on living standards. A bad example, economically, but not necessarily from the point of view of a war insurance, was sugar-beet. The sugar-cane colonies had become impoverished, incidentally reducing the demand for exports from Great Britain, while at the same time British workers had been diverted from more highly evolved processes of manufacture into primary production. It was essential to avoid the position in which it would be necessary to divert labour and capital into primary processes. A policy of self-sufficiency would be a policy of disaster. The alternative, loans from abroad, would only be of long-term use if it led to more efficient methods of production, coupled with a willingness on the part of other countries, first to lend their currency with which to buy imports, and then to accept interest and repayment in the form of exports. There was a pointer to that course in the Bretton Woods proposals for an International Bank. Any such solution would merely defer the export problem.

To sum up: although full employment was a first necessity, the far more difficult problems of efficient production and increased exports should be explored, and the three should be welded together into a policy for prosperity.

Sir George Paish (a visitor) said that, in his view, the Government and the nation had approached the question of employment entirely from the wrong end, and instead of securing full employment they would merely bring into being a state of distress beyond anything that had ever been seen. The approach would have to be a world approach. He had been following such things for a very long time, and he had discovered that British income fluctuated in exact proportion to world income. For some reason which he could not explain, Great Britain invariably enjoyed 10% of the world's income, a fact which could be verified by those who had access to the data. The task before them, when a depression came, was to find out why the world's income had declined and to rectify the causes. Further, British exports represented about 10% of the world's exports; when world exports expanded, British exports expanded, and, when they contracted, British exports contracted. It was sometimes imagined that Great Britain had a very large export trade to the exclusion of other countries, but that was not true.

It could be said that Great Britain had created the modern world, and it was on the prosperity of the modern world that her very life had come to depend. He would ask them to consider what Britain had done for the world. To go back a little over 100 years, to 1815—there were no railways, there were some good roads over which the coaches went, there were a few canals, and there were sailing ships on the sea. An extraordinarily small amount of international trade was done in those days and the standard of life was extremely low. Since that time, Great Britain had provided almost the entire world with railways. It was true that she had not built or paid for every railway, but she had built the first railways in every country and had taught the peoples of the world how to run them. She had provided the capital for a very large percentage of the world's railways. A large part of the initial capital spent on American railroads—on those great trunk lines which crossed the continent—had been provided by Great Britain. He had discovered that a large bond issue for the Baltimore railroad—the first great railroad in America—was issued by Barings in 1836. Every dollar spent on the Canadian railways, almost the entire capital spent on the railways of South America, Australia, India, and, to a certain extent, China, came from Great Britain. The modern economic world had been built on transport. It had become possible to produce goods anywhere in the world, to carry them over the railways to a seaport and thence by sea. Further, Great Britain had provided the world with an amazing fleet of ships; her 20,000,000 tons of shipping on the sea before the last war was equal to one-half of the world's total supply of ships at that time.

The modern credit system of the world was created by Great Britain and it was apparently about to be destroyed. Governments did not understand the rudiments of finance. They were hopelessly ignorant, and in their ignorance they adopted measures which destroyed the general well-being, instead of promoting it. From a narrow point of view it seemed right and necessary to force up the prices of British Government securities to enable those securities to be converted to a lower rate of interest; but to stop the issue of foreign securities in London when the whole world depended upon that market for capital was an exceedingly foolish thing to have done. Other interests came in and provided the capital, but they did not understand what had to be done in consequence. When London supplied capital to other nations, no impediment was placed in the way of the sending of goods to pay interest and principal on the loans: Great Britain was a free-trade country. Governments should not be allowed to conduct the business of the world; it ought to be conducted by men who understood business. The question of currency was a Government matter; a thoroughly sound currency was essential or business could not be carried on. How could they induce people to sell them food when those people did not know how much they would be paid? He welcomed the Bretton Woods agreement, which he thought to be a movement in the right direction; but the world was in greater danger than ever before of a complete breakdown of trade, a breakdown in which all Governments and peoples would be involved.

There would be poverty all over Europe. The British, who had been the world's bankers, the world's creditors, with £4000 millions invested abroad and returning a large income, had become the world's greatest debtors, with £3000 millions owing on blocked accounts and £1000 millions on lend-lease, and would probably owe even more before the war was over. A solution to the problem would have to be found and it would have to be a world solution. Those things would have to be done which would restore world prosperity in the same way that Great Britain had created prosperity in the century from 1816 to 1913. The world's income, after having remained at a very low level all through the preceding centuries, had increased five-fold in one century under the leadership of Great Britain, from £5000 millions to £25,000 millions. He wanted Great Britain to recover the leadership of the world, to think out the problem, to find a solution, and to lead the world again in the right direction. Unemployment would solve itself if the right policies were pursued and the right things were done. He was convinced that the world's income and Great Britain's income could both be doubled in the next ten years, that there need be no unemployed, and that living standards could be much higher. The opportunity was there, and he was glad to think that the Governments of Great Britain and the U.S.A. appreciated that it was there. But it was essential that all the nations should stand together; the United Nations had come into being owing to dire necessity. A world Government was now in process of creation and already trying to do the things essential to the welfare of mankind, as set out in the Atlantic Charter with its promise of freedom from fear and want. But the world point of view would have to prevail, not that of any single nation.

If the attempt were made to create prosperity by large governmental expenditure, sterling would depreciate most seriously. There must be a balance between internal trade and external trade. Great Britain imported most of its raw materials and the bulk of its food, and were it to buy more than it could pay for, then sterling would fall in value. On the other hand, as foreign trade and foreign income increased, so would also the national income and the power to spend. It should also be recognized that the countries of South America had during the war developed their own manufacturing industries and would need to buy from distressed Europe a smaller quantity of goods than before. It was a grave situation, and the only solution was by means of large foreign loans, which he hoped America would make, for Great Britain was not in a position to do so. The power to make loans was not governed merely by savings; it was governed by the power to produce. He hoped that Great Britain and the United States would work closely together, and that the two great nations of English-speaking people would, by close co-operation and wise policies, rescue the world from the very grievous danger in which it stood.

