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The Economic Geography of Recession in the UK;

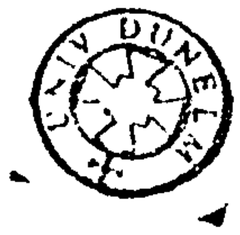
the early 1980s and historical perspectives

(3 volumes, this being volume 2)

by Colin Stamford Crouch

Submitted in 1989 for the degree of PhD at the University of Durham (Department of Geography).

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- 6 JUN 1990

Abstract

This thesis presents an analysis of slump in the U.K. economy, with the main attention given to the early 1980s. The slump is seen not as an isolated incident but as the culmination of a series of severe recessions; after the slump a prolonged phase of steady growth and rising employment is normal. This particular interpretation of slump is at the centre of a re-examination of the concept of a 50 year Kondratieff cycle in the economy. Investigation of this cycle is based not on the usual method of trying to find broad empirical regularities in economic time series, but rather on attempting to find what types of economic conditions logically follow on from other types of economic condition over a long time span. The attempt is made to reinterpret British economic history from 1815 to the present using this framework of analysis, a task involving synthesis and reinterpretation of existing accounts, supported by statistical material on national income, employment and unemployment.

A closer examination is made of spatial patterns of employment change and of unemployment in Britain from the First World War to date, using primarily officially published annual statistics on employment, and monthly statistics on unemployment. Attention is concentrated mainly on phases of downswing in the long cycle (1918-1932, 1966-1983), with detailed attention being given, with the help of unpublished Census of Employment statistics, to the period from 1971 to 1981, although there is also a comparative examination of spatial labour markets during periods of upswing, both with less than full employment (1932-39), and with full employment (1945-66). An attempt is also made to clarify the confused question of the geography of production and employment prior to 1914. In this "geographical" part of the work attention is given to a detailed unravelling of core-periphery distinctions in the British economy, at both the urban-rural scale and the north-south scale. It is hoped by concentrating attention on single year change to identify the precise economic conditions under which significant reorientations of the space economy take place (with, most importantly, a very sharp distinction being drawn between slump and post-slump periods) thereby avoiding overgeneralised pictures derived from the comparison of distant points in time.

(Colin Crouch, 1989, *The Economic Geography of Recession in the UK; the early 1980s and historical perspectives;* Durham University PhD thesis).

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Chapter 5 The Post War Period; Full Employment and Accumulating Unemployment

5.1 Introduction

The period from 1945 to the mid-1980s covers almost a complete long cycle, with only the early part of the upswing (after the 1929-32 slump) missing. It would seem plausible to try to link major developments in the post-war space economy to major conjunctures of the long cycle, as has been attempted for the inter-war period in chapter 4. One general point which seems to have emerged clearly in the inter-war period is that regional differences in rates of employment change were far more strongly marked in the downswing (1918-1932) than in the upswing (1932-1939), with the biggest contrasts emerging in years of recession in the downswing. This is because the geography of job loss tended to be more uneven than the geography of employment growth, job loss being related to the problems of specific industries in specific localities and employment growth being related to far more generalised labour market conditions.

This finding concerning the inter-war period suggests the need to establish for the post-war period whether spatial inequalities in economic change have changed and intensified during the downswing of the long cycle, and whether the forms of any such new and more intense inequalities are organically related to the broad economic trends of the downswing. Any signs of the "new geography" would perhaps first emerge around the mid-1960s and intensify through the 1970s and early 1980s. An obvious case would be the relative decline of the West Midlands economy since the mid-1960s. A far more complicated case, which is still not yet fully understood, is the accelerated decline in employment and population of the major cities, a decline which tended to become particularly noticeable in the 1970s, according to the international evidence collected in Hall and Hay (1980). The twentieth century switch from the railway to the motor vehicle as the dominant form of inland mechanical transport was one which reduced the strategic importance of major cities and increased the strategic importance of smaller towns. This would, in the appropriate circumstances, be sufficient to allow employment growth to be faster in smaller urban centres than in larger urban centres. Such an explanation does not seem sufficient to show why the major urban areas had particularly intense employment *declines* in the 1970s and early 1980s. A notion of "urban crisis" can be introduced, with recessionary conditions in the downswing affecting large urban areas to a disproportionate degree. As the empirical analyses of chapters

6 and 8 make clear, however, different urban areas underwent different forms of decline, making it very difficult to produce any convincing generalisations. In some cases, notably the West Midlands, the problem of decline in a locally dominant complex of industrial sectors was of considerable importance. In London in the 1970s, in contrast, there was a very strong tendency for industries of *all* types to leave the area. Before the mid-1960s, such decentralisation took place in the context of rising levels of industrial employment, and therefore could coexist with relatively stable levels of industrial employment in London, especially given that London's industrial structure was strongly weighted to expanding industrial sectors such as electronics. In a climate of industrial decline, or even of a deceleration of industrial growth, the continuation of the process of decentralisation leads to substantial declines of employment in the metropolitan centre without necessarily leading to increases in employment elsewhere. Massey and Meegan (1978) indicated some of the features of this process in the late 1960s, a process of decline which intensified in the 1970s. Other conurbations, notably Merseyside, went into a spiral of intense industrial decline without immediately apparent reason, with rates of job loss being high and rates of job creation being low.

In chapter 6 below, attention is given to the geography of employment change in the long cycle downswing starting in the mid-1960s. It is suggested that there is a distinct geography of decline, but that the patterns of decline were more complicated and more subtle than in the 1920s and early 1930s. In the earlier downswing the geography of decline was based on the geography of the declining industries; in the latter downswing various currents and counter-currents need to be considered. One typical sequence of events, for example, is that local employment might have declined sharply at certain stages in the 1960s as the result of coal mining closures, but with regional policy and other measures (such as the creation of new towns) attracting new industry to such areas. The industrial employment created, however, is generally in the more routine, less strategically important, forms of production undertaken by a multi-plant firm, and is thus vulnerable to later rounds of rationalisation and closure. In a single long cycle downswing, therefore, a local economy can be both a vulnerable coal mining economy and, later, a vulnerable branch plant economy. This sequence of events has been particularly prominent in the declining specialised coalfields of North East England and South Wales, although in South Wales, closer to the main national markets, the alternative industrial employment involved is often of a more mature vintage than in, for example, County Durham.

While the geography of recession is, in many respects, the central theme of this thesis (and certainly of the discussion in chapters 3 to 8), it should not be forgotten that between the various long periods of downswing and slump there are also long periods of boom and full employment. Such periods need to be analysed as well.

A major question is that of the degree of continuity between pre-war and post-war trends. In chapter 2 it was emphasised that the prolonged post-war phase of full employment and high growth rates in the advanced industrial nations should be regarded as being an extension of the vigorous growth of the post-slump recovery in the 1930s. The major growth industries of the long boom (cars, electrical goods, etc.) were already expanding substantially in the 1930s, and continued to expand and create employment as peace-time conditions resumed. It is important to emphasise that even after the major political disruptions of the Second World War, economic production developed upon an existing base, and did not simply appear from nowhere.

The thesis of continuity between inter-war and post-war economic trends is regarded as central to the interpretation of 20th century economic history which is being presented in this thesis. At certain critical conjunctures, a major war may precipitate a turning point in the long cycle; the First World War, representing an upper turning point, and the American War of Independence, representing a lower turning point, and followed by a period of vigorous economic growth, are two examples. If, however, a major war occurs in the early or middle stages of a long cycle upswing, as with the American Civil War, or the Second World War, post-war economic trends are likely to be pre-war economic trends modified, and maybe accelerated, but not reversed.[1]

The continuity thesis may also be considered at the regional scale. The implication would be that regional patterns of employment change in the late 1940s and 1950s can be regarded as a non-anomalous continuation of pre-war regional trends. Section 5.2 examines this question, and finds support for the regional continuity thesis, once allowance is made for the extent to which employment figures in the main coalfield industrial areas were inflated by the rearmament boom in the late 1930s. Certainly, in the 1950s, as in the 1930s recovery, the main growth zones were the London area, broadly defined, and the West Midlands conurbation.

Analysis of regional patterns of employment change in the 1950s and 1960s inevitably leads to a discussion of the development of modern regional policy, which was considerably extended in scope in the early 1960s. This is a well-explored field, although the emphasis given by the standard references on the subject[2] has generally been on the changes in the type of regional policy measure adopted, rather than on the

question of what types of economic condition necessitated, or made desirable, regional policy at a time of full employment and steady growth. Section 5.3 approaches the question of regional policy from this second, more neglected angle. It is suggested that the pressures which led to an intensification of regional policy were far more those of severe labour shortage in the core regions rather than those of high unemployment in the periphery. The very strong boom between 1958 and 1962 (cf chapter 2.7, Table A5) caused a significant increase in the rate of employment growth in the core regions, bringing about a danger of severe overheating in local labour markets. This problem was resolved partly by an active encouragement of New Commonwealth immigration into the areas of labour shortage (notably London and the West Midlands)[3] and partly by an attempt to change the geography of employment by directing jobs away from labour shortage areas and towards labour surplus areas. Regional policy under conditions of full employment thus had a dual aspect, an "economic" aspect, allowing for a steady continuation, without bottlenecks, of the growth generated by the dynamism of the core regions, and a "social" aspect, mopping up, or attempting to mop up, unemployment in the less prosperous areas.

In fact, as section 5.4 shows, regional policy was ineffective in reducing unemployment rates in the periphery. It would appear, from empirical analysis, that any marked shift in the geography of employment growth leads more to alterations in the geography of migration than to alterations in the rather more stable geography of unemployment, although there are various time lags involved. Indeed one of the main theoretical results of this chapter is the identification of the extreme sensitivity of changes in the pattern of net migration in response to changes in levels of employment, this sensitivity being especially marked at close to full employment. Section 5.4 presents a general discussion of the geography of unemployment in the years of full employment, while section 5.5 considers the geography of unemployment accumulation from 1966 to 1979. The following chapter then considers the geography of employment change after 1966, dividing the time span into cyclical phases. In studying the period from 1971 to 1978, much use is made of unpublished *Census of Employment* data at the county level, held on the National Online Manpower Information Service.

An important feature of the discussion of the geography of employment change after 1966, is that the period is analysed in terms of what was happening in particular cyclical phases. It is considered that this approach is more revealing, even if more long-winded, than the more common approach of trying to identify "trends" in the space

economy. The phase which requires the greatest attention is the post-1979 slump. The examination of slump is presented in chapters 7 and 8 below. The present chapter confines itself to events before 1979.

5.2 Regional Employment Change During the Upswing

(i) The Continuity Thesis

The model of the long cycle presented in chapter 2 suggests that after the slump there is at least the potential for a period of fast economic growth to remove a substantial proportion of the unemployment accumulated during the downswing and slump. The more steady growth which then follows gradually returns the economy to full employment, while the further continuation of a fairly steady growth rate allows full employment to be maintained for a considerable period. This is of course a somewhat idealised case, and modification needs to be made for particular historical circumstances (for example, the high rate of population growth in the 19th century leading to a permanent labour surplus and heavy emigration). It is suggested that the idealised case fits the mid 20th century experience quite well.

There is a major gap in this picture, in that the Second World War intervened. The continuity thesis suggests that the main economic trends of the post-war period were broadly those which would have been expected to take place if there had never been a war, and if the *smooth* transitions noted in the previous paragraph had actually taken place. Allowance needs to be made, of course, for the acute problems of post-war reconstruction in the occupied countries (e.g. France) and in the defeated countries (e.g. West Germany), but once these countries had recovered from the main after-effects of war, at some time in the early 1950s (cf chapter 2.5(ii) above), a regime of full employment and steady growth could emerge.

If the continuity thesis is basically correct, then it is to be expected that there would be considerable similarity between regional patterns of employment change in the 1950s and those of the 1930s recovery. Overall rates of employment growth would be slower in the 1950s, since the economy would have started from a position of full employment rather than from a position of high unemployment, but the patterns of regional relativity in employment change would be expected to show some form of continuity.

Table 5.1 shows rates of employment growth in the North, Midlands and South throughout the pre-war and post-war phases of the long cycle upswing. The series has been truncated at 1963 rather than 1966 to avoid having to make an attempt to allow for the effects of strong regional policy, the impact of regional policy having increased considerably at about 1963 (section 5.3 below). The years from 1948 to 1951 were also years of stronger than average regional policy effects,[5]

but as Table 5.1 shows, the exlusion of these years from calculation makes very little difference to the final results.

The clear impression given in Table 5.1 was that employment levels in the periphery were almost static in the post-war upswing, with the bulk of employment growth taking place in the South and Midlands. Table 5.2, which shows rates of employment growth for individual regions, emphasises even more clearly this powerful core-periphery division, with employment growing at about 1% per annum in each of the core regions, but by less than ½% per annum in each of the peripheral regions. In terms of the number of jobs created, the core regions had between 1948 and 1963, a net employment gain of 2,090,000 (+1,540,000 in the South and +550,000 in the Midlands) while the peripheral regions had a net employment gain of only 330,000.[6]

The picture thus emerges of stagnation in the peripheral regions in the post-war years, compared with rapid growth in the pre-war years. Of course, in terms of social welfare, stagnation at full employment is more desirable a situation than that of rapid employment growth, but with mass unemployment. Even so, the very slow employment growth of the 1950s may be seen as a disappointment when compared with the dynamism of the periphery in the 1930s recovery. In the earlier period, employment growth in the periphery kept in pace with employment growth in the South, but later the periphery had fallen considerably behind.

Such a finding might at first appear to cast doubt on the continuity thesis, at least insofar as it is applied to regional patterns of employment growth in the UK. It has to be remembered, though, that the pre-war and post-war comparisons in Table 5.1 do not compare like with like. Firstly, of the seven years from 1932 to 1939, six were years of cyclical upswing, while only one (1937-8) was one of recession; between 1952 and 1963, there were six years of upswing and five of recession. This difference in cyclical weighting necessarily affects the figures presented in Table 5.1. Tables 5.3 and 5.4 show regional rates of employment change in recessions and recoveries respectively between 1952 and 1963. Table 5.4, showing rates of employment growth during cyclical upswings, is the one which needs to be compared with figures for the 1930s.

Secondly, the economic events from 1932 to 1939 were in many respects open to "abnormal" influences; a comparison with the 1950s would require the identification of years in which recovery was relatively "normal".

In the first year of the post-slump recovery (1932-33) a substantial element of the total economic growth would be in the form of a post-slump "bounce", as the normal growth of the cyclical upswing is

enhanced by the recovery of industries which had been *uniduly* depressed by the slump.[7] This element of "bounce" would tend to affect areas which had strongly been affected by the slump, rather than those areas which had escaped the slump relatively lightly. After the first year of recovery, however, the importance of this factor would weaken considerably and the peripheral areas would fall behind the core areas in rates of employment growth. Table A6 shows that employment in the North grew by 4.6% in 1932-33, compared with 4.3% in the South, but that the rate of employment growth in the North tailed off much more quickly than in the South, so that employment in 1934-35 grew by only 1.3% in the North compared with 2.8% in the South.

The period between 1936 and 1939 may also be regarded as "abnormal", with the need for rearmament under conditions of growing international tension becoming a major "external" factor operating on the space economy. The rearmament boom, together with the beginnings of a labour shortage in the South East (see chapter 4.4), ensured that in the years of economic expansion in 1936-37 and 1938-39 employment in the North grew much faster than employment in the South (Table A6); the "heavy" industries of the North (steel, shipbuilding, heavy engineering etc.) were required for the rearmament effort more than the "light" consumer industries of the South. The recession of 1937-38 confuses the picture, hitting the North and Midlands far more than the South, but as Table 5.5 shows, with rearmament, and also the start of the Special Areas regional policy measures, the North was growing much faster than the South in the last three pre-war years.[8]

It is suggested that the only part of the 1932-39 recovery which can be regarded as "normal" for purposes of comparison with the 1950s, is the period from 1933 to 1936.

Table 5.5 shows rates of employment for each of the three main sub-periods (1932-33, 1933-36, 1936-39) in the 1932-39 recovery. In the relatively normal period 1933-36, employment grew rapidly in all regions, but by a percentage point per annum more rapidly in the South then in the North. This basic relationship may also be seen in the phases of cyclical recovery (1952-55, 1958-61) in the full employment stage of the long cycle upswing. Thus, when like is compared with like, the thesis of a continuity between pre-war and post-war differences in rates of employment change between North and South is a thesis which can be maintained.

Table 5.6 extends the analysis by scaling down the extremely rapid rate of employment growth between 1933 and 1936 in order to allow for a more direct comparison with the 1952-55 and 1958-61 upswings. It would appear that throughout the long cycle upswing there has been a

gradual tendency for the share of national growth in the South to increase and for the share of national growth in the North to decrease. The increased concentration of growth in the South, combined with relative stagnation in the North, became an increasingly important spatial problem in the late 1950s and early 1960s. Clearly, a rate of employment growth of 1.8% per annum in Southern England (from 1958 to 1961), combined with an unemployment rate of 1%, presents a situation in which there is liable to be considerable economic congestion in the core regions. Furthermore, as Table 5.3 shows, employment in the South continued to expand substantially in the 1961-63 recession, despite a decline of employment in the North. Some of the implications of these trends are discussed in sections 5.3 and 5.4 below.

Table 5.1 suggests that employment was growing faster in the Midlands (more specifically the West Midlands; chapter 4.4 above) than in the South between 1932 and 1939, but more slowly than in the South after the war. It is important to recognise, however, that the West Midlands, as well as being an expanding economy, was also an *industrial* economy, and hence more prone to recession than Southern England. Table 5.3 shows the West Midlands, along with the peripheral regions, was much affected by the 1955-58 recession, even though Southern England and the East Midlands were almost unaffected. This high degree of vulnerability to recession, which admittedly showed only relatively weakly in 1961-63, is the main reason why employment growth in the West Midlands in the 1951-63 period lagged behind that of the South.

An examination of the performance of the West Midlands during the various cyclical upswings before 1963 is of interest. Between 1932 and 1939 (or any sub-period in this recovery) employment growth in the West Midlands was faster than in the South (Table 5.4, also Tables 4.24, A5). This relationship was repeated in the 1952-55 upswing (Table 5.4) indicating a continuity between post-war and pre-war trends. In the 1958-61 upswing, though, growth was faster in the South than in the earlier upswing, and slower in the West Midlands, so that the South was expanding slightly more quickly than the West Midlands. In terms of establishing the continuity thesis, the important point is more the resemblance between the regional patterns of change in the 1932-39 recovery and those of the 1952-55 upswing, a resemblance more clearly revealed in Table 5.6.

(ii) The Changing Geography of Employment, 1951-1961

The general impression given in the analysis above is that Southern England was gradually becoming increasingly dominant economically through the 1950s. It would of course be desirable to examine regional patterns of employment change in more detail, and on a year-to-year basis. Unfortunately there are data problems. For example, while the *Gazette* published detailed information on employment by age and sector throughout the 1950s, information disaggregated by region and sector was not published until 1959.

Another possible source for regional employment data is the *Census of Production*, in which detailed Censuses have generally been held at five year intervals, with partial censuses being held in intervening years.[9] Again, regional coverage was patchy prior to the late 1950s, with the 1958 *Census of Production* being the first to allocate employment in individual industries to individual regions. The *Summary Report for the 1958 Census of Production* also gives details of employment by region for 1954, by SIC order, but not for individual industries. The *Census of Production* does not cover employment in the service sector, which limits its usefulness.

For detailed work on employment change in the 1950s, close study of the *Census of Production* results would doubtless be important, but here all that is needed is a brief overview of the geography of the period to link in with discussions of earlier and later periods. To provide this overview, use is made of the *Census of Population* (1951, 1961), which has the additional virtue of disaggregating population and employment figures by county (and by smaller units) as well as by region. Table 5.7 shows percentage changes in employment by county between 1951 and 1961. It should be emphasised that the employment figures are based on place of work rather than on place of residence,[10] so that measured rates of employment change are not affected by changes in the pattern of commuter flows.

Table 4.26, covering the period from 1932 to 1937, shows particularly rapid growth in the North London suburban ring (Middlesex and Essex especially) and faster than average growth in various parts of the inner South (e.g. Buckinghamshire, Bedfordshire) and also large parts of the specialised coalfield areas (e.g. Monmouthshire, Durham, Glamorgan). There was also rapid expansion in the West Midlands conurbation (Warwickshire and Staffordshire figures), but not in the East Midlands, where growth remained at the national average. The main areas of slow growth between 1932 and 1937 were the more rural areas of the "outer South" of England, and also Lancashire.[11] In the Outer South

employment growth was slow because the effects of metropolitan expansion, so important in the 1930s, had not reached as far as, say, Dorset or Norfolk, leaving these counties relatively underdeveloped. In Lancashire, a high concentration of employment in the cotton industry, in which employment was static after 1932, retarded considerably the measured rates of employment growth.

In the 1950s (Table 5.7), some of these patterns were intensified, but others had dissolved. The importance of the growth ring around the North of London (Hertfordshire, Berkshire, Buckinghamshire, Bedfordshire, Essex; also Northamptonshire) had, in relative terms, increased although London itself (including Middlesex) had a relatively small growth of employment. The two counties directly to the south of London (Surrey and Sussex) showed larger than average increases in the number of employees, though the growth rates were not as fast as in the northern belt, while Kent and Hampshire also had slightly faster than average rates of growth. The general impression is that the decentralisation of the London economy was gathering pace in the 1950s; in the 1930s the main beneficiaries of this decentralisation had been Middlesex and Essex, on the edge of the continuous built up area, whereas in the 1950s the zone of maximum growth had spread as far as Hertfordshire, Berkshire, Buckinghamshire and Bedfordshire, with some of the growth spreading to counties even further afield, such as Cambridgeshire and Suffolk. The growth of the first generation new towns[12] was an important factor in this, but certainly not the only factor.

A point which can hardly be emphasised too strongly is that while employment in London itself showed only a relatively slow rate of growth of employment, a broader London region, which includes counties beyond the continuous built up zone, showed a faster than average rate of growth of employment. In the counties of London, Middlesex, Surrey, Essex, Kent, Hertfordshire, Bedfordshire, Buckinghamshire, and Sussex, employment increased from 6,314,000 in 1951 to 6,908,000 in 1962, a rise of 9.4%. In the rest of Great Britain employment expanded from 15,820,000 to 16,379,000, an increase of 3.5%. Thus, the London economy, broadly defined, was growing much faster than average, but the bulk of this growth was taking place outside the continuous built-up area.

In the West Midlands, the growth of the vehicles industry was a major source of employment growth, most particularly in the conurbation, and most notably along the south-eastern Birmingham-Coventry axis.[13] This is reflected in the high measured employment growth rates in Warwickshire, and also in Worcestershire and Staffordshire. The rural counties of the West Midlands (Hereford, Shropshire), showed employment stagnation, however, indicating that in a period with declining

agricultural employment, the growth of the conurbation was spilling over into surrounding areas only to a slight extent. Lomas and Wood (1970 pp.13-36) examined employment trends in this period in the West Midlands and noted that while growth in the West Midlands was concentrated in the conurbation up to 1960, after 1960 there were definite signs of deceleration of growth in the conurbation.

The more urbanised counties in the rest of "central England" (the East Midlands, plus counties just to the south of the West Midlands) also had higher than average rates of employment growth. These were particularly conspicuous in what might be called the northern South West (Oxfordshire, Gloucestershire, Somerset), while each of the more urbanised East Midlands counties (Northamptonshire, Leicestershire, Nottinghamshire, Derbyshire) also grew fairly quickly. In general, each of these counties, along with Hampshire on the South Coast, was geographically well situated to serve large and prosperous markets, and each had a well developed urban structure to support economic growth.

The impression given by Table 5.7 is that economic growth was dominated by a distinct London-Birmingham-Bristol growth zone. Less urbanised areas could prosper if they were located in this zone (e.g. Cambridgeshire, Bedfordshire), but outside this zone, employment in less urbanised counties was virtually static, even in Southern England, largely as a result of declining agricultural employment.[14]

Another striking feature of Table 5.7 is the lack of major growth centres in Northern England, Scotland and Wales. In all the peripheral regions, only two of Lee's (1979) statistical counties had faster than average rates of growth of employment, and these by only a small degree. These were the East Riding of Yorkshire and Glamorgan/Monmouth. South Wales was, for a peripheral region, geographically well situated to attract mobile industrial investment,[15] although this was perhaps a more important feature in the 1960s than the 1950s. In addition, there was considerable investment in the Welsh steel industry, with new plant at Ebbw Vale (1938) and Llanwern (announced 1958 and completed 1962), this investment being deliberately channeled by the Government to depressed areas.[16] For the most part, however, employment growth in the urbanised periphery was very slow, and Lancashire even registered an employment decline, despite highly expansive national trends. Lancashire's problem was the decline of the cotton industry; employment there in textiles fell from 345,000 in 1950 to 224,000 in 1961, a drop of 35.2%. In other sectors, employment actually rose, by 101,000, or 4.4%.[17]

Lancashire's problem was exceptional, but the other main urbanised areas of the periphery (Yorkshire's West Riding; Durham/

Northumberland; Strathclyde) all had slow rates of employment growth. More rural counties in the periphery fared even worse in employment terms; there were substantial declines in employment in Southern Scotland, Grampian, and North and West Wales, and an almost unchanged employment level in the Highlands (Table 5.7).

In general terms, employment growth was strongly differentiated regionally during the 1950s, with powerful growth in the core regions, but relatively weak growth in the urbanised periphery. The remoter rural areas often suffered from employment decline, but less urbanised areas in Southern England often had high rates of employment growth as a result of various forms of decentralisation from London. Outside the London zone of influence, the dominant urban-rural shift appeared to favour the more urbanised areas, and especially the West Midlands conurbation, rather than the less urbanised areas. This contrasts with later experience.

Perhaps the most basic feature of employment growth during the 1950s was that it was concentrated in certain industries and in certain regions. Between 1948 and 1966, civil employment grew by 3,380,000, while employment in manufacturing industry grew by 1,530,000. The growth in the non-manufacturing sectors was chiefly accounted for by education (+580,000 jobs), health (+430,000 jobs) and construction (+370,000 jobs). Within the manufacturing sector, employment growth was concentrated in what might, in the 1930s context, be described as "newer" industries. In motor vehicle manufacture, employment increased by 250,000 between 1948 and 1966,[18] while employment in the manufacture and repair of aircraft increased by 60,000 in the same period (110,000 between 1948 and the peak in 1961). In the electrical and instrument engineering sectors, employment grew by 670,000.[19]

With half the net growth in manufacturing employment accounted for by the electrical engineering and vehicles sectors, the *geography* of employment growth in these sectors had a considerable effect on the geography of overall employment growth in the upswing. The concentration of growth of the electrical engineering industry in the South East has been remarked upon by Keeble (1976, 1980a), who notes that in 1959, Greater London accounted for 42% of national employment in this sector, with the rest of the South East accounting for a further 20%, and no other region accounting for over 10%.[20] Other twentieth century growth industries (Keeble 1980a p.107 cites aircraft, motor vehicles, pharmaceuticals, broadcasting and television services and financial and business consultancy) were also strongly attracted to the South East, and especially to London. The particular advantages of this area are considered by Keeble[21] to be unrivalled market accessibility,

unique environmental advantages for innovative information-hungry activities[22] and a highly skilled workforce.

Table 5.7 suggests that South East England dominated employment growth in the 1950s; this would seem largely to be due to the geography of employment growth of the main expanding industries of the long cycle upswing. Unlike earlier generations of industries, the growth industries of the post-1932 upswing were not tied to the coalfields by the heavy cost of transport of energy sources, but could gravitate towards the main market centres, and to areas, generally conurbations, which had skilled and varied workforces and information-rich environments. The growth of the vehicles industry in its traditional settings of the West Midlands and South East represented a secondary focus of expansion.

The prevailing picture of the 1950s, before the main growth industries had decentralised significantly, was for growth to be rapid and substantial in a South-East/West Midlands core, but slow in the traditional industrial periphery, and even slower in remote rural areas.

3 Regional Policy in Post-War Britain

Towards the end of the 1950s, there was renewed and increased Government concern about the problems created for the British economy by regional inequalities in economic growth, and greater attention was given to the development of regional policy than had been the case earlier in the decade. The combination of continued economic stagnation, and occasionally high local rates of unemployment, in the periphery, and over-high rates of employment growth in the core was one which would eventually have necessitated some action. Regionally unbalanced growth, if the imbalance is severe enough, creates costs of unemployment in the lagging regions and costs of congestion in the expanding regions.

In the early stages of the new era of regional policy, attention was concentrated on attacking the symptoms of the regional problem, rather than the fundamental imbalances which created the regional problem in its post-war form. For example, in response to a recession in the peripheral regions, the *Development of Industry (Industrial Finance) Act* of 1958 allowed for regional policy assistance for areas of high unemployment, even if they were outside the pre-existing Development Areas. It is far from clear that a strategic policy of generating self-sustaining growth in the periphery and redirecting the growth of potentially mobile industries in the core would be well served by concentrating on areas simply because they had high rates of unemployment.

In later years, a more sophisticated understanding of the requirements of regional policy developed, and the newly formed National Economic Development Council, in two reports (NEDC 1963a,b) placed a high degree of emphasis on regional policy as a means of bringing under-used resources into production and hence advancing overall economic growth rates. The "boom" in regional policy from 1964 to 1970[23] was based largely on this type of perception of the regional problem, but towards the end of the period background economic conditions were changing adversely. Throughout the 1960s, coal mining closures could to a large extent be compensated for by new industrial development, but through the 1970s and early 1980s industrial decline led to a strong tendency for unemployment to increase. The basis of the regional problem was no longer a spatial maldistribution of growth under conditions of full employment, but rather, as in the 1930s, the problem of areas with particularly severe industrial decline having high unemployment rates and requiring new industrial development to regenerate the local economy. While McCallum (1979 p.35) may well be correct in suggesting that "from the early 1930s to the mid-1970s the development of regional policy

was steady .... (with) .... a great deal of continuity of attitude and approach," it is clear that the nature of the regional *problem* changed substantially through time, and according to whether there was full employment or high unemployment. It seems paradoxical that regional policy was strengthened considerably at precisely the stage at which the post-war boom was most intense, and yet this was precisely the stage at which a spatial maldistribution of growth could have adverse macroeconomic consequences. If unemployment is high everywhere, it is unclear whether a spatial redistribution of employment growth would provide a macroeconomic boost at the *national* scale, however necessary it might be for the depressed regions. Socially, a regional policy is most *needed* when unemployment rates are very high in depressed areas, while economically a regional policy is likely to be most *effective* when unemployment rates are low in the more prosperous areas. Such a combination of events is rare, but it had existed in the late 1930s.[24] By the late 1950s the social need for regional policy was relatively slight, but the economic need was considerable.

This brief outline has so far concentrated on the changes in the nature of the regional problem which have made changes in regional policy necessary; little attention has been given to the precise measures adopted. Further detail needs to be added; the account which follows is based, as far as the reporting of regional policy measures is concerned, largely on the accounts by McCrone (1969) and McCallum (1979), but the interpretations made here are the author's own responsibility.

The first steps in modern regional policy were taken in the aftermath of the 1929-33 slump, with the passing of the *Special Areas Acts* of 1934 and 1937 which allowed for the provision of loans to small businesses in the Special Areas (parts of North East England, parts of central Scotland, parts of Cumbria, parts of South Wales). These "Special Areas" were those most severely affected by the slump (chapter 4 above). The conception of providing financial assistance to industry to locate in particular areas remained central to regional policy initiatives in the post-war period, while the policy of labour transference which ran concurrently[25] fell into relative neglect in the post-war years. There are two main reasons why a policy of the movement of population should remain subsidiary to a policy of the movement of industry. Firstly, a policy of labour transference deals with the symptoms of the regional problem (surplus labour) rather than the cause (too slow a growth of employment); it can thus alleviate, but not solve, the problem. Secondly, at a more practical level, a high level of inter-regional migration takes place *spontaneously*, in response to current economic conditions, making it doubtful that state action can

have, without coercion, more than a marginal effect on net migration flows, while long distance industrial migration in general only takes place when there is a particularly strong reason to relocate, and is thus more open to strong policy influences.

The initial mechanisms for post-war regional policy were set up with the *Distribution of Industry Act* of 1945, with later changes in 1950 and 1958,[26] and with the *Town and Country Planning Act* of 1947. The former set of Acts set up a series of Development Areas, of greater extent than the pre-war Special Areas, and including for the first time parts of Lancashire; within these Development Areas the Board of Trade was empowered, among other things, to build factories, to make loans to industrial estate companies and to make grants or loans to specific industrial undertakings under certain conditions. In the latter Act, a system of Industrial Development Certificates was introduced in which industrial developments over a certain size were required to secure an IDC from the Board of Trade before planning permission could be given.[27] This was specifically designed to remove congestion from non-assisted areas, following the recommendations of the influential Barlow Report (Royal Commission 1940), which first set out systematically and officially the case for restricting development in the faster growing areas of the South East, and particularly London. The twin nature of spatial policy can be seen in these measures; restrain employment growth in the "congested" areas, and encourage employment growth in the less prosperous areas. The Barlow Report tended to see congestion in static terms, London being regarded as undesirably large. It is more useful, especially in discussing the events of the late 1950s and early 1960s, to introduce a dynamic concept of congestion, in which the rate of economic growth desired by investors is in danger of overstraining the local resource base's ability to cope with such growth. In such circumstances, housing shortages, high land prices and lagging infrastructural development are likely to arise. Seen in these dynamic terms, congestion can affect small towns in the South East, as well as London.

The existence of continued full employment nationally meant that high unemployment in the Development Areas, previously the main focus for regional policy concern, became less of an issue in the late 1940s.[28] Unemployment rates in the Development Areas were in fact lower than what many people expected national unemployment rates would be after the war, and it is possible to suggest[29] that the "lull" in regional policy started as early as 1947. Certainly, other economic problems had priority.[30] There is no need here to discuss the earlier post-war regional policy effects in detail, but one important point to note,

indicated by Sykes (1949), was that the early effect of the 1945 *Distribution of Industry Act* was not so much to increase the share of the Development Areas in national industrial employment, but rather to cover for the effects of the run down in trade in war industries. Reference to the events of the early 1920s (chapter 4.2) shows that this factor is far from unimportant.

The lull in regional policy continued through most of the 1950s.[31] One can attribute this in part to the non-interventionist attitudes of a Conservative Government, but perhaps an even more important factor was that the regional problem was of very low intensity at this stage; there was neither high unemployment in the periphery nor excessive congestion in the core. During this lull, which lasted until about 1958, there were no significant new regional policy instruments created; changes in the strength of regional policy were carried out informally, most notably by varying the stringency of conditions for granting Industrial Development Certificates, rather than formally through legislation. There is, for example, a general consensus[32] that IDCs, permitting industrial development in the more congested regions, were easier to obtain in the 1950s than in the early 1960s, indicating a more stringent regional policy in the latter period. Ashcroft and Taylor (1979 p.45) note, using more detailed information from Howard (1968), that there were on average 99 industrial moves per annum to the Development Areas in the 1946-51 period, one in which regional policy objectives were pursued vigorously, compared with only 28 moves per annum in the 1952-59 period. Under such circumstances it is not surprising that the annual gap in employment change between core and periphery was wider in the 1950s than during the periods of stronger regional policy in the 1940s and 1960s (Table A6).

The interpretation of events in the late 1950s and early 1960s is complicated. Various accounts[33] stress the significance of a deep recession in the peripheral regions in 1958-59 as a spur to regional policy. This recession was undoubtedly severe. Unemployment at various times during the recession exceeded 10% in Northern Ireland, 5% in Scotland, 4% in Wales and 3½% in the Northern region.[34] Such unemployment rates are low in the context of the 1970s or 1980s, but in the context of the 1950s, when national unemployment rates generally stood below 2%, regional unemployment rates of this size were seen as requiring corrective action. The main problem was that employment in three traditional industries, coal, textiles and shipbuilding, was in severe decline in the post-1957 recession. Table 5.8 presents time profiles for employment in each of these industries from 1948 to 1966. Employment in these industries had been on a level trend up to the

mid-1950s, although the Korean War recession (1951-2) had an exceptionally severe, if temporary, effect on the textile industry. From the mid-1950s onwards, employment in each of these industries was in severe decline, a decline starting in 1953-54 in coal mining, 1954-55 in textiles and 1956-57 in shipbuilding. In each industry, the rate of job loss gathered pace from 1957 onwards. In the case of the coal industry, one could state that the problem in the long term was the substitution of coal by oil as an energy source.[35] In the textiles and shipbuilding industries, the problem was more one of increasing international competition and the emergence of production in low wage countries.[36]

Although 286,000 jobs in coal mining, 198,000 jobs in textiles and 77,000 jobs in shipbuilding were lost between 1957 and 1966, the rest of the industrial economy was booming, with 994,000 jobs being created in the same period in other production industries. It would be a mistake to conclude, from the depth of depression in older industries, that the economy as a whole was in depression. Indeed, it was during the late 1950s and the first half of the 1960s that the post-war boom was at its most intense, both in the UK and abroad (chapter 2.5 above). Between 1958 and 1964, GNP grew by 3.8% per annum in the UK, exceeding even the growth rate of the 1932-39 recovery (average growth rate of 3.6%) and certainly exceeding the 2 to 3% growth rate which prevailed in the decade up to 1958.[37] This period, more than any other, was one of high investment, rapid productivity growth, rapid output growth, full employment and rising standards of living. Massey (1984 p.133) is incorrect in asserting that "by the early sixties it was irrefutable - every indicator of growth and competitiveness was on the slide". The true situation was that growth was accelerating, especially in Southern England and the Midlands (Tables A5, A6, 2.1, 5.4).

The growth of employment in the expanding industries was rapid, especially in 1959-61, but was cyclically variable, as Table 5.8 shows. In the declining industries, job loss was substantial through all stages of the business cycle, but was masked during period of cyclical upswing by the boom in other sectors. During phases of recession, as in 1957-59 and 1961-63, the problems of job loss in declining industries in the peripheral regions could not be concealed in this way; unemployment increased sharply in such regions. A particularly severe winter in 1962-63 heightened the vulnerability of the outer periphery (N, Sc, Wa, NI), and in February 1963, unemployment reached 6.0% in Wales, 6.2% in Scotland, 7.1% in the Northern region and 11.2% in Northern Ireland.[38] These figures represented, in the case of the Northern region especially, unemployment rates unprecendented since the fuel crisis of 1947 (with the exception of Northern Ireland in the first half of 1952) and created

an obvious spur to action. A Government minister was given special responsibility for the North East, and White Papers followed outlining development strategies around growth points in central Scotland and North East England.[39] As far as the built environment is concerned, a renewed programme of new town designation and road construction resulted from this examination of regional problems.[40]

It needs to be emphasised, however, that the problem in the early 1960s was not simply one of rising unemployment in the periphery. There was a fundamental mismatch between an expanding South, which showed disproportionately in the boom of the early 1960s, and which was becoming economically congested, and a static North, sharing only partially in the boom, and hampered by substantial job losses in declining industries. This mismatch, at a period of full employment, would tend to lower the capacity ceiling for national economic growth by creating a persistent tendency for labour resources in the periphery not to be fully utilised. The approaches to regional policy in the early to mid 1960s recognised this problem, and a more "strategic" phase of regional policy may be said to have started. Before discussing the "boom" in regional policy of the 1960s, it is useful to pursue further an outline of events in the 1950s.

The 1957-59 recession created a response in terms of regional policy initiatives, but this response was focused mainly on reducing unemployment in places of high unemployment, rather than on creating self-sustaining growth in the periphery. In 1958, regional policy assistance was granted to development places outside the main pre-existing Development Areas[41] while in 1960 the old Development Areas were abolished and regional policy was conducted on the basis of Development Districts, which in practice were any areas with an unemployment rate of 4½% or more.[42] Areas could be scheduled or descheduled without reference to Parliament. At this stage, regional policy was still proceeding on a basis of isolated problem and isolated response.

After the 1957-59 recession, employment growth in Southern England accelerated considerably. Table 5.4 shows that employment grew by over 2% per annum in each of the regions of the South and Midlands during the 1959-61 cyclical upswing, and although this momentum was not fully maintained in subsequent years, Table A6 shows that the rate of growth of employment was considerably over 1% per annum in the South and Midlands for every year up to 1965, except for the recession year of 1962-63. The period taken as a whole was one in which the spread of ownership of consumer durables was especially rapid (chapter 2.7, Fig 2.3), creating a situation of what might be termed "affluent full

employment". These consumer durables were produced primarily in the South and Midlands, areas which accordingly became the main employment beneficiaries of the boom of affluence.

A prolonged period of employment growth of well over 1% per annum in regions with unemployment rates of about 1% clearly indicates a problem of congestion. Such a path of development could not be followed without substantial net inward migration (section 5.4 provides a more detailed discussion) and, as Table 5.9 shows, the net flow of population into the South East rose sharply at the tail end of the 1950s. "Congestion" is seen here in dynamic terms, as described earlier, rather than in static terms. The type of regional problem which started to emerge in the transition from "austere" to "affluent".full employment is well summarised in the title of a paper by Chisholm (1964): *Must we all live in Southeast England? The Location of new employment.* Unfortunately, Chisholm did not conceive of the problem in terms of the geography of boom in the expanding post-war industries, but rather in terms of the imputed residential preferences of the workforce, following in the neo-classical tradition of explaining aggregate change not by structural forces but by the aggregate effect of individual preferences.

The problem of congestion was recognised in the early 1960s, but treated in the early stages as a matter separate from regional policy. One response was the foundation in 1963 of the Location of Offices Bureau to attempt to counteract the congestion in Central London arising from the creation there of 15,000 office jobs annually.[43] This growth of office employment in the centre of a single city overshadowed the total growth of employment in the peripheral regions, as reference to Table A4 shows. A new Government in 1964 placed a ban on office development in the London region and the West Midlands conurbation,[44] this ban being extended in 1966 to cover the rest of the South East and West Midlands regions, East Anglia and the East Midlands. Despite these controls, office decentralisation tended to take place over relatively short distances rather than between core and periphery.[45] The congestion of office development in central London up to the early 1960s was perhaps the single most conspicuous feature of congestion in the core regions, yet office decentralisation policy was never fully incorporated into the regional policy framework, which concentrated primarily on employment in physical manufacturing production. As late as 1967, the Location of Offices Bureau estimated that there was still a potential outflow of 150,000 jobs from central London,[46] yet until 1973 the incentives offered for offices to move to assisted areas "were derisively small compared to (those) proferred to manufacturing firms."[47]

Regional policy may be said to have come of age around 1963, however, in response to a recognition that a situation at full employment with rapid growth in the core regions, and job loss in the periphery, was unsustainable. While the main "boom" in regional policy may be seen as having occurred from 1964 to 1970,[48] under a Labour Government, this should be regarded as being the result of an extension of existing policy measures to deal with a problem which was emerging in the early 1960s, rather than as being a new start under a different political ideology. The emphasis which was emerging at this time, particularly in two reports from the newly constituted National Economic Development Council (NEDC 1963a, b) was concerned with how to sustain the boom of the early 1960s, and how to redistribute employment growth to achieve this effect, creating self-sustaining growth in the periphery (a feature which had largely been lacking in the 1950s) and reducing the costs of congestion in the core. This "economic" approach to the regional problem could certainly be regarded as an advance on the "social" approach to the problem, which proceeded on the basis of isolated problem and isolated response.

Regional policy had a substantial effect on regional patterns of employment growth, certainly from 1963 onwards. Table A6 shows that in the post-war period up to 1963, employment in the South and Midlands grew on average by about a percentage point per annum more than in the North; after 1963, this annual gap averaged only half a percentage point. This shift was abrupt; there is a sharp difference between 1962-63 and 1963-64. The timing of the shift (that it took place in 1963 rather than in, say, 1966) suggests that it was regional policy which was primarily responsible, rather than any switch from long cycle upswing to long cycle downswing. The abruptness of the change of employment trend, noted also by Moore and Rhodes (1973), should not necessarily be taken as being caused by new developments in regional policy in 1963. On the evidence of such time series as investment[49] and the number of industrial moves to assisted areas[50] the main break in trend came about three years earlier. The break of trend in the employment series may be regarded as a lagged response to this. The intensification of regional policy in 1963 and 1964 is shown clearly in the time series for subsequent years.

Table 5.10 contrasts regional patterns of employment growth in 1951-63 with those of 1963-72. In interpreting this table it needs to be appreciated that not all the periphery came into the regional policy net. In 1966, when Development Districts, designated according to current unemployment rates, were replaced by Development Areas, which had more permanent status, virtually the whole of Lancashire and Yorkshire were

excluded from Development Area status,[51] although the designation of Intermediate Areas in 1970[52] allowed some regional policy assistance to these areas. An effect of the earlier exclusion of these regions, Merseyside excepted, from regional policy assistance was that when the economic downturn came after 1966, employment decline was far more substantial in the "inner periphery" (YH, NW) than in the more strongly assisted "outer periphery"(N, Wa, Sc, NI), even though employment trends in both types of area had run broadly parallel up to 1963. Table 5.10 shows that in the less assisted periphery employment fell by from 0.7% to 0.8% per annum in the period 1963-72, whereas in the assisted periphery employment fell by about 0.4% per annum. The gap which had opened is in accordance with the estimates of Moore and Rhodes (1973) who, in comparing an "expected" employment series with the "actual" employment series, and correcting for differing regional sectoral compositions, suggested that in the Development Areas there were by 1970 about 160,000 more manufacturing jobs in the Development Areas than would have been expected in the absence of regional policy. This represents about 3% of the employment total of the regions concerned (N, Wa, Sc, NI) or an increment to the employment growth rate of about 0.4% per annum.

It would seem that the low level of regional policy designation of Yorkshire and Lancashire (pre-1974 counties) had retarded the economic development of much of Northern England. If regional policy had been intended to represent an economic policy of developing the lagging peripheral regions, rather than to represent a response to crisis in particularly depressed areas, it seems strange that Yorkshire and Lancashire should have had such a low priority for regional policy assistance. While it is quite possible to justify the designation of some areas of particularly high unemployment as Special Development Areas, as happened in 1967 as part of the response to the geography of recession in 1966-67,[53] it is much less easy to justify the large gap in regional policy assistance between the fully assisted areas of the outer periphery and the non-assisted (or, after 1970, partially assisted) areas of the inner periphery. A more natural response would have been to designate the *whole* of the periphery as a Development Area, with the distribution of new industrial employment within the periphery responding to (a) the presence of potential growth poles, which would tend to favour the inner periphery, and (b) the presence of substantial labour reserves, which would favour the more depressed parts of the outer periphery.

The differences in employment growth rates between 1951-63 and 1963-72 reflect of course not just the advent of a strong regional policy

but also a general slowing down in growth rates as a result of newly adverse economic conditions. The boom of the 1950s and early 1960s was primarily a boom in the core regions, where employment expanded extremely quickly. When the boom passed, employment was, on the whole, static in these regions. The peripheral regions, whether (mildly) assisted or not, each had very slow rates of employment growth during the boom, and the adverse conditions of the late 1960s sent these regions into considerable employment decline. The programme of closures in the coal mining industry had gathered pace, while the rate of job loss in manufacturing exceeded anything in previous recessions since the War (chapter 6 below). The main effect of regional policy would seem to have been to give a certain element of stability to employment in the assisted areas by providing elements of new industrial growth to counteract large scale decline in employment in older industries. The predominant rationale of regional policy from the late 1960s onwards has therefore been to perform a shoring up operation in areas of employment decline and of increasingly high unemployment; this represents a considerable retreat from the more optimistic plans of the early 1960s (NEDC 1963a, b) in which the main economic objective of regional policy was to provide a better geographical distribution of employment growth to allow for a smooth continuation of the boom of the early 1960s.

It is not intended to provide any detailed coverage of regional policy through the 1970s and beyond. McCallum (1979), Regional Studies Association (1983 pp.1-19) and Parsons (1986) provide accounts of the main changes. A point which needs to be emphasised very strongly is that the further narrowing of regional differences in the rate of employment change, highly conspicuous between 1971 and 1977 (Table A6), was *not* due to a further strengthening of regional policy, but rather was the result of specific features of the geography of recession. This period is covered in much greater depth in chapter 6 below. Employment in the assisted areas was still being propped up by new employment resulting from regional policy, but probably to no greater extent than in the mid to late 1960s. In the meantime, however, both London and the West Midlands had become centres not of industrial growth, but rather of severe decline.

In general terms, a fairly strong regional policy was maintained through much of the 1970s, but towards the end of the decade regional policy was weakened significantly. The incoming Conservative Government in 1970 was committed to reducing government intervention in the economy,[54] and dismantling of regional policy was part of this programme.[55] The intensity of the 1970-72 recession forced a "U-turn", however, and

considerable, and perhaps excessive, attempts were made to reflate the economy.[56] As part of the reflationary package, and in an attempt to reduce unemployment in the worst-affected regions, a policy of strong regional policy was resumed.[57] The Labour Government which came into office in 1974 was committed to a strong regional policy, and initiated a major programme of dispersion of government offices to the assisted areas.[58] The direction of economic change in the mid-1970s led, however, to a reappraisal of strategies. The increasing severity of industrial decline, particularly noticeable during the 1974-76 recession, led to a concentration of effort on a *national* industrial strategy, which often involved large-scale assistance to industries in the "prosperous" regions, rather than on a *regional* industrial strategy.[59] Another feature was that many of the most intense spatial economic problems in the UK economy could be seen as urban economic problems, or, at their most intense, inner city problems, rather than as regional economic problems. Townsend (1977) suggested that a situation was emerging in which the most severe economic problems were to be found at the interface of the urban and regional dimensions, thus in the peripheral conurbations. The study of accumulation of unemployment in the 1970s, in section 5.4(iii) below, supports this assertion. The inner city policies which followed[60] concentrated largely on ameliorating social problems rather than on creating employment. In many respects, the inner city policies at the end of the 1970s could be regarded as representing the same immature phase of policy noted for regional policy in the late 1950s. The creation of "Enterprise Zones" in the early 1980s[61] would appear to confirm this impression. These zones, small areas, often in the "inner city" or in steel closure areas, offer various tax and rates exemptions for new industrial and commercial development, and are to an extent reminiscent of the "Development Districts" of the early 1960s.

The main feature of regional policy since the mid-1970s has been its weakening. Regional policy has had its critics. Manners (1976) suggested that existing regional policy measures were in many respects too limited, and suggested that far greater attention be paid to the office sector, and also to regional man-power services. Chisholm (1976) suggested instead a dismantling of much of the regional policy framework, noting that the main justifications used for having a regional policy were based on a long disappeared situation of full employment and rapid growth.

The post-1979 Conservative government set about this dismantling of regional policy,[62] but the levels of potentially mobile manufacturing investment were so low that it was almost an irrelevance whether there was a strong regional policy or not. Perhaps the most reliable indicator

of the amount of potentially mobile investment at any given time is the time series for gross fixed investment in manufacturing industry in new building and works (Table 5.11). This element of investment was high between 1960 and 1971, but then declined substantially. In the late 1970s, investment in new building and works was around two-thirds of the peak levels in the 1960s. During the slump, the index of potentially mobile industrial investment halved.

No attempt has been made (up to 1987) to rebuild regional policy, and it seems that in the slump and post-slump periods the most important initiatives in employment generation are often those of local authorities rather than the central state.[63] Indeed, as this chapter goes off for typing (January 1988), the Government has announced measures which finally bring to a close the traditional form of regional policy, with automatic assistance to all industrial development projects in the assisted areas, and have introduced a programme of selective assistance instead. The advantages and disadvantages of such an approach could be argued at length (though not here), but if as seems likely these policy measures are intended to submerge regional policy rather than to transform regional policy, then it would appear that a retrograde step would have been taken.

It is quite possible that a future effective regional policy might run not so much on the traditional basis of subsidising industrial migration to assisted areas, as on a coordinated expansion of local authority measures, with care being taken that the central state uses its powers in the spatial redistribution of income to allow for the most ambitious initiatives to be taken in the areas which most require the impetus of large scale employment generation. The Regional Studies Association (1983 pp.103-116) dismisses this approach rather too casually, comparing a possible situation in which local authorities are given responsibility and encouragement to create employment *without* a large scale transfer of resources from prosperous to depressed areas, with a situation in which the central state encourages the redirection of employment *with* a large scale transfer of resources from prosperous to depressed areas. This is hardly a fair comparison of different policy options.

This discussion of regional policy has taken the narrative far beyond the turning point of the long cycle in 1966. It is now time to return to a discussion of regional unemployment rates in the upswing and downswing.

5.4 Regional Unemployment Rates: Upswing and Downswing

(i) Introduction[64]

A critical distinction needs to be made between changes in unemployment in the full employment stage of the long cycle upswing and changes in unemployment in the long cycle downswing.

In the long cycle upswing, the structure of the economy is such that the force of expansion in the expanding sectors outweighs the effects of decline in traditional industrial sectors. The economy is set on a path of expansion, with the limit to employment levels at cyclical peaks at full employment being set by the size of the potential workforce rather than by the level of effective demand. There is the implication that at such peaks extra labour can always economically be employed, especially in the more prosperous areas. This implies the existence of labour shortages, generally to be found not in the relatively highly paid industrial sector, but rather in low paid parts of the service sector, which tend to lose employment to the industrial sector.

In effect, expansion during cyclical upswings is truncated by labour shortages under conditions of full employment. This gives the appearance, under conditions of structural growth, that the two arms of the business cycle are of equal strength, but the underlying pattern is that the upswing is stronger than the downswing. For as long as this is the case, the cyclical pattern of unemployment is that unemployment will increase during recessions, the size of the increase being controlled by the severity of recession, while there is a speedy reversion to full employment during the cyclical upturn. It is important to emphasise that in such an upswing, what is relevant is not so much that the unemployment rate falls by a number of percentage points, but rather that the unemployment rate reverts to a level representing "overfull" employment.

In the long cycle downswing, the recessions of the business cycle tend to outweigh the upswings, and unemployment tends to increase across each business cycle. Unemployment *accumulates*, rather than oscillating as in the case of the constructive business cycle mentioned above. The level of employment at the peak of the business cycle is set, not by the size of the workforce, but rather by the level of effective demand. In the early stages of a long cycle downswing, when business cycles are only mildly degenerative, it might appear that something like full employment has been reached at the cyclical peak. Such a level of unemployment (say the 2.3% of June 1969, or the 2.2% of December 1973) in fact indicated a departure from full employment, in that economic

expansion is held back by a lack of expansion potential rather than by labour shortages.

The theoretical treatment of unemployment under conditions of full employment ought therefore to differ in certain respects from the treatment of unemployment at a time of rising unemployment, while the treatment of the reversion to full employment after a slump (chapter 4.4) requires a different form of treatment. The remainder of this section attempts to outline the main regional patterns of unemployment between 1945 and 1979. The main question for the period up to 1966 is that of how and why *regional* unemployment rates, as well as national unemployment rates, moved in cyclically repetitive patterns, despite regionally uneven growth rates in employment. The main problem to be tackled for the post-1966 period is that of understanding the mechanisms through which unemployment tends to accumulate in some places more than others.

(ii) Regional Unemployment Rates at Full Employment

In the long term, employment growth rates at full employment are set by the growth rate of the potential workforce. For example, between the Censuses of 1951 and 1961, employment in Great Britain grew by 5.2% while the population aged 15 to 64 grew by 5.3%.[65] The bulk of this employment growth took place in the core regions, while the level of employment in the periphery remained almost static (Tables 5.2, 5.7). This relationship suggests the need for considerable long distance migration, to provide the labour to sustain the 35.6% employment growth in Hertfordshire in these ten years, and high but more modest growth rates elsewhere, and to prevent substantial accumulations of unemployment in areas of declining employment, such as the rural South of Scotland. Migration is a highly important economic process, reducing the imbalance between areas of labour surplus and areas of labour shortage. This flow of labour has substantial measurable effects on local unemployment rates, tending towards reducing spatial differences in unemployment rates.

Table 5.9 summarises patterns of internal migration in Great Britain between 1954 and 1966. It can readily be seen that the South East was the predominant recipient region for migration, while the peripheral regions (and particularly the outer periphery of Scotland, Wales and the Northern region) were the main net donors. A closer examination shows that migration flows were notably more intense during phases of cyclical recovery than during years of recession; the boom at the turn of the 1960s was a period of especially intense migratory redistribution of population.

There is of course some degree of net migration from relatively depressed areas to relatively prosperous areas throughout the business cycle. The evidence of Table 5.12 suggests, however, that the pace of population redistribution is set more by the labour needs of the core than by the extent of unemployment in the periphery in that the rate of net migration from depressed to prosperous regions is considerably higher in cyclical upswings, when labour shortages are developing in prosperous regions, than in recessions, when unemployment is increasing in the depressed regions. An important asymmetry needs to be noted; if migration flows were for some reason to have been artificially reduced in intensity, the functioning of the South East's economy would have been impaired through acute labour shortages, while the economies of the peripheral regions would have continued to operate normally, but at higher rates of unemployment.

The cyclical variability of migration, in which inter-regional intensity of migration is highest during the upswing, is important in helping to explain a feature of regional unemployment rates during this period which has often been noted, but generally taken for granted, namely the cyclicity of regional unemployment rates. Many writers, from Thirlwall (1966) and Brechling (1967) onwards,[66] have suggested that different regions have characteristically different amplitudes of unemployment response ("sensitivity") to the different phases of the business cycle, and also have noted[67] that during the period of full employment, regional patterns of unemployment were remarkably stable through time apart from these regular cyclical variations. It is not self-evident however, why these cyclical regularities should exist.

At one level, it seems quite understandable that regions with vulnerable industrial structures should have higher than average rates of job loss during a recession, and thus faster than average increases in unemployment. The "cyclical sensitivity" approach also suggests however that such regions should have faster than average *decreases* in unemployment during the cyclical recovery. This is empirically true; the Cn index in Table A8 shows that regional inequalities in unemployment tend to increase during recessions and to decrease during periods of recovery. Table A5 suggests, however, that regional differences in rates of employment growth were as strong during periods of recovery as during periods of recession which ought, all other things being equal, to lead to the less prosperous regions having slower decreases in unemployment during the recovery. The reason they do not is that acute labour shortages tend to develop in the more prosperous regions during a period of recovery, and prevent unemployment falling below a certain level. These labour shortages, most noticeable in 1959-60, 1961-2, and 1964-5 (Tables A7, 5.10) draw in considerable amounts of labour from the less prosperous regions, which allows for an accelerated fall of unemployment there.

An implication of this argument, to be discussed in the next section, is that if the core regions stand at less than full employment, the intensification of migration flows during the cyclical upswing will be much slighter or non-existent, leading to a lower degree of downward elasticity in unemployment rates in the less prosperous regions; unemployment, once having accumulated, will be far less easy to disperse.

Table 5.13 shows more directly the regional cyclical movements in the unemployment rate. It may be seen that the regional differentials in unemployment rates at cyclical peaks were remarkably stable through the full employment period. Any anomalously high rates of unemployment at cyclical peaks, for example in the North West in 1955, in Scotland

and Northern Ireland in 1961, or in Wales in 1966, may readily be related to an unusually high unemployment rate at the previous cyclical trough, a feature which was particularly clear in the North West in 1952. In all except the Welsh case, these high rates of unemployment in cyclical troughs resulted from a particularly severe fall in employment during the downswing concerned. According to Table A5, employment in the North West fell by 1.5% in 1951-52 (0.2% in the UK as a whole) and in Scotland and Northern Ireland by 2.1% and 3.4% respectively in 1957-58 (0.8% in the UK as a whole). It seems that under conditions of full employment, an unusually high local rate of job loss in a recession will lead to unemployment locally being unusually high for the course of a single business cycle, but that by the end of the subsequent business cycle the area concerned returns to its "normal" rate of unemployment.[68]

The stability of regional unemployment patterns through time is quite striking. At cyclical peaks, South East England and the West Midlands, the two main areas of expansion, persistently had unemployment rates of about 0.6%, around half the national average, indicating extremely tight labour markets, while unemployment was generally slightly less than 1% in the South West and the East Midlands. In Yorkshire and the North West, unemployment stood at slightly over 1%, while in the Northern region and Wales, a figure of 2% was normal, with Scottish unemployment at cyclical peaks averaging slightly over 2%. In Northern Ireland, a cyclical peak of 6% unemployment was normal; effectively, this area never reached full employment. Here, demographic factors, notably a persistently high birth rate, were important. Northern Ireland's failure to reach full employment was the result of an unusually fast expansion in the labour supply rather than a depression in the number of jobs;[69] parallels may perhaps be drawn with the British labour market prior to 1914.[70]

The stability of these patterns of unemployment, at a time in which regional differences in the rate of employment growth were considerable, results largely from the responsiveness of migration flows to changes in economic conditions. Table 5.12 attempts to identify the direct effects on unemployment rates that migration flows would have had in given years. These effects can be considerable. For example it is possible to calculate that had the distribution of population remained static in 1959-60, the unemployment rate in the Northern region would have increased from 3.0% to 3.7% in 1959-60, instead of falling to 2.5%, while the unemployment rate in the South East would have fallen to 0.1%, implying exceptional overheating of the local economy, instead of 0.8%.[71]

While net migration flows in an individual year may be small in relation to the size of the total insured population, they are large enough to have considerable effects on regional unemployment rates. As already noted, net migration into the South East was particularly intense when this region was running short of labour at cyclical peaks. The change in the South East's migration balance was primarily accounted for by an increase in gross inward migration (stable at about 140,000 up to mid-1959, but over 180,000 in 1960 and beyond) rather than in any fall in emigration from the South East. This change in the migration balance in the core went hand in hand with substantially increased net emigration from the ultra-periphery of Scotland and the Northern Region. This does not necessarily imply large scale increases in migration from the ultra-periphery to the core; it seems likely instead[72] that there was an intensification of net migration flows from the ultra-periphery to the inner periphery and Midlands, and also an intensification of net migration flows from the inner periphery and Midlands to the South East. While the patterns of flow were often highly indirect, it seems that Scotland and the Northern regions acted as reservoirs of labour to feed the economic expansion of the South East and West Midlands. Conversely, a high rate of employment expansion in the core regions enabled substantial reductions to take place in what would otherwise have been very high levels of unemployment in the outer periphery.

The balance of migration between the core and the outer periphery (Wa, N, Sc, NI) is held to be very important in helping to explain regional cyclical variations in unemployment at full employment. During periods of recession, regional differences in migration quotients (Table 5.12) are generally slightly less than regional differences in the rate of employment change, and so unemployment differentials increase. During periods of cyclical recovery, regional differences in the migration quotients expand considerably, and so unemployment differentials narrow. Table 5.14 provides further, more direct evidence, that periods of high emigration from the outer periphery were usually not periods of high job loss in the regions concerned, but rather, periods of expansion in the national economy.

For completeness, it should be noted that while heavy phases of net emigration from the outer periphery were generally related to employment growth elsewhere, temporary heavy phases of net emigration from the inner periphery and core were generally related to temporary sharp declines in the local employment base. Clear examples may be seen for the West Midlands in 1956-57 and in Yorkshire in the following year. In such cases, the adjustment took place through both a reduction in immigration and an increase in emigration. Thus, in the West Midlands,

inward migration was reduced from 49,000 in 1955-56 to 44,000 in 1956-57, while outward migration was increased from 53,000 to 59,000. In the Yorkshire case, inward migration fell from 48,000 in 1956-57 to 38,000 in 1957-58, while outward migration increased from 43,000 to 50,000.[73] These rapid labour market responses considerably damped down increases in unemployment in the regions concerned, despite recession being severe. The only clear-cut case of this type of response in the outer periphery was in the Northern region in 1958-59, in which employment fell by 0.8%, while inward migration fell from 32,000 to 25,000 and outward migration rose from 32,000 to 36,000. Otherwise, as the right hand side of Table 5.14 shows, years of severe job loss in the outer periphery (notably 1957-58 in Scotland and Wales) were years of *slow* emigration and hence large-scale increases in unemployment.

This discussion has concentrated on internal migration, It might appear strange that the West Midlands, a region of rapid employment growth and tight labour markets should be pictured in Table 5.9 as a region of net *emigration*. The explanation is that the West Midlands was a region of net immigration, but that this can be decomposed into heavy net immigration from abroad, and slight net emigration to the rest of Britain. 1966 Census data[74] shows that between 1961 and 1966, net migration from overseas to the West Midlands stood at 52,000 (compared with a net loss through internal migration of 16,000) while net migration from overseas to the South East stood at 121,000. These figures refer to total migration, and not to migration of people of working age. Net overseas migration to other regions was generally slight. A map of the geographical distribution of ethnic minorites[75] would thus tend to indicate high concentrations of minority populations in areas which had rapid economic expansion and labour shortages during the long cycle upswing.

The general argument being presented is that regional unemployment rates during a period of full employment are co-determined by regional patterns of job loss during recessions and regional patterns of migration. During periods of recession, jobs tend to be lost more quickly in high unemployment regions than in low unemployment, expansive regions, and migration from depressed areas to prosperous areas tends to be low. As a result, unemployment increases more in high unemployment regions than in low unemployment regions. During a period of recovery, net migration from depressed regions to prosperous regions intensifies, as regions with low unemployment and high rates of employment creation face acute labour shortages. This migration flow is substantial enough to have an important effect on regional rates of change in unemployment, and causes high unemployment regions to have faster declines of

unemployment than low unemployment regions, creating convergence in regional unemployment rates.

The geography of employment change, the geography of unemployment and the geography of workforce migration are thus very closely linked, with the geography of employment change being the main controlling factor. Earlier examinations[76] have tended to model regional patterns of net migration in terms of unemployment differentials, but this is unsatisfactory in that migration patterns affect unemployment patterns rather more directly than unemployment patterns affect migration patterns, and in that no account is taken in such models of the really critical feature that net migration responds not so much to differences in unemployment, but to the situation in which acute labour shortages develop in certain areas with rapid employment growth. This, it seems, is a theoretically important result, and while various empirical studies set in various contexts[77] have indicated the crucial importance of the demand for labour in determining aggregate migration flows, theoretical approaches to migration studies have generally failed to grasp the issue, often seeing patterns of migration as determined by individual micro-scale decisions.[78]

(iii) The Regional Accumulation of Unemployment During the Downswing

It is important to recognise that the oscillations of unemployment described above are characteristic of periods of full employment, when the expansion of employment in cyclical upswings is constrained not by a lack of effective demand but rather by shortages of labour in the fastest expanding regions. There is a definite equilibrium point to which the labour market regularly returns after a sequence of downswing and upswing, implying that the strength of each upswing corresponds to the strength of the immediately preceding downswing. Thus unemployment rates appear to oscillate, and various inter-regional labour market mechanisms ensure that regional unemployment rates, as well as national unemployment rates, oscillate.

In contrast, unemployment tends to *accumulate* during the downswing of the long cycle. The greater severity of recessions in the downswing ensures that at the trough of the business cycle unemployment will be too high for a single business cycle upswing to return the economy to full employment. The expansion of employment in upswings is then constrained not by labour shortages but rather by a lack of effective demand.[79] During a period of full employment, a growth rate of perhaps 3½% per annum across a cyclical upswing may well be sufficient to return the economy to full capacity, and this is eminently achievable, but it may well be the case that during a period of less than full employment a growth rate of 8% per annum would be necessary to return the economy to full capacity. This figure clearly cannot be reached without incurring great difficulties; in practice, a lower rate of growth is all that can be achieved, dispersing some but not all the excess unemployment at the trough of the cycle. An important implication of this is that since acute labour shortages never develop in the prosperous regions, because of the slack overall demand for labour, the pressure gradient for inter-regional migration in the cyclical upswing is far less than it would be for a corresponding upswing in a full employment regime, so that pockets of high unemployment at the troughs of recession disperse far more slowly in the upswing than under full employment. There is thus a general tendency for spatial inequalities in unemployment to increase during a long cycle downswing.

Unfortunately, little attention is given to this critical distinction between full employment and high unemployment in academic labour market analysis, and indeed little attention is given to the causal mechanisms behind regional and local changes in the unemployment rate. Thirlwall (1966) and Brechling (1967) developed the concept of

the regional cyclical sensitivity of unemployment, a summary of the amplitude, relative to the national average, of regional variations in unemployment during the business cycle, but there is little sign of recognition in later papers that this concept is meaningful only under conditions of full employment. To make the situation worse, much of the later work in this field, especially by geographers, has been developed within a positivist-quantitative framework in which empirical regularities are held to be an *explanation* of regional unemployment rates, rather than in a realist framework in which any empirical regularities are regarded as that which needs *to be explained*.[80] Indeed the tendency among geographers has been not to see unemployment as a phenomenon to be explained in economic terms, but rather to see unemployment figures as raw data on which a variety of statistical techniques may be applied, with perhaps some suggestion being made that something is being said about a vague entity known as "urban structure" or "regional structure". Papers in this idiom include those by Haggett (1971), Cliff et al (1975), Hepple (1975, 1979) and Dunn (1983a, 1983b). One wonders, from Dunn's papers, whether it is really necessary to enter the complexities of spectral analysis to demonstrate the fairly obvious point that in terms of "wavelength" seasonal fluctuations are very regular, but higher order cyclical fluctuations are not; this, however, was presumably not the point of Dunn's exercise, which was concerned only obliquely with unemployment, and more centrally with using a statistical technique on a readily available data set.

In a more recent paper Gordon (1985) comes rather closer to identifying the causal processes underlying regional change in unemployment, and indicating the significance of both employment change and migration. Gordon's paper is an undoubted theoretical advance on earlier treatments, yet his reluctance to jettison the unsatisfactory concept of the cyclical sensitivity of employment means that some important points are missed. Thus Gordon (1985 p.96) attempts to maintain the "essential continuity" of the 1950s, 1960s and 1970s by distinguishing between a stable set of cyclical sensitivities and an upward trend in unemployment, thereby relegating the accumulation of unemployment, the single most important facet of regional labour market change since 1966, to a side issue. The distinction between reversible job losses (in the sense that expansion in a subsequent cyclical upswing will return the economy to an earlier level of unemployment) and irreversible job losses is not fully made, and the critical distinctions between a regime of unemployment oscillation and a regime of unemployment accumulation are therefore also missed.

The depressed trend in employment ultimately lay behind the

accumulation of unemployment after 1966. Table A6 shows that in only two years between 1966 and 1984 did employment increase by 1.0% or more (thus +2.5% in 1972-73 and +1.7% in 1978-79), compared with eight out of thirteen years between 1953 and 1966. Furthermore, the break in trend was particularly sharp in 1966; there was a decline in UK employment in every year between 1966 and 1972, and an almost continuous decline in employment in every region except East Anglia. Chapter 6 below considers in some detail the geography of job loss in the long cycle downswing; the main concern in the present discussion is with outlining the geography of the accumulation of unemployment.

The time series for the Cn index of regional inequalities in unemployment (Table A8; also chapter 3.6) provides a useful starting point for discussion. More specific examination of particular regions will follow.

Table A8 shows that, ignoring cyclical deviations, the value of the Cn index (the weighted mean deviation of regional unemployment rates from the national average) was fairly steady in the long cycle upswing at about 0.8. There were, however, cyclical fluctuations in the Cn value, within a range from about 0.5 in recessions to 1.1 at cyclical peaks. Reference to Table A8 suggests that most of this cyclical variability could be explained by much higher than average fluctuations in the unemployment rate in the outer periphery, (N, Wa, Sc, NI), and much lower than average fluctuations in the low unemployment South East region.

During the 1966-68 recession, the Cn index continued to remain steady at 0.8, and then, if anything, tended to rise slightly in the very flat 1968-70 recovery. While this cycle marked the start of the drift away from full employment, the overall impact was slight on broad-scale regional differences in unemployment rates. Unemployment was accumulating much faster than average in the outer peripheral regions however; in June 1966, the unemployment rate in the Northern region was 0.8 percentage points higher than the national average, yet this gap had increased to 1.9 points in June 1970. In Wales, the differential had remained at 1.0 points, but in Scotland the differential had increased from 1.2 points to 1.5 points (Table A8). The deteriorating situation in the Northern region resulted from a combination of coal mining closures, creating pockets of high local unemployment (see later discussion) at a time when depressed employment trends in the low unemployment regions made it more difficult for excess unemployment to be drained off by migration.

Unemployment differentials rose sharply during the 1970-72 recession, particularly during the summer of 1971. The West Midlands

received a severe jolt during this summer, largely due to job losses in the vehicles industry (section 5.5(ii) below), with unemployment rising from 3.2% in June 1971 to 5.7% in September 1971. The peripheral regions all had higher than average rates of increase in unemployment, generally attributable to faster than average rates of job loss. In the 1972-73 "Barber boom", however, unemployment decreased far more quickly in the peripheral regions and the Midlands than in Southern England, and the Cn index fell from 1.5 in September 1972 to 0.8 in June 1974. This represents a high degree of convergence in regional unemployment rates, going far beyond what is normal for a cyclical recovery, although the degree of divergence during the previous recession was also exceptionally high.

It is important to recognise that this process of convergence of unemployment rates during a cyclical recovery was *not* due to the normal mechanism by which the emergence of acute labour shortages in the core regions intensifies the North-South drift of population migration. Indeed, as Ogilvy (1982) points out, migratory trends in the early 1970s were somewhat chaotic when compared with the relatively smooth North-South redistribution of previous decades. The South East region had become a net *exporter* of population, rather than the major net importer. At no stage during the 1972-74 upswing did unemployment in the South East fall below 1%. This indicates that, in comparison with earlier cyclical upswings, shortages in labour in the South East were relatively slight, with the implication of a reduction of migration into the region compared with, say, the 1964-66 period.

The convergence of unemployment rates in 1972-74 was due, not to migration, but rather to the unusual situation in which employment growth was much faster in the Midlands and periphery than in South East England. In the boom year of 1972-73, employment increased by 3.5% in the Northern region and the East Midlands, 3.2% in the West Midlands, 3.1% in Scotland, 2.9% in Wales, 2.8% in Yorkshire and Humberside, 2.0% in the North West and 1.9% in Northern Ireland. In contrast, employment in South East England grew by only 1.2%, largely held back by high rates of industrial job loss in London.[81] Table 5.15 indicates regional changes in employment and unemployment between June 1972 and 1973, and suggests that during this year, East Anglia, the South West and the East Midlands were probably centres of substantial net workforce immigration, while the South East and the North West probably had substantial net outward movements of population. This is in accordance with the general picture shown by Ogilvy (1982 p.67) although Ogilvy's figures cover net migration across the whole population, and not just across the workforce, and thus include migration to retirement areas, such as

the South West and parts of Wales, a component which is excluded from workforce statistics. Emigration from the South East peaked in 1972-73, whether considered in net or gross terms, but then declined towards the national average. The South East remained a region with slower than average rates of employment growth throughout this period, but the differential lessened considerably after 1973. Ogilvy (1982) suggests that the reduction of gross migration differentials through the 1970s reflected the depressed level of economic activity after the 1973 oil crisis. This is probably part of the explanation, but a more central point would appear to be the changes in the *geography* of economic activity, discussed in more detail in chapter 6 below.

1972-73 was an exceptional year, characterised by an artificial boom, one which could not be repeated in any single long cycle downswing as there would be a danger of hyperinflation occurring. Employment increased rapidly, especially in the peripheral regions, but only in conjunction with a very high rate of inflation. The convergence of regional unemployment rates in this year needs to be explained in terms of the specific circumstances of the year. It would be a mistake to assume that the return of the index of unemployment inequality to a value of about 0.8 to 1.0 represented an equilibriation merely because the values of the Cn index were in accordance with those of the full employment period. It would seem to be the case, looking at Table A8 as a whole, that regional unemployment inequalities tended to increase throughout the downswing, but that this relationship was temporarily overturned in the artificial boom of 1972-73.

It was true that unemployment differentials, as measured by the Cn index, grew only slowly during the early part of the 1974-76 recession, but this was mainly because the West Midlands, the region affected most severely in employment terms (Table A5) had lower than average rates of unemployment during the early part of the recession, and thus spent most of the recession "catching up" with the national average (Table A8). Between June 1974 and June 1975, unemployment in the North West, Wales and Northern Ireland increased by more than the national average, while unemployment in the rest of the periphery (YH, N, Sc) increased by less than the national average; this divergence of experience in the traditionally high unemployment regions also helps to explain why the Cn index remained fairly stable during the first part of the recession.

In the summer of 1975, however, there was a sharp jump in the rate of unemployment, from 3.7% in June to 4.9% in September. This increase affected the West Midlands and the peripheral regions far more than regions with below average unemployment. Thus unemployment

in Northern Ireland increased from 7.1% to 9.1% (up 2.0 percentage points), in Wales from 4.8% to 6.6% (up 1.8 points), in the West Midlands from 3.6% to 5.3% (up 1.7 points) compared with increases of 0.9 points, 0.8 points and 1.0 points in the South East, East Anglia and the East Midlands respectively. As a result, the Cn index of regional inequalities in unemployment increased from 1.0 to 1.2 points.

This new divergence of regional unemployment rates was not eradicated in the 1976-79 upswing, and indeed 1977 saw further intensification of regional inequalities in unemployment, with the Cn index reaching 1.6 at the end of the year and then remaining steady until 1979. It is important to recognise why regional differentials in unemployment did not revert to their pre-recession pattern, as happened after recessions at full employment.

The first point to note is that the recovery was very flat, as with the 1968-70 recovery, but in contrast with the boom of 1972-73. Unemployment did not fall noticeably until the end of 1978, with 1979 providing a brief period with unemployment below 6% before the slump came. The flatness of the recovery, combined with the high levels of unemployment at the start of the recovery, meant that full employment was not approached, even in the more prosperous regions; unemployment in the South East, for example, remained stubbornly over 4% until late 1978, and did not fall below 3.5% even during 1979. There was not the combination of acute labour shortages and rapid expansion of employment in the core regions to attract unemployed labour from the periphery, and thereby pull unemployment rates down significantly in the periphery. Thus the mechanism by which regional unemployment rate converged in pre-1966 cyclical upswings was absent in the 1976-79 upswing.

Another point to note is that the geography of employment change in 1976-79 favoured the East Midlands and South, rather than the periphery and the Midlands (both West and East), as was the case in 1972-74. Thus the mechanism by which regional unemployment rates converged as a result of faster than average employment growth in high unemployment regions, while present in 1972-74, was absent in 1976-79.

The basic situation in 1976-79 would appear to be that there was faster than average employment growth in the more prosperous regions (the South East outside London, East Anglia, the South West and the East Midlands) and this was accompanied by net migration into the expanding regions. The volume of migration into the expanding regions was sufficient merely to leave unemployment differentials stable; it would seem that it is only when labour shortages start to appear in the prosperous regions that the migration flow is sufficient to cause unemployment differentials to *fall*.

During the period of full employment, therefore, regional unemployment differentials tended to increase during recessions but decrease during cyclical recoveries, while during the long cycle downswing there tends to be a ratchet effect in which unemployment differentials tend to increase during recessions and to remain stable during cyclical recoveries, unless, as in 1926-27[82] and in 1972-73 employment growth is faster in the high unemployment regions than in the low unemployment regions.

This stickiness of unemployment differentials during cyclical upswings in a long cycle downswing can be reinterpreted from the perspective of individual regions to provide an understanding of the geography of the accumulation of unemployment. During a recession, if a region has a significantly higher than average rate of job loss, then that region will tend to have a significantly higher than average rate of increase of unemployment. This regional excess of unemployment would tend to disperse under conditions of full employment, either in a single cyclical recovery or over one-and-a-half business cycles if the recession was particularly severe in the region concerned (see section 5.4(ii) above). In a long cycle downswing, however, these regional concentrations of excess unemployment are not dispersed; instead, unemployment tends to accumulate, to a greater than average extent in regions with higher than average rates of job loss during the recession. If at a certain stage of a long cycle downswing a region has a much higher than average rate of unemployment, this unemployment rate may conceptually be divided into a national component (the national unemployment rate) plus the regional excess of unemployment at the close of the phase of full employment in 1966, plus the excess regional accumulations of unemployment during the various business cycles of the long cycle downswing.

