

## Real Wages and Unemployment

When heavy unemployment persists year after year, it is natural to infer that labour is over-priced. This explanation, suggested both by elementary price theory and by commonsense, may well prove, on closer examination, to be a crucially important part of a larger explanation; but it is also clear that there are ambiguities to be removed and questions to be answered. First of all, in what sense is the price held to be excessive? Is it the actual real wage? Or is it rather that attempts to raise the real wage by demanding higher nominal earnings have led to a wage-price spiral that has had to be checked by restrictive measures? A drop in output and loss of jobs could occur even if, in the event, real wages had not been raised either absolutely or relatively to trend. For real wages are endogenous in the sense that they are partly determined by prices which are also rising as the word "spiral" itself implies. Thus the increase actually achieved in real earnings will usually afford a very inadequate measure of the harm done by wage-cost inflation. Although this point may seem to be a somewhat obvious one, it must nevertheless be emphasised because the earlier traditional scepticism about the importance of changes in merely nominal costs and prices has been reasserted in the course of the neo-classical revival of recent years. To say this is not, however, to deny that real wages may be too high and may be a cause of unemployment. There are various reasons, analysed in the rest of this paper, for believing that this may be so. The empirical evidence has been investigated in a number of valuable papers, with real wages sometimes represented by money payments deflated by prices and, also, in some cases adjusted for productivity or by directing attention to changes in labour's share of net value added — the so-called "wage-gap" (Sachs, 1983; Artus, 1984; Lippschitz and Shadler, 1984; Sargent, 1984). Although conclusions vary, as might be expected, and various qualifications and reservations are made, the empirical evidence undoubtedly supports the view that an excessive rate of growth of real wages has been one of the causes of unemployment.

There have also been other causes, and other remedies for unemployment may prove to be effective well as reductions in real wages. It is unfortunate that in the course of the debate between neo-Keynesian and neo-classical schools, there has been a tendency — at least in Britain — to regard expansionary demand policies on the one hand and real wage cuts on the other as stark alternatives. For one may be a necessary accompaniment for the other. The expansion of output and employment in the USA from the start of 1983 to the middle of 1984 deserves particular attention for the lessons it conveys. Great moderation was shown in the labour market with only a small rise in nominal earnings and a slight decline in real earnings (Flanagan, 1984; Economic Report, 1985). Although real earnings fell, the decline was, however, much too small to afford by itself a convincing explanation of an expansion that clearly owed much to the fiscal stimulus. What was important was the combination of this stimulus with a degree of wage restraint that contrasts with the situation in some European countries where there have been substantial increases in money wages, and even in real wages, in the face of a large and stagnant pool of unemployment.

Although the Keynesian and neo-classical schools disagree so much on these issues, there is at least one point of practical importance on which agreement should be possible. This is the divergence between real earnings in the sense of the cost to the employer and real earnings in the sense of the current real take-home pay of the employees. The market will not then transmit the same signals to both sides, especially when the extent of the divergence is changing over time.

The term “wages” will also, of course, be used as shorthand for the pay of all employees, white collar as well as blue, high-paid as well as low-paid. When reductions in earnings are discussed, this will usually mean reductions in rates of growth relatively to trend which could still be positive. In some places, however, it will make for clarity by referring explicitly to absolute reductions.

The next section will be concerned with the monetarist and neo-classical views on these matters. This will be followed by a section on Keynesian opinions and on the need to reconsider traditional models in the light of altered circumstances. The fourth section will discuss factors influencing efficiency in the course of a cyclical expansion. In the final section some simulations will be mentioned and some conclusions drawn.

