

THE IMPLICATIONS OF BRITISH MACROECONOMIC POLICY IN THE 1930s FOR LONG RUN GROWTH PERFORMANCE

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Discussion Paper No. 386
March 1990

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ABSTRACT

The Implications of British Macroeconomic Policy in the 1930s for Long Run Growth Performance*

The paper provides a synthesis of recent research relating to supply-side policy in the 1930s in a period when government sought to raise prices given sticky wages. We argue that as a politically constrained strategy to limit rises in unemployment this made sense. A bargaining model approach suggests, however, that this had a harmful impact on productivity growth by stifling competitive pressures and retarding rationalization of old industries. Our conclusion that employment policy was reasonably satisfactory but that growth was impeded contrasts starkly with the conventional wisdom of the textbooks. Finally, the contrast with the Thatcherite 'cold bath' is discussed.

JEL classification: O44, J22, J25

Keywords: employment policy, productivity growth

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*This is a longer version of a paper prepared for the European Economic Association Meeting held at Augsburg in September 1989. We would like to thank Gianni Toniolo and conference participants for helpful comments. Any remaining errors are our responsibility.

Submitted February 1990

NON-TECHNICAL SUMMARY

This paper seeks to re-evaluate 1930s economic policy and offers a synthesis of diverse strands of the recent literature that, we believe, turns much of the conventional wisdom of the textbooks on its head. The conventional view is optimistic about the growth performance of the British economy but pessimistic about policy towards unemployment. We argue that policy intensified sclerotic tendencies but was a quite coherent 'damage limitation' approach on the unemployment front.

We review the evidence on productivity and structural change in the 1930s. We find that there was a switch towards the so-called 'new industries', which experienced more rapid productivity growth than the old staples. Nevertheless the productivity gap with the United States remained undiminished and the Depression slowed down the modernization of the economy, both directly and through induced policy changes. Simple aggregate demand/aggregate supply analysis suggests that changes in the natural rate of unemployment in the 1930s were probably modest and that the dominant feature of 1929-37 is a major contraction followed by a strong recovery in aggregate demand.

We explore the impact of the Depression and of the associated policy response on the labour market. Econometric research has established that, given the price, wage and unemployment setting behaviour of the period, the product and import price falls associated with the demand shock had the potential substantially to raise both wages and the NAIRU. Archival research has found that the Treasury perceived these dangers fairly clearly and enacted a conscious plan to achieve a one-off adjustment of prices relative to wages by means of devaluation, tariffs and price-fixing agreements, while signalling a long-run anti-inflationary stance through a firm commitment to balanced budgets. Policy-makers accepted that it was politically infeasible to try to operate directly to reduce labour market rigidities. Given this constraint, their approach was a sensible short-term expedient to neutralize the impact of the world depression on labour supply.

Unfortunately the side-effects of this damage limitation exercise on growth performance were distinctly unfavourable. The policy of encouraging collusion over price-setting tended in important cases to preserve inefficient firms and to reduce firms' incentives to bargain toughly with workers for the elimination of overmanning. Moreover, the government's obvious embarrassment over high levels of unemployment undermined its own bargaining power in seeking to force industries like coal and steel to rationalize production and reduce costs.

The contrast is striking between the thrust of supply-side policy in response to the downturn of the 1930s and that pursued in the aftermath of the almost equally severe, but stagflationary, recession of the early 1980s. The stance of the 1930s,

designed to raise prices once-and-for-all without triggering a serious inflation, is readily understandable in terms of the nature of the shock, nominal wage rigidities and pressure to ameliorate unemployment. Research on productivity change in the 1970s and 1980s underlines, however, the likely adverse results of a policy stance very different from the 'cold bath' of the 1980s, which in lowering union bargaining power seems to have promoted a short-term productivity surge in manufacturing.

INTRODUCTION

In the past ten years or so there has been a very substantial research interest in the economic history of interwar Britain. Notable progress has been made on several fronts including investigations of the thinking behind policymakers' decisions based on research at the Public Record Office, econometric modelling of labour supply and demand and macroeconomic analysis of the impact of the changes in policy which followed the leaving of the Gold Standard in 1931. It is not our purpose to provide a complete survey of this extensive literature; good introductions can be found in Booth (1987) and Broadberry (1986b). In this paper we wish to build on some of the findings of this research by offering a synthesis of some of its main strands in the context of the unemployment problem confronting government in the 1930s and developing from this a review of the implications of the new policy regime for the supply-side of the economy, in particular, in terms of its long run growth potential. In brief, our argument is that policy towards unemployment was a good deal more appropriate than has generally been realized but that the consequences for growth were much less favourable than is commonly recognized. In this regard there are some notable contrasts with the recent Thatcher years which we turn to in the final section of the paper. Before examining the effects of policy changes in the 1930s we turn in the next two sections of the paper to review some key features of the supply side of the economy.