Table 5.16 shows the geography of the accumulation of unemployment between 1966 and 1982, and is calculated on the basis mentioned above. There is obviously considerable scope for a closer examination of this subject, including detailed research into the genesis of unemployment "black spots", but the emphasis in this chapter, and in chapters 6 and 7 below, is on the study of employment change rather than the study of unemployment change. A brief survey of the geography of the accumulation of unemployment is, however, required.

The situation in mid-1966, and through most of the full employment period, was that regional unemployment rates were closely correlated with distance from London, with regions a long way from London (Northern region, Scotland and Wales) tending to have much higher than average rates of unemployment, and with Northern Ireland, both

distant and isolated from Great Britain by the Irish Sea, having an exceptionally high rate of unemployment. The inner periphery (Yorkshire and Humberside, and the North West) tended to have unemployment rates around the national average, even though employment trends, in the North West especially, may not have been especially buoyant. The Midlands and Southern England tended to have unemployment rates below the national average, which in some places, and at some stages of the business cycle, were sufficiently low to indicate an acute labour shortage. The South West, unusually for a core region, often had unemployment rates around or above the national average, but closer examination shows that there was a strong contrast between the eastern part of the region with low unemployment, and the more remote western part with high unemployment. Thus, in June 1966, Gloucester had 0.8% unemployment, Bristol had 1.1% unemployment, and Swindon 1.1% as well, whereas in Plymouth, at roughly the same distance from London as Liverpool, the unemployment rate was 1.6%, and in Camborne and Redruth in Cornwall 3.0%.[83]

The general picture during the period of full employment was however that unemployment rates in the core and inner periphery (SE, EA, SW, WM, EM, YH, NW) fell within a fairly narrow band, whereas unemployment rates in the outer periphery (N, Wa, Sc, NI) tended to be much higher. The general picture during the slump was that these regions of the ultra-periphery still tended to have much higher than average rates of unemployment, but that the West Midlands and the North West had joined these regions as high unemployment regions. The relatively smooth continuum between core and inner periphery had been lost by 1982, and instead sharp "North-South" differences in the unemployment rate had emerged. In June 1966, for example, the unemployment rate (seasonally adjusted) in the South East stood at 0.8%, compared with 0.9% in Yorkshire and Humberside. In October 1982, the seasonally adjusted unemployment rate stood at 9.6% in the South East, and 13.4% in Yorkshire and Humberside, a vastly accentuated difference, despite Yorkshire and Humberside being the least depressed of the peripheral regions. A region-by-region account of unemployment changes is needed to bring this process of divergence into perspective.

5.5 The Accumulation of Unemployment by Region

(a) Southern England

Table 5.16 shows that unemployment increased by less than the national average in each business cycle in each region of Southern England, and also in the East Midlands, with the sole exception of the South West in 1973-79. The accumulated effect of these slower than average rises in unemployment was that by the late stages of the long cycle downswing unemployment tended to be considerably lower than the national average in these more favoured regions. In the South West, this picture was complicated by the persistent tendency for unemployment to remain high in the remote west of the region, unemployment (seasonally unadjusted) in Cornwall standing at 8.8% in September 1979 and in Devon at 6.8%, compared with a national average of 5.8% and a regional average of 5.5%. In the east of the region, however, unemployment rates were aligned with the low unemployment rates of the South East and East Anglia, rather than with the high unemployment rates of the extreme South West.

The relative slowness of the increase of unemployment in the core regions is largely to be explained by the fact that employment levels were more stable in these regions than in the peripheral regions. In the South East and East Anglia, for example, employment fell by only 2.6% (-0.2% per annum) between 1966 and 1978 (combined figures for the two regions) whereas in the South West employment *increased* by 6.3% (+0.5% per annum) and in the East Midlands employment also increased, by 4.2% (+0.3% per annum), in the same period. Aggregate employment in the other seven regions decreased by 4.7% (-0.4% per annum) during this time.

Had such differences not been combined with a net migration flow from the periphery to the core, then even wider unemployment differentials would presumably have developed. The size of the net migration flow between periphery and core was not sufficient, however, to eliminate all divergence in unemployment rates, since, as explained earlier, the high unemployment rates prevailing even in the core regions discouraged heavy directed migration flows.

Within Southern England, the dominant trend was for employment to decline sharply in London, and to increase substantially in other areas despite the depressive effects of the long cycle downswing. These differences are completely obscured in unemployment figures; characteristically London has had unemployment rates virtually identical to the rest of the South East. In general, the migration process is

far more efficient at eliminating intra-regional differentials in unemployment rates than at eliminating inter-regional differentials, under conditions of uneven growth. Volumes of short distance migration tend to be far greater than volumes of long distance migration (the "distance decay" effect), making it far more likely that the *net* migration flow will be sufficient to remove unemployment differentials over a short distance than over a long distance. Thus, in the common situation in which a conurbation is suffering from job loss while surrounding areas are expanding, it is more likely that there will be a heavy net flow of migration out of the conurbation into the surrounding areas, rather than that the job loss in the conurbation will lead to exceptionally high rates of unemployment in the conurbation and low rates outside. This process means, of course, that even expanding areas will tend to accumulate unemployment during the long cycle downswing. It is likely, though, that an expanding area in a regional setting of stable employment will tend to accumulate unemployment less than an expanding area in a regional setting of employment decline.

The decentralisation of population from London has been remarkably efficient in that, despite major job loss, unemployment in London has for the most part been no higher than in the rest of the South East. This relationship has weakened slightly in recent years because the surrounding areas have themselves developed considerable labour surpluses during the slump, so that employment expansion may to a large extent be met with local labour rather than imported labour.[84] This slackening of the migration gradient is perhaps to be regarded as the sub-regional equivalent of the weakening of core-periphery migration flows as full employment disappeared. Part of the reason for the high efficiency of migration from London is probably that if employment within a firm is decentralising (for example, through office relocation), many of the individual employees will be encouraged to migrate with the firm; there is unlikely to be a complete substitution of the labour force. The extent to which migration of the labour force takes place within a firm has been emphasised in various recent studies.[85]

(b) The West Midlands

The general tendency in Southern England and also the East Midlands has been for unemployment to accumulate more slowly than the national average, even though unemployment differentials were reduced considerably in the 1972-73 boom. The West Midlands is also a core region, but one with a dramatically different history of unemployment accumulation. Table 5.16 shows clearly that unemployment rose more

quickly than the national average, and much more quickly than in the other core regions, through the long cycle downswing prior to the slump, while in the slump itself unemployment accumulated more quickly in the West Midlands than anywhere else in the country.

The basic problem in the West Midlands was that 33,000 jobs were lost in the vehicles industry between 1970 and 1978, while a further 56,000 jobs in this industry were lost between 1978 and 1981. In the earlier years this heavy job loss resulted from rationalisation in the industry being concentrated in the West Midlands rather than in other regions (see discussion in chapter 6.7(ii) below), while during the slump the decline in the vehicles industry was exceptionally severe in the UK as a whole (chapters 7.5(i)(b) and 8 below). The vehicles industry in the West Midlands is centred on the regional conurbation (West Midlands Metropolitan County plus parts of Warwickshire),[86] with little employment in this sector being present in Staffordshire, Shropshire, or Hereford and Worcester. In these "outer" counties the local economies have generally been relatively buoyant, with unemployment rates aligned to the East Midlands rather than to the West Midlands conurbation. Staffordshire, which borders on the East Midlands region, and which shares many of the dominant urban characteristics of the neighbouring region (moderately high degree of urbanisation, but no very large cities) had a relatively low rate of accumulation of unemployment. In September 1979, for example, unemployment in Staffordshire stood at 4.4%, closely comparable with the 4.6% average in the East Midlands, but well below the 6.3% rate of unemployment in the West Midlands Metropolitan County. The rural county of Hereford and Worcester also had low unemployment rates (4.9% in September 1979), but Shropshire had high rates of unemployment in the later stages of the downswing (6.8% in September 1979), largely because of high rates of job loss and unemployment in Telford New Town, a West Midlands "overspill" new town[87] with 9.1% unemployment (Oakengates travel-to-work area) in September 1979.

In general, however, the fate of the vehicles industry, and of the associated industries, such as metals, engineering, rubber, etc., were central to the accumulation of unemployment in the West Midlands conurbation, and in the West Midlands region as a whole. Unemployment was extremely low in the West Midlands at the peak phases of business cycles prior to 1966, because of the highly expansive nature of the industrial complex which was building up around the vehicles industry.

In 1966 unemployment in the West Midlands conurbation was thus low, even by the standards then prevailing. In June 1966, with the national unemployment rate standing at 1.2%, unemployment stood at 0.6%

in Birmingham, 0.7% in Coventry, but as little as 0.2% in West Bromwich, 0.3% in Warley and 0.4% in Walsall. In contrast with the position in 1979, Stoke-on-Trent, with 1.1% unemployment, was a relatively depressed part of the region. A business cycle later, in June 1969, unemployment had increased nationally by 1.1 percentage points, but the increase in Birmingham was 1.0 points, and while there were large numbers of workers temporarily stopped in Coventry at this time,[88] the differential between the national unemployment rate and the unemployment rate in the West Midlands conurbation remained fairly stable.

Job loss in the West Midlands vehicles industry was relatively moderate in the 1966-69 cycle, but very severe in the 1970-74 cycle (chapter 6 below). 3,200 jobs were lost in this sector in 1970-71, but 12,900 in 1971-72. This, combined with a severe national recession in mechanical engineering and metal manufacture, caused a substantial accumulation of unemployment in the West Midlands conurbation.

In June 1969, unemployment stood at 1.6% in Birmingham, compared with 2.2% nationally. By June 1970, unemployment in the UK had risen to 2.4%, an increase of 0.2 percentage points, but in Birmingham unemployment had risen to 2.6%, a rise of 1.0 points. The most severe increase of unemployment came in the summer of 1971, however, as unemployment in Birmingham jumped from 3.3% in June 1971 to 5.9% in September 1971. In Coventry, the jump was even more dramatic, from 5.3% in June 1971 to 13.8% in September. It is important to recognise that temporarily stopped workers comprise a large part of this total; even if these workers are excluded from the unemployment figures to give an unemployment rate based on the wholly unemployed, the unemployment rates in Birmingham and Coventry were still higher than the national average; 3.7% in Birmingham and 4.3% in Coventry in September 1971, compared with 3.7% in the UK as a whole. Towns in the "outer" West Midlands generally had lower than average rates of unemployment, for example 3.2% in Stoke-on-Trent, 2.7% in Stafford and 3.0% in Hereford (excluding the temporarily stopped in each case). It is worth noting, however, that Oakengates travel-to-work area (Telford new town) had a high unemployment rate even at this early stage; 4.9% (or 6.4%, including the temporarily stopped). It is possible that this reflects not so much any exceptionally high rate of job loss, but rather the workforce expansion of an ambitious new town (almost by definition an area of substantial net labour immigration) outstripping the available labour opportunities. Telford new town was, as noted earlier, an area of relatively high unemployment throughout the 1970s.

The basic patterns of unemployment in the West Midland region in the 1970s were set in the 1970-72 recession, with relatively high

unemployment in the conurbation, and in Telford new town, and relatively low rates of unemployment in the rest of the region. There was, however, further intra-regional divergence during the 1974-76 recession, which again hit the West Midlands conurbation severely, and the rest of the region relatively lightly.

By March 1974, the unemployment rate in the West Midlands conurbation had fallen slightly behind the national average of 2.7%; Birmingham had 2.6% unemployment, Coventry 2.5%, Wolverhampton 2.2%, etc. Unemployment outside the conurbation (Telford excepted) tended to be low; 1.7% in Stoke-on-Trent, and in Hereford, 1.8% in Worcester, 1.5% in Stafford, etc. By September 1976, unemployment nationally had reached 6.1%, a rise of 3.4 percentage points. There is a clear split between towns in the conurbation, which had much faster than average increases of unemployment (up 4.8 points in Birmingham, 5.8 points in Coventry, 5.1 points in Wolverhampton) and towns outside, which had average or lower than average increases of unemployment (up 2.6 points in Stoke, 3.6 points in Hereford, 3.6 points in Worcester, 2.7 points in Stafford, etc.). By this stage, unemployment rates in Coventry, the archetypal boom town of the motor industry, stood at 8.3%, already well above the average for traditional depressed regions, such as the Northern region (8.1% unemployment), Wales (7.7%) and Scotland (7.1%).

Between 1976 and 1979 there was some tendency for an intra-regional convergence of unemployment rates, as job losses became less prominent, and geographical redistribution of the workforce took place. Unemployment in Birmingham had fallen to 6.4%, and in Coventry to 7.2%, still higher than the national avarage of 5.8%, but by a considerably lower margin than in 1976. The danger remained, however, that if there were to be a third severe recession, and if this recession were to leave the vehicles industry exposed, there would be the likelihood that unemployment rates would rise extremely rapidly in the West Midlands.

The post-1979 slump was a particularly severe recession of just such a type and, as Table 5.16 shows, unemployment in the West Midlands region increased much faster than in any other region. The accumulation of unemployment in the slump is discussed in more detail in chapter 7 below, so that not much need be said here. It is important to stress however, that the fact that unemployment increased fastest in the West Midlands in the slump does *not* automatically mean that jobs were also being lost fastest there. In comparison with other areas with high rates of job loss, the West Midlands still had a relatively low rate of unemployment at the start of the slump, despite two previous severe recessions. In September 1979 for example, unemployment stood at 6.3% in the West Midlands Metropolitan County, just above the national

average, while Merseyside had 11.8% unemployment, Cleveland 10.0%, and Strathclyde 9.6%. The labour surplus in these more depressed counties was of such a size that any sudden job losses would lead to a considerable shift in the migration balance, so that the extent of fresh job losses is not fully reflected in the size of the *increase* in unemployment figures. In the West Midlands, however, the intense new round of job losses in a region with a relatively small labour surplus affected figures for unemployment far more directly, and unemployment per job lost increased far more quickly than in the depressed periphery (Table 7.4). The rapid rises in unemployment in the West Midlands meant that unemployment in the region, and in the conurbation, caught up with, but did not substantially overtake, unemployment in other slump-stricken areas. The fast rate of accumulation of unemployment in the West Midlands region remains, however, one of the most noteworthy features of slump.

The accumulation of unemployment in the West Midlands has been discussed in some detail to show how the impact of a series of severe recessions in a once rapidly expanding industry concentrated in a single city can transform a low unemployment area into a high unemployment area. For much of the 1970s unemployment in the region was around the national average, although unemployment rates remained much higher in the conurbation than outside. The position of the West Midlands conurbation with respect to the national economy was deteriorating through the 1970s, but it was only as a result of a particularly severe slump, from 1979 onwards that the West Midlands became a high unemployment region. Even this might be only a temporary configuration, however; after the slump employment in the West Midlands soon showed substantial increases in line with other core regions rather than the periphery (Table A5) and unemployment started to decrease substantially from late 1985.

(c) Yorkshire and Humberside

The other regions to be considered, in contrast, have a long history of medium or high unemployment rates, with respect to the national average. The tracing of the accumulation of unemployment in such regions illustrates not, as in the case of the West Midlands, the downfall of a prosperous expansive region, but rather the effects of renewed national economic decline on lagging peripheral regions.

Unemployment in Yorkshire and Humberside has tended to remain close to the national average throughout the long cycle downswing,

although a noticeable gap opened up, to the region's disadvantage, during the slump. Up to 1979, the main period of interest in this chapter, unemployment increased faster than the national average in only one business cycle, that of 1966-69. This cycle was one with severe job losses in coal mining (chapter 6.2 below), with 22,300 jobs being lost in the region between 1966 and 1969, and also in the woollen and worsted industry, in which employment in the region fell by 15,400 in the same period. Unemployment in the same period rose by 27,500.

The spate of pit closures in the late 1960s slowed down in the 1970s (see Table 6.8), and while the textile industry was still potentially weak, there was no special reason why unemployment in the region should increase faster than the national average. The relatively dense urban structure (two metropolitan counties) meant that the region was likely to perform slightly worse through the 1970s than its East Midlands neighbour, but neither West Yorkshire nor South Yorkshire represented a conurbation in intense decline, in contrast with Merseyside, Strathclyde or Tyne and Wear. The problems faced by the region in the post-1979 slump, and which resulted in higher than average increases in unemployment, were largely sectoral, with large scale job losses in the woollen and clothing industries in West Yorkshire, in the iron and steel industry in Humberside, and iron and steel, and metal goods, in South Yorkshire.[89]

As a result of various sectoral problems in the downswing, therefore, Yorkshire and Humberside tended to accumulate unemployment very slightly faster than the national average, but much less quickly than in the rest of the periphery.

(d) The North West

The North West had an unemployment rate around the national average throughout the long cycle upswing and, since the pit closure programme did not affect the region much, this relatively favourable position was maintained until the end of the 1960s. The 1970s, however, represented a bad decade for the region, with unemployment accumulating considerably faster than the national average in each business cycle. The problem was not primarily sectoral in nature, but was rather one of intense and general urban decline, particularly on Merseyside, but also to a lesser extent in Greater Manchester.[90] There was a general tendency throughout the 1970s for unemployment rates in Greater Manchester, Lancashire and Cheshire to be roughly equal, and close to the national unemployment rate, despite divergent employment trends (decline in Greater Manchester; growth elsewhere). This suggests a

reasonably efficient process of migratory compensation.[91] On Merseyside, however, unemployment accumulated rapidly, especially during the mid-1970s. It is on Merseyside that the following discussion concentrates.

In June 1966, with the national unemployment rate standing at 1.2%, the unemployment rate in Merseyside and Prescot Development District was 2.3%. In contrast, unemployment rates in the central part of the Yorkshire-Lancashire industrial belt tended to be considerably below the national average, with, for example, Leeds having 0.6% unemployment, Bradford 0.7%, and Manchester and Sheffield each 0.9%. If one adds to this the facts that Greater London and Birmingham each had 0.6% unemployment while Tyneside had 2.1% unemployment and Glasgow 2.6% unemployment, a clear picture emerges in which major urban centres in a London-Birmingham-Manchester-Leeds urban belt had low rates of unemployment, while major urban centres outside this belt had much higher rates of unemployment.[92] There is only a relatively small geographical distance between Manchester and Liverpool, yet the unemployment gradient between the two cities was steep, with intervening towns, such as Wigan (1.4% unemployment) Widnes (1.8%) and St. Helens (1.8%) tending to have high rates of unemployment. Merseyside would appear to be in the "shadow zone" of Britain's central industrial belt, as were Hull (1.6% unemployment) and Grimsby (1.7%) in the East.

Shadow effects are undoubtedly an important facet of economic geography,[93] yet it is still a surprise that a city located within an hour's drive of Britain's main urban belt should have had a considerably higher than average unemployment rate throughout the period of full employment. While it is perhaps to be expected that a city as deep in the shadow zone as Glasgow would have high unemployment rates in the event of a worse than average employment performance, a city as close to the main growth belt as Liverpool would be expected to decant its relative surplus population into the full employment zone much more readily.

Merseyside's high unemployment rate at the peak of the long cycle is a puzzle, which the analysis by Cunningham (1970b) does little to resolve. The employment growth differentials between Merseyside and the rest of the UK were too small, it would seem, to explain Merseyside's relatively high unemployment rate.[94] It is suggested that a more important factor was the demographic one. There was substantial net emigration from the Merseyside conurbation, at around 0.2% per year,[95] during the long boom, but "population lost from the conurbation by migration was more than replaced by natural increase."[96] A persistently high natural rate of increase of population

is likely to overload the local labour market, even at times of full employment. The migration rates which would be required to bring the local unemployment rate down to the national average would be, perhaps, unrealistically high. An area with both higher than average rates of natural increase of population and lower than average, or average, rates of increase of employment will tend to be an area of high unemployment, unless access to labour markets of full employment is very easy. Table 5.17 shows that in the early 1960s, population growth rates were high in the Northern region, Scotland, and Northern Ireland, but these regions were all in the shadow zone, and therefore were not well favoured for employment creation. As a result, unemployment continued to be relatively high during the long boom in each of these regions.

There was still some residual unemployment in the shadow zone even during the cyclical peaks of the long boom. Unemployment accumulated much faster than the average in the shadow zone than in the London-Manchester-Leeds belt during the post-1966 downswing, but the reason for this was more the geography of job loss than any minor imbalance in the labour market.

Table 5.18 shows unemployment rates at cyclical peaks dueing the study period for each of the main peripheral cities, both in the "inner periphery" group (Manchester, Leeds, etc.) and in the "shadow" group (Liverpool, Glasgow, etc.). Until the late 1970s the tendency has been for the cities of the inner periphery to have unemployment rates slightly below the national average, while cities in the shadow zone have tended to have unemployment rates considerably above the national average. In both groups, however, cities which are major regional service centres (e.g. Leeds and Newcastle) tend to have considerably lower unemployment rates then "sub-dominant" cities such as Bradford or Sunderland which do not have to the same extent this cushion of relatively safe high-order service sector employment.[97] The gap in unemployment between service and non-service cities perhaps became conspicuous only in the late 1970s, while the gap between the inner periphery and the shadow zone has remained conspicuous, and widened, throughout the long cycle downswing.

Liverpool's unemployment record (Table 5.18) would suggest at first both shadow zone effects and a relatively low level of service sector employment. Such an impression would be accurate on the first count, but highly inaccurate on the second count. Historically, Merseyside was far more a service based conurbation than was Greater Manchester, as a result of its port activities and its dense network of economic interconnections with the non-European world. Despite the extend to which industrially Merseyside has become a branch plant economy,

and despite the emergence of Manchester as a service centre, this historical role was still reflected in an unusually high proportion of service sector employment on Merseyside, 57.1% of total employment in 1971, compared with a figure of 49.6% in Greater Manchester. Even if one discounts employment in sea transport and port activities, regarding this as conceptually part of Merseyside's declining industrial base rather than its expanding service sector, the service sector would still account for 52.7% of Merseyside's total employment.

While the Merseyside economy suffered from just about every other structural weakness in the 1970s (being a conurbation, being in the shadow zone, and having an industrial economy dominated by large branch plants), one thing that Merseyside did not suffer from was an underdeveloped service sector economy. Yet even in the service sector Merseyside was becoming overshadowed by Greater Manchester, a neighbouring conurbation more closely linked into Britain's main industrial belt. Thus between 1971 and 1977 employment in the service sector (excluding port employment and sea transport) increased by 12.0% in Greater Manchester but by only 2.4% on Merseyside. For a variety of reasons the Merseyside economy performed badly during the long cycle downswing (see chapter 6 below); the accumulation of unemployment now needs to be considered.

In the first cycle of the downswing (1966-69) unemployment in Liverpool accumulated more quickly than the national average, but less quickly than in the cities of the outer periphery, or indeed than in the outer peripheral regions (Northern region and Wales, but not Scotland) as a whole. As will be discussed later, the high rates of increase of unemployment in the outer periphery resulted from large scale job losses in coal mining, a factor of little relevance to the Liverpool economy.

In the 1969-73 cycle, unemployment in Liverpool increased rapidly, from 3.7% at one cyclical peak to 5.3% at the next peak, even though unemployment rates nationally were virtually identical at each cyclical peak, and even though unemployment fell rapidly throughout much of the outer periphery, including the main cities, as regional policy assistance under boom conditions enabled considerable industrial expansion to take place in such areas. Despite Special Development Area status, Merseyside failed to share in the 1972-73 boom; employment on Merseyside increased by only 0.4% in this year, compared with 2.6% in Tyne and Wear, 2.9% in Strathclyde and even faster increases in less urbanised assisted areas, such as County Durham (+3.8%) and Northumberland (+5.4%). As noted earlier, the 1972-73 boom, by being concentrated in high unemployment regions, had a major effect in reducing regional

unemployment differentials and bringing them back to more "normal" levels. Merseyside, despite Special Development Area status, had a very low rate of employment increase for reasons which remain at least partly obscure.[98] The perceptions of major industrial investors may be an important factor; Merseyside tended to be seen, by the "investing classes", possibly undeservedly (or over-flatteringly, according to perspective) as a flash-point of industrial militancy in a way in which, say, the North East was not,[99] a factor which may have turned *some* investment decisions away from the area.

Whatever the precise reason for the tardiness of Merseyside's recovery, unemployment accumulated particularly rapidly in Liverpool, as the result of a severe downswing unmitigated by any powerful upswing. By September 1972, unemployment in Liverpool stood at 8.2%, compared with a national average of 3.7%, before falling to 5.3% in December 1973, a drop of 2.9 points. This was a larger fall in unemployment than the national average, in which unemployment declined by 1.7 points. Such a gap is to be expected in a cyclical recovery, as areas with particularly high rates of unemployment will tend to be substantial centres of net emigration. The critical comparison to be made is not that between Liverpool and the national average, but rather that between Liverpool and other cities with high unemployment rates. On this basis, Liverpool's relative position was sharply deteriorating during the 1972-73 recovery. In a period in which unemployment in Liverpool fell by 2.9 points, unemployment on Tyneside fell by 3.2 points (from 7.5% to 4.3%), on Wearside by 3.8 points (from 9.1% to 5.3%) and in Glasgow by 3.7 points (from 8.3% to 4.6%). Despite a lack of substantial employment in the "heavy" industries, Liverpool was fast becoming a city with exceptionally high unemployment rates.

This deterioration continued through the remainder of the 1970s, so that by September 1979, unemployment stood at 12.5% in Liverpool (11.8% in Merseyside county) even before the job losses of the slump had taken place. In Great Britain, only two towns (Irvine, 14.8% unemployment, and Hartlepool, 12.6%) had higher rates of unemployment, but these were two medium sized towns with less than 12,000 unemployed between them; Liverpool is one of Britain's largest cities, yet the *average* unemployment rate for that city, with 60,000 unemployed, was higher than for almost any of the conspicuous unemployment "black spots" of North East England, Wales and Scotland.

The main reason for unemployment going up so quickly in Merseyside was that jobs were being lost very quickly. Figures for employment level by county for 1979 are not available, but between 1973 and 1978, employment in the UK fell by 0.4%, while employment in Merseyside fell

by 6.1%, in Greater London by 5.6%, in Strathclyde by 4.3% and in Tyne and Wear by 2.0%. Of these counties, unemployment went up relatively slowly in Greater London, which was surrounded by a large economically expansive area of low unemployment, but in the other three unemployment rose very quickly, to reach 11.2% in Merseyside, 10.2% in Strathclyde and 10.1% in Tyne and Wear in June 1978. The gap in unemployment rates between Merseyside and the other two conurbations is perhaps roughly what would be expected from the differences in the rates of employment growth during the period. It is not very clear why jobs should have been lost so quickly in Merseyside, and to a much greater extent than in other cities. It would seem that Merseyside, with a long history of employment in large, externally owned, factories is particularly vulnerable to corporate restructuring.[100] Sections in chapter 6 consider further the question of employment change on Merseyside in the 1970s.

In each of the three depressed conurbations, employment declined in both arms of the 1973-79 business cycle (Table 5.19). In terms of unemployment this implies that unemployment in each conurbation not only increased during the 1973-76 recession, but failed to fall significantly during the 1976-79 recovery. With an economy running at considerably less than full employment, there were no large scale labour shortages to "pull" excess labour away from the depressed conurbations. In Merseyside the climb in unemployment was much sharper than in the other conurbations in 1974-75. Furthermore, unemployment failed to decline in 1978-79, in contrast with the modest declines registered in the other depressed conurbations. Throughout the 1970s there was a relentless process in which unemployment increased very quickly during recessions, and fell relatively slowly in cyclical recoveries. Merseyside went into the slump with an extremely high rate of unemployment in the context of the time. Unemployment in Merseyside actually increased relatively slowly during the slump, but this was primarily because the local economy, due to its very high rate of unemployment, was a large-scale exporter of labour, which kept *increases* in unemployment low (chapter 7 below). Job loss on Merseyside continued to be faster than the national average, even during the slump.

Merseyside could be regarded as an area of exceptional decline in a region of "average" decline. Before the industrial revolution, Liverpool, a major trading port could be regarded as the core of the North West economy.[101] During the 19th century, the rapid expansion of Liverpool as a port was essential to the rapid expansion of industrial Manchester;[102] Liverpool still remained the regional core, but industrial Manchester began to challenge Liverpool's dominance. Through time, however, location with respect to internal markets became progressively

more important, while location with respect to the outside world became progressively less important. As a result, in the 20th century Manchester has tende to become the main centre of the North West economy, while Liverpool has become increasingly peripheralised,[103] a city which has lost its role.

(e) The specialised coalfield regions; North East England and Wales

In contrast with Merseyside, the problems faced by Tyne and Wear are perhaps best regarded as a more intense version of the problems faced by the rest of the region. The Northern region had a much higher than average unemployment rate in 1966, and an extremely rapid rise in unemployment in the 1966-69 cycle (Table 5.16), largely as the result of severe job losses in coal mining, in which employment in the region fell by 35,200 between 1966 and 1969. Not surprisingly, the areas with the highest rates of unemployment tended to be on the coalfield. Unemployment in June 1969 stood at 6.9% in Bishop Auckland travel-to-work area, 5.6% in Chester-le-Street, 5.7% in Peterlee TTWA, and 5.2% in Durham (city). In contrast, off the coalfields, unemployment stood at 2.2% in Carlisle, 2.6% in Darlington and 3.6% in Teesside. In the main cities, Tyneside had 4.8% unemployment while Sunderland had 5.9% unemployment, once a large number of temporarily stopped workers are removed from the unemployment count.[104]

During the 1966-69 cycle, job losses in coal mining effectively swamped any creation of industrial employment through regional policy in the Northern region. The same applies, but to a lesser extent, in Wales. As a result, unemployment accumulated much faster in the Northern region than anywhere else in Britain, while in Wales unemployment increased faster than the UK average.

In the 1969-73 cycle, however, and most particularly during the boom year 1972-73, unemployment tended to fall in both the Northern region and in Wales, as job losses in coal mining were slight, and numerous new jobs were created through regional policy (chapter 6 below). The reduction in unemployment tended to be much slower on Tyneside and Wearside than in less urbanised parts of the coalfield, while Teesside, which suffered a severe recession in the chemicals and steel industry, had a higher unemployment rate (3.8%) in December 1973 than in June 1969 (3.6%). The most substantial decreases in unemployment were in Durham (a fall from 5.2% to 2.6%) and in Bishop Auckland (from 6.9% to 3.5%), while the decline in employment on Tyneside and in Sunderland was about half a percentage point in either case, with unemployment rates reaching

4.3% on Tyneside and 5.3% in Sunderland.

The cycle from 1969 to 1973 represented in many respects the high point of the effectiveness of regional policy, since relatively few jobs were lost in the old industries, many new jobs came in, and relatively few jobs were lost in the new industries. During the rest of the decade, however, the balance turned against the Northern region and Wales, with the new "regional policy jobs" being particularly vulnerable to recession, and with the iron and steel industry, an important employer in both regions, being a major sector of job loss between 1973 and 1982.[105] As a result, unemployment accumulated much more quickly than the national average after 1973 in both the Northern region and Wales.

In the Northern region, the situation by September 1979 was that employment stood at the national average of 5.8% in Cumbria (though somewhat lower in Carlisle,(5.3%), whereas unemployment was consistently above the national average in North East England. The difference was about 2 or 3 percentage points in the less heavily urbanised parts of the region (Alnwick, Durham, Darlington, Morpeth travel to work areas), each of these areas showing an increase of unemployment in the national cyclical recovery between 1976 and 1979. This "recovery" was very weak, indeed virtually non-existent in the North East (chapter 6.8 below). Unemployment rates in the less urbanised parts of North East England tended to be slightly above the national average at the trough of the 1974-76 recession (September 1976; UK unemployment rate 6.0%, Darlington 6.3%, Durham 6.8%, Northumberland county 7.6%), but with differentials increasing between 1976 and 1979 as the positive influence of regional policy faded. These areas were undoubtedly recession-prone, but also showed considerable increases in employment during pre-1976 cyclical upswings as a result of regional policy (chapter 6.6(ii) below). The strength of the cyclical upswings in such areas slowed down the accumulation of unemployment, with unemployment rates in these areas remaining considerably below the North East average, but the strength of *recessions* in these areas, and the weakness of growth between 1977 and 1979, meant that unemployment remained consistently higher than the national average.

Unemployment in the main urban centres (Tyneside, Wearside, Teesside) remained considerably higher than the national average, as also in the declining steel town of Consett (11.5% unemployment in September 1979, but nearly 30% in 1981, once the steelworks had finally closed) and in Peterlee TTWA (a new town, with a high proportion of employment in manufacturing, and hence vulnerably to industrial downturns). The unemployment rate in Peterlee stood at 10.4% in

September 1979, but slightly further south, the unemployment rate in Hartlepool, at 12.6%, was the highest in England. Manufacturing employment in Hartlepool gradually increased during the early 1970s, but fell very sharply from 22,200 in 1975 to 15,000 in 1978, mainly as as result of cutbacks in the steel industry. Unemployment in this three year period increased from 2,500 (5.9%) to 6,300 (14.0%).

Certain small towns in the North East were clearly having problems, but the major accumulations of unemployment were in the industrial cities. In September 1979, Tyneside had 8.9% unemployment (recalculated from figures for "North Tyne" and "South Tyne"), Teesside had 9.4% unemployment, while Wearside (Sunderland, Washington new town, etc.) had 12.1% unemployment. The Tyneside economy was sheltered to some extent by Newcastle's role as the main regional service centre; this is indicated also in the difference in unemployment rates between North Tyne (7.6% unemployment), which includes the Newcastle city centre, and South Tyne (11.0% unemployment), which is more predominantly industrial in character. The unemployment rates on Teesside were much higher than the national average, but certainly no more so than would be expected in a highly urbanised area located in the outer periphery and with high concentrations of employment in manufacturing, a combination likely to lead to high rates of job loss during recessions and low rates of employment growth during cyclical recoveries. Teesside had an unemployment rate higher than the national average throughout the long cycle downswing, but it was only as a result of the exceptionally severe job losses in the iron and steel industry in the late 1970s and the slump (chapters 6.8(viii), 8.3 below) that Teesside became economically the most depressed area of its size in Britain.. Throughout 1976, just before the new wave of steel closures, unemployment rates on Teesside stood slightly below the average for the region.[106] Even by late 1979, the most severe unemployment problems in the North East were on Wearside, a heavily industrialised area suffering from a high rate of job loss in a wide range of industries, and with no substantial employment base in the higher order services to secure the city's employment levels. Of the two English cities with the highest unemployment rates in 1979, Sunderland was overshadowed by Newcastle in much the same way as Liverpool was overshadowed by Manchester.

Wales has an employment structure in many respects very close to that of North East England, with a large, but declining coal mining sector, prone to heavy job loss in the late 1960s, a large regional policy branch plant sector, and a large iron and steel industry, liable to heavy job loss in the late 1970s and early 1980s.[107] It is hardly surprising, therefore, that the profile of unemployment accumulation in

Wales closely resembles that of the Northern region (Table 5.16). The main point of difference between the two regions was that Wales had no large declining industrial cities, Cardiff being more of a service based city than an industrial city. As a result, unemployment rates in the urbanised areas of Wales tended to fall roughly within the same range (6½-9% in September 1979) as in Durham and Northumberland. There were however some persistent unemployment "black spots" in Wales, such as Bargoed (11.6%) and Ebbw Vale (12.3%) in South Wales, and Wrexham 12.4%) in North Wales. In South Wales, the problem areas were those of declining employment in coalmining, located at or near the heads of steep-sided valleys, and hence isolated with respect to the national economy, especially in comparison with areas at the foot of the valleys. In such cases, high percentage rates of unemployment accumulated, although the total numbers involved were small in comparison with the numbers unemployed in the depressed cities of the Northern region. Wrexham, the other area with conspicuously high unemployment in late 1979, had a much higher than average unemployment rate in the early part of the long cycle downswing, with slightly faster than average rates of unemployment accumulation through each business cycle. It is likely that a decline in coal mining employment is largely responsible. Census of Employment figures show a drop in employment in this sector from 1900 in 1973 to 900 in 1974; presumably there were also earlier substantial job losses in the coal industry.

(f) Scotland

In Scotland, unemployment was higher than in the Northern region or Wales at the end of the long cycle upswing, reflecting a prolonged period of slow growth (Tables A7, 5.2, 5.7). Scotland's poor growth performance in the 1950s and 1960s was conspicuous,[108] with relative remoteness from the main UK markets being a handicap, although the relative position of Scotland improved in the 1970s. The increase of unemployment between 1966 and 1973 remained close to the UK average, reflecting in part the fact that Scotland was only modestly affected by the spate of job losses in the coal industry which had dominated employment trends in North East England and Wales. During the slump, unemployment in Scotland increased much more slowly than in any other peripheral region, the oil boom in Aberdeen and the resurgence of the Scottish rural areas counterbalancing the severe decline of the Strathclyde economy. Between 1973 and 1979, however, unemployment in Scotland increased far more quickly than in the UK as a whole. In any discussion of the Scottish economy, account needs to be taken of the

distinction between Strathclyde, the main industrial area of Scotland, containing about half Scotland's total employment, and the rest of Scotland, which presents a mosaic of lesser industrial areas, a major service centre (Edinburgh) and extensive rural areas, large stretches of which are virtually uninhabited. The general pattern has been for Edinburgh to have a low rate of unemployment, for towns and industrial areas outside Strathclyde to have a moderate rate of unemployment, for Strathclyde to have a high rate of unemployment, and for the more remote rural areas to have an extremely high rate of unemployment,[109] especially in the winter months. The areas outside Strathclyde not surprisingly had divergent economic trends, although there was a tendency for employment growth in these areas to be much slower than the UK average during the long cycle upswing, but faster than the UK average during much of the 1970s and 1980s. Even so, one would expect that it would be the ups and downs (mostly downs) of the Strathclyde economy which dominated major divergences between Scottish unemployment rates and UK unemployment rates, certainly in the 1973-79 cycle.

Across the 1966-69 cycle, however, the general tendency would appear to have been for unemployment to increase substantially in Strathclyde and to remain fairly stable elsewhere, although changes in boundaries of areas for which unemployment rates are calculated makes precise comparison difficult. In Glasgow, unemployment increased from 2.6% to 4.3% between June 1966 and June 1969, in Greenock and Port Glasgow from 4.0% to 5.5%, in North Lanarkshire from 3.0% to 4.0%, and in Paisley from 1.6% to 2.5%. In the core of the conurbation, unemployment increased more quickly than the national average (up 1.7 percentage points, compared with 1.1 points in the UK) while on the fringes of the conurbation, unemployment increased by around the UK average. In Edinburgh, unemployment rates remained very close to the UK average, and much lower than the Scottish average throughout, rising from 1.2% to 2.4%. Major towns outside the central belt tended to have fairly low rates of increase of unemployment (from 1.6% to 2.2% in Aberdeen; from 1.6% to 2.6% in Dundee) while various smaller towns, both inside and outside the central belt, registered decreases in unemployment, from 2.8% to 2.5% in Bathgate, from 2.9% to 2.7% in Falkirk, etc. A situation was gradually emerging in which, after a period in which virtually the whole of Scotland was a high unemployment zone, unemployment in the downswing was to accumulate to a far greater extent in Glasgow and surrounding areas than in the rest of Scotland. This internal divergence is concealed in aggregate figures for Scotland, both for 1966-69 and for 1969-73.

In the 1969-73 cycle, unemployment tended to increase in

Strathclyde, and to decrease elsewhere even though Strathclyde region, unlike Merseyside, shared in the 1972-73 boom, with an increase in employment of 2.9%. It seems highly likely that the severe industrial recession in Scotland in 1970-71 (Tables A5, 6.6) was concentrated in Strathclyde. Unemployment figures would appear to support this contention. In June 1971, mid-way through a recession, unemployment in the UK stood at 3.3%, 1.0 percentage points higher than in December 1969. In Glasgow unemployment stood at 6.5%, 1.9 points up, in Greenock, unemployment was 8.2% (up 4.3 points), in Dumbarton 7.4% (up 2.2 points), in Irvine 7.7% (up 3.9 points), in Kilmarnock 5.0% (up 2.2 points), in North Lanarkshire 7.3% (up 3.0 points) and in Paisley 5.0% (up 2.2 points). There is a very clear implication that deep recession was *not* solely concentrated in Glasgow, the main city of the west-central Scottish conurbation, but instead affected also, and possibly even more deeply, various surrounding smaller towns. The decline of the Strathclyde economy, both in the early 1970s and at other times, represents not just the decline of a large city, but the decline of an important regional industrial complex, in size roughly equivalent to North East England. Strathclyde's decline may perhaps be regarded more accurately as a *regional* problem, with strong urban components, rather than purely as an urban problem.[110]

Unemployment in Strathclyde had increased sufficiently rapidly during the recession years of the 1969-73 cycle to ensure that unemployment accumulated in the cycle as a whole. In Glasgow, unemployment in December 1973 stood at 4.6%, higher than in June 1969 (4.3%) but much lower than at the cyclical trough. Unemployment in the rest of Strathclyde was by this stage substantially lower than in Glasgow, suggesting that, as in North East England, the 1972-73 upturn was felt strongly in the smaller towns, but less strongly in the major cities.[111] By December 1973, unemployment had fallen to 5.2% in Dumbarton, 3.9% in Greenock, 3.8% in Irvine, 2.8% in Kilmarnock, 4.3% in North Lanarkshire and 2.8% in Paisley; unemployment through the cycle had increased substantially (up 1.7 percentage points) in Dumbarton, had risen slightly in Kilmarnock, North Lanarkshire and Paisley, but fallen in other centres.

Outside the Strathclyde area, unemployment rose substantially in some places, notably Dundee, where unemployment increased from 2.6% in June 1969, to 3.8% in December 1973, largely as the result of a severe recession in the jute industry. In other places, notably Aberdeen (unemployment at 1.7%, down 0.5 points since June 1969), unemployment had fallen substantially. In Edinburgh there was a slight rise in unemployment through the cycle, from 2.7% to 3.0%. No strong overall

trend can be discerned outside Strathclyde, and it would seem that the higher than average rate of accumulation of unemployment in Scotland in the 1969-73 cycle may be attributed to the problems faced by the Strathclyde economy during the recession phase of the cycle.

In the next business cycle, between 1973 and 1979, unemployment in the UK increased by 3.0 points, but increased in Scotland by 3.8 points. Outside Strathclyde, the rate of accumulation of unemployment was close to the UK average, although unemployment in Dundee rose from 3.8% to 9.0% by September 1979. Within Strathclyde region, however, unemployment rose very quickly. In Glasgow, unemployment had risen from 4.6% in December 1973 to 9.0% in September 1979, a rise of 4.4 points, which was substantially in excess of the national average, and yet much less severe than the increase in many of the smaller towns, which were clearly severely affected by the 1974-76 recession and the slow industrial growth in later years. Most conspicuously, unemployment in Irvine had reached 14.8% in September 1979, up 11.0 points from December 1973. Unemployment also stood at over 10% in North Lanarkshire (11.6%, up 7.3 points), Dumbarton (10.4%, up 5.2 points) and Greenock (10.4%, up 5.8 points). Paisley, with 7.8% unemployment was the only travel-to-work area in Strathclyde with less than 9% unemployment, yet even here unemployment had increased by 5.0 points since December 1973.

These figures, showing Glasgow as having lower unemployment rates than the rest of Strathclyde, emphasise once again the extent to which Strathclyde's problems represented a regional problem, rather than an urban problem. It would seem that, contrary to the experience of, for example, North East England, high unemployment rates were concentrated in medium sized towns rather than large cities. Glasgow's position as the predominant regional service centre for West Scotland, even if not necessarily for Scotland as a whole, was probably a major insulating factor; areas more dependent on industrial employment suffered proportionally more from industrial job loss. Between 1974 and 1978, employment in Glasgow fell by 5.1%, but in some centres much faster declines in employment were registered, for example 11.1% in Greenock, 10.4% in Kilmarnock, and 8.5% in Paisley. Even though there is an undoubted general tendency in the long term for economic activity to shift from cities to smaller towns, there is no certainty that in any particular recession the worst effects of job loss will be felt in the city.

Perhaps surprisingly, there was a sharp demarcation between West and East in unemployment rates. Falkirk, for example, is situated between Glasgow and Edinburgh, and had an unemployment rate of only 6.7% in September 1979, although this was still 3.7 points higher than in

December 1973. In Edinburgh, unemployment at 5.9% was still very close to the UK average. Dundee, as already mentioned, had a high unemployment rate, yet Aberdeen (3.6%) and Perth (4.6%) each still had low unemployment rates. Unemployment rates were high in the Highlands (8.2%) but low in the rural South (3.2% in Borders region; 6.3% in Dumfries TTWA). None of these areas was implicated in the severe decline of the Strathclyde economy, and indeed the "East Scotland" economy could be regarded as undergoing some form of relative revival in the late 1970s, a revival only partly attributable to the coming of North Sea oil.

(g) Northern Ireland

In Northern Ireland, unemployment has historically always tended to be much higher than in Great Britain (Table A7). In June 1966, for example, unemployment in Northern Ireland stood at 6.0% compared with 1.2% in the UK as a whole, while in earlier years, the unemployment rate in Northern Ireland had failed to fall below 5% at any stage. Northern Ireland was thus an economy with a permanent labour surplus. Employment growth in Northern Ireland had been slow during the long boom, but no more so than elsewhere in the periphery (Table 5.2); this factor does not explain the persistence of unemployment in Northern Ireland.

The demographic factor is considerably more important. Table 5.17 shows that Northern Ireland has consistently had a significantly higher birth rate, and a significantly higher rate of natural increase of population, than anywhere else in the UK, both during periods of recession and during periods of prosperity. The normal relationship, especially at times of less than full employment, is for relatively prosperous regions to tend to have average or high rates of natural increase of population, while relatively depressed regions *tend* to have low rates of natural increase of population.[112] These differences tend to be relatively slight during periods of full employment, and might at such times be over-ridden by regional cultural differences, but during periods of rising unemployment, especially if unemployment rates are high among young people, regional differentials in the rate of natural population growth tend to reflect more closely regional differences in prosperity. The general relationship is shown fairly clearly in Table 5.17, yet the persistently high rate of population growth in Northern Ireland overrides the smaller scale differences in Great Britain. Birth rates tend to be close to the UK average in the Protestant-dominated areas to the East, but consistently much higher than the UK average in

less industrialised, more Catholic areas to the West. For example, in 1978,[113] Belfast had 13.5 live births per 1000 population, compared with 12.3 in the UK as a whole, while (London)Derry,[114] in the West had 25.0 live births per 1000 population.

The significance of a high natural rate of increase of population is not that it directly creates unemployment, but rather that it raises the rate of growth of employment required to maintain a stable unemployment rate.[115] The demographic differential between Northern Ireland and Great Britain has averaged about 0.6% per annum, but the rate of growth of employment was insufficient, even during the long boom, to absorb the whole of Northern Ireland's rapidly growing population into employment; high unemployment rates have therefore persisted. It would have taken perhaps double the net emigration rates characteristic of the rest of the outer periphery (N, Wa, Sc) to keep unemployment rates down to the levels characteristic of Great Britain.

In understanding the internal geography of unemployment in Northern Ireland, another factor needs to be considered, the political factor. In a recent paper on Northern Ireland, Mac Laughlin and Agnew (1986 p.253) note that "perhaps like no other region of the British Isles, it has always been impossible to separate the political from the economic in Northern Ireland", the "political" component revolving around the continuing hegemony of the Protestant Unionists over the minority Catholic population. Until the early 1970s, Northern Ireland was largely self-governing, and a Unionist dominated government attracted several new industries into Northern Ireland, though fairly consistently into the Protestant areas rather than the Catholic areas;[116] foreign investors in Northern Ireland tended to accept the existing hegemony in Northern Ireland, this being the path of least resistance, and did little to support movements for social and political transformation.[117]

The Catholic areas were severely disadvantaged with respect to unemployment in two important respects; the high rate of natural increase of population placed a substantial strain on local labour markets, while employment growth was concentrated, largely for political reasons, in Protestant areas rather than Catholic areas, and furthermore, in several important cases, new factories refused to employ Catholics.[118]

As a result of this combination of factors, unemployment tended to be relatively low in Belfast, but extremely high in less urbanised areas. In June 1969, for example, when the UK unemployment rate was 2.2%, unemployment stood at 5.5% in Belfast (and at 2.9% and 4.1% in the new towns of Ballymena and Craigavon), but at 11.9% in (London)Derry and 14.0% in Newry. In September 1979, with the UK unemployment rate standing at 5.7%, unemployment in Belfast stood at 10.2%, but unemployment

in (London)Derry was 16.5%, and in various more isolated centres, unemployment rates of over 20% were registered (Strabane, 25.2%; Cookstown 21.9%; Dungannon 21.2%; Newry 20.5%). In the slump, unemployment continued to increase substantially; in September 1982, unemployment in Belfast stood at 19.0%, in comparison with a UK average of 14.0, while unemployment in Strabane stood at 39.5%, in Dungannon at 36.3%, in Cookstown at 33.9%, in Newry at 33.8% and in (London)Derry at 30.3%.

Clearly at no stage did Belfast, the one large industrial centre in Northern Ireland, have a low unemployment rate. The unemployment profile tended instead to resemble the profiles of depressed industrial cities in Great Britain, with Belfast tending to have a slightly lower unemployment rate than Sunderland but a slightly higher rate than Glasgow. Away from the North East corner of Northern Ireland, however, unemployment rates were exceptionally high, a long way beyond the experiences of anywhere else in the UK. Towns like Newry and (London)Derry had "slump levels" of unemployment even when the British economy was at, or very close to, full employment. By the late downswing, the less favoured areas of Northern Ireland had unemployment rates which matched those of the most depressed parts of Great Britain during the late stages of slump. In the later years of the slump, unemployment rates approaching 40% in Northern Ireland were common. If one adds to this the factor that there is, and has been, significant discrimination against Catholics *within* local labour markets, the pressures from the Catholic minority to integrate with Ireland rather than with Great Britain become readily understandable.

(h) Local Unemployment Rates in the Post-War Period; a Summary

Throughout the long boom from the Second World War to 1966, regional patterns of unemployment remained fairly stable, with low unemployment rates along an axial belt comprising of Southern England (apart from Devon and Cornwall peninsula), the Midlands, and a central Northern industrial belt of Manchester, Leeds, Sheffield and local surrounds. Within this belt, unemployment rates were generally slightly lower near London than in more distant parts, although the West Midlands often had exceptionally low unemployment rates at the peak of cyclical booms. Outside the axial belt, unemployment rates tended to be significantly higher, and to a very great extent in Northern Ireland, but there was no long term tendency towards further regional divergences of unemployment rates, despite considerable regional differences in the rate of job creation. Labour shortages in the fast growing regions attracted sufficient migration from slow-growing regions to prevent

unemployment accumulating in the less favoured regions.

Employment trends became significantly less favourable after 1966, with large-scale industrial job losses taking place over a period of 20 years. Unemployment increased, with the largest accumulations of unemployment tending to take place in those parts of the periphery with high rates of job loss. The pre-1966 gradient of unemployment along the axial belt may be noted in modified form, with unemployment rates significantly below the national average in Southern England, slightly below average in the Midlands, except in the West Midland conurbation, where large scale manufacturing job loss led to high unemployment rates, and average rates of unemployment in Yorkshire and Lancashire east of Liverpool (pre-1974 county). Divergences within this axial belt tended to increase, however, and there was a very marked divergence between unemployment rates within the axial belt and unemployment rates outside. In the periphery, unemployment increased to a greater or lesser extent according to the severity of local industrial decline. Various smaller towns, such as Consett, Hartlepool and Irvine, came to have extremely high rates of unemployment, but the most significant accumulations of unemployment took place in certain peripheral cities which had a severely declining industrial base, but a lack of higher order services to stabilise employment levels. Liverpool and Sunderland are the most conspicuous examples, but particularly high unemployment rates developed in a large number of other cities, such as Birmingham, Glasgow, Middlesbrough and Newcastle. The urban dimension to unemployment was particularly strong.

Table 5.1 Rates of Employment Growth in the North, Midlands and South During the Long Cycle Upswing, 1932-1939 and 1948-1963

Period	Employment change, per cent per annum		
	South	Midlands	North
1932-1937	+4.2	+5.3	+4.1
1932-1939	+3.6	+4.3	+3.6
1948-1963	+1.2	+1.0	+0.2
1951-1963	+1.3	+1.0	+0.2

Source: Table A4: see also Table 4.10

Table 5.2 Annual Rates of Employment Growth by Region, 1948-1963

Region	Average annual percentage employment change	
	1951-63	1948-63
South East	+1.3	(+1.2)
South West	+1.2	(+1.0)
Midlands (West Midlands)	+1.0	(+1.0)
North Midlands (East Midlands)	+0.9	(+1.1)
East and West Ridings	+0.3	(+0.4)
North West	+0.0	(+0.2)
Northern	+0.3	(+0.3)
Wales	+0.4	(+0.3)
Scotland	+0.1	(+0.1)
Northern Ireland	+0.3	(+0.3)
U.K.	+0.8	(+0.7)
South	+1.3	(+1.2)
Midlands	+1.0	(+1.0)
North	+0.2	(+0.2)

Source: Tables A4, 5.1

Table 5.3 Regional Employment Changes During Cyclical Downswings 1952-1963 (Annual Averages)

Region	Annual Average Employment Change		Average across both downswings (weighted)
	Downswing		
	1955-1958	1961-1963	
South East	+0.8	+1.2	+1.0
South West	+0.3	+1.3	+0.7
West Midlands	-0.2	+0.7	+0.2
East Midlands	+0.5	+0.6	+0.6
Yorkshire	+0.2	+0.5	+0.3
North West	-0.4	-0.6	-0.5
North	+0.8	-0.8	+0.3
Scotland	-0.6	-0.3	-0.5
Wales	-0.4	+0.3	-0.2
Northern Ireland	-0.8	+0.7	-0.2
U.K.	+0.2	+0.5	+0.3
South	+0.7	+1.2	+0.9
Midlands	+0.1	+0.7	+0.3
North	-0.2	-0.2	-0.2

Source: Table A4. See also Table 5.4.

Table 5.4 Regional Employment Changes During Cyclical Upswings 1952-1963 (Annual Averages)

Region	Annual Average Employment Change		Average across both upswings
	Upswing		
	1952-1955	1958-1961	
South East	+1.6	+1.7	+1.7
South West	+1.3	+2.2	+1.7
West Midlands	+1.9	+1.7	+1.8
East Midlands	+1.3	+1.6	+1.5
Yorkshire	+0.6	+0.7	+0.7
North West	+0.9	+0.5	+0.7
North	+0.8	+0.1	+0.5
Scotland	+0.8	+0.5	+0.7
Wales	+0.8	+1.1	+1.0
Northern Ireland	+1.2	+1.4	+1.3
U.K.	+1.3	+1.2	+1.3
South	+1.6	+1.8	+1.7
Midlands	+1.6	+1.7	+1.7
North	+0.8	+0.6	+0.7

Source: Table A4. A year is defined as showing a cyclical upswing if unemployment is lower in June of that year than in June of the previous year.

Table 5.5 Annual Rates of Employment Change, North, Midlands and South, 1932-1939, subdivided by periods.

	South	Midlands	North	U.K.
1932-1933 ("abnormal")	+4.3	+6.0	+4.6	+4.7
1933-1936 ("normal")	+4.2	+4.9	+3.2	+3.9
1936-1939 ("abnormal")	+2.5	+3.3	+3.8	+3.2
1932-1939	+3.6	+4.3	+3.6	+3.7

Source: Tables A4, 5.1.

Table 5.6 Comparison of Rates of Employment Change in the North, Midlands and South, in Three Cyclical Upswings, 1933-1961

Period	Rate of employment change per	Employment change, per cent per time period			
		South	Midlands	North	U.K.
1933-36	4 months	1.4	1.6	1.0	1.3
1952-55	Year	1.6	1.6	0.8	1.3
1958-61	Year	1.8	1.7	0.6	1.2

Source: Based on Table A4. See also Tables 5.3 and 5.5.

Table 5.7 Percentage Change in Employment by County, 1951-1961

County	Percentage change of number of people in employment	County	Percentage change of number of people in employment
1 Hertfordshire	+35.6	24 Lincolnshire	+4.8
2 Berkshire	+25.2	25 Dorset	+4.3
3 Buckinghamshire	+21.1	26 Lothian	+3.3
4 Bedfordshire	+20.8	27 London[3]	+3.1
5 Essex	+17.1	28=Wiltshire	+2.7
6 Surrey	+13.8	Cheshire	+2.7
7 Northamptonshire	+13.7	30 Northumberland	+2.6
8 Sussex	+13.6	31 Hereford	+2.5
9 Warwickshire	+10.4	32=West Riding	+2.3
10 Worcestershire	+10.2	Devonshire	+2.3
11 Gloucestershire	+10.0	34 Durham	+2.2
12 Oxfordshire	+9.4	35 North Riding	+1.6
13 Somerset	+9.2	36 Central/Fife	+0.8
14 Nottinghamshire	+8.4	37 Strathclyde	+0.5
15 Hampshire	+7.9	38=Highland	+0.1
16 Kent	+7.8	Norfolk	+0.1
17 Suffolk	+7.7	40 Cumberland[4]	-0.4
18 Cambridgeshire[1]	+7.5	41 Lancashire	-0.8
19 Leicestershire[2]	+7.4	42 Tayside	-1.3
20 Staffordshire	+7.2	43 North & West Wales	-1.4
21 East Riding	+6.7	44 Shropshire	-2.2
22 Derbyshire	+5.5	45 Grampian	-2.3
23 Glamorgan/Monmouth	+5.4	46 Cornwall	-4.0
(GREAT BRITAIN	+5.2)	47 South of Scotland[5]	-5.6

[1] includes Huntingdonshire; [2] includes Rutland; [3] includes Middlesex (London +1.2; Middlesex +8.8 are the separate scores); [4] includes Westmorland; [5] comprises Borders and Dumfries & Galloway.

Source: Lee (1979). These figures, based on Census data, refer to place of work rather than place of residence.

Table 5.8 The Decline of Employment in Coal Mining, Textiles and Shipbuilding, 1946-1966

Year	Coal mining		Textiles		Shipbuilding		All other production industries	
	Emp.	Change	Emp.	Change	Emp.	Change	Emp.	Change
	(All figures in 000s)							
1948	794.3		992.8		331.8		8548.7	
1949	792.9	-1.4	1031.5	+38.7	325.3	-6.5	8685.8	+127.1
1950	772.7	-20.2	1080.9	+49.4	305.0	-20.3	8903.4	+217.6
1951	775.2	+2.5	1104.2	+23.3	297.8	-7.2	9128.6	+225.2
1952	791.0	+15.8	976.6	-127.6	305.1	+7.3	9175.4	+46.8
1953	794.8	+3.8	1031.6	+55.0	308.5	+3.4	9209.8	+34.4
1954	788.1	-6.7	1058.5	+26.9	309.4	+0.9	9427.1	+217.3
1955	784.7	-3.4	1021.8	-36.7	311.7	+2.3	9740.6	+313.5
1956	782.6	-2.1	997.3	-24.5	318.4	+6.7	9871.3	+130.7
1957	792.0	+9.4	998.3	+1.0	313.1	-5.3	9853.1	-18.2
1958	781.5	-10.5	930.5	-67.8	302.1	-11.0	9783.7	-69.4
1959(a)	756.0	-25.5	894.1	-36.4	292.1	-10.0	9793.8	+10.1
1959(b)	761.6		900.1		290.4		9174.8	
1960	697.6	-64.0	901.8	+1.7	278.8	-11.6	9578.3	+403.5
1961	664.9	-32.7	892.5	-9.3	263.4	-15.4	9791.2	+212.9
1962	643.9	-21.0	849.8	-42.7	250.4	-13.0	9810.1	+18.9
1963	616.9	-27.0	828.8	-21.0	223.7	-26.7	9756.4	-53.7
1964(a)	587.9	-29.0	830.2	+1.4	215.4	-8.3	9971.0	+214.6
1964(b)	591.3		834.3		215.9		9997.2	
1965	559.2	-32.1	819.9	-14.4	218.2	+2.3	10178.0	+180.8
1966	512.7	-46.5	810.1	-9.8	214.0	-4.2	10254.0	+76.0
1948-54		-6.2		+65.7		-22.4		+878.4
1954-59		-32.1		-164.4		-17.3		+366.7
1959-66		-252.3		-94.1		-76.9		+1053.0

Source: *Historical Abstract*, Tables 132, 138.

Table 5.9 Net Internal Migration of the Workforce by Region, Great Britain 1954-1966

Year	Net Migration (000s)									
	SE/EA	SW	WM	EM	Y/YH	NW	N	Wa	Sc	Peripheral regions
1954	+20	+3	+1	-5	0	-4	+1	-8	-8	-19
1955-6	+22	+1	-4	+4	-5	0	-1	-10	-7	-23
1956-7	+33	-1	-15	+1	+5	-5	-6	-8	-4	-18
1957-8	+21	+6	0	-2	-12	-5	0	-3	-5	-25
1958-9	+24	+3	+1	+1	-3	-4	-11	-2	-9	-29
1959-60	+53	+1	+6	-7	-3	-6	-15	-5	-24	-53
1960-1	+32	+3	-2	+4	-3	-5	-14	-4	-11	-37
1961-2	+52	-5	-7	-3	-4	-3	-10	-2	-18	-37
1962-3	+26	+2	+2	+6	-4	-9	-8	-2	-13	-36
1963-4	+17	+7	+3	+2	-3	-1	-12	-1	-12	-29
1964-5	+45	0	+4	-4	+3	-10	-11	-11	-16	-45
1965-6	+21	-7	+2	+3	+8	+9	-6	-12	-19	-20

The data above are based on movements of national insurance cards, which do not always correspond to the movements of employees.

Sources: *Abstract of Regional Statistics* 1965 p.8, 1966 p.12 and 1967 p.16. 1964-5 and 1965-6 figures are based on post-1964 regions.
Figures for inward and outward Scottish migration were transposed in some cases in the *Abstract of Regional Statistics* for 1966. This has been corrected in the table above.

Table 5.10 The Break in Regional Employment Trends: Changes in Employment by Region, 1951-63 and 1963-1972

Region	Employment Change (% per annum) (1) 1951-63	(2) 1963-1972	(1963-77)	Difference in rate of employment change, second period (2) minus first period (1)	
(i) Core regions					
South East and East Anglia	+1.3	-0.0	(-0.0)	-1.3	(-1.3)
South West	+1.2	+0.2	(+0.5)	-1.0	(-0.7)
(ii) Midlands					
West Midlands	+1.0	-0.5	(-0.2)	-1.5	(-1.2)
East Midlands	+0.9	-0.0	(+0.5)	-0.9	(-0.4)
(iii) "Less assisted North"					
Yorkshire/Yorks and Humberside	+0.3	-0.7	(-0.2)	-1.0	(-0.5)
North West	+0.0	-0.8	(-0.5)	-0.8	(-0.5)
(iv) "More assisted North"					
North	+0.3	-0.2	(+0.1)	-0.5	(-0.2)
Wales	+0.4	-0.4	(-0.1)	-0.8	(-0.5)
Scotland	+0.1	-0.5	(-0.1)	-0.6	(-0.2)
(v) Northern Ireland	+0.3	+0.3	(+0.7)	-0.0	(+0.4)
U.K.	+0.8	-0.3	(-0.0)	-1.1	(-0.8)

Source: based on Table A4

Table 5.11 Gross Fixed Investment in New Building and Works in Manufacturing Industry, 1955-1984

Year	Gross investment New building and works (£ million, 1980 prices)	Year	Gross investment New building and works (£ million, 1980 prices)	Year	Gross investment New building and works (£ million, 1980 prices)
1955	1423	1965	1975	1975	1283
1956	1758	1966	1858	1976	1053
1957	1753	1967	1650	1977	1135
1958	1538	1968	1728	1978	1277
1959	1442	1969	2039	1979	1305
1960	1721	1970	2003	1980	1052
1961	2124	1971	1753	1981	768
1962	1990	1972	1447	1982	658
1963	1539	1973	1402	1983	584
1964	1777	1974	1383	1984	796

Source: *Economic Trends, Annual Supplement* 1986, p.56.
This series provides an approximate indicator of the amount of potentially mobile investment in the economy, and thus the likely degree of effectiveness of regional policy of a given strength.

Table 5.12 Migration Quotients by Region, 1954-1966

Migration quotient (%) = net gain of population through workforce migration

÷ total number of employees (employed and unemployed)

Year and phase of cycle		Region									UK % unemployment (June of first year)
		SE/EA	SW	WM	EM	Y/YH	NW	N	Wa	Sc	
1954	U	+0.3	+0.3	+0.0	-0.3	0.0	-0.1	+0.1	-0.8	-0.4	1.2
1955-6	U	+0.3	+0.1	-0.2	+0.3	-0.3	0.0	-0.1	-1.1	-0.3	1.1
1956-7	U	+0.4	-0.1	-0.7	+0.1	+0.3	-0.1	-0.5	-1.0	-0.2	1.1
1957-8	D	+0.3	+0.5	0.0	-0.1	-0.6	-0.2	0.0	-0.3	-0.2	1.3
1958-9	D	+0.3	+0.2	+0.0	+0.1	-0.2	-0.1	-0.8	-0.2	-0.4	2.1
1959-60	U	+0.7	+0.1	+0.3	-0.5	-0.2	-0.2	-1.2	-0.5	-1.1	2.0
1960-1	U	+0.4	+0.2	-0.1	+0.3	-0.2	-0.2	-1.1	-0.4	-0.5	1.5
1961-2	U	+0.6	-0.4	-0.3	-0.2	-0.2	-0.1	-0.8	-0.2	-0.8	1.3
1962-3	D	+0.3	+0.2	+0.1	+0.4	-0.2	-0.3	-0.6	-0.2	-0.6	1.8
1963-4	D	+0.2	+0.5	+0.1	+0.1	-0.2	-0.0	-0.9	-0.1	-0.5	2.2
1964-5	U	+0.5	0.0	+0.2	-0.3	+0.2	-0.3	-0.8	-1.1	-0.7	1.5
1965-6	U	+0.2	-0.5	+0.1	+0.2	+0.4	+0.3	-0.5	-1.2	-0.9	1.3
Upswings (ave.)		+0.4	-0.1	-0.1	-0.1	0.0	-0.1	-0.6	-0.8	-0.6	
Downswings (ave.)		+0.3	+0.4	+0.1	+0.1	-0.3	-0.2	-0.6	-0.2	-0.4	

The migration quotient indicates the effect on the regional unemployment rate, in percentage points, that inter-regional migration in any particular year would have had on the region at the end of the period concerned.

Sources: Migration - As Table 5.10
Size of workforce - *Abstract of Regional Statistics* 1965 p.8, 1967 p.10.

Table 5.13 Regional Unemployment Rates, Cyclical Peaks and Troughs, 1948-1968

(a) Unemployment rates

(i) Cyclical peaks

	SE/EA	SW	WM	EM/YH	NW	N	Wa	Sc	NI	UK
July 1951	0.6	0.8	0.3	0.5	0.9	1.7	2.2	2.1	5.1	1.0
Sept 1955	0.6	0.9	0.5	0.5	1.4	1.4	1.6	2.1	5.9	1.0
July 1961	0.7	1.0	0.9	0.7	1.3	1.9	1.9	2.8	7.0	1.3
June 1966	0.7	1.2	0.6	0.9	1.2	2.0	2.2	2.4	6.0	1.2

(ii) Cyclical troughs

	SE/EA	SW	WM	EM/YH	NW	N	Wa	Sc	NI	UK
May 1952	1.3	1.4	1.0	2.0	5.1	2.6	2.8	3.1	11.0	2.4
Jan 1959	1.8	2.9	2.2	2.4	3.7	3.9	4.6	5.4	9.7	3.0
Feb 1963	2.7	3.7	3.6	3.2	4.1	7.0	5.9	6.2	11.2	4.0
Jan 1968	1.9	2.9	2.8	2.4	2.7	4.8	4.4	4.4	7.8	2.8

(b) Regional deviations in unemployment rate from UK average.

(i) Cyclical peaks

	SE/EA	SW	WM	EM/YH	NW	N	Wa	Sc	NI	UK unemployment rate
July 1951	-0.4	-0.2	-0.7	-0.5	-0.1	+0.7	+1.2	+1.1	+4.1	1.0
Sept 1955	-0.4	-0.1	-0.5	-0.5	+0.4	+0.4	+0.6	+1.1	+4.9	1.0
July 1961	-0.6	-0.3	-0.4	-0.6	0.0	+0.6	+0.6	+1.5	+5.7	1.3
June 1966	-0.5	0.0	-0.6	-0.3	0.0	+0.8	+1.0	+1.2	+4.8	1.2

(ii) Cyclical troughs

	SE/EA	SW	WM	EM/YH	NW	N	Wa	Sc	NI	UK unemployment rate
May 1952	-1.1	-1.0	-1.4	-0.4	+2.7	+0.2	+0.4	+0.7	+8.6	2.4
Jan 1959	-1.2	-0.1	-0.8	-0.6	+0.7	+0.9	+1.6	+2.4	+6.7	3.0
Feb 1963	-1.3	-0.3	-0.4	-0.8	+0.1	+3.0	+1.9	+2.2	+7.2	4.0
Jan 1968	-0.9	+0.1	0.0	-0.4	-0.1	+2.0	+1.6	+1.6	+5.0	2.8

Source: *Historical Abstract* Table 169

Table 5.14 The Cyclical Conditions for Emigration from the Outer Periphery; 1954-66

	Years of heavy net emigration			Years of employment decline		
	Year	Migration quotient (%)	Employment change (%)	Year	Migration quotient (%)	Employment change (%)
(i) Northern region	1958-59	-0.8	-0.8	1958-59	-0.8	-0.8
	1959-60	-1.2	+0.6	1961-62	-0.8	-0.2
	1960-61	-1.1	+0.6	1962-63	-0.6	-1.3
	1961-62	-0.8	-0.2			
	1963-64	-0.9	+1.0			
	1964-65	-0.8	+1.9			
	Average	-0.9	+0.5		-0.7	-0.8
(ii) Wales	1955-56	-1.1	+0.6	1956-57	-1.0	-0.3
	1956-57	-1.0	-0.3	1957-58	-0.3	-1.6
	1964-65	-1.1	+1.4			
	1965-66	-1.2	+0.6			
	Average	-1.1	+0.6		-0.7	-1.0
(iii) Scotland	1959-60	-1.1	+1.1	1956-57	-0.2	-0.1
	1961-62	-0.8	+0.8	1957-58	-0.2	-2.1
	1964-65	-0.7	+0.8	1958-59	-0.4	-0.3
	1965-66	-0.9	+0.2	1962-63	-0.6	-1.4
	Average	-0.9	+0.7		-0.4	-1.0

Sources: Based on Tables A5, 5.12

Table 5.15 Employment Change and Unemployment Change by Region, 1972-73

Region	Change in unemployment (percentage points) June 1972-June 1973	Change in employment (%) June 1972-June 1973	Change in unemployment (percentage points) not statistically accounted for by change in employment (imputed migration)
SE	-0.5	+1.2	-0.8
EA	-0.8	+4.8	+2.5
SW	-0.9	+4.5	+2.1
(Southern England	-0.6	+1.9	-0.2)
WM	-1.4	+3.2	+0.3
EM	-0.9	+3.5	+1.1
YH	-1.2	+2.8	+0.1
NW	-1.2	+2.0	-0.7
N	-1.4	+3.5	+0.6
Wa	-1.2	+2.9	+0.2
Sc	-1.7	+3.1	-0.1
NI	-1.7	+1.9	(-1.3)
UK	-1.0	+2.5	-

Source: Tables A5, A6

The final column is calculated by adding the change in employment to the change in unemployment and subtracting 1.5 (the national figure for change in employment plus change in unemployment). The resulting figure gives an *approximation* of the likely migratory flow, with a positive figure suggesting net immigration of people of working age. It seems highly probable, especially when comparison is made with Table 5.12, that these figures overstate the degree of net inter-regional migration. There are other ways (for example an increase in female activity rates when employment is expanded) in which discrepancies can arise between the employment series and the unemployment series.

Table 5.16 The Regional Accumulation of Unemployment During the Long Cycle Downswing, 1966-1982

Region	(plus) Un June 1966	(plus) Change in Un June 1966 to Oct 1982	(plus) Regional excess unempl. June 1966	(plus) Regional excess accumulation of unemployment in cycles				(equals) Regional unemployment rate
				June 1966 to June 1969	June 1969 to Dec 1973	Dec 1973 to Sept 1979	Sept 1979 to Oct 1982	Oct 1982
SE	1.2	11.6	-0.4	-0.4	-0.2	-0.8	-1.4	9.6
EA	1.2	11.6	-0.2	-0.3	-0.1	-0.6	-1.0	10.6
SW	1.2	11.6	+0.4	-0.2	-0.4	+0.3	-1.8	11.1
WM	1.2	11.6	-0.6	-0.1	+0.2	+0.3	+2.8	15.4
EM	1.2	11.6	-0.4	0.0	-0.1	-0.5	-0.5	11.3
YH	1.2	11.6	-0.3	+0.4	0.0	-0.2	+0.7	13.4
NW	1.2	11.6	+0.1	+0.1	+0.4	+0.7	+1.4	15.5
N	1.2	11.6	+1.0	+1.1	-0.5	+0.9	+1.1	16.4
Wa	1.2	11.6	+1.2	+0.3	-0.8	+1.2	+1.5	16.2
Sc	1.2	11.6	+1.4	-0.2	+0.2	+0.8	-0.3	14.7
NI	1.2	11.6	+4.8	-0.4	-1.4	+2.2	+2.0	20.0
UK	1.2	11.6	0	0	0	0	0	12.8
(UK increase in each cycle)				(+1.1)	(-0.1)	(+3.0)	(+7.6)	

All figures are seasonally adjusted figures for wholly unemployed, excluding school leavers.

The regional excess accumulation of employment is the difference between the regional percentage point change in unemployment and the national percentage point change in unemployment. The final column is the sum of the earlier columns.

Table 5.17 Rates of Natural Increase of Population by Region, 1961-1984

Year	SE	EA	SW	WM	EM	YH	NW	N	Wa	Sc	NI	UK
1961	5.7	4.9	3.9	7.8	6.4	5.3	5.0	6.8	4.3	7.2	11.1	5.9
1966	6.5	5.5	4.4	8.3	6.9	5.3	5.2	5.3	3.8	6.3	11.4	6.2
1971	4.2	4.6	2.7	6.8	5.7	4.7	4.0	4.0	3.0	4.8	10.1	4.6
1976	0.1	0.9	-2.1	1.0	0.7	-0.6	-0.9	-1.1	-1.1	-0.1	6.1	-0.1
1978	0.9	0.4	-1.5	1.5	0.9	-0.3	-0.5	-0.1	-1.0	-0.2	6.6	0.4
1980	2.1	2.2	-0.5	2.8	2.3	0.8	1.1	0.8	0.7	1.1	7.6	1.6
1982	1.6	0.7	-1.0	2.0	1.3	0.4	0.3	0.3	0.2	0.2	7.0	1.0
1984	2.1	1.2	-0.5	2.5	1.8	0.9	1.1	0.4	0.8	0.5	7.6	1.5

Source: *Regional Trends*, Various
(The low figures for the South West region reflect the high proportion of retired people in the region).
All rates are calculated on an annual basis, per thousand population.

Table 5.18 Unemployment Rates in the Main Northern Cities, 1966-1979

	Unemployment rate (%) at cyclical peaks			
	June 1966	June 1969	Dec 1973	Sept 1979
"Inner periphery"				
Leeds	0.6	2.0	1.8	5.3
Bradford	0.7	1.9	1.9	6.7
Sheffield	0.9	2.0	1.8	5.0
Manchester	0.9	2.0	2.2	5.7
"Shadow zone"				
Liverpool	2.3	3.7	5.3	12.5
Tyneside	2.1	4.6	4.3	8.9
Wearside	2.4	5.8	5.3	12.1
Glasgow	2.6	5.5	4.6	9.0
UK	1.2	2.2	2.2	5.7

Source: *Gazette*, various.

Table 5.19 Employment Change by Conurbation in the Periphery, 1973-79.

Year	Employment change since previous year (%)				Unemployment rate (%) June (December in 1975)			
	UK	Merseyside	Tyne and Wear	Strath-clyde	UK	Merseyside	Tyne and Wear	Strath-clyde
1974	+0.6	-0.1	-0.2	+1.1	2.3	n.a.	n.a.	n.a.
1975	-0.4	-1.9	+0.6	-1.0	5.1	10.0	7.7	6.9
1976	-0.7	-3.1	-0.6	-1.9	5.6	10.8	9.0	7.9
1977	+0.3	-1.5	-0.7	-1.4	6.1	11.1	9.8	10.2
1978	+0.5	+0.4	-1.1	-1.2	6.0	11.2	10.1	10.2
1979	+1.6	n.a.	n.a.	n.a.	5.5	11.3	9.6	9.8

Source: *Census of Employment* (NOMIS data); *Gazette*.

Notes to Chapter 5

1. This part of the discussion summarises points made in chapter 2.5 above.

2. For example McCrone (1969), McCallum (1979). More recent discussions have, inevitably, tended to focus not so much on the 1960s "boom" in regional policy, but rather the later downgrading of regional policy. See, for example, Parsons (1986) and Townsend (1987). Parsons (1986) is of particular interest in relating the development of regional policy to political considerations.

3. The question of black Commonwealth migration into Britain in the post-war period is regarded as very important in labour market terms, but cannot be treated in detail in this chapter. The post-war years were, in Britain and much of the rest of Western Europe, years of full employment, with the implication of labour shortages. This implies also the need for a pro-immigration policy in order to balance the labour market, and to ensure that low-status jobs were filled, the high level of demand for labour meaning that white workers became able to escape from, and less willing to work in, such jobs. The bulk of the black migration to Britain in the 1950s came from the West Indies rather than from the Indian subcontinent or Africa (Ramdin 1987 pp.188-189), with, from the West Indian point of view, "the main causes of the migration of West Indians in the post-war period (being) the pressure of population and the high levels of unemployment and under-employment" (Ramdin 1987 p.187), combined with low wages and lack of local opportunity for advancement.

   In many respects, therefore, black migration to Britain may be regarded as a classic case of migration from a labour surplus area to a labour shortage area. Inevitably, but regrettably, the spectre of racism arose. Two basic components of racism would seem to be identifiable, inter-class racism and intra-class racism. With inter-class racism, the problem is one of racial discrimination, with whites in positions of power treating whites more favourably than blacks. This is not always due to simple colour hostility, as whites in positions of power would generally not be in a position to feel threatened by blacks. More pertinent, perhaps, is that is is usually in the economic interests of employers to create dualities in the labour force, leaving a primary workforce with safe employment and possibilities for economic advancement, and a secondary labour force whose advancement can readily be blocked, and who could be paid lower wages than would be possible if a unitary labour force existed. Such a strategy is most readily followed if it is possible to stigmatise members of the workforce by physical type; thus there is a tendency towards discrimination against blacks and women in employment. With intra-class racism, the dominant situation is one of racial conflict rather than racial discrimination, with a black working class and a white working class being in conflict over scarce resources; housing in the 1950s, jobs later on - and this conflict sometimes flaring up into generalised racial conflict. In general, blacks would be far worse placed than whites in access to such resources (unemployment, for example, is perpetually higher for those of Afro-Caribbean origin than for whites), but if whites find themselves in a position of restricted access to economic resources, blacks represent a convenient scapegoat. Thus racial tensions have increased as unemployment has increased, while methods of policing, especially in the late 1970s and early 1980s, have escalated tensions rather than defused them. The role of state agencies has certainly not

been to relieve inter-racial tensions. Indeed, while there is an arguable case for restricting immigration at a time of increasing unemployment, immigration restrictions in Britain have concentrated not so much on decreasing *total* immigration but on decreasing *black* immigration.