## II

The neo-classical approach is to push aside the veil of money in order to demonstrate that it is real wages that are too high in an under-employed economy. This is indeed a crucially important part of their explanation of unemployment. In the earlier version of monetarism — mark I — there was an inadequate explanation of how severe unemployment could not only emerge but persist. For this persistence was not easily reconciled with the view that, in practice as well as in text-book theory, a market economy would soon cope effectively with any surplus or deficit, in factor markets as well as in product markets, provided the money supply was appropriately controlled. Thus Professor Milton Friedman felt able to assure a British Parliamentary Committee in 1980 that any rise in unemployment caused initially by a firm monetary policy would soon be followed by a decline (Friedman, 1980). With heavy unemployment continuing, the interpretation of the statistics has been subjected to critical scrutiny. It has been pointed out, fairly enough, that some of those classified as unemployed are so voluntarily because, with the aid of social benefits, they prefer to prolong the period of job search — to prolong it indefinitely in some cases. If the West were to emulate the Soviet Union by doing without unemployment benefits, there would undoubtedly be much more incentive to find work — *any* work. Yet it is not plausible to suggest that social benefits explain the rise in unemployment to its present high level — especially when these benefits were declining, in some countries, relatively to earnings. Moreover most of those out of work are people who have been fired — not people who deliberately withdrew their labour because they thought the pay was too low. In this connection it is interesting to note in passing that in US firms where management has offered new employees less pay than that given to the existing labour force, there has been no apparent difficulty in finding recruits (Kosters, 1984, p. 219).

Another monetarist Mark I explanation of unemployment was the time-lag before unemployed workers realised that, with inflation now under control and declining, the earnings they could obtain would no longer be depreciated by inflation to the extent previously experienced. It is hard to believe that many of the unemployed would hold out in this way in an unorganised labour market, but trade unions might do so not only because they are so much better able to hold ranks but also because their primary concern is with the incomes of those already at work. In so

far as this is true, however, it is only one part of the wider explanation of trade union behaviour in setting prices on labour that are too high to be consistent with the high level of employment which these same leaders claim to be desirable. It is scarcely surprising that in latter-day monetarism — Mark II — more stress should be laid on the obstacles that prevent market-clearing, in particular trade union policies and various official regulations relating to minimum pay and conditions of work. Heavy unemployment cannot plausibly be explained by individual workers pricing themselves out of work, but a good deal more weight should be attached to the explanation that they have been priced out, whether they like it or not, by the trade unions and, to a lesser extent, by governments that enforce minimum rates of pay. It may be scarcely necessary to add that monetarists have always been aware of these factors which are duly mentioned in, for example, Friedman's famous presidential address to the American Economic Association (1968). But there has been a shift of emphasis with more stress now placed upon them — than was the case some years ago when quite excessive faith was placed upon what might be achieved solely by the control of the money supply. This shift is very apparent in official statements by government spokesmen in Britain. Moreover some important conclusions follow from this emphasis on the restriction of competition in the labour market.

First, in this particular respect at least, the monetarist diagnosis is rather closer to the Keynesian than the thunder of rhetorical broadsides might lead one to suppose (Solow, 1980). For *both* schools, these labour-market problems are now seen to be of quite central importance and for *both*, especially perhaps in Britain, labour-market reform is crucial. There are, of course, differences in the means favoured to this end by monetarists and Keynesians respectively, but the need for action seems to be widely conceded — and could scarcely be doubted by anyone concerned with the British scene. Secondly, it is long time for monetarists to ask themselves whether, in all honesty, they can really anticipate reforms of so drastic a nature as to produce something like atomistic competition in the labour market. If they feel compelled to admit, however reluctantly, that trade-unions will retain some monopolistic power, they should then be prepared to modify both their theories of market-clearing and their inferences to be drawn for policy. The third point is a related one. It was asked in the previous section whether expansionary measures of a fiscal and monetary nature were likely to be helpful. To this the traditional monetarist reply has been an emphatic

negative. For it has always been maintained that the additional spending would merely raise costs and prices with, at most, a temporary rise in output — or, in a world of rational expectations, no rise at all. But there is a strong suggestion of circular reasoning at this point. For it seems to be assumed that the economy in question is *already* at this point where any further expansion would lead to accelerating inflation — *i.e.* at its NAIRU<sup>1</sup> — and, *therefore*, further expansion would cause inflation! But NAIRU may not have been reached. Expansion without rising prices may be possible or, even if prices rise a little more quickly for a time, this may simply mark the transition from one level to another, not a continuing acceleration. The monetarist/neo-classical scepticism is not easily reconciled with the events in the USA since the start of 1983 — or, for that matter, with those of 1923-29. It is quite possible that NAIRU may not have a unique value even in a labour market situation where union strength, union policies and official policies have not changed. We are certainly entitled to ask for convincing reasons before excluding this possibility (Wilson, 1985). When Sachs (1983) observes that fluctuations in the USA have been to a large extent “demand-driven”, he is in effect implying as much.

