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THE INSTITUTE OF ACTUARIES

SAVINGS AND INFLATION

By invitation of the Council, Mr R. F. Harrod, F.B.A., Student of Christ Church and Joint Editor of the *Economic Journal*, opened a discussion which took place on 29 October 1951. The following is an abstract of the discussion.

The President (Mr F. A. A. Menzler, C.B.E.) said that early in 1951 the Council thought that it would be desirable to have a debate on inflation, a subject in which actuaries, or most of them, had a direct professional interest. It was felt that such a large subject, with its wider economic implications, could most fittingly be introduced for discussion by a leading economist. Everyone would be pleased that they had obtained the help of Mr R. F. Harrod, F.B.A., for the purpose. They had all read and heard with deep interest Mr Harrod's observations on matters of national economic policy, and he needed no introduction as to his standing as an economist. His brilliant study of the late Lord Keynes (reviewed in *J.I.A.* LXXVII, 310) would be well known to them.

Mr R. F. Harrod said that since he had undertaken to introduce the subject some time earlier the situation had become rather graver. The nation was closer to the danger of a serious landslide, and the problem of inflation was probably more urgent at the time of speaking than it had been since 1945, when the war ended—possibly even since 1939, because during the war, although obviously the inflationary pressures were far greater, there were available better means for dealing with them connected with the system of almost universal controls which were a necessary and natural part of the war, but which should be avoided, if possible, in any times that were not those of war.

Though the title of his talk was 'Savings and Inflation', he thought that his audience knew more about savings than he did, and that it would be a right division of labour if he were to talk mainly about inflation, with obvious corollaries in regard to savings. Inflation, of course, was destructive of saving; that was obvious and well known. How the destructive effect of inflation on saving could be overcome, he did not know. He had no doubt that all those who were concerned with saving, with carrying value forward through time, had been thinking of the different ways in which that might be done.

The investment of savings in a fixed money form, a bond form, was clearly open to the evils of inflation, but there were also dangers and difficulties in trying any other method of carrying value forward. There were threats of profits tax, capital gains taxes and other things which had to be considered. It had really become a very difficult problem to know how value could be carried forward to a future time.

There were many reasons why it was desirable and important for individuals and corporations to be able to carry value forward. Yet a point had been reached at which it seemed to be impossible to devise a method of doing so with any great measure of security. He was sure that that was a serious thing for the stability of the economy. Not only were savings menaced by inflation, but there was also the other side of the picture, to which he would refer later, that saving could be of immense help in the battle against inflation.

He believed that there was a good deal of confusion of thought about the nature and the causes of inflation. In discussing the problem he had found it useful, as a method of approach, to divide inflation into 'basic inflation' and 'spiral inflation'. They were really two different kinds of phenomenon. Both led to that upward movement of prices which was so disliked, but they had different causes and different cures.

By 'basic inflation' he meant a condition in which the sum total of demands on a productive system was greater than the system could meet. There were the demands coming (1) from consumers, exercising their perfectly proper rights of using their money to satisfy their needs, (2) from the capital outlay of industry and trade, (3) from the Government, and (4) from the foreign markets which the United Kingdom had to supply. If the sum total of those demands—demands which could be backed with cash, not idle wishes but demands, orders—were to add up to a requirement of goods and services which was more than could be produced in the economy, there was what he called 'basic inflation'.

It was characteristic of basic inflation that, in principle, it could be measured as being a certain sum of money. He would merely give illustrative figures; he was not going to indulge in any statistics. If it were assumed that the sum total of the demands impinging on the British economy was £14,000 million, and that the sum total of goods and services at existing prices was £13,000 million, the basic inflation would amount to £1000 million. Sometimes that was called the inflationary gap, the excess of demand over supply, but he preferred to call it basic inflation.

By way of contrast, 'spiral inflation' occurred when—probably in consequence of basic inflation and of any rise of prices which that basic inflation might have caused—various members of the community thought that they ought to get more money for their services in the form of wages, salaries, fees and so on. In so far as the increases were granted and the money was paid out, a lift would be given to prices over and above that due to the original basic inflation. To the basic inflation, the original inflationary force, was added the inflationary force caused by the extra money that was being paid into the system. The further payment of money caused inflation for two reasons, one on the side of supply and the other on the side of demand.

The further payment of money raised costs of production, and producers would require a higher reward, higher prices for their goods, to cover the higher costs. Even if there were governmental control of prices, the Government was always obliged to alter the maxima if it could be shown that wages had been raised, and that costs had accordingly increased.

On the side of demand, there was the ability to pay the higher prices. It was not simply a question of the 'suppliers' wanting something and the 'demanders' not complying. The 'demanders' would be able to pay the higher prices, because that extra money would be paid out in wages and so on. On the one hand the producers sought higher prices, and on the other hand the public had the extra purchasing power to satisfy them.

There was, therefore, a basic inflation tending to push up prices, an upward movement of wages and salaries giving a further push, followed by a further rise in prices, leading to a further demand for increased wages and salaries; so a spiral grew, the notorious 'vicious spiral', which he called 'spiral inflation'.

The difference between basic inflation and spiral inflation was that, whereas basic inflation could be measured as a finite sum of money, spiral inflation could go to infinity—depending on how quickly wages and prices chased each other. Wages were set going by the original rise in prices due to basic inflation; it was a question of how soon the trade unions would succeed in making new bargains and individuals in improving their rates of pay. If the process were a slow one over a period of years, the spiral would be going gently, and if the basic inflation did not last too long the result might not be too bad. To some extent it could be said that that was so during the war. But the spiral might go more quickly, and the quicker it developed the quicker the upward rise of prices would be. There was no limit. Wages might be adjusted every quarter, every month, or even every week, until a state was reached similar to that of Germany in 1922–3, the worst inflation in history, when wages were adjusted every day. When wages and prices chased each other in that manner, they soon to all intents and purposes reached infinity.

He had described two types of inflation, and next he would make another division—again two kinds of inflation, but a different dichotomy. The two dichotomies were related to each other, however, in a way which he hoped would be clear. His second division was between 'suppressed inflation' and 'open inflation'. Open inflation was perhaps the clearer concept. He would say that there was open inflation if, in his original example of £14,000 million chasing £13,000 million of goods, the prices of the goods, on the average, rose by $\frac{1}{13}$th. The same set of goods would then absorb the purchasing power of £14,000 million, and the £1000 million of basic inflation would have led to, and would have been absorbed by, a rise of prices. That was before the spiral began.

An inflationary gap or basic inflation of that magnitude, however, would not necessarily lead to so great a rise in prices, and there might be the phenomenon which he called suppression. Suppression might not be a happy word, because it tended to suggest Government interference, positive measures taken by the Government to suppress the consequences of inflation, whereas there might in fact be other causes of the suppression.

For instance, a firm of producers, seeing that its customers were better off than they had been, and that the demand for its products was running high, might put up prices and clear its order book; but the firm might be more conservatively minded, and might say 'No, we are not going to take advantage of this state of the market and clear our books; we prefer to set up a waiting list.' That had been done in Great Britain and in many other parts of the world to a great extent since the start of the current inflationary movement in 1939. There had been institution of waiting lists and delays in delivery. The firm said: 'We know that we could, if we wanted to do so, make hay while the sun shines and get a better price, but we prefer not to do so; we prefer to have a fixed price which everyone knows, or a price based on cost accounting or some other price which we regard as justifiable, and not to go up to any price which we can for the moment get.'

Of course, the phenomenon might be due to controls; there might be a controlled price outside which it was illegal to go. He thought, however, that the phenomenon of the waiting list as a mode of dealing with an excess of customers was more widespread than could be accounted for by the legal inhibitions on price raising alone. Many business men would proceed in that way, at least for the time being, and in addition there were various Government controls and price-fixing powers and so on.

