**STRUCTURAL UNEMPLOYMENT AND
PUBLIC POLICY IN INTERWAR BRITAIN:
A REVIEW ESSAY**
Prakash Loungani

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by

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1. Introduction

Long accustomed to mysteries in which a single individual emerges as the perpetrator of the

crime, most readers of Agatha Christie's 1930 novel "Murder on the Orient Express" were caught

unawares by the emergence of as many as twelve perpetrators of a single crime. Almost as many

perpetrators are needed to explain the mystery of British interwar unemployment. As shown in

Figure 1, the aggregate unemployment rate hovered around 8% for most of the 1920's, jumped

to nearly 16% between 1929 and 1932, and then fell back gradually to 8% between 1932 and

1937. It is common to group the factors responsible for the persistently high unemployment of

this period into three categories: (1) structural factors, stemming from the decline of several

staple industries; (2) cyclical factors, stemming from the stringent monetary policy followed by

the Treasury in order to return to the gold standard at the pre-war parity; (3) "voluntary"

unemployment, attributable to the generosity of unemployment benefits relative to wages. These

factors interacted with one another in ways that worsened the problem. The tight money policy

was a further blow to industries experiencing structural decline. The generosity of the dole may

well have inhibited labor mobility from declining sectors to expanding ones.

In this essay I describe the response of British policymakers to the emergence and persistence

of mass unemployment. My description is based largely on W.R. Garside's masterly analysis of

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the subject in his recent book *British Unemployment, 1919-1939: A Study in Public Policy* (Cambridge University Press, 1990). I also discuss recent research on the sources of British interwar unemployment and provide new evidence on the importance of structural factors.

2. The Emergence of Mass Unemployment

In 1860, Britain accounted for nearly a fifth of the world's industrial output. Exports accounted for a large fraction of Britain's output and they were concentrated in a few sectors of the economy. Britain's comparative advantage was "rooted in coal and unskilled labour. Textiles and iron were major users of steam power, and cotton textiles in particular relied on low-grade labour" [Crafts (1985, p. 146)]. Britain's dominance slipped in the last quarter of the nineteenth century. A set of innovations, sometimes referred to as the second industrial revolution, raised the return to investment in human capital. The innovations altered techniques of production in existing industries and led to the emergence of several new industries that were 'human-capital intensive.' Britain appears to have under-invested in technical and scientific education, relative to the U.S. and Germany. Britain's share of industrial output was surpassed by the U.S. around 1895 and by Germany around 1910.

Foreign competition intensified during World War I, while the British economy was geared towards the production of war materials:

> "Competition was particularly felt in the staple export industries. Shortages of British coal exports during the war had encouraged the opening or expansion of mines in Germany, Poland, the Netherlands, Spain and the Far East. Major textile industries grew during the war in Japan and India, important British markets before 1914. Rival shipyards had opened in the United States, Japan, Holland and Scandinavia. World iron and steel-making capacity also expanded during the war, especially in the United States and challenged British companies later" [Constantine (1980, p. 11)].

After the war, large scale unemployment emerged in these industries which now faced a

permanent decline in the demand for their products.

Several factors impeded the reallocation of labor from the staple industries to the new industries. Good jobs in the expanding industries required a set of skills different from those possessed by the unemployed. Hence, many of them were faced with the prospect of moving from their (old) skilled job to unskilled work. The geographic concentration of declining industries meant that the search for new jobs involved inter-regional migration. The normal social and psychological costs associated with migration were exacerbated by housing shortages in the expanding regions. Mobility may also have been reduced because "the unemployed were offered the dole which prevented them from being faced with a forced choice between migration and starvation. Armed with this guarantee of a subsistence income, the unemployed could hope for an improvement in the prospects of the basic industries and fall back on their closely-knit working-class communities and family connections" [Booth and Glynn (1975, p. 623)].