During the period of heavy black immigration, migrants concentrated, not surprisingly, in areas with a high pressure of demand for labour, leaving the peripheral regions with relatively low levels of migrant (and black) labour. Coates and Rawstron (1971 pp.122-173) show that the tendency towards concentration of migrant settlement in the core regions was strong among all ethnic groups, both white and black, but was particularly strong amongst the Caribbean-born. Peach (1968 pp.62-82) suggests, on the basis of an analysis of the 1961 Census, that it often happened that blacks were outcompeted by whites in the zones of fastest economic expansion (for example, much of Southern England outside London) but tended to be strongly represented in urban areas with a moderately high pressure of demand for labour, notably London and the West Midlands.

Inevitably, little more than a brief sketch can be presented here; for further reading, Ramdin (1987) provides a very detailed account of the history of the black working class in Britain from early days up to the 1980s.

4. As held at the Universities of Durham and Newcastle; see the introduction to chapter 8.

5. Expenditure on regional policy under the Distribution of Industry Acts peaked in 1947-48, remained high the next year, then gradually declined (McCrone 1969 p.114). The "lull" in regional policy identified by McCallum (1979) as having started in 1947 represents more a toning down of the earlier strong emphasis on regional policy than the start of a period of weak regional policy.

6. Calculated from Table A4.

7. Most notably iron and steel, shipbuilding, and motor vehicles, but *not* cotton or coal.

8. See chapter 4.4 above for a more detailed discussion.

9. As noted by Buxton and MacKay (1977 pp.85-103).

10. Neither Buxton and MacKay (1977 pp.4-31) nor Lee (1979) mention this basic point, although obvious inferences can be drawn from the apparent 108% male activity rate in London in 1961. Censuses from 1921 onwards state explicitly that industry and occupation tables are based on place of work rather than on place of residence. In the 1911 Census, however, attention is drawn to difficulties in inter-temporal comparison arising from the fact that "the numbers represent persons *residing* in a particular area and not persons who are actually *working* in that area" (Census of England and Wales, 1911, General Report p.100, emphasis in original).

11. Large parts of Scotland probably also suffered from slow growth after the slump, even though Scotland as a whole had an average rate of employment growth. Fogarty (1945 pp.131-167) draws a contrast between the relatively prosperous area centred on Edinburgh, with below average rates of unemployment and fast population growth, and the high unemployment areas of the rest of Scotland. It is not made clear, however, whether the Edinburgh-

Glasgow growth differential persisted *after* the slump, as well as during the slump, but one suspects that it did.

12. The first generation new towns were designated in the late 1940s and early 1950s. Seven were situated in a northern ring around London, in a part of the space economy particularly well placed for industrial employment growth at this stage. These were Stevenage, Hemel Hempstead, Hatfield, Welwyn (all Hertfordshire), Harlow, Basildon (both Essex) and Bracknell (Berkshire); in addition a new town was created at Crawley (Sussex). These towns were planned in order to help relieve congestion in London. In addition, various new towns were designated in Development Areas in the periphery, to act as focuses for industrial employment growth. These were Aycliffe and Peterlee in County Durham, East Kilbride, Glenrothes and Cumbernauld in Scotland, and Cwmbran in Wales. The 1930s steel town of Corby (Northamptonshire) was also given new town status. This list excludes the thirteen new towns designated between 1961 and 1970. See Osborn and Whittick (1963) and Champion, Clegg and Davies (1977) for profiles of each new town, also Hall and Thomas (1973) for a more general picture, and Schaffer (1972) for outlines of the patterns of development (in terms of homes, schools, shops, etc.) of new towns.

13. Thoms and Donnelly (1985 pp.150-191) provide an account of the car industry in Coventry during the post-war boom. See also Fogarty (1945 pp.339-353) for general account of the inter-war growth of the West Midlands, also Wood (1976 pp.50-52), Rodgers (1980a).

14. Employment in agriculture fell by about a third between the end of the Second World War and the mid-1960s; Pollard (1969 pp.410-412), Frankel (1964 pp.180-188). This had a severe adverse effect on rural employment levels, a feature reflected in Table 5.7.

15. Warren (1980c pp.345-347). For details of the influx of industry into South Wales up to the mid-1960s see Roberts (1953), who notes the coming of 100,000 new factory jobs in South Wales since 1937, and the essays in Manners (1964), particularly Davies and Hagger (1964). Davies and Hagger (1964 p.134) show, however, that large increases in industrial employment in South Wales in the 1950s tended to be concentrated in relatively small areas, such as Port Talbot and Ebbw Vale. House (1982 pp.54-55) describes the period from 1958 to 1968 as the age of the "Welsh economic miracle" with jobs in manufacturing growing at five times the average rate for the UK. Even so, as House, later admits, this growth fell slightly short of the number of jobs lost in coal mining. The cloak of full employment and mobile industry allowed the necessary restructuring of the Welsh economy to take place relatively painlessly, although many of the branch plant factories were to hit trouble in later years.

16. Keeble (1976 pp.162-171); Warren (1970 pp.172-184; 254-282).

17. Calculations based on Lee (1979). See Miles (1968) for an account of post-war changes in the Lancashire cotton industry.

18. Including, before 1959, employment growth in "manufacture of parts and accessories for motor vehicles and aircraft."

19. All figures taken from *Historical Abstract*, Tables 132 and 138.

20. Keeble (1976 p.193).

21. Keeble (1976 pp.193-194, 1980a pp.106-112).

22. See also Buswell and Lewis (1970). In 1968 half the UK's research and development establishments, *including* universities and polytechnics (which tend to be spatially widely diffused) were located in the South East.

23. As described by McCallum (1979 pp.15-19). Parsons (1986), with retrospective pessimism, writes instead of a "false dawn", in which regional policy assistance undoubtedly increased, but without regional policy having truly evolved into regional *planning*, which would involve considerable restructuring of territorial political relationships. Regional policy, Parsons notes, became overloaded through having been made to fulfil too wide a variety of objectives. Indeed, during the later 1960s it is arguable (Parsons 1986 pp.225-226) that the Government used regional policy as part of a *deflationary* economic strategy, attempting to divert jobs to the peripheral areas, so that greater flexibility could be given to deflate without causing excessive rises of unemployment in the less prosperous regions. This already shows a significant shift from earlier objectives when, in a more expansionary economic climate, regional policy was designed to bring underused resources into use.

24. Chapter 4 above. Lonie and Begg (1979) show that this point was recognised at the time; the simultaneous existence of high long-term unemployment in the depressed areas, and signs of overheating in prosperous areas (see for example Allen and Thomas 1939) suggested a need for a fundamental restructuring of the space economy, but there was little knowledge at the time of how to formulate an effective regional policy to meet this need.

The British economy in the late 1980s would appear to be fast approaching a similar stage in which a strong regional policy would be both very much needed and very effective. As of late 1987 unemployment stood at around 5% (on current methods of reckoning) in much of Southern England, indicating the possibility of local labour shortages in particular occupations developing. Furthermore, rapidly rising house prices in Southern England (in contrast to the 1930s, a period which had cheap house prices) would discourage immigration from high unemployment areas, and thus tend to intensify difficulties in Southern local labour markets. This can be expected to become an even more serious problem after the completion of the Channel Tunnel. There is a strong danger that unless there is state intervention to restructure the space economy in favour of the less prosperous areas, employment growth in the more prosperous areas, and in the economy as a whole, will be stifled by overheating. Under present circumstances a strong regional policy would probably *not* slow down employment growth in the core (which is restricted by high housing costs, etc.) but would help expand employment in the periphery.

This note makes explicit what is implicit in the main text, that some form of strengthened regional policy would be highly desirable (thus, both much needed and effective) in the context of the late 1980s and 1990s. The precise *form* of regional policy is open to debate. The desirable aims would appear to be twofold; firstly to accelerate indigenous growth in high unemployment regions, and secondly to facilitate the transfer of employment from overheated regions to "underheated" regions.

25. See Pitfield (1978).

26. McCrone (1969 pp.106) provides an account of the basic measures incorporated in these Acts. It is now recognised (e.g. Booth 1982, Parsons 1986 pp.60-95) that McCrone oversimplified in distinguishing between pre-war and post-war measures without discussing the critical developments in regional policy which were made during the War period itself, with an eye both to immediate problems and to post-war reconstruction. This needs to be borne in mind in reading McCrone's account, which passes straight from the *Special Areas Acts* of the 1930s to the *Distribution of Industry Act* of 1945.

27. The IDC system was an attempt to control the geography of employment change through town and regional planning measures rather than through financial inducements. See Hall et al (1973 vol 2 pp.99-125) for a discussion on the 1947 planning controls as they affected employment, including a discussion of the IDC system.

28. This point is made by McCrone (1979 p.115). Compare, for example, Beveridge's (1944 pp.124-131) assessment that 3% would be a reasonable *national* target for unemployment with the regional unemployment rates presented in Table A7.

29. McCallum (1979 p.9).

30. See for example Worswick and Ady (1951), Dow (1964 pp.13-54), Pollard (1969 pp.356-364). Parsons (1986 p.105) notes that "the balance of payments crisis in the October of 1947 was to have a dramatic impact on the distribution of industry policy". Milward (1984a) poses considerable doubt on whether it is possible to speak of an *objective* economic crisis in 1947 in particular, and in the early post-war years in general, and indicates an element of over-reaction amongst politicians, frightened of a repeat of the early 1920s. It might therefore be more accurate to suggest that the *perception* of a balance of payments crisis caused a weakening in the distribution of industry policy.

31. McCallum (1979 pp.9-14), Parsons (1986 pp.136-141). There were still arguments being presented for the strengthening of regional policy (e.g. Sykes 1951, 1952). Conversely, Hobson (1951) argued that the "great industrial belt" from Kent to Lancashire had developed on the grounds of superior economic efficiency, and that at times of full employment there was no pressing need to divert industry to "less efficient" locations. A significant strand in the development of thought on regional policy has been the perceived need to eliminate mass unemployment in "inefficient" peripheral areas; once this immediate problem was resolved by national full employment, the commitment to regional *planning*, of the type envisaged in the Barlow Report, faded, a theme central to the argument of Parsons (1986).

32. E.g. McCrone (1969 p.129), Moore and Rhodes (1973), Cairncross (1979bp.xi).

33. McCrone (1969 pp.117-119), McCallum (1979 pp.10-12). For the problems faced by the coal industry, see Ashworth (1986). The Conservative Government, in the run-up to the 1959 General Election, consistently stressed the *local* character of unemployment (see Parsons 1986 p.143), and in a sense were correct; the problems were those engendered by declining industries in a regime of

continued full employment and fast growth, and did *not* represent a drift away from full employment.

34. *Historical Abstract* Table 169.

35. See for example Ashworth (1986 ppl.235-243), Pollard (1967 pp.413-414). "Energy use was increasing, but cheapening oil was competing much more strongly with coal then ever before", as Ashworth (1986 p.235) wrote of the late 1950s. The adverse shift in the market position for coal came after ten years of planning for expansion in the newly nationalised industry, and indeed many of the new projects had not come to fruition by 1957 when the decay set in. As a result the coal industry suffered from severe overcapacity through the 1960s, as increased capacity combined with a shrinking market. Ashworth (1986 p.236) describes the late 1960s as "the most difficult time ever known in the history of the coal industry", despite the experiences of the 1920s. Whether or not one regards this assessment as exaggerated, even if perhaps only slightly, the decline of employment in the coal industry was a central component to the geography of job loss in the late 1960s (chapter 6 below).

36. The combination of sectoral decline and intensified competition from low wage countries was a long-standing feature of the British cotton industry, against which the general economic upswing of the 1950s could provide only temporary respite. See for example Miles (1968), who notes (pp.102-105) that the post-war peak of employment in Lancashire textiles was reached as early as 1951. By 1957 employment in Lancashire textiles was already about 100,000 below its 1951 level. In effect the decline of the Lancashire cotton industry was continuous throughout the long cycle upswing, leading to a long-term depression in overall employment trends in the North West.

In the shipbuilding industry in the 1950s the problem was not so much competition from low wage areas (this did not become a major problem until the 1970s; see Hogwood 1979 p.24), but rather from competition from other industrialised countries, and particularly from Japan. Before the First World War, UK shipbuilding dominated world production in this industry, with about 80% of the world tonnage in shipping being launched in the UK during the 1880s and early 1890s, and about 60% by the First World War (Parkinson 1960 p.97). It is not surprising that this degree of monopolisation should be diminished through time; what is surprising is that this should happen in conjunction with a level of production in the UK below that of 1913. The 1.66 million gross registered tonnage per annum from 1910 to 1914 represented 60% of world production, the 1.21 million g.r.t. of 1948 still represented 49% of world production, whereas the 1.5 million g.r.t. of 1976 represented 4.4% of world production (Parkinson 1960 pp.97-99; Hogwood 1979 p.23). The problem was not that the world shipbuilding industry was in decline or stagnating in the 1950s, but rather that the UK shipbuilding industry failed to take part in the world boom. When the boom faded in the late 1950s as the size of the world shipping fleet started to exceed that required for the transport of dry cargoes (Parkinson 1960 p.54), and as the upturn in demand for oil tankers, caused by the closure of the Suez Canal and the consequent lengthening of haulage routes, faded, so a depression in shipping ensued with UK shipbuilding employment moving into substantial long-term decline.

It seems quite likely that the extremely slow growth and declining competitive position of UK shipbuilding in the 1950s

reflected pessimism, engendered by inter-war experience, about the basic stability of the industry, and a consequent unwillingness to expand capacity (Parkinson 1960 p.99). Certainly the experiences of the 1920s and 1930s would have been traumatic enough to indicate a need for caution. The accelerator principle, under which the demand for capital goods is related to the *change* in demand for consumer goods, rather than the level of demand, means that cyclical fluctuations in capital goods industries tend to be far more severe than for consumer goods industries. In engineering industries, the amplitude of fluctuations in consumer goods industries would thus be amplified, but the problem in shipbuilding was considerably more severe in that shipbuilding fluctuations related more to fluctuations in the level of demand for primary commodities, which was extremely unstable in the inter-war period, than to the less volatile fluctuations in the level of demand for consumer goods industries. Thus in the slump shipbuilding activity was perhaps 80% below its normal level.

The three main industries with declining employment even during the post-war boom, coal, textiles and shipbuilding, were thus the three industries with the most severe inter-war problems. The path of causality appears to be far more complex with shipbuilding than with the other two sectors, however, as here the problem was not slow growth in an industry well past its most expansive phase, but rather the failure of the UK shipbuilding industry, due in part to delayed post-slump trauma, to share in a world boom in the sector.

37. Statistics based on Mitchell (1975). See also Table 2.1.

38. *Gazette* 1963 p.121; *Historical Abstract* figures, on a mid-1963 base, are slightly lower.

39. Parsons (1986 pp.148-157), McCrone (1969 pp.125-126), McCallum (1979 pp.12-14).

40. These developments were particularly well marked in North East England. Washington New Town was designated in 1964 to provide a growth centre at the edge of the Tyne and Wear conurbation, while Aycliffe New Town, originally designated in 1947, was promoted as a 1960s growth zone for South West Durham (Champion, Clegg and Davies 1977 pp.219-223, 231-235). At around the same time, the Northumberland County Council scheme for a new town at Cramlington gathered pace (House 1969 pp.224-225).

41. McCrone (1969 p.118).

42. ibid pp.121-126.

43. ibid p. 130.

44. Goddard (1975 p.38).

45. Daniels (1969), Goddard (1975).

46. Cited by Daniels (1969 p.177).

47. Goddard (1975 pp.38-39).

48. McCallum (1979).

49. Moore and Rhodes (1973 p.94, Fig 2).

50. Board of Trade (1968), Brown (1972 pp.292-305), Sant (1975 pp.71-81).

51. McCrone (1969 pp.126-128, map on p.127). The exceptions were Merseyside, the Yorkshire part of the post-1974 Cleveland county (including Middlesbrough) and Furness (now part of Cumbria).

52. McCallum (1979 pp.17-19), Parsons (1986 pp.217-220).

53. McCrone (1969 pp.127-128). The geography of employment change in the 1966-68 recession is examined in chapter 6.3 below.

54. See for example Blackaby (1978 pp.51-58).

55. This is the conventional explanation, favoured by, for example, McCallum (1979 pp.19-21). Parsons (1986 pp.239-244) indicates a somewhat more complex interpretation. The new Government undoubtedly wished to reduce state intervention in the economy, and cutting regional policy *expenditure* was part of this programme, but there was also a change in the *strategy* of regional policy towards the growth point strategy favoured in the Macmillan and Home Governments (a project in which Heath was ministerially involved), and away from the blanket zone strategy favoured by the Wilson Government. This is a legitimate change of strategy, and not necessarily a retreat from regional policy. As far as regional policy is concerned, the 1972 "U-turn" was, according to Parsons (1986), not so much the increased expenditure on regional policy, but rather the return to a blanket zone strategy under pressure of increasing unemployment.

56. See the account in Blackaby (1978 pp.62-76) and Holmes (1982). The years from 1972 to 1974 are central to an understanding of recent British political history. In 1970 the Heath Government was elected with a commitment to what might (anachronistically) be called mildly Thatcherite policies. At the same time, though, the second recession of the long cycle downswing was taking root and unemployment reached levels which had not been seen since the fuel crisis of 1947. Faced with economic crisis the Government did what Governments in other advanced capitalist economies also did, and undertook an extremely vigorous reflation which for a while created unusually fast economic growth but also resulted in capacity bottlenecks, commodity price inflation and ultimately severe recession (Cairncross and McRae 1975). The Heath Government collapsed in 1974 under the weight of industrial conflict, inflation and general economic uncertainty. Furthermore as the post-1973 recession gathered pace, the simple Keynesian notion that one could avert recession and create full employment merely by pumping money into the economy came to be more and more discredited, both within the Conservative and Labour parties. Heath as a politician lost greatly in repuration, and was ousted from the Conservative Party leadership in 1975. There was an element of accident in Mrs. Thatcher's election to the leadership and undoubtedly various senior Conservatives saw her as a stop-gap leader until someone more heavyweight came onto the scene. Even so, Mrs. Thatcher gained the leadership, and with the Labour Government doing little more than trying to fight off a succession of crises, she eventually became Prime Minister. The economic policies she followed were disastrous in their effects, charted in chapters 7 and 8 below, yet the worse that recession became, and the higher unemployment reached, the more vigorously these policies were followed. The rhetoric of "no U-turns" increased in intensity in 1980 and 1981 the more it became clear that a complete reversal of policy was

needed in order to prevent the intensification of industrial and economic crisis. At root, it seems, was the simple-minded notion that every story must have a moral, and that the moral of the Heath years was that if one abandons policies of economic austerity then retribution, in terms of highly disruptive inflation, must inevitably follow. Such an approach neglects the critical point that there were considerable differences in economic circumstances between the early 1970s recession and the early 1980s recession, and that much of the damage in the early 1980s was self-inflicted. No attempt was made to repair the damage, so that the spectres of the early 1970s returned to haunt the early 1980s, and, through the persistence of mass unemployment, the late 1980s as well.

Some rather wild assessments of the early 1970s have thus been made by those who still hold political power, so that it is in some respects still difficult to make a detached interpretation of the events of these years, and of the particular question of whether reflation was correctly judged or not. The author's own impression is that the underlying conditions necessary for maintaining full employment were gradually becoming unfulfilled in the late 1960s, but that realisation of the emerging problem, and the likelihood of increasing unemployment, did not materialise until about 1971 or 1972, by which time the problems were becoming too severe to solve by a simple extension of previous policies. Governments thought differently at the time, and attempted to restore the defunct status quo by a single reflationary leap. This undoubtedly ameliorated economic conditions in 1972 and 1973, but almost certainly intensified the crisis of 1974 and 1975. On balance, the degree of reflation was perhaps excessive, and a milder degree of reflation, combined with a strengthening of policies specifically intended to bolster the industrial sector should have been preferred. It is fully accepted that this is debatable, but it is hoped that the debate will be continued, not least because of the possible light to be thrown on what mix of macroeconomic and industrial measures would be best suited to reduce unemployment without crisis in the circumstances of the late 1980s and 1990s. Furthermore, one can hardly study contemporary third world economic conditions without taking into account the over-provision of loans in the artificial boom of the early 1970s.

57. McCallum (1979 pp.21-24).

58. McCallum (1979 pp.24-25); Parsons (1986 pp.243-244).

59. McCallum (1979 p.31) pinpoints this shift of emphasis; see also Grant (1982 pp.59-6). Total expenditure on regional policy declined by almost a half between 1974-75 and 1977-78, in the face of pressure from the International Monetary Fund to cut public expenditure, but the National Enterprise Board was gaining additional resources at the time (Grant 1982 p.59). The enterprise board approach, by which the state (at central or local level) acts as an investor rather than a provider of subsidies, is regarded by the author as a promising approach to the industrial question, but the scope of the NEB was undermined by the Labour leadership at an early stage (Grant 1982 pp.49-50, 104-107). Various sector working parties were set up, although it is unclear whether these acted much more than talking shops, and doubtful whether they had any real effect in improving Britain's poor industrial performance (Grant 1982 pp.67-68). In the meantime the weakening of regional policy led to a noticeable southward shift in the economic centre of gravity (chapter 6.8(v) below).

60. In very broad terms, one could distinguish between inner city policies up to about 1977 which saw the "inner city problem" as being a residual problem of a spatial concentration of "individual problem families within a generally prosperous economy" (Laurence and Hall 1981 pp.97-98), and a post-1977 approach which recognised the centrality of "the decline in the economic fortunes of the inner areas" (Department of the Environment 1977 p.2) in the inner city problem of the late 1970s. After the White Paper cited above, an Inner Urban Areas Act was passed in 1978, expanding previous urban programmes, creating new central/local government partnerships and giving extra help to inner urban areas through an adjustment in the rate support grant. Although the newly extended inner city policy was intended to be directed at reversing economic decline there was relatively little pressure on local authorities to spend extra resources on regenerating the economy, as opposed to extending community facilities (Laurence and Hall 1981 p.95). For accounts of policy responses to the urban problem at this stage, see Laurence and Hall (1981) and Lawless (1981 pp.3-19).

The bulk of the empirical analysis in this thesis concentrates on inter-urban and inter-regional relationships, rather than intra-urban relationships, so perhaps more detailed comment is required here on the internal structure of the city at a time of economic change. Two factors need to be considered in depth when assessing the inner city problem, the question of residential segregation within a city and the economic decline or success of the city. One of the central themes of even the most elementary discussions of urban geography is that there is a high degree of residential segregation within cities; see especially Johnston (1971). High income households have a wide discretion as to where to live, and can choose either very central locations, or more spacious locations at the edge of cities or even beyond. Low income households have a much more limited choice, being unable to afford either expensive housing or long journeys to work. Typically this implies a concentration of low income housing at high density on the perimeter of the city centre, the "inner city", although other patterns are possible, for example the large out-of-town housing estate linked with an out-of-town industrial estate. The process of residential segregation within a city implies a tendency, under any economic conditions, for various forms of social deprivation to be concentrated within the city. "Compared with their own conurbations, the inner areas of the big cities suffer from higher unemployment at all stages of the business cycle" (Department of the Environment 1977 p.2), but this is due as much to the strong pattern of residential segregation within the city, inhibiting the migratory equilibriation of unemployment rates, as to job loss in the inner city.

Insofar as residential segregation is intrinsic to urban structure in a capitalist economy, there will always be an "inner city problem" of some sort. When intense urban decline is super-imposed on this, however, the inner city problem becomes very serious. In the mid-1970s, at a time when it was beginning to *appear* as though regional policies could eliminate regional differentials in economic growth, the acceleration of job loss in the inner cities and the increasing problem of inner city unemployment attracted growing attention. In the 1960s it appeared as though the orderly redirection of jobs and population from the inner city, through various new town and overspill schemes, combined with redevelopment of the inner city, could alleviate urban problems, but by the mid-1970s the decline of the inner city was quite definitely out of control. Evans and Eversley (1980), based on a set of 1976 conference papers, provides much empirical

research on the problems of employment decline and unemployment in the inner city, with emphasis being placed in several papers on the investment strategies of multi-plant firms. Various other papers (e.g. Lloyd and Mason 1978, Lloyd 1979, Gripaios 1977) have examined aspects of industrial decline in the inner city, but of course the underlying problem became considerably more serious during the slump (Lawless 1981, Harrison 1983). In 1981 a combination of arrogant and often highly racist policing, and resentful and largely unemployed black youth triggered off a series of riots which for a time attracted considerable media attention to the inner city question.

Most of the 1970s papers concentrated on the inner city problem, and the slightly broader problem of economic decline at the conurbational level, as an important component of the spatial economic problem, to be considered alongside the more familiar "regional problem". Indeed Townsend (1977) concentrated very much on the intersection of urban and regional problems, and suggested that regional policy should be directed to densely urbanised areas within the peripheral regions, rather than these regions as a whole. More recently, Fothergill and Gudgin (1979b, 1982, 1983) have favoured an interpretation in which the decline of the conurbations is seen as the dominant component in the geography of economic change with regional factors being regarded as relatively unimportant. They have furthermore attempted to demonstrate that urban-rural differential shifts are dominated by simple lack of space for industrial expansion in the conurbations. While any attempt at explanation of change in a complex system inevitably involves simplification (otherwise one would be stuck in the dead-end of explaining "everything" at time B by "everything" at time A), it would appear that Fothergill and Gudgin simplify too much. Certainly the detailed analysis of year by year employment change in conurbations, in chapters 6 and 8 below, suggest explanations which are often highly specific to individual conurbations and not reducible to, or compatible with, the "shortage of space" argument.

The analysis of economic change in the cities is a matter of considerably complexity. In later chapters, analysis is concentrated at the level of the conurbation, with relatively little attention given to the spatial structure of decline *within* the city or conurbation. It perhaps ought to be stated that the term the "inner city", although commendably concise, is not fully satisfactory in that firstly the effects of urban crisis may be felt as severely in outlying estates (e.g. Kirkby on Merseyside) if industrial job loss is severe there, and secondly there is the danger of confusion between the city centre (CBD) and the inner city (the "inner industrial perimeter" of Jones 1971, or the CBD "frame" mentioned by Townsend 1980a p.136). Often studies of employment change in cities understate the important distinction between what is happening to employment in the central business district of the city and what is happening in the inner industrial perimeter.

A policy point also needs to be made. Because of the degree of residential segregation in cities, unemployment rates in the inner areas of even low unemployment cities like London might be as high as for whole towns in more depressed regions. This does *not* mean that "the inner cities have become the newly depressed regions of the 1980s" (Greater London Council 1985 p.6) as inner city problems and regional problems are not precisely analogous. One could point to certain London boroughs and note that they had over 20% unemployment at a particular time, a rate corresponding to many towns and cities in the periphery, but if one sub-divided depressed towns and cities the most depressed areas of such towns

and cities might have 50% unemployment rates instead of 20%. When considering spatially concentrated urban problems within a particular city, two components need to be considered; the overall level of demand for labour in the conurbation, and the way in which the urban labour market is structured internally. If inner city problems (as opposed to the problems of depressed conurbation in depressed regions) are to be tackled seriously, the most appropriate point of intervention would seem to be not so much the creation of an assisted area in the inner cities and non-assisted areas in the suburbs and outlying towns, but rather the restructuring of the labour market in such a way that access of inner city inhabitants to job opportunities throughout the conurbation is improved. This implies the need for considerable intervention in the housing market (so that it is possible for an inner city resident to take up council housing and a job in an expanding town) and perhaps also the public transport system. Since the mid-1970s it has been increasingly unfashionable across all parts of the political spectrum to suggest that policies of population decentralisation and the creations of new town and overspill schemes is anything but outmoded, and attention is paid instead to bringing jobs into the inner city, whether through encouraging "enterprise" or through other methods. If however a "residential segregation" approach is adopted, rather than a "job shortage" approach, and the inner city problem is seen in terms of large numbers of people being entrapped in a stagnant labour market, then it would seem perverse to try to stem population decline in the inner cities and to perpetuate the cycle of labour market entrapment.

This is emphatically *not* an argument to suggest that the inner cities should simply be allowed to decay, with little new employment creation. On the contrary, it is considered to be very important to ensure that inner city local authorites, and indeed city-wide local authorities, should have access to financial resources to invest in local economic development according to local needs. What is being argued is that job creation in the inner city is by itself not enough, with a wider process of urban restructuring needing to be considered, and also that it would be inappropriate to conclude that regional policy should be *abandoned* in favour of inner city policy conducted along regional policy lines.

61. It is very difficult to find any recent detailed references to Enterprise Zones (most definitely not to be confused with Local Enterprise Boards, discussed in note 63 below). This would appear to reflect a general consensus among academics and planners that Enterprise Zones have had relatively little effect on the overall urban environment. Various "academics' tales" are current of large firms expanding their activity in Enterprise Zones, while cutting back production at other locations in the city. This is all the more surprising (or, if one is properly cynical, all the less surprising) in that the Enterprise Zone concept was paraded by the 1979 Thatcher Government as the solution to inner city problems, removing bureaucratic and tax obstacles to the redevelopment of derelict urban areas by private enterprise.

Butler (1982) provides an account which is almost uncritically sympathetic to the enterprise zone concept, and in so doing confuses the question of causality in inner city decline. He argues (pp.7-14) that inner city decline is basically the result of population movements, and that these movements cause employment to decline. The reverse is more likely to be the case, however, in that inner city decline is caused primarily by the restructuring of

operations in a time of recession by multi-plant firms, leading to cutbacks and closures in larger plants and an erosion of the markets on which smaller firms depend. While it is accepted that there is a long-term residential drift away from the inner cities and into the suburbs and outer suburbs, the rate of population decline in the inner cities in the 1970s was far too great to be explicable by this factor. Inner city population decline in such circumstances is primarily the *result* of job loss rather than the cause of job loss. This is more than an academic point; if intense urban decline is the result of capitalist restructuring then it is unlikely that basic urban problems will be solved simply by unleashing unregulated capitalism on the inner cities, or on small areas of the inner cities. Despite the original intention that the creation of enterprise zones would unleash a new army of entrepreneurs setting up small businesses in the inner cities, Butler (1982 p.109) notes with regret that the "British Enterprise Zones seem only indirectly concerned with new entrepreneurs. There are very few incentives designed to encourage anyone with limited means to save hard and take the risk of setting up in an Enterprise Zone. The provisions seem suited exclusively to the businessman with plenty of capital and a heavy tax bill, who is in a position to hire a bulldozer and put his money into property." This Butler regards as a watering down of the enterprise zone concept, yet is surely reflects the basic structures of British capitalism, dominated by larger concerns rather than local concerns, by large scale capital rather than by the individual entrepreneur trying to pull himself up out of the working class.

Two General Elections later, in 1987, Mrs. Thatcher promised another review of the inner city question, doubtless with a concern to destroy the solid support which inner city constituencies gave Labour at the election. One can expect beefed-up variations of the enterprise zone concept combined with policy measures to eliminate any local authority role in the running of the local economy so that Labour will not be allowed to take credit for any improvement. Unfettered capitalism will undoubtedly bring about some spectacular developments in limited areas, and notably in the service and retail sectors (as in, for example, the London Docklands), but will be unlikely to present a complete solution to the problems of the inner cities, where much of the problem is that the areas involved had previously been *deserted* by capitalism.

62. For an early assessment, see Townsend (1980b). For a more detailed, more recent account see Parsons (1986). New policy measures, announced in January 1988, have abandoned even the policy of the non-selective grant available for investment projects in the assisted areas.

63. The most innovative approach of this type is the Local Enterprise Board approach, typically developed by Labour metropolitan councils in the early 1980s in the face of the need to do something to tackle the increasingly urgent problem of local unemployment, and to regenerate a slump-torn urban economy. Inevitably to a certain extent these measures were largely defensive, a response to urgent problems in which central government was uninterested. Boddy (1984) outlined some of these measures, and suggested (p.177) that they could represent part of an Alternative Economic Strategy by a future Labour Government. Regrettably, conditions have become less favourable since then; it is for example unclear whether the Labour Party has *any* coherent economic strategy, let alone an Alternative Economic Strategy, while a whole succession of Government measures has been passed, including the abolition of the metropolitan counties, to limit the autonomy of local authorities.

The Greater London Council (1985) published a very detailed sector-by-sector account of its industrial strategy. This work remains an impressive account of the scope of what can be done by local authorites, but it should be remembered that the London Industrial Strategy was undertaken by an exceptionally large local authority with relatively low unemployment rates in a prosperous region, and provides relatively little guidance for how local authorities in less prosperous regions with less expansive potential should regenerate their local economies. The main text argues that for the Local Enterprise Board approach to be part of an effective *regional* strategy, as opposed to an effective local strategy, spatial redistribution of financial resources by central government is necessary.

There are of course other ways by which a local authority can affect local levels of employment and economic activity; Chandler and Lawless (1985) provide a detailed account.

64. This section extends the discussion in chapter 2.4 above.

65. Lee (1979); Census of England and Wales 1961, Census of Scotland 1961.

66. For more recent examples see Hepple (1979), Martin and Spence (1981), Owen and Gillespie (1982), Frost and Spence (1983). Various attempts, often linked with this type of approach, have also been made to attempt to identify particular localities, or types of locality, with persistent tendencies to lead or lag the national or regional cyclical series, for example King, Casetti and Jeffrey (1969), Bassett and Haggett (1971), Clff, Haggett, Ord, Bassett and Davies (1975 pp.107-141) and Frost and Spence (1981). It is questionable whether this approach, confining itself to an analysis of statistical regularities, does much to advance understanding of spatial labour market processes; see text.

67. This point emerges reasonably clearly in Brechling (1967) and Thirlwall (1966).

68. Gordon (1986 p.76) notes that "up to the early 1970s over 90 per cent of the effects of regional fluctuations in employment appeared to disperse within a year" through migration, while in the 1980s this was reduced to 10%. Unfortunately Gordon is not specific about precisely what these figures mean. The general point Gordon makes, though, is that at times of full employment, migration quickly returns regional unemployment rates back to their equilibrium pattern. This argument is fully concurred with, and indeed is central to the argument in the text. On a more specific point, it can at times take longer than a business cycle for this process to take place, in the event of heavy local job losses. Gordon does not specify precisely why the degree of equilbriation should fall when there is less than full employment; the basic point, it seems, is that at less than full employment there are no severe labour shortages in more prosperous areas to compel the intensification of the migratory stream.

69. Table 5.2 shows that during the long boom the employment performance of Northern Ireland was better than that of Scotland and the North West, and about the same as Yorkshire, the Northern Region and Wales. There are no grounds for supposing that Northern Ireland's persistently and unusually high unemployment rates are attributably to poor employment performances. Table 5.17 shows an unusually high natural demographic rate of population increase in Northern Ireland, which would have clearly strained labour markets.

70. An annual growth rate of employment of 1% per annum would represent a healthy growth rate of labour demand. If population growth outstrips this, any unemployment which results may be regarded as at least partially demographic in nature. Northern Ireland was the only UK region with a natural demographic growth rate in excess of 1% per annum during the long boom (Table 5.17).

71. Calculations made by subtracting the net gain in population through migration from the measured unemployment rate.

72. Thus one could construct a matrix for either the whole population (e.g. Brown 1972 p.258) or for the registered workforce, showing for this time net migration from Scotland to the Northern region, from the Northern region to Yorkshire and Humberside, and from Yorkshire and Humberside to the East Midlands and to the South East. A gradient of migration emerges between the outer periphery and the core, and not a simple outer periphery to core flow. Much labour market equilibriation takes place over relatively short distances.

73. All figures taken from the *Annual Abstract of Regional Statistics*.

74. Cited by Brown (1972 p.258).

75. See the maps in Coates and Rawstron (1971 pp.122-173), based chiefly on 1951 and 1961 Census data. A high concentration of immigrants is noted in the South East, and to a lesser extent in the West Midlands, and Coates and Rawstron relate this (p.172) to regional differences in the demand for labour.

76. For example Makower, Marschak and Robinson (1938, 1939, 1940), Oliver (1964).

77. Peach (1968) provides a particularly clear piece of analysis of this type, concerning West Indian migration to Britain. She emphasises, for example (pp.37-50), that there was a very close correlation between fluctuations in labour market indicators in the United Kingdom, particularly the number of employment vacancies, and the number of West Indian arrivals, but little more than a loose correlation between changing conditions in the West Indies and migration. Explicit criticism is made of some earlier writers who fail to show the connection between West Indian migration and labour market conditions in the UK. Peach draws attention to what, in a slightly different context, is one of the main conclusions in the text, that under conditions of full employment labour shortages are crucial for setting the pattern of labour force migration.

Johnson, Salt and Wood (1974) provide much useful information on labour migration within the UK, placing considerable emphasis on the role of the housing market in given labour market contexts. They deal only obliquely with the point made in the text, but it is of interest to note that in a sample survey conducted in 1971, on the basis of migrants identified using Electoral Registers, only about 1% of migrants to Chatham, High Wycombe, Huddersfield and Northampton were unemployed prior to their move. In conditions of low unemployment, labour force migration appears to be dominated by people moving from job to job, and not people escaping unemployment. If such is the case, net labour force migration tends to be not so much from areas of high unemployment to areas of low unemployment, but rather from areas of slow employment growth

to areas of fast employment growth.

78. See for example Woods (1982 pp.131-157). Woods distinguishes between the "why" of migration and the "how" of migration. He then suggests that the search for the causes of migration lies exclusively in the motivation of migrants, while any macro-scale analysis concerns only the impact of migrations. Thus the approach is conducted on a basis of methodological individualism. To state the basic point yet again, if 1,000 new jobs are created in a town, and 100 workers migrate to the town to take up new jobs, the cause of this migration is *not* some aspect of the psychology of the workers or the environmental attractiveness of the town, but rather the new demand for labour. Large numbers of Welsh moved from Wales to England in the 1930s not because of Welsh psychology or the English climate or scenery but because jobs were available in England and not in Wales. Furthermore, it would be fallacious to represent the increase in the number of jobs in England as part of the impact of Welsh migration. One would do better to reverse Woods' proposition, and to state the causes of migration in macro-scale terms (spatial patterns of demand for labour, and of employment growth) and to measure the impact of migration in micro-scale terms (do young people or older people migrate? how does this affect the age structure of populations?).

Apart from a few well-directed empirical studies, the treatment of migration by geographers has been weak, tending to concentrate either on the individual characteristics or individual decisions of migrants, or on variables which might be correlated with migration. Clarke (1965 p.125) for example notes that "the geographer finds himself at home in the study of migrations, for there are no laws", and then provides a list of about seventy different reasons why people should migrate. Clearly the geographer is not supposed to progress beyond the most naive empiricism. In fairness, it should be noted that Clarke (p.129) notes that an increase of job opportunities in urban areas can be a pull factor, attracting migrants from rural areas, but this evaluation is constructed so as to be applicable only to certain historical circumstances, notably situations in which there is an expanding urban economy and a stagnant rural economy. Beaujeu-Garnier (1966 pp.212-218) misses even this point; 19th century migration in Britain from the rural areas to the towns is treated exclusively in terms of people being forced off the land, as if the economic expansion of the towns, and the rapidly increasing demand for labour were irrelevant. Neither can one agree that "the prime cause of migration is absolute poverty, from which man flees, driven by the simple urge to survive" (Beaujeu-Garnier 1966 p.212); it is doubtful whether this applies on a large scale, except in extreme cases, even in the third world. In developed societies, where the cost of migration is high, it is often the poorest sections of the population who are most unable to migrate.

These are admittedly old-fashioned texts. More recent attention, in the wake of the "quantitative revolution" has concentrated on quantifying the distance-decay relationship in migration, in which the strength of migration flows (or, perhaps more accurately, internal migration flows) is negatively correlated with distance; see the review, in Woods (1979 pp.172-183) and Jones (1981 pp.214-220). Markov chain analysis has also been used (see Woods 1979 pp.183-191), with the underlying assumption that at a certain stage an equilibrium distribution of population will be reached. From the present perspective, this depends very much on whether there is an underlying equilibrium distribution of employment; this, to say the least, unlikely. The labour market

perspective, with labour shortage areas attracting migrants from labour surplus areas, has tended to be noted more in the case of international migration (e.g. Jones 1981 pp.266-278) than in the case of internal migration.

Clearly, labour market analysis will help explain levels of net migration rather more confidently than it will explain gross migration. Yet each component of migration (gross immigration, gross emigration, net migration) is potentially explicable in labour market terms if a fine enough level of analysis is used.

79. Maybe "effective demand" is a slightly awkward phrase here, but is used deliberately in order to draw attention to similarities and differences between the present treatment of unemployment and that of Keynes (1936). Keynes in his *General Theory* was arguing against the "classical" position, associated with Pigou (1933) and others that the economy always tended towards full employment at the peak of the cycle, however severe the preceding recession, and that if there was still unemployment at the upper phase of the business cycle this was because wages were set above the market-clearing rate. Keynes argued that instead of this general tendency towards full employment there was actually a unique equilibrium point, where aggregate supply prices equal aggregate demand prices, and that there was no reason to aasume that this equilibrium was at full employment. Demand-deficient unemployment would then be the result. Keynes argued further, and suggested that without state intervention the economy was structurally doomed to underemployment through lack of effective demand.

The argument being advanced here is that under certain historical conditions, full employment equilibrium is a possibility, with any recessionary disturbances from full employment being correctable in a subsequent cyclical upswing. Such conditions are to be found during the middle and late parts of a long cycle upswing. The persistent unemployment of the long cycle downswing is due not so much to a chronic structural tendency to underemployment, but rather to the recessions of the downswing being of such a severity that normal economic growth in the upswing is not sufficient to balance supply and demand in the labour market. In comparison with Keynes, much more attention is paid in the present analysis to the questions of economic growth, and the business cycle (and in particular the question of the effects of recessions of varying severity on the labour market). It is hoped to develop this argument in a later work on the economics of Keynes.

80. Extended philosophical discussion of this point is possible, but will not be developed here. The central point though would seem to be that the identification and description of an empirical regularity is a *summary* of some of the properties of a system being considered, rather than an *explanation* of how the system operates. The positivist approach in the social sciences, in logically equating prediction and explanation, fatally confuses descriptive summary with explanation, for prediction on the basis of empirical regularities which have been found in the data is extrapolation from a descriptive summary and should not be regarded as a form of explanation. It might well happen that the system being examined is invariant for long enough for the empirical regularity to persist, and give the illustion that the workings of the system being examined have, in both practical and scientific terms, been satisfactorily explained. But system changes confound such predictions; unemployment in the 1980s has been consistently over 10%, not the 1-2% that would have been predicted from extrapolating 1950s and early 1960s data. The "problem of induction", although

often stated in the textbooks in a way as to make it sound trivially unimportant (that the Sun has risen each morning on all previously recorded mornings does not necessarily mean that it will rise tomorrow), is in fact of considerable importance here.

To explain a phenomenon, to explain how a system works, one must get behind surface appearances; the systematic superficiality of positivist social science is an impediment rather than a help to understanding. This might broadly be termed a "realist" approach, although it is considered that sometimes outlines of the realist approach place too much emphasis on the possibility that the basic mechanisms might unavoidably be unobservable. The need is to search deeper, rather than to seek transcendent mechanisms.

Keat and Urry (1982) identify three basic positions in the social sciences, instrumentalism (regarded as a form of conventionalism), positivism and realism. Positivism stresses the equivalence of prediction and explanation, yet even in the experimental natural sciences prediction is surely a *test* of a hypothetical explanation and not the explanation itself. Both instrumentalism and realism deny this equivalence, but on different grounds. The instrumentalist approach denies altogether the validity of the search for explanation, and regards the search for predictions as the ultimate goal for science. It does not even matter if theories are clearly unrealistic provided they generate workable predictions. There is a clear overlap with positivist methodology here, and perhaps the main point of difference is that a positivist might, in moments of doubt, worry about the "real world" problem, the lack of correspondence between theory and the real world (e.g. King 1976), while the instrumentalist would have no qualms about this problem. In instrumentalist approaches, for example in various branches of sub-atomic physics or neo-classical economics, it is held not to matter if non-existent entities are generated in order to provide results.

The realist approach, to which the present author subscribes, considers that explanation is all important and that prediction, which in non-experimental work usually means extrapolation, is a poor test of explanation. The real world problem does not arise, since if a theory does not correspond to what is happening in the real world it will be rejected, even if it provides serviceable predictions over a limited field. The possibility of a highly unrealistic theory being given central theoretical status might occur under a positivist approach but not, if a critical examination has been carried out, under a realist approach.

To return to the empirical question being discussed, the works cited in the text and in note 66 above have provided almost no useful guidance in the theoretical study of regional unemployment figures which has been carried out in the text. The most remarkable omission is the complete lack of treatment (Gordon 1985 excepted) of employment change when discussing unemployment, yet surely if one is to study changes in unemployment the first place to look for an explanation is in changes in the employment level, and not in the "cyclical sensitivity" of a region. That such a basic point could be missed would seem to indicate some fundamental defect in the methodological approaches of dominant (positivist?) traditions in social science. Hence the need to refer, though more briefly than one would have wished, to underlying philosophical questions.

81. Chapter 6.6 examines the year 1972-73 in more detail. It is suggested that the underlying reason why London was losing jobs on a large scale while employment was flourishing elsewhere was

that the boom in land prices in this year was particularly strongly felt in London, the area with highest land prices, and presented employers with an attractive opportunity to capitalise on unusually high land values by selling land, often to speculative developers who were aiming to take advantage of sharply moving land prices, and to consolidate and expand employment in areas with cheaper land. There were in addition many ways in which high land prices could, directly or indirectly, squeeze out smaller producers.

It is emphasised here, in chapter 6, and elsewhere, that the events of 1972-73 are to be regarded as exceptional, as the result of a major reflationary push to try to recreate the disappeared status quo of full employment, and not as part of the "normal" evolution of post-1966 capitalism.

82. There were of course special circumstances in the year 1926-27, following the end of the nine month coal stoppage.

83. *Gazette*, July 1966. All figures seasonally adjusted.

84. This point is discussed in more detail in chapter 7.7 below.

85. Johnson and Salt (1980) outline various of the key issues, emphasising that geographical shifts of employment by employees within an organisation often leads to a considerable amount of migration. This was referred to as an "introductory study" but appears not to have been followed up in print.

86. In the designation of metropolitan counties in 1974, the boundaries of the West Midlands Metropolitan County have been drawn extremely tightly around the continuous built-up areas of Birmingham, etc., and Coventry, in some cases omitting the outermost parts of the built-up area. Examination of any current atlas will show that these boundaries are far more tightly drawn than the boundaries for any other metropolitan county. In effect employment figures for the West Midlands county are figures for a *city* (or, more accurately, two cities), while employment figures for other English metropolitan counties are figures for *conurbations*; the critical difference is that growth on the urban fringe is excluded in figures for the West Midlands, but included in figures for other metropolitan counties. In chapter 8 below the case is argued in more detail that for purposes of comparison between conurbations, the West Midlands County and Warwickshire are best treated as a single statistical unit.

87. See Champion, Clegg and Davies (1977 pp.179-183).

88. *Gazette*, various, 1969.

89. See the more detailed discussion in chapter 8 below.

90. See for example Bristow (1987). "The dominance of the two problem conurbations of Liverpool and Manchester over the economic fortunes of the North West lies at the heart of the region's current malaise", Bristow (1987 p.125) suggests, yet it is possible to take issue with this interpretation. The problem is one of intense urban *decline*, not of urban *dominance*. Section 5.2 above suggests that the urban-rural shift in Britain is not, as Fothergill and Gudgin (1982) argue, a feature of the whole post-war period, but rather is a feature of the post-1966 long cycle downswing. Urban decline in the North West since 1966 has been very severe (see for example Dicken and Lloyd 1978, Townsend 1982 pp.94-96, 110-115, Lloyd and Shutt 1985) yet it needs to be emphasised that

at the start of the downswing the problem areas of the North West were *not* the main cities, but rather the smaller and more isolated textile towns, especially those on the Pennine fringes. This is shown clearly by, for example, Smith (1968; see also Smith 1969), where on criteria of industrial change, industrial structure and even population growth the Liverpool-Manchester axis is in the more "healthy" part of the region. Smith (1968 p.186) notes that Liverpool's various socio-economic problems at this stage can be related basically to the high natural rate of increase of population rather than to economic decline; this is the interpretation favoured in the text here for the period to the mid-1960s. Rodgers (1980b p.264) suggests that around this time, Merseyside would have been the region's major growth point, and would probably have been so even without special status in regional policy.

In this thesis, relatively little attention has been given to the economic geography of Britain in the 1950s and early 1960s, so perhaps it needs clearer emphasis that in many respects the geography of relative economic health in the North West in the 1950s and 1960s, and that of the 1970s and 1980s, are radically different. In the earlier period the small textile towns represented the main problem areas, in later years the decline of the big cities dominated the picture. Thus, assessments of the geography of the North West depend in their conclusions very much on the time at which they were written. Rodgers (1980b) is a curious anachronism here; the urban problems of the 1970s are not ignored, but treated more as an overlay on the geography of economic problems in the 1960s, with the basic contrast still being drawn (pp.262-263) between prosperous lowlands and depressed highlands.

91. See Table 3.1 and the accompanying discussion in chapter 3; also the discussion in section 5.4 above.

92. This does not quite coincide with the British "megalopolis" (as described by Hall et al 1973, taking a cue from Gottman 1961), or central urban belt, since Liverpool is generally regarded as one end of the central urban axis. The question being posed here is why Liverpool, in contrast with the rest of the central belt, persistently had a high unemployment rate during the full employment years.

93. In the hinterland of a major settlement, economic development will tend to be most favoured, all other things being equal, in areas aligned between that settlement and other major settlements. Thus, for example, the most industrialised part of London's surrounding area has become that between London and Birmingham (see chapters 4.4, 5.2). Sometimes areas can be very much in the *shadow* of the major city, with that city lying between the area involved and the other major settlements. This often makes such an area relatively unfavoured for industrial development, compared with those parts of the city's surrounding area better placed to serve national markets; also there is a less diverse range of migration opportunities for inhabitants of the shadow zone than inhabitants of the open zone where the range of possible destinations is far less confined to a single city. There is therefore a tendency for shadow zone towns to suffer from relatively slow economic development and higher than the regional average rates of unemployment: for example, in the South East, the east Kent Coast (in pre-Channel Tunnel days) represents a very distinct shadow zone. The possibility being considered in the text is that even major port cities such as Liverpool and Hull found themselves with unemployment rates higher than areas on the open side of Leeds and Manchester as a result of shadow zone effects. There is partial

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support for the shadow zone interpretation, but in the case of Liverpool up to the late 1960s, the high rate of natural demographic increase of the workforce seemed a more important factor.

94. See especially Cunningham (1970a).

95. Pickett (1970 p.78).

96. Pickett (1970 p.92).

97. For example, in North East England the service sector accounted for 53.4% of total employment on Tyneside (North Tyne and South Tyne TTWAs) in 1971, but only 43.4% of total employment on Wearside, the subdominant conurbation. The regional average was 49.2% and the national average 54.1%. The employment structure of Tyneside, the dominant conurbation with an important role as a regional service centre, is clearly better placed to withstand industrial recession than in more purely industrial cities.

On a related point, it is often emphasised (e.g. Lever 1981, Fothergill and Gudgin 1982) that the poor employment performance of inner cities is not due to an adverse sectoral composition of the local economy, the sectoral compositions of conurbations often being more favourable than the national average. Such results are weighted, however, by the substantial levels of service sector employment in the city centre, while inner city employment problems are usually characterised by a declining *industrial* base, in which the sectoral composition of the inner city will usually tend to be adverse. Perhaps the inner city debate would be better focussed if the more graphic but more long-winded expression "inner industrial perimeter" (Jones 1971) were to be adopted instead of the phrase "inner city".

98. An attempt is made to track the employment history of Merseyside in the 1970s in chapter 6 below; 1972-73 is discussed in chapter 6.6.

99. Merseyside Socialist Research Group (1980 pp.20-25) consider some of these stereotypes, but argue that industrial militancy has been the *result* of unusually sharp economic decline rather than the cause. Much of Merseyside's employment has been concentrated in large branch plants. Large plants in most circumstances tend to have higher degrees of industrial militancy than small or medium size plants, while the large branch plants on Merseyside have often been particularly prone to contraction.

100. See especially Dicken and Lloyd (1978), Merseyside Socialist Research Group (1980), Lloyd and Reeve (1982), Lloyd and Shutt (1985), also Townsend (1983 pp.94-96).

101. One of the most important features of the British economy in the 18th century was the expansion into world, as opposed to European markets. To a large extent this expansion, and accelerated colonialism, was made possible by naval and military successes against rival Western European powers. This new orientation of trade meant a great increase in significance of the Western ports, not least Liverpool which expanded from being a small town to being Britain's third largest city (behind London and Edinburgh; also Manchester, if Manchester/Salford is regarded as a single city) by 1801 (see Darby 1973 pp.383-384, figures in Mitchell and Deane 1962 pp.24-25). Liverpool was, very conspicuously, deeply implicated in the slave trade, but trade in a wide range of other commodities,

and the encouragement to industrial production that this gave, led to the development of a sophisticated Merseyside economy; see Marriner (1982). It is an open question to what extent the growth of the South East Lancashire economy depended on Merseyside; what is clear, however, is that the growth of Merseyside, although greatly enhanced by the cotton trade in the 19th century, was not ultimately dependent on cotton, but instead was dependent on Liverpool being a focal point of economic interaction between Northern England and the wider world. Core status depended not on internal centrality but on the contrary on access to external shipping lanes.

102. Careful phrasing is necessary here; it would be incorrect to suggest that Liverpool's role as a port was essential to the *origins* of the Lancashire cotton industry, but it is clear that Liverpool's role as an intercontinental port and the rest of Lancashire's role as an industrial county, greatly enhanced each other in the 19th century, so that one could identify a North Western *regional* economy. Yet as Chapman (1972 pp.11-16) emphasises, the London-Manchester axis was far more important than the Manchester-Liverpool axis in the very early development of the cotton industry. London represented the primary market, the main centre of origin of technical improvements (often introduced by Dutch settlers) which were then transplanted to the provinces, and even represented the principal port for cotton until about 1800 (Chapman 1972 p.45). Later, though, Liverpool's greater proximity made it the premier cotton port.

By 1801, Liverpool had a population of 82,000, Manchester a population of 77,000, with various smaller centres (Blackburn, Bolton, Oldham, Salford, Stockport) each having populations between 10,000 and 20,000. At this stage, however, one gets the impression of the development not so much of a North Western regional economy, but rather of separate but linked Merseyside and inner Lancashire regional economies.

103. Extending the point made in note 102 above, the appearance given by the events of the 1970s and 1980s is of the re-separation of the North West economy into an inner Lancashire/Cheshire regional economy and a Merseyside regional economy, the latter remaining peculiarly depressed. Liverpool's great advantage, which led to the development of an identifiable regional economy, had earlier been accessibility to foreign trade; access to internal markets was relatively weakly developed. Now, however, the balance of locational advantages is reversed; access to internal markets is of great importance, while even Liverpool's role as a port has been greatly weakened by a reorientation of trade towards Europe, favouring the East Coast ports. There is a curious reversal between core and periphery.

104. Figures taken from the *Gazette*, July 1979.

105. See, for example, Townsend (1983 pp.99-103), and chapters 6 and 8 below. Between 1973 and 1981, employment in the iron and steel industry fell by 43.7% nationally, by 56% (41,000 jobs lost) in Wales and by 43% (19,000 jobs lost) in the Northern region (Census of Employment figures).

106. In January 1976, unemployment stood at 7.3% on Teesside and 7.9% in the Northern region. In August 1976, when unemployment peaked nationally, Teesside had 8.5% unemployment, and the Northern region 8.7%. By November, unemployment stood at 7.7% both on

Teesside and in the region as a whole (*Gazette*).

107. A comparison drawn by, for example, Warren (1980d p.361).

108. As shown in, for example, Tables A5 and 5.10. See also Scottish Council (1961), Rich (1980a), Slaven (1975 pp.223-229).

109. McCallum and Adams (1981) suggest that the often extremely high measured unemployment rates for sparsely populated rural areas in Scotland may in fact be artificially inflated to a large extent by the exclusion of self-employed farmers, and the working spouses of the same, from Census of Employment statistics. Such groups can of course represent a large part of the workforce in remote rural areas.

110. This point is developed in later chapters; see especially chapter 8.

111. In 1972-73, employment in Glasgow increased by 2.5% compared with, for example, increases of 5.6% in Irvine, 4.9% in Greenock, 4.6% in Kilmarnock and 4.0% in Paisley.

112. One can suggest that in any particular area, the birth rate will move towards its peak under conditions of full employment. The height of this medium term peak is given by cultural factors (e.g. percentage of Catholics in the population). Any departure from full employment will tend to be reflected in a fall in the birth rate, as marriages become delayed, and family formation is delayed, under conditions of economic stress. The extent of this decline reflects the extent of the departure from full employment, both through time and when different areas are being compared at the same time. The "cultural" factor would have to be very strong for birth rates in a depressed region to be higher than birth rates in a region of low unemployment.

113. Relevant statistics are presented in *Regional Statistics*, *Regional Trends*, various.

114. Place names can be politically contentious. In recognition of the point that a substantial proportion of the inhabitants of this city would regard "Londonderry", the name which appears in the *Gazette*, as a colonial imposition, and would prefer the name "Derry", the admittedly clumsy term (London)Derry is used in the text to indicate both appelations. The term which has been used on a local radio station, "Dash City" (i.e. London-dash-Derry), is regarded as perhaps too ephemeral!

115. This was also an important factor in 19th century Britain, when the rate of natural increase of population was unusually high. See the more detailed analysis in chapter 9.

116. Mac Laughlin and Agnew (1986 pp.254-257).

117. Mac Laughlin and Agnew (1986 p.257).

118. When the text was being written there was industrial unrest developing, which made headline news, in the Short's aircraft factory, reflecting the dissatisfaction felt by the predominantly Protestant workforce that management was still employing a few Catholics, in response to outside pressure.

Addendum: Note 85

A recent unpublished paper by Salt and Flowerdew (1986) provides a useful outline of patterns of internal migration at a time of high unemployment, with attention being given both to the occupational structure of migrants and to the institutional channels (e.g. vacancies filled within firms, advertisements in the national media, Jobcentre advertisements) by which jobs are made available to migrants. Under slump conditions, non-manual occupations (employers, managers, professional and other non-manual workers) tended to be highly migratory, as did the unemployed, while manual workers in employment tended to be far less migratory.

It is hard to conceive of any adequate labour *market* study in which migration is not given a prominent role, as migration is so often the mechanism by which supply and demand are brought into some sort of balance. The subject seems to have been under-researched however, and more empirical studies, like the one cited above, would be welcome.

Chapter 6 The Economic Geography of Downswing, 1966-1979

6.1 Introduction

Chapter 5.5 above has outlined some of the main shifts in unemployment during the post-1966 downswing. This chapter attempts to cover, in rather more detail, spatial patterns of employment change during the same period. For the years up to 1971, the main data source has been the annual regional employment statistics based on national insurance cards published in the *Gazette*. This source can help outline the most significant trends in the space economy, but does not allow for sub-regional disaggregation of the published figures, which makes it difficult to examine, for example, the nature of any urban-rural employment shift in the late 1960s. One may add that unpublished data, at a sub-regional or local scale, derived from the national insurance card count, may often by highly unreliable. Allen and Yuill (1977) suggest the need for *extreme* caution in dealing with pre-1971 employment figures, especially figures for individual industrial sectors at a sub-regional scale. These strictures would apply, with somewhat less force, to employment figures at the regional scale. Therefore there are substantial elements in the discussion of the years from 1966 to 1971 which should be regarded as subject to the proviso "assuming the data are accurate".

The situation improved from 1971 onwards with the publication of the Census of Employment (chapter 3.4). The availability, on NOMIS,[2] of employment statistics on a sub-regional scale, allows far greater possibilities for exploring in detail the geography of recession. The balance of this thesis requires that such detailed analysis be confined to the slump years (chapter 8). In the period leading up to the slump, figures for employment at the county or local level are presented only if they are required in order to understand *regional* patterns of employment change.

The basic approach, both here and in chapter 8, is to examine regional (or local) employment levels at two different points in time, to identify where employment is changing more favourably or less favourably than the national average, and then to identify which sectors are primarily responsible for producing such regional (or local) differences. Quite frequently it will be found that higher than average rates of employment decline in an unfavoured area result primarily from a deep recession in a locally dominant sector (for example coal, steel, textiles or motor vehicles) with employment change in the rest of the local economy being close to the national average. In such a case it would clearly be inappropriate to ascribe rapid

employment decline to an all-embracing *regional* crisis; there may be a crisis in a particular industry which has an exceptionally severe effect on the local economy, but that is another matter. If however a certain region or conurbation has rates of employment change significantly worse than the national average across a wide range of sectors then one is justified in approaching the problem in locational rather than sectoral terms and trying to identify and explain a specifically regional or urban crisis, rather than a crisis in, say, the steel industry.

It is important to recognise that the statistics presented relate, as far as possible, to changes across single year periods. The intention is to uncover the regional *dynamics* of change, thus what is happening under specific conditions in a particular arm of the business cycle, rather than to uncover regional *trends* in employment change. It is held, indeed, to be questionable whether there is such a thing as a long run economic trend which is independent of short run cyclical changes; any long term tendency is regarded here as primarily an accumulation of short run tendencies, which might happen to be pointing in the same direction for a long period of time.

The method chosen would seem to be very effective at identifying the major elements of exceptional decline in an area during a period of economic crisis, but is less suitable for detecting more subtle shifts which might account for perhaps a 0.2 percentage point shift in the employment growth rate in a single year, but which might, over a period of several years, have a considerable cumulative employment effect. Undoubtedly, many of the locational shifts which underlie the much noted urban-rural employment shift[4] are of this type. However, the analysis presented here and in chapter 8 suggests that much of the higher than average rates of job loss in the more industrially oriented conurbations is attributable to crises in particular industries; vehicles in the West Midlands or textiles in West Yorkshire, for example. This point is often overlooked in studies such as Fothergill and Gudgin (1982) and Lever (1981) which attempt to trace the long term trend in the decline of the conurbations rather than to identify the short term dynamics of urban economic change.

Another possible limitation of the type of statistical approach used here, if pursued in isolation, is that it does not bridge the divide between employment geography and industrial geography, a division that is very apparent in the papers collected in Massey and Meegan (1985).[5] It may be possible to explain, for example, faster than average rate of employment decline in a particular county at a particular time as being the result of such a county having a much faster than average rate of employment decline in certain sectors, but this does not explain why job

loss *in a particular industry* should be much faster in one place than in another. To date there does not seem to be any totally satisfactory fusion in current geographical analysis between industrial geography (the geography of employment change in particular industries[6] or corporations[7]) and employment geography (the geography of employment change in particular localities, with possible disaggregation by industrial sector). These fields of study are complementary, and yet require highly contrasting research methods (interview programmes in one case, detailed statistical analysis in the other) which make the desired fusion more difficult.

The period under analysis, from 1966 onwards, is one dominated by economic recession, so that the analysis below is primarily one of employment decline rather than of employment growth. The extent of employment decline during the post-1979 slump has tended to divert attention away from the seriousness of employment decline before the slump, and yet even before the 1973 oil crisis the UK economy was going through a period of deep recession. The early recessions of the downswing (1966-68, 1970-72) started under conditions of relatively low unemployment, so that at the trough of each recession unemployment rates were not particularly high by the standards of the 1980s. It is important to emphasise, however, that even as early as 1966-67, the rate of job loss was severe. Between 1966 and 1971, total UK employment fell by 1.27 million, or 5.4% (Table A4) despite a considerable economic boom up to 1966. For comparison, employment fell by 1.57 million, or 6.8%, in the most severe phase of slump between 1980 and 1982, and by 2.11 million or 9.1% between 1979 and 1983. The amount of employment lost in the early part of the long cycle downswing was thus almost of slump proportions, even before the effects of the oil crisis on the world economy (which sometimes tend to be exaggerated) are taken into account. It is true that the job loss in the earlier period was spread across two recessions rather than one, but while recession was less concentrated, it still accounted for the loss of over a million jobs. The geography of recession starts in the mid-1960s, not in the mid-1970s.

6.2 1966-1972; Main Trends

Table 6.1 summarises employment change by region for each year from 1966-67 to 1971-72, while Tables 6.2 to 6.7 show in more detail annual regional patterns of industrial employment change, divided into the main sectors of manufacturing, construction and coal mining. Perhaps the first point to note is that there was a continual sharp drop in employment in production industries, with a fall of over 1½% per annum in all years except for a brief respite in 1968-69. There were particularly severe declines in employment in 1966-67, prior to the devaluation of the pound,[8] and between 1971 and 1972.

Employment in the service sector remained virtually static throughout most of the period, although in 1971-72 service sector employment suddenly started to expand,substantially matching the decline of employment in production industries in that year. The question of service sector employment during the long cycle downswing is complicated, and is discussed in more detail in section 6.9 below. Employment expanded substantially in the health and education sectors throughout the post-war period up to the late 1970s, when public sector cutbacks halted this growth. In the miscellaneous and distributive services, employment had grown gradually throughout most of the long cycle upswing, but contracted sharply in the late 1960s. It would seem that this drop in employment was attributable primarily to the imposition of Selective Employment Tax, effectively a tax on employment in construction and services,[9] rather than simply to the strength of recession in the late 1960s. From 1971 onwards, employment in the miscellaneous and distributive services increased sharply again. In the short term this could well have represented a rebound following the repeal of Selective Employment Tax. In the longer term, however, a more important factor would have been the increasing supply of labour, with rising unemployment, prepared to work in the service sector for less than the standard industrial wage rate; this encouraged the growth of service sector employment.

When the tendencies of declining employment in production industries, and static aggregate employment in service industries,[10] are added together, the result is a substantial recessionary drift. The period from 1966 to 1972 was, as Table A5 shows, the longest modern peace time period in which employment fell in each and every year. The structures of employment decline in the two main recessions of the period were rather different, as Table 6.9 shows. In the earlier recession (1966-68), there were undoubtedly significant job losses in manufacturing,

with 370,000 jobs being shed, but the proportional rate of job loss was significantly greater in construction, where 140,000 jobs were lost, and in coal mining, where 90,000 jobs were lost. While construction is spatially a very widespread form of economic activity, coal mining is a highly localised form of employment, and a decline of employment of 25.3% in three years (1966-69) led to a considerable intensification of recession in the coal mining regions.

After the deep shocks of the inter-war recessions (chapter 4) employment in the coal industry remained fairly stable until the late 1950s (Table 6.8). The decreasing importance of coal, relative to oil, as a power source meant, however, that a considerable reduction of coal mining employment was likely to take place at some stage.[11] Table 6.8 shows that employment in this sector fell from slightly under 800,000 in the late 1950s to 300,000 in the mid-1970s. The most severe period of job loss in coal mining was from 1959 to 1970, when 400,000 jobs were lost. In effect, rationalisation was taking place under the cloak of full employment; for most of the time, expansion in other sectors more than kept pace with the decline of employment in coal and other traditional declining industries such as cotton. As chapter 5 makes clear, however, the bulk of this growth in expanding sectors took place away from the centres of declining industries; one of the objectives of regional policy was to attract new industrial employment to declining coal mining areas in order to stabilise employment levels.

Employment changes in construction and manufacturing, as presented in Table 6.8, show a contrasting time pattern. The boom of the late 1950s and early 1960s did little to increase employment in manufacturing, partly because a significant international acceleration of productivity growth in manufacturing meant that the growth rate in output could be increased without greatly increasing manpower.[12] Since employment in manufacturing expanded rapidly in the USA,[13] there is an implication that, with employment remaining merely stable, manufacturing industry in the UK was losing competitiveness. When economic conditions turned for the worse, from 1966 onwards, employment in manufacturing declined substantially during each recession and tended to increase only slightly during each recovery. There was a clear *spiral* of decline in manufacturing industry in that job loss became successively more severe in each recession of the downswing; employment in manufacturing fell by 4.1% between 1966 and 1968, by 6.7% between 1970 and 1972, by 7.9% between 1974 and 1976, and by 16.6% between 1979 and 1981.

In contrast with manufacturing, employment in construction grew very quickly during the 1958-66 boom, with 300,000 jobs being created, and then fell sharply during the early stages of the long cycle downswing.

Nearly 400,000 jobs were lost in the construction industry between 1966 and 1971 in what was effectively a single, long, severe recession in construction. Throughout the long cycle downswing as a whole (1966-83) employment fell by an average of 2.5% per annum in both manufacturing and construction, but the job loss in manufacturing took place mainly in the later stages of the downswing while that in construction took place mainly in the early stages. It is highly probable that the levying of Selective Employment Tax on the construction industry in the late 1960s was a major factor accounting for the severity of the early job loss in this sector.

It would seem that the 1958-66 boom in construction was more intense than that in manufacturing, but that the subsequent post-boom depression was also more intense. It has already been noted (chapter 2.7) that in the switch from "austerity" to "affluence", the diffusion of ownership of such products as cars, televisions and telephones was rapid. Much the same applies for home ownership, in the UK at least. This is reflected in figures for housing starts in the private sector, which numbered 247,500 in 1964, compared with 120,400 in 1956 and only 19,800 in 1950.[14] This, when combined with a modest but still substantial increase in housing starts in the public sector, was largely instrumental in bringing about a construction boom.[15]

The main industrial trends of the 1966-68 recession were thus for employment to fall sharply in construction and coal mining, with more moderate proportional declines in manufacturing. In the 1970-72 recession, the decline in manufacturing employment accelerated considerably, although this was offset by more favourable trends in the service sector. These recessions now need to be examined more closely, with attention being given to regional patterns of employment change.

6.3 The 1966-68 Recession; Patterns of Industrial Job Loss

Tables 6.2 and 6.3 summarise the main regional changes in industrial employment levels in the 1966-68 recession. Job loss was much faster than average in both years in Yorkshire and Humberside and the West Midlands, and to a lesser extent in the South East and the Northern Region. In the North West and in Wales, industrial job loss was significantly faster than the national average in 1966-67, but significantly slower than the national average in 1967-68. Scotland had a slightly lower than average rate of industrial job loss, while the East Midlands and South West had rates of job loss considerably below the national average. In East Anglia, industrial employment expanded, despite the recession.

In part, such patterns of recession reflect tendencies which were to be operative over a long period, and in part they reflect a set of events specific to a particular recession. One feature which was to be repeated year after year in the downswing is the relatively favourable position, in employment terms, of East Anglia and the South West. These were regions which had generally been passed over by the industrial development of the 18th and 19th centuries, and as a result did not accumulate employment in those sectors, such as textiles, which were particularly vulnerable to 20th century industrial recessions.[16] These regions, lacking a substantial indigenous industrial base, were generally not themselves prime movers of the post-war long boom in industry, but being close to the congested London and South-Eastern core, they attracted several decentralising industries, which were seeking low cost locations within the core regions.[17] The relatively favourable industrial performance of the "outer South" reflected not just the direct employment effects of decentralisation, but also the likelihood that future rounds of investment would tend to favour low cost, decentralised factories rather more than high cost, centralised factories.

The South East was losing its industrial dominance from the mid-1960s, a feature which shows clearly in the 1966-68 recession (Tables 6.2, 6.3) and throughout the following ten years. Four main features of this need to be noted:

(a) A substantial deceleration of employment growth in those industrial sectors, such as electronics, which had been primarily responsible for the earlier boom in industrial employment in the South East.

(b) Industrial decentralisation, encouraged by regional policy incentives, to the assisted regions.

(c) Industrial decentralisation, responding to cost differentials,

to the "outer South", which may be taken to comprise East Anglia, the South West, parts of the East Midlands, and the outermost parts of the South East region.

(d) A high rate of factory closure in London *not* directly attributable to decentralisation, as a result of the problems of operating in a location with exceptionally high costs during a period of general industrial decline.

Factors (a), (b) and (d) would tend to cause a relative deterioration of the position of the South with respect to the North, a feature which was to become very noticeable in the early 1970s (Table A6), while factor (c) would not affect North-South differentials, but would considerably affect differentials in the rate of employment change between inner South and outer South. Factor (d) would also substantially affect the inner South/outer South differential, while the effects of factor (b) are unclear; much regional policy migration originated from London,[18] but it is possible that in the absence of regional policy, the new investment would have been located in other parts of Southern England instead, making it uncertain whether regional policy had a greater long term effect on employment levels in London or the rest of the South.

The general picture for Southern England during much of the downswing was that there was a zone of high growth, but from a low employment base, across much of the outer South, but with large scale job loss in London depressing employment growth rates in Southern England as a whole, bringing them in line with the national average (Table A6). This, however, was a medium term tendency rather than a long term tendency; there was no reason why Southern England, with its very large consumer markets, favourable industrial structure and information-rich environment should not at a later stage again become a highly favoured area for economic growth. Table A6 suggests that such a situation was, in relative terms, already in being by 1977-78, a feature to be discussed later. Between 1966 and 1977, however, employment levels in Southern England were strongly affected by factors (a), (b), (c) and (d) above.

In the rest of Britain, much depended on the degree to which the industrial employment base was vulnerable to recession. If there was a deep recession in the cotton industry, employment in the North West would decline sharply, and if in the wool industry, West Yorkshire would be affected, and so on. In general, the East Midlands were relatively lightly affected by this type of vulnerability, but all the other regions of the Midlands and periphery were severely affected at various stages by this type of problem. A cautionary note must immediately be added, however. The severe decline in industrial employment in the West Midlands

up to 1979 did not result from any exceptionally severe *national* decline in the motor industry, but rather resulted from the fact that any job loss in this industry was disproportionately concentrated in the West Midlands. This point will be amplified in the later discussion of individual recessions.

(i) The "old, declining industries"; coal and textiles.

Leaving aside the construction industry for the time being, two main industries dominated job loss in the 1966-68 recession. These were coal mining and textiles, the two industries which had also dominated job loss in the late 1950s and early 1960s (Table 5.8) and in the inter-war period (chapter 4). Job loss in coal mining in the 1966-68 recession was little faster than it had been in previous years (Table 6.8), yet was substantial enough to have a major impact on the geography of recession, especially in 1967-68.

In 1966-67, there were 24,800 jobs lost in coal mining, compared with 364,000 in other industrial sectors. In 1967-68, 60,400 jobs were lost in coal mining and 143,000 in other sectors. The proportion of net industrial job loss accounted for by coal mining increased from 6.4% in 1966-67 to 29.7% in 1967-68. In these two years, coal mining employment declined by 22,400 in the Northern region, 13,900 in Yorkshire and Humberside, 14,500 in Wales, 10,700 in Scotland, and between 6,000 and 9,000 in each of the West Midlands, the North West and Wales. Some of the heaviest job losses took place in areas which already had high unemployment, such as North East England and South Wales, giving a powerful extra twist to the local accumulation of unemployment there (chapter 5.5). Coal mining job loss between 1966 and 1968 accounted for 1.7% of *total* 1966 employment in the Northern region, 1.5% in Wales, 0.7% in Yorkshire and Humberside and 0.5% in Scotland, and thus accounted for a large part of regional inequalities in employment change in the recession, and indeed through much of the 1960s (Table A5).

The recession was also extremely severe in the textile industry,[19] even if rates of job loss were not as high as in the coal industry. In 1966-67, 58,800 textile jobs were lost in the UK, a fall of 7.3%. The net job loss in this sector then fell to 12,700 in 1967-68. The textile industry was therefore the main industry of recession in 1966-67, while the coal industry was the main industry of recession in 1967-68.

The severity of manufacturing job loss in the North West, Yorkshire and Humberside, and Scotland in 1966-67 can be explained in terms of the depression in the textile industry. In the North West, over half (26,600) the 51,200 manufacturing jobs lost were in textiles, representing a decline of employment in the local textile sector of 12.0%, an extremely severe recession. Outside the textile sector, manufacturing employment in the North West fell by 2.1%, which was less then the national average rate of decline. Table 6.9 shows that in Scotland and Yorkshire and Humberside, it was again only as a result of the depression in the textile industry that manufacturing job loss in

these regions was more severe than the national average. In the following year, as the recession in textiles lost force, Scotland and the North West each had a lower than average rate of job loss in manufacturing, but Yorkshire and Humberside lost a further 2.5% of its manufacturing employment, compared with a national average of 1.0%. A further 7,700 jobs (6.6% of the regional total in the sector) were lost in the Yorkshire and Humberside woollen and worsted industry, while 9,000 jobs were lost in the engineering sector, a sector which will be discussed later.

In general, the geography of recession in the peripheral regions in 1966-68 may be explained in fairly simple sectoral terms, with heavy losses of coal mining employment in the coal fields and heavy losses of textile employment in the textile areas. Admittedly, the high rates of job loss in coal mining in Wales and the Northern region were offset by relatively favourable performances in manufacturing as a result of regional policy, a feature which clearly shows up in Tables 6.2 and 6.3, but this may perhaps be regarded as a secondary feature rather than as a primary feature. The faster than average declines in manufacturing employment in the West Midlands and the South East, and the slower than average declines in the East Midlands are more complicated to interpret. The problem is that within an industry, there may simultaneously be not only job losses in a recession, but also substantial shifts in the industry's *geography* of employment. This point, emphasised by Massey and Meegan (1982), is continually encountered in any analysis of employment change in the post-1966 downswing, and makes the period far more difficult to interpret than the 1920s and early 1930s, when spatial patterns of job losses could be envisaged primarily in sectoral terms. A consideration of recession in the vehicles industry in 1966-68 indicates some of the difficulties involved.

(ii) The Vehicles Industry

Tables 6.2 and 6.3 show that the West Midlands had a much higher than average rate of manufacturing job loss. This is accounted for by the recessions in the vehicles sector, in which the region lost 16,800 jobs between 1966 and 1968, and in the metal goods (n.e.s.) industry, in which the region lost 12,800 jobs, probably in part as a knock-on effect of the local recession in the vehicles industry, which would substantially reduce local demand for car components. There were also high rates of job loss in metal manufacture, in which 9,300 jobs were lost, and in engineering, in which 14,100 jobs were lost. These four sectors accounted for a total job loss in two years of 52,000 (5.7%), compared with 17,800 (4.9%) in other sectors. The West Midlands were hit primarily by a combination of a national recession in the metal-using and metal-producing industries, a recession in the vehicles industry and the additional local effects of a recession in the vehicles industry on other industries.

The South East was also severely affected by recession in the vehicles industry, with 35,400 jobs being lost in two years. This represented a loss of 13.2% of the industrial base in this sector, and represented a substantial proportion of the 126,200 manufacturing jobs lost in the region between 1966 and 1968. There were, however, other patterns of recession in the South East, which will be discussed later.