The essence of the phenomenon of suppression might be related to the basic inflation. In his example, a basic inflation of, say, £1000 million might not have its full effect of raising prices in proportion because of the growth of the phenomenon of waiting lists and delivery delays. The basic inflation might push up prices in one sector and in another sector set up delivery delays. £500 million might go to pushing up prices in certain sectors and the other £500 million in demanding goods which were no longer being supplied after a normal interval. Delivery delays were set up and people went on waiting lists. To reduce his example to the simplest terms, suppression of the inflation might lead to waiting lists which in total had a value of one-half of the £1000 million basic inflation, while the other half might go into an upward surge of prices. With delivery delays people had the money and wanted to buy, but the goods were not forthcoming after the normal time-lag and purchasers had to wait. There had been a good deal of that during the war.

There were, then, those two alternative modes in which inflation might work through the economy. He would say a word or two about the merits of those alternative plans. If there were a certain amount of basic inflation, which was fixed and known, should the inflation be suppressed, or should it be allowed to take its course? Which was better for the economy? There were people who were keen to suppress inflation—some, as soon as they saw an inflationary rise, wanted to freeze wages and prices.

The evil of suppressing an inflation was precisely in the delivery delays which that caused. There had been serious examples in the war, and in the years immediately after the war, when industry was held up by shortages of basic materials and of certain components. The suppression of inflation, with too much money running after the goods and not being absorbed by rises of prices, led to all the phenomena of shortages and bottle-necks. People talked about shortages as if there *were* a real shortage of anything in the world. While there was, in fact, a real shortage of everything in the sense that everything was less abundant than people would like, yet there was, in the normal working of things, no apparent shortage, because the price was such that there was enough for everybody who could pay that price.

The suppression of inflation, however, caused shortages and bottle-necks, factories being held up for lack of components. Priorities might be established by Government officials so as to keep the arms factories working at top speed, but it was difficult to make those priorities work smoothly once the suppression was widely ramified throughout the whole economy. The evil effect of suppression was great. Suppressed inflation had led to delays in delivery in many parts of British industry, and the trouble had been growing seriously, affecting both the export trade and the provision of essentials. It was an evil thing and it slowed down production.

In a certain sense, the most fundamental cure for inflation was to increase production. If it were possible to have goods worth £14,000 million at the current level of prices, and the economy could raise its output by $\frac{1}{18}$th, that was the happiest way of curing inflation. Unfortunately, it was impossible to get a sudden increase of output of that order of magnitude. The evil of suppressed inflation, therefore, was that it held up production, which should flow smoothly if the fundamental problems were to be solved.

The evil of open inflation was that it had a greater tendency to set the spiral going. If inflation had been completely suppressed, so that the old level of prices was maintained, though it was difficult to buy things in the shops and waiting lists were even longer than before, that would not necessarily lead people to demand higher wages. There did not seem to be any connexion between long waiting lists and the idea of higher wages; on the contrary, people could not spend their wages on the things that they were accustomed to buy because the goods were not in the shops. It was clear that open inflation was much more likely than suppressed inflation to lead to a spiral.

Suppressed inflation had the evil effect of retarding production, and open inflation of being more likely to lead to a spiral; a spiral was worst of all. Whenever there was a real spiral going, it did terrible damage to the whole structure of the economy. At all costs, the development of a real spiral in Great Britain, with the total destruction of the currency, had to be prevented.

Having, as he hoped, made clear the distinctions between basic and spiral inflation and between open and suppressed inflation, he would attempt to answer his problem. If there were a choice in policy between allowing inflation to rip and trying to suppress it, and if the basic inflation were small, it would be better to let it take its course, because there would not be much spiralling and the productive machinery would be kept running smoothly. If, however, it was a pretty big basic inflation, which would lead to a substantial rise in prices and thereby to spiralling, it was probably wiser to suppress the inflation, in spite of all the evils which the suppression would bring with it.

It would be obvious, however, that the aim of policy should be not to suppress inflation but to cure it; for that they had to go to the basic causes. The adoption of measures such as price controls and wage freezes attacked only the consequences of basic inflation. The American authorities, in a fit of anxiety soon after the outbreak of hostilities in Korea, rushed through most drastic legislation for a universal price and wage freeze throughout the United States, though the legislation had since been somewhat modified. In his view, that method of approach was attacking the consequences of basic inflation; it was in fact attacking the spiral. The attack on the spiral merely turned it into suppressed inflation; the basic inflation remained. The right policy was to attack the basic inflation itself.

How was basic inflation attacked? That was what had to be done. He asked his audience to remember—because everything that he said was subject to it—that the ideal cure was to increase production sufficiently to fill the gap (in his example, a rise in production of goods from £13,000 million to £14,000 million at the same level of prices). But the inflationary forces actually involved were of a larger order of magnitude than that, and Britain could not hope to counter inflation by increase of production; it could be mitigated, but not completely overcome.

That being so, the demand for goods had to be reduced. To consider the problem he would take the four broad categories which he had mentioned earlier. Reductions had to be made in the demands from consumers, from the Government, from industrial and commercial capital expenditure, and from exports.

He would begin with the Government, because that was a popular starting point. A reduction of Government expenditure was a true and valid cure for inflation, and it was the one that everybody liked to emphasize, because it was somebody else's job to do it. It was a valid and important argument that the Government should economize to the utmost possible extent, and that that would help all the rest.

He emphasized that among the things on which the Government should economize was defence expenditure, not in the sense of having a single man less under arms, or one squadron less in the air, but defence expenditure on 'behind the lines' reserves and stocks and spares and so forth, which, he was sure, would bear a great deal of pruning. When he was in the United States of America a short time previously, he had been bold enough, as a British citizen, to say:

'I am sure that you spend far too much on defence by allowing your Service departments to make enormous quantities in excess of what is really needed to implement their commitments for operational forces.' Government economy was, no doubt, very important. Government demand could be somewhat reduced by that method, but not sufficiently for inflation to be cured.

The orthodox way to reduce consumer demand was to tax the consumer. That was what taxes were for, to reduce consumer demand and to make way for Government expenditure. But he would not recommend an increase in taxation and did not suggest that such a measure ought to be adopted. Taxation was already too high. He would venture to say that it had been somewhat unsound in policy, in the quinquennium after the war, to keep taxes at such a high level as to be near the limit of taxable capacity. There was, of course, no fixed limit of taxable capacity, but there came a point when the evil effects of further taxation might outweigh the anti-inflationary effect. The more taxes there were, the less the anti-inflationary effect of further taxes would be, because the more taxes there were the more likely would people be to pay part of those taxes at the expense of what they would otherwise have saved, or, indeed, out of capital. He thought, therefore, that the idea of getting much anti-inflation by further increases in taxation was wrong.

In that quinquennium taxation ought to have been somewhat reduced, so that there would have been some margin of taxable capacity to meet an emergency such as had come upon Great Britain. Rearmament was just the sort of unexpected emergency that might turn up, and any nation should always keep in hand a margin of taxable capacity and not push taxes up so high that taxation could not be further increased in an emergency.

The only other method of reducing the consumer demand was more saving. Taxation meant reducing consumer expenditure compulsorily; saving meant reducing it voluntarily. There was an immense difficulty in persuading people to save more, because inflation was proceeding, and that operated against the propensity to save—it was the difficulty in the way of any really big savings campaign. People said that the value of money was falling rapidly, and that to save was not a sensible thing to do.

He thought that there was a connexion between what might be done by way of reducing consumer expenditure by voluntary saving on the one hand and by Government economy on the other. It would help if the Government economy effort were clearly visible, and were made part of a nation-wide campaign for economy. The Government had to give the example, because if the Government did not give the example other people would not economize; but if the Government were to give the example of economy in a fairly striking way, and was able to persuade people that it meant business and was going to practise sufficient economy to prevent inflation, that would be the moment at which a great savings campaign might be launched, because increased savings were a prime anti-inflation weapon and could make a solid contribution to filling the gap which existed.

He confessed that he did not think that inflation could be prevented by those two methods alone. He did not think that the scope for Government economy was sufficient, nor that the amount of extra private saving that could be got would be sufficient. He was certain that industrial capital outlay had at last to make a big contribution to the anti-inflation campaign.

He would have a standstill in industrial capital outlay for two years, to include all outlay except what was directly or indirectly required by the defence effort. Industry had been re-equipping itself fairly extensively in the past five or six years. He agreed that much more could profitably be done for the sake of the future, but enough had been done in those six years to make possible a pause, a slowing down of the *tempo*, for two years, while the arms programme went through. Once the arms programme had been developed, the process could be reversed with an easing of the restriction of industrial capital outlay. In the following year or two there would be a big bulge of capital outlay for defence; but after the bulge had been passed and a plateau reached in current production, the economy should experience an easement in total demand which would enable industrial projects for reconstruction and so on to go forward.