I. STRUCTURAL CHANGE AND THE PRODUCTIVITY GAP

The historiography on economic growth in interwar Britain has shown tendencies towards greater optimism since the late 1960s. In a well-known but controversial book Richardson (1967) put forward the thesis that the 1930s saw the British economy escaping from its "overcommitment" to the old Victorian staple export industries (coal, cotton etc.) and in response to adverse developments in the world economy recovering rapidly through switching resources to a "development block of new industries" (motor vehicles, electrical engineering etc.). This view is largely supported in the most widely used textbook on the period: "The view that, after a poor performance in the 1920s, the 1930s saw a genuine breakthrough, is indeed widespread and finds support not only in the output statistics but also in the quality of the modern investment and the structuring of British industry towards the growth-oriented sectors in the second phase" (Pollard, 1983, p.53).

This emphasis on the Depression promoting "new industries" as the major subsequent source of improvements in productive potential and accordingly on the 1930s as a period of economic regeneration has, however, been strongly challenged. Alford in a much cited pamphlet asserted that the old rather than the new industries predominated in productivity growth (1972, p.21). Buxton argued that the extent of reallocation of resources towards new industries in the 1930s was modest and that changes in the structure of British industry were insignificant (1975, p.206). Crafts (1988a, pp.vi-viii) noted the weakness of investment and the poor performance of productivity by

comparison with the United States.

In fact, detailed quantitative examination of the notion of interwar regeneration through new industries on balance appears to offer only limited support for the optimism of Pollard/Richardson. Data from the 1935 Census of Production allows productivity growth to be decomposed in a conventional manner. Following Nordhaus (1972, p.529):

$$\Delta A_o = \sum S_i \Delta A_i + \sum A_i \cdot \Delta S_i \quad (1)$$

where A_o is aggregate labour productivity which equals $\sum A_i S_i$, where A_i is labour productivity in the i^{th} industry and S_i is the i^{th} industry's share in employment. Thus:

$$\frac{\Delta A_o}{A_o} = \sum S_i \frac{\Delta A_i}{A_i} \cdot \frac{A_i}{A_o} + \sum \frac{A_i}{A_o} \Delta S_i \quad (2)$$

where industry contributions to productivity growth are measured by the first term. Many alternative definitions of new and old industry have been proposed and in Table 1 we have used the widest available in the literature in each case.

Two points are obvious from Table 1. First, that the relative shares of the two sectors in productivity growth depend on which year's weights are used and, secondly, that on average new industries had substantially faster productivity growth than the old staples. Using the industry categories of the Census of Production,

TABLE 1

Contributions to Manufacturing Productivity Growth, 1924-1935

	<u>At 1924 Weights</u>		<u>At 1935 Weights</u>	
	<u>Weight</u> (%)	<u>Share</u> (%)	<u>Weight</u> (%)	<u>Share</u> (%)
<u>New Industries</u>				
Motor & Cycle	3.8	10.11	5.1	12.67
Silk & Artificial Silk	0.9	4.53	1.1	5.17
Chemicals ^a	2.8	3.89	3.9	5.12
Rubber	1.0	4.43	1.2	4.96
Paper & Printing	4.2	3.75	4.4	4.01
Electrical Engineering	2.8	1.52	4.6	2.34
Aircraft	0.2	0.40	0.7	1.30
Scientific Instruments	0.4	0.70	0.5	0.82
Aluminium, Lead, Tin	0.5	0.43	0.8	0.64
Petroleum & Manf. Fuel	0.2	0.56	0.2	0.50
Total	17.0	30.32	22.5	37.51
<u>Old Staples</u>				
Mechanical Engineering	7.3	5.93	7.7	5.83
Iron & Steel ^b	5.5	6.05	5.7	5.57
Clothing ^c	8.0	5.74	7.9	4.90
Woolens & Worsted	4.5	5.01	3.5	3.64
Cotton Spinning & Weaving	7.1	6.91	3.2	2.79
Other Textiles	4.1	3.46	3.0	1.89
Timber	0.8	0.61	1.1	0.79
Furniture	1.2	0.51	1.6	0.63
Leather etc. ^e	1.0	0.54	0.8	0.42
China & Earthenware	0.9	0.28	0.7	0.19
Rope, Twine & Nets	0.2	0.19	0.2	0.17
Shipbuilding	2.1	0.13	1.2	0.07
Railway Carriage	0.5	0.05	0.4	0.04
Total	43.4	35.41	37.0	26.93

Source: Derived from 1935 Census of Production.