On first examination, it would appear that the severity of recession in the vehicles industry was largely responsible for the relatively high rates of job loss in the South East and the West Midlands. Table 6.10 suggests, however, that it is the *geography* of recession in this sector which was important, not the *severity*. The rate of job loss in the vehicles sector was only slightly higher than in manufacturing as a whole, but while 50,200 jobs were lost in the traditional vehicle-producing regions, there was a net *gain* of employment of 10,500 in the rest of Great Britain. A decline in employment of 10.3% in the traditional vehicle producing areas was set against an increase of 3.0% in "non-traditional" vehicle producing areas. This indicates that decline and major decentralisation were operating simultaneously, a feature also of the 1970-72 and 1974-76 recessions.

An important difference between the 1966-68 recession and the 1974-76 recession was that in the earlier period there was a phase of "active decentralisation" in which new plant was being set up in non-traditional centres,[20] whereas the later period was characterised more by "passive decentralisation", in which existing plant in non-traditional areas is largely unaffected by recessions, as the main

burden of rationalisation is borne by plant in the traditional centres of the industry.[21] The switch from active decentralisation to passive decentralisation became an important feature of several industries during the 1970s as the pace of expansion faltered and investment in major new industrial projects declined. Table 5.11 shows, for example, that gross investment in new buildings and works in manufacturing industry was about 50% higher in the 1966-68 recession than in the 1974-76 recession, and over twice as high as in the post-1979 slump. This implies much greater scope for the active decentralisation of employment in the early recessions of the long cycle downswing (and the recessions of the long cycle upswing) than in the later stages of downswing.

A major feature of the British vehicles industry at this stage was the planned decentralisation of employment from the West Midlands and the South East to Merseyside. Keeble (1976 pp.183-186) notes that between 1959 and 1971, employment in the Merseyside motor vehicles industry (MLH 381) expanded from 1,500 to 33,000, an increase of nearly 3,000 per annum. Ford, Vauxhall and British Leyland were major employers in this influx. Table 6.10 shows that in the 1966-68 recession, employment in the vehicles order in the North West *increased* by 9,200, but by 11,600 in the motor vehicles minimum list heading. The available published figures do not allow for a disaggregation of employment change between Merseyside and the rest of the North West.

Much of Merseyside's "economic miracle"[22] was based, not on the growth of indigenous industry, but on the inward migration of externally controlled industry. Rodgers (1980b p.278) notes that by 1975, 94,000 new industrial jobs were created on Merseyside, yet about a third of these jobs were in the motor vehicles sector. The expansion of 60,000 new manufacturing jobs, in the space of 30 years, in other sectors represents steady but far from spectacular growth. Fothergill and Gudgin (1979b p.216) have calculated that the differential shift for manufacturing on Merseyside averaged +500 jobs per annum between 1959 and 1966, +2,200 per annum between 1966 and 1971, and -2,400 per annum between 1971 and 1975 when employment in the vehicles sector was beginning to decline even on Merseyside. The magnitudes of these figures suggest an interpretation in which the industrial performance of Merseyside was relatively weak during the post-war period, so that even with the benefits of regional policy, the differential shift in Merseyside's manufacturing industry would be negative when the effects of the growth of the motor industry are excluded. It should also be remembered that these figures take no account of the decline in port-based labour on Merseyside, which was substantial during the period.[23] Employment levels on Merseyside were largely propped up by the growth of

the vehicles industry, and when this prop was removed, the underlying vulnerability of the Merseyside economy became more apparent.

Section 6.6 below suggests that the problems of the Merseyside economy during the 1970s reflect a situation in which Merseyside was unable to generate significant *new* industrial growth, while the concentration of employment in large, externally owned branch plant firms made the local economy highly vulnerable to job loss. In contrast, the main problem faced by the West Midlands during the 1970s was that the region was adversely affected by the active and passive decentralisation of the motor industry during a period of recession. These problems, however, were still embryonic in the 1966-68 recession; the West Midlands still had low unemployment despite a high rate of industrial job loss, while Merseyside was still benefiting from new jobs in the vehicles industry, despite the national recession.

Attention in this section has so far concentrated on the contrast in the vehicles industry between major job loss in the West Midlands and major employment growth on Merseyside. It should not be forgotten, however, that 35,400 vehicles jobs were lost in the South East in 1966-68 recession, while Scotland and Yorkshire and Humberside each had a high rate of job loss in the sector, but from a relatively small base (Table 6.10). Job losses in the railway vehicles sector, a declining sector largely absent in the West Midlands, were significant in the South East, where 6,900 out of 17,000 jobs were lost, in Yorkshire and Humberside,where 3,400 out of 12,000 jobs were lost, more than accounting for the total job losses in the vehicles sector, and in the North West, where 2,300 out of 14,600 jobs were lost. This sector has been in exceptionally severe decline during the post-war period, while the extent of the British railway network was being sharply cut back in the 1960s.[24]

In motor vehicle manufacturing, 24,700 jobs (14.1% of the region's employment in the sector) were lost in the South East, indicating that the West Midlands was certainly not the only core region to lose employment from the decentralisation-in-recession in the motor industry. Scotland, which lost 3,400 out of 21,000 jobs (16.2%) was, like Merseyside, an area which had gained employment from the decentralisation of the vehicle industry. The contrasts in employment performance in the 1966-68 recession, and in later recessions, were, however, very sharp, with substantial employment growth on Merseyside in 1966-68, and substantial job loss in Scotland. It would seem that Merseyside, on the extreme outer edge of "megalopolis" was a strategically important centre for the vehicles industry, especially since most of the early growth of this industry took part in the Southern half of megalopolis with the implication that substantial growth in the Northern half could well create substantial

savings in transport costs to Northern markets. Scotland, however, would appear to have been too peripheral to be a suitable location for the vehicles industry, which become only weakly established, and was highly vulnerable to job loss during recessions. Keeble (1976 pp.187-191) cites evidence that the location of the British Leyland truck industry in Bathgate in Scotland incurred extra transport cost of about 3 to 4% of the final selling price, while Ford, whose earlier main operations in Britain were in the South East, substantially *reduced* overall distribution costs by setting up plant on Merseyside.

(iii) The Engineering and Electrical Sectors

It is not only in industries of major job loss that substantial regional differences in the rate of employment change are to be found. The engineering and electrical industries were relatively undepressed in the 1966-68 recession, yet showed considerable inter-regional variations in the rate of employment change. In some regions there were heavy job losses, yet other regions were expanding their employment significantly in these sectors. Tables 6.11 and 6.12 show regional patterns of employment change in the mechanical engineering sector and the electrical and instrument engineering sector during the 1966-68 recession. In the 1959 Standard Industrial Classification, these two sectors were rather crudely amalgamated, or, more accurately, not dis-amalgamated, and classed as "engineering and electrical goods". In the 1968 Standard Industrial Classification, the engineering sector was divided into three orders; mechanical engineering, instrument engineering and electrical engineering.

Table 6.11 shows that while the rate of job loss in mechanical engineering during the recession was not particularly high, the bulk of the job losses were concentrated in four regions; the North West, Scotland, Yorkshire and Humberside, and the West Midlands. The first three of these regions each lost about 8% of their employment in this sector, compared with a national average loss of 3%. The mechanical engineering sector is so diverse that it seems pointless either to examine in detail individual components of these job losses, or to try to present "law-like" statements about the sector as a whole which might well miss many of the important features affecting individual sectors. It is important to note, however, that if a region shows a high rate of job loss in the mechanical engineering sector, this is usually because several minimum list headings are shedding labour quickly, and tends not to be the result of the impact of recession being confined to one or two particularly vulnerable sectors. For example, out of the 9,400 jobs lost in mechanical engineering in Yorkshire and Humberside in 1967-68, 3,500 were lost in "mechanical engineering n.e.s.", 2,100 in "industrial plant and steelwork", 1,900 in "other machinery", 1,400 in "textile machinery and accessories", etc. This is a highly diverse range of job losses. The Yorkshire and Humberside economy was severely affected by a deep local recession gathering pace in the mechanical engineering industry[25] at a stage when the round of major job losses in the textile sector had not been completed, and thus in 1967-68 had the highest rate of manufacturing job loss of any British region (Table 6.3).

The pattern of recession in the mechanical engineering industry

may fairly readily be summarised in terms of high rates of job loss in the heavily urbanised traditional industrial regions (WM, YH, NW, Sc), and low rates of job loss in Southern England and the East Midlands. Wales actually increased its employment in mechanical engineering during the recession, presumably largely as a result of regional policy assistance, while in the Northern region it seems likely that regional policy growth, and decline in the region's "traditional" mechanical engineering sector, largely offset each other, resulting in a lower than average rate of job loss. Regional contrasts in the rate of employment change in this sector were extreme; 15% employment growth in Wales, 1% employment decline in the South East, and 8% employment decline in Scotland. In that the mechanical engineering sector was at this stage the largest of all manufacturing sectors, such contrasts in employment performances would clearly have had a considerable impact on regional differentials in total employment change.

In the electrical engineering and instrument engineering sectors (taken together) job loss (Table 6.12) tended to be higher than average in the traditional centres of the industry, the South East, the West Midlands, and the North West, and also in the East Midlands, while other regions showed employment growth. This growth was particularly strongly marked in Scotland, where 4,900 jobs were created, perhaps largely as the result of American-owned companies investing in new plant in Scotland, a conspicuous feature of the Scottish economy during the late 1960s and 1970s.[26] In Scotland, and also in East Anglia, employment in the electrical engineering sector grew in both years of the recession, but rather more modestly in 1966-67 than in 1967-68. In Wales, the South West and the Northern region, employment in the sector fell in the first year of recession but increased sharply in the second year.

Electrical engineering is an industry which, once beyond its adolescent spurts of growth (mainly concentrated in the South East), is highly amenable to decentralisation,[27] both to the "outer South" (EA, SW) and to the assisted regions (N, Wa, Sc). In the South East, employment growth in this sector would tend at this stage to be around the national average, with a concentration of activities in the technologically more advanced parts of the industry[28] tending to boost local rates of employment growth, and the process of decentralisation tending to depress growth rates in employment. It was later to be found, however, that spatial mobility of investment in the electrical engineering industry could be expressed on a global scale as well as on the national scale, with the assisted areas of the UK often being in direct competition for employment and investment with low wage areas abroad. This problem

started to become especially acute in the 1974-76 recession. Thus, while employment growth in electrical engineering in the assisted areas helped offset industrial job losses in other sectors, such boosts to employment could not be repeated indefinitely.

(iv) Construction, 1966-1970

No consideration yet has been given to patterns of job loss in the construction industry, although this was an industry which shed 130,000 jobs between 1966 and 1968, and a further 190,000 jobs between 1968 and 1970. Table 6.8 shows that employment in construction expanded rapidly during the "boom of affluence", with 190,000 jobs being created between 1959 and 1966, a rise of 21%, but when the boom broke, jobs were lost even more rapidly. By 1972, employment in the construction industry had returned to its level of the 1950s, and remained fairly steady for the rest of the decade. The general picture for the construction industry is that employment has tended to remain steady throughout the post-war period up to the slump, apart from a major seven year boom starting in 1959, and a major five year recession thereafter. The switch between long cycle upswing and long cycle downswing was far more sharply marked in construction than in any other sector. Undoubtedly the imposition of Selective Employment Tax contributed to the problems of job loss in the construction industry, but presumably not to such an extent as to be *solely* responsible for a decline in employment of 23.3% in 5 years. It is suggested that a substantial proportion of job losses resulted simply from the breaking of the earlier boom.

It would seem that a form of accelerator mechanism is in operation.[29] When there is a steady rate of economic growth, output in the construction industry increases steadily, maintaining levels of employment. If, however, the rate of growth in the economy increases significantly, as in the mid-1920s, the mid-1930s, or the post-1959 period, the demand for housing and for other products of the construction industry increases more then proportionately. Any substantial economic boom will, in the fastest expanding areas, tend to leave shortages of housing, industrial floor space, and so on, and thus induce a boom in construction. If, however, there is a sharp downturn in the economy after a boom then there is a sharp decline in employment in construction. It would seem, though, that periods of recession after a period of slow growth do not necessarily tend to lead to a large scale decline in construction employment, since there is no boom to react to. Thus, while manufacturing has been in a spiral of employment decline from 1966, with each recession suffering greater job losses than the previous recession, the bulk of the job loss in construction took place in the late 1960s, and also just after the land boom of 1972-73.

In that 320,000 jobs were lost in the construction industry in four years, it would clearly be improper to omit discussion of this sector. Figures for year-to-year changes, by region, in employment in

the construction industry, as given in Tables 6.2 to 6.6, present a highly confused picture, though, with extremely large fluctuations in the performance of single regions in consecutive years. For example, employment in construction in the North West declined by 8.2% in 1966-67, the heaviest rate of job loss of any region, but increased, against national trends, by 3.1% in 1967-68. One should not discount the possibility here that the published figures for 1967 are understated. In the West Midlands, in contrast, 4.7% of construction jobs were lost in each of these two years. In general, it seems that the periphery was more affected than the core by job losses in construction in 1966-67, but that in 1967-68 employment in construction stabilised in the periphery and continued to decline in the core. In both 1968-69, and 1969-70, when the recession in construction re-intensified, core and periphery tended to be roughly equally affected. Without going into details of regional fluctuations in council house building, private house building, infrastructural investment and new factory and office building, a detailed appraisal of which goes well beyond the bounds of this thesis, it is difficult to say much about regional changes in construction employment for single years.

A rather clearer picture emerges if the 1966-1970 period is taken as a whole. Table 6.13 shows that as of 1966, five regions (EA, SW, N, Wa, Sc) had a significantly higher than average proportion of their employed workforce working in the construction industry, whereas four regions (WM, EM, YH, NW) had significantly lower than average proportions of employment in construction. In the South East, the proportion of the employed workforce in the construction industry stood very close to the national average of 6.8%. These figures largely reflect regional variations in the demand for *new* building, which themselves reflect regional variations in economic expansiveness. The outer South and the assisted areas had far higher than average percentages of employment in the construction industry.

Between 1966 and 1970, construction jobs tended to be lost more quickly in regions with poor trends in manufacturing than in regions with relatively favourable trends in manufacturing. In particular, job loss in construction was relatively slight in the assisted regions (N, Wa, Sc) and in East Anglia, but the South West had a rather higher, but still below average, rate of job loss in construction. The most severe job losses in construction, however, took place in the South East and the West Midlands. These, particularly the South East, were regions which had been at the forefront of the boom of affluence in the late 1950s and early 1960s, yet each of these regions showed unfavourable trends in industrial employment in the late 1960s. The *sharpness* of the downturn,

from boom to recession, was greatest in these two regions, and this is reflected in particularly high rates of job loss in the construction industry. Yorkshire and Humberside, facing severe recession in textiles and mechanical engineering, also had higher than average rates of job loss in both manufacturing and construction.

It seems therefore that regional fluctuations of employment in the construction industry tend to follow regional fluctuations of employment in the rest of the economy. A severe recession in construction, as in the late 1960s, tends not so much to create regional patterns of inequality in employment change, but rather to intensify them.

(v) 1966-68; other industries; summary

This survey of regional industrial employment change in the 1966-68 recession has not been exhaustive, but has confined itself to discussing a few key industries. In other sectors, there were severe job losses in shipbuilding, with 5,100 jobs (10.7%) being lost in the Northern region, and 12,000 jobs (6.0%) being lost in the UK as a whole. In the chemicals sector, job loss nationally stood at 5.2% between 1966 and 1968, yet 7,200 jobs (12.7%) were lost in the Northern region. These two facets help explain why employment trends were more depressed, outside the coal industry, in the Northern region than in Wales. In 1967-68, manufacturing employment outside the chemicals and shipbuilding sectors increased by 2,400 in the Northern region in a time of recession, suggesting a substantial regional policy effect. Unfortunately, the jobs created were insufficient to offset severe recession in traditional North Eastern industries, such as coal, chemicals and shipbuilding.

Overall, the 1966-68 recession had very severe impacts on levels of industrial employment in all regions except East Anglia, South West and the East Midlands. Figures for employment in "all industries", including agriculture and the service sector, show that the recession was at its most severe in the West Midlands and Yorkshire and Humberside, with the Northern region, the North West and Wales each having much higher than average rates of net job loss. Scotland had an average rate of job loss, and the South East and South West, each insulated from recession by a large service sector, had lower than average rates of job loss.

It would seem that the operation of a strong regional policy during a time of recession could do little more than offset part of the heavy job losses in the peripheral regions in such industries as coal, textiles, shipbuilding, mechanical engineering and chemicals, and then only in those areas, notably the Northern region, Wales, Scotland and Merseyside, which were included in the regional policy net at the time. It was small consolation to the peripheral regions that recession in the vehicles industry was concentrated in the South East and the Midlands.

6.4 Slow Recovery; 1968-70

In retrospect, the 1966-70 business cycle may be regarded as a decisive transitional phase in British post-war economic history. Table 6.14 shows that up to 1966, recessions tended to be periods of slower than average employment growth, while recoveries were periods of faster than average employment growth. In pre-1966 recessions, while there may have been substantial net job losses in particular industries, and during certain phases of the recession, employment overall continued to rise.

The 1966-68 recession marked a clear break of trend. Employment *fell* by 658,000, compared with a rise of 241,000 between 1961 and 1963. Employment also fell substantially in subsequent recessions. This change in the pattern of recession is perhaps the most obvious contrast between long cycle upswing and long cycle downswing, yet there are also contrasts in patterns of employment change between pre-1966 and post-1966 cyclical upswings.

The discussion of chapter 2.4 above has suggested that there is no automatic reason why cyclical upswings should be weaker during a long cycle downswing than during a period of full employment. In a long cycle downswing, the upper limits to employment growth during a business cyclical upswing are set by the generally rather weak capacity of the economy to generate a self-sustaining expansion. In a period of full employment, the limits to employment growth during a cyclical upswing are set by the development of labour shortages. There is no automatic reason why one set of constraints should be more severe than the other. For example, employment grew by 679,000 in the 1972-74 cyclical upswing, and by 725,000 between 1963 and 1966. An important contrast between these two cyclical recoveries is that the cyclical recovery at full employment (1963-66) was marked by strong growth (+274,500 jobs) in the manufacturing sector and also (+468,400 jobs) in the service sector, while the recovery in the period of high unemployment (1972-74) was marked by weak growth (+93,500 jobs) in the manufacturing sector, but by very strong growth (+626,500 jobs) in the service sector. Evidently, if the limits to recovery are set by the low expansion potential in the economy, as in 1972-74, it is employment growth in the manufacturing sector which is affected, while if the limits to growth are set by the development of labour shortages, it tends to be the expansion of the service sector which is constrained.

The typical feature of post-war cyclical upswings has been, as Table 6.14 shows, substantial employment growth. The 1968-70 "recovery" is a major exception. Unemployment did not fall substantially in these

two years (Table A7), while employment *declined* by 234,000. The period can be termed one of cyclical recovery only in that it was sandwiched between two recessions. In any other sense, the period could be regarded as one of recession.

There were two reasons why the recovery should have been so weakly marked in employment terms. Firstly, the major job losses in construction and coal mining, such a prominent feature of the 1966-68 recession, continued in the following cyclical recovery. In construction, 187,000 jobs were lost in two years, and in coal mining a further 68,000 jobs were lost. Arithmetically, these two sectors more than accounted for the recorded job loss in the economy as a whole, and indeed Table 6.8 suggests that 1969-70 was the worst year for job loss in the construction industry since national insurance records started in 1923, even though two slumps have passed since then.

Secondly, employment was static in the service sector, increasing by only 28,000 between 1968 and 1970. This is in marked contrast with later phases of recovery in the long cycle downswing, in which employment in the service sector increased substantially, by 627,000 between 1972 and 1974, and by 639,000 (GB only) between 1976 and 1979. The reasons for this dramatic change of trend are discussed in a later section (6.9). It would seem that under conditions of slow growth in manufacturing, employment in services expands rapidly only if unemployment levels are high, providing a large pool of relatively cheap labour. Changes in the taxation structure, notably the introduction of Selective Employment Tax in 1966 and its phasing out in 1972, may help explain some of the weakness in employment performance in services, and also in construction, up to 1971, but perhaps not the whole of the change of trend.

The combination of severe job losses in construction and coal mining, and of weak growth in the service sector, made the "recovery" phase of the business cycle appear more like a recession. There were, however, 120,000 jobs (net) created in manufacturing in 1968-69, a situation characteristic of a cyclical recovery rather than of a cyclical recession. There were, therefore, strong elements of employment growth in manufacturing to be considered.

(i) Industrial Employment Change by Region, 1968-69

Table 6.4 shows that, contrary to previous trends, the growth of employment in manufacturing in 1968-69 tended to be fast in the periphery and slow in Southern England. Thus, employment in manufacturing increased by 2% or more in each of the Northern region, Scotland, Wales and Yorkshire and Humberside, while in Southern England (SE, EA, SW) the increase in manufacturing employment averaged 1.0%. The East Midlands also had a high rate (+2.3%) of employment growth in manufacturing, whereas the West Midlands had a rate of increase (+1.3%) in line with the national average.

The North West, however, failed to share in this industrial expansion; the increase of employment in manufacturing was negligible. Table 6.15 identifies major sectors of employment decline in the three regions with moderate rates of growth in manufacturing employment, and suggests that while slow growth in the South West was due mainly to major job losses in shipbuilding, there was a more complicated structure of job losses in the South East and North West. Table 6.15 suggests that the decline of the textile sector was *not* the major problem facing the North West in 1968-69, in that employment in this sector declined by only 400 in the year. A more significant feature is a major decline of employment (-6,100) in the vehicles sector. This decline of employment took place not in the motor vehicles sector, in which employment increased by 1,100, but rather in the highly depressed railway vehicles sector, in which 4,900 out of 12,300 jobs were lost, and also in the aircraft sector, in which 2,300 out of 40,600 jobs were lost. There is a strong implication that Cheshire (Crewe) and Lancashire (post-1974 county)[30] were more severely affected than Merseyside in the 1968-69 round of job loss in the North Western vehicles sector.

Merseyside, however, would probably have been affected by the loss of 1,300 jobs in the North Western food, drink and tobacco industry, and also by the total loss of 4,100 jobs in water transport (sea transport; port and inland water transport), the latter set of figures not being included in totals for manufacturing industry. These job losses are not disaggregated by sub-region in the official published figures, but in that each of these industries is a traditional Merseyside industry, relatively weakly developed in the rest of the North Western economy,[31] there is an indication that industrial decline on Merseyside was gathering pace. Most of the decline in employment in the North Western food, drink and tobacco industry is accounted for by the loss of 900 jobs in the tobacco industry.

The North West also showed substantial declines in employment

in the clothing and footwear industry, and in the timber and furniture industry. The timber and furniture industry was in recession nationally, with 13,000 jobs being lost, a decline of 4.0%. In the North West, the decline was slightly slower than the national average. In the clothing and footwear industry, however, employment expanded by 4,000 nationally, but declined in both the South East and the North West. This would seem to indicate a pattern of relative decentralisation from the traditional centres of the industry,[32] Manchester in the case of the North West.

In the South East, industrial employment was growing slowly, rather than remaining static. A loss of over 10,000 jobs in the timber and furniture and clothing and footwear sectors (Table 6.15) represents part of the reason, but the main reason was the loss of 9,700 jobs in the electrical and instrumental engineering sectors, which were growing in employment nationally. Had employment in this sector grown at the national average rate, employment in the South East would have been 11,900 higher than was actually the case. Furthermore, if the rate of expansion in the mechanical engineering sector had also kept pace with the national average, employment in the South East would have been 5,100 higher. This differential shift in engineering of -17,000 represents 0.7% of the South East's 1968 level of manufacturing employment. There was thus a considerable element of decentralisation in engineering, at the expense of the South East.

Table 6.16 summarises regional patterns of employment change in the engineering sectors in 1968-69. In the main centres of the electrical and instrument engineering sector, employment declined substantially in the South East, while 7,500 jobs were created in the West Midlands. There were substantial elements of new job creation in East Anglia (+3,300 jobs) and in Scotland (+4,300 jobs) while other regions showed more modest expansions. Despite the high rate of employment growth in East Anglia, the dominant impression given in Table 6.16 is one of decentralisation from the South East to the rest of the UK, rather than one of decentralisation from inner South to outer South. Southern England was losing jobs in this sector, while the rest of Great Britain gained jobs.

In the mechanical engineering sector, in contrast, the rate of employment growth was substantially lower than the national average in the South East, but around the national average in Southern England as a whole (SE, SW, EA). This suggests a dominant pattern of decentralisation from inner South to outer South. Employment growth tended to be slightly faster than the national average in the assisted regions (N, Wa, Sc), but not greatly so, while employment in the Midlands (WM, EM) expanded

more slowly than the national average.

The employment figures for the engineering sectors in the North West (Table 6.16) would appear to be unreliable, in that it seems that a reclassification has taken place between "other machinery", which is shown as having an expansion of employment of 7,300, and "electrical machinery" which is shown as having an employment reduction of 11,400. The measured decline of employment in electrical engineering, and apparent extreme growth of employment in mechanical engineering, as shown for the North West in Table 6.16, would thus appear to be illusory.

There is no need to discuss in detail patterns of growth of manufacturing employment in those regions with rapidly expanding employment in 1968-69. Table 6.17 provides a listing. The patterns of expansion of engineering again show through (see also Table 6.16), with the fast rate of expansion in East Anglia and Scotland strongly affecting aggregate employment figures. Various regions (EA, YH, Wa, Sc) benefited from the general decentralisation in the motor vehicles industry in a year of buoyant demand. The chemicals industry was expanding rapidly in 1968-69, with employment in chemicals in the Northern region growing by 6,100 (+3.8%), accounting for over half the region's net growth in manufacturing employment. The East Midlands consolidated its relatively favoured position in the textile, clothing and footwear industries, with 5,800 jobs being created. The East Midlands have remained largely immune to the high rates of job loss which have affected the textile industry in the North West, Yorkshire and Humberside, and Scotland. There was also substantial growth of employment (+3,200) in the textile industry in the Northern region, but this would tend to refer to the creation of branch plant employment through regional policy, rather than to any indigenous growth.

In 1968-69, therefore, most regions showed rapid growth of employment in manufacturing, with a variety of industries playing the leading role in this growth. The North West, however, very conspicuously did not share in this growth. In the context of the late 1960s it needs to be emphasised strongly that even in expanding regions, any expansion of employment in manufacturing can in certain cases be more than wiped out by job losses in coal mining and construction. The Northern region and Wales, for example, each showed substantial increases in manufacturing employment, but in either case this was almost completely matched by job losses in coal mining (Table 6.4). Taking industrial employment as a whole, in 1968-69, supposedly a year of recovery, only four regions showed an increase in industrial employment. In East Anglia, there was a very large (+4.5%) increase of industrial employment, largely as a result of incoming investment in the engineering

and vehicles sector, combined with a very low rate of job loss in construction. In Scotland, the influx of the engineering industry (both mechanical and electrical engineering) led to a slight increase in industrial employment, while the two Midland regions (WM, EM) each showed very slight increases in industrial employment.

Prospects for regional economic growth in the 1970s were, to say the least, mixed. The South Eastern growth engine was conspicuously slowing down, with for example rates of manufacturing employment change being no better than the national average. In the traditionally depressed regions of the outer periphery, much depended in the shorter term on the balance between coal mining decline and the growth of "regional policy employment". If however industrial decline were to continue or even to intensify, questions would inevitably be raised about whether a high rate of regional policy migration could continue, and indeed whether the "regional policy factories" could maintain high levels of employment. In the inner periphery, serious problems were beginning to emerge in the North West, problems which were not being dispelled in cyclical upswings.

(ii) Manufacturing Employment Change by Region 1969-70

The national recovery of employment in manufacturing soon faded, and in 1969-70 manufacturing employment was in slight decline. The geography of employment change in manufacturing was, as Table 6.5 shows, extremely polarised, with substantial job losses in the South East, the West Midlands, Yorkshire and Humberside, the North West and Scotland, and substantial increases in the outer South (EA, SW) and the specialised coalfield regions (N, Wa). These expanding regions tended, with the exception of East Anglia, to have significantly higher rates of employment growth than in the previous year, despite industrial conditions generally having changed for the worse. It is likely that time lags in the investment decision are primarily responsible for this. Thus an investment decision might be made in the very early stages of a cyclical upswing, with actual physical growth of the capital stock taking place at a slightly later date, and employment created still later. These lags are likely to be considerably greater when investment involves the construction and fitting out of new or recently built factories than when there is an incremental addition to capital stock at an existing, established factory. As a result, manufacturing employment growth during a late cyclical upswing is likely to be far more concentrated in zones with decentralised industry (the assisted areas, the outer South) than in more established centres. The 1972-74 upswing, discussed later, also shows this tendency.

Table 6.18 shows manufacturing employment change in 1969-70 in each of the main assisted regions (N, Wa, Sc), and indicates different profiles in each region. Scotland was severely affected by renewed recession in the textile industry, in which 8,400 jobs were lost. Even allowing for this, the growth of employment in other sectors was relatively slight, although as noted earlier Scottish industrial trends in the previous year (1967-68) had been relatively favourable.

In Wales, employment growth was concentrated in the engineering sectors, with 3,500 jobs being gained in electrical engineering, and 2,700 from mechanical engineering, each from a small base. In addition, between 1,800 and 2,800 jobs were created, from a negligible base, in "miscellaneous manufacturing industries". This would seem to suggest the fairly standard picture of branch plant factories opening up or expanding with the aid of regional policy grants, with the lighter engineering industries being particularly susceptible to regional policy influences.[33]

In the Northern region, the rate of employment growth in manufacturing, at 4.5%, was even faster than in Wales (+3.5%). Table

6.18 indicates that while the expansion of employment in light industries in branch plant factories was a significant factor, the growth of employment in the region's traditional heavy industries was even more important. Thus, employment in metal manufacture increased by 4,600, in industrial plant and steelwork (the construction arm of the iron and steel industry, classified under mechanical engineering) by another 4,600, in the chemicals industry by 2,900, and in shipbuilding by 1,700. Of the 21,000 (net) industrial jobs created in the Northern region in 1969-70, 13,800 were in sectors which without a doubt could be classed as part of the North East's traditional industrial base.

Demand in these heavy industries tends to be highly volatile, with both upswings and downswings being strongly marked.[34] It is possible that part of the high rate of increase in employment in these sectors reflects merely a cyclical recovery, with old capacity being brought back into production following a recession. In that the rate of expansion in these industries in the Northern region was both extremely fast, and also much faster than in other regions (Table 6.18), it is unlikely that the "cyclical recovery" thesis is a full explanation. Two features deserve attention; firstly that the beginnings of an intensification of exploration for North Sea oil would present an important stimulus to demand at the heaviest end of the engineering sector (shipbuilding, steelwork, etc.) and secondly that the high regional policy status of North East England, combined with the traditional weighting of regional policy towards a subsidy for capital investment rather than employment creation, would encourage expansion in heavy industry to take place in the North East rather than elsewhere. On the question of regional policy, Robinson and Storey (1981 p.170) show that during the regional policy boom, regional development grants per head of population were about eight times higher in Cleveland, the "heaviest" of heavy industrial areas, than in Scotland or Wales, with relatively little employment being created per unit of investment.[35] In years of rapid expansion for heavy industries, such as 1969-70, employment in such industries in assisted areas may, however, expand considerably. As the events of the 1970s and 1980s were to show, there is no reason why employment in these heavy industries should not decline sharply under conditions of falling demand. The gains of 1969-70 were to prove to be short-lived.

The most substantial growth of manufacturing employment in the outer peripheral assisted regions (N, Wa, Sc) in 1969-70 was thus to be found in the electrical and mechanical engineering sectors, and also, in North East England, in heavy industries such as iron and steel, shipbuilding and chemicals. Manufacturing employment also expanded

quickly in the outer South, but there were substantial contrasts in the sectoral composition of employment growth between the outer South and the assisted areas. Table 6.19 shows that in East Anglia the main sectors of growth were food, drink and tobacco, chemicals, vehicles, and paper, printing and publishing. In the South West, the main sectors of growth were instrument and electrical engineering, food, drink and tobacco, metal manufacture, mechanical engineering, and paper, printing and publishing.

The growth of the paper, printing and publishing industry in the outer South probably reflected a pattern of decentralisation within Southern England, although it is not clear whether primary decentralisation (the movement of industry) or secondary decentralisation (faster than average growth of already established industry in expanding regions) was chiefly responsible. It would seem, hoever, that faster than average growth in the food, drink and tobacco industries in the outer South was symptomatic more of a general shift to the South in this industry than of decentralisation within Southern England. Section 6.7(vi) provides a slightly more detailed discussion.

In the engineering sectors (mechanical engineering, electrical engineering, instrument engineering) employment increased by 5,500 in the South West but by only 800 in East Anglia. For comparison, employment in these sectors expanded by 6,200 in Wales and by 4,500 (excluding industrial plant and steelwork) in the Northern region. It is possible that this close match between the South West and the Northern region and Wales reflects in part the fact that the outer part of the South West region was a development area. The available data unfortunately do not allow for examination of whether employment growth in engineering in the South West in 1969-70 took place primarily in the inner South West, reflecting semi-local decentralisation within Southern England, or in the outer South West, reflecting decentralisation through regional policy.

There was a considerable expansion of manufacturing employment in the assisted areas and in the outer South, but a considerable decline in employment elsewhere. This decline reflects chiefly the onset of renewed recession in textiles, clothing and footwear, and timber, furniture, etc., in which job losses totalled 68,500. Table 6.20 provides a more detailed picture of patterns of employment change in these sectors, and shows that the recession in textiles affected Yorkshire and Humberside, Scotland and the North West particularly severely, while job losses in clothing and footwear and in timber, furniture, etc., took place predominantly in the South East, where 24,200 jobs were lost in a single year in these sectors. The clothing industry and the timber and furniture industry represent traditional

consumer goods industries and have locationally tended to be concentrated in and around larger urban markets. These industries also tend to be characterised by a low degree of concentration of ownership, and thus a high proportion of single plant firms, and by "inner city" location.[37] The traditional inner city small firm became highly vulnerable in the late 1960s and 1970s, with a tendency to be squeezed out by recession and by the high cost of inner city locations.[38]

Once job loss in the three declining sectors (textiles, clothing and footwear, timber, furniture, etc.) is discounted, the residual picture for other manufacturing sectors is for employment to decline in the South East, West Midlands and North West, and to increase elsewhere. Closer analysis shows that these residual declines of employment were strongly marked in the electrical engineering and aerospace industries (Table 6.21). The aerospace industry was in recession nationally, with 4.1% of its jobs being lost, but job loss in the sector was strongly concentrated in the South East, with 6,900 jobs (9.6%) being lost, which might reflect simply the loss or completion of an important aircraft order in the South East, rather than any more complicated pattern of relocation. In the electrical engineering industry, the gains of employment in the outer South and the periphery have already been noted (Tables 6.18, 6.19). There were however substantial job losses in other regions, most notably in the West Midlands, where 7,500 jobs were lost, and in the North West, where 4,300 jobs were lost. There would appear to be a strong tendency in this industry for employment to expand at around the national average in Southern England (but with decentralisation from inner South to outer South), to expand much faster than the national average in the assisted regions (N, Wa, Sc) and to decline in the "manufacturing heartland" (WM and NW especially; also YH, EM). The expansion in the peripheral regions was, however, concentrated more in routine production than in innovative production. When recession became severe in the electrical industry in 1974-76, it was the assisted regions which were most severely affected, rather than the core regions (section 6.7(i) below).

(iii) A Note on Longer Term Employment Tendencies

A flat cyclical upturn can be an interesting period to study in that patterns of change in such a period are more likely to reflect longer-term *average* patterns of change than a strong upswing or a strong recession would do. In a flat cyclical upturn, some industries are expanding while some are contracting, whereas the analysis of recession would tend to concentrate on industries in recession, while the analysis of a strong upswing would tend to concentrate on growth industries. In a period such as 1968-70, both sets of industries have to be examined to outline the main regional patterns of employment change.

It is found, in 1968-70, that industrial employment growth tended to be slower than the national average in the South East, much faster than the national average in the outer South (SW, EA), and also the East Midlands, around the national average in the West Midlands, much slower than the national average in the inner periphery (YH, NW) and relatively favourable in the outer periphery (N, Wa, Sc, NI). This geography of employment change reflects a complicated combination of factors, with job loss in coal mining and textiles, the effects of regional policy, and decentralisation in engineering (especially electrical engineering) and the motor vehicle industry, all needing to be considered. The analysis of regional patterns of employment change has been conducted on a sector-by-sector basis, rather than by generalising about assumed long run trends in particular types of location.

Table 6.22 suggests that this type of pattern, noted for the 1968-70 period, was also prevalent for the 1966-76 period, taken as a whole. There are two strongly contrasting ways of reading Table 6.22, or of similar tables covering slightly different time spans. One interpretation would be to suggest that Table 6.22 shows a strong shift of employment from urban to rural regions, a shift of employment which over-rides all others. Fothergill and Gudgin (1982 p.69) argue that

> "Put in simple terms ... the North West does badly because it contains two conurbations (Manchester and Merseyside) while East Anglia gains because it is much more rural in character. The more a region is dominated by large urban agglomerations, the more likely it is to decline."

There is a strong implication that the degree of urbanisation is the primary *cause* of regional differences in the rate of employment change.

The emphasis adopted here contrasts in placing much greater emphasis on patterns of employment change in particular industries. Yorkshire and Humberside, the North West and the West Midlands each

show a high rate of job loss between 1966 and 1976, and have five conurbations between them. Elsewhere in the periphery, the Northern region, Wales, Scotland and Northern Ireland each had a relatively low rate of job loss, and had two conurbations between them. The main differentiating factor between these two sets of regions is not, however, the difference in the level of urbanisation, but rather that in one set of regions (N, Wa, Sc, NI) a high rate of industrial job loss has been offset by considerable employment growth through regional policy, whereas in the other set of regions (WM, NW, YH), major industrial job loss has been offset by regional policy only to a limited extent. Each of these regions had high concentrations of employment in industrial sectors which were vulnerable to the downswing (coal, textiles, vehicles, iron and steel, shipbuilding, etc.) leading to a tendency towards a high rate of job loss, but some of these regions were to a certain extent shielded by regional policy, whereas others had to face the full impact of industrial recession.

These regions can also be differentiated according to whether their economic vulnerability was dominated by coal mining (Wales, parts of North East England, part of Yorkshire) or by weaknesses in the manufacturing base (West Midlands, North West, most of Yorkshire and Humberside, parts of the Northern region, Scotland, Northern Ireland). In general, regions with a large manufacturing base tend to be more heavily urbanised, as a result of past agglomeration economies, than regions largely dependent on coal mining. 19th century coal mining areas with a significant industrial base tended to develop both large scale industries and conurbations, while 19th century coal mining areas without a significant industrial base developed, essentially, a collection of small coal mining towns. From the 1920s to the 1960s, job loss has tended to be far more acute in coal mining than in manufacturing, and therefore regional policy assistance has tended to concentrate on mining areas, which also tend to be less urbanised than the manufacturing areas. Thus, an apparent urban-rural shift is inbuilt into the regional policy system.

In Southern England, the rate of employment change was merely average between 1966 and 1976, but with employment growth being concentrated in the outer South, and employment decline being concentrated in the inner South, and especially London. In many respects, it would be preferable to treat the whole of Southern England as a single region with the implication being that the urban-rural shift from London is regarded primarily as an intra-regional phenomenon rather than an inter-regional phenomenon. To see why this might be a useful practice, the question needs to be approached from an urban perspective, rather

than from a regional perspective.

A city tends to have grown in past periods as a result of various economic activities being attracted to that city, rather than elsewhere. A city may be geographically defined in terms of its continuous built-up area, but it needs to be recognised that the city dominates economic life in an area beyond the built-up area.[39] Much of the city's economic activity takes place in smaller towns and apparently rural areas surrounding the city, a phenomenon which is intensified by the easier availability of land for development just outside the continuous built-up area.[40] A *conurbation* may be defined in terms of an area dominated by a city.[41] Such a conurbation might be polycentric in that two or more cities, located very close to each other (e.g. Leeds/Bradford, Newcastle/Sunderland) might co-dominate a substantial area, although it is more likely that a single central city will be dominant (e.g. London), even though the central city may historically, as in the West Midlands, be the result of the coalescence of several smaller industrial towns. In the modern conurbation employment *growth* at any given time is more likely to take place on the city fringes, rather than in the congested urban core. This process should be regarded as one of "suburbanisation", rather than as any genuine urban-rural shift.

Further away from the city there is likely to be a substantial area in which the city is not dominant, but which still looks to the conurbation as an important regional centre. In a process of urban-rural shift, such areas (e.g. post-1974 Lancashire) would tend to attract economic activity *away* from the conurbation. This is undoubtedly an important process, but if *inter*-regional differences in the rate of employment change are to be explained by the urban-rural shift, it is necessary to show how employment is diverted not from a conurbation to its hinterland, but from a conurbation to *another* hinterland. It is doubtful whether such long distance shifts are particularly important, other than those generated by regional policy or by unusual sets of circumstances such as the North Sea oil boom.

It is considered, therefore, that while the urban-rural shift is very important in explaining changes in the geography of employment within a region, it is arguably a relatively minor factor in explaining differences in employment changes between regions (provided that Southern England is regarded as a single, very large, region). The geography of recession is far more important, in the context of the post-1966 period.

A brief note needs to be added concerning the definition of British conurbations. The new metropolitan counties, introduced in 1974,

generally define adequately certain conurbations (Merseyside, Greater Manchester, West Yorkshire, South Yorkshire, Tyne and Wear). In two cases (the West Midlands Metropolitan County and Greater London) post-1974 counties adhere very closely to the continuous built-up area, so that employment statistics for these counties miss considerable elements of suburban growth, and tend to overstate the rate of employment decline in the conurbation as a whole. In the West Midlands, a more satisfactory unit for making comparison with other conurbations would be a combination of the metropolitan county and Warwickshire; post-1974 Warwickshire, with about half of its manufacturing employment base in the vehicles, mechanical engineering and metals sectors, and with strong commuting flows to the metropolitan county, should preferably be regarded as part of the West Midlands conurbation, rather than as a free-standing "rural" county. In Strathclyde, the problem is different; Strathclyde region should preferably be regarded as a *region* containing a conurbation, rather than simply as a conurbation.

6.5 Recession, 1970-72

(i) Introduction

1970-71 was a year of severe recession in manufacturing and construction, with further job losses in coal mining, though at a much slower rate than in the 1960s (Table 6.8). Employment in the service sector increased slightly (Table 6.1). The recession in manufacturing continued into 1972, with 278,000 jobs being lost (compared with 299,000 in 1970-71), but the decline of employment in construction, which had been continuous since 1966, at last came to a halt. The most dramatic change however was that employment in the service sector suddenly expanded by 2.4% in 1971-72,after having been static for a period of several years. This upturn in the service sector, discussed in section 6.9 below, ensured that total employment remained roughly stable in the second year of recession.

The deceleration of the closure programme in the coal industry was obviously a factor reducing North-South differences in the rate of employment change. In 1967-68, for example, 47,200 coal mining jobs were lost in the five peripheral regions, whereas in 1970-71 only 8,800 jobs were lost (Tables 6.3, 6.6). The difference of 38,400 represents about 0.4% of the total workforce in these regions. Table 6.8 suggests that the contrast between 1967-68 and 1970-71 represents in fact almost the most extreme contrast between the late 1960s and early 1970s. The general slowing down of coal mining job loss in the peripheral regions in the 1970s saved on average about 20,000 jobs per year when compared with the late 1960s. This factor explains about half the reduction in the North-South "annual gap" in the rate of employment growth shown in Table A.6; between 1963 and 1970 employment in the core regions grew more (or contracted less) than in the periphery by an average of 0.4% per annum, while between 1970 and 1977 this gap was down to an average of 0.1%, despite the fact that job losses in manufacturing in the 1970-72 recession affected the peripheral regions far more than the core regions. Given this reduction of job loss in coal mining, it would be a mistake to attribute the *further* convergence of regional patterns of employment change in the early 1970s to regional policy.[42]

It should not be thought, however, that the reduction of job loss in coal mining was the only factor behind the convergence of rates of employment change. Rates of job loss in coal mining were low from 1970 onwards, and yet 1970-71 and 1971-72 were both years in which the North fared much worse than the South in employment terms. In the 1972-74 upswing, however, and also in the 1974-76 recession, the North fared

better than the South in employment terms.

The industrial geography of the 1970s is thus highly complicated, with the North more vulnerable than the South at the beginning and end of the decade, but with the South more vulnerable than the North in the middle of the decade. This represents a considerable contrast with the 1920s, when the geography of downswing was relatively simple, with decline in the North being dominated by a few severely contracting industries while there was considerable growth in the South being based on the expansion of a "new" generation of industries and services. In the 1970s, however, very few industries (as opposed to services) escaped recession; the question was generally not whether an industry would, in the long term, be losing jobs or not, but rather how quickly jobs were likely to be lost. This is, in broader terms, indicative of the difference between a downswing dominated by adverse conditions for primary production (1918-1932) and one dominated by adverse trends for manufacturing (1966-1983).

If an industrial recession is general, no industrial area will escape recession simply by virtue of having a favourable industrial mix. It is hardly in dispute that regions with high concentrations of employment in sectors with high rates of job loss will have, all other things being equal, higher rates of job loss than in regions with a more favourable industrial mix, but even the latter set of regions will have a set of industries liable to recession.

When industrial recession is general, place-specific factors start to assume greater importance. Sectors with a moderate rate of job loss nationally might well have severe rates of job loss locally, as a result of systematic locational changes in the industry involved. The problem can be especially serious if the dominant pattern is one of decentralisation combined with job loss. An industry might well in the past have tended to agglomerate in a particular conurbation or region, and thus be responsible for a large proportion of employment in that conurbation or region. If, however, at a later stage the industry tends to decentralise, then there will be high rates of industrial job loss in that industry's primary location in the event of a recession. The exceptionally severe decline of the West Midlands conurbation in the 1970s is *not* to be explained by deep recession in the motor industry, as employment in this sector tended to decline nationally around the same rate as in other manufacturing sectors. Instead, job loss in the motor vehicles industry took place disproportionately in the West Midlands, with rates of job loss generally being relatively slight elsewhere.

The "inner city problem", in which rates of job loss tend to be

high across all industrial sectors in the inner industrial zones of major cities, represents another place-specific aspect of industrial employment decline. When assessing this aspect of employment decline, great care must be taken not to generalise inappropriately from the experiences of a single city; what is true for London is not necessarily true for Birmingham or Merseyside or the northern textile cities (Manchester, Leeds, etc.). The prominent patterns during the 1970s would appear to be a *general* industrial withdrawal from London especially, and also from Merseyside, but for heavy decline to take place in *traditional* industrial sectors in other major cities. These aspects will be discussed in more detail in later sections.

As far as the 1970-72 period itself is concerned, job loss tended to be much more severe in the North and Midlands then in the South, during a period of deep industrial recession. A more detailed analysis follows shortly. Firstly, however, mention must be made of an important change in data base, which became operational in 1971. This was the switch from employment figures based on an annual count of National Insurance cards to a Census of Employment, based on a Census of employers (see also chapter 3.4 above). The Census of Employment figures should be regarded as the more reliable, although there are various discrepancies, both at the sectoral level and at the regional level, between the two sets of results generated for 1971.[43] The Census of Employment gives lower employment figures for manufacturing than the card count (Table 6.23), with the total discrepancy amounting to 550,600. Apparent overestimates in the card count figures are particularly large in engineering, textiles, clothing, etc., and food, drink and tobacco, with a total discrepancy amounting to 363,100. It is not clear whether the card count overstated the pre-1966 upswing, understated the post-1966 downswing, or both. Certainly, considerable errors could have built up over a period of several years. Uncertainties concerning the accuracy of pre-1971 employment data mean that the discussion of regional patterns of employment change, from the early 1920s to the early 1970s, has been on a fairly coarse-grained scale, usually concentrating on growth or decline of employment in thousands rather than in hundreds. The general patterns found are likely to be broadly correct, even if measured rates of employment change may in detail be inaccurate.

The Census of Employment figures are more amenable to fine-grained analysis than the insurance count figures, although there are still problems, referring to changes in the industrial classification of certain establishments or activities, incomplete enumeration, or changes in the boundaries of travel-to-work areas. Unfortunately, it is up to

the researcher to detect significant anomalies, inaccuracies and changes; the official sources remain silent even on such questions as boundary changes in travel-to-work areas. Despite these weaknesses, the availability of regular, although unpublished, employment statistics by county allows considerable scope for detailed investigation of the type presented in chapter 8, which analyses employment change by county and industry between 1978 and 1981. It would be of considerable interest to conduct a similar investigation of the early and mid-1970s using similar methods, but this would require prolonged research. In the present analysis, therefore, employment change at the county scale is examined usually only when it is necessary to do so to understand the major *regional* differences uncovered for the 1970s.

(ii) Manufacturing Employment Change by Region, 1970-71

Table 6.23 shows that 299,000 jobs were lost in manufacturing in 1970-71, with high rates of job loss in almost all manufacturing sectors, and especially high rates of job loss in textiles, metal manufacture, paper, printing and publishing, and mechanical engineering. In the second year of recession, 1971-72, high rates of job loss continued in textiles, metal manufacture and mechanical engineering, and each of these sectors lost over 10% of their employment in two years.

As far as regional patterns of employment change are concerned, Table 6.6 shows that rates of manufacturing job loss in 1970-71 tended to be very high in the peripheral regions (except for Wales, with a low rate of job loss) slightly below average in the Midlands and considerably below average in Southern England. In order to match regional patterns of decline with sectoral patterns of decline, an important step is to establish the geography of recession in industries which were particularly severely affected by recession (Table 6.24).

Scotland lost 5.5% of its manufacturing employment in 1970-71, the highest rate of job loss of any region. 8,700 jobs were lost in the textile industry, with a rate of job loss slightly higher than the UK average, but the most severe job losses took place in the mechanical engineering sector, in which 14,000 jobs were lost, with a rate of job loss twice the UK average. Another 4,000 jobs were lost in the vehicles sector, a decline of 9.7%, even though the rate of decline in this sector nationally was only 2.9%.

In Yorkshire and Humberside, 4.5% of manufacturing jobs were lost, with 18,700 jobs (12.1%) disappearing in the textile industry, and 9,000 jobs being lost (8.3%) in metal manufacture. This represents a clear case of sectoral vulnerability, with extremely severe rates of job loss in two depressed industries, but below average rates of job loss in other sectors (Table 6.24). The recession in the woollen and worsted industry had a particularly damaging effect; nationally, 22,000 out of 142,000 jobs (15.5%) were lost, while in Yorkshire and Humberside 15,000 jobs (15.2%) were lost.

The Northern region was affected by the loss of 8,500 jobs (15.2%) in metal manufacture, more than nullifying the significant employment gains in this sector in the previous year. Apart from that, manufacturing employment in the region fell by less than the national average. Wales also had a substantial iron and steel sector, but in contrast with the Northern region, the decline of employment in metal manufacture was slower than the national average. In other sectors, overall employment remained relatively stable, boosted by the gain of 1,600 jobs in the

vehicles industry, representing decentralised employment at a time of recession.

In the North West, manufacturing employment fell by 4.7%. Table 6.24 shows that 17,300 jobs were lost in textiles, 9,400 in mechanical engineering and 2,000 in metal manufacture. In the remaining manufacturing sectors, however, 32,700 jobs were lost, a decline of 3.5%. This "residual" decline was, as Table 6.24 shows, far greater than in any other region apart from East Anglia (where 5,800 jobs were lost in fruit and vegetable products). It seems that the North West region was suffering not just from having a significant concentration of employment in vulnerable industries (notably textiles), but also from a higher than average rate of job loss throughout the industrial range. Thus, 6,900 jobs (4.7%) were lost in paper, printing and publishing, 6,600 jobs (4.9%) in electrical engineering, 4,700 jobs (9.0%) in metal industries not elsewhere specified, and 4,500 jobs (8.1%) in "other manufacturing industries". In the absence of spatially more disaggregated data, one can do little more than speculate whether this job loss was concentrated in the Manchester conurbation or the Merseyside conurbation.

In the peripheral regions, therefore, manufacturing job loss in 1970-71 tended to be high where there were major weaknesses in textiles, iron and steel or engineering. In other sectors, rates of employment tended to conform to the national average, except in the North West, where slightly higher rates of job loss were characteristic.

In the Midlands, overall rates of manufacturing job loss were slightly below the national average despite large concentrations of employment in textiles in the East Midlands and metal manufacture in the West Midlands. Table 6.24 shows that job losses in these vulnerable industries were slower in the Midlands than elsewhere. A feature of the West Midlands economy in 1970-71 which was rather unusual in the context of other periods of recession was that job losses in the vehicles sector, at 300 (net) were very slight. This relatively favourable situation was not to last; in 1971-72, 12,900 jobs were to be lost in the West Midlands vehicles industry.

Southern England had very low levels of employment in textiles or metal manufacture, and thus was largely immune from the recession in these sectors (Table 6.24). Furthermore, the rate of job loss in mechanical engineering in the South remained considerably below the national average. As a result, rates of job loss in manufacturing in Southern England tended to be relatively low, with the South West hardly being touched by recession. Several industrial sectors in the South West and East Anglia showed some net employment growth in 1970-71, although in East Anglia the effect of this was masked by substantial

job losses in the food industry. In the South East, the rate of job loss was comfortably below the national average despite substantial job losses in paper, printing and publishing. In this sector, 19,800 jobs were lost in the South East, a fall of 6.3%, whereas 10,800 jobs were lost in the rest of the UK, a fall of 3.1%.

(iii) Manufacturing Employment Change by Region, 1971-72

In 1970-71, manufacturing recession had been most severe in textiles, metal manufacture and mechanical engineering. In 1971-72, the rate of job loss in the textile industry had fallen substantially, although still remaining higher than the national average, but the rate of job loss increased substantially in metal manufacturing and mechanical engineering. Within these two depressed sectors, 116,700 jobs (7.2%) were lost, compared with 162,000 (2.5%) in other manufacturing sectors. In addition, various important metal-using industries were in moderately deep recession, with 55,300 jobs (3.5%) being lost in vehicles, shipbuilding and "metal goods n.e.s.".

In manufacturing, therefore, the rate of job loss in 1971-72 was not greatly different from that in 1970-71, but the sectoral balance of job loss had changed substantially, with recession in the second year being concentrated heavily in the metal-producing and metal-using industries. This changing balance resulted in changes in the geography of recession in manufacturing, with for example the West Midlands, specialising in the metal industries, showing much more severe job loss in 1971-72 than in 1970-71, while Yorkshire and Humberside, where the textile industry is an important employer, had substantially lower rates of job loss in 1971-72 than in 1970-71.

Outside manufacturing, the picture was considerably brighter in 1971-72 than in the previous year, with the long recession in construction (cf Table 6.8) finally coming to an end (85,000 jobs lost in 1970-71; 37,900 jobs gained in 1971-72), and with service sector employment again starting to expand significantly, after having shown little expansive tendency in the previous five years. The abolition of Selective Employment Tax was presumably of considerable importance here (section 6.9 below), removing a cost constraint on growth in construction and services. The introduction of Value Added Tax, to replace SET, would be expected to have a depressive effect on employment levels, but this effect is less visible when examining sector-by-sector employment levels.

Employment in the service sector increased by 279,600 (2.4%) in 1971-72, compared with a growth of 47,100 (0.4%) a year earlier. In services and construction combined, employment changes were more favourable, by 355,900, in 1971-72 than in 1970-71. This abrupt switch outside manufacturing largely explains why unemployment increased much more quickly in 1970 and up to September 1971, than from September 1971 onwards (Table A7).

Service sector employment tended to be much more expansive after 1971 than before 1971, despite deteriorating conditions in

manufacturing. This topic is discussed in more detail in section 6.9 below, where it is argued that what was happening was not that a dynamic "new" service sector was replacing the "old" manufacturing industries, but rather that the unemployment created by industrial decline enabled significant expansion of employment to take place in the low wage, less progressive, segments of the service sector, without problems of severe labour shortages being encountered. Thus, the post-1971 rise of the service sector is explained in terms of a "deindustrialisation" thesis, rather than in terms of a "post-industrialisation" thesis.[44] The unemployment rates were, by 1971, becoming high enough to create a sufficient labour surplus to permit the expansion of the low-wage parts of the service sector.

As far as the more limited question of the geography of manufacturing in recession is concerned, Table 6.7 shows that the West Midlands, the North West, the South East of Scotland each had rates of job loss of 4.0% or more. Table 6.25 shows that in three of these regions (WM, NW, Sc) the depth of manufacturing recession resulted from job losses in the metals sectors (metal manufacture, vehicles, mechanical engineering, metal goods n.e.s.), or, in the case of the North West, from a combination of recession in the metals sectors and in textiles. In other sectors in each of these regions, the rate of job loss stood at around the national average.

(a) London and the South East

In the South East, however, the severity of industrial recession was due not simply to job losses in the metals sectors, but also to job losses being much faster than average in relatively undepressed industries such as electrical engineering, and paper, printing and publishing. These are sectors in which decentralisation has already been noted as an important facet. In electrical engineering, for example, employment in 1971-72 fell by 10,500 (6.3%) in Greater London and by 2,500 (1.6%) in the rest of the South East, but increased in the assisted regions (N, Wa, Sc) by a total of 400 (+0.3%), and increased in the outer South (SW, EA) by a total of 1,000 (1.7%). High job losses in the South East in electrical engineering represented not so much the geography of recession, but rather the geography of *decentralisation* in a period of recession. On a slightly more localised scale, 12,600 jobs (7.9%) were lost in the paper, printing and publishing industry in Greater London, while employment in this sector in the rest of Southern England remained steady (+100 jobs in the rest of the South East, +600 jobs in East Anglia, -900 jobs in the South West).

Manufacturing job loss in London was severe in 1971-72, with 70,700 jobs (6.7%) being lost, compared with 18,300 jobs lost (1.6%) in the rest of the South East. The decline of manufacturing employment in Greater London represented a key feature of the industrial geography of the 1970s, and also much of the 1960s. The decline in manufacturing employment was more prominent during the 1970s, yet the problem had emerged at an earlier stage. Manufacturing employment in Greater London had peaked at 1,611,000 in 1961, before falling to 1,253,000 in 1970, an average rate of decline of 2.8% per annum, which matched the rate of industrial employment decline of the more depressed provincial conurbations of the 1970s. Furthermore, manufacturing employment fell in each year, with a peak rate of decline before 1970 of 5.3% in 1966-67. Employment trends in the London service sector, however, were more favourable, so that total employment in Greater London remained steady up to 1966, before falling by an average of 1.8% per annum between 1966 and 1970.[45] At the time, this might have seemed a welcome relief from congestion, but London's employment problems were later to become more severe.

Table 6.26 shows manufacturing employment change by SIC order in Greater London in 1971-72. The general impression given is one of exceptionally high rates of job loss (4½% or more) across *all* industrial sectors, excepting only the timber and furniture industry, whether they were nationally depressed or not, with rates of job loss in the nationally depressed sectors being higher than the already high London average. The generality across sectors of job loss in Greater London contrasts strongly with patterns of job loss elsewhere, in which the bulk of job losses are concentrated in a few depressed sectors.

Table 6.27 conducts the same exercise, but over a longer period, from 1971 to 1977. The most remarkable feature is, again, the uniformity of decline in Greater London. 26.1% of London's manufacturing jobs were lost between 1971 and 1977, and eleven out of fifteen SIC orders (or amalgamated SIC orders) show rates of decline within five percentage points of the average for London. The vehicles industry was the one industry which escaped lightly from this round of job losses in London, being the only manufacturing sector in which employment declined by less than 20%; nationally though, no sector had an employment decline of more than 20% in these six years.

It would seem, from the steepness and generality of decline, that London was a highly unfavourable location for manufacturing. Cost factors are clearly important; London is, and has been, an extremely high cost location, both in terms of wage rates and in terms of land costs. The "legacy of cramped factory sites, and of old, badly designed and

dilapidated buildings" (Keeble 1980a p.132) is also an important factor, but one which applies to other British conurbations. It does not explain why London should have a higher rate of industrial job loss than other conurbations, while Fothergill and Gudgin's suggestion[46] that London's high rate of job loss is due to London being larger than other conurbations, and *hence* more congested, is unconvincing.

It has been well established that much of the industrial migration from London in the post-war period has resulted from a search by expanding firms for cheaper premises with room to expand.[47] This argument would still be relevant in the 1970s, even though the generally less favourable industrial conditions would possibly eventually tend to reduce the number of potential migrants. As a result of this factor, job loss in London through industrial migration would tend to be relatively high in less depressed industrial sectors, such as electrical engineering.

In more depressed industrial sectors, the high costs of operations in London would tend to imply a high rate of industrial closures. In single plant firms, a London firm might well be out-competed by firms elsewhere as a result of cost differentials,[48] while in multi-plant firms a London factory would tend to be closed in preference to a factory elsewhere in order to capitalise on high land values when the defunct industrial site is sold.[49]

Thus, rates of job loss in London tended to be high in the 1960s and 1970s in both depressed and undepressed sectors. Furthermore, the high price of land, which encouraged disinvestment from London by multi-plant firms, represented a very significant barrier to the establishment of new manufacturing firms or new branch factories. These features all tend to be corroborated by a components of change analysis of manufacturing employment in London between 1966 and 1974, published by Dennis (1980) (Table 6.28). In eight years, nearly 200,000 jobs were lost through complete closures, with job losses probably being weighted towards declining sectors, and towards periods of recession, while over 100,000 jobs were lost through migration, probably weighted towards relatively buoyant sectors and towards periods of cyclical upswing. Only 13,000 jobs were created through new factory development, a weakness which would further considerably depress London's rate of employment growth in any cyclical upswing.

These results would appear to suggest that Greater London would be affected by high rates of job loss in manufacturing both during cyclical upswings and during cyclical downswings. Table 6.29 shows that this is indeed the case. In contrast, the provincial conurbations tended to suffer substantial job losses during periods of recession, but to show fairly stable levels of employment in any cyclical upswing. Industrial

migration from these provincial centres was not as intense as from London, but the industries of these conurbations were undoubtedly recession-prone.

Much attention has been concentrated on examining patterns of employment change in London in 1971-72, not because job loss in London was in any sense more significant in this year than in previous years, but rather because 1971-72 was the first year for which employment figures for London can be analysed in detail. Further attention will be paid to London's decline when 1972-73 is analysed; this was a year in which manufacturing employment in London fell by 5.5%, despite a considerable economic boom elsewhere.

(b) Mechanical engineering

Table 6.30 separates regional employment change in manufacturing into its sectoral constituents. One of the immediately most obvious features is that the rate of job loss in mechanical engineering tended to be regionally extremely uneven, with job losses of between 4½% and 7% being characteristic of the core regions (and also Yorkshire and Humberside) and job losses of between 8% and 12% being characteristic of the peripheral regions. In Scotland, the job loss in mechanical engineering was at its most severe, with 11,300 jobs (11.8%) being lost in 1971-72 in addition to the 14,000 jobs lost in 1970-71. Outside the mechanical engineering sector, Scotland would appear to have escaped relatively lightly from recession.

An obvious hypothesis, given the intensity of the urban-rural shift in manufacturing during the 1970s, would be that these high rates of job loss in the periphery reflected the general industrial problems of the peripheral conurbations. Table 6.31 presents figures for employment change in manufacturing in 1971-72 in the peripheral regions, with a separation being made between conurbations and the rest of the region, and between mechanical engineering and other sectors. It is clear that in manufacturing as a whole, jobs were lost substantially more quickly in the conurbations than outside, and that this relationship also exists if mechanical engineering is excluded from the overall total. The relationship appears far less clear *within* the mechanical engineering sector.

Mechanical engineering tends to be strongly concentrated in the main conurbation of each region. In 1971, this sector accounted for about a sixth of all manufacturing employment in Strathclyde, Greater Manchester, Tyne and Wear, and West Yorkshire, but only about a tenth of manufacturing employment in other counties in the periphery, *including* the regionally sub-dominant conurbations of Merseyside and South

Yorkshire. This would seem to suggest that historically, the mechanical engineering industry has gravitated towards the main industrial centres of each peripheral region, these having been the most strategic for serving regional industrial markets.[50] The familiar concept of market potential,[51] the degree of access to all potential consumers in a given area, may be invoked, but on a regional rather than a national scale.

The general tendency, in 1971-72, was for employment in mechanical engineering to be lost less quickly in the main conurbation than in the rest of the region, although Tyne and Wear is an exception. The tendency was particularly strongly marked in Scotland, where 9.4% of Strathclyde's jobs in mechanical engineering were lost, but 17.7% in the rest of Scotland. This latter rate of job loss might at first appear anomalously high, but a loss of 1,700 out of 5,000 jobs was recorded in the office machinery sector in Tayside, an incident of job loss which significantly raises the average rate of job loss for Scotland. Outside the mechanical engineering sector, however, manufacturing employment fell by 4.1% in Strathclyde, but by only 0.9% in the rest of Scotland.

Scotland was an extreme case in this respect, but one can tentatively outline an explanation of this type of pattern to suggest that certain industries in deep recession will tend to lose jobs less quickly in areas well placed to serve significant markets than in areas more peripheral to markets. Thus, in mechanical engineering in 1971-72, jobs were lost significantly less quickly in the core regions than in the peripheral regions, and, within the periphery, tended to be lost less quickly in the dominant conurbation of a region than elsewhere.

It would seem that the mechanisms of the urban-rural shift in manufacturing work more effectively in industries which are either growing, or in moderate recession, than in those which are in *deep* recession. The basic feature of the urban-rural shift, as emphasised by Fothergill and Gudgin (1982) and others, is that there is a long term tendency for industrial employment in conurbations to dwindle,[52] while investment in new capital is favoured in smaller towns and rural areas. This would be largely because less urbanised areas offer relatively few locational constraints to new investment, provided labour is readily available, whereas in the conurbations there are problems of lack of space to expand on existing sites, old industrial buildings being unsuitable for modernisation, high costs, poor transportation facilities, etc. If however an industry is in *deep* recession, the level of investment is likely to be very low, and factors influencing the geography of *new* investment will have relatively little effect on the geography of employment change in that industry.

It may well be the case that in a deeply depressed industry, jobs

will be lost more quickly in conurbations than elsewhere, but this is not necessarily so. In the cotton industry, for example, jobs have tended to be lost more quickly in Lancashire (post-1974 county) than in Greater Manchester, both during the slump and in the pre-slump years (see chapter 8 below). A lot depends on the specific circumstances of an individual industry.

On the basis of this argument, it can be suggested that any urban-rural shift is likely to be much weaker in a period of slump, when a very high proportion of industries are deeply depressed rather than moderately depressed, than in earlier recessions of the long cycle downswing.

(c) Other industries

The mechanical engineering industry was not the only industry to be depressed in 1971-72. Job losses in textiles continued to be high, although lower than in the previous year. 11,900 textile jobs were lost in the North West, and 6,700 in Yorkshire and Humberside, during the year (Table 6.30).

Attention concentrates, however, on the "other metal industries" (metal manufacture, shipbuilding, vehicles, metal goods n.e.s.) which were also depressed in 1971-72. Table 6.30 shows that rates of job loss in this sector were considerably higher than the average in Northern Ireland (although from a small base), Yorkshire and Humberside and the West Midlands.

In Yorkshire and Humberside, 9,600 jobs (9.3%) were lost in metal manufacture, or, more specifically, iron and steel. These job losses were concentrated primarily in South Yorkshire, where 6,800 jobs (10.9%) were lost, rather than in Humberside, where 1,000 jobs (4.3%) were lost. These differences reflect differences in the ownership structure of the iron and steel industry, with the Humberside (Scunthorpe) steel industry being under the control of the British Steel Corporation, but with a large private sector being in existence in South Yorkshire (Sheffield and surrounds). In later years, the high rates of job loss in the British Steel Corporation were to mean that South Yorkshire would fare better, rather than worse, than other steel producing centres.

Employment in Yorkshire and Humberside was relatively buoyant outside the iron and steel and textile sectors, with many SIC orders[53] showing moderate increases in employment in 1971-72.

In the West Midlands, the regional economy was heavily burdened in 1971-72 by a high degree of concentration of employment in the metal

producing and metal using industries. In 1971, 61.3% of the region's manufacturing employment was to be found in these sectors, compared with 39.6% in the UK as a whole. In the West Midlands metropolitan county, the core of the region's industrial economy, 71.9% of manufacturing employment was to be found in the "metal-bashing" sectors, making it unsurprising that manufacturing job loss there reached 4.3%.

The rate of job loss in the West Midlands in mechanical engineering and metal manufacture remained below the national average, but, as in the 1966-70 cycle, jobs in the vehicles industry were lost more quickly than elsewhere. The geography of decline and decentralisation is again apparent; 8,400 jobs (4.8%) were lost in the West Midlands motor vehicle industry, with an additional 3,400 jobs (over 30%) being lost in the rapidly declining motor cycle industry.[54] In the North West, employment in the motor vehicles sector fell by 2.6%, whereas East Anglia, the East Midlands, the Northern region and Wales all registered employment gains in this sector.

6.6 Recovery and Reflation, 1972-74

The period from 1966 to 1972 may in effect be regarded as a single long recession, with substantial job losses between 1966 and 1968, a flat "upturn" between 1968 and 1970, and another recession between 1970 and 1972. Unemployment rates were still fairly low at the end of this period, but this was because unemployment rates were *very* low at the beginning of the period. The UK economy was more depressed than competitor economies, but the advanced industrial economies as a whole were going through a spell of slow growth and rising unemployment through the late 1960s and early 1970s.

The maintenance of full employment appeared at the time to be a central task which democratic governments in the capitalist economies had to perform successfully in order to keep their political legitimacy.[55] Any substantial departure from full employment, even on a relatively moderate scale,would be seen as requiring urgent corrective action.[56] This was the situation which faced the western economies around 1971 and 1972. It was considered at the time that a substantial reflation, on "Keynesian" lines, would set the economy aright, and lead to a return to full employment.

It needs to be emphasised, however, that there had *never* previously been an occasion in the UK when an explicitly Keynesian reflation in peace-time had produced full employment from a situation of high unemployment; the return to full employment in the 1930s and 1940s had resulted from the largely spontaneous recovery after the slump, and the pressures of war-time demand. Keynesian policies had been associated with the continuance of full employment after the Second World War, and yet it would seem that the cyclical reflations during the long boom preserved full employment largely because of the underlying growth potential in the economy.[57] The success of Keynesian policy lay not in keeping the economy at full employment, but rather in dampening down recessions in an existing regime of full employment. This is a crucial distinction.

From the mid-1960s onwards the dynamic potential of the capitalist economies weakened considerably. This created unemployment, and thus necessitated reflation, but also created a situation in which a reflation would be unlikely to work, because of the difficulties of stimulating production. If a central agency attempts to boost the economy too sharply, part of the boom will be felt in increased production, but an important part of the boom would be felt in increased prices. This tends to lead to a cycle of boom-inflation-deep recession, a cycle which may be clearly detected in the British economy between 1972 and 1976. The oil price rise in late 1973 may be seen as an important part of this process, but not as the originator of the process; the oil price rises

were made possible not just by increased Arab unity during another outbreak of the Arab-Israeli war,[58] but also, critically, by the very high levels of demand for oil at this time.[59] Rapidly expanding demand in the industrialised economies had in fact led to large scale rises in the prices of other commodities *before* the oil price rises.[60]

The year 1972-73 was one of unusual economic circumstances, which need to be attended to in this account. In that GDP rose by 8.6% per annum between the first quarter of 1972 and the first quarter of 1973, a rapid growth of employment is indicated. The sectoral composition of employment growth was highly lopsided, though. Between June 1972 and June 1973, employment in the UK increased by 3.7% in the service sector, and by as much as 6.1% in the construction industry, but by only 0.6% in manufacturing industry. The reflation thus gave a considerable boost to the service and construction sectors, but did not help manufacturing industry much. The international reflation had a severely adverse effect on UK industrial competitiveness.

A large scale expansion of demand is likely to be met by a large scale expansion in production and service activity, but not necessarily in the form which would be desired. The reflation created considerable extra purchasing power in the economy, much of which was absorbed in time by price rises. In the shorter term, the expansion of purchasing power, at a time of less than full employment, led to conditions ideal for the expansion of low wage parts of the service sector. In 1972-73, 113,000 jobs were created in the miscellaneous services, an increase of 5.5%, while 103,000 jobs were created in the distributive trades, an increase of 3.9%. In the slightly longer term, much of the money floating around in the economy settled on the property market, forcing property prices sharply upwards,[61] which in turn encouraged an expansion of activity in the construction industry to take advantage of rising profit margins.[62] Employment in the construction industry expanded by 78,900 in 1972-73.

In such circumstances, an expansion in employment of 0.6% in manufacturing industry seems almost marginal. While manufacturing employment increased by 50,400 between June 1972 and June 1973, the number of hours of overtime worked increased by 2,500,000, or the equivalent of about 63,000 jobs. This would appear to reflect a perception on the part of the manufacturers that the boom was only temporary, and that it was generally not viable to meet the peak in demand by major investment in new capacity and a major expansion of employment. There was more incentive for manufacturers to undertake a modest expansion to take advantage of rising markets, but to let imported goods absorb peaks in demand.[63] This strategy, though rational, was

appropriate only for a national manufacturing industry in competitive decline; other countries, most notably Japan, were on a competitive upswing and could use the boom to expand permanently their share of world markets. There is thus the danger that a world reflation might exacerbate rather than reduce international economic differentials, once the temporary effects of boom had passed.

(i) The View From London

Table 6.32 shows figures for industrial employment change by region in 1972-73, and Table 6.33 repeats this exercise for 1973-74. In the construction industry, employment expanded rapidly in 1972-73, but fell back in 1973-74. In manufacturing, however, the patterns noted for 1972-73 closely match those for 1973-74, with high rates of growth in the outer South (EA, SW) and in the assisted regions (N, Wa, Sc), moderate rate rates of growth in the "manufacturing heartland" (WM, EM, NW, YH) and substantial rates of job loss in the South East, which can safely be assumed to have occurred primarily in Greater London. The main differences between the two years were that job loss was not nearly as acute in the South East in 1973-74 as it had been in 1972-73, while the expansion in the rest of Britain tended to be slower in 1973-74 than in 1972-73. The year 1973-74 will not be discussed in much detail, with the main attention concentrating on the boom year 1972-73.

The central question to be asked of 1972-73 is why manufacturing employment in the South East declined so sharply, despite the national boom. It is far less surprising, given the context of the period, that the assisted regions and the outer South should have had substantial increases in manufacturing employment.

Manufacturing employment in Greater London fell by 53,900 (-5.5%) in 1972-73, while increasing in the rest of the South East by 6,400 (+0.6%). This rate of increase in the rest of the South East was slightly lower than the national average, implying that it would be unwise to explain London's decline in 1972-73 in terms of relatively local decentralisation. The combined growth of manufacturing employment in the rest of the South East, East Anglia, the South West, Wales and the Northern region, the major zones of decentralised industries, remained slightly less than the loss of manufacturing employment in Greater London. It would appear, therefore, that there was some industrial recession specific to London in 1972-73. Table 6.29 shows that while Greater Manchester and Merseyside registered slight net manufacturing job losses in 1972-73, these were on a scale much smaller than job loss in London, and indeed the other peripheral conurbations showed increases in manufacturing employment during the year.

Table 6.34 shows manufacturing employment change by sector in Greater London in the 1972-74 upswing. While it is possible to identify sectors with particularly heavy rates of job loss (notably mechanical engineering and metal manufacture in 1972-73, and building materials, and clothing and footwear in 1973-74) the most important point to be noted is that during a pronounced cyclical upswing, almost all industrial

sectors were shedding employment in London as a large scale. This job loss was particularly severe in 1972-73, more so than in other years of milder upswing in the 1970s (Table 6.29). It must be concluded that there was something about the 1972-73 boom which was particularly antipathetic to industrial employment in London. A *general* boom may cause *specific* damage.

Attention needs to be concentrated primarily on land prices. Between 1972 and 1973, the cost of housing land increased by over a third at a time when the general rate of inflation was around 10% per annum. Figures for the cost of industrial land are not as readily available as those for housing land, but it may provisionally be assumed that the basic trends were comparable. Land prices in London were, and still are, considerably higher than elsewhere.

Table 6.35 shows that in *proportionate* terms the largest increases in land prices in 1972-73 were in the West Midlands (+90.5%) and the South West (+85.1%). In absolute terms, however, the price increases were far greater in the London conurbation than elsewhere, with prices for housing land increasing by £85,100 per hectare in Greater London, and by £51,700 per hectare in the Outer Metropolitan Area. These *increases* in land prices were greater than the *total* land prices in other regions.

A boom in land prices has far-ranging economic effects. The general principle in housing markets is that a land boom will be a considerable bonus to house owners, and a considerable cost to house purchasers. In industrial markets, the distribution of cost and advantage has some more complex features. It would seem fairly clear that exceptionally high costs of land would impose a considerable extra cost on industries in London which rented land, and thus tend to lead to high rates of job loss in this part of the manufacturing sector. In the case of those factories where the land was owned outright by the manufacturer, the boom in land prices would benefit the manufacturer, but, paradoxically, not the London industrial economy. The main reason is that manufacturing in London during a land boom would impose a considerable opportunity cost, as the high market value of the land could not be realised if the land is not offered for sale on the general market. In the case of a multi-plant firm this would tend to suggest the possibility of an industrial reorganisation in which the London factory is sold off to create liquid assets, and consolidation of production, or new investment, takes place elsewhere, where land is more cheaply bought. In the case of a single plant firm, a simple closure is quite a high possibility, as the firm, faced perhaps with declining local markets, but sitting on highly expensive land, is displaced by alternative

economic activities which can bear the high land prices, and need a central location. An important feature of a land boom is that offices replace factories and other land uses at the margins of the central city.[64]

In terms of the national geography of manufacturing, the main effect of a boom in land prices would be to discourage production in areas with high land prices, and to encourage production in areas with low land prices. At the height of the land boom, the prices of land in Yorkshire and Humberside, Wales and the Northern region were high by the previous standards of those regions, but less than a tenth of land prices in Greater London, and around a quarter of those in the Outer Metropolitan Area (Table 6.35). The East Midlands also had low land prices. The increasing costs of land appeared not to deter industrial production in these areas, as in London and the South East; instead, the generally expansive economic conditions, combined with the considerable relative price advantage of these regions in the land market, led to considerable expansion in industrial employment.

London is a high cost location, both in terms of wages and in terms of land costs. These are features which have often been noted in the context both of the earlier decentralisation from London of high growth industries, and also the later accelerated decline of manufacturing employment in Greater London.[65] In that the rate of manufacturing job loss was particularly high in London in 1972-73 in a year in which economic growth was rapid, and land prices were increasing sharply, the land price factor would seem to be particularly important as an explanation of the decline of London's manufacturing base through the 1970s. This effect would tend to be most conspicuous in a year in which land prices were booming, but it would seem that high land prices were a contributory factor to manufacturing job loss in London throughout the 1970s. Keeble (1976 p.124) cites an example from 1975 in which the Rockware Group closed a factory in outer London, selling the site for an estimated £6 million, rather than closing a factory in St. Helens (Merseyside) which was valued at under £1 million. It would appear that this was not an isolated case; Keeble also cited a study by the Canning Town Community Development Project in 1975 which explicitly links a high rate of manufacturing closures in that part of inner London with high industrial site values.