People were often shocked at the idea of cutting down capital expenditure. It seemed to them wrong to cut down the capital improvement of the country, and in a sense it was undesirable; but those same people often said that what was wanted was a high rate of interest, a high bank-rate; they ignored the fact that a high bank-rate and high rates of interest were only of significance precisely to the extent that they caused a reduction in capital outlay. If a high bank-rate did not lead to that reduction, it was a mere ornament of no significance or economic import whatever.

Actually, bearing in mind the heavy national debt, he would not experiment very far with dear money. It was a mistake; there was much against it. To those who wanted to have the utmost amount of *laissez-faire*—and he was all in favour of *laissez-faire*, as far as it could go—and who would do everything by the bank-rate and high rates of interest, he would say that in the existing circumstances that policy would not work well; it would have other bad effects, and other methods to reduce industrial capital outlay would have to be found. People ought not to be shocked by the idea of reducing capital outlay, because that was just what a high bank-rate, the orthodox remedy, would do.

The reduction in capital outlay could probably be effected by tax adjustments. The Canadian Government had tried such a policy—though it was too early to judge its success. On any capital outlay not required for defence there would, say, be no depreciation allowances for the next two years, and the depreciation allowances on existing equipment could be raised. If, however, such indirect methods were ineffective he would use direct control, because that control, which cut at the root of inflation, would make a thousand other controls unnecessary. If there were inflation, the economy would have to be completely controlled; there was no way round it. Inflation could be stopped by selective controls.

He thought that the United Kingdom ought not to be exporting so much, and that exports would have to be thinned out. He had been pleading, apparently in vain, for such a policy, but he was sure that the country would one day move his way on that question. He had been strongly in favour of a revaluation of sterling to a certain level; he believed that that was the right way of doing it. Sterling had been too much under-valued. It was absurd to say that the pound sterling was worth $2.80; it was worth much more than that. British exports had been so stimulated by under-valuation that the country had been exporting too much and getting nothing for its extra exports.

In order to pay by exports for what was being imported in 1949, it was necessary to export £500 million's worth more goods, and that represented nearly 10% of the total manufacturing capacity of the country. The devaluation had not paid, in any sense. The nation had strained itself to the utmost, and in spite of that, in spite of the vast rise in exports, there was an over-all adverse balance of trade. It was ridiculous.

The devaluation of sterling affected inflation in two ways. The fundamental way, in relation to basic inflation, was that industry had in consequence of it been required to meet export orders for a vastly greater quantity of goods than before. That had to be added to all the other orders. Inflation should be thought of as being due to the sum of all the orders coming to industry, and devaluation had added an enormous amount to the orders coming from the export sector. That was basic inflation. Of course, devaluation had also caused spiral inflation, because devaluation automatically raised sterling prices by 40% against the dollar level, and the higher sterling price had an effect which in due course worked its way into the prices of finished articles and finally into the prices of goods in the shops.

The end of it had not been seen. Some ludicrous people wanted more devaluation, because there was a dollar gap. In his view there was no need to worry much about the dollar gap, but the over-all adverse balance of trade might give serious cause for anxiety and might lead to the break-up of all the sterling area arrangements which had been so valuable in so many ways. That would be a disaster. The causes of anxiety were the over-all gap and the terms of trade, i.e., the fact that a vastly greater quantity of exports was producing no more imports than before. In 1949, before devaluation, the terms of trade had gone severely against the United Kingdom compared with the position before the war, but the position was accepted stoically; people said 'We have lost our overseas investments and primary products are scarce'. By 1949 the terms of trade had gone quite far enough against the United Kingdom, and that extra move of 30% against it, which had happened since 1949, should not have been tolerated. He thought that sterling ought to be revalued.

He had covered the four main sectors of demand. He said that if basic inflation was to be cured Government demand had to be cut by a substantial amount. That meant Government economy. The consumer demand, which in normal days was cut by taxes, could not be dealt with in that way, and therefore a great savings campaign could make a considerable contribution, once there was some sign of inflation being overcome. Industrial capital outlay had to be cut, and exports had to be lessened. The latter would be cut whether the cut was or was not planned. But he feared that exports would be cut by increasing delivery delays, instead of being cut by an increase in the charge for them, by the revaluation of sterling and by the sloughing off of marginal markets which were uneconomic. The United Kingdom could not afford to keep those marginal markets, because it could not continue to export at the current rate and at the same time loyally fulfil its commitments to the North Atlantic Treaty Organization for rearmament.

Mr F. W. Bacon said that in his thought-provoking address Mr Harrod had drawn an interesting distinction between basic and spiral inflation and had suggested that basic inflation was the normal cause of spiral inflation. It seemed possible to go further and to say that basic inflation was the essence of spiral inflation, and that the latter was fundamentally a series of successive basic inflations.

In that connexion it was of interest to consider the familiar argument that, in a situation of full employment, increases in wage-rates unaccompanied by corresponding increases in productivity would lead only to higher prices, and would therefore set the vicious spiral in motion. It seemed to the speaker that, broadly, an increase in wages could only be passed on in higher prices if there were a corresponding increase in total incomes—in other words, if there were basic inflation. If total incomes were not increased, then the extra wages would be at the expense of other incomes. Employers who at the end of a particular week had to meet an addition to their wages bill might do so by drawing on cash resources previously idle or by borrowing from the bank, either of which actions would have the effect of increasing total incomes; but, if neither resource were available to them, they would have to finance the additional wages bill out of their current incomes and there would be no increase in total incomes.

Thus, whether wage increases resulted in a corresponding increase in total incomes seemed to depend upon whether the banking system permitted it, either directly by expanding advances or indirectly by failing to offset the monetization of previously idle cash resources. If the banking system did not so permit, there would be no increase in money demands and therefore no inflationary gap. (A similar conclusion appeared to hold also for any other increase in cost, such as that arising from higher import prices.) In practice, of course, the situation was much more complex than he had depicted it, and would call for correspondingly greater flexibility by way of offsetting action on the part of the banking system.

An expansion of total incomes could occur either (i) by direct expansion of bank credit (or by failure to contract credit to offset dis-saving by the public), or (ii) by additional Government expenditure financed by credit expansion. Either might cause basic inflation, but the former was the medium by which wage or other cost increases were translated into spiral inflation.

If the above reasoning were correct, the part to be played by banking policy appeared to be very important, both in neutralizing basic inflation and, more particularly, in preventing basic inflation being translated into spiral inflation. A first step might well be to diminish the ease with which central bank credit was made available to the commercial banking system through the 'special buyer', and for the Bank of England to resume its pre-war control over the volume of bank cash.

The country was faced with a great increase in armaments superimposed on a full employment situation which was already subject to considerable strain because of the higher cost of imports. The danger of basic inflation arose through the reduction of both consumers' and capital goods available to the civilian sector, without a corresponding reduction in the money demand for such goods. Except to the extent that productivity could be increased, rearmament orders could only be fulfilled by leaving civilian orders unfulfilled; and the money which would have been spent on those orders would swell the demand for the remaining civilian goods available, unless the Government extracted it by taxation or borrowing. If the Government were to rely on credit to finance rearmament orders, basic inflation would result.

What types of goods should be sacrificed to make way for rearmament orders? There was an obvious advantage in selecting those goods whose sacrifice was most likely to result in the unspent money being saved. Mr Harrod would concentrate the reduction on non-defence capital outlay, and that certainly had the advantage that a substantial part of such outlay was under the direct control of public authorities and of the nationalized industries, so that it should be comparatively easy to ensure that the money which they saved by cutting their capital expenditure was transferred to the Government without any inflationary effects. To secure the transfer of money saved by private firms whose capital outlay was cut might, however, be more difficult, unless an effective savings campaign were undertaken.

