Why Has Inflation Accelerated?

Timothy G Congdon

In the late 1960s there was a marked acceleration of inflation throughout the world, noteworthy not only for its universality and vigour, but also because it defied explanation along traditional lines. The monetarist position, which was gaining ground for much of the 1960s, gradually fell out of favour with the apparent failure of Friedmanite policies in the United States. The argument that price increases are related to demand conditions in the goods and labour markets, of which the main indicator is the level of unemployment, was increasingly contradicted by the emergence of spare capacity in some leading industrial economies in 1969 and 1970. The hypothesis that inflation was due to increased labour militancy, was therefore widely accepted, not because it had any conspicuous merits, but because no satisfactory alternative seemed available.

The theme of this article is that an analysis of inflation can be presented, framed in concepts by no means alien to standard economic theory but, at the same time, consistent with salient features of the inflationary upsurge. The features which are underlined in the course of the discussion will be the world-wide coverage of this upsurge and its coincidence with the most pronounced investment boom in history. Two questions, in particular, must be answered: why did the acceleration of inflation occur in every advanced economy? and what was its connection with the investment boom? The analysis hinges on the notion of structural change; and its main implication is that an understanding of inflation is impossible without recognition of the market forces behind such change. At the conclusion of the article, there are some brief remarks criticizing the labour militancy hypothesis.[1]

Origins of inflation

To understand the interrelation between the structure of demand, the level of investment and the rate of inflation, it is of interest to consider an economy in which aggregate demand is constant. If there is then an alteration in the structure of demand, some firms, the gaining firms, experience

[1]The ideas presented below are similar to those found in J Tobin 'Inflation and Unemployment', Presidential address to 84th meeting of the American Economic Association, reprinted in *The American Economic Review* vol 62, no 1. March 1972 pp 1-19 esp. pp 9-13. I had worked out the substance of this article before the address was published, but I would like to express heavy indebtedness to C Holt 'Job Search, Phillips' Wage Relation, and Union Influence: Theory and Evidence' in E S Phelps *et al. Microeconomic Foundations of Employment and Inflation Theory*, Macmillan. However, I think I have something new to say about the connection between investment and structural change, and this has enabled me to add some empirical flesh and blood to Holt's theoretical skeleton.

an increase in the demand for their products: others, the losing firms, experience an equivalent decrease in demand. How are the gaining firms to satisfy the increased demand? Evidently, they will have to increase output; and there are three main ways in which they may do this – by utilizing their plant and labour-force more fully, by increasing the amount of machinery (capital-expansion) and by raising the number of men employed (labour-expansion). As improvements in the utilization of equipment and men are, by their nature, limited by plant capacity, it is legitimate to focus on capital-expansion and labour-expansion.

The capital-expansion of the gaining firms represents demand for investment-goods. It might seem, therefore, that gross investment will be stimulated. However, there is the objection that, although the gaining firms are promoting investment by their capital-expansion, the losing firms must simultaneously prune their investment programmes by an equal amount, since it has been assumed that the share of the market taken by the gainers is exactly offset by that taken from the losers. This argument may or may not have general validity. It would depend on circumstances, for example on the relative capital-intensity of gainers and losers. Nevertheless, there is one general consideration which suggests that, on balance, a change in the structure of demand increases gross investment.

For an economy as a whole, gross investment cannot be negative. It might be contended that this is not true of individual enterprises; if a firm finds that, because of a fall in demand, it has a bigger capital-stock than it requires, it can sell some of its capital to other firms. But if capital is specific to the line of production in which it is employed and if, as a result, losing firms cannot induce better-placed firms to take over their equipment and buildings, the only way for the losers to recognize the redundancy of part of their capital is to write it off. The gainers, by contrast, may place extra orders for capital goods, and, whereas the writing-off of capital entails merely a stroke of the pen, the extra orders involve the accumulation of more physical things, more productive activity. This asymmetry of response is of fundamental importance; it represents grounds for believing that a change in the structure of demand, even if aggregate demand is constant, may result in higher investment.[2]