Even in countries more prone than the USA to wage-push inflation, Mark II monetarists and supply-siders should be prepared to endorse a policy for expanding monetary demand *provided* it was complementary to labour market reform. In broad principle this conclusion is not so far removed from the position of those Keynesians who insist that expansion alone, with an unreformed labour market, could bring only limited benefits. The remaining differences between the two schools are undeniably large; but the gap has been closed a little.

### III

If attention is too narrowly concentrated on real earnings, the harm done by wage-inflation may be greatly under-estimated. As was observed in Part I, real earnings are endogenous in the sense that they depend partly upon the price level. Keynes laid great stress on this fact in his criticism of the classical school for implying “... that the wage bargains between the entrepreneurs and the workers determine the real wage”

<sup>1</sup> The non-accelerating inflation rate of unemployment.

(Keynes, 1936, p. 11). The same criticism has been directed against the modern neo-classical school (Hopkin, 1985). If demands for higher money wages are granted, the cost may be passed on fully in higher prices so that average real earnings, in the event, are unaffected. How then can it come about that real wages can ever be too high — that is to say, too high to be consistent with “full employment”. The reason has sometimes been official price controls with no corresponding control of wages. Or a lag may be caused by existing price contracts, explicit or implicit, although it is necessary to allow for the fact that wages may be similarly affected. Or it may be the consequence of basing prices on prime costs averaged over a period — the theory of normal-cost pricing. Or it may reflect the trouble and expense incurred in making rapid changes in prices. It is unlikely, however, to be mainly a reflection of oligopolistic fears of retaliation, for a rise in costs is generally felt and may therefore be generally passed on to purchasers with little fear that this will be confused with attempts to increase market share. For this reason far too much stress is laid on oligopoly as a cause of price rigidity in much of the literature dealing with macro-economic issues. The other explanations of price rigidity remain and labour may therefore get a jump ahead and keep ahead. If it is then felt necessary to restrain any further growth of expenditure, the possibility of offsetting higher costs by higher prices may be removed. Or, even without official action, unsheltered industries may well be checked by foreign competition if the exchange rate does not adjust so smoothly as to allow them all the scope they need. It must, therefore, be conceded that a drive for higher money earnings may succeed in bringing about some rise in real earnings. We can also conceive of a situation in which some exogenous factor makes the existing level of real earnings inappropriate if full employment is to be maintained or achieved. An adverse shift in the terms of trade such as the sharp increases in the price of oil in the seventies is an obvious example. The fact remains that the *actual* rise in real earnings will generally give a very inadequate indication of the damage caused by wage-inflation. Indeed damage would still be done even if real earnings had not increased at all but it was deemed necessary, in order to end a wage-price spiral, to resort to a restrictive policy at the cost of lower output and unemployment. Empirical investigations confined to the possible effect of changes in real wages may therefore be seriously misleading.

In Keynes's analysis in the *General Theory of Employment Interest and Money*, the assumptions were somewhat different, for wages were

assumed to lag behind prices. It was a crucially important assumption because it explained how changes in real wages might come about in what he believed to be the right directions. These right directions were determined by the assumption that short-run marginal costs would rise with rising output and fall when output fell. It is of some interest to observe that Keynes's position in this regard was the same as that of the classical school and also of the neo-classical school of modern times. But it is probably wiser not to say that Keynes assumed “perfect competition”, for the latter may be taken to include the assumption of perfect foresight or conditions so static as to amount indirectly to much the same thing. This was clearly not the kind of model with which Keynes was concerned! Chamberlin's “pure competition” is a better concept, but the term has largely fallen out of use and, in any case, even this is unnecessarily stringent. For it is not really necessary, for Keynes's theory, to postulate that firms will have demand curves of infinite elasticity. What is necessary is that firms should be price-takers — as in Chamberlin's “large group” case — and are operating beyond the position where the marginal cost curve starts to rise. It is in these circumstances that a fall in real wages would be needed, with expansion, in order to offset falling productivity. Indeed such a fall was one of the required conditions if expansion were to take place. Conversely, during a contraction, real earnings would rise to a position inconsistent with full employment. To quote: “In the case of a change peculiar to a particular industry, one would expect the change in real wages to be in the same direction as the change in money wages. But in the case of changes in the general level of wages, it will be found, I think, that the change in real wages associated with a change in money wages, so far from being usually in the same direction is almost always in the opposite direction ... labour being readier to accept wage-cuts when employment is falling off, yet real wages inevitably increasing in the same circumstances on account of the increasing marginal return to a given capital equipment when output is diminished” (Keynes, 1936, p. 10). This assumption of rising short-run marginal costs will call for further comment later but, meanwhile, it may suffice to repeat that it provides a link from Keynes's views on this issue to those of the neo-classical school.