London in the 1970s showed a considerably higher rate of industrial job loss than any of the main provincial conurbations. Fothergill and Gudgin (1982) strongly imply that this was due to London being considerably larger than the industrial conurbations, and also imply that since differences in the rate of growth between different types of

areas (conurbation, urban, rural, etc.) are assumed to reflect differences in the degree of congestion, London's exceptional problems were due to an exceptional degree of congestion. This train of argument is unconvincing; it is not clear, for example, that London is much shorter of space, in purely physical terms, than Manchester or Liverpool or Glasgow, and it does not seem that differences in the rate of manufacturing employment change between London and the peripheral conurbations result from this. A more likely explanation is not so much the physical shortage of land in London, but rather the exceptionally high pressure of demand which exists for that land which is available in London, leading to land prices being greatly higher in London than elsewhere. At one level of analysis, manufacturing as a land use is squeezed out by other land uses (offices, warehousing, housing, etc.) in which a high degree of *centrality*, rather than merely good access, is required. In addition, as land prices in central London rise there is often a strong incentive for manufacturing firms to decentralise their headquarters functions, a process which was gathering pace in the 1970s. At another level of analysis, the exceptionally high land prices in London reflect a considerable disincentive to manufacturing production starting or continuing in London, and would lead to exceptionally high rates of manufacturing job loss in London.

Thus, in 1972-73, the year of the land boom, 53,800 manufacturing jobs were lost in London, while 6,300 were gained in the rest of the South East, and 98,200 were gained in the rest of Great Britain (Tables 6.32, 6.34). While the boom led to an unusually high rate of job loss in London's manufacturing industry, it led to an unusually high rate of employment growth in manufacturing in the Midlands and peripheral regions, and most notably in the three development regions (N, Wa, Sc), in which 42,600 manufacturing jobs were created.

(ii) The View From the Industrial Periphery

Employment growth in manufacturing was strongly orientated towards the periphery, and especially towards the development areas and the more rural counties. Table 6.36 attempts to outline the extent to which growth was spread across different types of areas. In the urbanised areas of the periphery, manufacturing employment tended to grow by between 1% and 2%. Apart from weak growth performances in Greater Manchester and Merseyside, there is little sign, on the evidence of Table 6.36, that the conurbations were any less well placed to meet an upturn in demand than other urbanised areas. Indeed, as Table 6.24 shows, the boom was quite strongly marked in South Yorkshire, Strathclyde and Tyne and Wear, while the peripheral conurbations between them, the Lancashire conurbations included, registered an employment growth in manufacturing of 22,800. While the side effects of the land boom were deeply detrimental to employment levels in manufacturing in London, the peripheral conurbations were able to share fully in the generally expansive economic conditions.

The assisted counties of the Northern region and South Wales gained 25,700 jobs in 1972-73 (22,300 if the conurbation of Tyne and Wear is excluded, to avoid double-counting), with further, but lesser gains in the following year. Employment growth in manufacturing was particularly dramatic in Northumberland, Durham and Mid Glamorgan, where in each case the increase in employment amounted to over 10% from 1972 to 1974. Table 6.37 and 6.38 show that other counties in the regional policy belts of the Northern region and South Wales also had substantial employment growth in manufacturing.

The 1972-74 upswing may in retrospect be seen as the peak of the regional policy "boom",[66] as the result of the convergence of several features. There was strong, if unstable, growth in the national economy, which boosted investment levels, and raised levels of potentially mobile investment. Furthermore, the sharp rise in land prices would seem to have greatly encouraged a policy of industrial "peripheralisation", of closing down high cost locations in the core, and expanding in cheaper locations in the periphery. Finally, job losses in coal mining were by this stage relatively slight, implying that in contrast with the late 1960s, gains in manufacturing employment represented a clear addition to the local employment base, rather than simply a replacement for jobs lost in coal mining. As a result, regional differences in unemployment rates declined sharply in 1972-73, a feature discussed in chapter 5.4 above.

During the rest of the 1970s, however, and also during the slump,

job losses in manufacturing became particularly prominent in several of the localities which had earlier benefited most from regional policy. Not only did the rate of industrial immigration decline, as a result of a deteriorating investment climate, but also substantial job losses were to be found in factories which had been set up under previous rounds of regional policy investment. A more detailed discussion of this problem will follow when post-1974 industrial trends are considered. Three main components of the problem may be briefly noted in advance, however.

Firstly, many parts of the assisted areas had developed substantial levels of employment in the manufacture of basic industrial materials (iron and steel, chemicals, etc.). This was a particularly prominent feature of the economies of Cleveland (Table 6.38), Gwent and West Glamorgan (Table 6.37), and, to a lesser extent, Cumbria and Durham. Such areas may have been traditional centres of the industries involved, in the case of the Teesside steel industry especially,[67] or the industry may have developed largely as a result of mid-20th century regional and industrial policy, as in the South Wales steel industry.[68] In either case, the operation of a strong regional policy encouraged considerable capital investment in these "heavy" industries through the long boom. Employment in these industries has been found to be particularly vulnerable in a period of general industrial decline, and as a result, levels of employment in several of the assisted areas were to decline sharply, especially in the steel industry during the slump (chapters 7, 8 below).

Secondly, regional policy has chiefly concentrated on attracting investment from elsewhere to the assisted areas, rather than on generating indigenous industry. This tends to lead to the development of a "branch plant economy", characterised by a predominance of routine production, rather than innovative production, in light industries in factories controlled, in their higher functions, from outside the region.[69] In such factories, employment may well expand rapidly during a cyclical upturn, but there is a likelihood that job loss will be severe during a recession. The problem is not simply that during a period of recession employment will tend to be more secure in core region factories, which have a wider range of high order functions, although this is indeed an important problem. There is also the very major problem that firms which had set up production facilities in the assisted areas, rather than in the core regions as a result of cost differentials, sharpened by regional policy, would find in the conditions of the mid-1970s and beyond that it was possible to produce on a large scale in third world countries in which wage levels were considerably below those in the advanced industrialised economies.[70] The assisted areas were thus to find

themselves squeezed out, on the one hand by the concentration of advanced production in the core regions, and on the other hand by the attraction of low cost locations in the third world. As section 6.7 below shows, this was a particularly important feature of the electrical engineering industry in the 1974-76 recession. This industry was one which earlier had been at the forefront of industrial migration into the assisted areas. Tables 6.37 and 6.38 show, for example, that in the 1972-74 upswing, 2,700 jobs were created in County Durham in electrical and instrument engineering, and 2,500 more in Mid Glamorgan.

Thirdly, the "new industries" which were attracted to the assisted areas might themselves be industries in major long term decline, or about to enter a period of intense long term decline. Table 6.38 shows, for example, that in 1972-74 Cleveland gained 2,700 jobs in the textile and clothing industries, while Northumberland gained 1,300.[71] In the vehicles industry, Gwent gained 900 jobs from a small base (Table 6.37). Branch plant factories in such industries could well be severely affected during recession.

A sense of perspective should therefore be kept about the apparently spectacular growth of industrial employment in many of the assisted areas between 1972 and 1974. Tables 6.37 and 6.38, which outline the main patterns of change in South Wales and the Northern region, show that in those counties with the fastest growth in industrial employment (Northumberland, Durham, Mid Glamorgan) the fastest rises in employment tended to be concentrated in the electrical engineering, vehicles and textile and clothing sectors, which were later to become vulnerable.

It would be a mistake to assume that simply because industrial growth was faster in the periphery than in the core in 1972-74, the imbalance between North and South had been overturned, and the dominance of the South had ceased. Much of the industrial growth in the periphery at this time had shallow roots. Undoubtedly, industrial employment in these areas by the mid-1980s was higher than it would have been in the absence of earlier regional policy development, yet the fact that much of the development turned out to be vulnerable to recession meant that in 1974-76 and possibly also in 1979-82 *rates of job loss* were higher than in the assisted areas than they would have been otherwise.

If the primary objectives of regional policy are to boost industrial employment in relatively depressed industrial areas, and to reduce the vulnerability of such areas to recession, British regional policy may be said ultimately to have succeeded on the first count, but to have failed on the second.

6.7 Intense Recession, 1974-76

The recession from 1974 to 1976 was especially severe and was felt severely in all advanced capitalist economies. Mandel (1978 pp.9-10) notes that this particular recession was the first *generalised* recession since the Second World War (emphasis added) in that it struck all the advanced capitalist economies (or, in Mandel's phrase, the "great imperialist powers") simultaneously. The generalisation of recession, according to Mandel, accentuated its severity in that there was little scope for recession-hit countries to alleviate their problems by increasing their exports to countries which had largely escaped the crisis. There is no logical reason to assume, however, that because a recession is generalised in this sense, the impact of recession will be felt *equally* in all economies, or all industrial sectors, or all regions within a national economy.[72] It is likely that the effects of recession would be severe, but uneven.

Earlier recessions in the downswing had been severe, and particularly in competitively weak economies such as the UK, in which the period from 1966 to 1972 was effectively one long recession. The 1974-76 recession was severe in all countries simultaneously, and certainly not least in the UK. The strains of the weakening dynamism of industrial growth (the presence of the long cycle downswing) and the cycle of artificial boom in 1972-73, and severe inflation in the wake of this boom, took their toll on the capitalist economies. The oil crisis of late 1973 was undoubtedly a major factor in triggering off the recession, but there were so many tensions in the international economic situation that a deep recession would have been likely even if the main oil producers had not found the political unity, in the face of renewed Israeli-Arab conflict, to force through large oil price rises.

It is even possible to question whether the oil price rise *in itself* had much of a depressive effect. Undoubtedly productivity growth and output growth slowed down considerably after 1973, with 1973 marking a clear turning point,[73] but estimates made by Nordhaus (1980 pp.374-377) suggest that of the 1.8 percentage point slowdown in the rate of productivity increase in OECD countries between 1963-73 and 1973-79, only 0.11 point is immediately attributable to the oil crisis. The loss of real income in the OECD countries as a direct result of the oil crisis was estimated by Nordhaus to be about 2.9% of the total, enough to cause a substantial rise in unemployment, but not enough to indicate that the oil crisis was the sole factor behind rising unemployment.

The indirect effects of the oil crisis were more acute. Nordhaus[74] notes that "policy-makers, consumers, and firms in 1973-74 responded to

the oil crisis as an event that was something between calamity and the end of the world. Consumers tightened their belts; firms cut investment plans ..... governments stepped on the economic brakes". These indirect responses undoubtedly had a severe detrimental effect on economic growth, and yet the severity of the responses indicated a common awareness that, following the depressions of the late 1960s and the inflationary effects of the compensatory boom of the early 1970s, a state of economic crisis was already in the air. It is regarded by the author as a central principle of economic history that a clear distinction should be made between the *cause* of an economic crisis and the *trigger* of an economic crisis. The oil crisis of 1973-74 is seen more as trigger than as cause. Blaming the Arabs, though it might have been fashionable among the pundits of the time,[75] is hardly a sufficient explanation of the crisis in the capitalist economies, in which significant economic problems had already been mounting for almost a decade.

It would seem that the recession of 1974 marked the beginning of what might be termed "late downswing", a transition from recession-proneness to economic crisis. The social effects of recession became more ominous; unemployment in the UK topped 6% in 1976, a figure high enough to ensure that the impact of a low level of demand for labour was not confined to relatively isolated sub-groups, while the effects of 20% inflation were in many respects even more far-reaching, and certainly had some form of adverse economic influence on almost the whole population. A combination of high inflation and high growth, as in the upswing from 1972 to late 1973, could be regarded as tolerable by policy makers in that booming output and prices could lead to high rates of profitability in certain sectors, notably property, but when boom turned into recession, and inflation still remained high, both capital and labour were deeply affected.

In terms of net job losses the impact of the mid-1970s recession was largely confined to the manufacturing sector, but was very severe within that sector with over 600,000 jobs being lost in two years (Tables 6.1, 6.8). Employment was relatively steady in construction and in coal mining, in contrast with earlier recessions of the downswing, while employment in the service sectors continued to increase vigorously, especially in 1974-75, since large scale public expenditure cuts had not yet been deemed necessary, allowing expansion to continue in the public sector services (health, education, local government, etc.), and since the expansion of the relatively low waged miscellaneous services continued unabated at a time of high unemployment and low wage expectations. The question of service sector employment will be discussed more fully in section 6.9 below; for the moment it need only

be noted that had employment in the service sector *not* increased by 300,000 between mid-1974 and mid-1976 the recession would have been even more severe than was actually the case, and the unemployment rate would have stood at around 7½% rather than at around 6%.

As usual, the recession in manufacturing in 1974-76 was felt unevenly, both by sector (Table 6.39) and by region (Tables 6.40, 6.41). The recession was felt most severely in the textile industry, with a 12.4% fall in employment and 72,000 jobs lost, and in building materials, also with a fall of 12.4% in employment, and a job loss of 37,000. More surprisingly, perhaps, 104,000 jobs were lost in electrical engineering, a fall of 12.3%. Until recently this had been a growth industry. These three sectors were between them responsible for over a third of the net job losses in manufacturing during the recession.

It is perhaps not surprising that the textile industry should have been in such a severe decline; this industry is a very clear case of what might be described as an "older, declining industry", and has been severely recession-prone for a number of decades. If one adds to this the extent to which there was an interlocking process of increased import penetration (a general problem with British industry at the time)[76] and a shift of production to low wage countries in the "new international division of labour" (Froebel, Heinrichs and Kreye, 1980), the extent of decline in the domestic industry is even less surprising.

(i) Recession in Electrical Engineering, 1974-76

The extreme severity of recession in electrical products, which had until recently been an industry of major employment growth, is noteworthy,not least because of the suddenness of the decline. In assessing the position of the UK electrical engineering industry in the late 1970s in general, and in the 1974-76 recession in particular, two features need to be emphasised; the general decline in the competitive position of British consumer goods industries, and the extent to which the changing balance of employment between high wage and low wage countries had affected the electrical industries.

Import penetration was becoming a major problem for British consumer goods. A situation rapidly developed in which by the mid-1970s it was virtually impossible to "buy British" in large sections of the electrical consumer goods industry. This was highlighted by an advertising campaign run by British Leyland in 1980,[77] which stated that by 1979, 99% of dishwashers, 96% of portable radios, 72% of hand held calculators, 68% of fridge freezers, 66% of music centres, and 53% of portable televisions were imported. These products were all electrical goods, but other consumer goods were also affected, if to a lesser degree; by 1979, 70% of cutlery was imported, 72% of leather handbags, 74% of sporting equipment, 61% of clocks, etc. There were substantially lower degrees of import penetration, at around 30%, in various clothing and footwear industries in which import penetration was a longer-standing problem.

The degree of import penetration was substantially increasing through the 1970s, with the implication of high rates of job loss across several sectors, and notably consumer electrical goods. It needs to be emphasised, however, that not all the decline was due to the much publicised shift in production to third world countries; the UK electrical goods industry was falling behind competitors in Europe and other advanced capitalist economies, especially Japan.[78]

The geography of electrical engineering is complicated. Massey (1984 p.137) notes"the presence of major social contrasts with a spatial dimension, from the jet-setting microchip scientist/inventor/entrepreneur, male and flying Ambassador Class, to the young assembler of semiconductors, female, paid around 20 cents an hour (in the 1970s) and likely to lose her job in a couple of years, if the company has anyway not moved on by then, as her eyesight fails". Massey also points out that muted versions of such contrasts are to be found within the United Kingdom with the high technology, high status end of the industry being concentrated largely in the more prosperous areas of Southern England, and the mass

assembly end of the industry tending to be found in the peripheral areas. The intensification of inter-firm competition, and the switches in production within a firm from high wage countries to low wage countries, are thus likely to have had a far more substantial effect on employment levels in the peripheral regions than employment levels in the core regions. Table 6.42 indicates that this was indeed the case; between June 1974 and June 1976, Northern Ireland lost 28.5% of its employment in electrical engineering, Scotland lost 18.5% and the Northern region lost 17.4%, yet the South East outside London lost only 3.4%. Furthermore, there were also substantial job losses in Southern England's "internal periphery", with an employment decline of 22.0% in East Anglia, and 18.2% in the South West.

This is unquestionably a major reversal of employment trends. Up to 1974 the situation was that while the South East was at the frontier of the growth in the electrical industry, there was considerable scope for more routine aspects of production to be decentralised to the assisted regions and to the outer South (EA, SW).[79] This decentralisation took place on such a large scale that throughout most of the 1960s and early 1970s, employment in the outer South and the assisted regions grew,in percentage terms, far more quickly than employment in the South East. Table 6.42 showed that this still applied as late as 1972-74. An important point to note was that the lack of growth of employment in the South East reflected not just London's industrial decline, but also the slow growth of the rest of the South East.

In the 1974-76 recession, Table 6.42 shows that job loss in electrical engineering tended to be greatest where job growth had been fastest in the previous decade, whereas job loss was relatively slow in regions in which job growth had been relatively slow in the previous decade. "Core" production in the technologically more advanced electronics industries, often largely protected by high levels of military demand as the arms race continued, was relatively immune from recession.[80] "Peripheral" production, of standardised goods in decentralised branch plant factories, was badly exposed to the forces of recession. The 1974-76 recession marked the onset of a crisis in branch plant employment, one which applied not just to the electrical engineering industry, but also to other industries in which routine production had been decentralised to cheaper, more peripheral parts of the UK space economy. The problem was not simply that after a period of sustained growth, the peripheral branch plants were starting to lose employment. The problem was rather that the job losses involved were on a substantial scale. In the 1974-76 recession, for example, 11,000 jobs were lost in electrical engineering in Scotland, 9,600 in the Northern

region, 8,700 in the South West, 5,300 in East Anglia and 5,000 in Wales; in none of these regions was the 1974 employment base over 60,000.

To appreciate some of the reasons for the severity of this decline, it is necessary to consider the geography of production on a world scale. It is important to recognise that the discussion which follows applies not just to the electrical engineering sector, but also to large numbers of other industrial sectors, notably textiles and clothing.

Many light industries are geographically highly mobile, and can therefore actively seek out new locations to achieve reductions in the cost of production. During the 1960s and early 1970s, such industries were often attracted in the UK to assisted regions, where subsidies on capital investment existed, and to fairly rural areas, where land prices and wages were low, and expansion of production could take place without meeting the problem of shortage of space. This, however, represented a specific phase in the geography of industrial production. In the 1970s a different form of relocation was becoming apparent, as it became more feasible for large firms to engage in production in third world locations, which had considerably lower costs than locations in the peripheries of advanced capitalist economies.[81] A common form of relocation was for factories to be closed down in an advanced industrial economy, to be directly replaced by new factories in the world periphery; Froebel, Heinrichs and Kreye (1980 pp.9-10) cite examples of "West German" factories in a number of sectors reopening in Tunisia, India, Taiwan, Malaysia, Brazil, Hong Kong and Singapore. A similar list could be produced for British industry. This relocation is generally relocation *within* a corporation, which presupposes the existence of large firms which can operate on a world scale.[82] The development of "giant" firms has been a conspicuous feature of the advanced industrial economies in the post-war period.

Froebel et al (1980 p.13) cite three main technical preconditions for the transference of production to third world locations to take place; firstly the existence of a "practically inexhaustible" reservoir of very cheap labour in the developing countries, much swollen by the modernisation of agriculture,[84] secondly a highly advanced stage of subdivision of production processes, leading to the deskilling of the production process and the need for only a minimal degree of workforce *training* (as opposed to manual dexterity, etc.)[85] and thirdly the development of techniques of transport and communication to such an extent that considerable geographical fragmentation of the production process is possible.[86] These technical factors place labour in the developing countries in direct competition with labour in the

industrialised countries. The element of competition became particularly acute in the profits squeeze of the "generalised recession" of 1974-76, as corporations sought to maintain levels of profitability in exceptionally unfavourable economic conditions.

The technical conditions which allowed the "new international division of labour" to emerge apparently become fulfilled only in the 1970s. Vernon (1966) had clearly indicated the possibility that the production of standardised goods would tend to shift towards locations in the less developed countries, yet at that time he could cite only a few sporadic instances, such as the sale of electrical goods from Taiwan, of newsprint from India and of sewing machines from Pakistan. Vernon suggested, in 1966, that "the reason why so few relevant cases come to mind is that the process has not yet advanced far enough."[87] Vernon found it easier, in the mid-1960s, to identify shifts of production of this type to low wage areas within an advanced industrial economy, such as the Southern U.S.A., the south of Italy, and, critically for the present discussion, "the laggard north of Britain and Ireland".

In the 1960s, therefore, the technical conditions were not quite ripe for a major redistribution of industrial production within the multi-national corporation towards third world locations. Routine production could thus readily be attracted to low cost locations, such as the assisted areas, within a high wage economy. As techniques of industrial production, transport and communication developed, however, third world countries became increasingly attractive locations for routine industrial production, and maybe even the routine production of technologically advanced products (the assembly of microprocessor circuits, for example). This raises obvious questions about the industrial future of high wage economies, and would tend to suggest that production would increasingly be directed towards specialised products rather than towards production for a mass market, for which low wage economies are more favoured centres of production. This shift in patterns of industrial production might well be expected to have only moderate effects on the high income core regions, primarily the South East, but to have severe effects on the peripheral regions. In the periphery, the problem would tend to be felt firstly through high rates of job loss in production within a multi-national corporation, or through a loss of competitive advantage by small firms to firms which can operate multi-nationally, and secondly through a reduction in the attractiveness of the assisted areas as a potential location for new production.

The geography of recession in electrical engineering in 1974-76 provides a clear glimpse of this new form of the regional problem. Furthermore it needs to be emphasised that the type of problem being

described is not just a 1970s problem; it is also a serious problem for the late 1980s and 1990s. If under the "new international division of labour" the most favoured areas for industrial expansion are the core regions of the more prosperous countries and certain of the more industrialised third world countries, with the peripheral regions of the advanced economies being squeezed out by third world competition, then the prospects of complete recovery from industrial recession in the advanced economies are limited. Furthermore, core-periphery inequalities in economic development in the advanced economies will probably tend to be much greater in the post-1983 long cycle upswing than in the post-1932 upswing. In the present work, detailed analysis of employment change stops at 1981; it would be of considerable interest and importance to see whether recent developments are along the lines suggested above.

As far as the 1974-76 recession is concerned, the decline of the branch plant economy was not confined to the electrical engineering sector, as subsequent discussion, on a region by region basis, will show. Neither was the branch plant problem the only facet of the geography of recession in 1974-76 which requires detailed attention. Severe job losses in Scotland and Wales (sections 6.7(iii), iv)) could be explained in these terms, but job losses in the West Midlands, which was not a branch plant economy, were almost equally severe.

(ii) The West Midlands

Manufacturing employment in the West Midlands region fell by 9.5% in the 1974-76 recession, compared with a fall of 7.9% in the UK as a whole. It needs to be strongly emphasised, however, that the recession's effects were concentrated primarily on the West Midlands conurbation, in which manufacturing employment fell by 11.4%. In the rest of the region, manufacturing employment fell by 4.4%, a rate of decline closely aligned with that of the East Midlands, and considerably less than that of the United Kingdom taken as a whole (Table 6.43). Figures for employment change taken at the level of the standard region (Tables 6.40, 6.41) can thus be misleading. The contrast in the Midlands in 1974-76 was not one between a "prosperous" East Midlands and a "depressed" West Midlands, but rather one between an industrially depressed conurbation, centred on Birmingham, and a relatively stable economy in the rest of the Midlands. Furthermore, the decline in the West Midlands conurbation took place not simply because it was a conurbation (the urban-rural shift of Fothergill and Gudgin 1982), but rather because of specific features of job loss in the vehicles and related industries.

Table 6.44 shows the major patterns of job loss in the West Midlands conurbation in 1974-76. The post-1974 county of Warwickshire has been treated as part of the West Midlands industrial conurbation, partly because the industrial structure of that county closely resembles the industrial structure of the West Midlands metropolitan county (high levels of employment in vehicles, metal industries, etc.) and contrasts with the industrial structure of the rest of the region, and partly because the post-1974 county boundaries, by sticking so closely to the continuous built-up area of the Birmingham conurbation, would appear to have understated the size of the West Midlands *conurbation*, as opposed to the *city*.

In the 1974-76 recession, employment in the West Midlands conurbation fell by 11.5% in two years in the "traditional" West Midlands industries (vehicles, metal goods, electrical engineering, mechanical engineering, metal manufacture) which between them accounted for about 80% of the conurbation's manufacturing employment. This in itself is sufficient to account for a rate of manufacturing job loss of around 9%, considerably above the national average, even before other job losses are taken into account. There were however still substantial job losses in other sectors, notably in "cocoa, chocolate and sugar confectionery" (MLH 217) in which 2,600 jobs (23.1%) were lost in 1974-75, and in "plastic products NES" (MLH 496) in which 1,700 jobs

(14.7%) were lost in the same year. The former industry, Cadbury's, is another traditional West Midlands industry, even if somewhat removed from the main specialisations, but it is not possible to tell from published figures whether the decline of employment in the plastics sector was directly related, or unrelated, to the problems of the vehicle industry.

At the centre of the problem faced by the West Midlands economy was the decline in the local motor vehicle industry. 24,300 jobs were lost in two years in the vehicles sector, accounting for 3.1% of *total* manufacturing employment. A further 17,800 jobs were lost in the metal goods industry (SIC Order XII) of which a substantial part would probably reflect declining demand for car components.

It is essential to note, however, that the decline in the West Midlands vehicles industry in this period does *not* reflect simply the presence of an intense economic crisis in an industry which "happened" to be located in the West Midlands. The national rate of job loss in the vehicles sector, at 6.1% between 1974 and 1976, was actually *lower* than in other manufacturing industries.

What was happening instead was that there were significant locational shifts *within* the vehicles sector, with the West Midlands bearing the brunt of recession. Between 1974 and 1976, employment in this sector fell by 12.9% in the West Midlands conurbation, compared with only 4.0% in the rest of the UK. This represents an extremely selective pattern of job loss. The differential shift involved in the West Midlands conurbation stood at -12,900; the *geography* of decline in the West Midlands car industry thus directly accounted for an excess job loss of 1.6% of the manufacturing work force. Table 6.44 shows that in addition the other main metal and engineering industries in the West Midlands also had pronounced negative differential shifts, probably largely occasioned by the adverse effects on local industrial demand of the severe cutbacks in the car industry. These further differential shifts accounted for an excess job loss of 0.8% of the West Midlands manufacturing employment total.

The main reason why employment trends were so unfavourable in the West Midlands in the 1974-76 recession would thus appear to be that the conurbation was singled out, at a time of recession, for heavy job losses in the vehicles sector. Table 6.45 indicates in more detail the geography of job loss in this sector, and shows consistently high rates of job loss in the "South Midland" core of the vehicles industry (West Midlands metropolitan county, Warwickshire, Oxfordshire, Bedfordshire) and also a very high rate of job loss in Strathclyde, in part resulting from the financial crisis of Chrysler UK,[88] and in part from major local

job losses in the aerospace industry. In the South East and the North West, however, employment was steady in the vehicles industry, both inside and outside the major cities. It needs to be emphasised that Table 6.45 shows no general "anti-city" effect (witness the employment performances in this industry of Greater London, Greater Manchester and Merseyside) but instead shows a major erosion of the employment base of the core area of the British motor industry, most particularly the West Midlands.

Although the rate of job loss in the UK vehicles industry was relatively low when compared with other manufacturing industries, large segments of the industry were in severe financial trouble. The state-owned British Leyland, the largest employer in Britain in this sector, was by early 1974 making considerable losses, which led to a Government Inquiry being set up under Sir Don Ryder (Great Britain, 1975). The economic conditions faced by British Leyland prompted a major programme of rationalisation, and in many respects the West Midlands car industry was ripe for such rationalisation, given that there were several large production sites scross a relatively small area, operating at low labour productivity by international standards, producing an unnecessarily wide range of products, being strike-prone, and, in the face of adverse demand conditions, operating at considerably less than full capacity. Bhaskar (1979, especially pp.135-203) highlights some of the problems faced in these respects, both by British Leyland and by other car producers. It need not necessarily be the case that the West Midlands would have to be the least efficient car producing area for this densely industrialised zone to be the one most affected by rationalisation programmes; indeed it is the very complexity of operations in this major car producing area which allows for the maximum simplification of operations. Thus, in a single car factory in an isolated area there is generally relatively little scope to cut back on production without losing economies of scale, and there is relatively little organisational complexity which can be simplified. If however several factories coexist within a few miles, there is considerable scope to reorganise existing capacity, shifting production from one factory to another and simplifying production runs.

It needs to be recognised that the West Midlands motor industry at this time was dominated by British Leyland, a nationalised industry built up from various rounds of amalgamation between smaller British producers. Other, foreign-owned, motor firms (e.g. Ford, Vauxhall, Chrysler) generally had a very much smaller presence in the West Midlands. This historical legacy, and the failure of British Leyland to rationalise adequately in the late 1960s (see Thoms and Donnelly 1985

pp.202-205), left a legacy in the mid-1970s of production being carried out at a large number of factories of widely varying sizes. This, in conjunction with the sharply deteriorating competitive position of British Leyland (Bhaskar 1979, Dunnett 1980 pp.121-151), led to considerable problems for the West Midlands economy. Census of Employment statistics are disaggregated by sector, but not by firm, so it is not possible to use them to show to what extent the unusually rapid rate of job loss in the West Midlands motor industry reflected differences in employment performance between British Leyland and other manufacturers, and to what extent it reflected the geography of rationalisation within British Leyland. Quite probably both factors were important, although the published literature gives relatively little guidance on this point.

It would seem, on a slightly more general plane, that a very high concentration of employment in an industry in a particular area could well lead to job losses being concentrated in that area in any programme of rationalisation. This was the fate of the West Midlands vehicles industry in the recession of the mid-1970s, and indeed even to some extent in earlier years. The problems of British Leyland were not resolved by the post-Ryder rationalisations, while the private sector of the vehicles industry also continued to have problems through the late 1970s. As chapters 7 and 8 below indicate, job loss in the vehicles industry was extremely severe during the slump, which created further major problems for the West Midlands economy. Job losses in the West Midlands vehicle industry were particularly severe in both the 1974-76 and 1979-82 recessions. In the earlier case, the severity of job loss in the vehicles industry was explained by the degree to which job losses were *concentrated* in the West Midlands rather than elsewhere. In the later recession, job loss in the vehicles industry was proportionally not more severe than elsewhere, but the overall rate of job loss in the vehicles industry was extremely high.

There was an extremely strong contrast in the 1974-76 recession between spatial patterns of job loss in the electrical engineering sector, and those of the vehicles sector. In electrical engineering, employment was relatively steady in the South Eastern core, but there was extremely severe job loss in branch plant factories in the periphery. In vehicles, however, job loss was very severe in the West Midlands core, but relatively light elsewhere. These contrasts indicate how difficult it is to make generalisations about the industrial geography of a period of recession.

(iii) Scotland

Manufacturing job loss, at 9.5%, was undoubtedly very severe in the West Midlands region in the 1974-76 recession, yet Scotland and Wales each had higher rates of job loss. Wales will be discussed in section 6.7(iv) below; attention here concentrates on Scotland, where 68,300 manufacturing jobs were lost, a decline of 10.1%, the most severe decline of any standard economic region during that particular recession.

Not surprisingly, given the strong "anti-city" trends of the 1970s, manufacturing job loss was particularly severe in Strathclyde, with an 11.1% rate of job loss. Even so, the rate of decline in the rest of Scotland, at 8.7%, was slightly, but distinctly higher than in the UK as a whole, which lost 7.9% of its manufacturing jobs. Table 6.46 provides a finer disaggregation of spatial patterns of job loss in Scotland's manufacturing industry. Apart from Strathclyde, the impact of manufacturing recession was particularly severe in the Island Areas, Tayside, Central region and the Borders. Recession in these regions was generally dominated by the misfortunes of the textile industry.

Tayside's problems, for example, largely resulted from substantial job losses in a traditional textile industry, with 2,800 out of 14,200 (19.8%) jobs being lost, mostly but not exclusively in the jute sector. There were also substantial job losses (1,400 out of 3,300) in the office machinery sector. These two sets of job losses largely explain why Tayside's rate of manufacturing job loss reached 11.5%.

In the Central region, 1,600 out of 3,700 textile jobs (42.4%) were lost, mostly in the hosiery and knitted goods sector. In the Borders region, the textile sector, based on woollens, was the dominant industrial sector, and employment in textiles declined from 9,700 to 8,300, a fall of 13.9%. Employment in other manufacturing sectors remained steady, with a decline of less than 100 from a base of 5,000. The Shetlands and Western Isles were even more dependent industrially on the textile industry, and these two island areas between them lost 400 out of their 1,000 jobs in the textile industry. It should be emphasised, though, that employment in the construction industry increased sharply in the Orkneys, from 700 in 1974 to 1,400 in 1976, and in the Shetlands, from 900 in 1974 to 1,500 in 1976 and 2,100 in 1977. This boom in construction, associated with the development of the North Sea oil industry, helped compensate for the problems of the traditional textile industry,[89] but there remained the underlying question of what would happen to the economies of these remote rural areas once the oil boom had passed.

In general, the role of manufacturing job loss in 1974-76 in

Scotland outside Strathclyde tended to be higher than the UK average if there were substantial job losses in a local textile industry, but otherwise tended to remain close to the UK average.

Strathclyde also had significant job losses in the textiles sector, with a decline of 4,600 jobs, or 15.9%, between 1974 and 1976. This however was hardly the dominant recessionary influence on the Strathclyde economy. As indicated earlier, job loss was particularly severe in the vehicles sector (6,600 jobs, or 24.4% being lost), and also in the electrical engineering sector (7,100 jobs, or 20.7% being lost). Rates of job loss were also unusually high in the iron and steel industry (3,000 jobs, or 10.1% being lost), the clothing industry (3,400 jobs or 13.7% being lost) and the timber and furniture industry (1,700 jobs, or 14.6% being lost). Net rates of job loss were somewhat higher than average across a large number of industrial sectors, which may be regarded as typical of what might be expected of a conurbation in long-term decline. The highly uneven geographies of job loss in the electrical engineering and vehicles industries greatly accentuated, however, the cyclical problems faced by Strathclyde in 1974-76. As with so many other peripheral areas, a sharp gain of employment in electrical engineering in 1972-74, when 4,900 jobs were created, was followed by an even sharper recession.

The problems faced by Strathclyde in the mid-1970s may be regarded as typical of the problems faced by a conurbation-based industrial region in long-term decline when a severe cyclical recession is encountered. Rates of job loss tend to be particularly high in a few extremely depressed sectors (textiles, electrical engineering and vehicles in this case), and consistently higher than the national average across the large majority of other industrial sectors.

The problems of the Scottish economy in 1974-76 may be described in terms of the generally depressed condition of the Strathclyde economy, and of the more specific features of heavy job losses in Strathclyde in vehicles and in electrical engineering, and also in terms of substantial job losses in the Scottish textile industry, which, although spatially scattered, represented a major employer in the Scottish economy.

(iv) Wales

In many respects Wales can be regarded as the clearest case of the branch plant economy at the scale of the standard region. The most characteristic form of the local branch plant economy occurs in the South Wales coalfield, where the industry, coal, which originally supported the urbanisation of the area, had long been in a period of decline, leaving behind an industrial workforce, but very little industry to work in.[90] Industrial migration, accelerated by regional policy assistance, helped fill the vacuum. In different parts of South Wales, the primary form of industrial development has been either the development of an industrial economy based on a large number of branch plant factories in a variety of sectors, as in Mid Glamorgan, or, as in parts of Gwent and West Glamorgan, the development of a substantial iron and steel industry, in which a single new plant may ultimately create thousands of new jobs.[91] Along with the emergence of the coalfield branch plant economy, there had also been the growth of a rural branch plant economy in the rest of Wales, with the development of various small or medium sized factories resulting in a proportionally large, if numerically small, growth in industrial employment.

Wales therefore developed a significant branch plant economy. Furthermore, the absence of any large industrial conurbation meant that the fortunes of the branch plant economy *dominated* regional industrial trends, to a much greater extent than for example in the Northern region.

As the earlier discussion (section 6.7(i)) makes clear, though, the 1974-76 recession cast considerable doubt on the viability of branch plant industrialisation in the advanced industrial economies. If branch plants had earlier been attracted to the low wage peripheries in search of cheap and readily available labour, the branch plants of a late 1970s vintage were increasingly likely to be attracted to a third world location, which showed similar locational advantages, but in greater abundance.

The 1974-76 recession thus marked a significant turning point in the Welsh economy. Between 1966 and 1974, and probably for a considerable period prior to 1966, the rate of growth of manufacturing employment in Wales had been consistently above the UK average. After 1974 the manufacturing employment performance in Wales had been consistently worse than the UK average, apart from a brief respite in 1976-77. Table 6.47 provides the relevant statistics. The Northern region shows, in many respects, parallel trends, except that the growth of manufacturing employment was much slower than in Wales prior to the intensification of regional policy in the mid-1960s. Furthermore, in the first two

recessions of the long cycle downswing (1966-68 and 1970-72) manufacturing job loss was faster in the Northern region than in Wales, probably largely as a result of the presence of an industrial conurbation (Tyne and Wear) and a near-conurbation (Teesside). The problems of the branch plant economy were so severe in 1974-76 though, that as section 6.7(v) shows, the presence of these conurbations was actually a *stabilising* factor in the Northern region economy.

Table 6.48 shows the geography of manufacturing job loss with Wales in the 1974-76 recession. The general impression is of a high degree of uniformity of performance, although Clwyd registered a very high rate of manufacturing job loss in 1974-75. There would seem to be some tendency for the rate of manufacturing job loss in South Wales to be lower than in Central Wales and North Wales.

In Clwyd, 4,700 manufacturing jobs, or 10.9% of the total base figure, were lost in 1974-75. In 1975-76, however, the recession evened out, despite 1,200 jobs being lost in the iron and steel industry, an industry which was later to be responsible for even more substantial job loss. There was a net gain of 400 jobs in other manufacturing sectors in 1975-76. In 1974-75, though, local employment in the iron and steel industry had been steady, and the main job losses were in the electrical engineering sector in which 2,000 out of 5,500 jobs were lost, and the production of man-made fibres, in which 900 out of 4,800 jobs were lost. There were also substantial job losses in the motor vehicle sector, with 500 out of 1,600 jobs being lost, showing that rationalisation in this industry could affect the relatively small factory as well as the West Midlands complex. Jobs were also lost on a fairly large scale in the building materials industry, with about 200 jobs being shed in each of MLHs 461 (Bricks, fireclay and refractory goods), 463 (Glass) and 469 (Abrasives and building materials, etc., n.e.s.).

The particularly heavy overall job losses in Clwyd in the 1974-76 recession thus reflect a mixture of very large job losses in some sectors and moderately large job losses in other sectors. Significantly, in view of the earlier discussion (section 6.7(ii)), job losses were particularly severe in the electrical engineering sector, precisely the sector in which the crisis of the branch plant economy is clearly identifiable in the disaggregated employment figures for the 1974-76 recession.

The situation in South Wales was not so clearly defined. Much of Mid Glamorgan's job loss took place in what might be termed the branch plant sectors. 1,900 out of 16,400 jobs were lost in electrical engineering between 1974 and 1976, but at 11.8% the rate of job loss was slightly lower than the UK average (12.3%). 22% of Mid Glamorgan's

manufacturing employment in 1974 was in this sector, however, compared with 16% in South East England and 11% in the UK as a whole. There had been a long history of investment in the electrical engineering industry, and in particular in electrical consumer goods, in this part of the Welsh coalfield.[92] Possibly it is largely *because* of this relatively long history that job loss in this sector in Mid Glamorgan was below the national average; much of the capacity in the factories involved could be regarded as part of a multi-plant firm's "core" capacity, rather than surplus capacity generated to meet what turned out to be a temporary surge in demand.

It needs to be emphasised that while the electrical engineering industry was a source of considerable job loss in the Mid Glamorgan economy, matters could have been far worse if the county had higher than average rates of job loss in this sector. There were also considerable job losses in the clothing sector, another sector which had been highly amenable to branch plant development, in which 1,200 jobs out of 6,700 (17.7%) were lost between 1974 and 1976. This, as Table 6.39 shows, was a considerably faster rate of job loss than in the U.K. as a whole. There were also 1,200 jobs lost in the metal goods n.e.s. sector, but the rate of job loss, at 14.4% over two years, reflected more the severe national recession in this industry rather than any specifically local difficulties. Smaller job losses, totalling about 1,000, can be noted for the plastic goods industry (MLH 496) and the textile industry, possibly also representing branch plant employment.

The high rates of job loss in Mid Glamorgan can thus clearly be linked with the problems of branch plant employment in the 1974-76 recession. Overall rates of manufacturing job loss in Gwent and West Glamorgan closely resembled those in Mid Glamorgan, but in that the employment structure of these two counties was strongly tilted towards the iron and steel industry, one might expect the problems of that industry to be dominant in local job losses. In Gwent, for example, 2,700 jobs out of a total of 22,700 (11.9%) were lost in the iron and steel sector, even though there was at the time a definite Government policy of trying to save jobs in British Steel.[93] These job losses largely explain why Gwent lost industrial employment so rapidly in 1974-76.

In West Glamorgan the situation was different. 1,000 jobs were lost in metal manufacture, both inside and outside the steel industry, but this was out of a total of 24,300 jobs, so that the *rate* of job loss was not high; two fifths of the county's manufacturing employment accounted for one fifth of the job loss. Job losses in the vehicles, mechanical engineering and clothing sectors would perhaps have been a greater cause

for concern in that there were very high proportional rates of job loss from a fairly low employment base, implying possibly that it may have been difficult for new industries to become established in the most remote part of the South Wales coalfield. In the vehicles sector 900 out of 5,800 jobs were lost (15.6%) implying that remote producers, as well as the West Midlands complex, were often liable to rationalisation. In mechanical engineering 800 out of 3,500 jobs were lost (18.9%) and in clothing 400 out of 1,700 jobs (21.7%) were lost. Thus, even though the iron and steel industry dominated the local employment profile, it would appear that the branch plant syndrome dominated job loss. In South Glamorgan, job losses in the vehicles sector (1,000 out of 3,000 jobs lost, or 33.9%), and the metal goods sector (700 out of 2,800 jobs lost, or 24.6%) tended to dominate the recession.

Despite the relative uniformity of rates of manufacturing job loss in South Wales, there were thus important contrasts in the type of job loss. In general, employment in the "branch plant industries", including the vehicles industry, suffered to a much greater extent in the more remote, more westerly parts of the coalfield industrial area, with for example, rates of job loss in electrical engineering of only 1.2% in Gwent, compared with 11.8% in Mid Glamorgan, and a slight increase in employment in the Gwent vehicles industry, compared with substantial job losses in South Glamorgan and West Glamorgan. Less accessible areas tended to fare worse than more accessible areas in rounds of job loss,[94] although there is of course no deterministic relationship. In the iron and steel industry, however, the east-west balance was tipped the other way, with high rates of job loss in Gwent, in the east, moderate rates of job loss from a small base in Mid Glamorgan and South Glamorgan, and a very low rate of job loss, from a large base, in the west, in West Glamorgan. The appearance of uniformity thus results from the summation of two opposite tendencies.

In regional terms, the switch from Wales being a zone of rapid industrial growth to Wales becoming a zone of rapid industrial decline was perhaps the single most conspicuous feature of the changes in Britain's industrial geography brought about by the 1974-76 recession. The problem at this stage was primarily the decline of the branch plant factory. During the next few years, however, the iron and steel industry started to move into very deep recession. In that Wales had high levels of employment in this sector, notably in West Glamorgan, Clwyd and Gwent, and in that the problems of the branch plant factory were liable to persist, Wales was probably the worst placed of any of the British regions when the slump emerged on the horizon.

(v) The Northern Region

In contrast with Scotland and Wales, manufacturing employment decline in the Northern Region, the other main assisted region, was relatively slight, with 6.2% of manufacturing jobs being lost in the 1974-76 recession. It should be emphasised, however, that the Northern region did not share in the general industrial recovery in 1976-79, so that the apparently relatively favourable position of the region in the mid-1970s recession was merely a transitory phase.

The geography of recession within the region was highly uneven, with, at the extremes, a 9.7% rate of manufacturing job loss in County Durham, compared with 3.2% in Cumbria and 4.9% in Cleveland. County Durham and Northumberland each had high rates of job loss in 1974-76, yet each had particularly high rates of employment growth in the previous 1972-74 upswing (Table 6.49). The relationship is extremely strong; counties with significantly lower rates of manufacturing employment growth in the upswing had much lower rates of job loss in the recession.

Employment trends in Durham and Northumberland closely matched those of Mid Glamorgan, as might be expected given the degrees of similarity in urban structure, with the large mining or ex-mining village (or small town) being such an important unit of urbanisation. In each case, employment in manufacturing increased by over 10% between 1972 and 1974 (Tables 6.37, 6.38, 6.49), but declined by nearly 10% between 1974 and 1976. It would seem that large parts of the North East coalfield, as well as Wales, experienced the problems created by the crisis of the branch plant factory.

The problems of individual sectors can be traced. In County Durham, employment in textiles fell by 2,100, a drop of 25.1%, between 1974 and 1976. Employment in electrical engineering fell by 1,500, a drop of 10.9%, in the same period, after having increased by 2,500 between 1972 and 1974. These two sectors accounted for about half Durham's total manufacturing job losses. In addition 1,000 jobs (30.9%) were lost in food, drink and tobacco, and 1,000 jobs (14.1%) in clothing. It would seem highly likely that the bulk of these 5,600 job losses took place in branch plant factories whose opening and/or expansion were encouraged by regional policy measures.

As in Mid Glamorgan, the rate of job loss in Durham in electrical engineering was slightly below average, but the concentration of employment in a sector potentially highly vulnerable to international competition, and changing patterns of locational advantage in production, represented a major potential source of weakness.

In Northumberland, on the other fringe of the North Eastern

coalfield, broadly similar patterns may be noted, but on a smaller scale. Only 2,100 jobs were lost in manufacturing, but this represented as much as 8.9% of the total in a county which is very lightly urbanised outside the coalfield zone of the south east. Employment in the motor vehicles industry fell from 900 to 200 in the 1974-76 recession, again indicating the extent to which smaller, remote factories could be severely affected by rationalisation in this industry. There were also proportionally high rates of job loss in electrical engineering (600 jobs lost, or 18.3%) and in chemicals (400 jobs lost, or 26.3%).

Most job losses in manufacturing in Durham and Northumberland in the 1974-76 recession can be related to jobs created not long before, either in the 1972-74 upswing, or at the remove of perhaps one or two business cycles. At this stage, the jobs were not being lost in the traditional industries of these areas, coal mining job losses having taken place in the 1960s, and the main job losses in iron and steel being still in the future (e.g. the closure of Consett steelworks in 1980). Recession was severe in the less urbanised parts of the North East coalfield in precisely those industries which were supposed, under regional policy, to replace the "declining older industries".

Cleveland County and Tyne and Wear each had substantial job losses in the electrical engineering sector and the textile sector, showing that the branch plant syndrome was a problem throughout North East England. Paradoxically, overall rates of manufacturing job loss in these, the most heavily industrialised parts of the North East, were low precisely because of the stability of employment in the older "declining" industries. Table 6.50 shows this relationship very clearly; employment levels were barely affected in the heavy industries, which in each county employed over 70,000 people, yet the "regional policy industries", although not in general representing major employers, each had very high rates of job loss.

During the 1960s and early 1970s employment in the traditional industries in the North East was declining severely, and new, lighter industries encouraged to take their place. During the mid and late 1970s these lighter industries were in decline in the North East, while the decline in the older industries was in abeyance, in a large part due to conscious Government policy decisions to try to maintain employment levels in the nationalised industries, despite severe economic pressure. In the post-1979 slump, both the "old" industrial North East and the "new" industrial North East were in severe decline, but with the decline in the iron and steel industry being particularly severe (chapters 7 and 8 below).

This discussion of the North East highlights the extent to which the 1974-76 recession affected the newer industrial sectors as well as the older sectors. It was no longer the case that such sectors as electrical engineering were on a long term trend of employment growth; the combination of recession and footlooseness at a world scale in routine production activities affected such "growth" sectors, as well as light industries on a declining trend, such as textiles.

(vi) The Inner Periphery

The relative position of the outer periphery had, except for the main cities of North East England, tended to deteriorate substantially during the 1974-76 recession. In contrast, the relative position of the inner periphery (YH, NW) had tended to improve, despite considerable job losses in the textile industry, totalling 16,000 (15.3%) in West Yorkshire, 7,200 (9.2%) in Greater Manchester, and 5,000 (11.3%) in Lancashire.

Table 6.51 provides details of changes in manufacturing employment by county, differentiating between the textile sector and other sectors. Total employment figures show that the recession was more severe than the national average in West Yorkshire, with a job loss of 9.0%, and Merseyside, with a job loss of 8.9%. In other counties, the rate of job loss was slightly below the national average, both in conurbations and in less urbanised counties. In the least urbanised county, North Yorkshire, manufacturing employment even increased slightly during the recession.

The problems West Yorkshire faced were primarily due to the recession in the textiles industry. When job losses in textiles are removed from the account (Table 6.51) there is a fairly high degree of uniformity of performance in the manufacturing sector, with rates of job loss generally being between 5.2% and 7.2%, lower than the national average, but higher than in those parts of the Midlands away from the West Midlands conurbation (see Table 6.43). Merseyside, however, still showed a conspicuously higher than average rate of job loss in manufacturing.

There has been much academic attention given to the problems of the Merseyside economy, largely concentrating on the difficulties faced by a conurbation which has a local economy dominated by large, externally controlled factories with relatively few small locally owned firms.[95] These factors would tend to affect the local economy adversely only under certain conditions, however. Dicken and Lloyd (1978), for example, show that between 1966 and 1975, manufacturing jobs were lost substantially more quickly in inner Manchester, with a high proportion of small, locally owned firms, than in the inner industrial area of Merseyside. It should not be forgotten, however, that Merseyside has persistently tended to be a high status area in terms of regional policy assistance, whereas Manchester has at various times either been unassisted, or assisted at the lowest level of priority, by regional policy. By analogy with what was happening in other assisted areas, one might expect that Merseyside would have tended to have more favourable

employment trends than Greater Manchester up to 1974, when regional policy was having a substantial beneficial effect on the local economy, but would have tended to have had *less* favourable industrial trends after 1974, when the problems of branch plant industry started to become acute. Table 6.29 lends some support to this interpretation of events. It is very noticeable that Merseyside had considerably less favourable trends in industrial employment than Greater Manchester after 1974, whereas Merseyside and Greater Manchester showed approximately equal rates of employment change between 1971 and 1974. This, however, does not cover the period in which employment growth in the Merseyside vehicles industry was at its most intense. Between 1959 and 1971, manufacturing employment growth was substantially faster in Merseyside than in Manchester, both in the 1959-66 period and in the 1966-71 period.[96]

There are also more specific features of recession on Merseyside that need to be considered. Between 1974 and 1976, there were prominent job losses in food, drink and tobacco, (5,700 jobs, or 12.3%,lost out of 46,000), electrical engineering (4,200 jobs, or 13.8%, lost out of 30,400) and glass (MLH 463) (2,500 jobs, or 13.4%, lost out of 18,900). At this stage, employment in the vehicles industry on Merseyside was stable, but within a year there were to be very substantial local job losses in this sector, aggravating considerably the "Merseyside problem".

Heavy job losses in the electrical engineering sector are no surprise. What is perhaps more notable is the high rate of job loss (12.3%, compared with 6.8% nationally) in the food, drink and tobacco industry. This industry is perhaps the closest Liverpool has to a traditional manufacturing industry, the early growth of Liverpool having been based more on inter-continental trade than on manufacturing industry.[97] In 1971, a fifth of Merseyside's manufacturing employment was in food, drink and tobacco.

There were, however, quite significant locational changes taking place in the food, drink and tobacco industry, which were detrimental to Merseyside's employment position. The most notable feature was a decline of employment in traditional port-based locations, such as Liverpool, London, Bristol and Cardiff, and a substantial increase of employment along an eastern zone from Northamptonshire, Cambridgeshire and Suffolk to North Yorkshire. Between 1971 and 1977, employment in the food, drink and tobacco industry fell by 27,300 (24.3%) in Greater London, 7,400 (15.4%) in Merseyside, 4,300 (17.1%) in Avon, 3,900 (8.4%) in Strathclyde and 1,400 (23.0%) in South Glamorgan. Along the eastern counties,[98] however, employment *increased* by 7,900, a rise of 8.5%. This pattern of change suggests at first a strong urban-rural shift,

but in that areas such as South West England (outside Bristol) were showing employment declines in this sector, whereas the West Yorkshire and South Yorkshire conurbations showed employment growth, other factors would seem to be involved. An important feature could well be a downturn in the relative importance of inter-continental trade in foodstuffs, and a relative increase in the importance of home produced foodstuffs and imports from Europe, a tendency which would have been accentuated by the UK having joined the European Economic Community in 1973. A major shift in the locational advantages for production for several kinds of food might, for example, result from a switch from cane sugar to beet sugar, resulting from EEC tariff policies.[99]

The general locational tendencies in the food, drink and tobacco industry would appear to have been for a decline of employment at break-of-bulk points in the major port cities, and for increases of employment to take place in Eastern England, close firstly to areas of major population growth, secondly to substantial areas of arable farmland, and thirdly to the East Coast ports.

Clearly there was more to the decline of the Merseyside economy, in 1974-75 specifically or in the 1970s in general, than locational shifts in the food, drink and tobacco industry. The majority of job losses, however, took place in three sectors in 1974-76; food, drink and tobacco, electrical engineering and glass. Job losses in these sectors were sufficient to push Merseyside's overall rate of job loss in non-textile manufacturing sectors well above the rate suffered by other counties in the inner periphery.

(vii) London

The industrial decline of London continued, and sharpened, during the 1974-76 recession, while manufacturing employment levels remained relatively steady in the rest of Southern England. As in Merseyside, there were severe job losses in Greater London in electrical engineering (21,800 jobs lost, or 14.6% between 1974 and 1976) and food, drink and tobacco (13,200 jobs lost, or 13.3%). This still leaves 86,000 lost jobs to be accounted for. Again it needs to be emphasised that industrial job losses in London cannot be adequately described in terms of the problems of a few key sectors. The unfavourability of London as an industrial centre was becoming so acute that very high rates of job loss were to be found across the majority of industrial sectors.

Every SIC order, with the exception of mechanical engineering, instrument engineering, and vehicles, lost 9% or more of its employment in London between 1974 and 1976. In the vehicles sector, employment remained steady at 55,000 as the main waves of rationalisation were taking place in the West Midlands and smaller more isolated production units in the less urbanised parts of the periphery. In the instrument engineering sector, the rate of job loss, at 7.6%, was slightly higher than in the UK as a whole (6.8%). In mechanical engineering, job loss in Greater London, at 6.5% was also higher than the national average (4.8%), but still considerably lower than in other industrial sectors.

The overall picture of the London industrial economy, however, was that at this stage industrial job loss was extremely fast, and that fast rates of job loss were not confined to sectors in deep recession nationally, nor even more prominent in the depressed sectors than elsewhere. In the textiles and metal goods industries, for example, job loss in London stood at 9.3% and 12.2% respectively, compared with rates of job loss of 12.4% and 10.2% nationally. These rates of job loss in London were actually lower than in such sectors as chemicals (13.3% of jobs lost in Greater London), metal industries (32.1% job loss) and clothing and footwear (15.3% job loss) which were not in severe recession nationally.

(viii) 1974-76; Summary

It is now time to present a summary of the geography of recession in 1974-76. Two types of area tended to be most severely affected by recession; the conurbations and the Special Development Areas. In general, areas which fell into neither of these categories tended to be only moderately affected by the severe 1974-76 recession, although there would seem to be a tendency for job loss in areas of moderate urbanisation to be lower in the South than the Midlands, and lower in the Midlands than in the North.

Some of the conurbations had very high rates of job loss during the recession, whereas in other conurbations the decline of industrial employment was average or below average. Thus, while the recession *tended* to affect the conurbations severely, no all-embracing rule can be given. Greater London, Strathclyde and the West Midlands had especially high rates of job loss in manufacturing, whereas South Yorkshire, Tyne and Wear and Greater Manchester all had slightly lower than average rates of manufacturing job loss.

Outside the conurbations, rates of job loss in manufacturing tended to be medium or low, unless a significant branch plant economy had developed as a result of earlier regional policy. The branch plant economies started to face severe new problems in the 1974-76 recession, as it became increasingly feasible technically for large firms to switch production to factories in third world countries which could be operated at lower costs.

6.8 Uncertain Recovery, 1976-79

Undoubtedly the recession of the mid-1970s had been severe, with the unemployment rate reaching 6.3% in August 1976, and the rate of inflation reaching 26.9% by August 1975. There were elements of an economic recovery in the following years, however, with unemployment having fallen to 5.4% in May 1979, and the rate of inflation having fallen to 7.4% by June 1978.[100] While economic indicators were more favourable in 1979 than in 1976, there could be no question that there had been a decisive departure from the days of full employment and low inflation.

The coexistence of high levels of unemployment and inflation ("stagflation"; see chapter 2.8) presented novel problems for politicians, raising the question of whether priority should be given to price stability or to reducing unemployment. In the context of the 1974-79 Labour Government, it is perhaps an oversimplification to suggest that the problem could have been seen in such clear strategic terms, though. It is possibly more accurate to suggest that in confused economic conditions a policy of crisis management was followed.[101] A high rate of unemployment indicates a higher degree of social injustice than a high rate of inflation does, but high inflation presents a far greater threat to the functioning of the economic system than does the presence of a large labour surplus. As a result, economic policies of crisis management during a period of stagflation would tend to be directed more towards reducing the rate of inflation than towards reducing unemployment.

In terms of employment and unemployment, the upswing between 1976 and 1979 was fairly flat, with the unemployment rate falling by about one percentage point. Part of the flatness of the upturn was due to a significant deceleration in the expansion of the health and education services, in which employment expanded by an average of 101,000 per annum between 1971 and 1976, but by an average of only 28,000 per annum between 1976 and 1979.[102] The rate of increase in employment in the early 1970s was in line with earlier trends, a point discussed further in section 6.9 below. The cutbacks in the rate of expansion in the late 1970s represented part of the Government's response to the new climate of economic stringency; an expanding state sector at a time of industrial decline may increase employment, but it also creates fiscal and inflationary pressures. It is not within the scope of the current discussion to consider in detail whether the economic policies of the late 1970s were well conceived or not, but it should certainly be noted that the non-appearance of about 200,000 new jobs in the public service

sectors would have added almost a percentage point to the unemployment rate by early 1979.

A policy of crisis management is a response to crisis, and not a solution of crisis. The economic recovery was not, it seems, sufficiently firmly based to protect the UK economy from feeling severely any future recession. The level of manufacturing employment, arguably the single most important indicator of the firmness of recovery,[103] increased only slightly in 1976-77, and declined thereafter. Virtually the whole of the increase in employment during this period took place in the service sector.

Tables 6.52 and 6.53 show industrial employment change by region in 1976-77 and 1977-78. Figures for 1979 are unavailable, except on the basis of official estimates, since there was no Census of Employment in that year or in 1980. It is preferable to deal with precise enumerated figures, rather than with estimates, whenever possible; as a result the period from 1978 to 1981 is studied, as a whole, in chapter 8 below, irrespective of the fact that this period contains one pre-slump year (1978-79) and two years of "early slump" (1979-81).

In terms of the *geography* of employment change, there is a noticeable break of trend between 1976-77 and 1977-78.[104] This applies both to manufacturing, discussed in this section, and to services, discussed in section 6.9 below. The main feature of the switch was that Southern England became by far the most favoured growth zone in 1977-78, whereas in earlier years, with a very complicated set of economic currents and counter-currents in operation, it was difficult to detect systematic North-South differences in the rates of employment change. The North-South differences intensified considerably during the slump, but they already existed in the late 1970s, and were not created, or re-created by the slump. It would be misleading, therefore, to suggest that the slump re-opened regional differences in employment change after a period of even rates of change on a North-Midlands-South scale.

In view of the often substantial differences between the patterns of change in 1976-77 and those of 1977-78, these two years need to be examined separately.

(i) Manufacturing Recovery, 1976-77; general patterns

Table 6.52 shows that in 1976-77 there was a fairly steady growth of manufacturing employment in most regions, but certainly not nearly strong enough to produce a return to 1974 levels of employment. The West Midlands, Wales and Scotland, the three regions which were worst affected during the 1974-76 recession, all had rates of employment growth in manufacturing considerably above the national average, as did the outer South (EA, SW) and the East Midlands. In the South East, continued job loss in London (where 18,100 manufacturing jobs, or 2.3% of the total, were lost) counterbalanced rapid growth in the rest of the region (where 22,900 jobs were created, an increase of 2.2%) to leave the region's total manufacturing employment growth slightly below the national average.

In the Northern region, however, a cyclical recovery did not lead to an end of major industrial job losses. Tyne and Wear, and Cleveland, which had escaped relatively lightly during the 1974-76 recession, lost 8,700 manufacturing jobs between them in the "recovery" of 1976-77. The largest gains in employment were to be found in precisely those areas which had lost jobs extremely quickly during the recession, the "regional policy belt" of Durham and Northumberland. This feature, when examined in conjunction with the relatively powerful upturn in Wales, would suggest that while the peripheral branch plants were highly recession-prone, there remained substantial spare capacity in those factories which were still open, and this enabled them to meet a cyclical upturn in demand; it was presumably more economical for producers to use existing capacity more fully than to relocate abroad.

This preliminary outline has suggested that in 1976-77, jobs were lost rapidly in London but there was growth elsewhere in Southern England, and that jobs were lost rapidly in Tyne and Wear and Cleveland, but with growth elsewhere in the Northern region. This would tend to suggest a general pattern of decline in the conurbations and growth elsewhere. Table 6.29 provides support for this impression, showing that there was also a substantial decline of employment in Merseyside, as well as in the counties mentioned above, and a slight decline of employment in Greater Manchester. Furthermore, employment levels were virtually static, despite the national cyclical upturn, in West Yorkshire and in Strathclyde. The West Midlands conurbation, however, showed a substantial increase in manufacturing employment as a result of cyclical upturns in demand in its main industries, while South Yorkshire also showed substantial increases in manufacturing employment.

(ii) The Northern Region, 1976-77

Despite the cyclical upturn, Tyne and Wear and Cleveland lost 18,300 manufacturing jobs between them in the two years from 1976 to 1978 (Table 6.54). This was more than the number of manufacturing jobs (16,700) that these two counties lost in the severe 1974-76 recession. In order to understand the problems faced by the North East in the late 1970s, it is necessary to examine these patterns of job loss in detail. Attention concentrates here on 1976-77; the following year is discussed in section 6.8(viii) below. The important general point to note is that the Northern region's industrial depression did not stop in 1976, but continued into the slump.

Cleveland's problems[105] were felt most severely in the iron and steel industry. This might not be immediately apparent from statistics at the SIC order level, which show that employment in metal manufacture decreased from 26,900 to 26,000, but as in the 1978-81 period (chapters 7 and 8 below) the main job losses were in MLH 341 (industrial plant and steelwork), which is listed under mechanical engineering rather than metal manufacture, and in which employment fell from 13,000 to 9,400, a drop of 3,600, or 27.6%. It is almost certain that this sharp decline reflects, at least in part, the effects of a completion of orders for certain North Sea oil rigs, although this cannot be directly proven or disproven from the statistical evidence of the Census of Employment.[106]

In national terms, the iron and steel industry was shedding jobs in 1976-77, without being in a particularly deep depression; 6,000 out of 521,300 jobs were lost (MLHs 311, 312, 313, 341). More pertinent, however, was the fact that job losses were concentrated in the industrial plant and steelwork sector, in which 13,700 jobs (8.4%) were lost; in the *manufacture* of iron and steel, employment increased slightly. The construction end of the iron and steel industry was heavily depressed, as the boom in oil rig building passed, and a large proportion of employment in Cleveland's iron and steel industry was in the construction part of the industry. Furthermore, Cleveland lost jobs more rapidly than elsewhere in this industry.

In 1976-77, therefore, Cleveland's iron and steel industry shed a total of 4,500 jobs. This, combined with a substantial job loss event in fruit and vegetable products, in which 1,800 jobs were lost, largely explains why Cleveland lost 5,300 manufacturing jobs in a single year.

Job loss in Tyne and Wear was on a more modest scale, and was spread across a large number of SIC orders, with electrical engineering shedding the largest number of jobs (1,300 or 5.3%). The even spread of job loss across sectors implies that the general economic

environment of Tyne and Wear was unfavourable at this stage, despite having the highest category of regional policy assistance.

It is a useful statistical exercise, when trying to identify causes of high or low rates of employment growth, to sum employment levels in minimum list headings in which employment is rising, and to sum employment levels in minimum list headings in which employment is declining. This gives an indication of whether an area's economic problems are due primarily to a high rate of job loss, or to a low rate of employment creation. It needs to be emphasised that such an approach is meaningful only with highly disaggregated data, and over short time spans, the maximum possible time span being a single arm of a business cycle.[107] Table 6.55 carries out this exercise for the Northern region, and Table 6.56 repeats the exercise for the North West.

The rate of creation of new employment in manufacturing in 1976-77 was significantly higher in Durham and Northumberland than in Tyne and Wear (Table 6.55), but it would seem, when comparisons are made with counties in the North West region, that the problems faced by Tyne and Wear consisted less of a low rate of job creation, than of a high rate of job loss. A comparison between Tyne and Wear, in which manufacturing employment fell by 2.0% overall, and Lancashire, in which manufacturing employment increased by 1.6%, makes this point clearly. These counties had almost identical rates of job creation, measured as a percentage of total manufacturing employment, but whereas job losses in Lancashire removed 2.4% of the base employment, job losses in Tyne and Wear removed 5.8% of base employment.

The most plausible interpretation of conditions in Tyne and Wear at that time was that regional policy was at least partially offsetting the problems which an industrial conurbation had in generating new employment, but that the conurbation was facing the problem of a large number of small to medium scale job losses (few over 1,000 jobs), the combined effect of which was to add up to a substantial total of job losses.[108]

Care should be taken against the possibility of drawing over-strong conclusions. It needs to be remembered that Tyne and Wear was affected relatively lightly by the 1974-76 recession. Over the three years from 1974 to 1977, manufacturing employment in Tyne and Wear fell by 8.1%, compared with 7.2% in Great Britain as a whole. This is a relatively slight difference, suggesting that maybe what was happening was that the 1974-76 recession was more prolonged in Tyne and Wear than elsewhere. This may reflect a possible tendency for plans concerning job losses in Tyne and Wear to have been made during the main recession, but postponed slightly for whatever reason.

Durham and Northumberland may be termed the specialised coal mining areas, even though each county has a large, but sparsely populated, rural hinterland outside the coalfield. In a sense, such a designation would have been by this time largely historical, given the running down of coal mining in County Durham especially,[109] but to designate these counties as specialised coal mining areas rather than as coalfield industrial areas is to make an important point about urban structure; the dominant form of urbanisation is the small town, or even the large industrial village, rather than the dense industrial agglomeration of the coalfield *industrial* areas such as Tyne and Wear.[110] The looser urban structure of the specialised coal mining regions is likely to be more attractive to potential migrant firms than the densely packed urban structure of the conurbations, or semi-conurbations such as Teesside.[111] Such areas may attract substantial industrial immigration, yet the turnover of employment may be very high. The most conspicuous feature of Table 6.55, as far as Durham and Northumberland are concerned, is an extremely high rate of growth of new manufacturing employment, although it is possible that much of this represents the uptake of spare capacity after the 1974-76 recession. Comparisons of Tables 6.55 and 6.56, however, shows that manufacturing job *losses* in Durham and Northumberland in 1976-77 were almost twice as high as in Cheshire, Lancashire and Greater Manchester. Despite the vigorous cyclical upturn in 1976-77, the specialised coalfield areas still had important underlying economic problems, which could be exposed by renewed recession, or a weakening of industrial immigration.

(iii) The North West, 1976-77

The North West was another region which missed out on the general industrial recovery in 1976-77, although total net industrial job loss, in both absolute and percentage terms, was considerably lower than in the Northern region (Table 6.52). When the employment data is presented on a county by county basis, as in Table 6.56, it can be seen, however, that the picture was not so much one of gradual industrial decline spread across the whole region, but rather one of particularly intense decline, given the context of a general cyclical upswing, in Merseyside and of moderately high rates of growth, in line with Yorkshire and Humberside, in the remainder of the region. Manufacturing employment declined slightly in Greater Manchester, but increased fairly substantially in Lancashire and Cheshire; this, however, is taken to represent more the normal urban-rural shift within a region than any prevailing tendency for the urban characteristics of Greater Manchester to retard growth in the region as a whole. Manufacturing employment decline in Merseyside was exceptional, faster than in any other conurbation in that year (Table 6.29), and deserves closer attention.

Table 6.56 indicates that in the North West in 1976-77, manufacturing job creation was substantially lower in the conurbations than in the less urbanised counties. This is the result one would expect, on the basis of the argument by Fothergill and Gudgin (1982) that the urban-rural shift results primarily from systematic differences in the levels of new, job-creating investment than from differences in the rate of decline in low investment sectors. Indeed, the overall difference in the rate of manufacturing employment change between Greater Manchester and the two non-conurbations is primarily explicable in terms of differences in new job formation; differences in the rate of job losses were relatively small.

Merseyside, like Greater Manchester, had a relatively low rate of job creation, although it is possible that Special Development Area status was the factor behind the rate of job creation being slightly higher than in Greater Manchester. In terms of job *loss*, however, Merseyside fared considerably worse than any other county in the region. Manufacturing jobs lost in 1976-77 accounted for 5.8% of the total 1976 level of manufacturing employment, compared with less than 3% in each of the other counties (Table 6.56).

Of the 12,200 jobs lost in declining manufacturing sectors in Merseyside, 4,100 were lost in the motor vehicles industry. This industry, despite its well-publicised problems, was not one of declining employment in Britain as a whole in 1976-77. On the contrary,

employment grew by 15,800, the rate of increase, at 3.5%, being considerably higher than the national average for manufacturing. In the West Midlands region, employment in this sector increased by 3,900 (2.7%), which,with various knock-on effects, accounted for much of the high rate of industrial growth in both the West Midlands region (Table 6.56) and the West Midlands conurbation (Table 6.29). That employment in this temporarily expanding sector should decline by 11.0% in Merseyside in a single year is perhaps surprising.

It would appear that the bulk of these job losses took place within British Leyland rather than in the private sector. *Financial Times* reports from around this period[112] indicate that substantial job losses over a long period of time were taking place at British Leyland, Speke, while little is said about any events at Ford, Halewood. In more general terms, however, perhaps the critical point is that the major wave of decentralisation in the vehicles industry had by now come to a halt. The geography of employment change in the car industry has been highly complicated, but perhaps four major stages may be noted:

(1) Early growth of the industry (approximately, the first half of the 20th century)
Employment growth predominantly in the West Midlands, with various secondary concentrations of employment developing in Southern England.

(2) Major decentralisation (late 1950s to mid-1960s)
Employment growing quickly in the industry, but combined with a process of decentralisation of production. Secondary centres of production developing in the peripheral regions, most importantly on Merseyside. Employment growth thus relatively slight in the core regions but fast in the periphery.

(3) Decentralisation in the context of employment decline (mid-1960s to mid-1970s)
Employment declining substantially in the West Midlands, but remaining relatively stable elsewhere. Analysis of the 1974-76 recession (section 6.7(ii) above) suggests that the dominant rationale for such switches of location had shifted from the difficulty of expanding capacity in a conurbation in which the car industry was already highly concentrated (period (2)), to the greater possibilities offered for rationalisation of production in a conurbation with several factories owned by a corporation in a single sector (period (3)).

(4) End of decentralisation (mid-1970s onwards)

> Employment change in the West Midlands car industry fairly close to the national average for that industry. In other areas, the rate of employment change dependent on the vulnerability or otherwise of particular factories, rather than on the general pace of decentralisation.

In the year 1976-77, phase (3) had come to a halt, and phase (4) was operative. The West Midlands was actively sharing in the employment growth in the car industry of that year, while the industrial vulnerability of some of the plant set up on Merseyside in phase (2) was starting to become a significant problem for the local economy.

The difficulties of the local car industry may have represented the single most significant industrial problem facing Merseyside in 1976-77, but there were also higher than average rates of job loss in other sectors. 900 jobs out of 3,600 were lost in the furniture and upholstery industry, but otherwise, the picture was one of a large number of industrial sectors losing about a hundred or two hundred jobs each.

(iv) Other regions, 1976-77

While manufacturing employment declined in the Northern region and the North West, there was substantial employment growth in manufacturing in all other regions (Table 6.52). As in previous years, substantial employment decline in manufacturing in Greater London (-18,000 jobs, or -2.3%) counteracted the substantial growth of manufacturing employment (+22,900 jobs, or +3.1%) in the rest of the South East. The result is that total employment figures for the South East register a fairly modest increase in manufacturing employment, even though the "rest of the South East" accounted for almost half the net increase in manufacturing employment in 1976-77.

On a much smaller scale, the relatively modest rate of employment growth in manufacturing in Yorkshire and Humberside may be seen as the resultant of very slow growth (+700 jobs or +0.2%) in West Yorkshire and rather faster growth (+4,600 jobs, or +1.2%) in the rest of the region. This was not, however, the result of a simple urban-rural shift, since the bulk of the region's increases in industrial employment (+3,00 jobs, an increase of 1.4%) took place in the South Yorkshire conurbation. The basic problem faced by West Yorkshire was not so much that it was a conurbation, but rather that it was the traditional centre of a declining woollen and clothing industry. Despite the general cyclical upswing, 400 jobs (-0.4%) were lost in the West Yorkshire textile industry and 800 jobs (-2.7%) in the clothing and footwear industry. In other manufacturing sectors, employment in West Yorkshire increased by 1,900, or 0.8%.

In other regions, manufacturing employment increased by over 1.0% in 1976-77. One would expect, from previous experience, high rates of employment growth in the outer South (East Anglia, the South West, also the outer South East) and the East Midlands. No detailed comment on these regions is required at this stage.

The West Midlands also had an unusually healthy rate of employment growth in manufacturing, which resulted, as indicated in section 6.8(iii) above, from a combination of a strong national upturn in the car industry, and the drawing to a close of a long phase of major decentralisation of this industry from the West Midlands conurbation. Manufacturing employment increased by 13,200 (+1.3%) in the West Midlands region in 1976-77, with employment increases of 3,900 (+2.7%) in the motor vehicle industry, 4,400 (+6.5%) in iron and steel (MLHs 311, 312, 313), and 2,800 (+1.7%) in metal goods n.e.s. This represents a fairly tightly knit group of industries centred on the vehicles industry.

Apart from the continued decline of London's manufacturing

base, employment trends in manufacturing were generally healthy in the core regions in 1976-77. What is perhaps more surprising, perhaps, is that Wales and Scotland each had a sharp upturn in manufacturing employment in 1976-77, despite being unusually severely affected by the 1974-76 recession. Before engaging in more detailed discussion of sources of industrial growth in these regions in 1976-77, two points need to be emphasised. Firstly, the manufacturing upturn was short-lived; in 1977-78, manufacturing employment declined sharply in each of these regions (Table 6.53). Secondly, the decline of employment in construction in Scotland and Wales was unusually severe in 1976-77, with the result that figures for total *industrial* employment change, rather than simply *manufacturing* employment change, show Scotland and Wales as performing worse than the British average. It is quite likely that the unusual severity of the manufacturing recession in Scotland and Wales between 1974 and 1976 reduced the demand for construction activity in the subsequent cyclical recovery.

Manufacturing employment in Wales increased by 6,300 (+2.1%) in 1976-77. This was a substantial rise, but about half of it was accounted for by the iron and steel industry, where employment increased by 3,200 or 4.8%. Given that exceptionally severe problems were on the horizon in this industry, this hardly represented a stable base for the expansion of the Welsh economy. Employment in metal manufacture in Clwyd increased from 10,800 in 1976 to 13,200 in 1977, then fell back slightly to 12,800 in 1978, and then fell very sharply to 4,500 in 1981.

When the temporary expansion in the iron and steel industry has been accounted for, the expansion of employment in other manufacturing sectors in Wales in 1976-77 was substantial but not spectacular. There were various increases of employment in various light industries, with the impact of regional policy still presumably being an important factor. Employment in electrical engineering expanded from 30,300 to 31,900 (+5.3%), despite the fairly drastic decline of employment in this sector in 1974-76 (Table 6.42; section 6.7(i), (iv) above). Employment in the toilet preparations industry (MLH 273) in Gwent increased from 700 to 1,600, while a further 1,100 jobs were created in the clothing and footwear industries. The evidence for Wales, as for Durham and Northumberland (section 6.7(ii) above),is that regional policy was still capable of generating industrial employment in areas of medium urbanisation during cyclical upturns in the late stages of the long cycle downswing. This does not provide evidence, however, for any assertion that the employment created through regional policy provides a safeguard from recession. On the contrary, the 1974-76 recession had showed that the branch plant factory was potentially highly vulnerable

to recession, and to shifts of production and the intensification of international competition in routine production industries.

In the Scottish economy, the rate of manufacturing employment growth was fairly high, despite the continuing problems faced by the Strathclyde economy. In Strathclyde, manufacturing employment increased by 400 (+0.1%) in 1976-77, whereas in the rest of Scotland the increase totalled 6,600, or +2.5%. Given the argument (chapter 8 below) that Strathclyde is more a region in itself than a conurbation within a region, it seems appropriate to discuss Strathclyde and the rest of Scotland separately.

A decomposition of Strathclyde's manufacturing employment change shows that 12,900 jobs, or 3,8% of the 1976 total manufacturing employment, were created in expanding MLH sectors, whereas 12,500 jobs, or 3.7%, were lost in declining MLH sectors. The rate of employment creation is comparable with that in Merseyside or Tyne and Wear, being generally higher than in non-assisted conurbations (such as Greater Manchester) but slightly lower than in less urbanised areas. The rate of job loss in declining sectors was considerably lower than in Tyne and Wear or Merseyside, but it needs to be remembered that employment decline in these two English conurbations was unusually severe in the context of the time. In comparison with other peripheral counties (cf Tables 6.55, 6.56) the rate of job loss in declining sectors in Strathclyde was average to high. There were, however, severe problems in the industrial plant and steelwork sector (MLH 341) where 3,000 jobs (17.3%) were lost. This was a particularly depressed sector in 1976-77, as was noted in the earlier discussion of the Cleveland economy (section 6.8(ii) above). It is highly probable that this reflected a downturn in the construction of equipment for North Sea oil production. Had employment remained stable in this sector in Strathclyde, total manufacturing employment would have increased by 1.0% instead of 0.1%, bringing manufacturing employment change in Strathclyde in line with employment change in English industrial regions.

In summary, it appears that the poor overall figures for manfuacturing employment in Strathclyde in 1976-77 result, not from some general urban malaise, but from specific problems faced by a particular industry. In the rest of Scotland, however, there was a considerable resurgence of industrial activity. This was not just a temporary feature; chapter 8 below indicates that employment levels in those parts of Scotland outside Strathclyde remained remarkably stable, given the context of the time, during the slump. It was, however, a relatively new feature. Table 6.46 shows that in the 1974-76 recession, manufacturing job losses in the Scottish regions tended to be higher

than in the UK as a whole, the Highlands region remaining a conspicuous exception. Earlier discussion (section 6.7(iii) above) indicated that the main concentrations of job losses were in the textile industry, which is spatially a highly dispersed industry within Scotland.