It seems safe to say that exceptional bursts of investment may

[2]cf. J R Hicks *A Contribution to the Theory of the Trade Cycle*, OUP, p 46, where it is noted that gross investment cannot be negative. Hicks was thinking in aggregate terms. I am suggesting that it may apply to particular sectors, while other sectors invest more heavily than prior to the change in the structure of demand.

be attributable to unusually rapid structural change. The relationship, moreover, is two-sided. Structural change encourages investment, but if, as a result, the proportion of investment output to total output increases, the behaviour of investment itself represents a form of structural change. This point must be stressed because, as will be seen, one of the striking features of the world economy in the late 1960s, was the vigour of investment.

Nothing has been conjectured so far, it may seem, about the origins of inflation. But it is clear that growth in an economy where firms are intent on capital-expansion must, sooner or later, be frustrated by 'bottlenecks' in investment industries. The only alternative is to increase demand for labour; and it is here that the connection with inflation, and the central issues being discussed, emerges.

Results of labour expansion

What, then, are the results of labour-expansion? Gaining firms must think about recruiting more workers. The scope for such recruitment depends on two factors – the level of unemployment, and the possibility of inducing workers to leave the losing firms. Clearly, the higher the level of unemployment, the easier it is to find employees. However, there is no guarantee that the kind of workers the gaining firms need can be found in sufficient numbers from this source. The only remaining option is to make workers leave existing employment in losing firms. This would not appear to be too great a problem; the demand for their product has decreased and it would seem to follow that the demand for their labour must also decrease. It is only necessary for a reallocation of labour from the one to the other to occur for the requisite adjustment to be effected. This reallocation might indeed take place without friction in an economy where all factors of production could, so to speak, be turned off and on at will. But a capitalist economy is not of this kind. If labour is working in conjunction with machinery in more or less fixed proportions, a loss of workers means writing off capital. But capital write-offs make sense only if *current* receipts are less than *current* expenditure, that is to say, if revenue is less than prime costs. Thus, commitments entered into in the past constrain present action. While the gaining firms may wish to coax workers into their employment from the losing firms, the latter may not wish to surrender their workers because of an obligation to meet as fully as possible their supplementary costs. It follows that, at the present wage-level, there is an excess demand for labour; this excess demand can be eliminated only by an increase of wages. Further, it is not only the losing firms who are reluctant to acquiesce in the reallocation of workers; there is also resistance from workers. To attract workers the gaining firms have to raise wages; and

the size of the wage increase necessary is conditioned by the disagreeableness of changing from one job to another.

This suggests that structural change may be a cause of increases in wages. If labour productivity does not improve and profits are stable there is the further connection between structural change and price inflation. Thus, even if aggregate demand is static, labour-expansion by gaining firms may lead to higher wages, and hence higher prices. Should such firms resort to capital-expansion instead, not only will aggregate demand be boosted by the likely increase of investment, but also their hopes will sooner or later be frustrated, and they will have to have recourse to labour-expansion. In such circumstances there will be serious maladjustment in the labour markets and wage inflation will be greatly worsened.

This is not to deny that there is a connection between the level of unemployment and wage increases. Indeed light is thrown on the nature of the connection by the present approach. But it is to deny that the level of unemployment is the only, or necessarily the major, influence on wage movements. Nor is it to assert that the trade unions have no part in the inflationary process. They may be important in venting dissatisfaction with wages in losing firms when the gaining firms have increased theirs to serve as a magnet for extra workers. If this dissatisfaction issues in labour unrest they may force employers in losing firms to imitate the wages being paid elsewhere. But this role is mimetic; the initial impulse to wage inflation comes from the labour-expansion of the gaining firms.