The real point of disagreement between Keynes and the neo-classical school comes with regard to the means by which a reduction in real earnings could be achieved. This was not something that was likely to happen, in his view, as the consequence of action by wage-bargainers.

The first reason was the lack of any mechanism for achieving a general all-round reduction in money earnings, and it deserves attention all the more because there is a deficiency at this point in neo-classical reasoning. It followed that trade-union leaders would resist cuts in wages, *even* if they recognised that a reduction all round might be appropriate, because in each case they would fear that a reduction would not be accompanied by a similar reduction by other unions. "The effect of combination on the part of a group of workers is to protect their *relative* real wages" (Keynes, 1936, p. 14). No doubt the question of relativities would still matter in an individualistic market with no unions, but any changes would be far more difficult to observe and, of course, far more difficult to resist. It is with large bargaining units that the question of relativities assumes such importance. This, of course, is only one aspect, though a particularly important one, of how a concern for relativities may affect decision-making. It seems to be a weakness of the neo-classical approach that it fails to deal satisfactorily with such games-theory complications. Indeed it is hard to see how the theory of rational expectations *could* be so adapted as to cope with "the prisoners' dilemma".

The situation in the labour market will be quite different if real wages are altered because prices respond quickly to changes in demand whereas money wages tend to be sticky in *both* directions. The acceptance, in these circumstances, of lower real wages would not be evidence of money illusion, as Professor Friedman has implied in attacking Keynes. There might be no money illusion but the cut would be accepted because relativities were protected. Changes in nominal expenditure were the means by which changes in real wages might be achieved. Of course this argument rests on the assumption that the unions will be ready to accept reductions in real wages or, at all events, in their rate of growth around a rising trend. We may hesitate to accept any such assumption today in West Europe although it would appear less unrealistic in the USA.

A cut in money wages in a closed economy where firms were price-takers would be followed by a proportional fall in prices unless the non-wage earning sectors were to respond by consuming more in real terms. This follows if it is assumed that prices will adjust in order to clear the product market. If labour is unable to buy as much as before at the initial level of prices and others do not take up any of the potential surplus, then prices will drop and real wages will be restored to their initial level. Of course it is always possible that more would in fact be

spent in real terms by companies and rentiers and one can speculate about different propensities to consume and to invest (Keynes, 1936, pp. 257-71; HMT, 1985, section 2). Timing may also be important for if a positive response is delayed the deflationary pressures thus permitted to emerge may affect anticipations and thus change the final outcome (Patinkin, 1948). But speculation along these lines is of little interest from a monetarist viewpoint, for it is asserted that any decline in total monetary expenditure will be short-lived provided the stock of money is maintained. Keynes's own recognition of a real balance effect was, of course, tempered by his belief that a rise in the real money stock would have to exert its influence through the rate of interest and this influence might be greatly muted by liquidity preference. Even if it was not so muted, the same expansionary effect could, in his view, be achieved much more easily by raising the money supply with prices unchanged as by cutting the latter with the supply of money unchanged (Keynes, 1936, pp. 266-7). In the conditions of the thirties this seemed a reasonable view, but it may need to be modified today when inflationary expectations are so much more sensitive than was the case during the recovery of the thirties, preceded as it had been by falling prices.