A drastic reduction of non-defence capital outlay meant mortgaging the future in order to rearm the present. It was the least painful of the various alternatives, because it did not necessitate any immediate reduction in the standard of living; but it had the drawback that it undermined the increase in productivity on which ultimately everything else depended, including the standard of living. Provided, therefore, that the rearmament phase was to be restricted to a limited period, the policy had much to recommend it, but beyond that it seemed to him that other alternatives should be found.

He was doubtful, however, whether a reduction of non-defence capital outlay could be made to carry the whole burden. It seemed that some firms making consumer goods either for the home market or for export, particularly durable goods such as cars, would have to switch over to armament work, while other firms would have to switch to exports to replace goods previously exported. Thus, the supply of consumer goods available for the home market would be reduced without any corresponding reduction in consumers' incomes.

It was at that stage that it became really important to have a savings campaign designed to mop up surplus incomes and to prevent them swelling the demand for, and so pushing up the prices of, the consumer goods which were still available. He heartily agreed with Mr Harrod's view on the great contribution which such a campaign could make to the prevention of inflation, though he thought that the initiative would have to be taken by the Government, and that increased saving through life assurance was more likely to be an effect than a cause. Furthermore, a direct savings campaign was unlikely to be successful if there were a general expectation that interest rates were going to rise, though a prior rise in interest rates might well act as a stimulus to such a campaign.

If spiral inflation were to be avoided, it was important to prevent rises in the prices of those goods at least which entered largely into working class expenditure. If, therefore, in spite of all efforts to increase savings, the prices of essential consumer goods showed signs of being pushed up solely by reason of increased demand, there was a case for stabilizing them by means of price controls wherever that would be practicable. He knew that price controls were not viewed with favour but, in the particular circumstances of a demand inflation, if all else failed price controls seemed to him to be a lesser evil than spiral inflation.

So far, however, the direct impact of rearmament expenditure on prices had probably been small compared with that of the rising cost of imports, which was obviously playing a large part in increasing the cost of living and so stimulating demands for higher wages. (That would still be true, even if the prices of exports had increased correspondingly.)

Mr Harrod proposed the heroic remedy of restoring the dollar price of sterling. Whether such a restoration would be successful would appear to depend on the elasticity of foreign demand for British exports. Presumably, some increases in the prices at which British goods were sold in foreign markets would be necessary, and some markets would be lost as a result. If the net effect were to increase the total value, in terms of dollars, of the goods sold, in spite of the reduction in volume, the raising of the dollar price of sterling would achieve its object, but the prospects of such an outcome did not appear favourable. They might become so, however, when American demand increased, as rearmament in the U.S.A. got into full swing. His own view was that if inflation were to grow in the U.S.A. then the raising of the dollar value of sterling should have a fair chance of success; but to the extent that the U.S.A. was successful in curbing inflation the outcome of such a restoration became more problematic. In that connexion, it was the exports of the sterling area, and not of Britain alone, which would have to be considered, since, presumably, if the British pound were revalued the rest of the sterling area would follow suit, wholly or partially.

It seemed to him to be particularly important that, where wage increases were granted, they should not be allowed to lead to a corresponding increase in total incomes. That meant that the banking system ought to refrain from expanding credit to finance the additional wages bill, and should if necessary contract it. In that way spiral inflation would be checked at the start, and wage increases would only be given where they were genuinely intended to represent an increase in or restoration of real wages.

Mr G. H. Recknell contended that, as actuaries, in their business capacity the only positive contribution which they could make towards deflation was to encourage by all means in their power an extra flow of savings through the life assurance industry. That he took to be the burden of Mr Harrod's message for them.

It was worth while, therefore, to examine the extent and nature of the volume of savings handled by the industry. In 1949, the total premium income from life assurance and annuities combined, excluding only industrial assurance, was about £165 million, and of that about £43 million was attributable to pensions provision in one form or another—as much, therefore, as 27 % of the total. The corresponding percentage in pre-war days was unknown, but it was certainly much less. It seemed to follow, therefore, that the current proportion of new business being handled every year in that form was a good deal more; it might be 30 % or even 40 % of the total.

While, therefore, it was interesting to be able to measure how important pensions provision was in the total of their business, it was also rather chastening to observe the diminished importance of true life assurance, in the form of saving for future generations. If the total new life assurance business was taken in terms of sums assured, the figure for 1938 was just under £250 million, and the figure for 1949 was rather more than double that; but, if he were right, or anything like right, in his guess at the proportion of pensions provision now being handled in new business, the conclusion would be arrived at that, so far from true new life assurance being something of the order of twice the pre-war level, it was difficult to believe that it was in fact much above the pre-war level in amount and, when regard was had to the altered purchasing power of money, it was probably a good deal below. That was a chastening conclusion, but perhaps it might act as a spur to them to do what Mr Harrod so properly urged them to do.

The fear of inflation had not, in his view, acted to any extent as yet as a deterrent in the procuration of new life business. There were no doubt many reasons for that, but high among them he would be inclined to put the instinctive faith of the public that somehow or other the Government would take the necessary measures to prevent the continual seeping away of the purchasing power of the currency. For his part, he rejected the notion that inflation was either permanent or inevitable. He considered that the propagation of that notion was a national dis-service, just as he believed that in prevailing circumstances any attempts to hitch the 'life assurance wagon' to a cost of living index or any such nebulous thing, if not illusory, would only hamper the efforts of the authorities. Mr Harrod had carefully avoided the advocacy of any kind of hedge for life assurance policies, and it might be wondered what his approach to any such attempt would be. Perhaps other speakers would put forward some such plan. He himself had given a good deal of thought to it and had written about it, and the result was in the record (*T.F.A.* XIX, 17).

By far the greater part of Mr Harrod's address, however, had been in the realm of pure economics. It was difficult for mere actuaries to invade that uncertain territory, yet he hoped there might be others like himself, untrammelled by any knowledge of the subject, who might perhaps be encouraged to 'have a go'.

Among his remedies, Mr Harrod cited the classical ones of higher production, of cuts in Government expenditure, and of a pruning of new capital projects. As a means of reducing new capital investment, the speaker associated himself with what Mr Bacon had said, in that he believed that the most hopeful course immediately available was to take steps to lock up, intern or assassinate the 'special buyer', whose activities resulted in the discount market in the first instance, and the trading banks in the second instance, being supplied with almost unlimited funds. If that were done—and Mr Harrod might care to undertake the job as a patriotic duty—the control of credit creation would be restored to the central bank, the Bank of England, where it properly belonged. A higher long-term rate of interest would be a possible consequence, though not an essential consequence, since the object of the exercise, as Mr Harrod had said, was not to raise the rate of interest but to cut down new investment.

It was when Mr Harrod came to advocate writing up the value of sterling *vis-à-vis* the dollar that he seemed to be on much more debatable ground. In the first place, the correct remedy for a current deficit on trading account with foreign countries was surely not an alteration in the exchange rate but internal deflation, by which every one should put in more and take out less. Though from a political point of view an alteration of the exchange rate might be easier, it was not the best course to take, and would be likely to deflect people's minds from the better, harder and more onerous course of internal deflation.

In the second place, if the exchange rate were to be altered he would have thought that the prevailing situation called rather for a de-valuation and not a re-valuation, a devaluation designed to discourage imports which cost more, and to encourage exports for which the foreigner paid less. Revaluation, on the other hand, had the opposite effect of encouraging more imports at lower prices. As a result, it seemed likely to promote more consumption within Great Britain, which was what it was desired to avoid, and therefore more inflation.

There was one other relevant argument, and that was the theory of purchasing power parity. Since the last devaluation of sterling, in September 1949, wholesale prices in the U.S.A. had risen some 20%. The corresponding rise in the United Kingdom had been twice as much, namely 40%. On the theory of purchasing power parity considered by itself, it scarcely seemed to him that such a relative movement could be adduced in support of revaluation.

There was another remedy which had not been mentioned, and that was the dissemination on a world-wide scale of holdings of gold in private hands. At the time of speaking there was a free gold market in Paris, another in Tangier, and another in Macao. He wondered whether it would not be feasible and desirable to extend the existing markets and to organize fresh ones to a point which would lead to an efflux of gold from the U.S.A. After all, gold was the ultimate basis of value and of credit, and, if measures were taken on a world-wide scale, internationally—because, after all, inflation was a world-wide problem—to bring such a thing about, he imagined that it would have a world-wide deflationary effect.