Manufacturing employment in 1976-77 increased by 900 (7.0%) in the Borders region, but this represented mainly a cyclical recovery in the local textile industry, which lost 1,300 jobs between 1974 and 1976, and then gained 700 jobs. This, however, was an atypical performance. Other Scottish regions with a rapidly expanding manufacturing base were gaining employment in a wider range of industries. In Fife, for example, 2,800 manufacturing jobs were gained in 1976-77, allowing 1974 levels of industrial employment to be approached again. 1,400 of these jobs were in electrical engineering, with another 500 in mechanical engineering and 500 in textiles, following job losses of 900 in this sector in 1974-76. In the Central region, manufacturing employment increased by 2,500 with 500 jobs being created in the chemicals sector, 500 in food, drink and tobacco, and 500 in clothing. In Dumfries and Galloway, manufacturing employment increased by 1,100 (9.2%), with 500 jobs being created in food, drink and tobacco.

The general impression is that the relative resurgence of the Scottish industrial economy was sectorally widely based, and was strong enough to allow for the manufacturing jobs lost in the 1974-76 recession to be rapidly recovered. Strathclyde did not share fully in this revival, and neither was this industrial recovery based on the North Sea oil boom. Employment in the Grampian region in MLH 104 (petroleum and natural gas) had been increasing by about 1,000 per annum since 1973, while a broader definition of the oil industry (Table 6.57) suggests an increase in employment of about 4,000 per annum, *excluding* employment associated with oil rig construction, engineering, etc. In manufacturing, however, employment in the Grampian region fell by 900 (-2.2%) in 1976-77, a performance out of line with other parts of Scotland. The coming of North Sea oil may have led to an employment boom in Grampian, where total employment increased by 13,000 (7.9%) between 1973 and 1977, but this boom was not felt in manufacturing. In the neighbouring Highland region, manufacturing employment fell by 800 (-6.7%), as a result of a sharp reduction in employment, from 5,200 to 4,000, in industrial plant and steelwork. Employment in this sector stood at only 400 in 1971, rising to 5,200 in 1974 before falling in 1976-77. It seems that in 1976-77 the direct effects of the North Sea oil boom were to cause a temporary reduction, rather than an increase, in industrial employment, as various oil rig projects were completed.

It would thus be a considerable oversimplification to assert that the relative revival of the Scottish manufacturing economy in the 1970s was caused by the North Sea oil boom, after two decades in which industrial employment growth in Scotland had lagged behind that of the rest of Britain. There are probably connections, but they are likely to be indirect rather than direct. The geography of manufacturing employment change in Scotland tends to indicate more an urban-rural shift, than a major attraction of new manufacturing industry to the oil producting areas. It is possible that one of the effects of the redistribution of income towards Scotland has been to intensify slightly the general urban-rural shift, by enhancing the degree of rural resurgence, rather than by accentuating the extent of urban decline. A closer examination of the Scottish economy would be needed to clarify such issues.[113]

(v) 1977-78; prelude to a geography of slump?

Despite the intensity of cyclical fluctuations in the economy, the geography of industrial employment change in the early and mid 1970s showed some fairly consistent features. Manufacturing employment in London declined sharply, offsetting the often considerable growth of manufacturing employment in the rest of the South East, East Anglia, and the South West. In the West Midlands, the continuation of large scale decentralisation of the car industry, during a period of generally poor economic performance in that industry, led to substantial employment declines in the main regional conurbation. In the rest of the region, however, and also in the East Midlands, industrial employment trends were relatively healthy. In the peripheral regions, there was substantial employment decline in manufacturing in all the main industrial conurbations, while less urbanised areas tended to avoid the worst effects of long-term industrial decline. In the assisted regions, there were sharp upturns of employment outside the conurbations during cyclical upswings, as investment was attracted inwards by financial incentives, but sharp contractions of employment during recession, largely as a result of these newer industries themselves being vulnerable to recession, but also partly as a result of further job losses in the older industries.

Overall, rates of employment change during this period tended to be fairly even at the North-Midlands-South scale, although this was more the resultant of a complex, historically specific, set of forces, rather than any return to a stable equilibrium position. Above all, it needs to be recognised that the convergence of regional rates of employment change between 1971 and 1977 does not mean that the regional problem had in any sense been "solved".

Spatial patterns of employment change altered quite sharply in 1977-78. This can be seen both from the series for total employment (Tables A5, A6) and also from the series for change in industrial employment (Tables 6.52, 6.53). The main changes were a considerable improvement in the relative position of Southern England, largely as a result of a major slowing down of job loss in London, and a considerable deterioration of the relative position of the outer periphery (N, Wa, Sc). Later discussion will demonstrate that the relative deterioration of the outer periphery resulted in part from a reduction in regional policy assistance, which in itself resulted from the general climate of increased financial stringency, and in part from the start of a considerable programme of job losses in the iron and steel industry.

The geography of employment change in 1977-78 resembles far more

closely the geography of employment change in the slump (chapter 8 below) than the geography of employment change in earlier years. One would assume that the general patterns noted for 1977-78 would also appertain to 1978-79, the last pre-slump year. This is difficult to prove directly, as no Census of Employment was taken between 1978 and 1981. Official estimates for employment, summarised in Table A5, suggest that this is indeed the case; for example the South was substantially favoured, in employment terms, over the North.

This argument can be inverted, in order to view the 1970s from the perspective of the slump. Unquestionably the post-1979 slump, or indeed any slump, is an important historical event which needs to be studied in close detail. One aspect of a slump is its economic geography, which can be very strongly marked. To speak of an "economic geography of slump" should not mean that one is implying that the slump has an economic geography so distinctive that it has no roots in the economic geographies of earlier periods. After all, as the analysis of chapter 2 makes clear at length, the slump itself, despite being an exceptionally severe recession, is deeply rooted in the long-standing difficulties of earlier years. The slump is a continuation of, and intensification of, pre-existing trends, rather than a totally novel event.

The discussion of the economic geography of slump, in chapters 7 and 8 below, is a discussion of the geographical patterns of economic change during a given historical period. Many of the geographical patterns noted may be detected, in a less intense form, in the last two years before the slump. These late pre-slump patterns represent important modifications to earlier patterns. In order to place the geography of slump more fully in context, it is necessary to outline some of the main transitions between the economic geography of 1976-77 and the economic geography of 1977-78.

(vi) London and Southern England, 1977-78

The single most fundamental change between 1976-77 and 1977-78 was the slowing down of industrial job loss in London. In 1977-78, manufacturing employment in Greater London fell by 7,000 (0.9%), compared with an overall decline of 273,600 between 1971 and 1977, which represented an average of 45,600 jobs lost per annum, or 4.9% per annum (see also Table 6.29). Furthermore, this was not accompanied by any significant deterioration of employment trends in the rest of the South East. For example, manufacturing employment in the rest of the South East increased by 22,900 (2.5%) in 1976-77, 1.9 percentage points above the national average, and by 11,800 (1.1%) in 1977-78, 1.6 points above the national average. The relative improvement in London's economic position led to a relative improvement of the position of Southern England as a whole.[114] This carried through into the slump. Whereas the dominant features of the early to mid 1970s were the sharp decline of industrial employment, irrespective of sector, in London, and a broadly compensatory increase in employment in the rest of Southern England, the dominant feature of the early 1980s was that Southern England *as a whole* was well sheltered from slump. Industrial employment decline in London was *slower* than average, a great contrast with the earlier period.

It is difficult, in the absence of detailed local investigation, to know why London's industrial turn-around took place, and why it started in a particular year, 1977-78, rather than earlier or later. The comments which follow are therefore somewhat general in nature.

An important point to note is that London, like the West Midlands conurbation, but unlike the peripheral conurbations, was a major generator of industrial employment growth throughout much of the long cycle upswing from the 1930s to the 1960s. Indeed, the industrial geography of the period up to the very late 1950s could be described in terms of fast growth in a broad London-West Midlands zone, with the London-Birmingham axis being particularly important, and slow growth in industrial employment elsewhere, whether in conurbations or less urbanised areas (chapter 5 above). London and the West Midlands conurbation were particularly well suited to the development of new industries, partly as a result of pre-existing industrial structures (concentration on the metal industries in Birmingham, and on light consumer industries in London) and partly as a result of high degrees of accessibility to high income mass consumer markets. These strong dynamic advantages were counteracted by the problem of space; industrial expansion is not easy in a city or conurbation which is already large

and densely packed. The problem was particularly acute in London, with the result that there was large scale decentralisation of industry into surrounding areas, often actively encouraged by the development of new towns.[115] In the West Midlands, the expansion of the car industry took place primarily in the conurbation itself, rather than in surrounding areas. The definition of a conurbation is taken to include outlying large towns such as Coventry, and much of the semi-urban fringe contained in post-1974 Warwickshire, but not more distant towns such as, for example, Stoke. The car industry itself later found it easier to expand in conurbations away from the West Midlands, partly because the West Midlands labour market was extremely tight as a result of the earlier expansion of the industry, and partly because some of the peripheral conurbations, such as Merseyside, still had large reserves of available labour even at a time of national full employment.[116] The regional policy dimension was also, of course, important; perhaps the fairest statement concerning decentralisation from the West Midlands to the assisted areas is that it was the *combined* effect of spatial economic policy and the search for new labour.[117]

The locational constraints on expansion in a densely packed conurbation are considerable, but they are not wholly prohibitive. The upper limit for industrial expansion in a large city is flexible rather than fixed. If the industries of a large city have great expansion potential, the upper limits for expansion would be rather higher then if the industrial structure of a city is less geared to expansion. There would, for example, be greater usage of relatively small pockets of available space in a city with rapid industrial expansion than one with slow industrial expansion, while greenfield sites at the edge of the conurbation would also be more intensively sought in an expanding conurbation than in a laggardly conurbation.[118]

If one extrapolates this situation by several years, and furthermore introduces a situation in which aggregate industrial growth at the national scale becomes retarded, further implications follow. The once expanding city, in which virtually every available unit of industrial land has been developed, now finds itself in a position in which it is *overstocked* with industry relative to other areas. Once the dynamic impetus of expansion has been lost, the situation is revealed in which the sites occupied in the once expanding city are often highly marginal, far more so than in areas with less pressure on land. This, it is suggested, was the situation reached in London by the beginning of the 1970s. There would then follow a period of readjustment and of substantial industrial job losses. In London, the boom in land prices in 1972-73, which reflected both the national

property boom and the extreme pressure on land in London, resulted in a very sharp decline in manufacturing employment (section 6.6(i) above). These job losses continued for a few years, but by 1977 it is suggested that London's industrial overstocking had largely been eliminated. From then onwards, the pace of manufacturing job loss in London depended more on the vulnerability or otherwise of particular industries than on the degree of pressure of competition for scarce land.[119]

The rate of job loss through the elimination of "surplus" industry in London is to be regarded as being largely independent of employment change in the rest of Southern England. The situation was perhaps not so much that industries found themselves badly located in London and moved elsewhere, but rather that the problems of expensive and constrained industrial location in London tended to leave London's industries uncompetitive, resulting in high rates of job loss and factory closure. Decentralisation of industry from London to surrounding areas had of course been important for a long time, but it was not decentralisation that was at the centre of London's industrial shake-out of the 1970s.[120]

Throughout the post-1932 long cycle, the sectoral composition of industry in Southern England has been such that faster than average growth rates in industrial employment would be expected at each stage. The rate of industrial employment change in Southern England during much of the 1970s had been merely average, not because of any *long-term* convergence of regional economic opportunities but rather because of the specific presence of a major industrial shake-out in the dominant city, which nullified the effects of major employment growth elsewhere in Southern England. Once this shake-out had been completed, the South could reassert itself.

(vii) The Midlands and the Innner Periphery, 1977-78

While the South East and the South West each had substantial increases in manufacturing employment in 1977-78, and the outer periphery (N, W, Sc) had even more substantial job losses, the Midlands and the inner periphery showed a tendency towards slight decline in manufacturing employment. There was an increase in the East Midlands, but declines in Yorkshire and Humberside, the North West, the West Midlands, and also East Anglia (Table 6.53). It is doubtful whether much significance should be attached to the East Anglian figures, which reflect job losses in Norfolk and Suffolk of about 1,000 each. Such relatively small-scale job losses would have concealed completely in the regional figures had the East Anglia region been extended to cover, for example, Essex.[121]

The identification of sectors of job loss in the Midlands and the inner periphery is more revealing. It should be noted at an early stage that the job losses in the West Midlands did *not* result from any problems faced by the motor industry. Employment in manufacturing in the West Midlands conurbation increased slightly, by 1,400 (+0.2%) in 1977-78 (Table 6.29), while employment in the vehicles industry in the conurbation increased by 2,600 (+1.5%). As usual, the conurbation has been defined to include Warwickshire, it being considered that the designated West Midlands metropolitan county rather too drastically excludes the semi-urban fringe of the car-producing area. In fact the bulk of the increase in employment in this sector took place in Warwickshire.

The problems faced by the pottery industry in Staffordshire were at the core of the decline in manufacturing employment in the region in 1977-78. Manufacturing employment in Staffordshire fell by 7,500 (4.4%) during the year, while in the pottery industry (MLH 462) the drop in employment stood at 4,100 (9.1%). In addition 2,600 jobs were lost, through a large factory closure (apparently not cited in the *Financial Times*) in the ordnance and small arms sector (MLH 342).

The Staffordshire pottery industry had actually been increasing its employment slightly during most of the 1970s, contrary to national trends, with employment rising from 42,400 in 1971 to 45,200 in 1977. When recession finally hit the industry, the effect was extremely severe; by 1981, employment had fallen to 30,900.

In Yorkshire and Humberside, there were substantial declines in manufacturing employment in three counties, Humberside, where 2,200 manufacturing jobs (1.9%) were lost, in West Yorkshire, where 5,400 manufacturing jobs (1.6%) were lost, and in South Yorkshire, where 2,000

manufacturing jobs (1.0%) were lost. In contrast, manufacturing employment increased by 2,000 (3.9%) in North Yorkshire.

Problems with traditional industries dominated industrial job losses in the two Yorkshire conurbations. Thus, in West Yorkshire employment in the textile industry fell by 3,700 (4.2%), with 2,500 of these jobs being lost in woollen and worsted (MLH 414). A further 2,400 jobs (8.5%) were lost in the clothing and footwear industry. In neighbouring South Yorkshire, 2,400 jobs (4.3%) were lost in the manufacture of iron and steel (MLHs 311, 312, 313). In Humberside, patterns of job loss in manufacturing were slightly more diverse (and even more serious), with the main sectors of job loss being chemicals (1,200 jobs lost, a fall of 7.6%) and vehicles (1,100 jobs lost, a fall of 10.4%). 700 jobs were also lost in the iron and steel industry, but this was a relatively small figure when compared with the 8,800 jobs to be lost in that sector during the slump.

In the North West, the textile zone was badly affected. 2,500 jobs (6.5%) were lost in the Lancashire textile industry, and a further 400 (3.5%) in the clothing and footwear industry. These sectors between them provide the reason why 1,400 (0.7%) manufacturing jobs overall were lost in the county. In Greater Manchester, the pattern was similar. 5,200 jobs (7.4%) were lost in textiles, and 300 (0.9%) in clothing and footwear, while the total manufacturing job loss stood at 2,700 (0.7%).

On Merseyside, things were, as usual, different. 1,500 manufacturing jobs were lost, a decline of 0.7%, which was in line with the rest of the region. This decline, furthermore, was far less sharp than in 1976-77. In contrast, however, with Greater Manchester and Lancashire, the decline of employment was spread across a wide range of sectors, as in previous years. For example, 700 jobs were lost in electrical engineering, 700 in the relatively small local textile industry, 700 in clothing and footwear. In a process of long-term industrial decline, different industries tend to lose jobs in different years; in the previous year, 4,100 jobs had been lost in the car industry, yet employment was steady in this sector in 1977-78. The improvement in Merseyside's relative performance in 1977-78 came from the fact that this particular incident of job loss had passed through the system, and also from the creation of 1,100 jobs in the food, drink and tobacco industry. There was no strong reason to believe, however, that this relative upturn was anything other than temporary; the Merseyside economy still faced extremely severe problems.

The East Midlands showed an increase in manufacturing employment in 1977-78, although there were still problems of job loss in certain sectors. In Nottinghamshire, for example, 1,600 jobs (4.9%) were lost in

the textile industry and 600 jobs (8.6%) were lost in the tobacco industry. The employment trend in other sectors was also slightly depressive, so that total manufacturing employment fell by 2,900 (2.0%). In Northamptonshire, at the southern end of the region, a general tendency towards industrial expansion was masked by the loss of 1,800 jobs (13.2%) in the iron and steel industry. In other manufacturing sectors, manufacturing employment increased by 2,000 (2.7%).

While there were undoubtedly some substantial job losses in vulnerable sectors in the East Midlands, these were generally on a smaller scale than in the rest of the "manufacturing heartland" (YH, NW, WM). It is largely as a result of this factor that employment in manufacturing fell less quickly in the East Midlands than in counties of comparable levels of urbanisation, such as Lancashire and Staffordshire, in other parts of the manufacturing heartland. This general point applies both to the late pre-slump period and to the slump itself. The discussion of the geography of slump in chapter 8 below shows that counties in the manufacturing heartland tended to show rates of total job loss which were close to the national average, unless very severe job losses in particular, locally important, sectors pushed the aggregate rate of job loss higher than the national average. This applies both to conurbations and to less urbanised manufacturing counties. Thus there were to be high rates of job loss during the slump in the West Midlands metropolitan county as a result of the problems of the motor industry, in Staffordshire as a result of problems in pottery industry, in Northamptonshire, Humberside and South Yorkshire as a result of problems in the iron and steel industry, and in Lancashire, Greater Manchester and West Yorkshire as a result of problems in the cotton and wool textile industries.

Most of the industries just mentioned were shedding jobs in 1977-78, although not necessarily on a large scaleaway from the counties mentioned. The onset of slump in late 1979 would clearly greatly intensify the problems of these industries, and transform the situation from being one of moderate job losses in the context of a modest cyclical recovery to being one of severe job losses in the context of slump.

(viii) The Outer Periphery, 1977-78

There were considerable job losses in the Midlands and the inner periphery in 1977-78, but the job losses in the outer periphery (the Northern region, Wales and Scotland) were, as Table 6.53 shows, far more severe. Between them, these three regions lost 27,000 manufacturing jobs in a single year. In contrast, manufacturing employment had been increasing substantially in Scotland and Wales in the previous year.

The rate of industrial employment change in the assisted regions is dominated firstly by the balance of employment change in the traditional industries, such as coal and steel, and secondly by the balance of employment change in the incoming industries which have been attracted by regional policy. For most of the 1960s and 1970s, employment in the traditional industries has been in deep decline, while the employment balance in the new industries has been highly favourable. The experiences of the 1974-76 recession showed, however, that under certain recessionary circumstances, job losses in the newer industries could be severe enough for the balance of employment change in these industries to be strongly negative, despite a continued, if reduced, influx of new factories.

In 1976-77, an upturn in the creation of new capacity, and a more intensive use of existing capacity which had been partially idle during the recession, had led to increases in employment in the "new" industries, although some of the older industries were having severe problems, particularly in the Northern region. In 1977-78, however, the assisted areas of the outer periphery found themselves in a multiple squeeze. Firstly, and most obviously, there were severe job losses in traditional industries such as iron and steel. Secondly, there was a much reduced rate of job creation in manufacturing as a result of a downgrading of regional policy in this year. A third element of this squeeze was also beginning to appear, and was to become extremely important during the slump; job losses in existing "regional policy factories" would be a problem.

This squeeze may perhaps best be illustrated by examining, for North East England, levels of job loss in declining sectors and levels of employment growth in expanding sectors. Table 6.58 carries out the same exercise for 1977-78 that Table 6.55 carried out for 1976-77.

In 1976-77 job losses in manufacturing were severe in Tyne and Wear and in Cleveland, but relatively slight in Durham and Northumberland. In 1977-78, however, there were severe manufacturing job losses in all four North-Eastern counties. In Cleveland, job losses in declining sectors removed 8,200 jobs, or 8.5% of the 1977 manufacturing employment

base. Job losses were dominated by the iron and steel industry, in which employment declined by 4,000 (14.1%) in a single year. 2,700 of these job losses were in the industrial plant and steelwork sector. During the slump these job losses continued, rather than intensified. The job losses in the Cleveland iron and steel industry totalled 8,300 between 1978 and 1981, compared with 7,600 between 1976 and 1978. The rate of job loss in this sector during the slump, although less than in previous years, was sufficient to ensure that Cleveland had one of the highest rates of total job loss, and the highest unemployment rate, of any county in Britain during the slump. Cleveland's problems were exceptionally severe during the slump, but also predated the slump.

The problems of job loss in Tyne and Wear still continued to be considerable, with 2,100 jobs (8.8%) being lost in electrical engineering, 1,100 (7.5%) lost in food, drink and tobacco and 1,200 jobs (11.9%) lost in clothing and footwear. Employment in shipbuilding, the main "traditional" manufacturing industry, was stable. These job losses are attributable more to a phasing out of production in the county by multi-plant firms than to traditional local industries facing difficulties. Townsend (1983 p.102) provides a list of some of the firms involved in major redundancies in the late 1970s, with the electronics firm Plessey and the tailoring firm Montague Burton shedding jobs on a large scale.

In County Durham, there were no net job losses in the iron and steel industry in 1977-78, although this situation was soon to change when Consett steel works closed in 1980. The bulk of manufacturing job losses took place in "regional policy sectors", with 1,400 jobs (22.2%) being lost in textiles, and 600 (8.7%) being lost in clothing and footwear. In Northumberland, there were no particularly large job loss incidents, but high *rates* of job loss in sectors such as electrical engineering (-12.7%), textiles (-6.2%) and mechanical engineering (-8.6%).

When attention is turned from patterns of job loss to patterns of employment *growth* in manufacturing, the slowing down of progress in 1977-78 may readily be seen (Tables 6.55, 6.58). 17,100 jobs in manufacturing were created in 1976-77, but only 13,800 in 1977-78. The underlying problem was perhaps even more serious than these figures suggest, since they reflect in part the fact that the cyclical upturn in the Cleveland chemicals industry was concentrated in 1977-78, in which year 1,200 jobs were created, rather than in 1976-77, when employment remained static.

Cyclical features, thus the slowing down of the upswing, would account for part of this reduction in job creation, but it is also highly likely that a reduction in the intensity of regional policy was a major factor. Total regional preferential assistance at 1982-83 prices stood

at only £883m in 1977-78, compared with between £1,300m and £1,600m in each of the three previous years, which included the 1974-76 recession.[122] This represented a reduced *supply* of regional policy assistance, as a result of the phasing out of the Regional Employment Premium (responsible for about one third of regional policy expenditure in earlier years), rather than any reduced *demand* for regional policy assistance. The reduction of expenditure on regional policy itself reflects the financial problems faced by Government in a pre-slump period.[123]

Elements of a three-way squeeze (decline of traditional industries, reduction in job creation, job loss in earlier "regional policy factories") may readily be observed in the employment record of North East England in 1977-78. Wales faced broadly similar problems, although the element of job losses in regional policy factories was at this stage much smaller.

Net manufacturing job losses in Wales totalled 4,100 in 1977-78. There were substantial job losses in the iron and steel industry in Gwent (-2,000 jobs; -9.1%) and South Glamorgan (-3,700 jobs; -58.8%), which more than accounted for the net job losses in manufacturing in Wales as a whole. Employment in iron and steel was stable in Clwyd and West Glamorgan, but as the events of the slump were to show (chapter 8), this was a temporary reprieve rather than an escape.

Wales was also squeezed by the cutbacks in regional policy. The simplest way of showing this is to consider patterns of manufacturing job loss and employment growth in Mid Glamorgan, which is perhaps the "purest" branch plant economy at the county scale in Wales. In the year 1976-77, 5,500 manufacturing jobs were created in expanding sectors, representing a 7.8% increase on the total base figure for manufacturing in 1976. 2,900 jobs (-4.1%) were lost in the same year, the end result being a total net employment gain of 2,600, or 3.7% of the manufacturing workforce. In 1977-78, the rate of employment growth in manufacturing fell to +0.6%. This decline was due far more to a reduction in job creation (from 5,500 to 3,600) than to an increase in job loss (from 2,900 to 3,200). Thus it is inferred that the cutbacks in regional policy had a considerable effect in reducing the rate of employment growth in manufacturing in Mid Glamorgan, and also, by implication, in many other parts of Wales. There was as yet very little sign of the unusually rapid rate of job losses in various branch plant firms which characterised the performance of the Mid Glamorgan economy during the slump.

The squeeze on the Welsh economy in 1977-78 was primarily a two-way squeeze, with major job losses in iron and steel, and a reduction in regional policy assistance, rather than the three-way squeeze

characteristic of North East England, where job losses in "regional policy factories" were becoming a major feature.

In Scotland, manufacturing job losses were concentrated in Strathclyde, where employment in manufacturing fell by 11,200 (3.2%). In the rest of Scotland, net job losses in manufacturing totalled 700. Strathclyde's problem was more an acceleration of job loss (from -3.6% in 1976-77 to -8.1% in 1977-78) than a reduction of job creation (from +3.8% in 1976-77 to +2.7% in 1977-78). The rate of net manufacturing job loss in Strathclyde was comparable with that of Cleveland and Tyne and Wear.[124]

During the year 1977-78, Strathclyde lost 3,400 jobs (5.7%) in mechanical engineering, 3,000 jobs (11.4%) in electrical engineering, 2,000 jobs (8.1%) in textiles and 1,300 jobs (5.8%) in clothing. Job losses in iron and steel manufacture were relatively slight. The range of sectors involved in major job losses suggests a multiplicity of problems, with both traditional sectors and regional policy factories being affected. The textiles and clothing industry were in decline nationally, but electrical engineering was at this stage expanding its total employment in the UK. As has been seen in the case of Tyne and Wear, however, this is no guarantee against job losses in electrical engineering in a peripheral location. A variety of traditional and new industries would be involved in the decline of employment in mechanical engineering, but 1,500 jobs were lost in industrial plant and steelwork, presumably reflecting a continued decline in construction work in the North Sea oil industry, and 1,300 jobs were lost in "other machinery" (MLH 339) which quite probably reflects the running down in employment in the 19th century Singer sewing machine factory in Glasgow (cf Townsend 1983 p.99). Strathclyde's industrial problems at the onset of slump were widespread, and often acute.

6.9 Employment Change in the Service Sector During the Downswing

Attention so far has concentrated on employment change in the industrial sector, which is that part of the economy in which job loss has been concentrated. To complete the picture, it is necessary to examine, if only briefly, patterns of employment change in the service sector, in which employment growth has been the norm. A point which needs to be emphasised at the outset is that service sector employment is much more heterogenous in many respects than manufacturing employment, so that the factors determining levels of employment in the service sector are likely to be even more complicated than in manufacturing.

Whatever the diversity of operations involved, manufacturing can be summed up as a process in which raw materials and manufactured components on a substantial scale are transformed by human labour, using existing capital equipment, into tangible products which are eventually sold on the market. The level of output is broadly determined by the level of demand for the manufactured product at a price which meets the cost of production and a "reasonable" return on investment. The level of employment is given partly by demand factors (which determine output) and partly by technical factors (which determine output per head). It is suggested here that, contrary to neo-classical theory, the precise level of real wages has little effect on the level of *industrial* employment (except insofar as the firm has scope to switch production between high wage and low wage locations) but has an important effect on the distribution of the total product between capital and labour. The wage rate is itself the result of a battle between capital and labour over the distribution of the total product and is affected, in any particular industry, by demand conditions and technical conditions within that industry.

The service sector is not easy to classify, since different classifications may be produced to meet different requirements.[124] In some cases, the boundary between the service sector and the manufacturing sector is indistinct, most obviously in the transport of raw materials or manufactured goods, but also in the provision of service activities (canteens, etc.) within a factory. In practice, such activities tend to be classified according to whether they are undertaken by a manufacturing firm or whether they are contracted out; levels of employment are influenced by many of the same factors which influence the level of manufacturing employment.

Other activities are more clearly identifiable as services. It needs to be emphasised, however, that the designation of an activity as a service activity does not necessarily imply the absence of a tangible

physical product; in such industries as catering and the repair of goods there is a physical product, but not one which is manufactured in the sense defined earlier. In repair industries, for example, the process is not so much one of making a product from its constituent parts, but more one of reprocessing an already existing manufactured product.

Exluding transport and communication, there are four main types of service activity to be considered here:

(1) Services directed to the reproduction and quality improvement of the workforce (most notably the health and education services)

(2) Administrative services (central and local government, etc.)

(3) Professional services (law, finance, etc.)

(4) Miscellaneous and distributive services.

These categories correspond closely to aggregations of SIC orders under the 1959 or 1968 classification,[125] except that the "professional and scientific services" sector would be split between group (1) above (health and education services) and group (3) above (professional services).

Fig 6.1 and Table 6.59 show the recent time series for employment in each of these sector groupings. Some striking contrasts emerge.

In the health and education services, employment increased steadily, through both upswing and downswing of the long cycle, by about 3% per annum. These sectors, necessary to provide a sophisticated, technologically capable and productive workforce, may readily be accepted as important expanding sectors of the long cycle upswing. Unlike the main manufacturing growth sectors of the upswing (vehicles, electrical goods, etc.), the level of employment in the health and educational services is not immediately determined by the level of demand for industrial products, and so employment in these sectors can continue to increase, even during industrial downswings. Fig 6.1 suggests that neither the coming of the long cycle downswing, nor the various recessions of the downswing, had much retarding effect on the growth of these sectors. Such growth was an important stabilising factor in the recessions of the downswing; employment in health and education services increased by 170,000 between 1966 and 1968, by 200,000 between 1970 and 1972, and by 270,000 between 1974 and 1976, partly offsetting industrial job losses.

If the onset of industrial decline does not provide a brake, or at least an immediate brake, on the growth of employment in the health and education sectors, it is reasonable to ask what else can provide a brake. The demand for health services and education is, after all,

open-ended; it would be difficult to conceive of a situation in which improvements in the quality and extent of these services are not possible.

The problem is one of funding. In a situation in which industrial growth is slow and growth in the public sector ("non-market")[126] services is fast, the proportion of national income spent on the public sector services will tend to increase sharply. This is potentially destabilising in that the increase in the proportional tax burden will place considerable additional pressure on post-tax industrial profits and post-tax wages. Elements of a fiscal crisis emerge.[127] The earlier priority of expanding public expenditure to create employment would tend to switch to a more pessimistic new priority of cutting back public expenditure in order to remove this disproportionality. Once this reversal of priority has been made, the orthodox Keynesian policy of demand management is effectively dead. It took three recessions in the long cycle downswing (1966-68, 1970-72, 1974-76) before it was felt necessary to carry through the switch from a policy of public sector growth to a policy of public sector stringency. The accumulated pressures of several years weak industrial growth eventually led to public sector cutbacks, shortly before the slump. Table 6.59 shows, for example, that employment in the health and education sectors had expanded by about 100,000 per annum, through long cycle upswing and long cycle downswing, and through recessions and cyclical upswings. In 1976-77, this growth abruptly ceased, with employment remaining stable at first, and then declining during the slump. As the introduction to chapter 7 below notes, one of the main reasons for the severity of the increase of unemployment during the slump was that employment in health and education was declining, and not expanding as in earlier recessions.

The direction of causality here is taken to be that cumulative industrial decline creates a disproportionality of growth between the industrial and the state service sector, and results in an increased tax burden on wages and profits. Bacon and Eltis (1978) view the situation differently. They suggest that the increasing ratio of state claims to marketed output was the primary *cause*, rather than the *effect*, of the British industrial problem. This ratio increased from about 42% in the early 1960s to over 60% by 1975 (Bacon and Eltis 1978, p.29). Bacon and Eltis base most of their arguments on supposed trends between 1961 and 1975. This however is a doubtful periodisation; such time series as the ratio of state claims to marketed output show a tendency to remain stable during the early 1960s, and then to increase sharply during the recessions of the late 1960s and 1970s. Had the increasing role of state expenditure been at the root of the problem of industrial decline,

one would have expected this ratio to increase substantially *before* the decline of industrial employment, rather than contemporaneously. This did not happen, so the argument of Bacon and Eltis is unconvincing.

The time series for employment in the administrative services (local and national government services) broadly resembled that for health and education, relying on a common pool of funding, but the increases in employment registered up to 1976 were far less spectacular. As with health and education, employment started to decline towards the end of the 1970s.

The time profile for employment in the miscellaneous services contrasts strongly with that for the public sector services. Employment in the miscellaneous services declined gradually during the 1950s, started to increase during the early 1960s, then fell in the late 1960s, but started to *increase* sharply from 1971-72, with nearly 70,000 jobs per annum being created between 1971 and 1979. Employment then remained stable during the slump, but increased again afterwards. In the distributive trades, employment increased substantially during the long cycle upswing, then declined in the late 1960s, and then rose gradually during the 1970s (Fig 6.1).

The conspicuous dip in employment in the "personal services" is to be explained not by industrial recession, but rather by the introduction of Selective Employment Tax in 1966. This tax, imposed on construction and private services but not on manufacturing, was levied not simply to raise revenue but also to attempt to provide an incentive for the construction and service sectors to raise productivity and to release labour into the pool of labour available for manufacturing industry (Reddaway and associates, 1970, 1973). This rationale can be based either on the argument that the labour market is so tight that construction and services are actively depriving the manufacturing sector of workers, the shortage of whom is retarding industrial expansion, or on the assumption "that the Government will pursue a macro-economic policy which yields the same level of employment"[128] whether SET or another tax is adopted. On the first point, economic conditions in the late 1960s, at the start of the long cycle downswing, were such that manufacturing industry would not have been deprived of employment by the presence of over-full employment in services and construction. It is also difficult to take seriously Reddaway's argument that SET, a tax on employment, would have the same effect on employment as a tax not directed at employment which had the same "macroeconomic" characteristics in terms of tax yield.[129] Between 1966 and 1971, employment declined by 390,000 in construction, by 340,000 in distribution and by 190,000 in miscellaneous services, a total decline of 920,000 in the main SET

sectors (Tables 6.8, 6.59). It is likely that the general recessionary conditions would have affected the construction industry in any case, but the job losses in that industry have already been noted as *exceptionally* severe (sections 6.3, 6.4). The job losses in the distributive trades and miscellaneous services were sandwiched between two periods of steady employment growth in these industries, suggesting that SET was primarily responsible for that employment decline. The imposition of a different type of tax would no doubt have caused some deflation, and reductions in employment, but probably not to nearly the same extent. It is difficult to believe that an employment tax which caused the sectors taxed to shed nearly a million jobs, despite having earlier being on an expansive trend, is a good tax. One suspects that unemployment through the 1970s would have been somewhat lower if the Selective Employment Tax had never been introduced.

The Selective Employment Tax was abolished in 1971, as part of the reorientation of the tax system prior to joining the European Economic Community in 1973. Ultimately, Value Added Tax was to replace SET and Purchase Tax. Employment in the miscellaneous services and distributive trades immediately resumed its upward trend. The increase of employment in these sectors averaged 70,000 per annum between 1971 and 1978.

There was a very big jump in employment in these sectors in 1971-72, despite the year being one of recession. Employment in the miscellaneous services increased by 94,000, and in the distributive trades by 31,000 (Table 6.59). This increase would have been in part, but not wholly, due to a rebound in employment following the abolition of SET. There were further large increases in 1972-73, with employment in distributive trades increasing by 103,000, and employment in miscellaneous services increasing by 113,000. This would probably have been due much more to the "Barber boom" than to any post-tax rebound.

During the rest of the 1970s, and through the 1980s, employment in the miscellaneous services continued to expand rapidly, apart from the most serious phase of the slump itself, when employment remained fairly steady. Employment in the distributive trades increased much more slowly, probably at least in part due to a concentration of retail outlets into larger units, allowing substantial increases in productivity. The expansion of the miscellaneous services deserves further comment, especially since it ran contrary to trends in other sectors.

One point it is necessary to bear in mind is that the misc1laneous services are generally low wage sectors, when compared with the industrial sectors. When there is involuntary unemployment, with men or women unemployed who would be willing to work at less than the

existing real wage (cf Keynes 1936/1973 p.289), an obvious vacuum is created for the expansion of low wage labour. At full employment, this vacuum did not exist; the pressure of demand for labour in the economy as a whole restrained the growth of the miscellaneous services sector. Employment in miscellaneous services actually declined by 250,000 between 1948 and 1959, largely due to a decline of 264,000 jobs in domestic service (resident and non-resident). Domestic service is a sector in which employment will generally tend to decline rapidly when other outlets for labour, and particularly for female labour, are available. Female employment in health and education increased by 402,000 in the same period, for example.[130]

In a period of high unemployment, however, new employment in the miscellaneous services is an improvement on no new employment at all. Pre-Keynesian economic theory tended to regard unemployment as being caused by wages being too high, with regard to current levels of demand for labour, and suggests that wage reductions are the appropriate way of reducing unemployment.[131] Keynes was highly ambivalent on the effects of wage reductions on unemployment, but argued that a more effective method of reducing unemployment would be to increase aggregate demand in the economy. Both conceptions of the problem are based on the idea of a unitary labour market, yet perhaps a more realistic approach is the dualistic approach.[132] In the "core" labour market, consisting of non-casual employees in production industries, and high status employees in the service sector, the aggregate level of employment is basically set by the level of demand and the technical conditions of production; fluctuations in the wage rate might have some independent effect, but this will be relatively minor. The "core" labour market is one with relatively low unemployment, despite the possibility that the reduction of demand for labour in recessions will force large numbers of people out of "core" jobs. The balancing is achieved by people drifting out of the "core" labour market and into the "secondary" labour market, whether through taking up new "secondary sector" employment, or by remaining unemployed long enough to be frozen out of the "core" market, by becoming for example an unemployed ex-miner rather than an unemployed miner. Quite often, and especially if the ex-core worker has substantial savings, the switch between labour markets will take on the form of self-employment; this is by no means universal.

At times of recession, the supply of labour in the secondary sector of the labour market, in which low wage jobs and unemployment predominate, increases sharply. For as long as there is high unemployment there will be a substantial labour surplus on the secondary market and and incentive for employers to expand low wage secondary employment,

often at the expense of primary employment. The secondary sector has been making considerable inroads into industrial employment, often in the guise of "training schemes", but employment in the miscellaneous services provides the best indicator of trends in secondary employment. The point being emphasised is that high unemployment *does* force a downward drift in real wages, but the mechanism by which this takes place is not through a reduction of wages in "core" jobs (it is unclear whether mass unemployment *in itself* has any effect on core wages), but rather through an increase in the size of the secondary labour force (the unemployed plus those in low paid, insecure jobs), reducing upward pressure on wages in that sector, and allowing for a substantial expansion of *low paid* labour.

At the national level, the contra-cyclical nature of employment growth in the miscellaneous services in striking, with employment growing by 4.2% during the 1972-74 cyclical upswing, by 8.1% during the 1974-76 recession and by 4.8% between 1976 and 1978, when the economy picked up again. This periodisation is perhaps slightly misleading in that employment in the miscellaneous services increased sharply in the boom year 1972-73 and then fell slightly in 1973-74 as the early effects of the oil crisis filtered through, but the counter-cyclical nature of the major increase in employment in the 1974-76 recession is undeniable. This is a very clear illustration that it is labour supply factors, rather than consumer demand factors, which provide the dominant impulse to employment growth in the miscellaneous services. Even so, it is perhaps not too surprising that the economic collapse of the early 1980s retarded the growth of employment in the miscellaneous services, with employment increasing by only 6.4% between 1979 and 1983 (in hotels and catering, and in "other services", on the 1980 SIC). The combination of mass unemployment and economic recovery led to a dramatic expansion of employment in this sector after the slump, though, with employment increasing by 15.9% between 1983 and 1987.

At the regional level, employment in the miscellaneous services grew faster in the periphery than in the core between 1971 and 1977. This is as would be expected, given firstly that the periphery had substantially greater labour surpluses than the core, and secondly that given the general North-South equality in employment growth during these years, there was no weighting of the growth of demand towards the core regions. After 1977, however, the presence of substantial levels of unemployment in the South, combined with the renewed weighting of the space economy towards Southern England, led to employment growth in the miscellaneous services being substantially faster in the core than in the periphery.

It would appear from the above that, especially with employment in education and health remaining static, much of the growth in employment in services has been residual in nature, being dependent on the existence of an effectively inexhaustible supply of cheap labour. This applies especially to the period after the slump, but also to much of the 1970s. In the academic literature it is all too often assumed that a service sector job is almost by definition a high status job; the residual nature of much service sector employment, and the dependency of much of the growth of employment in services on the existence of a high level of unemployment, tend to be overlooked.[133] While there are undoubtedly some high status new jobs being created in the service sector, the bulk of the recent growth of employment in the service sector does *not* represent the ousting of industrial employment by service sector employment, but on the contrary represents a partial filling of the vacuum in the labour market created by intense industrial decline.

The question of miscellaneous services has been treated in some detail, for a variety of reasons. One of the main reasons is to illustrate that at a time of high unemployment a rapid increase in service sector employment is often not so much the solution to the problem of unemployment as a symptom of the seriousness of the problem. If a large part of expansion of service sector employment is dependent on a situation of high unemployment, then it is unlikely that service sector expansion alone could recreate full employment when there is high unemployment. Furthermore, the point that service sector expansion at a time of severe industrial decline is largely an expansion of low wage, low status, and often part-time jobs, indicates that the strong drift from industries to services since the early 1970s is one which *increases* income inequalities, rather than reduces them, even when the unemployment question is left aside.

The bulk of the recent academic attention on the service sector has concentrated not so much on these low order services, but rather on higher status services,[134] and also on "white collar" service employment within manufacturing firms.[135] These higher order services may unquestionably be regarded as "core" activities, both in labour market terms, and indeed in geographical terms. London's status as the core area of the British economy depends, both historically and currently, on its world position as a financial centre, and its dominance as a political administrative centre. It is remarkable, for example, that in 1971 about 40% of national employment in the banking, insurance and finance sector was situated in London, even though employment in the "high street" clearing banks, with their spatially diffuse branch offices, is enumerated in this sector. The presence of an exceptionally rich

information field in London has encouraged a considerable agglomeration of information-producing and information-using activity, including a wide range of services, the head offices of large numbers of major industrial firms, and also a considerable printing and publishing industry. Many of London's traditional activities expanded greatly during the 1970s, and also after the slump, accentuating the rise in land prices in central London, and also encouraging organisations to leave only the most information-hungry activities in central London, while decentralising slightly more routine activities to outer London or elsewhere in the South East. Indeed some, but certainly not all, of the decline in manufacturing employment in London in the 1970s can be attributed to the decentralisation of the *office* employment of manufacturing firms.

Table 6.59 indicates the considerable expansion of employment during the 1970s in insurance, banking, finance and business services, and in the professional services outside health and education (accounting, legal services, research and development, other scientific services). In the financial services, employment expanded in London by 21,000 jobs between 1971 and 1978, matching the combined expansion in the North West, Yorkshire and Humberside, the Northern region and Wales. This, because of the great size of the initial employment base, represented a relatively small proportional increase, but in the rest of the South East employment expanded by 51,000 (40.1%).

At the core-periphery scale, the balance of growth in the financial services was therefore very much in favour of the core regions, with 128,000 jobs created between 1971 and 1977 in the core regions (Southern England plus the Midlands) compared with 34,000 new jobs in the periphery. It seems likely that much of the expansion in the periphery resulted from the growth of the personal financial service sector (high street banks, building societies, etc.), and while this element of growth would also have been important in the core regions, a high proportion of the 128,000 jobs created would have been in what might be termed the specialist financial sector. Had employment in the financial services grown, as a proportion of the total employed workforce in *all* sectors, at the same rate in the core as in the periphery, 80,000 jobs would have been created in the core regions rather than 128,000. Even in direct employment terms the persistent core-orientation of the business and financial services was a considerable source of regional inequality through the 1970s.

The expansion of the miscellaneous professional services (law, accountancy, etc.) was, if anything, slightly weighted to the periphery rather than the core in the 1970s. 39,600 jobs in these sectors were created in the core regions between 1971 and 1977, an increase of 12.1%

compared with 24,800 in the periphery, an increase of 16.7%. The lack of concentration of employment growth in the core regions suggests that the geography of employment growth tended to be demand-oriented rather than agglomerative.

Overall, however, the geography of employment growth in the professional and financial services tended to favour the core regions, because while much of this growth was located in such a way as to service a widely spread consumer population, many of the more specialised services, particularly in the financial sector, continued to agglomerate in the information-rich environment of the core regions.

The complicated geography of employment change in the service sector may now be summarised. There has been a general tendency, since the mid-1960s, for the service-based economy of London and Southern England to consolidate its position as a provider of high order services. These services should not be thought of in any sense as a passive complement to industrial activity, which is the implication of the economic base-multiplier model, but rather should be regarded as the generators of a distinctive high income regional economy. If the relationship between "living labour" (direct employment) and "dead labour" (indirect use of past employment, by means of the use of capital equipment, etc.) is regarded as the indication of capital intensity,[136] then the finance sectors of this service based economy may be considered as extremely capital intensive, with the large financial flows needed to generate large profits being regarded as, not so much the produce of dead labour (capital equipment), but rather the surplus value of dead labour (financial capital). The consolidation of wealth in Southern England is perhaps far more significant, therefore, than employment figures alone would suggest.

The miscellaneous and distributive services represent the labour intensive end of the service sectors, with a preponderance of low wage occupations. Employment in these sectors tended to expand relatively slowly up to the late 1950s, but then to expand more quickly in the early 1960s "boom of affluence". As unemployment increased during the long cycle downswing, employment in these sectors also started to increase, once SET had been repealed, with the fastest rates of increase in the early years (1971-77) taking place in high unemployment regions, where alternative occupations are less easy to find. Later on, however, as high rates of unemployment started to affect all regions, and as North-South differences in the rate of economic expansion started to intensify, the core regions showed the highest rates of expansion in the residual service sectors, so that the precarious North-South *quantitative* balance in employment growth in the service sector was destroyed in

favour of the South.

By the end of the 1970s, therefore, the expansion of employment in the service sector was more prominent in the core than in the periphery in both the high-status end of the sector and also the low-status end of the sector. This inequality came to be intensified in the slump and post-slump years as intensely unfavourable demand conditions thwarted the growth of even low income service sector employment in the periphery, while the prosperity of the higher order services was hardly affected by the slump, and was greatly enhanced by the post-slump recovery, leading to a dynamic economic environment which encouraged also the growth of lower order services.

The period from the late 1970s to the mid-1980s has thus shown a serious regional imbalance between the expanding areas of Southern England, traditionally reliant economically on the higher order services, and the declining industrial areas of the periphery.

6.10 Conclusions; 1945-1979

The main purpose of this chapter has been to study the geography of employment change in the post-1966 downswing, up to, but not including, the post-1979 slump, which is to be analysed in chapters 7 and 8 below. It would however be a mistake to study the downswing in isolation; if the long cycle downswing represents predominantly a phase of the destruction of existing concrete economic features, it is clearly essential to have some sort of understanding of the process of the *construction* of the economic landscape in order to understand the process of the *destruction*. For this reason, and also to answer the question of what happened next after the 1932-39 post-slump recovery, an outline account of the economic geography of the post-war, full employment stage of the upswing (1945-1966) has been provided, in chapter 5 above.

The general impression to be gained is that the geography of decline after 1966 was far more complicated than the geography of upswing before 1966. In the upswing, areas usually tended to show employment growth, although the presence of major declining industries in an overall upswing can have a substantial retarding influence, as the case of the Lancashire cotton industry shows. The question of declining industries apart, rates of employment change generally reflected the degree of favourability of particular types of area for attracting new economic growth, and under conditions of steady growth and full employment the geography of "growthworthiness" remained fairly stable through time. The most favoured areas were persistently the core regions of Southern England along with the urban parts of the Midlands, and particularly the South East region, which may be taken as representing the London region in its broadest sense. Outside the core regions, employment growth was slow, even in the post-war boom, and several counties, mostly rural, but also including Lancashire (pre-1974 county), actually showed employment declines (Table 5.7). There would seem to have been a fairly smooth process of cumulative causation,[137] favouring the core regions, throughout the long cycle upswing, with the post-war trends showing a high degree of continuity from the trends of the pre-war recovery (chapter 5.1 above). New economic activity under the technical conditions prevailing at the time was generally attracted to high income, high growth regions, and this degree of attraction perpetuated the high incomes and high growth rates of such regions, leaving less favoured regions in the doldrums. There does not have to be any substantial periphery-to-core industrial migration to sustain this process; the dominant process was rather that the major growth industries of the post-war years, such as electrical engineering and motor vehicles,

took root at an early stage chiefly in the prosperous core rather than the less prosperous periphery, and tended to concentrate their expansions in the core regions.

The geography of the post-1966 downswing is far more complicated than either the geography of the pre-1966 upswing, or even the geography of the 1918-1932 downswing. This, it is suggested, is a very real phenomenon, rather than the result of any illusion created by a far higher degree of availability of statistical material for the recent past than for the more distant past. The analysis presented in chapter 4 above suggests that the geography of job loss in the inter-war downswing, up to about 1931, was dominated by job loss in coal mining, and to a lesser extent in the cotton industry. The inter-war downswing was a general industrial downswing only to a limited degree; indeed, as Lewis (1949) emphasises, the downswing was felt, at the world scale, chiefly in primary production (agriculture; extractive industries, including coal mining) rather than in manufactures. The effects of the inter-war recessions were felt in a relatively limited range of industries which were themselves spatially highly concentrated in a few relatively limited areas, most notably the coal mining areas and the Lancashire textile belt. Outside these areas, there was considerable growth in newer industries and new industrial areas, particularly around London and in the Midlands; this provided the long term basis for later geographical patterns of growth. The contrast between growing South and declining North was particularly stark in the 1920s, and relatively easily summarised; the same could not be said of the post-1966 downswing.

The downswing since 1966 has been a general industrial downswing, affecting severely all manufacturing sectors (at the SIC order level) and also mining and construction. Each set of industries has had a different locational history, reflected in a different geography of employment at the start of the downswing in 1966, and each industry has had a distinctive geography of job loss after 1966. For example some industries, notably the motor vehicle industry, have concentrated their job loss disproportionately in the main centre of that industry, while other industries, notably the electrical engineering industry, have maintained relatively high levels of employment in their main centres (in this case South East England) while cutting their capacity, at times of stress, mainly in more disposable factories in the peripheral regions, and other industries, such as the cotton industry, have had very substantial job losses in a particular area (Lancashire/Greater Manchester) primarily because the industries involved have been historically highly localised, with relatively little geographical decentralisation within Britain. This multiplicity of experiences makes generalisation very

difficult, and matters are complicated further by the way in which different industries have dominated different recessions. The 1966-68 recession was felt primarily in coal mining and construction, rather than manufacturing, with further very severe job losses in these industries even during the 1968-70 recovery. The 1970-72 recession was particularly severe on the mechanical engineering industry, the textile industry and the iron and steel industry. In the 1974-76 recession, however, the mechanical engineering and iron and steel industries were relatively lightly affected, but job loss was very severe in textiles, electrical engineering, building materials (bricks, pottery, glass, cement, etc.) and metal goods. In the post-1979 slump (chapters 7 and 8) the main depressed sectors were textiles, iron and steel, and vehicles.

It is difficult, if not impossible, to draw all the various strands together to present a conveniently packaged, unified, geography of recession. Indeed, the analyses presented earlier have shown that each recession has tended to have a fairly distinct geography. In the mid to late 1960s, for example, job loss was largely concentrated in the coalfields, although as a counter-current there was considerable manufacturing employment created through industrial migrations, assisted by regional policy, to the outer periphery. This showed up more clearly in the 1968-70 recovery than in the 1966-68 recession. In the early 1970s, however, job loss in coal mining was a less important factor, but the presence of vulnerable sectors, notably textiles, made various parts of the periphery particularly liable to recession. The geography of job loss in the 1970-72 recession cannot be explained simply with reference to the presence or absence of individual sectors; the geography of employment change *within* individual sectors is also of critical importance.[138] The mechanical engineering industry, which was particularly depressed, tended to have higher rates of job loss in the periphery than in the core, but within the periphery, rates of job loss tended to be lower within the conurbations than outside, suggesting that in a period of deep recession producers located at the main regional market centres were less vulnerable than those at a greater distance. In other manufacturing sectors, however, the situation was reversed; the conurbations performed far less favourably than the non-conurbations.

If there is any apparent unifying feature of the economic geography of the 1970s, it is the decline of the conurbations, combined with a relative resurgence in less urbanised areas. Fothergill and Gudgin (1979b, 1982; also Cambridge Economic Policy Group 1980) have attempted to derive straightforward general explanations for the decline of the conurbations, concentrating on an assumed lack of space in conurbations which inhibits new industrial developments, particularly

in London, the largest city in the UK. Even in this case, however, the multiplicity of experiences needs to be emphasised; the problems in the 1970s of London, the West Midlands conurbation, West Yorkshire and Merseyside all had different roots, and while each conurbation had high rates of industrial job losses, no monocausal explanation can cover every case.

London was in many respects the prisoner of its own economic success. London's reason for existence was not, as with many of the peripheral conurbations, any industrial role, but rather its position as a financial and administrative centre. The London consumer market has always been by far the largest in the country and this at various times has been a considerable magnet for industry, most recently in the period from the 1920s to the 1960s. At other times, while London's financial and administrative roles have continued to multiply, its industrial base has been in decline. There have been two main phases of industrial decline in London. Firstly, during the century of industrial revolution (from the late 18th to the late 19th century), competition from the new industrial areas of the coalfields, with their significant advantages in energy costs, removed many of London's traditional industries, and intensified its pre-industrial structures (cf Hall 1962). As an important contributory factor, land was expensive and scarce, although this problem was partly eased by the opening up of the new industrial suburbs, serviced by a growing railway system. This earlier phase of decline was relative rather than absolute, in that manufacturing employment was increasing much more slowly than in other urban areas, rather than declining in numbers. In the second main phase of decline, however, industrial employment fell very quickly during the 1970s, largely as a result of industry being squeezed out of a high cost location, these high costs, of land especially, being a side-effect of London's economic dominance. Industrial employment in London fell sharply in both upswing and recession, suggesting that the capital's decline in industrial employment was induced not by recessionary factors but by locational factors.

The West Midlands conurbation had a different pattern of decline. During the post-war boom, this conurbation was making economic progress unmatched by anywhere outside the South East, based largely on the expansion of the motor vehicles industry, which was a major direct employer and also an industry which guaranteed steadily rising demand for the products of companies in the engineering and metal trades, amongst others. The severity of employment decline in the West Midlands conurbation in the 1970s and early 1980s results not from a general nationwide malaise of the conurbations, but rather from a severe decline

in employment in the West Midlands vehicle industry, which also has a knock-on effect on industries reliant on vehicle production. Three main stages may be noted. In the first stage, through much of the 1960s, and into the early 1970s, there was a deliberate policy of decentralisation in the motor vehicles industry, of skimming off some of the surplus growth in the overheated West Midlands industrial area and transplanting it to areas, often highly urbanised (e.g. Merseyside), of high unemployment in the periphery. In the second stage, through much of the 1970s, the UK vehicles industry was in deep trouble. Nationally, rates of job loss in this industry tended to be lower than the national average for manufacturing, but the *geography of rationalisation* meant that job losses were disproportionately concentrated in the West Midlands, where the existence of a very wide array of production facilities gave the greatest scope for the reorganisation and rationalisation of production. This tendency was particularly noticeable in the 1974-76 recession. In the third stage, during the post-1979 slump (see chapters 7 and 8) the rate of job loss in the vehicles industry was severe, and spread across all production locations, with the West Midlands losing the greatest number of jobs primarily because it had the greatest concentration of employment.

The combined problems of the West Midlands and the London industrial economies were sufficiently severe to eliminate North-South systematic differentials in the rate of employment change for several years (Table A6). After 1977, however, the gap between North and South started to reopen, and became especially conspicuous during the slump. The problems of the London and West Midlands industrial economies resulted not from any very long-standing weaknesses in these conurbations, as might be expected from the analysis of Fothergill and Gudgin (1982), but, on the contrary, from a reversal of a strong expansionary tendency during the long cycle upswing.

The peripheral conurbations, however, undeniably suffered from long-term weaknesses, but probably as much because they were peripheral as because they were conurbations. In Greater Manchester and West Yorkshire, the continued decline of the traditional textile industry, especially severe during recessions, was the major factor underlying the high rate of employment decline. In South Yorkshire, the decline of employment in coal mining was a major factor during the 1960s, but the severest effects of urban decline were avoided during the 1970s. In the early 1980s, however, the substantial presence of the iron and steel industry was a source of considerable vulnerability.

Once the special case of London has been taken into account, and once the importance of sectoral factors has been accounted for, it can be

seen that the "classical" form of the urban problem probably only applies to three conurbations, Merseyside, Tyne and Wear and Stathclyde. In its classical form, the urban industrial problem is the result of low levels of investment in new capacity, a gradual running down of older capacity and a few large scale closures as multi-plant firms withdraw their investment. This running down of the local economy is spread across a wide range of industrial sectors, rather than being concentrated in a few sectors. The large peripheral conurbations then tend to become increasingly unattractive locations for industry as a result of site constraints, poor accessibility to national markets, and high costs, along with the general atmosphere of decline. Furthermore, once a spiral of decline has set in, firms producing for local markets become increasingly vulnerable. Regional policy assistance has attracted substantial numbers of new jobs to these conurbations, but not enough to counter the weakness of the "spontaneous" growth performance.

Outline statistics suggest that for much of the 1970s, and particularly the period between 1971 and 1977, regional differences in the rate of employment change were relatively slight, and could largely be statistically "explained" by the presence or absence of conurbations in the region, whereas differences in the rate of growth between conurbations and non-conurbations were great. This almost misleadingly simple pattern results not from the direct replacement of a "regional problem" by an "urban problem", but rather from the convergence of several strands of the geography of decline. The apparent elimination of specifically regional differences in the rate of employment change and the apparent universality of conurbation/non-conurbation differences results more than anything else from the geography of decline starting to hit former boom areas such as London and the West Midlands, yet there is no reason to suppose that these core conurbations are doomed to long term relative decline, or that the severe decline of these conurbations in the 1970s was due to anything other than a particular set of historical circumstances. The West Midlands industrial base is probably at least as capable of a rapid upturn as any other major regional industrial base,[139] while the consolidation of London's position as a world financial centre helps to secure the local employment base through the presence of a vigorously expanding service sector.

In the late 1970s, and in particular from 1977-78, the obviously "regional" component of decline became more prominent, as disproportionately large numbers of cutbacks of industrial employment were made in the periphery, both inside and outside the conurbations. The "branch plant syndrome" is an important element here; under conditions of economic stress, when firms need to cut capacity, the most convenient option is

often to cut capacity in branch plants in peripheral areas, usually set up under the regional policy net, which are not essential to the internal organisation of the firm. These branch plants were generally encouraged to counter the effects of employment decline in traditional industries such as coal mining or shipbuilding, and while they helped stabilise overall employment levels in industrially vulnerable areas during the 1960s and the early 1970s, in later years they were to become a significant source of vulnerability. Ironically, in the 1974-76 recession, "branch plant industries" such as electrical engineering were to become a much bigger source of job loss in the outer peripheral regions than the traditional industries of coal, steel and shipbuilding. When however a major round of rationalisation started in British Steel in the late 1970s the industrial economies of Wales, North East England and Scotland were severely affected both by the branch plant syndrome and by the vulnerability of older industries.

As the cyclical upswing of the late 1970s started to move into what turned out to be an exceptionally severe downswing in the early 1980s, extremely serious industrial problems were on the horizon in the outer periphery (Scotland, Wales, North East England), the West Midlands on account of the problems of the vehicles industry, Greater Manchester, Lancashire and West Yorkshire on account of the high concentrations of employment in the textile industry, and Merseyside and London because of their contrasting, but unfavourable, histories of urban industrial decline. Chapters 7 and 8 discuss what happened next. As far as understanding the geography of slump is concerned, the most important point raised by this chapter is that the slump was not an isolated event "caused" by a particular set of economic policies, but rather represented the most severe of an increasingly severe series of industrial depressions, which were responsible for the shedding of two million industrial jobs between 1966 and 1979. The slump was merely a phase of industrial decline, not the industrial decline itself.

Table 6.1 Employment Change by Region, 1966-1978

Year	Sector grouping	Percentage change in employment											
		SE	EA	SW	WM	EM	YH	NW	N	Wa	Sc	NI	UK
1966	All inds.	-1.6	-0.5	-1.8	-3.2	-0.1	-2.9	-2.4	-2.2	-3.4	-2.0	-1.0	-2.0
-67	IOP	*-3.7*	*-0.0*	*-2.3*	*-3.9*	*-0.9*	*-3.9*	*-4.0*	*-3.2*	*-4.1*	*-3.3*	*-2.5*	*-3.1*
	Services	*-0.5*	*0.0*	*-1.4*	*-2.4*	*+1.1*	*-1.7*	*-1.2*	*-1.4*	*-3.3*	*-1.3*	*+1.8*	*-0.9*
1967	All inds.	-0.3	+0.2	-0.2	-1.3	-1.8	-1.6	-0.9	-1.9	-0.2	-0.7	+0.6	-0.8
-68	IOP	*-2.1*	*+0.9*	*-0.8*	*-2.3*	*-2.0*	*-2.9*	*-0.9*	*-3.0*	*-0.9*	*-1.1*	*+0.9*	*-1.7*
	Services	*+1.0*	*-1.0*	*+0.3*	*+0.5*	*-1.4*	*+0.6*	*-0.8*	*-0.5*	*+1.1*	*-0.1*	*+0.9*	*+0.4*
1968	All inds.	-0.3	+3.1	-1.3	0.0	+0.3	-0.2	-0.6	-0.2	-1.5	+0.2	+1.0	-0.2
-69	IOP	*-0.2*	*+4.5*	*-1.7*	*+0.3*	*+0.3*	*-0.0*	*-0.7*	*-0.6*	*-0.7*	*+0.6*	*+1.7*	*-0.0*
	Services	*-0.2*	*+4.5*	*-0.6*	*-0.2*	*+0.4*	*-0.6*	*-0.2*	*+0.7*	*-2.5*	*+0.2*	*+0.4*	*-0.1*
1969	All inds.	-1.2	+0.8	+0.5	-0.8	-0.2	-1.2	-1.7	+1.0	-0.7	-1.0	+0.4	-0.8
-70	IOP	*-2.9*	*+1.8*	*+2.4*	*-1.6*	*-1.5*	*-2.5*	*-2.2*	*+1.1*	*+0.4*	*-1.9*	*0.0*	*-1.6*
	Services	*+0.0*	*+0.3*	*-0.4*	*+0.6*	*+2.2*	*+0.5*	*-1.1*	*+1.0*	*-1.8*	*+0.1*	*+0.9*	*+0.0*
1970	All inds.	-1.0	-2.7	-0.2	-1.8	-2.1	-2.6	-2.2	-2.2	-0.5	-2.8	-1.0	-1.7
-71	IOP	*-3.1*	*-4.2*	*-1.8*	*-3.2*	*-3.2*	*-4.2*	*-5.1*	*-3.4*	*-1.7*	*-5.5*	*-3.3*	*-3.6*
	Services	*+0.4*	*+0.3*	*+1.3*	*+0.7*	*0.0*	*-0.4*	*+1.2*	*-1.0*	*+1.1*	*-0.1*	*+1.3*	*+0.4*
1971	All inds.	+0.2	+2.5	+1.4	-1.6	+0.7	-0.2	-0.7	+0.1	+1.1	-0.7	-0.6	-0.0
-72	IOP	*-3.3*	*+1.5*	*-0.8*	*-3.4*	*-1.1*	*-2.8*	*-3.9*	*-2.6*	*-0.9*	*-3.5*	*-1.8*	*-2.8*
	Services	*+2.3*	*+4.1*	*+3.2*	*+1.0*	*+3.3*	*+2.9*	*+2.5*	*+3.0*	*+3.5*	*+1.7*	*+0.4*	*+2.4*
1972	All inds.	+1.2	+4.8	+4.1	+3.2	+3.4	+2.8	+2.0	+3.6	+2.8	+3.1	+1.9	+2.5
-73	IOP	*-1.7*	*+4.4*	*+2.9*	*+1.7*	*+1.2*	*+2.2*	*+0.9*	*+3.7*	*+1.7*	*+3.2*	*0.0*	*+1.0*
	Services	*+2.9*	*+5.7*	*+5.1*	*+5.3*	*+6.3*	*+3.3*	*+3.1*	*+3.5*	*+3.6*	*+3.3*	*+3.3*	*+3.7*
1973	All inds.	+0.2	+2.0	+0.6	+0.2	+0.8	+1.2	+0.4	-0.2	-0.8	+1.7	+3.1	+0.6
-74	IOP	*-1.2*	*+1.9*	*+0.2*	*-0.2*	*-0.5*	*-0.5*	*+0.2*	*+0.2*	*-0.4*	*+1.7*	*-0.5*	*-0.2*
	Services	*+1.4*	*+2.9*	*+1.1*	*+0.8*	*+2.8*	*+3.3*	*+0.6*	*-0.3*	*-1.2*	*+1.9*	*+6.0*	*+1.6*
1974	All inds.	-0.7	+0.9	+0.3	-1.6	+0.1	-0.3	-1.0	+1.7	+0.6	-0.4	-0.0	-0.4
-75	IOP	*-4.3*	*-2.7*	*-3.8*	*-4.8*	*-2.9*	*-3.1*	*-4.3*	*-2.4*	*-4.3*	*-4.1*	*-4.6*	*-3.9*
	Services	*+1.1*	*+4.5*	*+3.1*	*+2.7*	*+4.0*	*+2.7*	*+2.0*	*+6.1*	*+5.4*	*+4.6*	*+3.8*	*+2.3*
1975	All inds.	-1.0	-0.3	-0.6	-1.2	+0.8	-0.9	-1.4	-0.9	-0.3	-0.7	-0.4	-0.7
-76	IOP	*-2.7*	*-1.3*	*-1.7*	*-3.5*	*-0.6*	*-2.4*	*-3.2*	*-2.7*	*-2.8*	*-3.3*	*-3.7*	*-2.6*
	Services	*-0.1*	*+0.8*	*+0.0*	*+1.6*	*+2.6*	*+0.6*	*+0.2*	*+0.9*	*+1.8*	*+2.0*	*+1.8*	*+0.7*
1976	All inds.	-0.3	+1.5	+1.9	+0.7	+1.3	+0.8	+0.3	+0.1	+0.3	+0.0	+0.2	+0.3
-77	IOP	*-0.4*	*+2.1*	*-0.2*	*+0.7*	*+1.1*	*+0.7*	*-0.1*	*-0.9*	*+0.3*	*-0.1*	-	*+0.1*
	Services	*-0.2*	*+1.0*	*+3.4*	*+0.8*	*+1.7*	*+0.9*	*+0.7*	*+1.1*	*+0.6*	*+0.1*	-	*+0.3*
1977	All inds.	+0.9	+0.6	+1.5	+0.6	+1.2	+0.2	+0.2	-1.1	+1.8	-0.2	+2.0	+0.6
-78	IOP	*+0.3*	*-0.7*	*+0.3*	*-0.2*	*+0.1*	*-1.0*	*-0.6*	*-3.6*	*+0.5*	*-1.4*	-	*-0.5*
	Services	*+1.2*	*+1.6*	*+2.3*	*+1.4*	*+2.6*	*+1.7*	*+0.9*	*+1.1*	*+2.9*	*+0.7*	-	*+1.7*

Source: Department of Employment, various. See Tables 6.2-6.7, 6.32, 6.33, 6.40, 6.41, 6.52 and 6.53 for more detailed sources for particular years, and for disaggregation of the Index of Production (IOP) series. From 1975 onwards, employment figures for Northern Ireland are difficult to locate, employment figures in the *Gazette* being presented for Great Britain only. A basic series is provided in *Regional Statistics* and *Regional Trends* (various), but this appears to be unreliable; unrealistic percentage rates of employment change are persistently indicated. From 1976-77 onwards, therefore, figures for employment change refer to GB, not UK.

Changes in employment in agriculture, forestry and fishing, in which there was a rapid decline in employment during the period, are included in the "all industries" series, but not the IOP series. This explains the apparent inconsistency in some cases (e.g. East Anglia in 1966-67) between the overall employment series and its constituent parts.

Table 6.2 Industrial Employment Change by Region, 1966-67

	Employment change (%)			Employment change (000s)			Employment change (000s)	Employment change (%)
	Manufacturing	Construction	Coal	Manuf	Const	Coal	Total (All production industries)	Total
SE	-3.4	-6.3	*-5.9*	-90.5	-34.6	-0.5	-122.1	-3.7
EA	+1.4	-4.8	-	+2.7	-2.5	-	-0.1	-0.0
SW	-1.3	-7.1	*-5.6*	-5.4	-7.9	-0.1	-13.4	-2.3
WM	-4.1	-4.7	*-2.0*	-52.4	-6.9	-0.8	-58.4	-3.9
EM	-0.4	-2.5	-3.4	-2.8	-2.3	-3.2	-7.8	-0.9
YH	-3.4	-7.1	-3.3	-31.0	-9.9	-3.7	-46.5	-3.9
NW	-3.7	-8.2	*-0.7*	-51.2	-15.0	-0.2	-66.3	-4.0
N	-1.9	-6.3	-7.1	-8.9	-6.8	-7.2	-22.3	-3.2
Wa	-2.9	-6.4	-7.7	-9.7	-5.0	-5.8	-21.0	-4.1
Sc	-3.3	-0.4	-6.5	-24.9	-0.7	-3.5	-36.1	-3.3
GB	-3.1	-5.6	-4.8	-275.9	-91.0	-24.8	-389.4	-3.4

Source: *Gazette*, 1968, pp.288-290 for 1966; pp.286-288 for 1967. (The series for 1966 presented in *Gazette*, 1967 pp.224-226 and the *Abstract of Regional Statistics*, 1967, p.12 is an unrevised series, and is comparable with 1965 figures but not with 1967 figures).

Italicised figures indicate a base figure below 40,000.
The employment change in the component sectors presented is not equal to the total employment change, since mining and quarrying (other than for coal) and gas, electricity and water are not separately listed.

Table 6.3 Industrial Employment Change by Region, 1967-1968

	Employment change (%)			Employment change (000s)			Employment change (000s)	Employment change (%)
	Manufacturing	Construction	Coal	Manuf	Const	Coal	Total (All production industries)	Total
SE	-1.4	-5.3	*-5.0*	-35.7	-26.8	-0.4	-67.5	-2.1
EA	+1.5	0.0	-	+2.8	0.0	-	+2.2	+0.9
SW	+0.7	-2.6	*-41.2*	+2.7	-1.7	-0.7	-4.4	-0.8
WM	-1.4	-4.7	*-16.8*	-17.4	-6.6	-6.5	-32.4	-2.3
EM	-1.2	-4.2	-6.4	-7.4	-3.8	-5.7	-16.4	-2.0
YH	-2.5	-1.5	-9.4	-21.6	-1.9	-10.2	-33.6	-2.9
NW	-0.5	+0.2	*-20.7*	-7.0	+0.3	-5.9	-14.0	-0.9
N	-1.4	+3.1	-16.3	-6.8	+3.1	-15.2	-20.6	-3.0
Wa	+2.3	-2.9	-12.5	+7.3	-2.1	-8.7	-4.6	-0.9
Sc	-0.4	+o.3	-14.4	-3.2	+0.6	-7.2	-10.6	-1.1
GB	-1.0	-2.6	-12.3	-87.4	-39.8	-60.4	-203.4	-1.8

Source: *Gazette*, 1968 pp.286-288; 1969 pp.324-326.

See also notes to Table 6.2

Table 6.4 Industrial Employment Change by Region, 1968-69

	Employment change (%)			Employment change (000s)			Total (000s) (All production industries)	Total (%)
	Manufacturing	Construction	Coal	Manuf	Const	Coal		
SE	+0.7	-3.3	*-6.6*	+17.4	-15.8	-0.5	-5.7	-0.2
EA	+6.3	-2.6	-	+12.3	-1.3	-	+11.7	+4.5
SW	+0.7	-10.0	*0.0*	+2.7	-10.0	0.0	-9.2	-1.7
WM	+1.3	-4.0	*-13.7*	+15.4	-5.4	-4.4	+4.2	+0.3
EM	+2.3	-5.9	-6.7	+13.9	-5.1	-5.6	+2.7	+0.3
YH	+2.0	-6.3	-5.7	+17.2	-6.4	-8.4	-0.3	-0.0
NW	+0.0	-2.7	*-21.2*	+0.1	-4.6	-4.8	-10.6	-0.7
N	+2.8	-3.4	-16.3	+12.6	-3.6	-12.8	-4.2	-0.6
Wa	+2.1	-4.5	-11.0	+7.0	-3.2	-6.7	-3.6	-0.7
Sc	+2.2	-2.8	-9.3	+16.1	-5.2	-4.0	+6.2	+0.6
GB	+1.3	-4.2	-10.4	+115.7	-62.8	-44.4	-8.0	-0.1

Source: *Gazette*, 1969 pp.324-326; 1970, pp.414-416.

Table 6.5 Industrial Employment Change by Region, 1969-1970

	Employment change							
	(%)			(000s)			(000s)	(%)
	Manufacturing	Construction	Coal	Manuf	Const	Coal	Total (All production industries)	Total
SE	-1.3	-11.2	-5.6	-32.9	-52.3	-0.4	-91.8	-2.9
EA	+4.0	-4.8	-	+8.4	-2.3	-	+5.0	+1.8
SW	+3.1	0.0	-	+13.1	0.0	-	+13.4	+2.4
WM	-0.6	-11.6	-1.4	-6.8	-15.0	-0.4	-23.6	-1.6
EM	+0.4	-8.4	-7.5	+2.6	-6.8	-5.9	-11.9	-1.5
YH	-1.3	-9.2	-4.1	-11.1	-11.1	-3.8	-27.4	-2.5
NW	-1.2	-8.7	-5.6	-15.6	-16.3	-1.0	-33.7	-2.2
N	+4.9	-9.8	-6.4	-21.0	-9.9	-4.2	+7.7	+1.1
Wa	+3.5	-5.3	-9.1	+11.8	-3.6	-4.9	+2.0	+0.4
Sc	-0.9	-4.9	-6.7	-6.4	-8.8	-2.6	-19.3	-1.9
GB	-0.2	-8.6	-6.2	-14.3	-124.0	-23.7	-180.0	-1.6

Source: *Gazette*, 1970 pp.297-299, 1971 pp.256-258.

Table 6.6 Industrial Employment Change by Region, 1970-1971

	Employment change (%)			Employment change (000s)			Employment change (000s)	Employment change (%)
	Manufacturing	Construction	Coal	Manuf	Const	Coal	Total (All production industries)	Total
SE	-2.6	-5.4	-4.6	-64.7	-23.2	-0.3	-105.8	-3.1
EA	-3.6	-9.2	-	-7.7	-4.2	-	-11.5	-4.2
SW	-0.6	-7.0	-	-2.7	-6.3	-	-10.0	-1.8
WM	-3.0	-6.1	-3.3	-36.4	-7.0	-0.9	-44.3	-3.2
EM	-3.0	-3.6	-1.7	-19.0	-2.7	-1.2	-26.0	-3.2
YH	-4.5	-3.2	-2.3	-38.8	-3.5	-2.0	-45.7	-4.2
NW	-4.7	-9.8	-10.2	-60.9	-14.6	-1.7	-78.0	-5.1
N	-3.5	-4.3	-0.8	-16.9	-3.9	-0.5	-22.6	-3.4
Wa	-2.2	+7.8	-9.6	-7.6	+5.0	-4.7	-8.5	-1.7
Sc	-5.5	-8.0	+0.3	-40.4	-14.8	+0.1	-54.2	-5.5
GB	-3.4	-5.5	-3.1	-294.9	-73.2	-11.2	-395.2	-3.6

Source: *Gazette*, 1971 pp.256-258; 1972 pp.277-279.

Table 6.7 Industrial Employment Change by Region, 1971-1972

	Employment change (%)			(000s)			(000s)	(%)
	Manufacturing	Construction	Coal	Manuf	Const	Coal	Total (All production industries)	Total
SE	-4.0	+2.8	-3.2	-89.0	+10.3	-0.2	-88.3	-3.3
EA	+0.5	+7.9	-	+0.9	+3.1	-	+3.7	+1.5
SW	-1.8	+4.2	-	-7.5	+3.7	-	-4.4	-0.8
WM	-4.2	+4.3	-4.8	-46.1	+4.5	-1.2	-43.7	-3.4
EM	-1.8	+5.3	-3.0	-10.6	+3.6	-2.1	-8.2	-1.1
YH	-3.3	+2.7	-4.4	-25.4	+2.7	-3.7	-28.2	-2.8
NW	-4.1	+0.4	-5.5	-48.0	+0.6	-0.8	-53.3	-3.9
N	-3.4	+5.4	-5.4	-15.3	+4.7	-3.3	-16.3	-2.6
Wa	-1.7	+7.0	-4.5	-5.5	+4.8	-2.1	-4.1	-0.9
Sc	-4.0	-0.8	-6.7	-26.6	-1.3	-2.4	-31.5	-3.5
GB	-3.5	+3.0	-4.7	-273.0	+36.6	-16.1	-274.2	-2.8

Source: *Gazette*, 1973 pp.1008-1013, and pp.739-749.

This table, along with all subsequent tables in this series, is based on Census of Employment data; earlier tables in this series were based on data from the annual count of National Insurance cards. The Census of Employment probably indicates employment change with considerably more accuracy than the National Insurance card count.