Notes:

- a. Chemicals, Dyestuffs & Drugs; Explosives & Fireworks; Fertilizer; Plastic Materials.
- b. Iron & Steel Blast Furnaces; Iron & Steel Foundaries; Iron & Steel Smelting & Rolling; Tinplate; Wrought Iron & Steel Tube.
- c. Boot & Shoe; Flock and Rags; Fur; Gloves; Hat & Cap; Hosiery; Lace; Tailoring.
- d. Coir Fibre; Jute; Linen & Hemp; Textile Finishing; Textile Packing.
- e. Fellmongery, Leather, Leather Goods.

motor and cycle was easily the largest single contributor to productivity growth, accounting for 10.1% even using 1924 weights.

As Table 1 implies, there was a shift towards newer industries during the interwar period. The decline of the heavily regionally concentrated staple industries was associated with very rapid structural change in employment in Outer Britain and, particularly for coal miners, resulted in long-term unemployment. Total falls in employment in contracting industries between the Census of Production of 1924 and 1935 amounted to 962,000, of which coal mining, shipbuilding and traditional textiles contributed 741,000. Measuring structural change in employment by regions as

$[\sum w_i (g_i - g)^2]^{\frac{1}{2}}$ where w_i is the share in employment of the i^{th} sector, g_i is the growth rate of employment in the i^{th} sector and g is the growth rate of regional employment, and using the data in Lee (1979) for the census years 1921-31, the North scored 2.953 and Wales 2.663 whereas in 1901-11 no region scored more than 1.608, or in 1951-61 more than 2.009.

Nevertheless, in other respects the impact of structural change was much less impressive. The overall rate of structural change in manufacturing output in 1924-37 was less than in 1913-24, 1937-51 or 1951-73 (Matthews et al., 1982, pp.255-7). Using the data from Table 1 we find that in manufacturing the structural change term accounts for only 0.02 (0.02) of 1.72 (1.85) percentage points of productivity growth in 1924-35 using 1924 (1935) weights - productivity growth was overwhelmingly an intrasectoral phenomenon.

Also, as Table 2 reports, net investment in new industries

TABLE 2
Net Investment in Fixed Capital (Annual Average £m : 1930 prices)

	<u>1924-9</u>	<u>1929-32</u>	<u>1932-7</u>
"New" Industries	5.9	4.0	7.1
Old Staples	-15.3	-18.3	-14.1
Other Manufactures	7.9	15.3	18.7
Services	39.3	32.5	14.8
Dwellings	<u>81.5</u>	<u>83.5</u>	<u>118.8</u>
Total	<u>119.3</u>	<u>117.0</u>	<u>145.3</u>

Source: Adapted from Buxton (1975, Table 2); note his data does not permit such broad definitions of new and old industries as those chosen for Table 1.

was always a small part of the overall total, slowed during the Depression years and returned only to its 1920s share in the recovery of 1932-7. Moreover, while the net capital stock of the old staples of Table 2 fell between 1929 and 1937 by £100m at 1930 prices the net capital stock of these new industries rose by only £48m (Feinstein, 1965, Table 8.01). Even looking at gross investment between 1929-37, dwellings accounted for about 36% of the total and new industries for less than 5%.

Overall the interwar years saw relatively low rates of physical capital formation in Britain with net investment only 2.7% of NNP while the capital stock in manufacturing grew at only 0.9% per year between 1924-37 (Matthews et al., 1982, Table 8.7). Moreover, in other aspects of investment there were inadequacies as well as the improvements heralded by Pollard.

In research and development the admittedly incomplete survey of the Federation of British Industries reported £1.74m expenditure in 1930 rising to £5.44m in 1938 (1943, p.7) but only 10% of the top 200 British manufacturing firms had their own research laboratory compared

with 72% of the top 200 American firms (Mowery, 1986, p.192) and UK expenditure as a fraction of GDP was only a little over half that of the United States (Sanderson, 1972, p.122). Interwar governments have also been severely criticized both by contemporaries and recent commentators (Sanderson, 1988) for the deficiencies of technical, education and vocational training and for the continuing remarkably low level of secondary education. Thus, of the cohort born in 1910-1929, only 17.6% went into secondary education (Floud, 1954, p.121).