Mr R. J. Kirton found it a little difficult, in dealing with a subject such as that under discussion, to know whether he spoke as a citizen, as a life office executive or as an actuary.

As a citizen, he felt that the greatest danger in modern times sprang from the dominating influence which politics was coming to have over economics, from the desperate danger of choosing jam to-day at the risk of no bread and butter to-morrow. He believed that the root of their problems was fundamentally a moral one, the danger of the insistence on rights rather than on duties.

From the life office point of view, if an ordinary 20-year annual premium endowment assurance were considered against a background of what he had always called creeping inflation but in Mr Harrod's terms would be slow spiral inflation, the contract would show a net yield at compound interest, depending on the office chosen and whether the assurance was with-profit or non-profit, of, say, 2%–3½% net over the twenty years. If that compound interest yield were offset against the effects of inflation, which would be represented by a rise in the cost of living, there would be something like the following position, assuming that a good policy had been chosen. If over twenty years the purchasing power of the pound were to fall to, say, ten shillings, the fall would represent an annual compound rate of rather less than 4%, and it would be found that the total real value paid in premiums, without interest, came roughly to the same amount in real value as was returned at maturity. It would be rather more if there had been better income tax relief, and the life insurance would have been thrown in free.

He did not wish to stress that argument, but to underline the general effect of offsetting the operation of compound interest against the operation of creeping inflation. He thought that that argument was perhaps helpful in supporting the valid plea made by Mr Harrod for the encouragement of saving.

If he might close as a citizen, he would emphasize the dangerous effects of politics dominating economics, and would again stress the moral root of the problem, namely the danger of insistence on rights rather than on duties. In his more optimistic moments, he hoped that the genius of the British people for living together might help them to solve those difficult problems, as Britain's contribution to the evolution of the social order.

Mr L. Ginsburg, F.F.A., expressed the view that Mr Harrod had given an accurate but rather one-sided conspectus of the inflation picture. It was obvious, of course, that violent inflation disrupted and impeded production, but it was unrealistic to suggest that inflation was an out-and-out destroyer. The factories, the power stations, the transport services and the natural resources, as well as the muscles and brains of the population, could lose nothing of their intrinsic value. On the other hand, the paper titles representing, directly or indirectly, the prior charges on the national resources might be utterly destroyed. When German industry rid itself of those prior charges during the inflation of the 1920's it was revived and stimulated, but the effect on a not inconsiderable section of the population had been devastating, and quite irreconcilable with a democratic attitude towards life. He did not suggest that they should become indifferent to the implications of inflation, but he did think that the bogey-man should be divested of some of his terrors. Once people had adjusted themselves to the possibility of having to live with a mild inflation, it might be practicable to minimize the disruption and distress which were liable to be pulled along with it.

An analysis of the inflationary situation broke it down into three factors. First, there was a mild basic inflation, which seemed to be the price to be paid for full employment, and to which it should be possible to adjust the economy without disruption. It seemed that that situation had been tackled with some reasonable success during the years 1949 and 1950. Secondly, there was a violent dose of basic inflation arising from the diversion of so much of the country's resources to rearmament. Finally, the analysis showed that basic inflation arose from the continuing adverse changes in the terms of trade since the end of the war. That might merely represent the gradual rectification of the relative standard of living in favour of raw material producers, but temporarily it had been made much more violent on account of stockpiling activities.

Those last two factors, namely rearmament and adverse terms of trade, unavoidably meant a lowered average standard of living, and the problem of inflation in the contemporary situation was reduced to the problem of distributing the burden amongst the different sections of the community.

If it were possible to increase productivity, the total weight of the burden might be substantially reduced; but in the short term that seemed unlikely. On the other hand, it was reasonable to hope that in the long run British resources of brain-power, ingenuity and initiative would effect a substantial restoration of the balance. If Mr Harrod had his way, however, and there was a drastic reduction of non-defence capital expenditure, the outlook for increased productivity was poor indeed. Capital expenditure to-day meant increased productivity to-morrow. If it were seriously suggested that Britain should abandon its substance by calling a halt to capital development, it would be better by far to live on charity, from whatever source it might be forthcoming. The experience of the early post-war years, following on the essential abandonment of all capital projects during the war, provided a warning and an example; the crisis of 1951 did not, at the time of speaking, seem to be so grave.

Though there might be scope to restrain some inflation by reducing Government expenditure, the only ultimate outcome lay in a reduction in living standards, which would have to be accepted. The incidence of the lower standards was a political problem. The nation was not homogeneous, and the average standard of living was a mere will-o'-the-wisp. According to his political outlook, therefore, a person advocated either increase or reduction of taxation, removal or maintenance of food subsidies, restriction of wages and dividends, or removal of restrictions from either or both of them. It was the function of the politician to decide what was practicable and socially least undesirable; the economist merely presented him with mutually contradictory alternatives.

Mr Peter Wiles (a visitor) apologized as an economist for venturing to speak, and still further for the fact that his intention was not to speak about economics but to venture on actuarial ground. He hoped that the actuaries present would be patient with him and would forgive him for the mistakes which he would certainly make. He wanted to put forward one simple suggestion.

If Mr Harrod's excellent advice were not taken—in his own mind he felt that it would not be taken—and inflation proceeded, what was to be done with pension schemes? He believed that, somehow or other, pension schemes had to be safeguarded against inflation, and he did not believe that the effects of doing so would mean adding fuel to the flames. There were many suggestions, of course, such as tacking incomes to the cost of living index, which would add fuel to the flames, but the suggestion which he wished to put forward did not seem to him to be in that class; it was therefore pessimistic, but not unpatriotic.

He could not himself judge, since he was not an actuary; but he had recently come into contact with the new French 'distributive' pension schemes—in French, *régimes de répartition*. The object of these schemes was to avoid funding, and they did involve little or no funding. A man while still at work paid for his predecessors, who had retired, out of his current salary, which it might be assumed had risen, partially at any rate, in accordance with the cost of living. When that man's turn came to retire, he would have established a claim on a pension fund; that claim was expressed in points, and would be met out of the premiums of his successors, whose salaries would again, it seemed reasonable to hope, have followed roughly the cost of living. The value of the points had to be settled year by year in accordance with mortality experience and so on.

There was one clear objection to any such scheme: there was no interest element. In that respect, it was inferior to the life assurance scheme which Mr Recknell himself had put forward whereby equities were bought for the life assured and he was paid back by selling the equities. Such a person would get both interest and capital, whereas in the scheme which the speaker was putting forward there was only capital. Another objection was that the scheme had to depend on compulsory membership. It was necessary to have a large group of people, and one of the schemes in France had 300,000 members. The group, of course, should be distributed among more than one profession, because any given profession might dry up.

He did not recommend the scheme; he merely recommended actuaries to study it, and he felt that it had two advantages which should at least entitle it to serious consideration. The first of those advantages was that in the 'equities' scheme which Mr Recknell had put forward it was clear that dividend limitation, nationalization and other factors might depress the value of the equities, if not turn them into something else; there were accidents which could happen to such a scheme which might make the one he himself was putting forward a preferable alternative. The second advantage was that, as would have been apparent already, at the beginning of the scheme there would be a surplus, because there would be few people with pension points and a large number of contributors. The French had solved the problem of that initial surplus by making payments *ex gratia* to those already retired who had no points. In France that was an act of honour which any profession more or less had to do, because in France, where things had become so much worse than in Britain, people already living on pension had been entirely expropriated, it might be said, by the orthodox pension scheme. Even in Great Britain many people had been very severely handicapped by the course of prices and needed just some such *ex gratia* payment. One of the attractive elements of the scheme was precisely that it enabled such an act of justice to be done.

He would not bother the meeting by giving bibliographies and references, but would urge people not to say that the scheme was impracticable. In one scheme in France there were, as he had said, 300,000 members to date, and, despite payments *ex gratia* to previous generations not entitled to points, the scheme was in good financial heart and had made considerable profits so far; the reason it had made profits was that it expected a disadvantageous mortality experience.