Mr A. F. Murray thought that, although economists as a class were notorious for divergence of opinion, there was emerging out of the mass of writing, analysis, theorizing and discussion a limited number of definite conclusions on which a large measure of agreement existed. It was probably true to say that the first three of the author's conclusions came within that category; they could be grouped together under the heading 'Monetary technique'. To actuaries they would appear as the most important of the five conclusions, because of the bearing they would have on efforts to estimate future rates of interest and the probable trend of exchange rates. The author's paper was, however, of interest to a circle wider than the actuarial profession; to many sections of opinion, conclusions IV and V, which could be grouped under the heading 'Production technique', were the most deserving of attention.

In recent years, so much emphasis had been laid on full employment that they were in danger of regarding it as an end in itself. The ultimate aim of any reasonable economic system was not the attainment of full employment—important though that was on moral and social grounds—but the satisfaction of the economic needs of all members of the community in the easiest way. It was quite easy to imagine a system under which all the available labour of a community was employed at its maximum capacity, and for the longest possible working hours, and yet the general standard of living was miserably low. That would be full employment with a vengeance, but, as an economic system, it was certainly not a goal at which to aim.

In his conclusion IV, the author had laid down the necessary condition that would have to accompany a policy of full employment, if that policy were to result in a raising of the national standard of living. Briefly, that necessary condition could be defined as 'Efficient production'. Unfortunately, that was an aspect of the national economy which was receiving all too little attention. In their handling of war-time financial measures, the Government had shown a competence and skill which had been completely absent during the last war, and it could be confidently expected that, with the experience thus gained, schemes for social improvement would not be wrecked by what Lord Keynes had called the 'humbug of finance'. Those schemes would, however, prove completely illusory unless more attention were paid to the problem of production efficiency. It was becoming increasingly clear that British industry was falling behind in that respect. Recent investigations by the Institute of Social and Economic Research had shown conclusively that industrial efficiency in the United States was double what it was in Great Britain. Specific instances supporting that conclusion had been frequent within the last few months. The report of the recent Cotton Commission to the United States was a startling commentary on the Lancashire industry, as compared with its American counterpart. The mission on American building methods had a similar story to tell. The American report on British coal mining had never been published in full; the little that had been published was by no means complimentary. In how many more of the large industries would the same conditions be found? The main conclusions of the Cotton Commission were: (i) a higher degree of standardization and specialization was required; (ii) large technical re-equipment was necessary; (iii) working conditions in British mills should be considerably improved from the point of view of future labour requirements; (iv) the level of scientific training of the managerial staff should be raised. He suggested that those conclusions were worthy of study by industrialists.

Instead of tackling their problems on those lines, how many industries were maintaining their existence by relying on their size and by resorting to all kinds of restrictive practices? In certain industries, big units were essential, but if combines and cartels, monopolies and trade associations were to be a cloak for antiquated machinery, obsolete methods, and inadequate research, then the outlook was indeed gloomy. Those were the methods of defeatism, an attempt to shelter in an economic Maginot Line. The whole attitude was wrong. The same industrialist who used to complain that it was impossible to compete with the Japanese because their wages were so low subsequently maintained that it was impossible to compete with the Americans because their wages were so high. There was no reason for a defeatist outlook; competition with the Japanese was possible because of Great Britain's greater efficiency and with the Americans because of her relatively larger foreign trade with its resultant advantages.

A Cabinet Minister had recently told them that British industry was dying on its feet. He might have been unduly pessimistic—it was to be hoped that he was. But if that forecast were correct, then no scheme of purely monetary management would be able to bring about the improved social conditions they were all hoping to see.

Mr H. W. Haycocks said that the opener had pointed out that some of the author's arguments were only valid under conditions of full (or nearly full) employment. Furthermore, difficulties of interpretation arose through the use of the words 'savings' and 'investment' without qualification, and also because of the omission in the theoretical argument of the consideration of the corresponding psychological incentives, namely, the desire to save and the inducement to invest.

On p. 311 the author had stated the proposition that industrial activity fell when the new investment of the country as a whole fell short of the national savings. However, on the basis of the definitions generally accepted and for an economy which involved no foreign trade, actual savings always equalled actual net investment, and it was when planned savings (i.e. the aggregate of savings decisions less planned realization of assets, the proceeds of which were spent) were greater than planned investment that the national income fell. It could be stated, therefore, that the national income always tended to a level at which planned savings equalled planned net investment, but retrospectively actual savings always equalled actual net investment. When foreign trade was taken into account the equality in which they were interested was between 'investment plus exports' and 'savings plus imports', and hence, if the balance between exports and imports were variable, there was no inherent tendency for savings and net investment at home to be equal. Regarding the psychological incentive, he wished to consider the author's contention on p. 311 that regulations of the type (2) class operated on savings. Type (2) included variations in indirect taxation. If, however, indirect taxation were reduced, the propensity to consume would increase and hence consumption as a whole would increase. That process would induce business men to increase their investment, and investment as a whole would rise. The national income would rise and savings would increase as net investment increased. The whole process, therefore, was interacting, and the variables should be thought of in terms of 'flows', e.g. the flow of savings, or the flow of income expenditure. Once the expansion was in progress, then, at the same time as increasing consumption was stimulating further investment, increasing investment was generating larger incomes and hence was stimulating further consumption. A similar analysis of the effects of a rise in income tax showed that, although the desire of individuals to save might fall, an appropriate expenditure by the Government of the proceeds of the tax would bring about a rise in the national income so that the absolute amount of savings would rise.

In those analyses a condition of unemployed resources had been assumed, because in a condition of full employment an indiscriminate stimulation of consumption or investment would be madness. The economic analysis was not, therefore, quite so straightforward as might be assumed from a reading of the paper. A better theoretical analysis could be conducted by considering first the two main methods by which a Government could obtain command of purchasing power, namely, taxation and borrowing. The various taxes and methods of borrowing should be analysed so as to determine the probable effects on the psychological incentives. The methods of expenditure should be analysed in a similar way. It would then be possible to estimate the total effect of any fiscal policy, and such an investigation, coupled with the 'real resources' budget suggested by Sir William Beveridge, would form the basic statistical data of a full employment plan.