During the interwar years there were, then, signs of improvement in the growth of productive potential, in part stimulated by new industries, and to an extent the optimism of the Pollard/Richardson view has some support. The counterfactual proposition that this process was advanced by the Depression seems distinctly unpersuasive, however, and indeed we wish to argue in the following sections of the paper that the opposite is true.

In particular, in terms of the Mancur Olson (1982) hypothesis, the 1930s can be viewed as a period when the Depression strengthened political pressures and interest groups which would operate to slow down the modernisation of the economy and its long-run growth potential. For example, Britain moved to a General Tariff in 1932, whose partial equilibrium direct effects at least seem more to have protected sunset than sunrise industries (Richardson, 1967, pp.237-8).

Table 3 presents the most recent calculations for changes in protection, figures which appear more accurate than those of Capie (1983). The declines in effective rate of protection experienced by

TABLE 3Changes in Rates of Protection in 1932 (% points)

	<u>Nominal Rate</u>	<u>Effective Rate</u>
<u>New Industries</u>		
Non-ferrous Metals	20	26.2
Paper	20	20.9
Electrical Engineering	20	18.9
Printing & Publishing	0	-4.2
Aircraft	0	-7.4
Motor & Cycle	0	-14.2
Rubber	0	-15.8
Chemicals	16.5	-17.3
<u>Old Staples</u>		
Hosiery & Lace	30	45.2
Railway Stock	33.3	45.0
Iron & Steel	24	34.3
Leather & Fur	25	25.3
Timber	20	24.8
China & Glass	20	23.9
Clothing	20	23.0
Mechanical Engineering	20	14.8
Other Textiles	20	10.4
Woollens & Worsteds	20	9.2
Cotton & Silk Textiles	16.5	5.7
Coal Mining	0	-2.3
Shipbuilding	0	-13.8

Sources: Kitson et al (1989); effective protection measures protection of final output adjusted for impact of tariffs on input prices and is expressed as a percentage of value added.

many of the new industries together with the steep increases for many of the old staples are striking. Similarly, in the context of continuing government efforts to retain an (almost) balanced budget (Middleton, 1985) the fiscal pressures of the 1930s were hardly conducive to the major expansion of educational provision advocated in successive governmental reports.

In sum, while the boom of 1932-7 saw a strong growth of real GDP at 4% per year it should not be seen as a period of an enhanced rate of structural change nor a time of impressive investment in either physical or human capital. Perhaps not surprisingly, therefore, the 1930s did not see any substantial clawing back of the productivity gap between Britain and the United States which had rapidly developed in the previous quarter century; by 1938 real GDP per hour worked in the United States was on a purchasing power parity basis 1.54 times the UK level compared with 1.58 times in 1929 (Feinstein, 1988).

II. HYSTERESIS AND THE NATURAL RATE OF UNEMPLOYMENT

In this section we examine the impact of the Depression on the natural rate of unemployment, since an increase in the natural rate would have affected the rate of growth that was attainable with price stability.

The first point to note is the difference between the slump of the early 1920s and the Depression of the early 1930s. As Broadberry (1986a) notes, the slump of 1920-21 was the result of an adverse supply shock as well as a negative demand shock, while the

depression of 1929-33 was purely the result of a demand shock. The negative supply shock of the 1920s can be seen as the result of a shift in the wage-effort bargain, with a thirteen percent fall in the normal working week from 54 to 47 hours, for a constant weekly money wage. This translated into a sharp rise in the real wage given the falling price level, brought about by the large negative shock to demand, due to restrictive monetary and fiscal policies in support of the return to gold at prewar parity and a world recession. The supply shock of the early 1920s raised the natural rate of unemployment from about two percent to nearly eight percent, as can be seen from Figure 1.

During the 1930s, however, we see a pure demand cycle, with no substantial long run shift in the natural rate. Nevertheless, we should expect such a large demand shock to have had some persistent effects through the emergence of a stock of long-term unemployed. Such hysteresis effects have been widely found for the 1980s. Crafts (1987) documents the emergence of a stock of long-term unemployment during the 1930s and its regional concentration in Outer Britain. He also shows how the probability of re-employment was duration dependent, with the long-term unemployed far less likely to find a job. Crafts (1989) finds further that the distinction between long-term and short-term unemployment is important in explaining the relationship between demand and wage growth during the 1930s. Long term unemployment did not have a dampening effect on wage growth, whereas short term unemployment did reduce wage growth. These results are interpreted by Crafts as supporting insider-outsider arguments and employer perceptions of low-productivity characteristics among the

long-term unemployed.