Symptoms of inflation

Before demonstrating the bearing of this analysis on the current problem it is valuable to emphasize the long-run movements of prices in industrial societies. With persistent economic growth wages rise continuously. Because of technical progress the price of capital does not rise, in normal circumstances, to anything like the same extent.[3] The effect of these diverging trends is to cause the price of labour-intensive products, notably services, to go up much more than the price of capital-intensive products, of which capital-goods themselves are important examples. There is, therefore, an expectation that the retail price index, in which services bulk large, will rise more than that of capital-goods prices or, indeed, of wholesale prices. It is true that this long-run tendency is regulated by the short-run impact of cyclical factors. At the peaks of booms, when investment is

[3] cf. W E G Salter *Productivity and Technical Change* 2nd ed, Cambridge University Press, pp 35-36.

strong, capital-goods prices may be rising. Nevertheless, it is only when an exceptionally vigorous boom is under way, and an abnormally strong growth of investment taking place, that the long-run pattern of price movements is reversed. When this happens the consequences are particularly serious. Capital-expansion loses its appeal and there is a refocusing of interest on labour-expansion which, in turn, increases wage-inflationary frictions in the labour market. In the pervasive inflationary climate, expectations about future price increases may become embodied in the wage-determination process. But expectations cannot be the starting point of inflation. They prolong the process but do not initiate it.[4]

The international problem

The preceding theoretical exposition is relevant to an understanding of both the international and the British inflationary problems. The British inflation was and is, of course, a part of the world inflation, but it has its own peculiarities, and it is useful to consider the world-wide incidence of inflation first of all.

The investment boom

It has been argued that one of the features of an inflationary economy is structural change. Further, a rise in the ratio of investment to total output is both a symptom and an aspect of structural change. Table I gives some relevant figures.

In Germany, Japan and France fixed investment was the most expansive component of aggregate demand in the late 1960s. The United States were a partial exception to this pattern; but, even there, the resilience of investment in 1968 and 1969, when the prospects for the economy as a whole were bleak, was remarkable. Nor should it be forgotten that investment had risen substantially during the Kennedy boom of the early 1960s, with the result that, by 1966, the proportion of total output absorbed by fixed investment was already higher than it had been at the beginning of the decade. In Germany, also, there is a certain ambiguity about the behaviour of investment. The recession of 1967 had a severe effect and it was only in 1969 and 1970 that the upswing of investment became unusually strong. The markedly cyclical fluctuation in investment has, moreover, been a regular feature of the German economy since 1945. But in respect of France and Japan there is no ambiguity; in every year from 1965 fixed investment rose faster than either public or private consumption.

[4] R Solow *Price Expectations and the Behaviour of the Price Level*, Manchester University Press, p 3,'Any constant rate of inflation, high or low, will come to be accurately and confidently expected if it is maintained long enough. To have real effects, the rate of inflation must keep increasing, so that expectations can't quite keep up.'

Table I **Annual increase in each of the main components of aggregate demand in four major industrial economies 1966-70**

	1966 %	1967 %	1968 %	1969 %	1970 %
Germany (FDR)					
Private consumption	3.3	0.6	3.6	8.0	7.3
Public consumption	1.3	3.3	−0.9	4.2	2.9
Fixed investment	0.9	−7.3	8.8	12.1	10.7
Japan					
Private consumption	8.0	9.6	9.4	9.5	7.9
Public consumption	5.5	5.5	6.9	5.9	4.8
Fixed investment	9.3	17.1	22.7	17.3	14.5
France					
Private consumption	4.8	4.3	4.5	6.7	4.3
Public consumption	3.4	6.0	4.2	4.4	3.8
Fixed investment	6.3	6.0	5.6	11.0	7.4
United States					
Private consumption	4.9	3.0	4.7	3.4	2.0
Public consumption	8.9	11.2	6.0	−0.3	−4.1
Fixed investment	4.4	−1.4	6.6	5.4	−4.1

Source: OECD *Economic Outlook*

These four countries have been emphasized because they are the most important in the OECD; but the smaller countries were not immune from the investment movement. In the Netherlands, Belgium and Italy the proportion of national output devoted to investment was higher in 1970 than in 1965.