Table 6.8 Employees in Employment in Manufacturing, Construction and Coal Mining, 1923-1987

Year ending (years of recession are asterisked)		Manufacturing			Construction			Coal Mining		
		Emp. (000s)	Change (000s)	(%)	Emp. (000s)	Change (000s)	(%)	Emp. (000s)	Change (000s)	(%)
1923		4940	-	-	730	-	-	1165	-	-
1924		5159	+219	+4.4	781	+51	+7.0	1140	-25	-2.2
1925		5142	-17	-0.3	834	+53	+6.8	865	-275	-24.1
1926	*	4728	-414	-8.1	870	+36	+4.3	-	-	-
1927(a)		5368	+640	+13.5	938	+68	+7.8	905	+40	+4.6
1927(b)		5223	-	-	894	-	-	937	-	-
1928	*	5169	-53	-1.0	868	-26	-2.9	816	-121	-12.9
1929		5291	+122	+2.4	890	+23	+2.6	871	+55	+6.7
1930	*	4889	-402	-7.6	872	-19	-2.1	814	-57	-6.5
1931	*	4462	-428	-8.7	915	+43	+5.0	668	-146	-17.9
1932		4471	+9	+0.2	820	-95	-10.4	620	-48	-7.2
1933		4737	+266	+5.9	866	+47	+5.7	639	+19	+3.1
1934		4979	+242	+5.1	943	+77	+8.9	623	-16	-2.5
1935		5058	+79	+1.6	1002	+59	+6.2	639	+16	+2.6
1936		5387	+329	+6.5	1088	+86	+8.6	622	-17	-2.7
1937		5809	+422	+7.8	1119	+31	+2.9	699	+77	+12.4
1938	*	5505	-304	-5.2	1141	+22	+2.0	702	+3	+0.4
1939(a)		5987	+482	+8.8	1191	+49	+4.3	726	+24	+3.4
1939(b)		6536	-	-	1206	-	-	761	-	-
1945		6452	-	-	633	-	-	718	-	-
1946		6222	-230	-3.6	1003	+371	+58.6	717	-0	-0.0
1947		6706	+484	+7.8	1140	+137	+13.6	738	+21	+2.9
1948		8128	-	-	1334	-	-	794	-	-
1949		8295	+167	+2.1	1322	-12	-0.9	793	-1	-0.2
1950		8520	+225	+2.7	1325	+3	+0.2	773	-20	-2.5
1951		8746	+226	+2.7	1331	+6	+0.4	775	+2	+0.3
1952	*	8669	-77	-0.9	1324	-7	-0.5	791	+16	+2.0
1953		8747	+78	+0.9	1338	+14	+1.0	795	+4	+0.5
1954		8975	+227	+2.6	1359	+21	+1.5	788	-7	-0.8
1955		9222	+248	+2.8	1385	+27	+2.0	785	-3	-0.4
1956		9293	+70	+0.8	1431	+45	+3.3	783	-2	-0.3
1957	*	9285	-7	-0.1	1412	-19	-1.3	792	+9	+1.2
1958	*	9183	-102	-1.1	1371	-41	-2.9	782	-10	-1.3
1959(a)	*	9122	-62	-0.7	1403	+32	+2.3	756	-26	-3.3

Year ending (years of recession are asterisked)	Manufacturing			Construction			Coal Mining		
	Emp. (000s)	Change (000s)	(%)	Emp. (000s)	Change (000s)	(%)	Emp. (000s)	Change (000s)	(%)
1959(b)	8494	-	-	1418	-	-	762	-	-
1960	8851	+357	+4.2	1459	+41	+2.9	698	-64	-8.4
1961	8972	+122	+1.4	1516	+57	+3.9	665	-33	-4.7
1962 *	8893	-79	-0.9	1552	+36	+2.4	644	-21	-3.2
1963 *	8753	-140	-1.4	1582	+30	+1.9	617	-27	-4.2
1964(a)	8881	+128	+1.5	1656	+74	+4.7	590	-27	-4.4
1964(b)	8908	-	-	1659	-	-	591	-	-
1965	9028	+120	+1.3	1700	+41	+2.7	559	-32	-5.2
1966(a)	9055	+27	+0.3	1725	+25	+1.4	513	-47	-8.3
1966(b)	9163	-	-	1681	-	-	513	-	-
1967 *	8879	-285	-3.1	1590	-90	-5.4	488	-25	-4.8
1968 *	8790	-88	-1.0	1554	-47	-2.3	428	-60	-12.4
1969(a)	8911	+120	+1.4	1491	-63	-4.1	383	-44	-10.4
1969(b)	8923	-	-	1493	-	-	383	-	-
1970	8911	-12	-0.1	1367	-124	-8.5	359	-24	-6.2
1971(a)*	8612	-299	-3.4	1292	-75	-5.5	348	-11	-3.2
1971(b)	8056	-	-	1262	-	-	346	-	-
1972 *	7778	-278	-3.5	1300	+38	+3.0	330	-16	-4.7
1973	7828	+50	+0.6	1380	+80	+6.1	315	-15	-4.4
1974	7871	+43	+0.6	1328	-51	-3.7	300	-16	-5.0
1975 *	7488	-383	-4.9	1313	-15	-1.2	303	+4	+1.2
1976 *	7246	-232	-3.2	1308	-5	-0.4	298	-6	-1.8
1977	7292	+46	+0.6	1270	-38	-2.9	299	+1	+0.5
1978	7257	-35	-0.5	1264	-6	-0.5	295	-4	-1.3
1979	7193	-64	-0.9	1289	+25	+2.0	286	-9	-3.0
1980 *	6840	-353	-4.9	1278	-11	-0.9	282	-4	-1.6
1981(a)*	6087	-753	-12.7	1143	-135	-11.8	275	-7	-2.5
1981(b)	6222	-	-	1130	-	-	286	-	-
1982 *	5863	-359	-5.8	1067	-63	-5.6	271	-14	-5.0
1983 *	5525	-338	-5.8	1044	-23	-2.2	257	-14	-5.3
1984	5409	-116	-2.1	1037	-7	-0.7	234	-23	-8.8
1985	5365	-34	-0.6	1022	-15	-1.4	219	-16	-6.7
1986	5239	-126	-2.3	992	-30	-2.9	182	-36	-16.6
1987	5171	-68	-1.3	1015	+23	+2.3	154	-29	-15.7

Sources: Based on *Historical Abstract* and *Gazette*, except
(i) Figures for manufacturing and construction after 1976 taken from *Monthly Digest of Statistics* Jan 1984 p.18, Jan 1988 p.18.

(ii) Figures for coal mining are taken as follows: 1923 to 1927(a) from C. Clark (1929 p.82), 1927(b) to 1939(a) from Beck (1951 Table 3); 1939(b) to date from *Historical Abstract* and *Gazette*. The exclusion of Northern Ireland from post-1976 figures is, in this case, irrelevant, given the absence of coal mining in Northern Ireland.

Table 6.9 Sectoral Composition of Manufacturing Job Loss, 1966-67, Selected Regions

	SIC order (1958)	Emp. (000s)		Change		(National rate of change)
		1966	1967	(000s)	(%)	(%)
SE	Vehicles	268.5	251.3	-17.2	-6.4	-3.5
	Timber, furniture, etc.	135.0	121.8	-13.2	-10.8	-4.1
	Clothing and footwear	150.1	138.8	-11.3	-7.5	-5.4
	Paper, printing and publishing	314.5	304.1	-10.4	-3.2	-1.7
	Engineering and electrical	858.2	848.7	-9.5	-1.1	-1.2
	All other sectors	909.6	880.7	-28.9	-3.2	
WM	Metal goods n.e.s.	223.5	208.1	-15.4	-6.9	-5.1
	Vehicles	218.0	204.4	-13.6	-6.2	-3.5
	All other sectors	826.2	802.8	-23.4	-2.8	
NW	Textiles	221.4	194.8	-26.6	-12.0	-7.3
	All other sectors	1156.7	1132.1	-24.6	-2.1	
YH	Textiles	184.0	170.4	-13.6	-7.4	-7.3
	All other sectors	724.0	706.6	-17.4	-2.4	
Sc	Textiles	98.3	90.8	-7.5	-7.6	-7.3
	All other sectors	658.1	640.7	-17.4	-2.6	

Source: *Gazette*, 1968 pp.286-290.

Regions selected are those with higher than average rates of job loss in manufacturing.

Table 6.10 Employment Change in the Vehicles Industry by Region, 1966-68

Region	Employment (000s)			Change 1966-67		Change 1967-68	
	1966	1967	1968	(000s)	(%)	(000s)	(%)
SE	268.5	251.3	235.1	-17.2	-6.4	-16.2	-6.4
EA	15.3	15.7	16.2	+0.4	+2.6	+0.5	+3.2
SW	60.6	60.4	60.8	-0.2	-0.3	+0.4	+0.7
WM	218.0	204.4	201.2	-13.6	-6.2	-3.2	-1.6
EM	50.8	52.8	55.5	+2.0	+3.9	+2.7	+5.1
YH	46.4	44.0	43.6	-2.4	-5.2	-0.4	-0.9
NW	112.3	116.6	121.5	+4.3	+3.8	+4.9	+4.2
N	10.9	11.0	11.2	+0.1	+0.9	+0.2	+1.8
Wa	19.9	19.5	19.4	-0.4	-2.0	-0.1	-0.5
Sc	42.4	39.9	38.1	-2.5	-5.9	-1.8	-4.8
GB	845.2	815.5	802.8	-29.7	-3.5	-12.7	-1.6
Traditional centres (SE,WM)	486.5	455.7	436.3	-30.8	-6.3	-19.4	-4.3
Outer South (EA,SW,EM)	126.7	128.9	132.5	+2.2	+1.7	+3.6	+2.8
The North West	112.3	116.6	121.5	+4.3	+3.9	+4.9	+4.2
The rest of the periphery (YH,N,Wa,Sc)	116.6	114.4	112.3	-2.1	-1.8	-2.1	-1.9

Source: *Gazette*, 1968, pp.286-290.

Table 6.11 Employment Change in Mechanical Engineering by Region, 1966-1968

Region	Employment, Mechanical Engineering (000s)			Change (000s)		Change (000s)	
	1966	1967	1968	1966-67	1967-68	1966-67	1967-68
SE	362.3	359.9	358.9	-2.4	-1.0	-0.7	-0.3
EA	29.1	28.9	28.7	-0.2	-0.2	*-0.7*	*-0.7*
SW	71.6	71.2	70.6	-0.4	-0.6	*-0.6*	*-0.8*
WM	178.4	178.1	173.3	-0.3	-4.8	-0.2	-2.7
EM	107.9	109.2	107.6	+1.3	-1.6	+1.2	-1.5
YH	133.9	134.3	124.9	+0.4	-9.4	+0.3	-7.0
NW	165.5	160.9	155.0	-4.6	-5.9	-2.8	-3.7
N	67.5	67.9	65.7	+0.4	-2.2	+0.6	-3.2
Wa	26.1	27.5	29.9	+1.4	+2.4	+5.4	+8.7
Sc	129.6	124.7	118.9	-4.9	-5.8	-3.8	-4.7
GB	1272.2	1261.8	1233.5	-10.4	-28.3	-0.8	-2.2

Source: *Gazette* 1968, pp.286-290.

Table 6.12 Employment Change in Instrument and Electrical Engineering by Region, 1966-68

Region	Employment Electrical and Instrument Engineering (000s)			Change (000s)		Change (000s)	
	1966	1967	1968	1966-67	1967-68	1966-67	1967-68
SE	495.9	488.8	481.1	-7.1	-7.7	-1.4	-1.6
EA	26.2	26.8	28.3	+0.6	+1.5	+2.3	+5.6
SW	40.7	38.2	41.6	-2.5	+3.4	-6.1	+8.9
WM	132.4	131.2	123.4	-1.2	-7.8	-0.9	-5.9
EM	41.2	39.8	38.1	-1.4	-1.7	-3.4	-4.3
YH	34.2	34.8	34.7	+0.6	-0.1	+1.8	-0.3
NW	158.6	152.6	147.9	-6.0	-4.7	-3.8	-3.1
N	55.4	54.8	56.8	-0.6	+2.4	-1.1	+4.4
Wa	32.0	30.5	32.3	-1.5	+1.8	-4.7	+5.9
Sc	58.4	59.3	63.3	+0.9	+4.0	+1.5	+6.7
GB	1075.5	1057.8	1047.5	-17.7	-11.3	-1.6	-1.1

Source: *Gazette* 1968 pp.286-290.

Table 6.13 Employment in Construction by Region, 1966 and 1970

Region	Employment in Construction as a percentage of total employment			Employment (000s)		Change in employment in construction	
	1966		1970	1966	1970	Change (%)	(% per annum)
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
SE	*6.9*	6.7	5.3	551.5	411.5	-22.7	-6.2
EA	*8.6*	8.3	7.2	52.5	45.7	-9.7	-2.5
SW	*8.4*	8.0	6.9	112.8	90.2	-15.8	-4.2
WM	*6.4*	6.1	5.0	150.9	113.9	-21.2	-5.8
EM	*6.7*	6.3	5.3	95.2	74.3	-17.3	-4.8
YH	*6.9*	6.4	5.5	144.6	109.0	-19.2	-5.2
NW	*6.3*	5.9	5.2	187.2	149.2	-14.9	-4.0
N	*8.5*	7.7	7.2	111.4	91.4	-9.0	-2.3
Wa	*8.2*	7.3	6.9	80.7	64.1	-10.7	-2.8
Sc	*9.0*	8.4	8.3	194.4	172.5	-4.7	-1.2
GB	*7.2*	6.8	5.9	1680.6	1321.8	-16.7	-4.5

Source: *Gazette* 1967 pp.224-226, 1970 pp.297-299, 414-416, 1971 pp.256-258.

Allowance has been made in columns (b), (f) and (g) for the change in the Standard Industrial Classification introduced in the 1969 figures. Columns (b) and (c) are directly comparable, while columns (a) and (d) present figures as they actually appeared in the *Gazette*.

Table 6.14 Employment Changes in Recessions and Recoveries, 1948-1987

Recession		Recovery	
Years	Change in Employment (000s)	Years	Change in Employment (000s)
		1948-50	+300
1950-52	+106	1952-55	+801
1955-58	+147	1958-61	+826
1961-63	+241	1963-66	+725
1966-68	-658	1968-70	-234
1970-72	-384	1972-74	+679
1974-76	-257	1976-79	+465
1979-83	-2031	1983-87	+807

Source: Table A4. Recessions and recoveries dated as in Tables 5.3 and 5.4.

Table 6.15 Sectors of Manufacturing Employment Decline in the South East, the South West, and the North West, 1968-69

	Employment (000s) 1968	1969	Change (000)	(%)	Change in sector nationally (%)
(i) The South East					
Timber, furniture, etc.	130.2	123.6	-6.6	-5.1	-4.0
Engineering and Electrical goods	840.0	834.6	-5.4	-0.6	+1.6
Clothing and footwear	139.1	135.4	-3.8	-2.7	+0.8
			-15.8	-1.4	
All other sectors			+33.2	+2.4	
(ii) The South West					
Shipbuilding and marine engineering	16.8	13.4	-3.4	-20.2	-2.3
All other sectors			+6.1	+1.5	
(iii) The North West					
Vehicles	121.5	115.4	-6.1	-5.0	+2.4
Clothing and footwear	86.0	84.1	-1.9	-2.2	+0.8
Food, drink and tobacco	128.8	127.5	-1.3	-1.0	+1.4
Timber, furniture, etc.	35.8	34.7	-1.1	-3.1	-4.0
			-10.4	-2.8	
All other sectors			+10.5	+1.1	
(excluding textiles)			(+10.9	+1.4)	

Source: *Gazette* 1969 pp.324-326, 1970 pp.414-416.

Table 6.16 Employment Change in the Engineering Sectors by Region 1968-69

Region	Employment in Electrical and Instrument Engineering				Employment in Mechanical Engineering				Manufacturing employment change outside the engineering sectors
	(000s)		Change		(000s)		Change		
	1968	1969	(000)	(%)	1968	1969	(000)	(%)	(000s)
SE	481.1	471.4	-9.7	-2.0	358.9	363.3	+4.4	+1.2	+22.7
EA	26.9	30.2	+3.3	+12.3	27.7	30.2	+2.5	+9.0	+6.5
SW	40.2	39.9	-0.3	-0.7	69.7	72.1	+2.4	+3.4	+0.6
WM	123.1	130.6	+7.5	+6.1	173.3	174.9	+1.6	+0.9	+6.3
EM	37.8	39.0	+1.2	+3.2	107.6	108.8	+1.2	+1.1	+11.5
YH	33.9	34.4	+0.5	+1.5	124.4	130.1	+5.7	+4.6	+11.0
NW	147.9	144.3	-3.6	-2.4	155.0	166.4	+11.4	+7.4	-7.7
N	56.8	58.0	+1.2	+2.1	63.5	64.7	+1.2	+1.9	+8.2
Wa	32.3	32.7	+0.4	+1.2	26.5	28.0	+1.5	+5.7	+5.1
Sc	63.3	67.4	+4.3	+6.8	118.1	121.6	+3.5	+3.0	+8.3
GB	1047.5	1052.3	+4.8	+0.5	1233.5	1266.3	+32.8	+2.7	+80.5

Source: *Gazette* 1969 pp.324-326; 1970 pp.414-416.

Suppressed figures in the original source (employment below 1000) excluded from calculations. In no case did any minimum List Heading change from having employment figures suppressed to having employment figures revealed.

Figures for the North West are to be taken as unreliable in that there appears to have been a reclassification of employment between the electrical engineering sector and the mechanical engineering sector.

Table 6.17 Sectors of Manufacturing Employment Growth, Selected Regions, 1968-69

	Employment (000s)		Change		Change in sector nationally (%)
	1968	1969	(000)	(%)	
(i) East Anglia					
Engineering and electrical goods	56.8	62.4	+5.6	+9.9	+1.6
Food, drink and tobacco	39.8	42.3	+2.5	+6.3	+1.4
Vehicles	16.2	18.6	+2.4	+14.8	+2.4
All other sectors			+1.8	+2.2	
(ii) East Midlands					
Textiles	120.8	124.6	+3.8	+3.1	+2.1
Engineering and electrical goods	145.7	148.1	+2.4	+1.6	+1.6
Chemicals and allied industries	18.3	20.5	+2.2	+12.0	+3.8
Clothing and footwear	70.4	72.4	+2.0	+2.8	+0.8
All other sectors			+3.5	+1.3	
(iii) Yorkshire and Humberside					
Engineering and electrical goods	159.5	165.2	+5.7	+3.6	+1.6
Vehicles	43.6	47.2	+3.6	+8.3	+2.4
Clothing and footwear	54.6	58.0	+3.4	+6.2	+0.8
All other sectors			+4.5	+0.8	
(iv) Northern region					
Chemicals and allied industries	49.7	55.8	+6.1	+12.2	+3.8
Textiles	20.0	23.3	+3.2	+16.0	+2.1
Engineering and electrical goods	122.5	125.1	+2.6	+2.1	+1.6
All other sectors			+0.7	+0.3	
(v) Wales					
Vehicles	19.4	21.9	+2.5	+12.9	+2.4
Metal manufacture	91.8	93.3	+1.5	+1.6	+0.4
All other sectors			+3.0	+1.4	
(vi) Scotland					
Engineering and electrical goods	182.2	190.1	+7.9	+4.3	+1.6
Food, drink and tobacco	100.6	105.2	+4.6	+4.6	+1.4
Vehicles	38.1	40.1	+2.0	+5.2	+2.4
All other sectors			+1.6	+0.4	
(vii) The West Midlands					
Engineering and electrical goods	296.7	305.9	+9.2	+3.1	+1.6
All other sectors			+6.2	+0.7	

Source: *Gazette* 1969 pp.324-326, 1970 pp.414-416.

Table 6.18 Major Shifts in Manufacturing Employment by Region, The Outer Periphery 1969-70

	Employment (000s)		Change		Change in sector nationally (%)
	1969	1970	(000s)	(%)	
(i) The Northern region					
Mechanical engineering	65.7	72.7	+7.0	+10.7	+1.7
Metal manufacture	51.5	56.1	+4.6	+8.9	+1.1
Chemicals and allied industries	53.5	56.2	+2.7	+5.0	+0.4
Shipbuilding and marine engineering	37.1	38.8	+1.7	+4.6	-0.4
Electrical engineering	55.5	57.1	+1.6	+2.9	-0.6
All other sectors			+3.2	+1.5	
(ii) Wales					
Electrical engineering	28.7	32.2	+3.5	+12.2	-0.6
Other manufacturing industries *	18.1	20.9	+2.8	+15.5	+1.2
Mechanical engineering	29.9	32.6	+2.7	+9.0	+1.7
All other sectors			+0.8	+0.3	
(iii) Scotland					
Textiles	93.1	84.7	-8.4	-9.0	-4.1
All other sectors			+2.0	+0.3	
(Electrical engineering)	50.8	53.3	+2.5	+4.9	-0.6

* Employment in "miscellaneous manufacturing industries" increased from less than 1000 to 2800.

Source: *Gazette* 1970 pp.277-279; 1971 pp.256-258.

Table 6.19 Major Shifts in Manufacturing Employment by Region, Southern England 1969-70

	Employment (000s)		Change		Change in sector nationally
	1969	1970	(000s)	(%)	(%)
(1) The South East					
Clothing and footwear	137.9	122.8	-15.1	-10.9	-5.4
Timber, furniture, etc.	123.4	114.3	-9.1	-7.4	-4.2
Vehicles	240.1	234.3	-5.8	-2.4	+0.9
Other manufacturing industries *	131.5	126.9	-4.6	-3.5	-0.4
All other sectors			+1.7	+0.1	

* Toys, games, etc., employment down 2,500; plastic products n.e.s., employment down 2,000. The figure in this row for the national rate of employment change refers only to these two sectors.

(2) The Outer South					
(i) East Anglia					
Food, drink & tobacco	43.0	45.2	+2.2	+5.1	+1.4
Chemicals and allied industries	10.3	12.2	+1.9	+18.4	+0.4
Vehicles	18.6	20.5	+1.9	+10.2	+0.9
Paper, printing and publishing	16.0	17.6	+1.6	+10.0	+1.0
All other sectors			+0.8	+0.7	
(ii) The South West					
Instrument engineering	8.8	12.2	+3.4	+38.6	+2.9
Food, drink & tobacco	64.0	67.3	+3.3	+5.2	+1.4
Electrical engineering	32.4	34.7	+2.3	+7.1	-0.6
All other sectors			+4.1	+1.3	

(Increases in employment of 1500 each in metal manufacture, mechanical engineering and paper, printing and publishing).

Source: *Gazette* 1970 pp.277-279; 1971 pp.256-258.

Table 6.20 Changes in Employment by Region in Three Declining Manufacturing Sectors, 1969-70

Region	Employment change							
	Textiles		Clothing and footwear		Timber, furniture, etc.		Three declining sectors	All other sectors
	(000s)	(%)	(000s)	(%)	(000s)	(%)	(000s)	(000s)
SE	-0.3	*-1.0*	-15.1	-10.9	-9.1	-7.4	-24.5	-8.4
EA	0.0	*0.0*	-1.2	*-9.0*	+0.4	*+3.8*	-0.8	+9.2
SW	-0.4	*-2.6*	-0.5	*-1.9*	-0.3	*-1.6*	-1.2	+14.3
WM	-1.8	*-5.0*	-1.3	*-5.7*	-0.7	*-3.0*	-3.8	-3.0
EM	-2.7	-2.2	-2.3	-3.2	+0.2	*+1.1*	-4.8	+7.4
YH	-10.1	-6.1	-1.0	-1.7	-1.0	*-3.5*	-12.1	+1.0
NW	-5.9	-3.1	-3.7	-4.3	-1.9	*-5.4*	-11.5	-4.1
N	+0.7	*+3.0*	-0.8	*-2.2*	-0.5	*-3.4*	-0.6	+21.6
Wa	+0.4	*+2.1*	-0.5	*-3.0*	+0.2	*+2.2*	+0.1	+11.7
Sc	-8.4	-9.0	-0.5	*-1.5*	-0.2	*-0.7*	-9.1	+2.7
GB	-28.6	-4.1	-26.9	-5.2	-13.0	-4.2	-68.5	+54.2

Source: *Gazette* 1970 pp.277-279; 1971 pp.256-258.

Table 6.21 Employment Change by Region in Electrical Engineering and Aerospace, 1969-70

Region	Electrical engineering				Aerospace			
	Employment (000s)				Employment (000s)			
	1969	1970	Change (000s)	(%)	1969	1970	Change (000s)	(%)
SE	378.2	376.2	-2.0	-0.5	72.0	65.1	-6.9	-9.6
EA	25.7	26.3	+0.6	*+2.3*	1.4	1.5	+0.1	*+7.1*
SW	32.4	34.7	+2.3	*+7.1*	40.7	41.9	+1.2	+2.9
WM	127.2	119.7	-7.5	-5.9	22.5	23.1	+0.6	*+2.7*
EM	36.8	36.1	-0.7	*-1.9*	31.0	30.8	-0.2	*-0.6*
YH	29.5	28.8	-0.7	*-2.4*	13.0	12.8	-0.2	*-1.5*
NW	138.4	134.1	-4.3	-3.1	37.5	33.6	-3.9	*-10.4*
N	55.5	57.1	+1.6	+2.9	1.8	1.5	-0.3	*-17.7*
Wa	28.7	32.2	+3.5	*+12.2*	3.9	3.6	-0.3	*-7.7*
Sc	50.8	53.3	+2.5	+4.9	14.3	14.5	+0.2	*+1.4*
GB	903.4	898.4	-5.0	-0.5	238.2	228.4	-9.8	-4.1

Source: *Gazette* 1970 pp.277-279; 1971 pp.256-258.

Table 6.22 Employment Change by Region, 1966-1976

Region	Change in Employment (% per annum)		Change in Employment (% per annum)
SE	-0.4		
EA	+1.1	Southern England	-0.2
SW	+0.3		
WM	-0.7		
EM	+0.2		
YH	-0.6	Less assisted periphery	-0.8
NW	-0.9		
N	-0.1		
Wa	-0.3	Assisted periphery	-0.2
Sc	-0.3		
NI	+0.5		
UK	-0.3		

Source: Table A4.

Table 6.23 Manufacturing Employment Change by Sector, 1970-72, United Kingdom

	Employment in the UK (000s)			Change (000s)		Change (%)		
	1970	1971	1972	1970-71	1971-72	1970-71	1971-72	1970-72
Food etc.	890.5	866.5/ 770.2	755.8	-24.0	-14.4	-2.7	-1.9	-4.5
Chemicals etc.	538.4	526.1/ 481.9	468.2	-12.3	-13.7	-2.3	-2.8	-5.1
Metal manuf.	591.7	555.2/ 556.9	516.1	-36.5	-40.8	-6.2	-7.3	-13.0
Mech. eng.	1216.2	1156.2/1050.6	974.7	-60.0	-75.9	-4.9	-7.2	-11.8
Inst. eng.	155.4	158.9/ 166.0	157.3	+3.5	-8.7	+2.3	-5.2	-3.1
Elec. eng.	911.6	893.6/ 811.5	792.0	-18.0	-19.5	-2.0	-2.4	-4.3
Shipbuilding	199.0	202.0/ 192.8	186.2	+3.0	-6.6	+1.5	-3.4	-2.0
Vehicles	842.4	819.8/ 815.6	784.0	-24.6	-31.6	-2.7	-3.9	-6.5
Metal goods	639.9	618.2/ 575.6	556.5	-21.7	-19.1	-3.4	-3.3	-6.6
Textiles	716.0	656.5/ 622.0	596.8	-59.5	-25.2	-8.3	-4.1	-12.0
Clothing etc.	555.3	553.6/ 501.9	496.0	-1.7	-5.9	-0.3	-1.2	-1.5
Bricks etc.	340.8	329.7/ 307.2	300.7	-11.1	-6.5	-3.3	-2.1	-5.3
Timber Etc.	299.8	298.2/ 269.3	275.3	-1.6	+6.0	-0.5	+2.2	+1.7
Paper etc.	654.9	624.3/ 595.5	579.2	-30.6	-6.3	-4.7	-2.7	-7.3
Other manuf.	358.8	352.4/ 338.9	338.9	-6.4	+0.0	-1.8	+0.0	-1.8
Total	8910.5	8611.6/8056.07777.7		-298.9	-278.3	-3.4	-3.3	-6.7

"Chemicals, etc." includes "chemicals and allied industries" and "coal and petroleum products". "Clothing, etc. "includes "clothing and footwear" and "leather, leather goods and fur".

Source: *British Labour Statistics Yearbook* 1970 pp.206-213, 1971 pp.132-139, 1972 pp.136-151. The corresponding figures may also be found in the *Gazette*.

1971(a) figures are based on the national insurance card count;
1971(b) figures are based on the Census of Employment.

Table 6.24 Change in Employment by Region in Three Declining Manufacturing Sectors, 1970-71

Region	Employment Change								
	Textiles		Mechanical engineering		Metal manufacture		Three declining sectors	All other sectors	
	(000s)	(%)	(000s)	(%)	(000s)	(%)	(000s)	(000s)	(%)
SE	-0.3	*-1.0*	-10.5	-3.1	-2.2	-4.4	-13.0	-51.7	-2.5
EA	+0.1	*+2.8*	-0.9	-3.0	-0.5	*-12.5*	-1.3	-6.4	-3.6
SW	-1.0	*-6.6*	-3.6	-5.1	-0.5	*-6.0*	-5.1	+2.4	+0.7
WM	-3.7	*-10.8*	-9.6	-5.8	-6.4	-4.4	-19.7	-16.7	-1.9
EM	-5.4	-4.5	-5.9	-5.5	-1.0	-2.2	-12.3	-6.7	-1.9
YH	-18.7	-12.1	-2.8	-2.5	-9.0	-8.3	-30.5	-8.3	-1.7
NW	-17.3	-9.5	-9.4	-5.9	-2.0	-5.8	-28.7	-32.7	-3.5
N	-1.1	*-3.3*	-0.9	-1.2	-8.5	-15.2	-10.5	-6.4	-1.9
Wa	+0.7	*-3.6*	-1.1	-3.4	-5.2	-5.7	-4.8	-2.8	-1.4
Sc	-8.7	-10.3	-14.0	-12.1	-0.8	-1.7	-23.5	-16.9	-2.3
NI	-4.2	-8.7	-1.5	-9.7	-	-	-5.7	+1.6	+1.3
UK	-59.5	-8.3	-60.0	-4.9	-36.5	-6.2	-156.0	-142.7	-2.2

Source: *British Labour Statistics Yearbook* 1970 pp.206-213, 1971 pp.132-139.

Table 6.25 Manufacturing Job Loss in Regions of High Job Loss (WM, NW, SE, Sc) 1971-72

Sector	Employment (000s)		Change		Change in sector nationally
	1971	1972	000s	%	%
(i) West Midlands					
Vehicles	217.4	204.5	-12.9	-5.7	-3.9
Metal manufacture	136.9	128.1	-8.8	-6.4	-7.3
Metal goods n.e.s.	186.0	178.6	-7.4	-4.0	-3.3
Mechanical engineering	136.2	129.5	-6.7	-4.9	-7.2
(All other manufacturing sectors)	427.4	417.1	-10.3	-2.4	-2.2)
(ii) North West					
Mechanical engineering	143.0	128.9	-14.1	-9.9	-7.2
Textiles	156.6	144.7	-11.9	-7.6	-4.1
(All other manufacturing sectors	863.0	841.3	-21.7	-2.5	-2.8)
(iii) South East					
Mechanical engineering	283.9	264.1	-19.8	-7.0	-7.2
Electrical engineering	332.6	319.5	-13.1	-3.9	-2.4
Paper, printing and publishing	280.3	267.6	-12.7	-4.5	-2.7
Vehicles	223.0	214.5	-8.5	-3.8	-3.9
Metal goods n.e.s.	144.1	137.1	-7.0	-4.9	-3.3
(All other manufacturing sectors	941.6	913.7	-27.9	-3.0	-2.8)
(iv) Scotland					
Mechanical engineering	96.1	84.8	-11.3	-11.8	-7.2
(All other manufacturing sectors	573.1	557.8	-15.3	-2.7	-2.9)

Source: *British Labour Statistics Yearbook* 1972 pp.136-151.

Table 6.26 Manufacturing Employment Change in London, 1971-72

Sector	Employment, 000s (Greater London)		Change, 1971-72		Change, 1971-72, UK average
	1971	1972	(000s)	(%)	(%)
Food, drink and tobacco	112.4	107.0	-5.4	-4.8	-1.9
Chemicals, etc.	68.3	63.7	-4.6	-6.7	-2.8
Metal manufacture	23.5	22.3	-1.2	-6.7	-7.3
Mechanical engineering	111.5	101.3	-10.2	-9.2	-7.2
Instrument engineering	39.2	35.2	-4.0	-10.3	-5.2
Electrical engineering	167.1	156.5	-10.6	-6.3	-2.4
Shipbuilding and marine engineering	5.3	4.6	-0.7	-12.4	-3.4
Vehicles	60.3	57.4	-2.9	-4.8	-3.9
Metal goods n.e.s.	77.1	71.4	-5.7	-7.4	-3.3
Textiles	13.7	12.1	-1.6	-11.6	-4.1
Clothing, footwear etc.	87.1	82.4	-4.8	-5.5	-1.2
Bricks,pottery,glass, cement,etc.	20.6	19.1	-1.5	-7.5	-2.1
Timber,furniture, etc.	47.9	48.3	+0.4	+0.9	+2.2
Paper, printing and publishing	160.2	147.6	-12.6	-7.9	-2.7
Other manufacturing industries	55.2	50.0	-5.2	-9.4	+0.0
Total	1049.4	978.7	-70.7	-6.7	-3.3

Source: Census of Employment, 1971, 1972 (unpublished data).

Table 6.27 Manufacturing Employment Change in Greater London, 1971-77

Sector	Employment,000s (Greater London)		Change,1971-77		Change,1971-77, GB average
	1971	1972	(000s)	(%)	(%)
Food, drink and tobacco	112.4	85.1	-27.3	-24.3	-7.3
Chemicals, etc.	68.3	52.1	-16.2	-23.8	-2.0
Metal manufacture	23.5	14.5	-8.8	-38.5	-13.2
Mechanical engineering	111.5	77.8	-33.7	-30.2	-11.9
Instrument engineering	39.2	27.6	-11.6	-29.5	-9.7
Electrical engineering	167.1	126.3	-40.8	-24.4	-6.8
Shipbuilding and marine engineering	5.3	3.9	-1.4	-26.2	-5.9
Vehicles	60.3	57.2	-3.1	-5.1	-8.4
Metal goods n.e.s.	77.1	57.9	-19.2	-24.9	-7.0
Textiles	13.7	10.2	-3.5	-25.9	-17.4
Clothing, footwear, etc.	87.1	55.0	-32.1	-36.9	-13.8
Bricks,pottery,glass, cement, etc.	20.6	12.3	-8.3	-40.3	-14.4
Timber,furniture,etc.	47.9	37.9	-10.0	-20.7	-4.3
Paper, printing and publishing	160.2	118.6	-41.6	-26.0	-9.8
Other manufacturing industries	55.2	39.3	-15.9	-28.7	-2.2
Total	1049.4	775.8		-26.1	-9.3

Source: Census of Employment (Unpublished data)

Table 6.28 Components of Change; Manufacturing Employment, Greater London, 1966-74

Component of Change	Change of employment resulting (000s) (Greater London, manufacturing employment)
Migration of firms:	
To assisted areas	(-36.2)
To new and expanded towns	(-26.0)
Elsewhere	(-43.1)
TOTAL	-105.3
Complete closures of factories, unassociated with migration	-183.5
Losses in small firms (less than 20 workers)	-26.0
New firms, new branch factories	+13.2
Residual shrinkage	-88.5
Total change	-390.1

Source: Dennis (1980 pp.53-55).

Table 6.29 Manufacturing Employment Change in the Conurbations, 1971-78

	Percentage change in manufacturing employment						
	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78
(Upswing/downswing)	D	U	U	D	D	U	U
Greater London	-6.7	-5.5	-2.5	-7.3	-5.0	-2.3	-0.9
West Midlands	-4.3	+0.9	+0.0	-6.5	-5.3	+1.0	+0.2
South Yorkshire	-5.3	+2.6	-0.6	-2.5	-3.0	+1.4	-0.9
West Yorkshire	-2.9	+0.6	-0.6	-5.3	-3.9	+0.2	-1.6
Greater Manchester	-5.1	-0.4	-0.6	-3.7	-3.9	-0.5	-0.6
Merseyside	-5.7	-0.4	+0.1	-4.4	-4.7	-2.6	-0.7
Tyne and Wear	-4.7	+1.9	-0.2	-3.1	-3.3	-2.0	-3.7
Strathclyde	-5.0	+2.0	+2.1	-5.4	-6.1	+0.1	-3.2
UK	-3.5	+0.6	+0.6	-4.9	-3.2	+0.6	

Note: Figures for the West Midlands based on the Metropolitan County plus Warwickshire, it being considered that the Metropolitan County under-defines the conurbation.

Source: Census of Employment (Unpublished data).

Table 6.30 Manufacturing Employment Change by Region, Sectoral Composition, 1971-72

Region	Sector											
	Mechanical engineering			Other metal industries			Textiles			Other manuf. sectors		
	Employment		Change	Employment		Change	Employment		Change	Employment		Change
	1971	1972	(%)	1971	1972	(%)	1971	1972	(%)	1971	1972	(%)
SE	283.9	264.1	-7.0	454.0	435.9	-4.0	27.2	24.4	-10.3	1440.4	1392.1	-3.4
EA	29.2	28.4	-2.7	27.2	27.3	+0.4	3.2	3.2	-	130.6	132.2	+1.2
SW	57.7	53.6	-7.1	102.0	97.3	-4.5	13.5	13.0	-3.7	234.1	226.6	-3.2
WM	136.2	129.5	-4.9	540.3	511.2	-5.4	26.9	27.7	+3.0	400.5	389.4	-2.8
EM	92.7	87.6	-5.5	125.4	121.8	-2.9	110.6	110.3	-0.3	266.6	265.0	-0.6
YH	105.2	100.2	-4.7	229.7	215.6	-6.1	132.6	125.9	-5.1	311.9	312.3	+0.1
NW	143.0	128.9	-9.9	229.5	217.8	-5.1	156.6	144.7	-7.6	633.8	623.5	-1.6
N	66.3	60.9	-8.1	114.1	109.3	-4.2	21.2	20.7	-2.4	246.6	242.0	-1.9
Wa	28.2	25.7	-8.9	138.7	133.2	-4.0	17.3	17.2	-0.6	140.0	142.6	+1.9
Sc	96.1	84.8	-11.8	157.4	150.8	-4.2	72.0	71.0	-1.4	343.7	336.0	-2.2
NI	12.1	10.9	-9.2	24.0	22.2	-7.5	40.9	38.8	-5.1	92.7	92.5	-0.2
UK	1050.6	974.7	-7.2	2140.9	2042.8	-4.6	622.0	596.8	-4.1	4242.5	4163.4	-1.9

Other metal industries comprise metal manufacture, shipbuilding, vehicles, and metal goods n.e.s.

Source: *British Labour Statistics Yearbook* 1972 pp.136-151.

Table 6.31 Employment in the Periphery in the Mechanical Engineering Sector, 1971-72

	Mechanical engineering			Other manuf. sectors			All manuf. sectors		
	Employment (000s)		Change	Employment (000s)		Change	Employment (000s)		Change
	1971	1972	(%)	1971	1972	(%)	1971	1972	(%)
Strathclyde	68.4	62.0	-9.4	320.4	307.3	-4.1	388.8	369.3	-5.0
Rest of Scotland	27.7	22.8	-17.7	252.7	250.5	-0.9	280.6	273.3	-2.6
SCOTLAND	96.1	84.8	-11.8	573.1	557.8	-2.7	669.2	642.6	-4.0
Greater Manchester	87.7	79.6	-9.2	429.5	411.0	-4.3	517.1	490.6	-5.1
Merseyside	19.0	16.6	-12.6	224.3	213.0	-5.1	243.4	229.6	-5.7
Lancashire	23.8	22.1	-6.9	199.2	195.2	-2.0	223.0	217.3	-2.5
Cheshire	11.9	9.9	-17.2	137.4	137.8	+0.3	149.3	147.7	-1.1
NORTH WEST	143.0	128.9	-9.9	1019.9	986.0	-3.3	1162.9	1114.9	-4.1
Tyne and Wear	37.3	33.8	-9.4	152.0	146.7	-3.5	189.4	180.5	-4.7
(Cleveland)	13.6	11.3	-16.7	98.9	92.4	-6.5	112.4	103.7	-7.8
Rest of the Northern region	14.6	15.0	+3.0	144.8	145.8	+0.7	159.4	160.8	+0.9
NORTHERN	66.3	60.9	-8.1	381.9	372.0	-2.6	448.2	432.9	-3.4
WALES	28.2	25.7	8.9	296.0	293.0	-1.0	324.2	318.7	-1.7
West Yorkshire	66.2	63.2	-4.7	319.6	311.6	-2.5	385.9	374.8	-2.9
South Yorkshire	21.8	20.3	-7.1	202.9	192.6	-5.1	224.7	212.8	-5.3
Rest of Yorkshire and Humberside	15.1	14.9	-1.6	150.6	148.4	-1.4	165.7	163.3	-1.5
YORKSHIRE AND HUMBERSIDE	105.2	100.2	-4.7	674.2	653.8	-3.0	779.4	754.0	-3.3

Source: Census of Employment (Unpublished data).

Table 6.32 Industrial Employment Change by Region, 1972-73

	Employment change (%) in			Employment change (000s)			(000)	(%)
	Manuf.	Const.	Coal Mining	Manuf.	Const.	Coal Mining	Total (All production industries)	Total
SE	-2.2	+2.5	-6.7	-47.5	+9.4	-0.4	-44.8	-1.7
EA	+4.4	+6.4	-	+8.5	+2.7	-	+10.9	+4.4
SW	+2.3	+7.9	-	+9.2	+7.2	-	+15.5	+2.9
WM	+1.5	+6.6	-4.6	+16.3	+7.1	-1.1	+21.1	+1.7
EM	+1.0	+7.8	-2.8	+6.1	+5.6	-1.9	+8.8	+1.2
YH	+1.9	+8.7	-1.6	+14.5	+9.1	-1.3	+21.8	+2.2
NW	+0.1	+10.0	-3.6	+1.2	+13.6	-0.5	+11.5	+0.9
N	+4.0	+10.5	-7.8	+17.5	+9.6	-4.5	+22.3	+3.7
Wa	+3.4	-0.4	-5.9	+10.7	-0.3	-2.6	+7.8	+1.7
Sc	+2.3	+10.0	-6.0	+14.6	+16.7	-2.0	+7.6	+3.2
GB	+0.7	+6.3	-4.4	+50.7	+79.7	-14.5	+102.4	+1.1

Source: *British Labour Statistics Year Book*, 1972 pp.144-151, 1973 pp.132-139.

Table 6.33 Industrial Employment Change by Region, 1973-74

	Employment change (%) in			Employment change (000s)			(000)	(%)
	Manuf.	Const.	Coal Mining	Manuf.	Const.	Coal Mining	Total (All production industries)	Total
SE	-0.8	-3.5	*-8.6*	-16.4	-13.3	-0.5	-31.7	-1.3
EA	+0.7	+0.6	-	+5.2	+0.3	-	+5.5	+2.1
SW	+1.8	-6.4	-	+7.8	-6.7	-	+1.0	+0.2
WM	+0.6	-7.4	*-1.0*	+6.8	-8.5	-0.2	-2.1	-0.2
EM	+0.7	-4.8	-3.4	+4.2	-3.9	-2.3	-2.8	-0.4
YH	-0.1	-2.8	-2.9	-1.0	-3.3	-2.3	-5.7	-0.6
NW	+0.4	-1.6	*-2.1*	+4.3	-2.4	-0.3	+3.1	+0.2
N	+1.1	-1.4	-9.0	+5.0	-1.4	-4.8	+0.4	+0.1
Wa	+1.9	-8.5	-6.9	+6.1	-6.2	-2.8	-2.2	-0.5
Sc	+2.9	-1.6	*-7.0*	+18.8	-2.8	-2.2	+14.8	+1.7
GB	+0.5	-3.6	-5.0	+40.8	-48.3	-15.8	-19.6	-0.2

Source: Census of Employment (NOMIS)

Table 6.34 Manufacturing Employment Change in Greater London, 1972-74

Sector	Employment (000) (Greater London)			Change (%)	
	1972	1973	1974	1972-73	1973-74
Food, drink and tobacco	107.0	100.6	99.5	-6.0	-1.0
Chemicals, etc.	63.7	60.9	58.9	-4.5	-3.3
Metal manufacture	22.3	19.9	19.1	-10.7	-4.2
Mechanical engineering	101.3	91.1	85.2	-10.0	-3.2
Instrument engineering	35.2	33.9	31.6	-4.5	-5.9
Electrical engineering	156.5	150.2	149.6	-4.0	-0.4
Shipbuilding & marine engineering	4.6	4.4	4.6	-5.3	+5.2
Vehicles	57.4	56.9	55.2	-0.8	-3.0
Metal goods n.e.s.	71.4	68.3	67.8	-4.4	-0.7
Textiles	12.1	11.8	11.2	-2.6	-4.6
Clothing, footwear, etc.	82.4	76.9	69.5	-6.6	-9.6
Bricks,pottery,glass,cement,etc.	19.1	17.7	15.7	-7.3	-11.4
Timber,furniture,etc.	48.3	48.5	45.3	+0.5	-6.6
Paper,printing and publishing	147.6	136.6	138.7	-7.4	+1.6
Other manufacturing industries	50.0	47.5	46.7	-5.0	-1.5
Total	978.7	924.9	901.8	-5.5	-2.5

Source: Census of Employment (Unpublished data).

Table 6.35 Private Sector Housing Land Prices by Region, England and Wales, 1972-74

Region	Average price of housing land per hectare (£000s)			Change (%)		Change (£000s)	
	1972	1973	1974	1972-73	1973-74	1972-73	1973-74
Greater London	209.0	294.0	296.7	+40.7	+0.9	+85.1	+2.6
Outer Metropolitan Area	72.3	124.0	107.9	+71.5	-13.0	+51.7	-16.1
Outer South East	53.1	76.1	87.0	+43.2	+14.4	+23.9	+10.9
EA	34.4	42.6	29.0	+23.8	-32.0	+8.2	-13.6
SW	25.5	47.1	55.3	+85.1	+17.4	+11.7	+8.2
WM	31.7	60.5	55.5	+90.5	-8.3	+28.7	-5.0
EM	20.0	33.2	28.6	+66.3	-13.8	+14.2	-4.6
YH	15.9	26.3	28.3	+65.6	+7.5	+10.4	+2.0
NW	24.3	41.9	41.0	+72.1	-2.1	+17.5	-0.9
N	16.8	26.7	26.5	+58.3	-0.6	+9.8	-0.1
Wa	13.8	17.1	21.8	+24.4	+27.5	+3.4	+4.7
England and Wales	33.4	46.0	47.3	+38.0	+2.8	+12.7	+1.3

Source: *Housing and Construction Statistics* 1969-1979 pp.122-124. (See also *Housing and Construction Statistics*, 4th quarter 1973, pp.82-83).

Table 6.36 Manufacturing Employment Growth by Types of County, 1972-73

Type of county	Manufacturing employment (000s)		Change 1972-73	
	1972	1973	(000s)	%
Midlands and periphery				
Conurbations				
1 Lancashire conurbations	720.1	717.2	-2.9	-0.4
2 Other peripheral conurbations	1917.8	1943.5	+25.7	+1.3
Other urbanised counties				
3 Assisted areas, Northern region, South Wales	458.0	480.4	+22.3	+4.9
4 Other urbanised counties, NW, YH, Wa	517.9	525.8	+7.9	+1.5
5 Other urbanised counties, Midlands	729.2	737.3	+8.1	+1.1
6 Other urbanised counties, Scotland	238.1	242.1	+3.9	+1.6
Less urbanised counties				
7 England and Wales	290.9	302.5	+11.6	+4.0
8 Scotland	34.2	36.8	+2.6	+7.6
Total, Midlands & periphery	4906.2	4985.6	+79.4	+1.6
Total, Southern England	2707.4	2677.6	-29.8	-1.1
of which: London	*978.7*	*924.7*	*-54.0*	*-5.5*
Rest of South	*1728.7*	*1752.9*	*+24.2*	*+1.4*
TOTAL, Great Britain	7613.6	7663.2	+49.6	+0.7

Groups:

1 Merseyside, Greater Manchester; 2 West Midlands (Met) (plus Warwickshire), South Yorkshire, West Yorkshire, Tyne and Wear, Strathclyde; 3 Cleveland, Cumbria, Durham, Northumberland, Gwent, Mid Glamorgan, West Glamorgan; 4 Cheshire, Lancashire, Humberside, South Glamorgan; 5 Staffordshire, Derbyshire, Leicestershire, Northamptonshire, Nottinghamshire; 6 Central, Fife, Grampian, Lothian, Tayside; 7 Hereford and Worcester, Shropshire, Lincolnshire, North Yorkshire, Clwyd, Dyfed, Gwynedd, Powys; 8 Borders, Dumfries and Galloway, Highland, Island Areas.

Source: Census of Employment (Unpublished data).

Table 6.37 The Structure of Manufacturing Employment, The South Wales "Regional Policy Belt" 1972-74

	Gwent					Mid Glamorgan					West Glamorgan				
	Employment (000s)			Change 1972-74		Employment (000s)			Change 1972-74		Employment (000s)			Change 1972-74	
	1972	1973	1974	(000s)	(%)	1972	1973	1974	(000s)	(%)	1972	1973	1974	(000s)	(%)
1 Iron and steel, chemicals,etc.	31.1	31.4	31.3	+0.1	+0.5	7.9	8.3	9.9	+2.1	+26.3	28.5	28.1	29.2	+0.7	+2.3
2 Mechanical engineering,etc.	9.3	9.5	10.2	+0.9	+10.2	11.7	12.1	13.1	+1.4	+12.2	11.6	11.6	10.6	-1.0	-8.3
3 Vehicles	4.4	5.3	5.3	+0.9	+20.5	3.9	4.2	4.3	+0.4	+11.3	5.6	5.4	5.8	+0.2	+3.5
4 Electrical engineering,etc.	6.7	6.5	7.3	+0.6	+8.9	14.9	16.8	17.4	+2.5	+16.8	1.2	1.5	1.3	+0.1	+6.4
5 Textiles and Clothing	7.2	7.1	7.4	+0.3	+3.5	10.2	10.5	9.9	-0.3	-3.2	2.1	2.3	2.3	+0.1	+7.0
6 All other sectors	10.2	10.6	11.1	+0.8	+9.3	17.8	19.7	20.4	+2.5	+14.2	10.1	11.3	12.7	+2.6	+25.5
TOTAL	68.9	70.4	72.7	+3.8	+5.5	66.3	71.6	75.0	+8.6	+13.0	59.3	60.2	62.0	+2.7	+4.6

Source: Census of Employment (Unpublished data).

Classification: Group 1; Metal manufacture, Chemicals and allied industries, coal and petroleum products.
Group 2; Mechanical engineering, shipbuilding and marine engineering, metal goods n.e.s.
Group 3; Vehicle manufacture
Group 4; Electrical engineering, instrument engineering
Group 5; Textile manufacture; clothing and footwear; leather goods
Group 6; All other sectors (SIC orders (1968) 3, 16-19)

Note: It is suspected that figures for West Glamorgan are affected by a reclassification of employment from mechanical engineering to "other manufacturing industries" (MLH 499).

Table 6.38 The Structure of Manufacturing Employment, Northern Region 1972-74

	Tyne and Wear					Cleveland					Durham				
	Employment (000s)			Change 1972-74		Employment (000s)			Change 1972-74		Employment (000s)			Change 1972-74	
	1972	1973	1974	(000s)	(%)	1972	1973	1974	(000s)	(%)	1972	1973	1974	(000s)	(%)
1 Iron and steel,etc.	16.3	15.9	17.0	+0.7	+4.0	55.8	56.4	52.6	-3.2	-5.7	12.6	13.0	13.2	+0.6	+4.9
2 Mech. engineering,etc.	68.7	70.0	70.0	+1.3	+1.9	19.3	20.3	21.1	+1.8	+9.3	11.6	12.4	15.0	+3.4	+29.3
3 Vehicles	2.0	2.1	2.1	+0.1	+5.6	0.5	0.7	0.8	+0.2	+47.0	6.9	7.4	7.4	+0.5	+7.2
4 Elec. engineering,etc.	31.4	32.7	32.1	+0.7	+2.3	7.2	7.8	7.6	+0.5	+6.7	12.1	14.3	14.9	+2.7	+22.6
5 Textiles and clothing	15.4	16.2	15.9	+0.5	+3.1	7.1	7.4	9.8	+2.7	+38.7	15.6	16.1	16.3	+0.7	+4.7
6 All other sectors	46.7	46.9	46.5	-0.2	-0.3	13.9	14.1	15.7	+1.8	+13.0	12.5	13.2	13.0	+0.5	+4.0
TOTAL	180.5	184.0	183.6	+3.1	+1.7	103.7	106.7	107.6	+3.9	+3.7	71.3	76.4	79.8	+8.5	+11.9

	Northumberland					Cumbria				
	Employment (000s)			Change 1972-74		Employment (000s)			Change 1972-74	
	1972	1973	1974	(000s)	(%)	1972	1973	1974	(000s)	(%)
1 Iron and steel,etc.	2.9	3.1	3.7	+0.9	+30.9	15.4	15.5	15.8	+0.4	+2.5
2 Mech. engineering,etc.	4.0	4.6	4.1	+0.1	+3.3	18.9	19.3	19.0	+0.1	+0.6
3 Vehicles	0.4	0.6	0.9	+0.5	+116.2	1.6	1.9	1.2	-0.3	-22.0
4 Elec. engineering,etc.	3.4	3.3	3.5	+0.0	+1.2	2.8	3.0	3.2	+0.4	+13.9
5 Textiles and clothing	3.3	4.9	4.6	+1.3	+38.5	15.1	15.4	15.7	+0.5	+3.5
6 All other sectors	6.5	7.3	7.6	+1.0	+16.0	15.6	16.0	16.9	+1.2	+8.0
TOTAL	20.1	23.7	24.3	+4.3	+21.0	69.5	71.3	71.8	+2.3	+3.3

Source: Census of Employment (Unpublished data).
For details of industry classifications, see Table 6.37

Table 6.39 Manufacturing Employment Change by Sector, UK, 1974-76

Sector (SIC order)	Employment (000s)			Change (%)		Change, 1974-76	
	1974	1975	1976	1974-75	1975-76	(000s)	(%)
Food, drink etc.	765.9	725.7	713.8	-5.2	-1.6	-52.1	-6.8
Chemicals, etc.	474.2	470.3	460.5	-0.8	-2.1	-13.7	-2.9
Metal manuf.	507.0	501.1	469.4	-1.2	-6.3	-37.6	-7.4
Mechanical eng.	976.2	958.9	929.2	-1.8	-3.1	-47.0	-4.8
Instrument eng.	160.6	155.7	149.6	-3.1	-3.9	-11.0	-6.8
Electrical eng.	843.0	780.9	739.1	-7.4	-5.4	-103.9	-12.3
Shipbuilding etc.	185.3	184.2	185.0	-0.6	+0.4	-0.3	-0.2
Vehicles	792.0	756.3	743.5	-4.5	-1.7	-48.5	-6.1
Metal goods n.e.s.	581.7	545.6	522.4	-6.2	-4.3	-59.3	-10.2
Textiles	585.3	529.4	513.0	-9.6	-3.1	-72.3	-12.4
Clothing, etc.	449.3	444.2	421.6	-1.1	-5.1	-27.7	-6.2
Bricks,pottery,etc.	300.8	275.8	263.6	-8.3	-4.4	-37.2	-12.4
Timber, furniture	283.1	263.9	263.8	-6.8	-0.0	-19.3	-6.8
Paper, printing	588.7	565.2	541.7	-4.0	-4.2	-47.0	-8.0
Other manuf.	358.2	330.4	329.6	-7.8	-0.2	-28.6	-8.0
Total manuf.	7871.2	7488.1	7245.8	-4.9	-3.2	-626.4	-7.9

Source: *British Labour Statistics Yearbook* 1974 pp.150-157, 1975 pp.142-149, 1976 pp.132-139.
Certain SIC orders have been amalgamated; see Table 6.23.

Table 6.40 Industrial Employment Change by Region, 1974-1975

Region	Employment change (%) in			Employment change (000s)			Total industrial employment change
	Manuf.	Const.	Coal mining	Manuf.	Const.	Coal mining	(000s) (%)
SE	-5.4	-0.9	*-7.3*	108.4	-3.3	-0.4	-109.0 -4.3
EA	-3.5	-0.2	-	-7.2	-0.1	-	-7.3 -2.8
SW	-4.8	-3.4	-	-21.5	-3.3	-	-22.3 -3.8
WM	-5.5	-1.4	*+4.0*	-59.7	-1.5	+0.9	-60.0 -4.8
EM	-3.8	-1.8	+2.3	-25.5	-1.4	+1.5	-22.9 -2.9
YH	-4.1	-2.2	+3.1	-31.7	-2.5	+2.4	-31.0 -3.1
NW	-4.4	-3.5	*-2.3*	-48.5	-5.1	-0.3	-54.6 -4.2
N	-2.8	-0.5	-4.1	-13.0	-0.5	-2.0	-15.0 -2.4
Wa	-5.5	-2.1	*+0.5*	-18.5	-1.4	+0.2	-19.9 -4.3
Sc	-5.8	+1.6	*+1.7*	-39.2	+2.8	+0.5	-36.8 -4.0
GB	-4.8	-1.3	+1.2	-371.0	-16.4	+3.5	-377.8 -3.9

Source: *British Labour Statistics Yearbook* 1974 pp.150-157; 1975 pp.142-149.

Table 6.41 Industrial Employment Change by Region 1975-1976

Region	Employment change (%) in			Employment change (000s)			Total industrial employment change	
	Manuf.	Const.	Coal mining	Manuf.	Const.	Coal mining	(000s)	(%)
SE	-3.2	-0.5	-1.8	-61.8	-2.0	-0.1	-65.3	-2.7
EA	-0.9	-4.2	-	-1.8	-1.9	-	-3.3	-1.3
SW	-1.6	-1.6	-	-6.7	-1.5	-	-9.3	-1.7
WM	-4.2	+1.7	-0.8	-42.5	+1.8	-0.2	-41.4	-3.5
EM	-1.0	+3.2	-0.3	-6.0	+2.4	-0.2	-4.7	-0.6
YH	-2.9	+0.3	-1.3	-21.4	+0.3	-1.0	-23.3	-2.4
NW	-3.5	-3.6	-3.1	-36.1	-5.1	-0.4	-39.9	-3.2
N	-3.5	0.0	-1.7	-16.0	0.0	-0.8	-16.7	-2.7
Wa	-4.5	+3.7	-2.8	-14.3	+3.5	-1.1	-12.4	-2.8
Sc	-4.6	-3.0	-5.8	-29.1	-2.0	-1.7	-28.4	-4.4
GB	-3.2	-0.3	-1.8	-235.2	-4.1	-5.6	-243.7	-2.6

Source: *British Labour Statistics Yearbook* 1975 pp.142-149, 1976 pp.132-139.

Table 6.42 Employment Change by Region in Electrical Engineering, 1974-76 and Earlier Trends

	Employment (000s)				Change (%)	
	1972	1974	1975	1976	1972-74	1974-76
SE	315.2	315.6	299.0	288.0	+0.1	-8.7
EA	21.8	24.1	20.6	18.8	+10.7	-22.0
SW	41.5	47.8	41.8	39.1	+15.3	-18.3
WM	109.0	111.9	104.2	101.0	+2.8	-9.8
EM	34.2	41.3	39.2	37.7	+20.5	-8.5
YH	26.9	31.1	28.7	25.7	+15.4	-17.3
NW	99.5	107.2	101.7	94.1	+7.8	-12.2
N	51.9	56.0	50.6	46.4	+7.9	-17.1
Wa	31.0	35.3	31.2	30.3	+14.0	-14.1
Sc	49.5	59.6	51.3	48.6	+20.3	-18.5
GB	780.4	830.0	768.0	729.8	+6.3	-12.1

Source: Census of Employment (NOMIS data).

Table 6.43 Manufacturing Employment Change by County in the West Midlands, 1974-76

	Employment in manufacturing (000s)			Change, 1974-76	
	1974	1975	1976	(000s)	(%)
West Midlands (met)	733.0	685.1	649.2	-83.9	-11.4
Warwickshire	54.4	52.4	48.8	-5.6	-10.2
Conurbation	787.4	737.5	698.0	-89.4	-11.4
Hereford and Worcester	78.6	74.9	74.9	-3.7	-4.7
Shropshire	39.6	38.3	37.8	-1.8	-4.5
Staffordshire	175.4	170.5	168.1	-7.3	-4.2
Rest of West Midlands	293.6	283.7	280.8	-12.8	-4.4
West Midlands, total	1081.0	1021.2	978.8	-102.2	-9.5
(East Midlands	616.6	593.1	587.1	-29.5	-4.8)
(United Kingdom	7871.2	7488.1	7245.8	-625.4	-7.9)

Source: Census of Employment (Unpublished data).

Table 6.44 Manufacturing Employment Decline in the West Midlands Industrial Conurbation (Metropolitan County and Warwickshire combined) 1974-76

Sector	Employment (000)			(000)	(%)	(%)	Differential shift
	1974	1975	1976	1974-6	1974-5	1975-6	(000)
Vehicles	187.3	172.9	163.0	-24.3	-7.7	-5.7	-12.9
Metal goods n.e.s.	157.9	149.4	140.1	-17.8	-5.4	-6.3	-1.7
Electrical engineering	85.3	77.0	73.1	-12.2	-9.8	-5.1	-1.7
Metal manufacture	104.8	101.4	95.9	-8.9	-3.2	-5.4	-1.1
Mechanical engineering	93.3	91.1	84.8	-8.5	-2.4	-6.9	-4.0
Total, five "traditional" West Midland sectors	628.6	591.8	556.9	-71.7	-5.9	-5.9	-21.4
All other manuf. industries	155.8	145.7	141.1	-14.7	-6.5	-3.2	

Source: Census of Employment (Unpublished data).

Table 6.45 Employment Change in the Vehicles Sector by County 1974-76

County	Employment (000)			Change 1974-76		Differential shift
	1974	1975	1976	(000s)	(%)	(000s)
West Midlands (Met)	176.4	161.9	153.6	-22.8	-12.9	-12.0
Warwickshire	10.9	11.0	9.4	-1.5	-13.8	-0.8
Greater London	55.2	52.4	54.8	-0.4	-0.7	+3.0
Lancashire	37.7	36.8	37.9	+0.2	+0.6	+2.5
Oxfordshire	31.1	27.7	27.0	-4.1	-13.2	-2.2
Strathclyde	31.0	27.1	23.4	-7.6	-24.4	-5.7
Cheshire	30.3	27.4	26.9	-3.4	-11.3	-1.6
Merseyside	28.4	27.1	28.2	-0.2	-0.8	+1.5
Bedfordshire	27.6	26.2	24.7	-2.9	-10.6	-1.2
Derbyshire	26.5	27.4	26.9	+0.4	+1.6	+2.1
Greater Manchester	25.8	26.8	25.9	+0.1	+0.6	+1.7
Hertfordshire	25.5	25.2	24.9	-0.6	-2.3	+1.0
Hampshire	18.3	19.3	19.8	+1.5	+7.9	+2.6
West Yorkshire	17.3	16.7	16.0	-1.3	-7.6	-0.2
Rest of UK	250.0	243.3	244.1	-5.9	-2.4	+9.0
UK Total	792.0	756.3	743.5	-48.5	-6.1	0

Source: Census of Employment (Unpublished data).

Table 6.46 Manufacturing Job Loss, Aggregate Figures, Scottish Regions, 1974-76

	Manufacturing employment (000s)			Change 1974-76 (000s)	(%)
	1974	1975	1976		
Strathclyde	384.9	364.2	342.0	-42.9	-11.1
Borders	14.6	13.6	13.3	-1.4	-9.4
Central	39.2	35.5	35.0	-4.3	-10.9
Dumfries and Galloway	12.0	11.3	11.4	-0.7	-5.6
Fife	42.9	40.7	39.5	-3.4	-7.9
Grampian	42.6	40.3	39.2	-3.4	-7.9
Highlands	12.6	12.5	12.4	-0.2	-1.9
Lothian	73.9	69.2	68.0	-5.9	-8.0
Tayside	50.7	47.6	44.9	-5.8	-11.5
Island Areas	2.6	2.1	2.3	-0.4	-13.7

Source: Census of Employment (Unpublished data).

Table 6.47 Manufacturing Employment Change, Wales and the Northern Region, 1959-1981

Year ending	Change in manufacturing employment (%)			Year ending	Change in manufacturing employment (%)		
	Wa	N	UK		Wa	N	UK
1960	+5.2	+1.7	+4.2	1971	-2.2	-3.5	-3.4
1961	+2.1	+0.9	+1.4	1972	-1.7	-3.4	-3.5
1962	-1.2	-1.0	-0.9	1973	+3.4	+4.0	+0.6
1963	+1.9	-2.2	-1.4	1974	+1.8	+1.1	+0.6
1964	+2.8	+1.1	+1.5	1975	-5.5	-2.8	-4.9
1965	+2.2	+4.7	+1.3	1976	-4.5	-3.5	-3.2
1966	+2.2	+0.4	+0.3	1977	+2.1	-0.9	+0.6
1967	-2.9	-1.9	-3.1	1978	+1.0	-3.7	-0.5
1968	+2.3	-1.4	-1.0	1979	+0.3	-0.7	-0.5
1969	+2.1	+2.8	+1.4	1980	-7.7	-6.1	-4.3
1970	+3.5	+4.9	-0.1	1981	-17.0	-12.2	-10.3

Source: *Gazette* (various). Figures after 1977 are based on the 1980 Standard Industrial Classification (*Gazette, Historical Supplement*, August 1984), with the "national" totals representing Great Britain rather than the UK.

Table 6.48 Manufacturing Employment Decline in Wales, 1974-76; Aggregate Figures by County

	Employment in manufacturing (000s)			(000)	(%)	(%)	(%)
	1974	1975	1976	1974-76	1974-5	1975-6	1974-76
(i) Industrial South Wales							
Gwent	72.7	70.3	65.6	-7.0	-3.3	-6.6	-9.7
Mid Glamorgan	75.0	71.0	67.9	-7.1	-5.3	-4.4	-9.5
West Glamorgan	62.0	58.8	56.9	-5.1	-5.1	-3.3	-8.2
South Glamorgan	38.5	37.4	34.9	-3.6	-2.9	-6.7	-9.4
(ii) Industrial North Wales							
Clwyd	42.8	38.1	37.3	-5.6	-10.9	-2.3	-13.0
(iii) Rest of Wales							
Dyfed	24.3	23.0	22.6	-1.6	-5.2	-1.7	-6.8
Gwynedd	12.5	10.9	17.6	-2.7	-12.6	-4.1	-13.2
Powys	7.8	7.5			-4.4		
Wales (Total)	335.5	317.0	302.7	-32.8	-5.5	-4.5	-9.8
UK (Total)	7871.2	7488.1	7245.8	-625.4	-4.9	-3.2	-7.9

Source: Census of Employment (Unpublished data).

Note: for 1976, a combined employment total for Gwynedd and Powys is shown, since it appears that there have been boundary changes in the travel-to-work areas which comprise the "statistical" counties. The official figures show a 20.1% employment drop in manufacturing in Powys, but a 6.7% gain in Gwynedd. However, since the highly depressed electrical engineering sector accounts for a *recorded* gain of 500 jobs (out of a total gain of 800) in Gwynedd, at a time in which Powys was shown as losing 700 out of less than 1,000 in this sector, it would seem that there has been a shift in boundary.

Table 6.49 Manufacturing Employment Change in the Northern Region, 1972-76

	Employment (000s)			Change			
	1972	1974	1976	1972-4 (%)	1974-6 (%)	1972-4 (000s)	1974-6 (000s)
Durham	71.3	79.8	72.1	+11.9	-9.7	+8.5	-7.7
Northumberland	20.1	24.3	22.2	+21.0	-8.9	+4.2	-2.1
Tyne and Wear	180.5	183.6	172.1	+1.7	-6.3	+3.1	-11.5
Cleveland	103.7	107.6	102.4	+3.7	-4.9	+3.9	-5.2
Cumbria	69.5	71.8	69.5	+3.3	-3.2	+2.3	-2.3
Northern region (Total)	445.1	467.1	438.1	+4.9	-6.2	+22.0	-29.0

Source: Census of Employment (Unpublished data).

Table 6.50 Manufacturing Employment Change in Cleveland and Tyne and Wear 1974-76

	Cleveland				Tyne and Wear			
	Employment (000s)		Change		Employment (000s)		Change	
	1974	1976	(000s)	(%)	1974	1976	(000s)	(%)
Traditional heavy inds.								
Metal manufacture	39.2	38.6	-0.5	-1.5	11.1	10.6	-0.5	-4.8
Chemicals, etc.	25.1	25.5	+0.4	+1.6	11.6	11.4	-0.2	-1.9
Mechanical eng.	1.7	1.9	+0.2	+8.6	27.9	28.1	+0.2	+0.8
Shipbuilding	4.5	4.3	-0.2	-4.0	30.5	29.8	-0.7	-2.4
Mobile light inds.								
Elec. and inst. eng.	7.6	5.5	-2.1	-27.8	32.1	27.6	-4.5	-14.0
Textiles	4.6	3.5	-1.1	-25.4	3.9	2.8	-1.1	-28.7
Clothing, etc.	5.1	4.6	-0.5	-11.3	12.0	10.7	-1.3	-10.4
Vehicles	0.8	0.7	-0.1	-13.9	2.1	1.9	-0.2	-9.2
Food, drink and tobacco	8.1	7.4	-0.7	-9.1	15.2	14.9	-0.2	-1.6
Other manuf. inds.	7.6	6.7	-0.9	-10.7	31.4	28.8	-2.5	-8.1
TOTAL	107.6	102.4	-5.2	-4.9	183.6	172.1	-11.5	-6.3

Source: Census of Employment (Unpublished data).

MLH 341 (Industrial plant and steelwork) is classified under metal manufacture, being closely linked with the iron and steel industry.

Table 6.51 Manufacturing Employment Decline by County, the North West and Yorkshire and Humberside, 1974-76

	Textiles				All other manufacturing				Total manufacturing			
	Employment (000s)		Change		Employment (000s)		Change		Employment (000s)		Change	
	1974	1976	(000s)	(%)	1974	1976	(000s)	(%)	1974	1976	(000s)	(%)
Greater Manchester	77.8	70.7	-7.2	-9.2	407.8	378.7	-29.1	-7.2	485.7	449.3	-36.4	-7.5
Lancashire	44.3	39.3	-5.0	-11.3	181.0	169.6	-11.3	-6.2	225.3	209.0	-16.3	-7.2
Merseyside	5.8	5.0	-0.7	-12.4	223.3	203.7	-19.6	-8.8	229.0	208.7	-20.3	-8.9
Cheshire	5.4	3.9	-1.5	-32.6	144.8	134.8	-9.9	-6.9	150.1	138.7	-11.4	-7.6
North West Total	133.4	118.9	-14.5	-10.9	956.9	886.8	-70.1	-7.3	1090.1	1005.7	-84.4	-7.7
West Yorkshire	104.6	88.6	-16.0	-15.3	270.0	252.3	-17.7	-6.6	374.6	340.9	-33.7	-9.0
South Yorkshire	6.3	5.6	-0.7	-11.2	210.7	199.7	-11.0	-5.2	217.1	205.3	-11.8	-5.4
Humberside	3.7	2.9	-0.8	-22.4	116.1	109.2	-6.9	-6.0	119.8	112.1	-7.7	-6.5
North Yorkshire	4.8	5.0	+0.2	+4.8	48.1	47.8	-0.1	-0.3	52.9	53.0	+0.1	+0.2
Yorkshire and Humberside Total	119.5	102.2	-17.3	-14.5	644.9	608.9	-36.0	-5.6	764.4	711.3	-53.1	-6.9

Source: Census of Employment (Unpublished data).

Table 6.52 Industrial Employment Change by Region 1976-1977

Region	Employment change (%) in			Employment change (000)			Total industrial employment change	
	Manuf.	Const.	Coal mining	Manuf.	Const.	Coal mining	(000s)	(%)
SE	+0.3	-2.6	*-1.9*	+4.8	-9.6	-0.1	-10.2	-0.4
EA	+3.5	-3.7	-	+6.9	-1.6	-	+5.2	+2.1
SW	+1.2	-5.9	-	+4.9	-5.5	-	-0.9	-0.2
WM	+1.3	-4.0	*-1.7*	+13.2	-4.3	-0.4	+8.1	+0.7
EM	+1.5	-3.6	+3.0	+8.9	-2.8	+2.0	+8.4	+1.1
YH	+0.6	-1.9	+2.5	+4.0	-2.1	+2.0	+6.6	+0.7
NW	-0.1	+1.0	*-2.4*	-0.8	+1.4	-0.3	-1.6	-0.1
N	-0.9	-0.4	-1.8	-3.8	-0.4	-0.8	-5.2	-0.9
Wa	+2.1	-6.8	*-0.5*	+6.3	-4.7	-0.2	-1.5	-0.3
Sc	+1.2	-4.3	*-2.2*	+7.0	-7.4	-0.6	-0.5	-0.1
GB	+0.6	-2.9	+0.5	+51.3	-37.4	+1.5	+11.0	+0.1

Source: *British Labour Statistics Yearbook* 1976 pp.132-139; *Gazette* 1980 pp.246-250.

Table 6.53 Industrial Employment Change by Region, 1977-78

Region	Employment change (%) in			Employment change (000)			Total industrial employment change	
	Manuf.	Const.	Coal mining	Manuf.	Const.	Coal mining	(000s)	(%)
SE	+0.7	+0.9	*+3.4*	+12.4	+3.2	+0.1	+13.6	+0.5
EA	-0.4	-1.7	-	-0.7	-0.7	-	-1.3	-0.5
SW	+0.8	-1.3	-	+3.6	-1.1	-	+2.2	+0.5
WM	-0.7	+0.7	+0.2	-5.9	+0.7	-0.0	-4.1	-0.4
EM	+0.4	-2.8	-0.1	+2.3	-2.1	-0.1	-1.6	-0.2
YH	-1.0	+2.0	-1.9	-7.5	+2.2	-1.5	-10.4	-1.1
NW	-0.7	-1.8	*-2.8*	-7.1	-2.5	-0.3	-9.7	-0.8
N	-2.5	-6.4	-0.3	-10.7	-6.1	-0.1	-17.2	-2.9
Wa	-0.2	-1.3	*-4.3*	-0.6	+0.8	-1.6	-1.1	-0.2
Sc	-1.9	-2.7	*-2.8*	-11.9	-4.4	-0.8	-13.1	-1.6
GB	-0.8	-0.8	-1.4	-26.5	-9.9	-4.2	-42.5	-0.5

Source: Census of Employment (unpublished - NOMIS).

The NOMIS figures represent a later revision than the figures published in the *Gazette*.

Table 6.54 Manufacturing Employment Change by County, 1976-78, the Northern Region

County	Manufacturing Employment (000s)			Change (000s)		Change (%)	
	1976	1977	1978	1976-77	1977-78	1976-77	1977-78
Tyne and Wear	172.1	168.7	162.4	-3.4	-6.2	-2.0	-3.7
Cleveland	102.4	97.1	93.7	-5.3	-3.4	-5.1	-3.5
Cumbria	69.5	69.7	69.8	+0.2	+0.2	+0.3	+0.2
Durham	72.1	75.7	74.6	+3.6	-1.1	+5.0	-1.4
Northumberland	22.2	23.2	23.0	+1.1	-0.2	+4.8	-0.8

Source: Census of Employment (Unpublished data).

Table 6.55 Manufacturing Job Loss and Employment Growth by Minimum List Heading, Counties in North East England, 1976-77

		County			
		Tyne and Wear (Metropolitan)	Cleveland	Durham	Northumberland
Manuf. employment (000s)	1976	172.1	102.4	72.1	22.1
	1977	168.7	97.1	75.7	23.2
Change (000s)		-3.4	-5.3	+3.6	+1.0
(%)		-2.0	-5.1	+5.1	+4.8
Employment in MLHs (000s) with declining emp. 1976-77	1976	122.6	66.2	20.3	9.9
	1977	113.7	58.6	17.6	9.0
Change (000s)		-8.9	-7.6	-2.7	-0.9
(%)		-8.1	-11.5	-13.3	-9.4
(% of *total* 1976 man. emp.)		-5.8	-7.4	-3.7	-4.2
Employment in MLHs (000s) with rising emp. 1976-77	1976	49.3	36.1	51.8	11.8
	1977	55.8	38.4	58.0	13.8
Change (000s)		+6.5	+2.3	+6.3	+2.0
(%)		+13.2	+6.5	+12.2	+16.9
(% of total manuf. emp.)		+3.8	+2.3	+8.8	+9.0

Source: Census of Employment (Unpublished data).

Table 6.56 Manufacturing Job Loss and Employment Growth by Minimum List Heading, Counties in the North West Region, 1976-77

		County			
		Merseyside (Met)	Greater Manchester (Met)	Lancashire	Cheshire
Manuf. Emp. (000s)	1976	208.7	449.3	209.0	138.7
	1977	203.3	447.2	212.3	142.0
Change (000s)		-5.4	-2.1	+3.4	+3.3
(%)		-2.6	-0.5	+1.6	+2.4
Employment in MLHs (000s) with declining emp. 1976-77	1976	120.9	237.7	94.2	50.5
	1977	108.7	225.5	89.1	47.5
Change (000s)		-12.2	-12.2	-5.1	-3.0
(%)		-10.1	-5.1	-10.7	-5.8
(% of *total* 1976 manuf. emp.)		-5.8	-2.7	-2.4	-2.1
Employment in MLHs (000s) with rising emp. 1976-77	1976	87.2	211.6	114.7	88.2
	1977	93.4	221.7	123.1	94.5
Change (000s)		+6.8	+10.2	+8.4	+6.2
(%)		+7.2	+4.8	+7.3	+7.1
(% of *total* 1976 manuf. emp.)		+3.3	+2.3	+4.0	+4.5

(Sectors with identical employment levels in 1976 and 1977 are omitted).

Source: Census of Employment (Unpublished data).

Table 6.57 Employment in Companies Wholly Related to the North Sea Oil Industry 1973-1985

Year	Employment (000s) in Companies Wholly Related to the North Sea Oil Industry							
	Central and Lothian	Fife	Grampian	Highland	Strathclyde	Tayside	Islands	SCOTLAND
1973	-	-	-	-	-	-	-	5.3
1974	1.1	1.2	4.8	4.9	1.2	0.3	0.1	13.5
1975	0.4	1.6	9.0	4.5	3.3	1.1	0.2	20.1
1976	0.7	2.0	11.5	6.8	4.2	1.4	0.4	27.1
1977	0.6	0.8	15.7	7.1	1.9	1.8	0.8	28.6
1978	0.6	1.4	22.9	6.0	0.5	2.1	0.6	34.0
1979	0.6	2.3	28.1	4.8	0.8	2.3	2.9	41.8
1980	0.9	0.9	32.3	4.4	2.7	1.8	3.5	46.3
1981	1.0	1.1	33.9	6.0	3.1	2.0	2.5	49.6
1982	1.2	1.3	40.0	7.4	3.8	2.5	2.2	58.3
1983	0.9	1.6	46.3	7.2	2.8	2.3	2.2	63.3
1984	1.0	1.4	49.5	4.4	3.4	2.3	2.0	64.1
1985	0.5	1.3	52.4	3.4	2.4	1.8	2.0	63.8

Source: *Scottish Economic Bulletin*, various.

Figures relate to June of each year, and *exclude* "employment associated with the building of fabrication yards and oil and gas terminals, offshore installation, pipelaying and engineering and other companies supplying these projects."

Table 6.58 Manufacturing Job Loss and Employment Growth by Minimum List Heading, Counties in North East England, 1977-78

		County			
		Tyne and Wear (Metropolitan)	Cleveland	Durham	Northumberland
Manuf. Employment (000s)	1977	168.7	97.1	75.7	23.2
	1978	162.4	93.7	74.6	23.0
Change (000s)		-6.4	-3.4	-1.1	-0.2
(%)		-3.7	-3.5	-1.4	-0.8
Employment in MLHs (000s) with declining emp. 1977-78	1977	117.6	59.9	41.9	14.4
	1978	107.6	51.6	37.2	12.7
Change (000s)		-10.1	-8.2	-4.7	-1.8
(%)		-8.6	-13.8	-11.2	-12.1
(% of *total* 1977 man. emp.)		-6.0	-8.5	-6.2	-7.7
Employment in MLHs (000s) with rising emp. 1977-78	1977	50.7	37.1	29.0	8.6
	1978	54.5	51.9	32.6	10.1
Change (000s)		+3.8	+4.8	+3.7	+1.5
(%)		+7.6	+13.0	+12.6	+17.5
(% of total manuf. emp.)		+2.3	+5.0	+4.8	+6.5

Source: Census of Employment (Unpublished data).