Given the findings of Broadberry (1986a) on the absence of a major identifiable shift in the long-run aggregate supply curve during the 1930s, it is probably better to see the major hysteresis effect as occurring during the early 1920s and sustaining a high natural rate of unemployment throughout the interwar period. This put an effective limit on the rate of growth that was attainable with price stability. This concern over the threat of wage inflation at relatively high rates of unemployment permeated the writings of the architects of Keynesian demand management during the late 1930s and early 1940s. (See Jones, 1985, for a recent survey.) We can also see a hint of the problem in the final peacetime observation of Figure 1, with rising prices and unemployment during 1938.

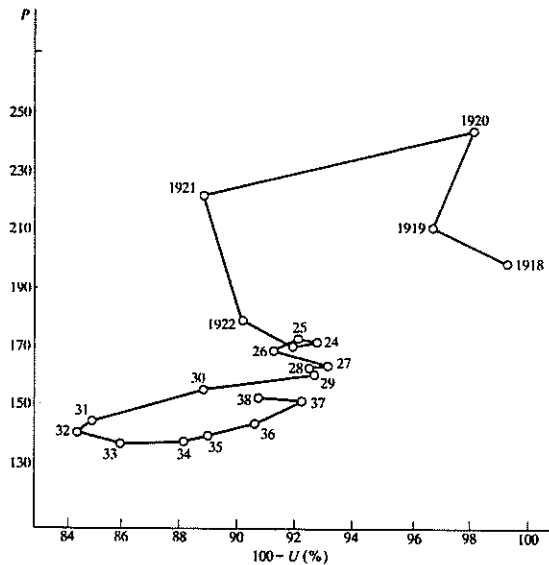


Figure 1 : Retail Prices (P) (1913=100) and Capacity Utilisation (100-U)

Modern time series analysis provide us with a statistical way of evaluating the importance of hysteresis effects. If a time series such as log GDP is trend stationary (TS), it can be represented as fluctuations around a deterministic trend. After a shock, the series will return to the trend, so that the shock has no permanent effect. However, if a time series is difference stationary (DS) (the logarithmic first difference is stationary), then after a shock, the series will return to its original growth rate. Thus the shock will have a permanent effect on the evolution of the time series, which cannot be modelled as fluctuations around a deterministic trend. Mills (1989) finds that although before 1914 British GDP can be modelled as trend stationary, after 1914 trend stationarity is rejected in favour of difference stationarity. For industrial production, Crafts, Leybourne and Mills (1989) find that the trend stationary characterisation can be rejected even for the pre-1914 period. Thus there is now strong statistical evidence to support the notion that shocks had persistent effects on real economic activity in interwar Britain, as suggested by our analysis of the labour market.

III. GOVERNMENT POLICIES TOWARD UNEMPLOYMENT

The previous section demonstrated that the early 1930s saw a major demand fall in the British economy originating from world economic difficulties in the aftermath of the 1929 American downturn and putting downward pressure on prices. This shock fell upon an economy which exhibited short run money wage rigidity, as was realised at the time by the Treasury (Howson, 1975, p.90) and has been confirmed by econometric research into the wage equation (Crafts, 1989; Hatton, 1988). The implication was that the world depression

had the potential to promote a sharp rise in real wages in the short term through the nominal rigidity of wages and also in the long term to raise the NAIURU through the apparent reaction of price and wage setting behaviour to the fall in real import prices (Dimsdale et al., 1989) and through the tendency for real benefit levels to rise given that they did not fall in money terms (Matthews, 1986). To return to 1929 levels of unemployment it would be necessary to neutralize these effects.

In the event the British GDP deflator fell by only 7% between 1929 and 1932 and the effects of real import prices on the NAIURU were restrained, as our earlier discussion in Section II implied. To a very substantial extent this was the result of the early leaving of the Gold Standard in September 1931 which resulted in an immediate depreciation of the nominal exchange rate and an alleviation of downward pressure on prices - for example, France which remained on gold saw a fall in prices of 42% - and in the face of sticky money wages there was a general tendency for countries which abandoned the fixed exchange rate early to recover relatively quickly in the 1930s (Newell and Symons, 1988, p.73). By 1937 the change in macroeconomic policy regime had aided a return to something approaching the 1929 level of unemployment while own-product real wages were only about 6% higher than in 1929 (Dimsdale, 1984).

More remarkable, however, is that research into the conduct of economic policy in this period has now developed a picture of a conscious and largely coherent strategy to offset the potentially severe impact of the world shock, given the constraints of largely inflexible money wages and benefits, as the work of Howson (1975),

Peden (1985) and especially Booth (1987) has suggested. In particular, the Treasury sought gently to push up domestic prices to lower real wages and to raise profits whilst insuring against a collapse of confidence in sterling by maintaining a balanced budget and imposing tariffs. The means of raising prices besides devaluation were tariffs and encouraging price-fixing agreements. This policy package operated both on the potential labour market impacts of the world slump and to stimulate the product market and was thus much better suited to coping with the situation than the literature (which has tended to dwell only on the product market impact) has hitherto recognized.