Capacity of investment industries

How was this increased investment demand met? There were three main ways. First, the capacity of the investment industries had to be increased. In part this was accomplished by accelerated technical improvements and additions to plant and machinery. But more workers were also needed. In the 1950s and early 1960s this was relatively easy to achieve. There were millions of under-employed workers on the land in France, Japan and Italy, while in Germany there were the immigrants from the Communist 'bloc' and, later, from southern Europe. By the late 1960s the picture had changed. It was more difficult to find suitable employees and, to attract them from existing occupations, greater financial inducements had to be offered. The wage inflation of the late 1960s may be seen, therefore, as a by-product of a more deep-seated alteration in the character of Western economic advance, a hardening of the arteries of progress. As the comparatively unproductive agricultural sectors diminished in importance, and as the growth potential to be realized by

moving workers to more productive functions decreased, the more uniform spread of efficiencies throughout economies hindered the reallocation of labour and thereby exacerbated wage inflation.

Price of capital goods

Secondly, the price of capital goods rose, relative to the general price-level. In the section on price indices it has been argued that this is unusual. It is true that the interruption of secular trends lasted for only a brief period and that it did not occur in all OECD countries; but in those countries where it was not found, the difference between the rates at which the prices of consumer-goods and of capital-goods increased became much less.

Table II **Price trends in industrial countries 1966-71 (1963 = 100)**

	1966	1967	1968	1969	1970	1971
Germany (FDR)						
Wholesale prices:						
Manufactured investment goods	107.5	107.2	101.4	105.8	115.9	125.5
Manufactured consumer goods	105.5	106.1	100.1	101.3	106.1	111.2
Consumer prices: all goods and services	109.5	111.1	113.1	116.1	120.5	126.7
Italy						
Wholesale prices:						
Investment goods	102.9	102.9	104.2	111.1	123.5	125.6
Consumer goods	107.9	107.4	107.2	111.4	118.5	121.9
Consumer prices: all goods and services	113.3	116.9	118.5	121.6	127.6	133.9
Japan						
Wholesale prices:						
Manufactured investment goods	99.5	100.2	101.0	101.5	103.2	104.8
Manufactured consumer goods	105.9	108.0	112.4	115.6	118.8	122.5
Consumer prices: all goods and services	116.4	121.0	127.5	134.1	144.4	153.2
France						
Wholesale prices: intermediate goods	106.0	105.3	103.3	113.8	121.2	126.0
Consumer prices: all goods and services	108.8	111.8	116.9	124.4	131.2	138.3
Belgium						
Wholesale prices: manufactured goods	108.3	109.5	110.0	113.4	120.4	121.7
Consumer prices: all goods and services	112.9	116.2	119.3	123.8	128.6	134.2

Source: OECD *Main economic indicators*

In Germany and Italy the patterns are very clear. In Germany the recession may have been largely responsible for the decided fall in investment-goods prices in 1967 and 1968, but the resumption of growth transformed the situation. Between 1969 and 1970, in particular, capital-goods became much more expensive. In Italy, the prices of investment goods remained subdued until 1968, when their index was 3.0 and 14.3 percentage points behind the manufactured consumer-goods and consumer price indices

respectively. By 1970 they had overtaken manufactured consumer-goods prices and risen much faster than consumer prices as a whole: this was especially apparent in 1969 and 1970. Japan, the only other country with explicit indications of capital-goods prices, is an exception to the pattern; but it is important to note that from 1957 to 1964 these were falling and that there was a slight acceleration of the increase in 1969 and 1970. This was consistent with what was happening elsewhere at the same time. In France there is no investment-goods price index as such, but the intermediate-products index may be taken as some sort of proxy. From 1966 to 1968 intermediate-product prices were falling slightly while consumer prices were still rising; but from 1968 to 1970 they were increasing at a perceptibly quicker rate than consumer prices. Satisfactory figures are not published for the Netherlands; and the complication of the introduction of VAT in January 1969 vitiates comparisons. In Belgium, also, relevant figures are not published, but an approximation is provided by the wholesale price index of manufactured goods; and, here again, between 1969 and 1970, there is an abrupt once-for-all spurt in the index when contrasted to consumer prices as a whole.