The tight money policy followed by the Treasury, discussed in greater detail later in this essay, led to unemployment even in expanding regions and industries. This further discouraged migration out of the staple industries because workers suspected that they would simply be relegated to the end of the unemployment queue at the new industries. Calomiris (1990, p.10) makes a similar point in his discussion of the behavior of relief workers in the U.S during the Depression.[2]

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[2] "... these (relief) workers were in line behind a buffer of non-relief unemployed with superior opportunities...The high unemployment of non-relief workers may have been a sufficient disincentive for relief workers' search, given differences in the two types of workers. According to this interpretation, only very large improvements in market opportunities would have removed the buffer of non-relief unemployed and encouraged search by relief workers."

3. The Policy Response

<u>A. 1919 to 1925</u>

In the period immediately following the war, the restoration of the gold standard was the primary objective of British public policy. It was widely believed that the dominance of British industry in the pre-war period and the pre-eminence of London as an international financial center were attributable to price stability engendered by the gold standard regime. The Cunliffe Committee recommended balanced government budgets and increases in the Bank Rate

> "to check a foreign drain of gold in order to create the conditions necessary to the maintenance of an effective gold standard. The Cunliffe Committee was not unaware of the fact that high interest rates, apart from attracting foreign capital to help stabilize the reserve position, could also depress output and employment. But it remained convinced that the trade-off between internal and external balance in the short run was the essential price to be paid for stability and prosperity in the long term" [Garside, p. 116].

The Bank Rate was raised from 5% in November 1919 to 7% in April 1920 and was held at that level for a year. Wholesale prices tumbled, but unemployment rose from 2% in 1920 to 11.3% in 1921. The emergence of unemployment on this scale led to some soul-searching among policymakers, but by and large they succumbed to orthodox economic and financial opinion and a tight money policy was pursued again after July 1923. Britain returned to the gold standard in April 1925 at the pre-war parity.[3]

The successive governments over this period were inclined to largely ignore the structural aspects of British unemployment over this period. Garside (p. 204) states that

> "governments looked to sound currency and to the revival of trade to foster economic recovery and refused to be drawn into any direct interventionist policy, least of all on

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[3] "G.D.H. Cole likened the emphasis on monetary policy to a Great God named Par who is worshipped daily at the Treasury. Par likes unemployment; it is his form of human sacrifice" [Garside, p. 122].

behalf of industry. Ministers believed that downturns in trade such as occurred in 1920/21 would, like pre-war depressions, be of relatively short duration; the most appropriate response, therefore, was to offer industry only such assistance as would enable it to overcome its temporary difficulties...For much of the first post-war decade, it was difficult to discern an industrial policy as such."

Governments were also largely immune to pleas of special assistance for the 'distressed' regions of the economy. Some steps were taken to improve Britain's export performance through the provision of guarantees and credit insurance, but Garside concludes (p. 146) that exporters found such schemes "to be overly cautious and bureaucratic."

In sharp contrast to their 'minimalist' approach to industrial policy and regional assistance, interwar governments over this period were fairly generous in the provision of cash benefits to those unemployed. Provision of unemployment insurance had been instituted as early as 1911. However, the provisions extended to only about a quarter of the total male labor force, benefits were fairly low and definitions of eligibility were stringent. With the emergence of large scale unemployment after the war, the unemployment insurance scheme was revised. In a series of steps between 1920 and 1921, coverage was extended to most manual workers, weekly benefits for males were tripled, benefits were instituted for women, the number of contributions that had to be made before claiming benefits was reduced, and the number of weeks for which benefits could be claimed was increased. In addition, unemployed workers who could show that they had been 'genuinely seeking work' could draw uncovenanted benefits--benefits paid in advance of the required number of contributions.