The policy stance was, of course, tantamount to accepting, reasonably enough, that it was politically infeasible to try to operate directly on the domestic inflexibilities in the labour market. The General Strike marked the end of any real belief that government could readily reduce money wages painlessly and also experience seemed to confirm that tightening up the benefits system was not a promising way to promote lower wages and a lower NAIRU. Whilst virtually all commentators agreed that this would have been a powerful instrument to reduce trade union bargaining power in theory (Hicks, 1932; Keynes, 1930), a view which finds econometric support from Matthews (1986), maintaining social peace argued strongly against pursuing this course in practice, as the reaction to proposed changes in 1934/5 showed (Miller, 1974, 1979).

With the advantage of hindsight and better tools of economic analysis it would be possible to design a superior strategy to promote economic recovery in the 1930s. In particular, once we move beyond a

two or three year time horizon, the notion that the real wage can be reduced by a rise in the price level looks decidedly unpersuasive. Indeed, econometric evidence supports long run price homogeneity of the wage equation, even for the interwar period (Broadberry, 1986b, p.95). At the same time it should be accepted that many worse approaches could have been followed than that of the National Government and that policy did redress potentially major imbalances. Unfortunately, however, the major thrust of macroeconomic policy towards raising prices in the face of sticky money wages is likely to have had serious adverse effects on the long term growth performance of the economy as the next two sections show.

IV. GOVERNMENT INDUSTRIAL POLICY

During the depression, there was a retreat from competition, with the widespread growth of collusion among firms behind tariff barriers. These policies were actively encouraged by governments' industrial policies in the name of rationalisation. Although these policies may have had some success in alleviating the effects of the depression in the short run, it is our contention that they left an unfavourable legacy for the postwar period of entrenched restrictive practices and low productivity.

The response of British industry to the depression of the 1930s was a further retreat from competition, a process already well under way from the depressed conditions of the 1920s. There was a substantial increase in concentration, brought about primarily by a merger boom during the 1920s (Hannah, 1983). The curious feature of this merger boom was that it occurred principally in sectors such as

food, drink and tobacco or textiles rather than in metals and engineering where experience abroad suggests there were substantial economies of scale to be reaped. Furthermore, the 1930s saw the introduction of a General Tariff. As Capie (1983) notes, the Import Duties Advisory Committee (IDAC) was more prepared to grant protection in exchange for commitment to rationalisation, which was easier to justify in less concentrated industries. Thus protection can be seen to have limited the operation of competition in sectors of the economy which had not already been rendered uncompetitive by mergers and concentration, in addition to retarding the structural transformation of the economy as noted in Section I.

These tendencies towards concentration and protection were, of course, worldwide, but the encouragement of cartels and collusion provides a sharp contrast between Europe and America. Whereas British and German industries were highly collusive, in the US collusion remained illegal. Broadberry and Crafts (1989, Table 14) document the major examples of collusion, drawing on the work of Rees (1922), Levy (1927) and Lucas (1937). Lucas' work is particularly illuminating because seen from his American vantage point, it was amazing that such collusive behaviour was tolerated by the authorities. Indeed, many postwar writers have been stunned by interwar government policies to actively encourage collusion and restrictive practices. For example, Yamey writes with heavy irony that the Committee on Resale Price Maintenance "could find no fault with so virtuous a practice" (1962, p.255).

Governments hoped that the suspension of competitive pressures would lead both to a recovery of profitability and

modernisation of industry. Unfortunately, as a number of recent studies of government industrial policy in the 1930s have shown, politicians' perceptions of the payoffs to interventions in this area were generally such as to vitiate effective attempts at rationalisation and productivity enhancement, given the importance they attached to alleviating unemployment in regional black spots and to raising profitability in the face of sticky wages.

Bamberg (1988) demonstrates how severely the Bank of England's freedom of action in setting up the Lancashire Cotton Corporation was circumscribed by its clear desire to support the financial system and to decouple the banks from their continuing commitments to the cotton industry. Cotton firms could not be allowed to go bust because that would threaten the stability of the financial system. But once cotton firms understood that, they could resist official exhortations to rationalise.