Perhaps the main emphasis of modern economics was on the simple truism that any national income could be maintained only by being spent so as to re-create incomes.

Spending could be either on consumption goods and services or on capital goods, but beyond a certain point serious consideration would have to be given to the fact that there was a relationship between those two categories. The object of private net investment was to increase the flow of consumption goods, and that fact revealed the limited value of the author's type (1) class of regulation, for in the long run consumption would have to be increased. Further, if full employment were desired quickly, spending would have to be well directed, because both new plant and new skill took time to develop. Once a state of full employment was reached, the level of private investment should be just sufficient to provide for increasing productivity (technical progress) and for any increase in population. If planned savings after deducting necessary Government borrowing exceeded that amount, then consumption should be increased, either by a redistribution of income or by deficit finance. Increased private investment at that stage would only result in the accumulation of excess capacity and resources would be misdirected. It was worth noting that, since deficit finance was an offset to excess savings, the resulting rise in the national debt was only an alternative to a rise in private debt. There would be an increase in total debt in any case.

A great deal had been said about international trade, and he agreed that the desirable objectives were the full utilization of home resources, coupled with full benefit from the international division of labour. Before proceeding further, however, he wished to ask Sir George Paish whether it would not have been better, both for Great Britain and the world, if a little more capital had been invested in housing and education at home and a little less abroad. Were not later Governments showing a little enlightenment rather than ignorance in that respect?

To return to the two ideal objectives, full employment and the international division of labour—unfortunately, to use a phrase with which actuaries were familiar, they tended to be mutually exclusive. Freedom of trade might mean highly uncertain employment, whilst full employment might mean a very uncertain trade balance. The complete solution depended not only on the maintenance of full employment but on there being agreed policy on respective balances of payment and international investment. There was little chance of that full solution being obtained, and in those circumstances he thought that they would have to concentrate on the full utilization of home resources, which would mean some regulation of international trade. Statistics for 1938 showed that the gain from full employment in social welfare would have far outweighed any possible loss due to deterioration in the terms of trade. *The Economist* had suggested recently that the principles of trade should not be treated as a type of theology. Controls and regulations should be dealt with on their merits and not condemned wholesale with book, bell and candle. The calamitous results during the inter-war years had been due to depression and the attempts by various countries to 'export unemployment'. Many controls had been used for defensive purposes. But controls coupled with a policy of expansion at home did not hurt the rest of the world, for it was not suggested that imports should be reduced absolutely, but only that their expansion should be damped down. On balance the world would benefit.

With regard to the question whether during a period of expansion import prices and the real costs of the export industries would necessarily rise, much would depend on supply conditions abroad. It was highly probable that for some time prices would remain fairly constant, unless depression had driven prices abnormally low, when some rise would be reasonable; and, with the taking up of unused capacity, unit costs in some export industries might fall. Recent investigations had shown that industry could expand considerably at constant unit cost. Perhaps a more important consideration would be the question of risk. A successful policy of full employment would mean reduced risks in the home market. Risk in the export trade, however, was notoriously high; particularly would that be the case if the outside world were following pre-war practices. Hence, quite apart from the question of efficiency, business men would be attracted to the home market rather than to the foreign market, and there was, therefore, a good case for State expenditure on guarantees in connexion with foreign trade, as well as on the reorganization of industry.

He wished to protest against the use of the words 'artificial' and 'natural'. The ncrease in conscious control of trade rendered comparisons on those lines very confusing. In any case, in what way was, say, an import quota any more arbitrary or artificial than a general cut in wages or an indiscriminate restriction of credit? Again, the outlawing of trade agreements on the grounds that they were artificial and discriminatory meant that a national economy was abandoned to the arbitrary power of export-surplus countries which were in a position to lend indefinitely and with discrimination. The main arguments in favour of financial or world-wide controls were that they were relatively easy to administer and did give some freedom for individual adjustment, but they were means only, and as such they should be judged. If they failed to attain their objective, for instance full employment, then they should give way at the essential points to more specific controls.

Mr L. G. Whyte, F.F.A., said that it would sound heresy to Sir George Paish, but to him it was becoming increasingly evident that after the war they would not return to a system of *laissez-faire*. In its place they would no doubt have a much greater measure of control by the Government of the economic life of the country. The word 'control' had unfortunate associations. It had become associated with interference, with rationing, and with restriction; for the future it should mean guidance and leadership, and a better word perhaps would be 'planning'. It would involve the collection of vast amounts of information, and much of the success would depend on the correct interpretation of the data, and in such a sphere the actuary should be able to fulfil a useful function.

The paper was an able diagnosis of the country's monetary and trade problems, and he thought that the author had arrived at the correct conclusions. His remarks, therefore, were confined to questions of emphasis. For example, he wished that the author had been more definite in condemning the use of variations in the rate of interest to influence capital expenditure. That had the demerit of dealing equally with good and bad propositions and did not discriminate. Fortunately, he thought there was not much reason to suppose that the method would be used. The author had then referred to the influence on international trade of a full employment policy brought about primarily through the operation of the monetary system. Perhaps there was some danger of overstressing the importance of international trade, which should be a means to an end and not an end in itself. The wealth of a nation ought surely to be judged by the total volume of trade, national and international, and not by the latter alone. There was no great merit in transportation for its own sake. It was essential for Great Britain to acquire a certain volume of imports, and to obtain them a minimum level of exports was necessary; but they should not lose sight of the trend towards self-sufficiency in other countries, a point to which the author had drawn attention by indicating that the nature of British exports would have to undergo radical change. He himself was not an advocate of economic nationalism, but it was important that international trade should be seen in proper perspective. There was too great a willingness to encourage the production of anything which could be exported, irrespective of the part it played in the general plan.