There can be no doubt that some modern trade-union leaders continue to hold the view, allegedly endorsed by Keynes, that absolute cuts in money wages, or in their rates of growth, would be ineffective because incomes would be reduced and thus the demand for output and the labour needed to produce it. This would, indeed, appear to have become a way of rationalising opposition for wage restraint or incomes policies designed to achieve such restraint. Thus it is maintained that labour cannot price itself out of work — an extravagant claim for which Keynes's support cannot possibly be claimed. It is true that the effect of lower money wages, given the two assumptions that there is no foreign trade and no government, will be more uncertain than neo-classical theory would suggest but, for the reasons put forward above is nevertheless likely to be of some benefit to output and employment. This somewhat weak conclusion is, however, greatly strengthened when the two special assumptions are removed.

First, the removal of the assumption of a closed economy requires an allowance to be made for a stimulus through foreign trade. Keynes, of course, conceded as much but objected that devaluation would be a much easier way of achieving the same objective. That was not an unreasonable verdict at the time, but this is another instance of the need for modification in the light of modern conditions. For devaluation will

import a further inflationary injection which could greatly reduce its effectiveness. This is a sadly familiar point. What is, I think, less familiar, is the need to allow for the activities of government — surely an odd omission from Keynesian literature where so much importance is attached elsewhere to the role of government.

With lower wages in the public sector, expenditure on public goods and services that is constrained by cash limits will now buy more in real terms. If the flow of expenditure in nominal terms is maintained, employment will benefit directly or indirectly. In the short run, at least, this is likely to be the course that will be followed. Indeed, in Britain, it is the course that government is pledged to follow with regard to some parts, at least, of public expenditure — *e.g.* the health service. The effect on transfer payments will depend upon the extent of indexation and the speed of adjustment. This is also true of the tax system. The net effect is likely to be expansionist. That is to say, government activities are likely to constitute a “built-in stabiliser”. But there is no need to rest content with speculation about possible adjustments and reactions in the absence of any clear statement of government intent. For government could undertake to modify both fiscal and monetary policy in order deliberately to prevent the fall in pay per head from reducing total monetary expenditure — nominal GNP — through adverse net reactions in either the private or the public sector. Were this to be done, the case for lower money wages would clearly be effective in achieving cuts in real wages, with higher output and with more employment as predictable outcomes. We shall return to this issue in section IV where reference will be made to simulation exercises.

Fortunately it would be a mistake to dismiss as merely academic the assumption that public policies would be so designed as to sustain nominal expenditure. In Britain, at least, the Chancellor of the Exchequer, Mr. Nigel Lawson, has in effect pledged himself to follow a policy of this kind and has reiterated this pledge on various occasions. Thus: “In my Budget speech I emphasised the undertaking ... that the medium term financial strategy is as firm a guarantee against inadequate demand as against excessive monetary demand” (Hansard, 1985). As far as possible the flow of expenditure, public plus private combined, will be maintained at its target rate, and the decision between financing inflation and financing real output and employment will then depend upon what happens to costs and prices.

## IV

In both neo-classical theory and in Keynes's original analysis (1936), it is assumed that marginal costs will rise with rising output. Is this assumption valid? For if it is not, might it then be possible to achieve expansion with no fall in living standards, as neo-Keynesians are inclined to believe? Conflicting assumptions about the shape of the cost curves and possible shifts in their position are clearly of central importance in this debate. These differences will naturally reflect, in large measure, the different assumptions made about the length of the time under consideration.

When Keynes postulated rising marginal cost, he was referring to the short period of Marshallian theory in which the capital stock is assumed to be unchanged. It would therefore be wrong to dismiss his case for lower real earnings during an expansion on the ground that economic history records a rising trend of both real wages and employment. For he was not concerned at this stage with such long-term trends. However his conclusion was subjected to attack on the ground that the evidence did not reveal the correlation, even in the short run, between rising output and rising prime costs — or running costs — which he believed to have been firmly established (Dunlop, 1938; Kalecki, 1939; Tarshis, 1939). In the face of this evidence, he conceded that marginal costs might not be rising — although he also prudently observed that caution was necessary (Keynes, 1938). Caution is indeed required.