B. 1925 to 1931

The years 1924 to 1929 were marked by a world boom in which Britain did not share, suggesting to many observers that structural problems lay at the root of Britain's continuing

unemployment. This led to the increasing popularity of schemes of 'rationalization' of industries even though there was wide disagreement as to what rationalization actually involved.[4] As in the earlier period, governments essentially followed an industrial policy of enquiry and consultation, preferring that the ailing industries formulate and finance their own rationalization plans. "Industrialists on the other hand..were often reluctant to bear the cost of reviving weaker firms for the benefit of industry as a whole. The intense individualism which characterized producers in coalmining, shipbuilding, iron and steel and textiles seriously retarded plans for industrial reorganization or the rationalization of capacity. Conflicts between rival interests within firms and the diffusion of decision-making powers proved to be a serious hindrance in steel. Elsewhere, in coal and cotton textiles for example, there was no effective way of securing joint action by industry as a whole...As a result, traditional methods of operation within such industries remained virtually intact throughout the interwar period" (p. 236).

Some steps were taken to aid distressed areas through the creation of an Industrial Transference Board to foster labor mobility from these areas. Again, the steps were fairly cautious and took the form of coordination of the activities of employment exchanges and training centers and the provision of modest transfer grants. A somewhat ominously-named Household Removal Scheme was also introduced to transfer households and thus avoid the break up of families.

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[4] "..few observers agreed on what precisely was meant by rationalization. To some, the concept involved the application to industry of a greater degree of scientific organization and management; to others, it implied widespread merger and amalgamation aimed at altering the scale and efficiency of industrial enterprise; to others again, it involved a commitment to technical advance and the scrapping of obsolete plant" (Garside, p.210).

With regard to monetary policy, the persistence of unemployment did keep the Treasury from increasing the Bank Rate any further. However, the Bank Rate that prevailed over this rate was neither high enough "to secure sufficient leverage in the international money market nor did it fall low enough to afford material help to jobs by stimulating industrial enterprise" (p. 130).

A new Unemployment Insurance Act in 1927 granted all insured workers who had exhausted their standard benefits the right to claim extended benefits for as long as they were unemployed. The only requirement was that claimants had to prove that they were genuinely seeking work; but even this requirement was abolished by a 1930 Act. This Act also transferred the financial burden of providing benefits from the unemployment insurance fund to the Treasury.

C. 1931 to 1939

The return to the gold standard had failed to revive British exports and industry. Hence government revenues were low while expenditures were mounting due to the increased generosity of unemployment benefits. This imbalance came to a point of crisis in 1931 and it became apparent that some cuts in benefits would be needed to balance the budget. The Labor government resigned rather than accept the required cuts and over the next decade Britain was governed by a sequence of National governments under whom some reforms were at last carried out.

One area of policy that saw significant reform was the provision of unemployment insurance. A 1934 Act made a sharp distinction between the needs of the short-term unemployed and those of the long-term unemployed. Part I of the Act restored an actuarially balanced scheme of contributory insurance for the short-term unemployed. Part II of the Act established an Unemployment Assistance Board to provide means-tested benefits to the long-term unemployed,

that is, those who had exhausted their 26-week benefits. The Board drew up proposed scales of benefit, which were submitted for approval to Parliament, and the payments were financed from tax revenues.

Dramatic changes were also forthcoming in the conduct of monetary policy, the first step being the abandonment of the gold standard. As a replacement, the Treasury and the Bank of England established an Exchange Equalization Account, which by intervening in the foreign exchange markets was able to maintain a fairly stable sterling exchange rate. Liberated from the need to keep the Bank Rate high enough to attract foreign funds and thus maintain the parity of sterling, the National Government kept the Bank Rate an at historically low level of 2% from June 1932 to the end of the decade. The unemployment rate did fall, from 15.6% in 1932 to 9.4% in 1936.

Many 'radical' economists, such as Keynes and D. H. Robertson, felt that monetary policy would work at a very slow pace in alleviating unemployment and advocated an expansionary fiscal policy. However, despite their U-turn in monetary policy, the National governments remained wedded to fiscal conservatism. The turnaround in fiscal policy came about, of course, as a result of the increases in defence expenditures after 1937. Through a mixture of deliberate policy and serendipity, these increased expenditures finally alleviated structural unemployment.[5]

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[5] "At first, defence contracts were allocated to the depressed areas more as a way of relieving pressure on capital and labor resources elsewhere in the economy rather than with the intention of reducing interregional unemployment percentages per se...Unemployment in the coal, iron & steel, engineering and shipbuilding industries, all heavily concentrated in the depressed areas, declined from 27.2, 23.5, 13.6 and 44.4 respectively in 1935 to 16.7, 19.5, 7.0 and 21.4 in 1938, with further falls in the following year. Rearmament, in other words, provided a stimulus to increased expenditure and employment in the areas of chronic unemployment beyond anything that government had achieved or contemplated on their behalf in previous years" (p. 360-362).