A managed monetary system by itself was becoming obsolete and would have to be made subservient to a production policy initiated by the State. In the course of the paper the author had led his readers to that conclusion, but he had not enlarged on it. He might have felt, perhaps, too much tied down by the title of the paper. There were many points of interest to be considered in the formation of such a policy. He did not know whether the author wished to suggest that for some considerable time it would be desirable to keep annual capital investment at a high level. The long-term aim would have to be to arrive at a state of affairs when capital expenditure could be safely kept at a minimum and consumption raised to a maximum, with more time, therefore, for leisure and for encouragement of the arts. Other very important duties of the State would be to ensure that the productive capacity of the country was used to the fullest advantage and that labour was sufficiently mobile.

On the general subject of control or planning, he suggested that the most effective method would be one under which the Government, acting perhaps through a supreme economic council, would take representatives of industry, labour and finance into its confidence, explain its plan, convince them that it was in the broad national interest, and thus obtain the largest possible measure of assent by understanding and co-operation rather than by legislation.

Mr E. H. Lever, in closing the discussion, said that it seemed to him that, at a time when the whole question of the nature and extent of the activities of the Institute was under review, nothing could be more appropriate than that one of their members should have had the courage to submit a paper on the subject of a managed monetary system, and nothing could be more stimulating and enlightening than the volume and the quality of the discussion which had followed. It showed the degree of interest which members took in a subject which was at the moment only on the fringe of—if not just outside—the syllabus of the Institute.

He wished to preface his remarks with the obvious truth that, of all the subjects that had been discussed at the Institute, there were few about which dogmatism involved a greater danger of disaster or of which it could be said with greater truth that a little learning was a dangerous thing. He approached his task, therefore, with a due feeling of humility. He thought that the best contribution he could make was not to take up the points raised in the discussion but to avoid technical details, even if he were competent to deal with them, and to limit his observations to one or two general aspects, a full appreciation of which was essential if the subject was to be seen in its right perspective and against its proper background.

He thought it was generally agreed that, however much they might be discussed by learned societies, no effective progress could be made with matters such as the management of currency without the understanding and support of the community as a whole. What had to be remembered was that, however obvious the relatively simple concepts which lay behind the subject under discussion might be to members of the Institute, the great majority of people did not possess the same degree of understanding, and it was of no use having such concepts, clothing them in big words and sounding phrases, and not being able to translate them into very simple language for those who really mattered. Even at the expense of being a little elementary, he felt, therefore, that it would serve a useful purpose if he drew attention to some aspects of the subject about which there was widespread misconception, and one of the first misconceptions that needed clearing up was the idea that there was something real about a monetary system and its management. It was essential to get into the minds of the people the fact that a monetary system was a mechanism only, and that, in spite of its evident importance, no policy of currency management in its limited sense could solve the problem of full employment by itself. In that connexion it was interesting to observe that the author had himself found it necessary to extend the definition of a managed currency to cover the control of the whole productive and distributive system. From that point, however, it seemed that the author had quite unnecessarily placed himself in a dilemma, since in the rest of the paper he had forced himself to choose between two alternatives; he had then proceeded to destroy both, leaving himself and also the speaker rather in the air.

A second misconception which was very widespread—not, he hoped, inside that meeting or in other learned institutes—concerned the phrase 'full employment'. Full employment had no meaning except in relation to a given standard of life, but a great many people did not understand that, and one of the reasons why they did not understand it was because the modern industrial structure, with its characteristics of specialization and subdivision of labour, had resulted in the necessity of large numbers of people having to go to work at a given place for a given number of hours per week. He was convinced that, to the great majority of people, the picture conjured up by the phrase 'full employment' was that of having the right at all times to work for a given number of hours per week and to receive in exchange a given wage. So deep-rooted was the conception of exchanging a certain number of hours' work for a certain amount of money that people were forgetting that it was not the number of working hours that mattered but the intensity of work during those hours; it was that which created wealth which was, in its turn, the source from which wages came. National income was not the total number of pounds sterling paid in salaries and wages, but the sum total of the productive effort of all members of the community.

Another misconception, and one of the worst—a misconception which had been encouraged by the development of social insurance schemes—was a notion on the part of far too many people that the State was something apart from the men and women who composed it. There was a popular feeling that there was some mysterious but inexhaustible source of monetary units, of which a few more might be obtained by becoming a nuisance and of which not even a fair share would be obtained in any other way. That had been amusingly illustrated in a letter received by the Minister of

Education, which strongly expressed the view that the burden of social service should not be borne to so great an extent by the taxpayer, but should be borne in part by the State. The fact that such ideas were widely prevalent might appear unimportant, but he did not take that view; they had to be considered and dispelled, or the best intentioned efforts to improve the monetary and industrial machine would be frustrated. He felt that in that, as in other, aspects of the problem there was a tendency to go too far in attempting to find a solution, without making quite sure that the real nature of the problem was widely enough understood. He agreed whole-heartedly with Sir George Paish that the problem was a world problem, and the latter's remarks, although applicable to Great Britain in the first instance, had equal validity all over the world.

He agreed with the author's main conclusions, namely, that production policy should aim not only at increasing the volume of production in relation to consumption but also the efficiency of production in relation to that of other countries; fortunately, many of those in control of industry were well aware of the need of such a policy. He agreed also that it was necessary to concentrate on the increased production of capital goods and equipment, or on manufactures the production of which involved the use of plant to an extent large in relation to the use of labour. He felt, however, that he would probably himself have reached those conclusions by a somewhat shorter route than that taken by the author.

The President (Mr R. C. Simmonds) said that the discussion had been very interesting; it could well have gone on longer if time had permitted. They might then have persuaded Mr Lever to develop some of the ideas to which he had made passing reference; they did want to look at such things from the broad and simple point of view that Mr Lever had advocated. He felt that he could not offer to the meeting, at that hour, the few remarks that he had prepared. He proposed a hearty vote of thanks to the author for bringing before the Institute a paper which might have appeared to be somewhat outside their province, but which really was not so, because actuaries were taking, as they should take, a widening view of their professional concerns.

Mr W. G. Craig, in reply, said that he felt that the paper had more or less justified itself by the extent and excellence of the discussion. He was afraid that he could not deal at once with all the points which had been raised, but he agreed with Mr Lever's remarks as to the necessity of expressing matters of the type under discussion in simple terms. He had tried to do that, but perhaps he had not succeeded very well. He gathered that some speakers regarded the paper as postulating a choice between alternatives of monetary management and control of production. Such was not the intention; it was rather to suggest that the management of the monetary system should be directed primarily to facilitate greater production—but that did not necessarily mean control.