First, there is the methodological point that marginal prime costs, whether constant or changing, are not to be identified with the marginal cost that plays so central a role in the theory of decision-making by the firm. For, in a world of risk and uncertainty, the latter must be a subjective estimate. It may be the case that, if information could be obtained about the assessments made before the event, the marginal curves would be seen to be constant over part of their length, but might well lie above the average prime cost curve and might also start to turn up sooner, as allowance was made for contingencies that could not be foreseen. Secondly, the empirical evidence about prime costs and real earnings during periods of expansion turned out to be rather less conclusive than was initially supposed by Keynes's critics (Ruggles, 1940; Tsiang, 1947; Tobin, 1948; Otani, 1971). The margin of disagreement may reflect not only differences of approach and differences in the data chosen but also some ambiguity about the meaning of “the short

period" for the short period of the micro-textbooks is, after all, only a device of static theory from which it is rash to draw conclusions about a cyclical upswing in which the capital stock is by no means given and fixed. It is, however, possible to go farther than this in casting doubt on the inevitability of rising costs even in this short period. For a recession that has resulted in excess manpower will also have produced excess capacity in the capital stock, and expansion should therefore be possible, for a time, at least, without a decline in marginal productivity caused by changing factor proportions. The curve of labour productivity could be flat until the limit of physical capacity was approached when it would rise quite sharply. (See Appendix, Figure 1.)

Over the flat stretch no fall in real wages would be required and the actual level of output, with real wages and productivity unchanged, would be determined by demand. In practice, output may not be carried beyond this flat stretch because management prefers to halt expansion at a point where there is still some reserve capacity against contingencies. The observed fact that prime costs have been constant in the recent past may therefore conceal the fact that the limit to expansion is being approached. The flat stretches of these curves may well be too short to accommodate a rise in output sufficient for a return to what is deemed to be an "acceptable" level of unemployment. Moreover with the wearing out and obsolescence of the capital stock and with gross investment at a depressed level, the excess capital capacity will gradually contract and tighten the limits to expansion. Attempts to expand by further increases in nominal expenditure would then merely raise costs and prices. But it is also the case that, with a very low short-run elasticity of substitution, a cut in real earnings would bring little immediate benefit.

A model of the kind we have now sketched was to become firmly embedded in neo-Keynesian theory and this helps to explain the reluctance to concede that there can be a case for reducing real wages — although we need not expect unanimity on this score among those who term themselves "Keynesian". Unfortunately the neo-classical school has been more inclined to ignore such reasoning than to try to assess it. That the neo-Keynesian model may sometimes correspond fairly closely to the facts can scarcely be in doubt, but some important reservations must be made.

It seems to be assumed that the unemployed labour that could be drawn into employment by raising demand would be as skilled and experienced as those already at work, and this is clearly unrealistic,

especially after a long period of heavy unemployment. Lower wages should then be paid to the newcomers if wage-cost per unit is not to rise, but differentiation of this kind may meet with intense opposition in heavily unionised markets. It is true that in the fifties and sixties, when the cycles were short and the recessions mild, this complication was of less importance than it is today and seems to have been outweighed by the fact that surplus labour, hoarded rather than fired during recessions, would become more fully occupied during an expansion with an unequivocal rise in productivity. In recent years such surplus labour has been squeezed out although some overhead labour will always remain. It may now be more realistic to anticipate a cyclical rise in labour costs rather than a decline. Moreover, labour is only part of prime costs. The part consisting of primary products has normally shown a rising price level during expansions and this would require an offsetting cyclical decline in other prime costs if price stability was to be maintained. An attempt to avoid this conclusion by pushing up nominal wages would only lead to an inflationary spiral. In the current situation, this normal pattern has not appeared and the slump in the prices of primary products has, of course, been an important disinflationary factor. Complications of a similar, but by no means identical, kind may be encountered if the currency of an expanding country begins to depreciate. The question then is whether depreciation, if it is to be effective, would require a decline in real wages. If depreciation entails a worsening of the terms of trade, the answer will be in the affirmative, but this will be hard to achieve. The former arrangements for indexation have now been changed, sometimes by the introduction of ceilings, as in Belgium, Italy and the Netherlands, but may still be a cause of trouble. Even without formal arrangements of this kind, the determination of the unions to protect real earnings can still make depreciation largely ineffective. It is true that the Swedish LO adopted an enlightened attitude when the krona was devalued in 1982, but this example has not inspired emulation — certainly not in Britain. Of course it is possible that the terms of trade may not deteriorate — not, at least, after an adjustment period dominated by previous contractual arrangements. If the country in question accounts for only a small proportion of the international market for those commodities and services in which it trades, it may well be a price-taker with its terms of trade determined by world prices. It is true that, in terms of local currency, import prices will have gone up but there will have been an offsetting rise, again in terms of local currency, in the prices of exports and import-substitution. With