4. New Evidence on the Sources of Interwar Unemployment

(i) The Role of Structural Factors

As N.F.R. Crafts has pointed out, economic historians tend to stress the structural aspects of interwar unemployment whereas macroeconomists have a tendency to downplay the role of such factors. In this section I present some new time series evidence--using regressions of the sort presented by Benjamin and Kochin (1979)--which highlights the importance of structural factors. Based as they are on a small number of annual observations, these regressions are best thought of as broad characterizations of the data. The dependent variable in the regressions is the aggregate unemployment rate. The set of independent variables is picked on the basis of the discussion in the previous two sections of the essay.

First, as discussed in Section 3, monetary policy was fairly tight through most of the 1920's, with a substantial easing after 1932. The Bank Rate and the growth rate of the monetary base turn out to perform equally well in capturing the impact of this policy on unemployment. In this essay I report results using the latter variable, denoted DB.

Second, as discussed in Section 2, there were large negative demand shocks to many staple industries due to increased foreign competition. The tight money policy and the provision of the dole hampered the re-employment of labor displaced from the contracting industries and hence these structural shocks led to a very persistent increase in unemployment. The variable used to capture the intensity of structural shifts is the cross-section standard deviation of industry stock returns, denoted S. That is,

$$S_t = [(\Sigma(R_{it} - R_t)^2)/n_t]^{1/2}$$

where R_{it} is the stock market return in industry i at time t, R_t is the mean stock market return in period t and n_t is the number of industries[6] included in the sample at time t. While motivated by Lilien's use of the dispersion in *employment* growth as a proxy for the intensity of structural shifts [Lilien (1982)], this variable avoids many of the pitfalls associated with Lilien's measure. First, stock prices depend in large part on expectations about the future. Information about an industry's profitability will be rapidly incorporated into stock prices, whereas the response of industry employment may be staggered over time. Second, more resources will be transferred between industries, the more persistent is the divergence in the fortunes of industries. Since stock prices represent the present value of profits over a long horizon, the impact of innovations in industry profits on its stock price will depend on how long the shocks are expected to persist. A dispersion measure constructed from sectoral stock prices therefore assigns greater weight to shocks that lead to a persistent divergence in industry fortunes. Using annual and quarterly U.S. data, Loungani, Rush and Tave (1990a, 1990b) present empirical evidence that strongly supports this view.[7]

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[6] The number of industries ranges from 9 to 17 and comprises coal, iron, steel and engineering, shipping, textiles, electric light, telephone and telegraph, breweries, theatres, homerails, hotels, motors & cycles, banks, insurance, newspapers, cement, groceries & provisions and dry goods & stores.

[7] Using VAR systems which include a comprehensive set of aggregate demand measures, Loungani, Rush and Tave (1990b) show that there is significant feedback from aggregate demand to *employment* dispersion. Furthermore, once the aggregate demand measures are included, innovations in employment dispersion account for a very small fraction of the variance of unemployment. On the other hand, there is very little feedback from aggregate demand to *stock market* dispersion. Even in VAR systems that include monetary base growth, interest rate spreads, the mean stock market return and government spending as indicators of aggregate demand, stock market dispersion continues to account for a third of the variance of unemployment at long horizons.