Considerable reservations about the accuracy of capital-goods price indices might be expressed. Nevertheless, I take some comfort from the repetitiveness of the feature I am pointing out. Could all the indices be misleading because of faulty construction? Further, in those countries where suitable indices are published the pattern is clearer than in others where I have to make do with such things as intermediate product indices. In 1971, as the world economy slowed down, and as investment demand abated, there was a return to the long-run tendency for consumer prices to outpace the others. However, this does not qualify the conclusion that can safely be made about the years 1968, 1969, and 1970. Because of the global investment boom, capital-goods prices increased by far more than would have been predicted by an extrapolation of the earlier trend. This deviation from the normal pattern was astonishing both for its intensity and universality.

Plant and machinery from other countries

Thirdly, as firms found that domestic suppliers of plant and machinery were unable to satisfy their growing requirements, they looked to suppliers in other countries. In this way the investment boom of the late 1960s contributed to two features of international trade in those years – its vigour while the world economy as a whole was slowing down, and the disturbance of the trend of prices of manufactured goods entering world markets. In 1969 the growth of output in the OECD countries was about average – 4½ per cent in volume

terms; meanwhile the value of world trade rose by 14 per cent. In 1970, although in the OECD industrial production actually fell from the first to the fourth quarter, the growth of world trade was yet faster – up by 15 per cent in value terms. In part this discrepancy can be attributed to the fact that much of the fall in production took place in the United States, a comparatively self-contained industrial area, while trading economies such as the Japanese and European were still dynamic.[5] But this is not the complete explanation. Also important was the investment boom. The proportion of the total output of investment goods that enters world markets is higher than that of consumption goods, especially when manufacturers are driven to seek foreign sources because domestic suppliers of new plant are already fully extended. This world-wide diffusion of demand was of immense importance. The structural adjustment problems, which, as has been argued, were the root-cause of the inflationary outbreak, were transmitted from the economies most severely affected to other countries whose internal economies were quite sound.

Competitive and sheltered sectors

In this context it is interesting to note an hypothesis advanced in the 1969 numbers of *The Swedish Journal of Economics*. A distinction is drawn between the competitive and the sheltered sectors of an economy. The former, consisting of engineering, chemical and similar industries, must keep its prices in line with those set internationally; the latter, made up of nationalized industries, services and so on, is subject only to the resistance of the domestic consumer. If the profit level share is to remain stable, wages in the competitive sector must be related to the movement of international prices and its internal productivity record. But the wages of the competitive and sheltered sectors must be kept roughly in balance. It follows, then, that if the prices of goods on the world market rise the scope for wage increases is greater than if their price were constant.[6]

What was happening to prices? From 1961 to 1967 the export prices of OECD countries in no year rose by more than 2 per cent; usually the rise was less than 1 per cent. In 1968 they fell. Then, as with the other price indices that have been examined, there was a dramatic change. OECD export prices went up 3 per cent in 1969; and jumped 5½ per cent in 1970.

It may be worthwhile at this point to bring together the

[5] *National Institute Economic Review* no 55 February 1971, p 64.
[6] See J Edgren *et al.* 'Wages, Growth and the Distribution of Income' in *The Swedish Journal of Economics* vol 71, no 3, September 1969. For some evidence, see L Jacobsson and A Lindbeck 'On the Transmission Mechanism of Wage Change' in *The Swedish Journal of Economics* vol 73, no 3, September 1971.

strands of the argument and summarize the present explanation of the inflation pandemic of the late 1960s. There was an investment boom: this was both a symptom of structural change and an aspect of the consequent sectoral maladjustment. Structural change is associated with wage-inflationary frictions because it necessitates movements of workers. But the particular kind of structural change afflicting economies in the late 1960s resulted in particular forms of inflationary behaviour. The strength of investment demand caused capital-goods prices to outpace consumer-goods prices, an unparalleled occurrence in recent economic history. There was a heightening of labour market tensions, as firms found it impossible to augment their plant capacity quickly enough. There was an accelerated expansion of world trade, which is nowadays increasingly in capital-goods and, mirroring the universal break from secular price trends within individual countries, an unprecedented rise in the export prices of manufacturers. This facilitated inflation, as the 'competitive' sectors of all economies, their resistance undermined by the easing of international price pressures, were able to grant excessive wage awards which were imitated in the 'sheltered' sectors.