Similarly, Tolliday (1987) points out that in giving heavy tariff protection to steel, the hoped for rationalisation was frustrated. This was because political pressures meant that the sanction of removing protection was not credible. There was then no way of obtaining modernisation in the face of vested producer interests. Thus the results of state intervention were merely an inefficient state sponsored cartel.

In the highly politicised coal industry, Supple (1987) shows that although there were ambiguous proposals for restructuring the industry in the 1930s through the Coal Mines Reorganisation Commission, they were made inoperative by the requirement that any

scheme would reduce costs, not be financially injurious to any party and would be fair and equitable to all concerned. Political pressures both from the owners and from worries about rising unemployment vitiated any rationalisation attempt. As Supple puts it, "the contradictions of policy were evident within the legislation of 1930 itself, for the selling schemes envisaged in Part I were designed to reduce competition and protect existing collieries, while the amalgamations in Part II were designed to eliminate less efficient firms... an inevitable tension between an embryonic employment policy and an embryonic industrial policy (1987, p.342).

Inside this protected collusive home economy bargaining between capital and labour often confirmed the tendency to low productivity. An important study is Lewchuk's (1987) analysis of the motor vehicle industry. Lewchuk argues that British motor manufacturers, anticipating a non-cooperative strategy on the part of their workers if they incurred the high sunk costs of following the Fordist capital-intensive, high-throughput methods with payment by day rates, adopted low-throughput, labour-intensive methods with payment by piece-rates. Similarly Lazonick (1981) explains the persistence of labour-intensive, low-throughput techniques in the British cotton industry by the nature of industrial relations. Powerful unions had negotiated wage lists defining the relationship between work effort and pay, and these wage lists had become firmly entrenched. Thus employers found it difficult to negotiate favourable terms when contemplating the installation of new technology.

The detailed studies of Scott et al (1956) and Zweig (1951) give substantial support to the proposition that the long run

implication of this diminution of competitive pressures was that UK labour-management relations frequently settled for a quiet life in which over-manning and restrictive practices were conceded rather than challenged. Not surprisingly a review of comparative Anglo-American productivity studies in the early postwar years concluded that "in Britain, the brakes on productivity are not due to the quality of industrial relations... Those relations are frequently of the best. The hindrances seem due to the more restricted content of those relations", (Hutton, 1953, p.144).

The upshot of the increasing supply side sclerosis was an unfavourable legacy of low productivity levels, ably demonstrated by Rostas' (1948) calculations of comparative productivity for the late 1930s. In Table 3 we present a comparison of net output per operative in British, American and German manufacturing industries. British labour productivity was less than half the US level and about 10 percent lower than in Germany. Although there were a number of light industries in which German productivity levels were below British levels, American superiority was across the board.

TABLE 3
Index of US and German Relative Net Output Per Operative in
Manufacturing (UK = 100)

	<u>UK 1935</u>	<u>US 1937</u>	<u>Germany 1936</u>
Clay and Stone	100	247	82
Chemicals	100	186	106
Iron and Steel	100	249	122
Non-Ferrous Metals	100	227	142
Engineering, Motor, Shipbuilding	100	254	126
Textiles	100	200	129
Leather	100	176	114
Clothing	100	212	130
Food, Drink and Tobacco	100	156	86
Timber	100	172	89
Paper and Printing	100	261	78
Rubber	100	184	109
Miscellaneous	100	213	95
Total Factory Trades	100	225	111

Source: Rostas (1948) Table 2.

V. SUPPLY SIDE POLICY IN THE 1930s AND THE 1980s

We have argued that despite the appearance of decent growth in the 1930s, at the end of the interwar period the economy suffered from a productivity lag which was allowed to persist by prevailing institutional arrangements and political incentives. It is indeed striking, though not as yet widely perceived, how different was the thrust of supply side policy in response to the downturn of the early 1930s from that pursued in the aftermath of the almost equally severe, but stagflationary, recession of the early 1980s.

In brief outline, some of the major differences in policy initiatives were the following.

- (i) Broadly speaking, policy in the 1930s strove to reduce the competitive pressures on enterprises whereas in the 1980s the opposite was the case; thus in the 1930s foreign investment was restricted,

cartels were encouraged and tariffs were increased while in the 1980s foreign capital flows were deregulated, competition policy was maintained, privatisation was initiated and Britain remained a member of the EC.

(ii) Similarly, policy towards lame ducks was substantially different; for example, during the 1930s government attempts to promote rationalisation of coal and steel were vitiated by concerns over their impact on unemployment and as a result, productivity suffered (Supple, 1987; Tolliday, 1987), while in the 1980s the unemployment consequences of raising productivity and eliminating excess capacity in those same industries were accepted and total factor productivity rose dramatically (Bishop and Kay, 1988).