no decline in the terms of trade, real wages need not decline. What would still be required would be a relative shift in earnings *within* the country in question in favour of the tradable sector at the expense of the non-tradable sector. Unfortunately any such relative adjustment is likely to be bitterly opposed in a unionised economy. The necessary flexibility may not therefore be achieved. Indeed the country's difficulties may then be compounded by new twists to the wage-price spiral that render the depreciation ineffective and leave the country with a balance-of-payments problem and with a cumulative inflation that will ultimately have to be checked by a reversal of expansionist policies. All of this leads back to the familiar conclusion that it will be better if a group of countries expand together, especially when the impact of international flows is taken into account. To be more specific, the likelihood of successful expansion in West Europe would be poor unless Germany acted as leader.

## V

When the restrictive assumptions of the short-period have been removed, a variety of factors may be allowed to influence productivity and thus the appropriate change in real wages, in particular the cost of capital, technological and structural change, autonomous *shifts* in the terms of trade, variations in the exchange rate, and so on. It is, of course, quite possible for real wages to grow at an inappropriate rate and even to do so for quite extended periods in the manner traced by Sargent in his analysis of the play of forces in Britain since the early sixties (Sargent, 1984). Our immediate concern in this paper, however, is with the appropriate course of the real wage during a period of recovery from depressed levels of output and employment. The neo-classical assumption that a fall will be needed is over-simplified. A fall will not be required unless (a) productivity declines and this, though possible, is far from certain, as we have just seen, or unless (b) there is an unfavourable movement in the terms of trade. The latter may indeed be quite likely and would need to be offset by improvements in productivity if the real wage were to be sustained.

It is, however, quite possible to approach the matter differently by considering the effect of a reduction in the real wage as an *alternative* to a rise in nominal demand. The case for a reduction will not then be conditional upon declining productivity, adjusted for the terms of trade.

It would rest upon two principal advantages to be achieved in this way as compared with a policy of expanding nominal demand: first, there would not be any danger of a heightening of inflationary expectations and, secondly, there would be some incentive to resort to labour intensive techniques — or, rather, some weakening of any incentive to do the reverse that might be derived from technical change and a desire to achieve at least a partial escape from the problems of coping with trade-union attitudes.

Various attempts have been made to simulate the effects of a cut in real wages, all of them necessarily speculative and open to criticism. It may, however, be of some interest to glance at the results of one of these attempts which was carried out in the British Treasury (HMT, 1985). It was assumed that money wages would be cut by an amount sufficient to reduce the real product wage by 2 per cent. The amount of the required cut in the former would depend partly upon the measures taken, if any, to sustain total nominal expenditure, and it was initially assumed that the money supply and the ratio of public borrowing to GNP would be kept unchanged. It then appeared that nominal wages would have to be reduced by 3-3½ per cent. At the end of three years, employment would have gone up by 1½ per cent. Of this gain, about a quarter could be attributed to the substitution effect. It was also shown that the real take-home pay of employees need fall by only a trivial amount provided public borrowing were sustained by cutting the income tax. The assumptions made were not sufficient to prevent any decline in total nominal expenditure for, although the money stock was not allowed to decline, some drop in its velocity did occur in the initial phase. If the authors had assumed no decline in nominal GNP they would have obtained a somewhat higher figure for the rise in output and employment. Or, if no attempt were made to sustain total money expenditure as money wages fell, the rise in output and employment would naturally be less: about 1 per cent.

Let us take these Treasury results at their face value. It is surely disappointing to be told that after a once-and-for-all cut of 3-3½ per cent in nominal wages and 2 per cent in real wages, employment would be increased by only 1½ per cent at the end of three years even if nominal expenditure was substantially maintained. Nor is this all. For it is simply assumed in this simulation that nominal wage-cost has been reduced with no explanation of how that might be achieved. One way of doing so would be to lower the employers' payroll tax which adds so much to labour cost in Italy and most other Continental European



countries and is a serious burden even in Britain (Layard and Nickell, 1985). If, however, the social expenditure so financed were not also reduced, some new levy or an exchequer subsidy would be required and this, unfortunately, would raise fresh problems.