So far as the choice lay between full employment and the development of the most suitable forms of production, it was suggested that the latter should be the primary object. With regard to the mere provision of full employment, he thought that that question had been solved on Dartmoor years ago. The essential thing was to develop efficiency of production: only by such means would it be possible to attain a reasonable standard of living for all, and if that could be achieved, he did not think it mattered whether or not the entire population was fully employed.

The opener appeared to think that the paper underestimated the effect of public expenditure. It seemed very unlikely that capital expenditure of that type would be adequate, in normal times, to solve the employment problem, and, even if it were developed to such an extent, the resulting production would be of a kind which would be almost bound to cause a rather badly balanced economy.

It had been suggested that increased consumption would induce increased production without an increase in prices. Price, however, was the measure between supply and demand, and unless the increase in supply were to keep pace fully with the increase in consumption (which seemed unlikely) some increase in prices was inevitable. With regard to the foreign trade position, if the imports necessitated by the increased consumption were to be obtained, they would require to be paid for by means of increased exports. It was true that the increased import requirements would be balanced in the end by exports, but that would only happen at a lower level of exchange, which would have the effect of lowering the standard of living.

Briefly, what the paper was intended to advocate was concentration on the production side. The point had been made in the discussion that the position of Great Britain would depend on the world position, which was the case, and that her best contribution to the world position would be to increase her efficiency of production and so to swell the supply of goods and services available—if possible to inaugurate an era in which she would again lead the world towards a new level of productivity and wealth, as she had done in the earlier industrial age. He felt that the alternatives before the country were an era of that kind, or one in which production at home was unduly concentrated either on providing amenities or on manufacturing goods which could be imported with less effort and at less cost from other countries; the latter would give rise to a kind of vicious circle in enforced self-sufficiency, and would lead to a state of affairs in which there would be adequate amenities and yet, possibly, a low standard of essentials in the scale of living.

He had been struck by the extent to which the various speakers had agreed with the conclusions to which the paper led, even when they disagreed with the way in which those conclusions had been reached.

The following communications have been received:

The President: This is a subject on which much is being thought and, unhappily, more uttered; I do not refer in this stricture to the paper or the discussion. It is quite natural that this should be so, for we have pathetic evidence of a society that has not realized itself and, only too clearly, has lost its way. Save in some few communities—and even there not fully—economic power for many centuries has been concentrated in the hands of a minority, to an extent that the ordinary man (though he has suffered the result) has failed, perhaps mercifully, to realize. There seems to be no reason to expect that in the future this control by a minority will be less effective, though it may be exercised by a differently constituted minority expressing its aims with a changed emphasis. Thus, the vital first point will be not so much the form of the management as the character of the managers. On management itself and in general, it seems to me that the unravelling of this terrible tangle of our social life should be approached from a different angle. So many millions of us in this island with certain inescapable needs and various resources of land, minerals, labour and ability—to what extent could we meet the bare minimum necessities from our own materials by our own efforts? Such a survey doubtless would show many serious gaps—some of them yawning gulfs. Then we should have to study, with reference to the position of other countries, how best the gaps could be filled, and that question would suggest that the filling process might be done most effectively by our taking from others in some cases even that which we could produce ourselves. A further enormous category would be provision for amenities beyond the bare primary requirements.

My point is that I should place the emphasis on the people and the things and try to work thence to the solution of the immensely important, but still subsidiary, employment and currency questions.

I have mentioned people, both as managers and managed. That is because I think profoundly true, and both socially and economically relevant, the remark of the late Canon Quick that the salvation of the will must precede the full illumination of the mind.

Sir William Elderton: I find myself in agreement with the author's views. They may, thanks to his commendable brevity, be enlarged in some places. Thus, to the objections to the entry of the State into the field of productive activity, we might add that it would take away liberty from individuals. It is proper in a free country for Government to punish wrongdoing and to reduce or remove the liberty to do wrong, but if it takes away the liberty to do right (and successful trading is doing right) then freedom goes. There is another objection and it applies even to Government planning, except when planning is on the broadest lines—the administrators or the advisors or the planners are human creatures with the same human qualities as the individuals who run private enterprise, and 'to err is human'. With individual enterprise, some will guess the future one way and some another, and, though some will make mistakes, others will not—all is not lost. But if a Government acting on a large scale makes a serious misinterpretation and supplies a remedy where none is needed, or at the wrong time, or a wrong remedy, the whole may well be lost. We should remember that this has happened; to avoid modern instances, I content myself with mentioning that the Ptolemaic Empire collapsed largely because of unwise State planning.

The author refers to unbalanced Budgets and agrees, I think, that there is no necessity for every Budget to be balanced and that there may be advantages, at appropriate times, in having an unbalanced Budget, but I am sure he would not approve of a long series of substantially unbalanced Budgets—that just means inflation. Again, we may underline his remarks about the gold standard. With trade largely free, with all countries on a gold standard or an approximation to it, it worked well. If we could return to those conditions, we should have a system that would again work—the difficulty is that we have gone far away from the conditions and it is practically impossible to return within a reasonable time, if at all.

In one or two places the author mentions savings and investment in contradistinction. Savings, in the sense in which he uses the term, are the difference between production and consumption—not savings in the sense more familiar to insurance men—and in one place (p. 311) he says that 'industrial activity falls when the new investment...falls short of the national savings'. He then goes on: 'it follows that to ensure a state of full employment monetary regulation would require to provide for the investment...of an amount equal to that of the national savings under a state of full employment'. This is not, I think, happily worded: for, though it becomes clear later, it almost implies that if some arrangement artificially secured the equality, full employment would necessarily be achieved. This is like saying that to cure a symptom is to cure a disease!