(iii) Pressures on manufacturers in particular to pursue higher productivity were intensified by the high exchange rate policy of the early 1980s when the real exchange rate rose by perhaps 30 percent; by contrast Britain's departure from the Gold Standard in 1931 initially led to a sharp fall of perhaps 15% in the real exchange rate and at no stage was there a similar increase (Dimsdale, 1981), while the policy of managed floating sought to hold down the pound in the interests of employment and competitiveness (Howson, 1980).

(iv) Worries over the political dangers of unemployment and apparently ungenerous treatment of the unemployed led during the 1920s and 1930s to a significantly faster rise in real unemployment benefits than in productivity (Hatton, 1983). In the 1980s the reverse has been true as benefits have been kept constant in real terms. The inability to prevent rises in real benefits between the wars made it

harder to reduce excessive real wages.

(v) More generally in the early 1980s the Government withdrew from demand management and a commitment to preserving full employment and ostensibly concentrated on developing a microeconomic policy conducive to promoting high employment and a low NAIRU as outlined in the Chancellor's Mais Lecture (Lawson, 1984). In the 1930s macroeconomic policy officially remained avowedly anti-Keynesian but nevertheless increasingly within senior Treasury circles government stimulus to aggregate demand was seen as having a part to play in reducing unemployment (Peden, 1984) while microeconomic measures to reform the labour market were not on the agenda.

The policy stance of the 1930s is readily comprehensible in terms of the nature of the shock to the economy, the downward stickiness of money wages and unemployment benefits, the pressures on government to ameliorate unemployment and the resultant desire to raise prices once and for all without triggering off a serious inflation thereafter. The implication was for something very different from the "cold bath" of the early 1980s.

In addition to the long run impact on productivity of the 1930s wish to raise prices and mitigate unemployment, which we have already argued was unhelpful, it is worth noting that the short run effects of this macroeconomic policy stance also implied a very different productivity outcome from that of the 1980s. If workers and firms bargain over work effort, then it is straightforward to predict that a more competitive product market tends to raise firms' bargaining power whilst rising unemployment and possible bankruptcy of

firms tend to lower union bargaining power (Machin and Wadhvani, 1989). Wadhvani (1989) summarises the econometric evidence to confirm the relevance of these predictions for 1980s Britain which appears to have experienced a strong productivity surge in manufacturing resulting from organisational changes based on changes in the conduct but not the structure of bargaining. Similar outcomes could not be expected in the 1930s when policy tended to be conducive to the opposite results. Conversely 1980s policy led to a more severe and sustained rise in unemployment.

Certainly 1980s policy has suffered from a number of serious weaknesses, for example in the areas of training and support for technological progress (Crafts, 1988b). Nevertheless, particularly in the short term its overall effect on productivity growth is likely to have been helpful in improving on the dismal experience of the 1970s, as investigation of the bargaining model implies, whereas no such favourable effect could be predicted from the 1930s policy stance.

The outcome seems to reflect this. Against a background of a similar lag between British and American productivity (Feinstein, 1988) in 1979-88 from peak to peak the growth of output per worker employed rose to 1.9% per year compared with 1.1% between the previous business cycle peaks of 1973-1979 (Department of Employment, 1989), whereas in 1924-9 and in 1929-37 growth of output per worker was identical at 0.9% per year (Dowie, 1968).

VI. CONCLUDING COMMENTS

Our evaluation of the British economy of the 1930s turns much of the conventional wisdom on its head. The conventional view is optimistic about the performance of the British economy viewed from a long run growth perspective, and pessimistic about government policy towards unemployment viewed from a short run macroeconomic perspective.

In contrast to the conventional view, which sees short run pre-Keynesian unemployment policy as ad hoc, we see it as following a coherent pattern. Faced with a serious negative demand shock coupled with short run money wage rigidity, the government's strategy to engineer a one-off increase in the price level without creating a continuing inflation can be seen as a reasonable response to the political constraints blocking the orthodox strategy of deflation. Although we are not the first to see a coherence in government policy during the 1930s, other writers have stressed product market effects, rather than labour market effects operating through the real wage.

However, we think it is important to stress the serious negative consequences of this essentially short run macroeconomic management for long run productivity. The encouragement of cartels to raise prices and prevent the elimination of inefficient firms for fear of the unemployment consequences had unfortunate effects for the long run growth potential of the British economy, ossifying an outmoded productive structure. Finally, we note that this strategy pursued during the 1930s contrasts sharply with the 'cold bath' of the 1980s, when the economy was opened up to a more competitive environment.

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