The final explanatory variable is the benefits-to-wages ratio (BW), as reported in Benjamin and Kochin. The estimated regressions are presented in Table 1. The first regression shows that 70% of the variance of unemployment can be explained by the current and two lagged values of the stock market dispersion index. Moreover, the dispersion measures account fairly well for the persistence of unemployment; the Durbin-Watson statistic is 2.3. Column (2) reports a regression of unemployment on monetary base growth, DB, and a lagged dependent variable. The coefficient estimate is negative, as expected, but is not significantly different from zero at conventional levels of significance. Lagged values of monetary base growth were not significant. Despite the inclusion of lagged unemployment, the adjusted-R^2 of this equation--0.42--is much lower than that of the first. Column (3) shows that the benefits-to-wages ratio explains 16% of the variance of unemployment and that the coefficient estimate of BW is significant at a 5% level. However, this variable does not capture the serial correlation in unemployment: the D.W. statistic is only 0.9. Finally, column (4) reports the results of an all-inclusive regression. Monetary base growth and the dispersion variables emerge as highly significant,[8] while the BW variable has the hypothesized sign but does not attain standard levels of significance. The adjusted-R^2 is 0.80 and the D.W statistic is 2.04.

Figure 1 provides a plot of actual unemployment and predicted unemployment from two of the regressions reported above, those in column (2)--the regression based on stock market dispersion only--and column (4). The figure clearly shows that the current and lagged values of the stock market dispersion index do a fairly good job of tracking unemployment rates over this

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[8] The significance of the stock market dispersion variables holds over a longer sample period, 1910 to 1938. It is also robust to the inclusion of other explanatory variables, such as the stock market mean return.

period. However, the addition of the other explanatory variables improves the fit considerably in some years.

(ii) The Role of the Gold Standard

Much of the recent work on the interwar period suggests that due to technical problems associated with the operation of the gold standard, monetary contractions in the U.S. and France were transmitted to the other countries on the gold standard, leading to worldwide deflation.[9] Bernanke and James (1990) argue that this deflation then led to a number of banking panics--or to a substantial weakening of the financial position of banks--which adversely affected the real economy by interfering with the flows of credit to industry. Since Britain went off the gold standard in 1931, it avoided the big price declines that occurred in the gold-standard countries. Nevertheless, to test the potential importance of the 'deflation' view, I included the growth rate of the money multiplier between the monetary base and M3--a proxy for credit creation--as an additional explanatory variable in the regressions reported above. However, the coefficients of the multiplier variables were never close to significance, while the other coefficient estimates were unaffected. Similarly, replacing monetary base growth by the growth rate of M3 had little impact on the results reported above. Hence, the impact of the deflation is probably more important in explaining cross-country differentials--as in the Bernanke and James paper--rather than the time series variation in U.K. unemployment rates.[10]

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[9] See Eichengreen and Sachs (1985), Hamilton (1988) and Temin (1989) for a fuller discussion. The 'technical problems' alluded to include the asymmetry between surplus and deficit countries in the required monetary response to gold flows.

[10] A review essay by DeLong (1990) in an earlier issue of this journal discusses the cross-country evidence on unemployment rates in greater detail.

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Table 1
Unemployment Equations, 1920 to 1938

Independent Variables	(1)	(2)	(3)	(4)
S	27.16 (5.76) [.0003]	.	.	25.10 (4.78) [.0002]
S1	11.98 (5.94) [.0619]	.	.	11.33 (4.79) [.0344]
S2	10.73 (5.68) [.0784]	.	.	18.01 (5.56) [.0064]
DB	.	-20.94 (15.56) [.1971]	.	-33.24 (10.59) [.0078]
BW	.	.	13.30 (6.36) [.0517]	4.45 (3.58) [.2358]
U1	.	0.67 (0.17) [.0013]	.	.
Intercept	0.17 (1.54) [.9113]	3.52 (1.66) [.0503]	3.37 (3.04) [.2832]	-2.53 (1.70) [.1600]
D.W.	2.28	1.81	0.89	2.04
Adj. R^2	0.70	0.42	0.16	0.80

Notes: The numbers in parentheses (...) are standard errors. The numbers in brackets [...] are p-values.

Unemployment Rate, 1920 to 1938
Actual and Predicted

Legend: —— Actual   - - - - Pred.-Structural   ·········· Pred.-All Factors