I agree with the author that on the production side lies the solution. For the Government to give quickly a broad indication of what, on the production side, should be aimed at by industry would be of immense help; but the difficulty is that that alone could do little unless supported by alterations in taxation which would encourage producers to use reserves, or to raise capital, to improve production. We used to be, but are not now, the world's producers of cotton goods. Our machinery wants, in most cases, scrapping or modernizing. The method of taxation militates against this. On p. 312, the author refers to 'greater technical progress in methods of production in this country'. I would back our scientists against the world, but, given that they evolved some great advance, is it likely that our producers could exploit a great new discovery when the method of taxation is what it is now? It is useless for the Government to say that production is required and yet to adopt methods of taxation that make such production either too expensive at the start or unremunerative to the producer. If production is wanted, it must be encouraged. But if it is not encouraged, if conditions make it not worth while, then as we go down the hill we shall be told that private enterprise has failed and that the State would have done better. Strangle an industry by taxation, rules or labour conditions imposed on it by the State, and then say it has failed and throw up your hands in horror!

Full employment will not be achieved by applying ingenious palliatives to unfortunate symptoms—it will only be won by high production, and that in turn is impossible until the Government encourages it in every way and unless the men and women of this country understand that they must forego luxuries to enable exports to meet imports and, by hard work and persistent virtue, deserve the better standard of life which we want everyone to enjoy.

Mr N. E. Coe: The author mentions that full employment is only of benefit so long as it is not achieved at the cost of a lowering of the standard of living. I feel, however, that insufficient importance is attached to this aspect of the problem and that it is a wrong emphasis to concentrate on the question of employment rather than on the standard of living.

Before we can discuss 'standard of living' we must first decide what we mean by it; and in order to examine the problem statistically it would be necessary to have a numerical index for use as a basis of comparison. I suggest that the standard of living is determined in the main by two factors, (*a*) purchasing power in terms of real commodities and (*b*) useful leisure. The index should be such that it has zero value when the purchasing power is nil but not when the useful leisure is nil. It would therefore be in some such form as purchasing power multiplied by (useful leisure plus constant), where the purchasing power and leisure are determined in appropriate units. Now the standard of living of the community is not sufficiently described by the mean for the whole population; it is necessary to consider also the dispersion. This could probably best be done by dividing the community into groups having roughly the same standard of living, and calculating the mean for each group. Thus, in the first instance, the unemployed form a group whose standard of living is zero because their purchasing power is nil. Human nature being not so bad as it is often painted, this is mitigated by the payment of unemployment allowances which raise the standard of living of the unemployed to a small positive quantity by reducing slightly the standard of living of the remainder of the community. A similar result would be achieved by putting the unemployed to work on non-productive works or by reducing working hours all round. These methods, however, raise difficulties in a capitalist state.

The dispersion of the standard of living in the community will be broadly determined by Government policy. Thus a capitalist Government will aim at a wider dispersion than that under a socialist Government, and that, in turn, will be wider than the dispersion under a communist Government. It will be seen from the foregoing remarks that the real problem is to secure the greatest value for the standard of living in each group consistent with the predetermined dispersion. Solution of this problem may require full employment in certain circumstances, but full employment is clearly not a fundamental necessity for the economic solution. (I am not here concerned with the problem of idleness which is a moral and not an economic problem.) The question of full employment is thus put into its proper perspective. Moreover, the author's conclusion that monetary management alone is not enough becomes almost obvious. Monetary management cannot affect the total wealth of the nation, and it cannot therefore affect the standard of living. It could, of course, alter the dispersion, but as I have said, this is predetermined by Government policy. The effect of international repercussions might form an exception to this, though I think the time is past when any country can raise its standard of living at the expense of other countries for any appreciable length of time merely by juggling with its currency. International agreements are essential for the maintenance of world prosperity and peace.

Clearly, then, control of production is necessary in order to raise or maintain the standard of living. If, as seems certain in present circumstances, full employment is a necessary concomitant of any scheme for raising or maintaining the standard of living, then that full employment must be secured by control of production. If it is secured in any other way the standard of living will fall.

I should like to add my support to the view which has been expressed that this is an international problem. Any solution which is based purely on internal considerations is likely to fail because it will not necessarily fit in with what other countries are doing. The proper approach to the problem would be first to consider how the world standard of living can be raised by suitable international trade agreements, and then, having secured those agreements, to devise the internal machinery so as best to fit in with them. I realize that the extent to which this can be done at the moment is probably limited. Nevertheless, I think it important not to overlook the fact that the correct approach to the internal problem is by way of the international one.

Mr W. G. Bailey: Several speakers indicated that they agreed with the author's conclusions but disagreed with the arguments by which they were reached. I disagree with the explicit conclusions and the arguments, while agreeing with the implicit conclusion, namely, that monetary regulation will not of itself produce full employment.

The arguments rest on the following very shaky assumptions:

(*a*) that deductions which are valid in a condition of full employment of labour and productive capacity can be applied in criticism of proposals made for securing full employment (p. 312);

(*b*) that so-called 'productive' investment is more beneficial than so-called 'unproductive' investment (p. 311);

(*c*) that Government entry into industry would necessarily mean subsidized competition with private concerns (p. 307)—the possibility that the Government might provide finance for private firms or a guaranteed market is completely ignored, and in any event it is an assumption that Government-owned industry could not compete without subsidy;

(*d*) that the United Kingdom will be the only country pursuing a policy of full employment—so that an increase in our imports will not secure an improved market for our exports (p. 312)—international trade being conducted by *laissez-faire*.

Criticizing the author's conclusions in detail:

I. The first half is correct; the second half is meaningless without a definition of 'automatic'. Similarly, the use without definition of the words 'artificial stimulus' (p. 313) lends strength to an otherwise quite secondary argument.

II. This conclusion is wrong because

(*a*) there has never been any difficulty in expanding production to meet effective demand;

(*b*) where unemployment of labour and resources exists, production can be increased rapidly as the slack is taken up; thereafter production will increase spasmodically owing to the need for new plant. Until full employment is reached the problem is one of timing of stimulation of consumption and its direction into channels where productive capacity exists, and is not a question of the desirability of such stimulation. Luxury taxes may assist in directing demand.