Dr J. Bray (a visitor) said that Mr Harrod had tried to make their flesh creep and had suggested that the prices of commodities were likely to go up at an early date and probably also in the long run. He would hate Mr Harrod to go away with the idea that no one had criticized those statements, and he wanted to put a few doubts in the minds of his audience.

What was the original cause of any rise in prices? It was useful to look at the evidence. Surely, the cause was that the creation of money outran the increase in production. It seemed clear that, over a long period, in order to keep prices steady the creation of money must be sufficient to increase the volume of money by about 4 % per annum. Under the gold standard, the amount of gold had to be increased by 3 %, but he thought that the creation of money would have been bigger, and he would put it at 4 % per annum.

The rise in prices since 1939 was due to the creation of money which had taken place since 1939. In 1939, there was about £2700 million of money in the United Kingdom. By 1947, it had risen to £7000 million or thereabouts. On top of the creation of money during the war, there had been a further creation of money which he attributed to Mr Dalton, when Chancellor of the Exchequer, who wished to go down to history as a second Goschen. Since Mr Dalton left office there had been no net creation of money. The bankers' balances at the Bank of England had been steady at about £300 million since the last quarter of 1946, and the figure for the third quarter of 1951 was only £292 million. It was not surprising that there had been a contraction of credit in the past three months.

Since 1946 there had been a rise of over 100 % in commodity prices, and he thought that at the time of speaking prices were vulnerable not to a rise but to a fall. What was most likely to touch off that fall was a sizeable adverse balance of trade, and the country had that with a vengeance. The adverse balance of trade in 1951 was likely to be £400 million. The classical riposte to that was for the Bank of England to reduce the volume of money. That, he took it, was one reason for the tendency of bankers' balances to decline.

Mr Harrod suggested that the price of sterling should be raised. Any central bank president of the nineteenth and early twentieth centuries would turn in his grave—an adverse balance of trade of £400 million coupled with the suggestion that the price of the currency should be raised!

That was the evidence for the short-term outlook. He refused to say what was going to happen or likely to happen in the far future until he obtained further evidence. What was likely to happen in the far future depended upon what the monetary authorities did in the circumstances which arose. The next budget, however, was going to be a difficult one, and, as far as he could gather, in order to produce the kind of surplus which Sir Stafford Cripps had been producing it would be necessary to have another £500 million of taxation. It was worth mentioning that the country had had a steady volume of money since the end of 1946 because there had been a sizeable budget surplus. If that sizeable budget surplus were turned into a deficit because the additional £500 million of taxation was not put on in the 1952 budget, there might be further creation of money, but, until he saw that further creation of money, he was not going to believe Mr Harrod's statement that there was going to be inflation.

Mr F. M. Redington agreed, broadly speaking, with Mr Harrod's prescription for avoiding inflation and took the view that the remedies were all genuine and sound except, perhaps, for the last one, namely, the upward revaluation of the pound. It was true that it was anti-inflationary, but the corollary would have to be established that it would not make the balance of payments position worse. He was not sure that revaluation as a remedy was not like the advice given by the countryman who said 'If you want to get to X, you can't start from here.' He did not say that dogmatically; he was asking a question.

He himself had had no doubt, when the rearmament programme was proposed, that it would in fact be paid for partly by inflation. Something was known about how to control the economy in a reasonable way for reasonable changes, but people had not yet got the political philosophy to behave in a social way to meet a strain which was exceptional. No way had been found of paying for wars or for rearmament except by inflation, and he was afraid that there would be more inflation before rearmament had been paid for. Looking at the problem in its widest generality, it was obvious that that would be so: people were all jostling for their slices of the national cake, and, when the size of the cake was reduced by rearmament, the jostle became more severe. There was a sort of Boyle's law that the pressure multiplied by the volume was constant.

So many other remedies, by the time they had bounced through the economy, ended up as inflation. Increased taxation, decreased food subsidies and so on, all led to inflationary claims. On the other hand, inflation did in fact do what the other remedies set out to do; in real terms it did increase taxation. The value of the allowances was reduced, the sur-tax level was reduced, the food subsidies were reduced, because in terms of real values they were less. The inflationary method was abhorrent, because it meant that the weakest sections of the community paid. What happened in the jostle was that if there were an over-all 5% cut in the cake, the weakest section was made to pay most and had, say, a 20% cut; the next weakest had a 15% cut, and so on, while the most powerful section escaped without any cut at all. The problem was not primarily an economic one; it was primarily a question of understanding by the people as a whole, the understanding of one trade union that if it obtained an increase it was at the cost of the other trade unions, and the understanding of one employer that if he put up prices it was to some extent at the expense of other employers.

In one sense he was not unduly worried by inflation, though he thought that it was most inequitable and unfair. He saw to date no evidence of spiralling. If the weakest were to pay 20%, they had not reached the 20% so far. It was remarkable how in 1947 and 1948 the tremendous inflationary pressure of the previous years did die away. He said that without any blessing on the inflationary system, but having regard to what he considered to be the facts.

Mr A. T. Haynes, in closing the discussion, said that he was very conscious that he could speak with no expert knowledge of the economic aspects of the subject. He could only speak as a layman, puzzled and troubled by what was going on in the world, and as an actuary who, being responsible for the safe keeping of other people's savings, was disturbed at the way in which those savings were threatened by the growing forces of inflation.

As a layman, what seemed to him to be so serious was the way in which gradual inflation was becoming generally accepted as a feature of modern life which the individual, according to his outlook, either tolerated or welcomed as a deliberate act of social policy. To his mind, inflation would always be dishonest; it was a form of default, a means of avoiding promises and debts which represented at the very least a moral obligation.

Mr Ginsburg had mentioned in the discussion that people ought perhaps to be prepared to live with a mild inflation—a process which had been described elsewhere as 'lying on an inflationary bed'. The speaker did not like that fatalistic outlook. As Mr Harrod had said, the problem was becoming more serious as the days marched on. Within the past few months, probably for the first time in Great Britain, there had been evidence of a general, fairly widespread consciousness of the trend of inflation.

As an actuary, what troubled him was that his stock-in-trade was money, and that the value of that money was continually depreciating. Many a contract then maturing had been paid for in golden sovereigns, at least so far as the early premiums were concerned, and the process continued.

The remedy, so far as he could see it, was not in the actuary's hands, except perhaps to the extent that certain types of investment might act as a hedge against inflation for with-profit policyholders. What was even worse was that the public might lose faith in life assurance, pension funds and any form of long-term saving expressed in money terms. He, and others, almost hesitated to air such views or to face the issues involved for fear of loss of public confidence, which was vital, of course, to the restoration of stability. On the other hand, the current tendency seemed to him to be all in the other direction; the tendency was to wave aside the problem as insoluble and unavoidable. He believed that no good could come from that approach.

Fortunately, the services of the life offices and pension funds were so generally appreciated that, even in terms of a depreciating currency, they were still recognized as providing the only available way to meet the contingencies involved. That fact, however, only served to emphasize the duty of the State to take every possible step to maintain the value of the currency in which long-term savings of all types were expressed. If the State provided the vital element of public confidence at home and abroad, life offices and pension funds could attract, he was sure, an ever-increasing volume of voluntary saving.

When it came to the cure for inflation, he was afraid that he found even greater difficulties than others who had spoken that evening. The favourable effect of a reduction in Government expenditure could be clearly seen, but it had to be admitted that there were limits to the economies which could be effected. He was not happy about Mr Harrod's proposal that sterling should be revalued, but he found it a particularly difficult question to resolve. He felt, however, that much could be done in the private sector of the economy, where he was sure that the spiral developed, and where the problem of inflation seemed to be deeply involved in human nature; it was a question of which would prevail—the self-interest of the individual or those resources of generosity which could still be inspired by the right approach. For example, communal charity, by way of social security, State hospitals and similar services, all had to be borne by someone, and, if the individual were to use his bargaining power to avoid his share of the burden, then that communal charity was void.