An absolute cut in the wage itself would be exceedingly difficult, but in many countries there is still enough inflation for it to be possible to achieve a substantial adjustment by reducing the rate of growth of nominal earnings to what would still be a lower but still positive figure. Even this would be hard to do, particularly if a substantial decline in the rate of unemployment was having the effect of weakening the already inadequate restraints on union demands. Although it lies beyond the scope of the present paper to speculate about the changes in institutional arrangements or in attitudes that might improve the functioning of the labour market, one important conclusion may be drawn. This is that if it were indeed possible to achieve such a reduction in nominal earnings there would be no need to limit the scope of expansionary policy. For, with the labour market behaving so well, whether spontaneously after its reform or as a consequence of some new method of control, there would no longer be occasion to fear that more relaxed fiscal and monetary policies would lead to intensified inflation. It is undeniable that some of the proponents of expansionary policies — by no means all — have been guilty of sleight of hand by blurring the fact that real effective demand is endogenous in the same way that real wages are endogenous. Both depend partly upon changes in the price level. But the neo-classical/supply side school is also at fault in attempting to confine attention to a lowering of costs. For with costs so well under control, the scope for an effective rise in expenditure would *also* be immensely enlarged. After all, a combination of wage restraint with fiscal expansion was recommended by A.C. Pigou himself (1945) and this should make such a policy respectable in neo-classical eyes!

In conclusion it must be emphasised once more that there are substantial differences between countries. It is important to do so lest so much attention be directed to those that are prone to inflation, such as Italy and Britain, as to obscure the greater scope already available for expansionary policies elsewhere. Labour market problems did not prevent the USA from achieving a remarkable expansion without intensifying inflation, and it is now surely time for Germany and Japan, so strongly placed both in this and in other respects, to follow suit. The benefits to the rest of the world as well as to themselves should be substantial although some countries — for example Britain — would

not gain to the full until they had found some better way of dealing with their own problems of wage-cost inflation.

Bristol,

THOMAS WILSON

#### APPENDIX

The following diagram is a simple illustration of some of the points made in the text above about a short run so defined as to exclude any addition to the fixed capital stock. EF represents the range of plants available for the production of a given output, with its slope reflecting the elasticity of substitution between more and less capitalistic methods of production. The one actually selected is assumed to be that most appropriate to the real wage, OW, with OM as the corresponding level of employment. Once the new plant has been installed, the elasticity of substitution will of course be much less: GH as compared with EF. It is then assumed that output contracts with falling demand and employment declines to ON. But excess capacity will also have emerged and, with the firm no longer on its production frontier, a subsequent rise in output with fixed capital unchanged will not lead to a fall in labour's productivity. This would appear to be so until the initial position, S, has been reached, but allowance must be made for the fact that with the passage of time the depreciation of fixed capital will prevent a move all the way to S. Employment will then be limited by capital capacity. A cut in real wages would not be of much immediate help because the elasticity of substitution will be quite restricted. When new investment is again being considered, the old menu, EF, may no longer be relevant for the cost of capital and technology may have changed. There may also be a change in the labour force which would warrant a larger scale of plant. Whether or not these changes have occurred, the level of employment could at this stage be affected by a reduction in the real wage for the elasticity of substitution will then be much larger than it could be when the capital stock was assumed to be fixed.

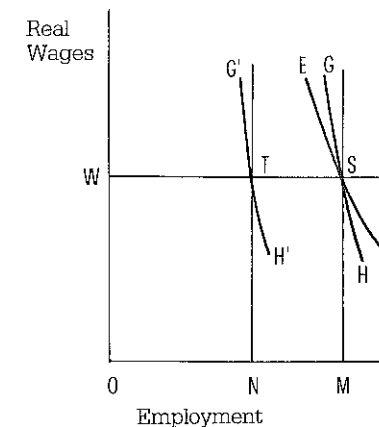


FIGURE 1

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