The British problem

In the United Kingdom these processes have operated in the same way as elsewhere, the main differences being due to the devaluation of the pound in 1967 and, latterly, to the currency upheavals of other countries. In 1967 the pound sterling was devalued by nearly 15 per cent. In 1968, principally as a result of this measure, exports boomed. As the export-oriented industries had initial spare capacity, the resultant change in the structure of output was readily accommodated. Manufacturing output per person employed rose 6.6 per cent on 1967, and although the general price level rose 4.9 per cent this was mainly due to heavier indirect taxation and higher import prices. Domestic costs were more or less stable.

But exporters, especially the engineering industries, became increasingly short of labour. At the end of 1967 engineering export orders, after being depressed in 1966, were 24 per cent higher than at the end of 1963; at the end of 1968 they were 33 per cent higher; at the end of 1969, 66 per cent higher. No wonder that the NEDO *Review of 1969* noted that, 'There was a big rise in output between 1968 and 1969 (mainly due to exports and some improvement in manufacturing investment) in the engineering and electrical goods sector, but the accompanying growth of employment in this sector meant that productivity increased at a slower rate than in 1968'. No wonder, either, that big increases in minimum rates of pay in engineering

were made in January and December 1968 and that employees in industries catering mainly for the home market felt disgruntled at the rises being achieved by workers in the car factories, engineering workshops and chemical plants, all of whom benefited from devaluation, enabling employers to concede excessive wage awards as they found their order books full and their capacity to meet the orders increasingly stretched. Inflation emanated from the export industries and was caused by the structural changes necessitated by devaluation.

Of course, by 1971, the impact of devaluation had receded. To explain the persistence of inflation, different culprits must be exposed. The obvious ones – that is, the embodiment of inflationary expectations in the wage-formation process and the jealousies engendered by the disturbance of conventional differentials and by 'the two years hard slog' – are quite probably the right ones. But they are not able to explain the initial upsurge of wages and prices. For that it is necessary to return, as with many other of Britain's present misfortunes, to the too tardy devaluation of 1967. (This argument does not represent a case against the devaluation of 1967; it underlines the need for a gradual adjustment of parity.)

Before proceeding with the mainstream of the argument, it may be of interest to consider its connection with two recent features of the British economy – the continuation of high plateau-like investment demand, and the failure of heavy unemployment to limit wage inflation.

The level of gross fixed investment was roughly constant over the years 1968-71. This is remarkable. In previous cycles, when the growth of output has dropped to negligible or zero rates, investment has subsided to levels 10 or 20 per cent beneath the peak. But in recent years, when these negligible and zero rates have again been experienced, investment has remained at the same high level. Particularly notable was the perceptible increase of private manufacturing investment in 1970 over the level of 1969, as this type of investment is most sensitive to fluctuations of output. A possible cause of this resilience of investment is the changed structure of demand. In terms of the theoretical model, the export industries have been 'gainers' and the services and home-market industries 'losers'. As the former have stepped up their investment programmes, overall gross investment has been maintained irrespective of the capital losses suffered in other branches of the economy. In this case, as in others, the theoretical schema presented above accords happily with the facts. In this case, as in others, the

strength of investment aggravated the supply problems encountered by manufacturing industry in the late 1960s. Moving on to the second feature under scrutiny, it should be observed that the extent to which unemployment cushions the effect of rising aggregate demand on the level of wage settlements depends on the extent to which the industries which benefit most from the rising demand find the skills they require among the unemployed. If the available labour does not match their requirements, the result is more unfilled vacancies, not a reduction in unemployment. If, instead of aggregate demand rising, there is a change in the structure of demand, the gainers may still find that the skills they want are simply not obtainable, while the losers may be declaring their workers redundant. There may, then, be a conjunction of rising unemployment and more unfilled vacancies. This seems a permissible interpretation of the labour market statistics of 1968-71. Once again it was the changing structure of demand which was responsible.