The problem seemed to him to be how equilibrium in the economy could be reached by splitting the national income in a way which would satisfy all—which was probably impossible—or which all could be persuaded to accept. As he had said, the roots of that problem lay deep in the social framework and in human nature. He felt that there was still room for a considerable increase in sheer hard work, increased hours and a greater effort generally to produce additional goods and services (so far as raw materials would permit), which would themselves provide the required incentive. So much of the national income went to meet the standing charges—the social services, rearmament and Government expenditure generally—that it seemed to him to be most important that the surplus output, which was really the equity in the national cake, should be as high as it could possibly be. The equity all belonged to the producer, the employer and employee, and in the modern world that equity was quite highly geared. On a long-term basis there was ground for hope that improved technology would lead to increased production without increased human effort, but he felt that in the short term there was no alternative to sheer hard work.

Turning from the cure for inflation to the encouragement of savings, he felt sure that savings had to be voluntary; compulsory savings, by way of taxation or otherwise, were so often circumvented by increased wage demands leading to still more inflation, or by drawing on capital, as Mr Harrod had suggested. How was it possible to secure those increased voluntary savings when income was much more widely distributed than it had been? He did not think that it was much use making an appeal on patriotic grounds. In a time of recognized crisis that would work, but not otherwise. He thought that the answer might be some form of saving with a purpose—saving for a pension, saving for dependants, saving for a house or for a car. Just after the war he saw two buses outside his office window; right along the side of one of them was 'Keep on saving' and of the other 'You are going to have a Morris'. He thought that there was something in that juxtaposition of ideas; if saving could be linked with the promise of future delivery of goods in short supply it might be advocated with success. Some form of saving with a purpose might be a solution.

One difficulty in discussing the subject of inflation was that the subject itself had become so deeply involved in the political arena. It was, he thought, most important that scientific thought—and he hoped that their thought that evening could be regarded as scientific—should not be deterred by the fact that politics had become concerned with the subject under discussion. The scientist ought to allow for the facts and for the normal reactions of human nature. The politician might hope to alter human nature, but before allowing for the effects of so doing he should be sure that he would meet with success. The only hope seemed to be to accept human nature, which would usually go the right way within the family circle, but probably not very far beyond it. It was in that sphere that life assurance and pension funds could play a big part, if only the State would first provide the necessary background of confidence. That, by one means or other, was the most vital necessity.

The President said that, looking at the matter, from their neutral corner, he thought that most actuaries would agree that the economic crisis of 1951 had received remarkably scant attention from politicians. To a visitor from another planet, the implications of the situation, in which the country was living well beyond its means, would hardly appear to be a major national issue. The external deficit was, of course, in considerable measure the reflex of inflationary pressure at home.

With the redistribution of incomes which had occurred since the pre-war years, personal savings had of necessity to come more and more from those who were known euphemistically as the 'lower-income groups.' He was sorry, therefore, that Mr Recknell cut out industrial assurance from the figures which he gave. By and large, the lower-income groups were better off in real terms than ever before. According to the last White Paper on National Income, gross personal savings amounted in 1950 to rather more than £300 million. That figure might be contrasted with the aggregate net figure for personal incomes of round about £9,000 million, i.e. after deduction of income tax and savings. Even taking only incomes below £500 per annum, the total net figure for personal incomes in 1950 was of the order of about £5500 million. There was clearly a reserve still to be tapped for small savings, and the role of such bodies as life assurance companies, friendly societies and pension funds in gathering up those savings was of the first importance. As had been remarked more than once that evening, there was a world of difference between voluntary savings and compulsory savings in the form of taxation to produce a budget surplus. In 1950, to go back to the White Paper, the total of all kinds of savings of the community finding expression as capital formation amounted to £2500 million, of which nearly one-third represented sums set aside by public authorities, through the budget surplus and other means; but budget surpluses were achieved partly at the expense of personal savings. Compulsory savings through extra tax burdens, moreover, tended to evoke demands for wage increases to offset the reduction in net income, and to that extent were inflationary in effect. Voluntary savings could be encouraged with little or no inflationary reactions, but the stimulation of voluntary savings through the recognized agencies of thrift had obvious implications for investment policy.

In the life offices and amongst pension funds, the traditional attitudes towards investment in equities were already changing rapidly. Doubtless, the general inflationary tendency had prompted the movement, in the hope of securing a measure of protection against a fall in the value of money. From the national point of view, however, with the decline in the contribution from the risk-taking type of large investor and the growing importance of public saving, industry would have to look more and more to the institutional investor to provide funds for development and expansion. It was worthy of note that, already, 11 % of the funds of the life offices was invested in equities, and several important offices of the highest standing, ordinarily regarded as conservative—or perhaps he should say traditional—in outlook, had increased their proportion of equity holdings to well over 20 %. From the national point of view, it was evident that everything should be done to encourage savings through life assurance, particularly in the lower-income groups.

There would be general agreement that there had been a valuable and stimulating discussion, which had amply justified the Council's decision to stage a debate on inflation. Certainly their timing, however unconsciously, had been wellnigh perfect. Before asking Mr Harrod to reply to the discussion, he wished to propose, on behalf of the meeting, a hearty vote of thanks to him for his kindness in coming there that evening and in going to so much trouble to prepare his remarks.

Mr R. F. Harrod, in reply, said that the speeches which had been made had been interesting and he was in agreement with much of what had been said. Broadly, he was on the side of those who thought that inflation was an evil and that it was necessary to fight against it and not to acquiesce in it. Apparently Mr Ginsburg thought that it was not too bad, and also that it was the necessary price which had to be paid for full employment. The speaker believed that the statement that to have full employment it was necessary to have inflation was totally untrue. Great Britain had had full employment together with inflation for a particular period of six years in its history; that was the only proof which was vouchsafed for the proposition—hardly proof of a scientific character. He thought that inflation was an evil and that they should do their utmost to conquer it, and that perhaps they could do so.

At the beginning of the discussion Mr Bacon, who had been supported by Mr Recknell and other speakers, had asked whether there was really a fundamental difference between basic inflation and spiral inflation, and whether spiral inflation was not really a succession of basics. That was not his own opinion; he attached enormous importance to the difference between basic and spiral, and thought that they were two different kinds of phenomena, worlds apart. He agreed that basic inflation caused spiral inflation, but they were different phenomena. The reason why Mr Bacon thought that they were similar was that in his judgment they both came about through some kind of expansion of banking activity. That was a very respectable view, and Mr Bacon had a long line of respected authors behind him; but he, personally, did not believe a word of it. He thought that a very tight bank policy was one way of reducing basic inflation somewhat and, perhaps, of slightly checking spiral inflation, though he did not think that it would do much in that respect. The fact was that when there was a real demand for goods and consumers had incomes and could use them, when industry had many projects from which it foresaw a profit and wished to go ahead with those capital works, and when the Government had to rearm and to do other things, such as providing social security, there was nothing much that the banks could do. Mr Bacon suggested that there had to be some expansion of money somewhere, but he did not accept that view; he thought that it was possible to get the whole of the additional purchasing power by increased velocity of money. It was possible to have an increased velocity of money of five or ten times, and a spiral inflation which raised prices five or ten times, and the whole thing could come about through an increase in the velocity of circulation of money.

The bank could check inflation to the extent that a high rate of interest or, sometimes, a bare denial of credit, would prevent certain capital works being undertaken which otherwise would be carried out. He did not think that any rise in interest rates within reason would, in the existing state of pressures, reduce by much the capital outlay which industry wanted to make. Industry did not necessarily have to go to the banks; there were other ways of raising money. So long as the industrialist had assets, if he saw that something was profitable he would go on with it, and it was no use the bank saying anything. Certain marginal projects would be affected by the attitude of the bank, and one business man in ten might depend on his bank letting him have an overdraft, and might be baulked if the bank would not let him have money, but the other nine would have other means of getting their money, and the reluctance of the bank to lend would make little difference.

Admittedly, the banking system might shave off some of the capital outlay which would otherwise occur, but the idea that in the existing circumstances, with all the urgent needs for capital outlay, the bank could stop the excess of demand over supply simply by not making the money available, was not a valid one. Mr Bacon had said that if there was a demand for an increase in wages the banks could prevent any increase in total national income. That was quite beyond them—as he was sure that bankers would agree. In the United States, where he had discussed the subject with American bankers, they had denied absolutely that they had such drastic power.