III. This conclusion rests partly on (II) and, to the extent that it does so, is invalid. The author assumes that a rise in prices is inevitably inflationary. This is not so, particularly at the bottom of a slump. It is admitted that those in work are sometimes better off at the bottom of a slump—they were in 1931 as a result of a catastrophic fall in the price of primary products—they have, however, to support the unemployed. Since the Government policy is to reduce taxes and social security contributions during heavy unemployment, the existence of the 'pay as you earn' system will have the immediate effect of increasing demand and will probably forestall efforts for wage increases.

IV. This puts the cart before the horse—what is the use of increasing production above demand except to the extent that more exports are required? The question of comparative efficiency is another problem.

V. Since this country's greatest asset is said to be the superior skill of its workers, it would seem more logical to concentrate on those products where this superior skill can be given greatest play and not to change over to products which by the use of greater mechanization require a minimum of skilled labour. Furthermore, a concentration for export on goods which require a minimum of imported raw materials is indicated.

Other criticisms of the paper are:

(1) The attempted distinction between 'productive' and 'unproductive' investment is really a distinction between marketable and non-marketable goods and services. The author argues that the latter contribute nothing to a rise in the standard of living, and fears that expenditure on them will cause a demand for consumption goods which will not have been produced. Why is the author afraid of public expenditure on services and not of private expenditure on services? If debt is incurred in their production, it remains debt whether it is private or public debt. Is it not his real fear that money will be wasted?

(2) When full employment is reached the division of national income between goods, services, and investment is a social, quite as much as an economic, decision. A certain minimum of investment is required to maintain and develop the economic machine, but development for the sake of efficiency might be socially undesirable and its pace therefore might need restraining.

(3) Until full employment is approaching, increased production means a fall in costs even without an increase in the productivity per worker. This process again is spasmodic.

(4) The fear that consuming power may arise without the corresponding consumption goods being produced, which is the main argument of the paper, could just as easily be applied to justify the position at the bottom of a slump (e.g. in 1931–2), and it is amusing to argue that the local drainage system should go unrepaired in case there should be no goods to be purchased by the wages of the repair parties.

Mr W. G. Craig has subsequently written as follows:

Many points were raised during the course of the discussion, and others have been brought up in subsequent contributions, with which I had no opportunity to deal at the meeting.

Sir William Elderton and Mr Haycocks referred to the meanings to be attached to the terms 'savings' and 'investment': possibly my desire for brevity has resulted in a certain slackness of expression. I envisaged 'savings' as being represented by the difference between the value of the national production and that of the corresponding consumption of goods and services, the result being adjusted upwards or downwards for any adverse or favourable balance of foreign payments, including invisible imports or exports. I regarded 'investment' as the total capital expenditure in the corresponding period, whether of a private or of a public nature.

Regarding Mr Haycocks's point as to the equality between them, I should perhaps have said, to be strictly accurate, that industrial activity falls when the rate of investment falls short of the immediately preceding rate of national savings. The underlying condition remains, that the achievement of a state of full employment depends on ensuring an adequate expenditure, either on consumption or on investment.

Certain speakers appear to have been surprised that I took no account of possible changes in conditions abroad, such as full employment policies in other countries, the Bretton Woods proposals, etc. I am far from underrating the influence of such conditions, but restricted the scope of the paper for several reasons:

(*a*) We can control our national system, whereas we cannot those of other countries, and to have overburdened the paper with an extended scope would have diverted attention unnecessarily from the main issue.

(*b*) The best contribution we can make to a satisfactory international economic condition is to ensure a sound and efficient economic system in this country.

(*c*) There is no definite reason for any assumption that future international conditions (after the period of world re-equipment is over) will be more favourable to this country than in the past. Any full employment policies adopted by other countries might well be based on a degree of self-sufficiency in the matter of manufacture which might accentuate the problem of our paying for essential imports.

(*d*) The case for a definite production policy applies whatever international trading conditions may be. If they are favourable we would gain more: if unfavourable, we would suffer less.

More than one person commented that I did not say whether I assumed the existence of unemployment or a condition of full employment. Any qualification of this nature did not seem to be necessary, as I consider that the reasoning of the paper applies whatever the employment condition. It appears to be this view, however, which has given rise to the main criticism which has been voiced.

Messrs Bacon, Haycocks and Bailey all disagree with my view as to the injurious effect of regulation which operates primarily through consumption. They base their objections, I gather, on the following assumptions:

(1) That so long as there are unused reserves of labour and other resources, an increase in effective demand will induce a corresponding volume of production without any increase in costs or prices, and that, as this production increases, it will give rise to an increase in productive investment.

(2) That owing to this increased production, increased imports will not necessarily be required, or, if they are, they will be provided for by increased exports.

This reasoning might well apply to a theoretical, text-book community of a self-contained nature, with a perfectly balanced economy, but it seems to me to have little practical relation to any actual country, and less still to a country such as this, which is dependent for the essentials of life for about one-half of its population on the production of other countries.

Thus, as regards (1), an increase in production without an increase in costs or prices assumes that wages do not increase, and this can be so only if the increase in demand is mainly for the classes of goods in which the surplus productive capacity exists, which is very unlikely. As a practical test of this, I think the record of any period of expanding demand will show that it was reflected in an increase in both prices and wages, and also that these factors evidenced themselves long before a state of full employment in the country as a whole had been reached. Further, this contention assumes that the increased consumption will all be met by production in this country— which again is most unlikely. If, as is the intention, the increased consumption is exercised by the classes of the community with the lowest consumption level, it is likely to consist largely of the more essential commodities, and as the bulk of our food and most of our essential raw materials cannot be produced in this country, a considerable part of the increased production induced would be that of other countries. In these circumstances, I entirely disagree with Mr Bacon's statement that the balance of payments would only be affected under conditions of full employment, nor can I agree with his suggestion that production of capital rather than of consumption goods might cause the larger expansion of imports, as the former is much more likely to represent home production; this suggestion also ignores the vital consideration that, whereas the latter must impose a strain on imports, the former should improve our export position.

As regards (2), I agree that, if an unbalanced foreign payment position is met by a depreciation of sterling the imports ultimately obtained will be balanced by exports, but on terms of trade which are adverse to this country in relation to those formerly existing.