Causes of acceleration of structural change

It might be pointed out that, however impressive and persuasive the consistency between the hypothesis of increased structural change and the facts against which that hypothesis must be tested, the argument is incomplete without providing some rationale for the acceleration of such change. No final conclusions will be offered here; the areas of uncertainty and the scope for surmise opened up are too vast; but tentative guesses can be made. It is not necessary to inspect every economy to understand what was happening. Good reasons have been advanced for thinking that problems of structural adjustment can easily be transmitted from country to country. It is sufficient to identify major economic redirections in nations playing a pivotal role in the network of trade. In the United States the political dilemmas of the Vietnam War were paralleled in the economic problems of accommodating increased military spending. In the United Kingdom, in addition to the post-devaluation predicament of shifting resources to exports, there were the effects of the SET, the Regional Employment Premiums and the introduction of earnings-related unemployment benefit.[7] However, in Europe and Japan there were no comparable changes. A possible explanation is that, as the surplus labour in backward agricultural sectors dwindled, entrepreneurs, faced with the prospect of increasingly expensive labour, decided to invest more heavily in plant and equipment.

[7] J K Bowers and A E Webb 'The Change in the Relationship between Unemployment and Earnings Increases: A Review of Some Possible Explanations' in *The National Institute Economic Review* no 54 November 1970 pp 56-60. This article also documents the relation between labour turnover, an indicator of structural change, and inflation, providing confirmation of the present hypothesis.

Weakness of the labour militancy hypothesis

It was in this climate of change that trade union militancy is said to have been kindled. There is no dispute about the existence of greater strike activity and of greater intransigence in collective bargaining. But its significance can be questioned.

Was the new union militancy an independent or dependent variable of the economic system? In Britain, at any rate, there are grounds for seeing it as a dependent variable. Initially, militancy was most evident in engineering industries, and their peculiar position has already been indicated. All of the increase in the number of working days lost through strikes between 1967 and 1968 occurred in them. The first of the big three strikes – Fords, the postal workers and the miners – took place in an industry favourably affected by devaluation. Later certainly, anger, bitterness and frustration at the way market forces had adjusted the distribution of income, as much between different groups of workers as between capital and labour, resulted in militant behaviour which cannot be regarded as a carefully calculated response to advantageous industry-specific circumstances. No one could pretend that the coal industry, the docks industry or the Post Office were in a particularly happy position when they were worst hit by strikes. Nevertheless these strikes took place after inflation had accelerated. The early rise of militancy was conditioned by market forces; it was a dependent variable of the economic system.

If one supposes, for the sake of argument, that it was an independent variable, a number of problems arise. First, is it likely that labour militancy would increase in every one of the twenty or so OECD countries suffering from inflation in the late 1960s? There is no evidence of a connection between nations' rates of inflation and their degrees of unionization, their strike records or the political complexions of their labour leaders.

Secondly, how, in any one country, could union militancy have been responsible? In Britain, union members number eleven millions out of a total labour force of twenty-three millions. The remaining twelve millions do not seem to have fallen behind in the inflation stakes; nor has there been a marked increase in union membership. Union-membership, of itself, does not seem to provide protection. One of the most unionized industries, coal-mining, lost ground for several years while non-unionized employees remained well-placed. The fact is that, in a modern economy, an important slice of the total work-force is self-employed, in non-unionized small firms or salaried. Many of these workers do not identify with unions. They do not need to;

they are able to fend for themselves, their incomes being determined competitively, by market forces.

Conclusions

It has been accepted by economists for some time that structural change may contribute to inflation. In this article it has been argued that the investment boom of the late 1960s represented an increase in structural change and thereby caused the acceleration of inflation. The diffusion of inflation throughout the world is also largely explicable in terms of this boom, because the interruption of secular price trends within individual countries effected by growth of investment was reflected in a change in the price trends of goods entering world markets. The impact of structural change, operating through market forces, is a more substantial cause of inflation than is trade-union activity.

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Biographical Note

Timothy G Congdon was educated at St John's College, Oxford, and graduated in Modern History and Economics.