One or two other speakers supported Mr Bacon in the belief that the restriction of credit could do a great deal. But he, personally, had a horrible feeling that that belief tended to make people complacent. It represented an old, traditional doctrine, but he thought that that doctrine had been shown to be wrong and that it had its roots in very different circumstances. What he was afraid of was that many knowledgeable and intelligent people in the financial world would believe that there was a key to be found there, and that if the Bank of England could be persuaded to be quite unlike Mr Dalton and go very much the other way, that would provide a key to stop inflation. That was a dangerous point of view, because it was mythological. There was no such key. It was possible slightly to reduce the amount of inflation in that way, and that was all. He had spoken with emphasis, because if people believed that the key lay there they would not be so urgent in their search for other methods of stopping what he regarded as a great evil.

His suggestion of the revaluation of the pound had had no support from any quarter, but had met with much criticism. Mr Recknell said, quite correctly, that to cure an adverse balance of trade there was need for internal disinflation. But the current adverse balance, although it was growing, was certainly not one of the greatest evils. There were certain evils which would make it worse. What he wanted to emphasize as the far greater trouble were the adverse terms of trade.

The United Kingdom was having to spend, to send out, £500 million of its life-blood for nothing whatever. £500 million was a lot of money; it took a great many factories and a great many people working day after day to produce £500 million worth of goods, and that £500 million was being sent out for nothing, to buy the same goods that had been bought in 1949. The British people were, apart from the United States, making the most important contribution to rearmament, and they should say that they were not going to have that, and that they were not going to send out an extra £500 million worth of goods in 1951 to get no more than they had got in 1949. The country had been doing all right in 1948 and 1949. In 1948 and in 1949 trade had balanced over-all. There had been a dollar deficit, however, and the devaluation of the pound, which was the way chosen to deal with it, had proved to be quite wrong. The nation could not carry out the rearmament programme with those terms of trade. One or two speakers had mentioned the terms of trade as though they were inevitable and had to be accepted. Why should such an intolerable burden be accepted, a burden put upon the country when it was rearming more than any other country in the world? The simple fact was that the case had not been properly put to the Americans nor to anyone else. Devaluation had been a huge mistake based on a large number of erroneous assumptions.

With regard to purchasing power parity, he would only say that if the purchasing power parity in 1949 were taken there was no case for devaluation. Mr Recknell had quoted a rise of British wholesale prices, but that had happened since devaluation and was a consequence of devaluation—it did not justify it. Taking prices before devaluation, no justification could be found in the British price level for devaluation in 1949. Taking the world level, and allowing for the adjustment in the exchange in September 1939, when the war broke out, he worked out that the general level of wages in America had risen by September 1949 by 46% more than wages in Britain. It might be said that American productivity had increased very much since the pre-war years, and no doubt it had. Some people said that British productivity had increased since the war. He refused to believe that American productivity in that short period had increased more than British by so much as 46%. Taking that as the fundamental basis of purchasing power parity, it was the dollar and not sterling which ought to have been devalued.

There was another topic which had interested him and which was raised by several speakers, namely that, after all, capital expenditure would be good for productivity. He had to admit that, of course, and it was really a question of a sense of proportion. He would say that a certain reduction in capital expenditure was possible. He was not going to reduce capital expenditure to nil, but he wanted a standstill for all unnecessary capital expenditure. Any sort of loss of productivity consequent on some cut in capital expenditure for two years would be moderate compared with the loss of productivity if there were a big inflation going on. In 1946–47 the loss of productivity was largely accounted for by the bottle-necks and shortages which were the direct consequences of the inflation of those years. In 1948, 1949 and 1950 there had been only a slight inflationary pressure in the system, and everyone concerned with production recognized that productivity, owing to the smoother flow of materials and components, went ahead by leaps and bounds. If there were renewed inflation, with its attendant bottle-necks and shortages, there would be a decline in productivity.

He admitted that there were certain immediate capital expenditures which would be very good, but there had been a vast amount of capital outlay which was the direct effect of the British tax system. People said 'Oh, the Government pays'. Industry had provided itself with a great deal of capital equipment of various kinds which was not strictly necessary and could easily have been postponed. That had happened because from the taxation point of view it had been profitable to do so. Capital expenditure had been running at a high rate compared with before the war. People often referred to bad times before the war, but productivity went up between 1924 and 1935 more than it had gone up since 1939, and that was during a period when capital expenditure was carefully scrutinized.

No doubt there was need for capital expenditure which was really going to improve productivity, but he was convinced that a great deal of the capital expenditure which was going on did not do so, and that it would be possible to make a cut of 20% or 30% in the amount of capital expenditure by industry, which would make the biggest contribution to the deflationary programme and would not substantially hurt productivity in the following few years. It could be carried out without great difficulty, once it was generally recognized in industry that that was the thing to do.

Mr F. W. Bacon has written by way of supplement to his remarks:

It is obvious from Mr Harrod's reply to the discussion that I did not succeed in making clear the basis of my suggestion that spiral inflation is fundamentally a series of basic inflations. My reason was not the one imputed to me by Mr Harrod, that both are caused by an expansion of bank credit; it was that an increase in wages (or other costs) can only result in higher prices if it leads to an increase in the sum total of money demands without any corresponding increase in the supply of goods, a situation which by definition is one of basic inflation. I certainly suggested that whether such an increase in total incomes occurred depended on the reaction of the banking system, but in that I specifically included the need to contract credit to offset dissaving by the public or the monetization of idle cash resources by employers, either of which would of course show itself as an increase in the velocity of circulation of money.

I did not intend to convey that a basic inflation is only caused by an expansion in bank credit—it could be caused, for example, by a favourable change in the balance of payments reducing the supply of goods while leaving money demands unchanged. Neither did I intend to suggest that banking policy by itself can be effective if Government policy is operating in the opposite direction. It would, I agree, be absurd to suppose that the banks could contract credit to private borrowers sufficiently to offset a large or sudden expansion in Government borrowing. My point was rather that control over the volume of credit can play a part, in conjunction with Budgetary action, in neutralizing basic inflation; and that it is probably the only instrument immediately available, apart from direct price controls, for preventing wage increases from leading to higher prices and so to spiral inflation.

Mr C. D. Sharp writes:

Mr Harrod said he had no doubt that insurance institutions had already given thought to hedging even if this involved a departure from established principles of investment; and the President in his comments on the discussion referred to the extent to which even traditionally conservative offices have increased their holdings of equities and other real assets.

If inflation continues, the benefit which a policyholder might hope to derive from a change of this kind in the conventional balance of investment would emerge, in normal circumstances, as an increase in bonuses, and, judging by the recent diminution in normal life business, this somewhat remote possibility does not seem to have provided an adequate incentive to the public to use private savings in order to purchase additional ordinary life assurance. It may well be that in this country we are beginning to follow the pattern which has been revealed in France, where continued inflation has caused the endowment type of policy to fall into some disrepute.

A possible solution might be found if companies were prepared to issue a special policy which would provide a sum assured expressed not in terms of currency, but in the form of units of an investment trust, the premiums being invested in ordinary shares. If the management of the investment trust were in the hands of the insurance company, and if on death, surrender or maturity the policyholder could obtain from the trust the market value of his interest, then the policy would probably provide at least a partial hedge against inflation, and would, therefore, be more attractive to the better informed members of the general public.

This approach could help to resuscitate the sale of individual policies which used to be the basis of life assurance in this country, thus providing some counter-balance to the expansion of special forms of contract depending for their existence largely on one form or another of tax avoidance, a development which, in certain circumstances, could be inflationary in effect.

Mr R. F. Harrod writes:

It is evident that Mr Bacon and I are not so far apart as at first appeared. There remains, however, a difference of emphasis. I agree that a higher rate of interest might contribute something to reducing basic inflation, but would utter the warning that too much must not be hoped for. Mr Bacon agrees that it would be absurd to suppose that the banks could contract credit to private borrowers sufficiently to offset a large or sudden expansion in government borrowing. On the other hand, Mr Bacon does think that credit restriction is a good instrument for 'preventing wage increases from leading to higher prices and so to spiral inflation'. There I disagree. I do not think that bank restriction would have any such effect, over and above its effect that has already been taken into account of reducing basic inflation.