In view of these considerations, I must disagree with Mr Bacon when he says that my objection to this type of regulation fails.

Mr Bacon disagrees with my statement that capital expenditure of the public works type would, in normal conditions, afford too limited a scope to be effective as a means of regulation, and quotes certain figures of public expenditure in 1938. The total he quotes refers, however, to public expenditure of all kinds, including current services, and only a minor part relates to capital expenditure which could be varied in accordance with the requirements of an employment policy.

I agree with Mr Haycocks that economic analysis is not so straightforward as might be assumed from a consideration of the principal factors only, to which I have endeavoured, in the interests of brevity, to confine myself. But neither is the action of these factors so automatic and compensatory as is assumed in his remarks, e.g. in relation to the effect of operating on consumption. Also, his contention that the restrictive effect of an increase in income tax would be offset by Government disbursement of the proceeds surely ignores the point with which we are concerned, namely, that if tax is increased, either savings or consumption will be reduced, whatever the 'desires' of individuals may be. Further, if the tax increase is applied for the purpose of economic regulation, the Government would not expend the proceeds but would reduce the volume of circulating money, in which case neither savings nor consumption would be restored.

As regards the economic analyses which Mr Haycocks suggests, I agree that the results would be of value, but I cannot see that they would throw any light on such vital questions as the level at which national investment expenditure should be stabilized, or that they would afford any basis for a concrete production policy.

Mr Haycocks's statement that full employment and 'international division of labour' (in other words, international trade) are mutually exclusive, is somewhat surprising. Surely all economic history provides conclusive evidence that the reverse is the case, and that they are overwhelmingly interdependent; if a recent example is required, the industrial depression of the 1930's demonstrated in drastic manner the effect of a collapse in international trade upon employment in this country.

As regards the view held by Mr Haycocks and Mr Bacon that full employment should be the primary objective, I think the dangers of this have been effectively pointed out by Mr Murray and by other speakers. If the manufacture of employment becomes one of the primary industries of this country, full employment will become increasingly difficult to achieve and its results, if achieved, will be illusory. It may not be a matter of coincidence that, as Mr Parker pointed out, it has not yet been demonstrated that full employment can be stabilized with a high standard of living. The primary object should be the greatest efficiency and facility in those types of production which can—directly or indirectly—make the greatest contribution to the material requirements of the community. If this is achieved, we shall make some real approach to what should be the ultimate aim, namely, a reasonable standard of living together with more leisure (not more work) for all. Mr Bacon's point that greater productive efficiency would displace labour and increase unemployment is an objection only if it is assumed that the object in view is employment for its own sake and not merely as the means of providing human requirements.

I regret that Mr Lever did not include in his popular misconceptions the one that foreign trade is a factor of minor importance to this country, as several speakers appear to be subject to it, e.g. Mr Bacon's reference to the possibility that this country might have 'difficulties with its balance of payments' as a relatively unimportant matter. There seems to be a tendency both to underrate the importance of our foreign trade—by measuring it by the proportion which its direct value bears to that of our total trade—and to fail to appreciate how greatly the position of this country has changed as regards the degree of control which it is able to exercise over its foreign trade. As regards its importance, apart from its indirect effect upon internal trade and upon our shipping industry, etc., the facts remain that about one-half of our population is dependent for its actual means of existence upon the products of other countries, that this vital part of our trade is one over which we have no control other than by our ability to purchase the supplies which are to us a vital necessity, and that our ability to ensure continuance of these supplies has recently greatly changed. Until comparatively recent years, this country was increasing its foreign investments by lending abroad at the rate of between one and two hundred million pounds a year. This placed us in a very strong position, not only for fostering our exports but also for obtaining all the imports which we required; any increase which was desired to maintain or improve existing standards of living could easily be obtained—apart from any increase in exports—by simply reducing the rate of new investment abroad. That position has, however, changed entirely. Even before the war, our failure to maintain the relation between our exports and imports had resulted in a position where we were no longer able to invest large new amounts abroad each year (thus providing a basis for export development and ensuring our future ability to pay for essential imports), a position, further, in which we had no margin left to pay for increased imports, should these be desirable to increase the level of consumption. On the contrary, there was a tendency in the years immediately before the war to draw upon our foreign investments to maintain the existing rate of consumption. After this war, our foreign debts will greatly exceed such foreign investments as remain to us, and our ability to maintain essential imports on the pre-war scale will rest solely on whether we can develop a greatly increased scale of exports. To speak in this connexion, and in these conditions, of certain difficulties with our balance of payments, of the 'full utilization of home resources', or of 'transportation for its own sake' is merely to ignore and conceal the realities of the position.

As regards Mr Lever's remarks, I am rather in the dark as to the nature of the dilemma in which he seems to think I placed myself—a point on which he does not throw any light. As, however, Mr Lever appears to agree with the conclusions reached, presumably these at least have not been left 'in the air'. I find it somewhat difficult to accept Mr Lever's view of his first 'misconception', namely, that there is nothing real about a monetary system, in that it is only a mechanism. I am not sure in what sense any form of mechanism can be said to be unreal, but this much is certain, that the mechanism which it is proposed to set in motion with the object of producing full employment is capable of producing results—favourable or otherwise—which will be very real for the future of this country. In this case, to portray the mechanism as something in the nature of a financial phantom, conjured up by the jargon of economists, seems to me more likely to create a misconception than to remove one.

Such of Mr Bailey's criticisms as are not based on misunderstanding of the paper appear to be founded on the theory (which has already been dealt with) that the development of production can be adequately regulated by simply expanding the means of consumption until a condition of full employment is attained. I agree that the suggestion contained in Mr Bailey's concluding paragraph is amusing—as are certain of his other statements. The suggestion has, however, little connexion with any of the arguments in the paper, which are rather to the effect (expressed in the terms favoured by Mr Bailey) that repairing all the local drainage systems in the country will neither solve the production problems which a full employment policy presents, nor make any contribution to the provision of the additional supplies of essential commodities without which a full employment policy will be meaningless.