Table 6.59 Employment Change in the Service Sector, 1948-1987

Numbers Employed, (000s), United Kingdom

	Health and education	Public admin.	Professional and financial	Distributive	Misc.	Transport and commun.	Total
1948	1045.1	1413.3	704.2	2045.3	1838.3	1770.9	8817.1
1949	1059.4	1428.3	719.5	2113.7	1732.0	1759.8	8812.7
1950	1162.3	1402.0	723.0	2129.5	1687.3	1768.5	8872.6
1951	1189.3	1386.8	736.1	2161.6	1658.5	1741.3	8855.6
1952	1227.4	1376.3	747.8	2186.8	1631.1	1755.6	8925.0
1953	1246.8	1362.3	737.8	2236.9	1629.5	1727.1	8960.4
1954	1293.2	1367.7	780.6	2313.5	1631.5	1713.7	9100.2
1955	1327.7	1330.9	800.7	2377.8	1627.1	1708.1	9172.3
1956	1373.5	1342.0	823.7	2439.5	1620.2	1720.0	9318.9
1957	1404.6	1343.2	860.3	2511.1	1594.4	1714.9	9428.5
1958	1445.3	1341.8	873.4	2502.2	1480.1	1696.2	9439.0
1959(a)	1481.7	1345.8	918.0	2558.2	1588.6	1673.5	9566.8
1959(b)	1621.7	1283.2	871.7	2754.7	1993.9	1672.3	10197.5
1960	1676.1	1285.2	886.0	2832.6	1999.5	1662.5	10341.9
1961	1739.5	1306.5	921.2	2860.6	2014.4	1687.7	10529.9
1962	1820.5	1335.9	956.8	2930.4	2089.3	1698.3	10831.2
1963	1882.4	1385.7	991.9	2964.8	2104.2	1677.7	11006.7
1964(a)	1968.8	1318.1	1013.9	2985.1	2190.8	1662.0	11138.7
1964(b)	1978.9	1320.7	1016.7	2997.5	2199.8	1665.1	11178.7
1965	2056.1	1338.1	1052.2	3022.5	2225.7	1655.1	11349.7
1966(a)	2166.0	1383.0	1055.5	3034.9	2247.2	1628.5	11515.1
1966(b)	2166.6	1381.2	1050.4	2986.8	2236.2	1634.9	11456.1
1967	2275.1	1427.6	1063.8	2857.3	2153.1	1628.7	11405.6
1968	2335.5	1440.4	1092.3	2832.0	2138.3	1609.7	11448.2
1969(a)	2406.8	1421.9	1121.6	2771.3	2141.6	1570.3	11433.5
1969(b)	2413.8	1417.0	1328.9	2758.6	1924.2	1577.2	11419.7
1970	2454.3	1430.2	1397.1	2706.2	1845.8	1590.6	11424.2
1971(a)	2514.4	1457.8	1446.6	2634.0	1831.3	1587.2	11471.4

Table 6.59 (cont.)

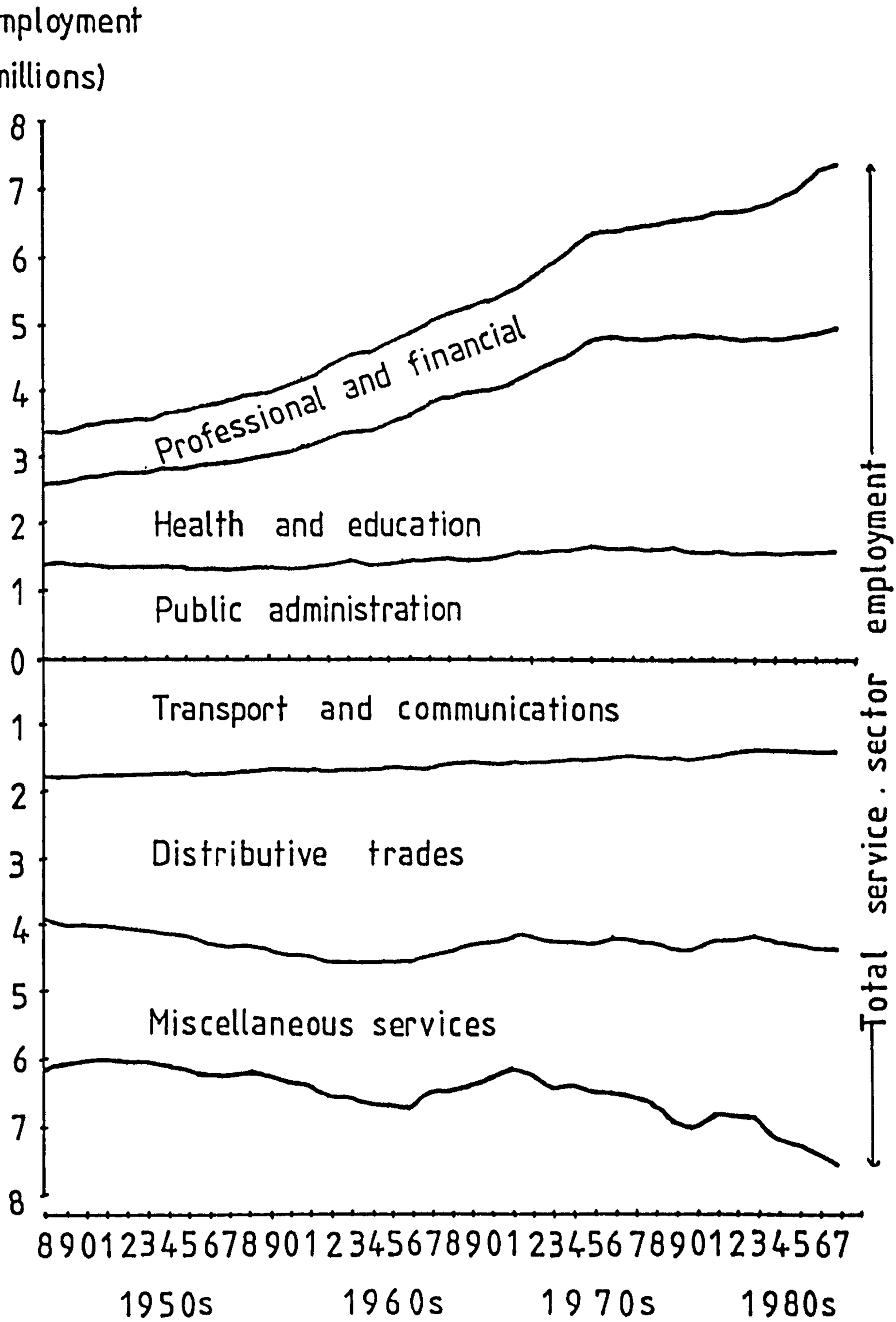
Numbers Employed (000s), United Kingdom

	Health and education	Public admin.	Professional and financial	Distributive	Misc.	Transport and commun.	Total
1971(b)	2573.4	1509.2	1390.9	2609.7	1946.2	1568.0	11597.4
1972	2680.3	1551.4	1421.6	2640.4	2040.1	1543.2	11877.0
1973	2797.1	1583.4	1510.4	2743.7	2152.7	1524.5	12311.8
1974	2907.2	1595.6	1582.4	2760.8	2125.1	1506.4	12477.5
1975	3080.0	1654.5	1578.8	2762.7	2202.1	15.8.0	12796.1
1976	3173.6	1626.6	1584.1	2722.7	2298.9	1474.6	12880.5
1977	3165.3	1614.5	1625.7	2752.7	2343.4	1467.9	12969.5
1978	3177.7	1605.0	1701.4	2779.7	2414.2	1482.7	13160.7
1979	3198	1617	1702	2869	2548	1497	13431
1980	3249	1592	1775	2877	2629	1504	13626
1981(a)	3232	1573	1871	2767	2579	1443	13435
1981(b)	2900	1632	1784	2893	2665	1527	13401
1982	2902	1594	1819	2957	2701	1471	13444
1983	2886	1606	1885	2934	2747	1441	13499
1984	2900	1602	1980	3005	2907	1441	13835
1985	2927	1613	2092	3052	3054	1450	14188
1986	2961	1619	2302	3080	3173	1451	14586
1987	3016	1642	2324	3105	3305	1457	14849
			Change (000s)				
1948-66	+970	+31	+395	+781	-5	-144	+2028
1966-71	+341	+82	+189	-340	-188	-55	+29
1971-79	+625	+108	+311	+259	+602	-71	+1834
1979-83	+20	-70	+240	-61	+113	-140	+102
1983-87	+130	+36	+439	+171	+458	+14	+1248

Sources: *Historical Abstract, Yearbook, Annual Abstract of Statistics*, 1987, 1989.

For 1981(b) to 1987, the following groupings have been made from the 1980 SIC divisions and classes: Health and education 93, 95; Public administration 91; Professional and financial 81, 82, 83, 85, 94; Distributive 61, 62, 63, 64, 65; Miscellaneous 66, 67, 92, 96, 97, 98; Transport and communications 7, 84.

Fig 6.1 Employment Change in the Service Sector, 1948-1987



Source: Table 6.59

Notes to Chapter 6

1. Those works which have attempted sub-regional analysis of employment change in the period up to 1971, notably Chisholm and Oeppen (1973), Keeble (1976) and Fothergill and Gudgin (1979b, 1982), have used unpublished figures on employment by sub-region, but not on a year-to-year basis.

2. *National Online Manpower Information System*, held at the Universities of Durham and Newcastle on behalf of the Manpower Services Commission.

3. A methodological point of perhaps some importance is involved here. If one starts a historical analysis by searching for a *trend*, an "underlying" time-profile of change which is amenable to mathematical expression and by implication smooth, then one is thereby adopting the assumption that change is smooth, and that any deviations from the smooth path of change can be regarded as erratic, as being (for example) mere cyclical deviations from the trend line. To split an economic time series into a trend term, a cyclical term and a residual term can often confuse the issue rather than clarify it.

   In many circumstances the concept of a long-run average is more flexible than the concept of a trend. If for example a city's employment declines by an average of 1% per annum over twenty years, this is a meaningful average, but does not carry the implication(as the use of the term "trend" would) that a decline of employment of 1% would be characteristic of each of years 1, 2, 3, ... 20. More subtly, but central to the argument of chapter 2 above, the average rate of growth in the economy between two points of full employment is set by the rate of growth of productivity and the rate of growth of population. This natural growth rate is a fundamental characteristic of the economic system but is not a "trend". Indeed the long-term tendency is for long periods of slow growth to be followed by long periods of fast growth as the system gradually and imperfectly equilibriates; the proper way of modelling such fundamental fluctuations would appear to be in terms of a cycle of change (with full allowance being made for possible sudden shifts in the system) rather than in terms of an uncoordinated series of medium-term trends.

4. See especially Fothergill and Gudgin (1979b, 1982, 1983) and Cambridge Economic Policy Group (1980), also Keeble (1980c) and Spence and Frost (1983) and, for various international perspectives, Hall and Hay (1980), Keeble, Owens and Thompson (1983). It was well known by the late 1970s (see for example the 1976 conference papers collected in Evans and Eversley 1980) that major cities, and particularly their inner industrial areas, were undergoing severe employment decline, but the advocates of the central importance of the urban-rural shift go considerably beyond this position. The basic argument is that employment tends to decline sharply in major cities and to rise in more rural areas, with a strong negative correlation between degree of urbanisation and rate of employment change, and furthermore that urban decline and rural resurgence are directly and strongly causally related, the basic causal mechanism being suggested (particularly by Fothergill and Gudgin) as the search for space to expand by firms with their capital equipment tied up in congested, and possibly expensive, urban locations. Furthermore, it is suggested that this urban-rural shift *dominates* the map of employment change and also (e.g. Spence and Frost 1983)

that regional factors are irrelevant.

While it is not disputed that heavily urbanised areas have performed less well in employment terms than less urbanised areas (the term urban-rural shift thus having *descriptive* significance), the type of analysis outlined above is regarded here as being unsatisfactory in that (a) it neglects the point that job loss is, outside London, primarily recession-induced, with the reason why jobs are often lost on a large scale in the main cities being not that they are relocating in less urbanised areas, but rather that traditional urban industries are severely affected by recession, and (b) the regional dimension is very important, despite claims to the contrary. The type of process identified by Fothergill and Gudgin undoubtedly exists, but is not as dominant as has often been suggested.

5. Compare Sayer and Morgan (1985) with Fothergill and Gudgin (1985). Despite disagreements with the interpretation of the results produced, the present author is in basic agreement with the methodological guidelines produced by Fothergill and Gudgin (1985 pp.98-104), and in particular the need to develop a comprehensive accounting system to indicate what the main changes in the system are, to outline their relative significance, and to provide a method of relating the particular to the aggregate. Only then, when it has more clearly been indicated what is significant and what is of marginal importance, can an industrial geography be developed in which the changing structure of the firm can be used to help explain changes outside the firm.

6. Keeble (1976) goes further than most in relating the geography of employment change in particular industries to general employment geography, while Townsend (1983) makes various attempts to track the geography of job losses in slump back to the geography of change in particular industries. Massey and Meegan (1982) are far less helpful in this regard, implying in effect that patterns of employment change and patterns of change in production are so complex that it is not worth while examining aggregate patterns of change. Such an approach creates precisely the theoretical impasse which it is necessary to break.

There are of course many detailed research papers available on employment change in particular industries in particular settings.

7. See for example Townsend and Peck (1985a, 1985b), Lloyd and Shutt (1985) Healey and Watts (1987), and other papers in Lever (ed. 1987), also the references cited in these papers.

8. The British economy faced severe balance of payments difficulties through the 1960s (Tew 1978, Thirlwall 1980) and pressures accumulated during the mid-1960s for a devaluation of sterling. It was rumoured (see Thirlwall 1980 p.165) that the Conservative Party had in 1964 prepared a contingency plan for devaluation of the pound, for use in the event of re-election. The incoming Labour Government was opposed to devaluation, with arguments such that devaluation would undermine Britain's integrity as a financial centre, or would be seen as a sign of economic weakness from a Labour Government (Cairncross and Eichengreen 1983 p.164). The balance of payments position improved in the cyclical upswing up to 1966, but in 1967 there was a sudden deterioration which ultimately forced the Government's hand (Thirlwall 1980 p.165). Even so, the Government reacted very slowly, hoping up to the end that a pre-election boom in the USA in early 1968 would rescue

sterling (Cairncross and Eichengreen 1983 pp.187-188). Finally in November 1967 the pound was devalued by 14%, from $2.80 to $2.40, although the overall fall in the international exchange rate of sterling was not as great as this as other countries devalued in turn.

The need for devaluation reflected a deteriorating competitive position in the British economy, under conditions of fixed exchange rates. With exchange rates being unable to fluctuate, any such deterioration in competitiveness will lead to the currency being overvalued, which will tend to depress industrial production and to cause balance of payments problems. There are two basic approaches to this type of problem, either to depress the domestic economy so that the rate of growth of imports is checked, or to allow sterling to achieve a more appropriate level on international markets, either by letting the currency float or by devaluation. The problem with the former approach, though, is that slowing down the domestic economy will tend to intensify this lack of competitiveness, depressing the rate of growth of industrial output and thus the rate of growth of productivity. Unfortunately, under the guise of stop-go policy (see also chapter 1, note 29), it was this type of approach which was followed; the relatively unimportant battle for sterling was fought with more vigour than the more critical battle for international competitiveness.

The type of weakness being outlined here might not matter too much if (and this is a very big if) the world economy could have maintained in perpetuity the boom of the late 1950s and early 1960s. Any fading away of the boom would leave a country with a weak competitive position and an overvalued currency in severe difficulties; this is the background to the 1966-68 recession. In addition, the imposition of Selective Employment Tax in 1966 would appear to have had an especially severe adverse effect on employment levels in construction and services (see next note).

9. For details of the Selective Employment Tax in 1966 and the background to its imposition see Reddaway (1970, 1973), Price (1978 pp.149-153). It was hoped that by imposing a tax on employment in construction and services, productivity growth would be enhanced in these sectors, releasing labour to manufacturing industry and thus increasing international competitiveness. Instead, it seems, the tax raised costs in these sectors, depressed output and led to substantial job losses. See the more detailed critique in section 6.9 below.

10. Employment increased in health and education, but declined sharply in miscellaneous and distributive trades; see section 6.9.

11. Ashworth (1986) notes that attitudes in the coal industry were optimistic for the first ten years after nationalisation, with fast and steady economic growth providing abundant opportunities for expanding the domestic market for coal. From 1956, however, consumption declined sharply (down 15% between 1956 and 1959) and stocks built up. See chapter 5, note 35, and Table 6.8 for year-to-year details of employment levels. As with other "old" industries particularly severely hit by the recessions of the 1920s and early 1930s (e.g. textiles and shipbuilding) the post-war peak in employment in coal mining came early, a decade or so before the peak in "newer" sectors.

12. In the more developed countries, productivity in man-hour terms had typically increased by just under 2% per annum in the late 19th century and the first half of the 20th century, without

any *unambiguous* tendency for the rate of productivity growth to increase through time. During the "Golden Age" from about 1950 to the early 1970s productivity increased by about 4-5% per annum (see for example Maddison 1982 p.96) before productivity growth slowed to about 2½% per annum. There are various ways of interpreting this pattern of change, which inevitably reflects at least in part an acceleration of technical change. One point which needs to be emphasised, though, is that despite the rapidly expanding demand conditions, and the backlog of investment opportunities which had built up during the War, the advanced industrial economies were faced with persistent labour shortages. To meet substantially expanding demand at a time of labour shortage, firms were forced to concentrate their attention on technical change and on increasing productivity; one could not increase output dramatically by simply expanding the level of employment in the firm.

Statistically, therefore, the situation in the manufacturing sector in the post-war decades was one of rapidly expanding output, rapidly expanding productivity, and a relatively slow expansion of employment. The rapidity of growth in productivity is, in *causal* terms, more an explanation of the rapidity of growth of output than of the slowness of growth of employment. Indeed the dynamism of the post-war industrial sector, and the strong growth in real wages thereby implied, would tend to mean that during the boom the industrial sector would successfully outbid the service sector in labour markets, leaving scope for industrial employment to expand.

13. Employment in manufacturing in the UK grew by 17.1% (1.3% per annum) between 1948 and 1960, but by only 2.0% (0.3% per annum) between 1960 and 1966, at a time of international economic boom. In the USA, in contrast, manufacturing employment grew by 14.4% (2.3% per annum) between 1960 and 1966, a major acceleration from the 0.5% per annum average between 1945 and 1960. Productivity in manufacturing increased by 3.8% per annum in the USA between 1960 and 1966, and by 2.6% per annum in the UK, indicating that Britain's static level of manufacturing employment was due more to competitive weakness than to increased mechanisation. Figures derived from Liesner (1985).

14. *Economic Trends, Annual Supplement 1985* p.59.

15. In view of the post-war housing shortage, levels of public sector house construction were very high, at well over 200,000 per annum, in the late 1940s and early 1950s, but then fell sharply to about 100,000 per annum in the late 1950s and early 1960s at a time when increasing affluence led to major expansions of housing in the private sector. Yet awareness of the persistence of sub-standard housing, particularly in the older housing stock, and of continued overcrowding and homelessness despite full employment, prompted the Labour Government to step up public sector housebuilding in the mid-1960s with the peak year being 1967 when 214,000 public sector housing units were completed.

The expansion of public sector house building in the mid-1960s is, in itself, to be welcomed, but it must be stressed that the *type* of housing which was built left a lot to be desired; the unit of construction was often the tower block rather than the individual house (Berry 1974 p.84), and this type of construction was carried out not because of any popularity it might have had among residents, but because it was technically possible and relatively cheap. Coleman (1985) provides a vivid critique of the the long-term social effects of poor design in this type of housing.

Much of the 1960s boom in public sector house-building was thus based on "system building", but the technical problems of this type of building were shown in tragic fashion in 1968 when a gas explosion in a London tower block caused a large part of the building to collapse. It was this, and the realisation that even existing tower blocks were in urgent need of expensive repairs, which caused the downturn in high-rise building, and also the downturn in public sector housing construction (Berry 1974 pp.86-87), which fell by nearly half between 1967 and 1972.

The downturn in employment in construction in the late 1960s was very severe, despite the sharp rise in the early 1960s. Perhaps three factors need to be considered; the general high cyclical sensitivity of construction activity, the specific effects of Selective Employment Tax, and the specific effects of the rise and fall of high-rise system building.

16. Indeed one of the most prominent features of the geography of the Industrial Revolution has been what might be termed the deindustrialisation of the South. In particular, London's role as an industrial centre declined (Hall 1962, Jones 1971), while the wool industry, which had been prominent in the South West and East Anglia up to the 18th century (Darby 1973 pp.355-359), declined in the South in the 18th and 19th centuries, but expanded greatly in Yorkshire (see especially Wilson 1973).

17. For East Anglia, the centre of perhaps the most prominent industrial developments of this type, see Moseley and Sant (1977 especially pp.44-49).

18. This result has been much replicated; see especially the official survey conducted by R.S. Howard (Board of Trade 1968) and the general discussions in Sant (1975) and Keeble (1976). Industrial migration studies have generally paid more attention to the recipient areas than to the donor areas, but Keeble (1968) provides an important study from the point of view of North West London, one of the key growth centres for the new industries, and one of the key donor areas.

The point is not just that London was "congested" and that regional policy helped firms to decentralise; London was also, for reasons discussed in chapter 4, the "seed bed" for many of the new industries of the 1920s and 1930s which were expanding very quickly in the 1950s and 1960s, and thus requiring large numbers of new production sites. These new industries developed in an area, London, which despite its very large market was traditionally under-industrialised; hence the somewhat counter-intuitive finding that long-distance industrial migration was primarily from *less* industrialised areas to *more* industrialised areas.

19. There is of course a considerable literature on the growth of the British textile industry, but not so much, outside the realm of press reports, on its post-war decline. Miles (1968 pp.79-101) noted that several old problems in the cotton industry (stagnant productivity, an undynamic corporate and market structure, etc.) were again becoming critical after about 1958, with rapidly increasing import penetration representing a new threat. Miles (1968 p.79) suggests that "the present (1967) crisis will perhaps be regarded, when it can be seen in perspective, as the collapse of much of the older Lancashire industry, complicated by the fact that the multi-fibre multi-product firms have large investments in the traditional sectors". The long-term problem is, in retrospect, perhaps even more severe than Miles suggested as the spiral of

industrial decline starting in the mid-1960s was extremely intense.

Presumably there were strong parallels on the other side of the Pennines. Hardill (1987) indicates and analyses the various problems of slow growth of markets, shifts of production by multinationals towards third world locations, the decline of small firms, and the overall high rates of job loss, particularly in West Yorkshire.

Throughout the late 1960s and 1970s the textile industry was consistently shedding jobs in Britain; this is a recurrent theme in the analysis presented in the text.

20. See especially Keeble (1976 pp.181-191).

21. See section 6.7(ii) below. An important analytical distinction needs to be drawn between decentralisation from traditional areas of an industry (which in the case of the vehicles industry often meant decentralisation from one conurbation to another) and general decentralisation from conurbations.

22. The West German "economic miracle" of the post-war years, through which a dynamic modern industrial economy was built out of a war-destroyed economy, has been much commented on. The phrase "economic miracle" eventually became so hackneyed that a slight and temporary shift in the geography of industrial employment could lead to the most unlikely places being described as having an economic miracle. Thus there were "economic miracles" in South Wales (House 1982 p.55) and even Merseyside (Rodgers 1980b pp.287-294) and, more plausibly, the West Midlands (Wood 1976 p.50). That economic miracles could be identified only at the regional or sub-regional scale does not speak highly of the competitiveness of the post-war British economy.

23. Rodgers (1980b pp.278-281). The Merseyside ports were extremely depressed during the inter-war years as a result of the depths of depression in the Lancashire hinterland (Board of Trade 1932b pp.55-60; Rodgers 1980b), while decline in employment in the port transport sector continued throughout the long boom but at a modest pace.

24. The basic problem was that during the post-war upswing the railways were being competitively squeezed by road transport for freight services, and by the motor car for medium distance passenger journeys (Freeman and Aldcroft 1985 pp.109, 113). In the 1950s British Railways attempted to deal with this problem by an extensive modernisation scheme, but in the early 1960s this approach was reversed, and rail services were drastically cut in an attempt to create a profitable "core" network (Freeman and Aldcroft 1985 pp.108- 120;: British Railways Board 1963).

This sequence of events clearly had identifiable effects, detectable in regional employment figures, on the railway vehicles industry. In the early post-nationalisation years the number of new locomotives constructed stood at about 400, but fell to around 300 by the mid-1950s. During the modernisation phase, the number of new locomotives quickly increased, reaching 800 in 1960 (the construction of carriages peaked slightly earlier), but there was an extremely sharp downturn in construction thereafter (Freeman and Aldcroft 1985 pp.107, 111).

25. The usual assumption is made that the official published statistics are reliable unless it can be proven, or unless there is strong reason to believe, otherwise. Here, as in other cases, there might well be an important margin of error.

26. Forsyth (1972) is the most detailed reference. See also Keeble (1976 pp.197-198), Warren (1980e pp.389-390), Firn (1975).

Dicken and Lloyd (1976) attempt to outline the basic geography of foreign-controlled, and particularly American-controlled, employment in the UK, although the information available at the time was, as the authors pointed out, patchy. Foreign-controlled employment, as of 1963, was particularly strongly concentrated in the South East and East Anglia (about 12% of total employment in these regions) with important lesser concentrations in Wales (8.5% of total employment in the region) and Scotland (7.2%). Other regions had relatively low levels of foreign-controlled employment.

27. Keeble (1976 pp.194-199) notes as factors behind the dispersal of the electronics industry since the 1950s, (i) very rapid growth, stimulating much migration of firms, seeking new premises for increased production, away from London and the Inner South, and (ii) an acute sensitivity to availability of female labour (*cheap* female labour as Massey 1984 pp.140-141 emphasises) as increasing technological maturity, standardisation of products and widening markets have encouraged large-plant mass-production.

28. See for example Keeble (1976 pp.194-199). It perhaps needs to be emphasised that "technologically more advanced" does not *necessarily* mean "economically more progressive"; see note 80 below.

29. The question of building cycles has been much discussed in economic history (for example Lewis 1965, Richardson and Aldcroft 1969, Cooney 1949 and several others) yet little has been written about recent construction cycles. In the late 19th century building cycles were very strongly marked as international migratory flows were both intense and highly cyclical, causing considerable fluctuations in the demand for housing.

The accelerator principle suggests that given a substantial capital stock already in existence the demand for new capital goods tends to be related more to the rate of growth of demand for consumer goods than with the actual level of demand for consumer goods, as it is the rate of growth of demand which determines whether the existing level of capital equipment is sufficient to meet anticipated demand. Clearly such a mechanism affects cyclical fluctuation in the demand for new industrial building, while a parallel mechanism can be suggested in the housing sector in that areas of rapid employment growth soon encounter housing shortages and a substantial component of the housing construction sector responds to demand created by the rate of change of population rather than to the level of population itself. This would affect the geography, as well as the timing, of house-building.

30. Cheshire and Lancashire were the main regional centres of employment in these industries. In 1971 Cheshire had 5,300 out of the region's 8,500 jobs in railway vehicles, with Crewe being an important traditional centre for railway engineering, while Lancashire had 16,200 out of the region's 32,200 jobs in aircraft.

31. Merseyside had 48,000 out of the region's 116,100 jobs in food, drink and tobacco in 1971, and 29,400 out of the region's 40,100 jobs in water transport (MLHs 705, 706).

32. See Keeble (1976 pp.172-181). The main traditional centres of the clothing industry have been in London, because of high levels of consumer demand, and West Yorkshire and Greater Manchester, because of links with the textile industry and also various agglomeration economies, as well as demand factors. Keeble suggests that the decentralisation of the 1960s resulted from two factors; a high closure rate of small inner city clothing firms and a substantially increased migration of existing medium or large firms, generally through branch plant establishment.

33. See for example Keeble (1976); the migratory propensity of the electrical engineering industry to large numbers of destinations is particularly well known (e.g. Keeble 1976 pp.191-199), while even in a *declining* light industry such as clothing there has been a notable decentralisation of employment from the cities to the assisted areas (Keeble 1976 pp.172-180).

A cautionary note needs to be added, though. While in *employment* terms the main effects of regional policy have been on the light industries, and also the motor vehicle industry, regional policy incentives have generally been in the form of investment subsidies rather than employment subsidies. The recipients of the largest amounts of regional policy assistance have often been not the migratory light industries locating in assisted areas for the first time, but rather heavy industries, already located in the assisted areas, extending their capacity with often relatively little gain in employment. See especially Storey and Robinson (1981).

34. This would at least in part reflect the operation of the well-known accelerator mechanism through which fluctuations in employment and output tend to be greater in capital goods industries than in consumer goods industries; a small reduction in output will tend to lead to a large reduction in orders for new machinery.

35. It is hazardous to draw strong conclusions about the late 1960s from early 1970s data, but between 1971 and 1973 employment in electrical and instrument engineering increased by 83.7% (+1,800 jobs) in Cornwall, by 32.2% (+2,800 jobs) in Devon, and by 15.7% (+1,500 jobs) in Gloucestershire, but remained relatively static elsewhere. This configuration suggests a strong regional policy element and a relatively weak "local decentralisation" element, without conclusively proving that the same also applied for the late 1960s.

37. See Keeble (1976 pp.172-181) on the clothing industry. Very little appears to have been written by academics on the timber and furniture industry.

38. There are of course important city-to-city variations in the squeeze on small firms in inner cities. For example in inner Manchester between 1966 and 1975 employment in single plant firms fell by 15,000, or 44%, a rate very slightly exceeding the rate of decline of employment in multi-plant firms (Dicken and Lloyd 1979). Thus the inner city industrial problem in Manchester was as much the problem of small local firms facing an adverse environment as of large employers pulling out of the city (although an additional element was also important; large firms taking over and rationalising small firms). In London, as in Manchester, the squeeze on traditional small industries such as clothing was important (see for example Harrison 1983 pp.52-70 for an early 1980s description) while the long history of industrial migration from London may well have reinforced patterns of decay in small firms

in other manufacturing sectors (Gripaios 1977).

39. This is particularly the case for the city in the age of motor transport. The increased flexibility of transport this important innovation allowed made it increasingly feasible for individuals to live outside the city while still working in the city and for firms to produce outside the city without the urgent need to be close to either rail transport or water transport. Second generation effects follow when these decentralised concentrations of population (often still earning their income in the city) and production themselves become focal points for new growth. However vigorous this growth, though, the local economy still remains functionally very much part of the dominant city economy even if there still remains open space between outer suburb and city.

Should this process be regarded as one of suburbanisation, as an expansion of the city, or an an urban-rural shift, a contraction of the city? Clearly there is disagreement on this point between the current author (favouring the former approach) and Fothergill and Gudgin (1982) (favouring the latter approach). This basic difference of definition perhaps needs to be borne in mind when comparing various interpretations of urban decline.

40. Thus, at a very basic level, development within an existing built-up area requires the displacement of an existing urban activity, while development outside the built-up area merely means the displacement of agriculture, a less intensive land-use activity. The position is complicated by Green Belt legislation, designed with a view to preventing this spread of the built-up area into open country; the experience of London, however, suggests that often what happens is that industrial firms and residential developers simply jump across the Green Belt.

41. The word "conurbation" was, it seems, coined by Geddes (1915); Fawcett (1932) extended the discussion. Freeman (1966) distinguished between "major conurbations" (Merseyside, Tyneside, etc.) and "minor conurbations" (Leicester, Brighton, etc.). In more recent analysis, the tendency has been to restrict the use of the term "conurbation" to the major conurbations and to analyse minor conurbations as "free-standing cities", each with a hinterland. In labour market terms a major conurbation will tend to be comprised of several travel-to-work areas (Manchester, Bolton, etc.) while a free-standing city will generally be represented by a single travel-to-work area (e.g. Nottingham). Especially in industrial areas a conurbation tends to be polycentric, a very densely urbanised sub-region rather than a single city.

A very clear distinction is drawn in the text between a conurbation (a densely urbanised sub-region, but containing some less urbanised areas) and city (the continuous built-up area around a major service and industrial centre). In analysing economic change in the conurbation, it is essential to consider areas on the urban fringe as well as the pre-existing built-up area.

42. Thus it is suggested that Keeble (1977) misinterpreted the situation when he argued that "the period since about 1965, and in fact particularly since 1970, has witnessed striking convergence of nearly all .... indices of regional economic performance towards the national average. ..... There is also now substantial evidence that the major single influence at the Development Area/South East and Midlands level has been regional economic policy." (Keeble 1977 pp.4-5; although there are several sentences between the two cited, it is suggested that the sense of the original is preserved).

The mid-1960s convergence may be attributed to regional policy, but *not* the 1970s round of convergence. Year-by-year analysis, presented in the main text suggests three main features of this new convergence in the 1970s:

(1) A slowing down of job losses in coal mining (not mentioned at all by Keeble).
(2) An intensification of the squeezing out of industry from London, throughout the 1970s but particularly during the 1972-73 land boom.
(3) A greatly increased vulnerability to recession in the West Midlands, particularly in the 1974-76 recession.

Factors (2) and (3) might have been exacerbated *slightly* by the effects of regional policy, but primarily reflect broader structural changes in the economy.

A case like this shows the importance of analysing change in the space-economy on a year-by-year, sector-by-sector, region-by-region basis, rather than relying on generalised trends to explain broad patterns of change.

A brief final point should be noted. Keeble (1977, 1978) relies heavily on the convergence of unemployment relativities as a sign of regional convergence. As pointed out in chapter 3.6, however, such a procedure is fallacious; the method used by Keeble has an *extremely* strong in-built bias towards indicating "convergence" whenever national unemployment rates are rising. Indeed it is perhaps preferable to suggest that the 1970s were characterised not so much by convergence as by a slowing down of divergence; North-South differences in the rates of growth were reduced rather than reversed.

43. See Buxton and MacKay (1977 pp.64-67). Two main differences may be noted. Firstly, the old insurance card estimates were based on the number of *employees* while the Census of Employment figures are based on the number of *jobs*, with no account being taken of double job-holding, which is likely to be particularly prominent in the service sector. Secondly, since the Census of Employment is based on employers' returns rather than on employees' work records, it is clearly administratively impractical to cover domestic employment, whether this takes the form of domestic service employment or industrial outwork. Once these points have been taken into account, however, most of the difference between the two sets of results would probably be accounted for by one set of data being an estimate and the other set being a more precise census.

44. It is, unfortunately, common for the ideas of "deindustrialisation" and "post-industrialisation" to be confused. "Deindustrialisation", a term much used in the late 1970s, indicates a situation where problems of industrial decline or of slow industrial growth, pose severe problems for the integrity of the economy as a whole. The background situation is generally one of a weakly competitive industrial sector at a time of prolonged international recession and rising unemployment; this is the basic situation concerning the British economy in the period described in chapters 6, 7, and 8. Post-industrialisation, in contrast, represents a situation in which the service sector becomes the dominant engine of growth, gradually pushing the industrial sector into a residual position (see for example Bell 1974). These are highly distinct processes; for example deindustrialisation implies that persistent high unemployment will be a problem while in a process of post-industrialisation the continuation of relatively low levels of unemployment would be the norm, as under

post-industrialisation there is no deficiency in aggregate demand, merely a shift in aggregate demand from industry to services. Under deindustrialisation the decline of industry pulls down the whole economy with it, while under post-industrialisation the industrial sector is squeezed out by a buoyant service sector.

It is important to keep these concepts very distinct. Goddard (1983 p.1) rather confusingly indicates as signs of "deindustrialisation" an increase of employment in service industries, particularly in the public sector, increased female participation, rural revival, etc. Yet this list of signs has little to do with deindustrialisation; if anything the processes cited are likely to be more strongly marked in an economy which is not deindustrialising. Declining manufacturing employment and increased unemployment are far more relevant indicators of deindustrialisation. Lever (1987b) even more confusingly attempts to fit the decline of the Clydeside economy into a "post-industrial" context, and in passing cites a work (Gershuny 1978) highly critical of the post-industrial thesis in support of the post-industrial thesis. Glasgow, Lever suggests, is in a course of transition from an industrial city to a post-industrial city, and a far more egalitarian city. Unemployment has risen, but this is argued by Lever to by only a transitional feature, and in any case to represent part of the increased leisure time predicted in the post-industrial thesis. Lever accepts uncritically what seems to the present author to be an extremely dubious proposition, that the post-industrial society is on its way and that while the transitional process has been more painful than expected the decline of industry is not a real problem. Thus history is seen as progress with a few awkward bumps to be ironed out. The combination of falling employment levels, rapid industrial decay up to the end of the slump, and high unemployment throughout suggests that Glasgow is a *deindustrialised* city, not a post-industrial city.

45. Figures, based on Department of Employment and Productivity statistics, taken from Foster and Richardson (1973 pp.103, 108-9). Foster and Richardson did not at this stage regard such job losses as requiring urgent remedial action since net emigration from London brought the labour market into balance.

46. Thus, "in other towns and cities the proportion of factories with no room for expansion is not known, but in London we can safely assume the proportion is close to 100%" (Fothergill and Gudgin 1983 p.41). Fothergill and Gudgin proceed to argue that this assumption of total physical constraint would explain a fall of 25% in London's manufacturing employment between 1966 and 1975, compared with the fall of 34% which actually took place. The difference is explained in terms of a fall in industrial floor-space as a result of of redevelopment and the encroachment of other land uses such as warehousing, yet as Buck et al (1986 pp.49-53) point out this implies a *weak* demand for manufacturing floor-space in London when compared with demand for other types of land and not the *strong* demand for industrial land implicit in Fothergill and Gudgin's arguments. Furthermore, Dennis (1980) notes that the high rate of manufacturing job loss in London between 1966 and 1974 was chiefly accounted for by factory *closures* rather than by in situ shrinkage of employment, a result which is again inconsistent with Fothergill and Gudgin's basic argument.

47. See especially Keeble (1968), discussing the migration of factories from North West London in the early 1960s. The two main reasons for industrial migration were given as lack of scope to expand in existing sites and (in the context of full employment) severe labour shortages. The sectors in which migration was most significant were the rapidly expanding sectors (notably electrical engineering and mechanical engineering), while there was a fairly even split recorded between short-distance migration (less than 100 miles) and long-distance migration.

48. Small industrial firms, as well as large industrial firms, would have been adversely affected by the high direct and indirect costs (high wages, high land costs, congested sites, transport difficulties) of a London location, but would have less flexibility to deal with these costs by a spatial reorganisation of production. It is unclear, though, from published information whether London's industrial job losses of the late 1960s and early 1970s were concentrated in small factories owned by single-plant firms or not. Dennis (1980 p.59) shows that for inner London factories with over 25 employees, establishments (as opposed to firms) with between 25 and 99 employees accounted for 26% of total manufacturing jobs in 1968 and 35% of all jobs lost from closures, the dominant form of industrial job loss in London, between 1966 and 1974. Establishments with more than 500 employees accounted for 39% of employment and 24% of job losses through closures. This suggests that possibly small factories in London were slightly more vulnerable than large factories, but once one takes into account the point that a given percentage reduction in capacity will tend to lead to closures of whole factories in the small factory sector and the scrapping of *parts* of factories in the large factory sector, the difference does not seem large.

49. Keeble (1976 p.124) cites an example, while in no way suggesting that this example was a unique case.

50. The historical persistence of this type of pattern may be seen by reference to the 1911 Census. In Lancashire, Manchester and surrounding towns had high proportions of their total employment in the "general engineering and machine making" industry (contemporary definition), thus 7.6% in Manchester/Salford, 10.4% in Bolton, 9.5% in Rochdale and 15.9% in Oldham. Away from the South East Lancashire hub of industrial activity the proportion employed in engineering fell sharply; 5.3% in Blackburn and 3.8% in Burnley, on the outer edges of the textile zone, 5.0% in Preston and only 3.3% in Liverpool.

Similarly, in Yorkshire, engineering employment orientated itself to Leeds (9.8%), with surrounding towns having substantially lower percentages (Bradford 4.3%, Huddersfield 5.7%, etc; Halifax, 9.7% was an important exception). There were moderate concentrations of employment in engineering further south (6.7% in Sheffield, 8.0% in Rotherham, 3.9% in Barnsley) but generally low levels in towns to the east (5.5% in Hull, 3.3% in York). Rural areas generally had low percentages of employment in engineering; 1.9% in the rural districts of the North Riding.

By 1911 the pattern was already clearly established in Lancashire and Yorkshire that employment in mechanical engineering gravitated to the dominant industrial area; in North East England the situation was not so clear, however, as this was a region with a traditional specialisation in heavy engineering, and over 10% employment in the industry in most urban areas; the conurbation/non-conurbation banding is not so clear.

51. See for example Clark (1966 pp.9-13). Clark's much-reproduced map of national market potential does not in fact provide a very good indication of the relative attractiveness of particular areas for industrial development, as his own tabulations would appear to show. The factor omitted is that much industrial production is designed to serve regional markets rather than national markets; it is often irrelevant, for example, whether a new factory in Suffolk is well placed to serve the Manchester-Merseyside market or not, particularly if the factory is being developed by a multi-plant firm which already has Northern factories in operation. For a more recent review of the field, including an operationalisation of the potential model to examine sub-regional patterns of manufacturing employment change in Scotland, see Rich (1980b).

52. One way of seeing this relationship, argued by Fothergill and Gudgin (1983) is to take floor space as relatively fixed, to regard physical capital per unit floor space to be stable through time and physical capital per worker to increase. As productivity increases, employment falls, given a fixed floor space in manufacturing. Clearly such a relationship can account for part of the manufacturing employment decline in London but one of the main points being made in the text and with greater empirical backing in Buck, Gordon and Young (1986 pp.49-53) is that intense competition for land in London has tended to *reduce* industrial floor space significantly, with warehousing often replacing manufacturing in a given building, or with a complete switch in land use.

53. Thus, instrument engineering; clothing and footwear; timber, furniture, etc.; other manufacturing industries.

54. The problems of the British motor cycle industry in the late 1960s and early 1970s were notorious, and in many ways prefigured the severe problems later to be found in other industrial sectors. Smith (1981) notes that in the 1960s the British motor cycle market was shrinking with the rise of car ownership, and that British producers were following conservative strategies and failing to expand. In the meantime the Japanese market was expanding rapidly and Japanese producers followed highly expansive strategies which soon enabled them to take over foreign markets. The result was that the British motor cycle industry faced "almost total oblivion by 1975" Smith (1981 p.1).

55. The history of the British post-war consensus (or, perhaps more accurately, the continuation of the wartime consensus into the peace years) is a complicated one, and worthy of further investigation. It is perhaps only when this investigation has been carried out that the breakdown of consensus politics in the 1970s and 1980s can be fully understood.

The following outlines would appear to be important. Firstly, during the war the internal political settlement was in effect that those who gave full commitment to the war should not be allowed to suffer unemployment, poverty, poor housing and inadequate health care and education; the problems of the 1930s must not be allowed to reappear (see for example Marwick 1968). The "welfare state" was in many respects built on wartime foundations. Secondly, the post-war political settlement could be seen in terms of (a) the state claiming the technical expertise to eliminate unemployment, provide adequate health care, etc., and maintaining political legitimacy on account of its ability to bring about social progress, and (b) the people accepting the legitimacy of state rule in return for continually improving living standards. Any political party

responsible for a lapse from full employment was, according to the conventional wisdom of the time, heading for certain political defeat. It is worth emphasising that if the *state* is to derive a significant part of its legitimacy from the continuation of full employment, then the *reason* that full employment existed had to be seen in terms of the technical functions carried out by the state, rather than through the natural buoyancy of the economy; thus neo-Keynesianism became the economic ideology of consensus politics.

The events of the early 1970s, when the dynamic potential of the advanced capitalist economies started to sag significantly, provided a major blow to the post-war consensus, leaving it open what kind of political settlement would ensue. Furthermore, in Britain at least, a generational factor was involved in that a generation of Conservative politicians was emerging which was slightly too young to have mature adult experience of the Second World War, and thus to understand the issues involved from personal experience. Such politicians were never fully attuned to the need for national unity during the war and the consequent need for some form of conception of social justice to be taken into account in the process of government; partially as a result the politics of consensus collapsed once the Conservative Party was elected in 1979.

56. Thus, in a famous quotation, "In the 1950s and early 1960s the Treasury behaved like a simple Pavlovian dog responding to two main stimuli: One is 'a run on the reserves' and the other is '500,000 unemployed'. On the whole (although not invariably), it was officials who panicked on the first stimulus, and ministers on the second." (Brittan 1964 p.288). Brittan then proceeds to make the controversial point that "a response system as crude as this (Brittan 1964 p.284) which ignores time lags, will tend to have the reverse of the effect intended, and will tend to aggravate rather than dampen fluctuations." In formal terms Brittan's argument is not convincing in that there is a strong element of argument from caricature; interesting questions are, however, raised.

The author's own view, expressed in the text at various points, is that even during a long cycle upswing the business cycle is a natural feature of the economy, rather than anything artificially imposed, and that the relative weakness of cyclical fluctuations in the 1950s and early 1960s when compared with, say, the 1890s and 1900s, is an indication that during the post-war boom Government action *probably* served to dampen, rather than exacerbate, cyclical fluctuations, despite an apparent tendency to overreact to certain stimuli. When economic conditions started to deteriorate in the mid-1960s, however, policy makers were very slow to appreciate that the background conditions of relative stability against which earlier rounds of policy had operated had now disappeared, and that any overreaction could quite genuinely exacerbate cyclical fluctuations which were already spontaneously increasing in amplitude. In the 1970s, as in the 1950s and 1960s, the economy was frequently "given a downward shove on the eve of a recession and an upward thrust as a boom was gathering force" (Brittan 1964 p.289; the experiences of 1972 and 1979 come particularly to mind), but while the consequences were probably relatively minor in the 1950s, they were severe in the 1970s.

57. Matthews (1968) made a closely similar point at a time when the British economy was still very close to full employment; emphasis was placed on the presence of a prolonged investment boom, rather than on the "Keynesian revolution."

58. The story of late 1973 is a familiar one, in outline at least. On October 6th 1973 Egypt and Syria attacked Israeli forces on territories occupied in the 1967 war; it seems highly likely that this was made economically and militarily possible only as a result of the transfer of oil revenues from Saudi Arabia to enable the poorer Arab countries to wage retaliatory war (Peretz 1975 pp.97-98). The United States, in line with its earlier geopolitical commitments, supported Israel, while in reply the Arab oil producing countries started cutting production and raising prices, with the price of oil rising fourfold in two months; Terzian (1985 pp.173-186) provides a more detailed account, see also Stork (1975 pp.210-256). Terzian (pp.188-202) raises the question of whether the USA in fact deliberately precipitated the oil crisis, an argument which at first seems implausible in that the USA was a major victim of the oil crisis. Calculations were made in the 1970s, however, that a substantial increase in world oil prices would boost the USA's flagging capacity in oil production, and reduce dependence on oil imports; furthermore high oil prices would adversely affect industrial cost structures in other advanced capitalist economies and thus, it was felt, help restore the USA's economic pre-eminence. It perhaps remains to be more fully documented whether this rather devious line of reasoning was strongly influential or not.

It is to be emphasised, however, that the events of October 1973 triggered the "oil crisis" rather than caused it. The Western world had for a long time been the beneficiary of cheap energy, and during the 1950s and 1960s demand had been expanding rapidly. By the early 1970s the market was becoming conspicuously tight (see note 59 below), and price rises were in the air. Had OPEC, the oil producers' organisation, raised prices to wholly uneconomic levels, then one would have expected demand to collapse, and prices to fall sharply once the immediate political crisis had passed; indeed many Western commentators expected this to happen. The fact that oil prices *remained* high indicates not so much the beginning of a period of expensive energy, but rather the end of a period of cheap energy. A situation as in the 1960s in which the demand for oil is increasing by perhaps 8% per annum (Chevalier 1975 p.41) while money prices are constant and real revenues are declining (Jaidah 1983 pp.1-2) is not economically a stable one.

59. The essential background condition was that despite the mild economic recessions of the late 1960s, the general level of demand in the advanced industrial countries was expanding rapidly, and with the long-term process of substitution of oil for solid fuel, the demand for oil was expanding even faster. The effects of the major reflation in 1972-73 were in addition to this. During the late 1960s forecasts were beginning to appear, suggesting a likely future imbalance between supply and demand for oil, while a sharp increase in demand for imported oil in the USA brought this imbalance forward in time (Rybczynski and Ray 1976 pp.1-2). It might well be the case (Odell 1979 p.221) that without the 1973 war, and with the slower growth of assertiveness of OPEC, the imbalance as of early 1974 would have taken perhaps three years longer to develop.

Much has been written about the oil crisis, and about the politics of the oil industry (see especially Stork 1975, Odell 1979, Terzian 1985), but relatively little attention in the specialist literature has been given to the point that the boom in demand for oil in the early 1970s was part of a general boom in demand for commodities as a result of the expansionary policies pursued by the industrialised economies.

60. See especially Cairncross and McRae (1975 pp.21-24); between Autumn 1972 and Spring 1974 the total rise in commodity prices was as much as half as great as in the previous century; the "wild months" started in 1972, not 1973 or 1974.

61. Gower Economic Publications (1975 pp.viii-ix) illustrates clearly the sequence of recession-overcompensation-boom-crash in the property industry. During the late 1960s the recession in the construction industry led to a shortage of new housing, which in turn caused new house prices to start rising. The "easy money" policies of the early 1970s increased the amount of money available for house purchase and accentuated the rise in house prices, which was becoming evident in late 1971. The rapid inflation of prices soon spread throughout the property sector, and continued until the late Summer of 1973, when the property bubble burst. In the meantime, the price of housing land had virually tripled between mid-1971 and 1973, and the ratio between new house prices and incomes rose from about 3.5 in 1970 to about 5 in 1973, before falling back to earlier levels in 1976 (Mayes 1979).

62. Gower Economic Publications (1975) provides perhaps the most detailed account available on construction activity in the early 1970s, with analysis by sector (industrial/commercial/housing, etc.), by region and by firm. At the time of writing the main text, the author was unaware of this reference, which provides various spatial comparisons of rents in the office and industrial sectors in a 1974 survey. Rents per square foot for office accommodation in central London ranged from £5 to £20, compered with £1 to £2 in most large cities outside the South East; "the cost of accommodating ordinary members of staff in centrally situated offices has begun to reach levels where it can be compared to the cost of their salaries" (Gower Economic Publications 1975, pp.98, 86). In the industrial sector, in which the amount of floorspace per worker is greater, rents for single storey factories and warehouses ranged from £1 to £1.80 in London, from £0.60 to £1.10 in the rest of the South East, and from £0.40 to £0.80 in the Northern region (Gower Economic Publications 1975 pp.97-98). It is suggested in the text that the size of these differentials and the increase in differentials during the property boom, was a major factor behind the decline of employment in London during the 1970s, and especially during the boom year of 1972-73.

63. This shows more clearly in the extremely slow upturn in exports in 1971-72 than in the trade figures for 1972-73. In 1971-72, at the start of the cyclical upswing, imports of goods and services increased by 9.3% while exports increased by only 0.7% and industrial activity increased by 2.5%. Both imports and exports increased sharply in 1972-73 (by 11.5% and 11.2% respectively; figures taken from United Nations *Yearbook of National Accounts Statistics*).

Interpreting balance of payments statistics, and their relationship to patterns of industrial production, is a complex task; it should be stressed, for example, that given the increased openness of trade in the 1970s, with growth rates of exports and imports typically being in excess of GDP growth in the advanced capitalist economies, a rising import penetration ratio is normal, and not of itself an indicator of deindustrialisation. The critical factor is the relationship between exports and imports. A major problem faced by the British economy has been the "balance of payments constraint" in which the weak competitive position of British manufacturing industry means that any attempt to boost growth rates will, at an unacceptably early stage, boost imports more quickly

than exports, the gap being larger the faster the growth rate. To correct this balance of payments disequilibrium, economic growth has to be slowed down, but this reduces the market potential for producers, slows down investment, and accentuates the cycle of decline. Panić (1975) notes the income elasticity of demand for imports was at this stage unusually high in the UK, and that with respect to competitor countries the problem was particularly acute in fast-growth sectors. This he attributed to a long-standing failure of British industry to adjust effectively to changing patterns of demand. For various discussions on the relationship at this time between balance of payments problems and deindustrialisation, see Thirlwall (1980), Singh (1977), Cairncross (1979), Posner and Steer (1979) and late 1970s issues of the *Cambridge Economic Policy Review*.

64. Effects varied from city to city, however. In London at this stage fairly strict planning controls prevented central London office development encroaching on the "inner city" (Goddard 1975 pp.36-43). Redevelopment of the city centre, with increasing heights for new buildings, is perhaps the primary feature of an urban land boom, with the spread outwards of the city centre being, in large cities, secondary.

65. See for example Keeble (1980a p.132).

66. The "boom" in regional policy at this stage was perhaps more a boom in the effects of policy than in the strength of the policy, and furthermore was not strictly continuous with the 1964-70 "boom" in that the incoming Conservative Government in 1970 attempted to implement an anti-interventionist strategy, downgrading regional policy and concentrating on relatively limited policy objectives. In the face of recession, this strategy was reversed; see chapter 5 note 56.

67. The Teesside iron industry developed extremely rapidly, from a negligible beginning, between 1850 and 1870 at a time of substantial expansion of demand for iron. Roepke (1956 pp.48-58) indicates that this represented part of a substantial locational shift away from the older iron-producing areas (the West Midlands and South Wales) with supplies of both iron ore and coal, but in relatively limited degree, and towards areas with large reserves of iron ore, even if local coal was absent. Middlesbrough was in effect a new town of the mid-19th century (Briggs 1968 pp.241-276). While this was a relatively late start in the context of the Industrial Revolution, in 20th century terms the Teesside iron and steel industry may definitely be regarded as "traditional".

68. Warren (1970) provides a detailed account of the extent to which the post-war development of the South Wales sheet steel industry was dependent on state policy decisions.

South Wales was, despite the text, an area with a particularly long history of iron and steel production on a large scale, and was the main centre of iron production in the late 18th and early 19th centuries (Roepke 1956 pp.24-47), but the locational shifts of the late 19th century and the severity of depression in the early 20th century led to a considerable downgrading of the relative importance of the South Wales iron and steel industry. The upturn and expansion of this industry from the mid-1930s onwards was largely policy-led, with a new generation of steel-works appearing as a result of locational choices by Government; "after the 1930s only Ebbw Vale survived as an inland integrated steelworks, and by the 1960s South Wales had three other integrated works at Port Talbot, Cardiff and

Newport" (Warren 1980c p.349).

69. To a certain extent this is an obvious point, as if an existing firm sets up a new factory in an assisted area then that new factory is by definition a branch plant, and an abundance of such factories would lead to a "branch plant economy." Another perhaps less immediately obvious aspect is that with the increasing concentration of industry in the post-war period (chapter 1 note 48) there is associated a large number of ownership changes in existing factories, with a general bias towards the locus of control shifting towards the South East and away from the peripheral regions (Leigh and North 1978, I. Smith 1979). With the possible exception of Merseyside one would expect branch plants of the first type (regional policy factories) to concentrate in less urbanised areas (e.g. the Durham coalfield) and branch plants of the second type (post-takeover branch plants) to be concentrated in the industrial conurbations (e.g. Tyneside), although this relationship is not wholly deterministic.

While there are various difficulties in defining whether, and to what extent, any particular factory is a "branch plant " (Watts 1981 especially pp.3-9), it still seems reasonably clear that during the 1970s the problem of the "branch plant economy" was a legitimate matter of concern. The main text concentrates on the question of the mobile branch plant engaged primarily in routine production in which levels of employment were both highly cyclically volatile and subject to severe cost competition from low-wage countries. It may well also be that post-acquisition running down of employment in newly taken over firms, as reorganisation takes place to prevent duplication of functions, is a substantial source of job loss in traditional industrial areas; this point is made strongly, in the context of the Northern region between 1963 and 1973, by I. Smith (1979).

A more general question is whether, in the context of severe recession, large corporations tended to reduce employment in factories in the assisted areas earlier than elsewhere; Townsend (1983 p.81), on the basis of a study covering the years 1976 to 1981, concluded this was indeed the case among most large firms but this conclusion is not wholly convincing in that assisted area closures in, say, 1977, could well be regarded as occurring at the tail end of the 1974-76 recession rather than in advance of the post-1979 recession. The detailed time profile of industrial change deserves at least as much attention as the detailed geography of industrial change.

70. This issue is discussed in more detail in section 6.7.

71. There was a fairly long history of mobility to assisted areas in these industries. See Keeble (1976 pp.172-181).

72. Owen and Gillespie (1982 p.191) come perilously close to making such a jump in the argument when they imply that the "generalised" nature of recessions has been responsible for regionally more even response to recessions. The situation has in fact tended to be the reverse, with regional differences being exacerbated rather than ameliorated as recessions become more severe and more generalised. This applies also at the international scale.

73. See for example Maddison (1982 pp.96-102) and Matthews (ed 1982). Matthews (1982 pp.1-2) notes that there was no general tendency toward a slowing down of productivity growth prior to 1973, but that the rate of productivity growth fell to near zero in 1974-75 in many countries. This productivity slow-down was common to almost all advanced economies, and was not confined simply to a

few sectors, but rather resulted from a general slowing down of output growth, and thus of demand.

It is suggested here that the slow-down in productivity growth is the result of a recession so severe that investment was curtailed to an extent sufficient to eliminate the normal growth of productivity through technical change. Normal productivity growth clearly does not arise simply from the maintenance of existing machinery, without improvement, but requires investment, either increasing the capital stock, or making improvements to existing machinery. If for example there are 10 machines of type A with a productivity level of 1.0, and machines of type B have potential productivity levels (with respect to labour) of 1.2, and if furthermore it is felt too expensive to scrap machines of type A to replace them with type B machines, then the rate of growth of productivity depends critically on the rate of introduction of type B machines, which itself depends on the rate of growth of demand. If demand is static or falling, and even more so if long-term economic prospects are also felt to be depressed, there will be relatively little investment in new machinery, and thus a substantial reduction in the rate of productivity growth. In the developed market economies, GDP grew by 0.8% in 1973-74 and *fell* by 0.3% in 1974-75, while gross fixed capital formation, which had increased by an average of 6.3% between 1970 and 1973, *fell* by 4.7% in 1973-74 and by 5.3% in 1974-75 (figures from *United Nations Yearbook of National Accounts Statistics*). The productivity slowdown thus implied would have had both temporary and permanent effects, resulting in a transition from slower than average growth and gently rising unemployment to slow growth, highly uncertain economic conditions, and potentially severe unemployment.

74. Nordhaus (1980 p.376).

75. This tendency was not universal. The *Economist* downgraded the economic importance of the oil blockade, concentrating its attention on growing industrial unrest: "The international oil crisis is serious, too, although not as serious as it has been made out to be: it calls chiefly for international financial commonsense .... The news from Kuwait is that next year the industrialised countries are likely to have adequate supplies of very expensive oil. Or rather, oil is now likely to fluctuate in price like any other commodity: going up sharply in periods of scarcity, and coming down sharply in periods of glut ..... The main international financial problem set by the new oil price is that each industrial country .... may try to cut its balance of payments deficit by deflationary action and thus spread recession. The solution to this problem is economically simple, but may be regarded as diplomatically hard. The rest of the world should decide to run a balance of payments deficit." (*Economist*, 29.12.73, pp.9-10). Thus (and see also Nordhaus 1980) the effects of the oil crisis depend largely on how other countries react to it, and to other crisis tendencies, rather than on the oil crisis itself.

76. See note 63 above. While one can agree that increased import penetration, itself a reflection of weak industrial competitiveness, was a problem, it is surprisingly difficult to produce an unambiguous definition of import penetration. The obvious definition would be given by the ratio of manufactured imports to domestic demand for manufactures, and indeed this ratio has consistently been increasing through time at an apparently alarming pace (from 17% in 1968 to 26% in 1980 and 35% in 1987). The increase of this ratio reflects more an opening up of trade, however, than a situation in which imports

are increasing relentlessly and exports remaining static. Thus the corresponding series for exports (exports as a percentage of manufacturers' sales) rose from 17% in 1968 to 25% in 1980 and 33% in 1987.

The problem was not purely one of import penetration (and hence the solution was not simply one of reducing imports or the rate of growth of imports), but rather was that British manufacturers were failing to capture foreign markets as fast as foreign manufacturers were capturing British markets. To measure the behaviour of imports and exports in these terms, a more meaningful denominator is home demand plus exports (algebraically identical to manufacturers' sales plus imports). The relevant ratios through the 1970s thus become

	1968	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1987
Export ratio (%)	15	16	17	16	16	17	19	19	20	20	19	21	22
Import ratio (%)	15	14	15	16	18	19	18	18	19	19	21	20	27
Surplus	0	+2	+2	0	-2	-2	+1	+1	+1	+1	-2	+1	-5

Apart from the 1971-73 years of reflation, the degree of import penetration through the 1970s thus appears to be slight. It should be remembered, though, that these figures are, like all historical statistics, ex post statistics and that a persistent theme of economic policy through the 1960s and 1970s was the periodic need to depress domestic demand in order to prevent imports rising out of control. When such policies were abandoned in the 1980s the import gap started to rise substantially, with the manufacturing export ratio remaining almost static, and the import ratio jumping sharply (22% in 1981, 27% in 1985) as soon as the economy moved out of slump. Such figures show that even now the industrial problems of the 1970s are far from being solved; it is perhaps only the North Sea oil factor which has allowed increased import penetration in industry to continue unabated without major balance of payment problems forcing an urgent reappraisal of the situation.

The figures presented in this note are taken from the *Monthly Digest of Statistics* (various) and an article in *Economic Trends* by Wells and Imber (1977).

77. For example, *Financial Times* 3.3.80. In the more extreme cases, the British industry involved had become so uncompetitive that it had virtually disappeared. The figures for import penetration and export ratios cited above are also disaggregated by SIC order in the *Monthly Digest of Statistics*, and show that the industry in which import penetration was perhaps the greatest cause for concern was the vehicles industry. In this industry the import ratio stood at 8% in 1970, 19% in 1976 and 29% in 1979, while the export ratio stood at 30% in 1968, 35% in 1976 and 29% in 1979. The advertising campaign cited in the text was originated by British Leyland.

The general industrial situation in the 1970s may be summarised by suggesting that most industries faced various difficulties, but that in many of the competitively weaker industries, though not in the stronger industries, the problem took the form of major inroads being made by foreign competitors into domestic markets, sometimes virtually eliminating the domestic industry.

78. For example, in the UK the production of television receivers stood at 1,591,000 (5.3% of the world total) in 1965 and 2,106,000 (3.7% of the world total) in 1976. Production increased dramatically in some low wage countries, notably South Korea and Singapore, while

Japan accounted for 14.0% of world production in 1965 and 29.8% in 1976 before switching attention to even more modern electrical consumer goods. Figures are taken from United Nations *Statistical Yearbook* (various).

79. See for example Keeble (1976 pp.194-199). One way of conceptualising this question, emphasised by Massey (1984) is in terms of a "new spatial division of labour" in which the technical requirements of production of large firms enmesh with pre-existing social geographies to bring about a geography of production significantly different from the local specialisations of earlier periods. As the electrical engineering industry spread beyond its London heartland, high order functions developed in the inner South East, within a fairly close radius of London, where the professional classes were already well entrenched, making the area attractive for incoming professionals. More routine functions were locationally sensitive to local wage structures, with the presence of under-used pools of female labour being a particular attraction; Massey (1984 pp.194-233), in comparing Cornwall and the coalfield areas, shows that radically different types of local economy would generate this type of condition and thus attract new, relatively low-waged, industrialisation. The focus in Massey's discussion is on the late 1960s and early 1970s; thereafter the "new *international* division of labour" became more conspicuous.

80. It is surprising how little academic attention is given to the role of military production in the electrical engineering industry. Neither Keeble (1976 p.194) nor Massey (1984 p.139) give more than passing mention. Yet if it is agreed a fundamental issue in the emerging geographical structure of production in the electrical industry is the growing distinction between the high-wage, high-technology, research-intensive production predominantly taking place in the more prosperous regions of advanced economies, and the low-wage, routine production taking place predominantly in peripheral locations in the advanced economies and in selected third world locations, then the role of arms production in propping up the industrial economy of the core regions is one that seriously needs to be considered. In possibly no other sector of the economy does the consumer place such a high premium on purchasing the technologically most advanced equipment, with the state (whether domestic or foreign) often showing extraordinary interest, irrational in economic terms, in scrapping even slightly "obsolete" equipment and replacing it with slightly more technologically advanced equipment. The emphasis on high technology, on rapid innovation and on the production of small numbers of units of advanced and expensive character, clearly would lead to a strong tendency for armament production to become core-orientated rather than periphery-orientated. This applies to the aerospace sector (where in 1971 domestic military output accounted for 75.1% of total domestic output; Kaldor 1978 p.101) as well as the electronics and communications sector, in which domestic military output accounted for 27.3% of total domestic output. Shipbuilding apart, the military-industrial complex is increasingly a *Southern* industrial complex, a tendency accentuated to the extent to which UK military bases are concentrated in the South (see for example Short 1981).

It follows that one should not take at face value the assumption that economically progressive forms of production are located in the core regions and that economically primitive forms of production are located in the periphery. On the contrary, technologically advanced military production is often *parasitic* in nature, slowing down civilian production rather than enhancing it, and often giving an extra twist to the process of factory closures

in the electrical goods sector in peripheral regions. The sale price of goods in the consumer electrical industry is set by market forces, which also by implication set an upper limit to profitability in civilian production. In contrast, the state is the primary consumer for military equipment especially when "secret" technology is involved. It is thus the state rather than the market which sets levels of profitability in the military technology sector, and in order to ensure that client firms concentrate their resources on military production rather than on civilian production, prices and profits are marked up considerably. This distortion of market forces by the state in effect provides a considerable state subsidy to industrial production in the more prosperous regions, and actually weakens the performance of firms in civilian production. As has often been pointed out (for example Kaldor 1980, Chalmers 1985) countries such as the UK and the USA, which for political and historical reasons spend a high proportion of GNP on defence, tend to spend a very high proportion of their total R & D spending (public and private) on military projects. This in effect restricts the R & D budget in the civilian sector, and thus slows down technical advance and reduces competitiveness in consumption goods. In Japan, military R & D spending accounts for less than 1% of total R & D spending, while in the UK the figure is around 30% (Chalmers 1985 p.119); given this discrepancy it is hardly surprising that Britain's competitive position in the electrical consumer goods industry has fallen extremely sharply, relative to Japan.

Thus the apparently commendably stable levels of employment in electrical engineering in the South East during recessions reflect what is in effect a regional policy in reverse, with the state heavily subsidising economically unproductive high waged jobs in the more prosperous regions, aggravating the decline in the less prosperous regions. When military rationality is allowed to overcome economic rationality, profits may be boosted, but the industrial economy as a whole suffers. When considering why job losses in the mid-1970s were so high in the routine production of standardised goods in branch plant factories, it is perhaps worth considering why, in a technologically dynamic industry, there was so much "routine" production, and relatively little technical advance in the production of consumer goods.

81. See especially Froebel et al (1980). The greatest cost differentials between peripheral locations in the advanced industrial economies and third world locations are in labour costs, which are set by local conditions, while costs of machinery are set by world prices. For example, in the textile industry hourly labour costs in 1981 (with USA = 100) stood at around 80 in the UK, 60 in Ireland and less than 10 in Indonesia, Egypt, Pakistan, Philippines, Thailand and Sri Lanka (quoted in Dicken 1986 p.240). Furthermore as Froebel et al (1980) note, several third world countries at this time were restructuring their economic arrangements in such a way as to attract industrial investment from abroad; many countries set up "free production zones", where basic infrastructure and equipment were provided but trade and currency restrictions were lifted (Froebel et al 1980 pp.295-406).

It should perhaps be pointed out that industrial production in a third world setting tends to be considerably *more* capital-intensive than in advanced industrial economies, precisely because of the low wages, which reduce the cost of labour per unit output but not the cost of capital equipment (bought at world prices) per unit output. It is in this way that Pasinetti (1981 pp.184-188) resolves the famous "Leontief paradox" (Leontief 1953) that USA exports tend to be *less* capital-intensive than USA imports despite

capital being relatively abundant, and labour relatively scarce, in the USA compared with other countries.

82. See especially Dicken (1986), who emphasises however (pp.62-65) that despite the considerable global shift in production, conspicuously marked in certain sectors, towards certain third world locations, the bulk of international investment by transnational corporations is investment in other advanced industrial economies.

83. For references on the increase of industrial concentration, and consequent rise of the large firm, in the British context, see chapter 1 note 48. Dicken (1986 pp.54-57) emphasises that even among the population of transnational corporations, themselves far from being small firms, only a relatively small percentage could be called "*global* corporations", producers on a world scale.

84. Frank (1981app.157-187) uses the idea of "superexploitation" to cover a situation where labour produced in the agricultural sector, but unable to be absorbed in that sector, is thrown on to the industrial labour market and is paid wages sufficient for short-term survival but insufficient to reproduce the labour force. On these terms a permanent surplus of population in the agricultural sector is required.

Froebel et al (1980 pp.139, 350-360) also make this point, which applies so long as the location of production is primarily sensitive to wage levels rather than, for example, skill levels.

85. Much of this point follows from the above note. If "superexploitation", as defined above, exists, wages are set at such a level that the workforce consists predominantly of young workers, mainly female, with a fast turnover rate (Froebel et al 1980 pp.344-349). Clearly a fast rate of labour turnover implied by the wage structure precludes a prolonged training period and thus in turn ensures a sectoral bias towards industries in which productivity levels can approach those in western factories without long training periods (Froebel et al 1980 pp.353-357). Thus, as Dicken (1986) shows, the shift to the third world was far stronger in electronics, textiles and clothing than in, for example, vehicles or steel. The main point being made in the text is that this pattern of global shift had identifiable adverse employment effects in the peripheral regions of the UK in the mid-1970s.

86. On the changed *technical* conditions which permitted third world industrial production of the type outlined above to be profitable, see Froebel et al (1980 pp.35-48).

87. Vernon (1966 p.207). Vernon's paper is regarded here as one of the most significant advances since the War in the economic theory of industrial location, and deserves close attention. Recently, M. Taylor (1986) has attempted a critique of Vernon's product life cycle theory, but this critique is unconvincing, and misses some of the main points of Vernon's analysis.

Vernon starts by considering where the manufacture of new products is likely to take place initially, and outlines the importance of the presence of a large local market with a large number of high income consumers, and with a large pool of technical knowhow. In the context of the early 1960s, this would point to the USA being a very important source of innovations, both product innovations (to tap new markets) and process innovations (to conserve expensive manpower). Vernon does not take it as self-evident that the *production*, as well as the marketing, of such goods will

necessarily be undertaken in the high income area, but the need for flexibility in changing the input mix at an early stage of product development and the need for swift communication between producers and consumers, suppliers and competitors will tend to overcome any slight difference in costs of production, especially as the price elasticity of demand will be relatively slight. As the product "matures", though, basic standardisation sets in, even though attempts at minor product differentiation may well intensify. The need for flexibility in production diminishes, while possibilities for achieving economies of scale with large-scale standardised production increase. Price competition accordingly becomes more important, and firms seek out new cheaper locations for production. This may mean internationalisation of production, or it may mean peripheralisation of production in the core country, this decentralisation of production increasing as the product becomes more standardised.

This, it is hoped, is a fair summary of Vernon's arguments. Taylor's basic criticism is that the model is technologically deterministic, and subordinates all other aspects of the economic system ("supply, demand, labour, enterprise, and so on") to technical questions. It is difficult to see how such a criticism is valid; Vernon's model is very clearly based on the question of how firms organise their production to take advantage of, and to initiate, technical change, and the market and production opportunities which arise from particular stages of product development. Contrary to Taylor's suggestion, the firm is not assumed to be passive. If Taylor's strictures against giving the question of technological development a central role in analysis were to be adhered to, economic growth theory would come to a standstill as there would be no mechanism by which productivity and output could increase beyond a finite "optimum" level. Instead, the general tendency is for output per head in an advanced economy to grow at the same rate as productivity, determined primarily by technological factors, provided that effective demand can be expanded at a similar rate. Technological change as an agent in economic growth is not just a residual factor when marginal returns to capital and labour have been accounted for (although it takes a jump in neo-classical economic theory to recognise even this point), but is integral to the whole process of growth, both on the ground and when abstracted into macroeconomic equations. If technological change is central to economic growth and to industrial change, then any adequate account of the evolving pattern of industrial location in a growing economy must take technological change into account. If this is not done, it is difficult to see how industrial location theory can proceed either beyond general equilibrium theory or beyond a type of theory which reduces industrial location patterns to the decisions of industrialists.

Despite Taylor's complaint that the use of the product-cycle model in geography shows "the way in which ideas first advanced in an area of innovative research are progressively simplified, distorted, and in effect caricatured by their later proponents" (M. Taylor 1986, p.754), his own discussion of Vernon's product-cycle model is itself an inaccurate caricature. Taylor notes (p.756) "the implication .... that inventions are introduced to their market in final form", yet Vernon's paper does not carry this implication, and on the contrary notes that "in the early stages of introduction of a new product .... the product itself may be quite unstandardized for a time; its inputs, its processing, and its final specifications may cover a wide range" (Vernon 1966 p.195). Taylor also notes (p.757) that when product-cycle theory considers the homogenisation of products, "what is missed in this approach is the high level of

product differentiation that companies and corporations seek." Vernon deals with precisedly this point, though: "As the demand for a product expands, a certain degree of standardization usually takes place. This is not to say that efforts at product differentiation come to an end. On the contrary; such efforts may even intensify, as competitors try to avoid the full brunt of price competition. Moreover, variety may appear as a result of specialisation ..... Nevertheless, though the subcategories may multiply and the efforts at product differentiation increase, a growing acceptance of certain standards seems to by typical." (Vernon 1966 p.196). The product-cycle theory clearly requires close critical analysis, as does any other theory; it is regrettable, however, that the critique should be made in this case not of the theory itself but of a demonstrably inaccurate caricature of the theory.

These points having been clarified, Taylor's argument (pp.756-757) that the product life cycle may more meaningly be decomposed into several product life cycles (Model T Ford, modern car, etc.) clearly misses the key issue. The modern turbo charged fuel-injected emission-controlled vehicle is the development of an older paradigm (the car) at a higher level and, as the quotation above from Vernon makes clear, the process of standardisation implies at least as much a raising of minimum standards as growing uniformity. Finally, Taylor makes the assumption that the product-cycle model limits itself to the singling out of individual products, yet surely there is no problem in aggregating; a multi-product firm might produce several products at different stages of the life-cycle, with the manufacture of products at their early stages of the cycle, plus perhaps much research for the improvement of the standardised product, being concentrated in high income core areas, and routine production of standardised products being concentrated in branch plants in the periphery (either the domestic periphery, or abroad).

Taylor suggests at various points that Vernon in a later paper (Vernon 1979) repudiated much of his earlier product-cycle hypothesis as failing to take into account the full significance of the emergence of multinational corporations. In fact, Vernon's later paper indicated more the model's need to be adapted to changing historical circumstances rather than a rejection of the basic model. In particular, Vernon notes a considerable speeding up of the transition from early production in the core market to production in peripheral areas, as increasingly dominant multinational corporations become increasingly aware of cost differentials in production, and increasingly able to take advantage of such differentials. It is important to realise that industrial location models are always developed under particular historical circumstances, and that the predictions of any model reflect as much the historical circumstances in which the model was produced. Thus:

Historical circumstances (A) + Logical structure of model ⟶ Outcome (A

The changes identified by Vernon (1979) are changes more in historical circumstances than in the structure of the model. Thus:

Historical circumstances (B) + Logical structure of model ⟶ Outcome (B

It is naive to suppose that a *model* of industrial location is refuted if the following is not satisfied:

Historical circumstances (B) + Logical structure of model ⟶ Outcome (A

On a more general plane, it often happens that social science models are often not so much refuted but rendered obsolete through failing to take into account certain variables later found to be historically critical.

This note has been expanded to a greater length than usual because it is considered that the Vernon model is as central to understanding mid-20th century industrial location tendencies as the Weber model is to understanding 19th century tendencies. Indeed much of Britain's 20th century industrial geography, and the shift to the South, may be summarised in terms of a "Weberian generation" of industries in the coalfields declining, and a "Vernonian generation" of industries in the South expanding, and later spreading to the North. Complications occur when the "Vernonian generation" is in decline; in attempting to explain this decline, should one emphasise industrial recession, or the adverse local employment effects of increasing internationalisation of production? Both questions are important in assessing the "crisis of the branch plant factory"; recession, and the increased ability of firms to switch standardised production from moderately low waged areas to low waged areas, each left a distinct mark on the geography of job loss in the 1970s and early 1980s.

88. For a detailed account see Young and Hood (1977). The basic Chrysler story, as presented by Young and Hood is one of a multinational car producer with a British operation which was, in comparison with other producers, relatively small and overburdened by the unviability of a large plant at Linwood, near Paisley (Strathclyde), set up under the regional policy net. At one level the failure of Linwood was seen by some as a failure of regional policy, with the Government subsidising a firm to set up a factory at an "inefficient" location, yet at a deeper level of analysis the problem could be seen as one of poor corporate strategy (as suggested by Young and Hood). For while there was *encouragement* for Rootes to set plant in Scotland, there was no *compulsion*, and neither was there any compulsion on Chrysler to take over Rootes. The Linwood plant was distant from the main markets for cars, and even more distant from the main components, with only 5% of components in 1972 being supplied from within a 150 mile radius (Young and Hood 1977 p.263). Furthermore, it would seem that the costs of retraining workers in an area "green" to the motor industry were consistently underestimated, resulting in reduced productivity (Young and Hood 1977 pp.261, 166-267).

In 1975 the effects of world recession on a weak producer led to crisis, and eventually to a Government rescue plan. Between December 1975 and August 1976 8,200 redundancies were planned, from a workforce of 25,100 (quoted in Young and Hood 1977 p.289). As part of the plan, redundancies were concentrated in the West Midlands (5,700 redundancies planned out of 13,300 jobs), with much work being transferred to Linwood (Young and Hood 1977 pp.286-288), where 1,500 redundancies were planned out of 7,000 jobs.

It should be noted that although Chrysler was a large employer in the West Midlands, the heavy differential shift against the West Midlands conurbation in the vehicles industry was not fully explained by the crisis in Chrysler. The total differential shift in this sector in 1974-76 was -12,900 (Table 6.44), of which about -4,900 would be accounted for by Chrysler, on the basis of the above figures.

89. It is likely, however, that many of the jobs created in the North Sea oil industry, both during the construction phase and during the production phase, were filled by workers from outside, so that these new jobs would have had a proportionally low effect on local unemployment rates.

90. For discussion of this earlier stage, see chapter 4. The inter-war recessions and the problems of decline in coal mining hit

Wales especially severely and in 1936, when parts of Southern England were approaching full employment, Glamorgan still had an unemployment rate of 38.2% (Beck 1951 Table 19), or about 30% in post-war terms. It was in this context that industries were encouraged to move to Wales.

91. Manners (1964) provides one of the earlier assessments of the new industrial geography of South Wales. As far as much later employment trends are concerned, it is perhaps of interest to note that Manners is critical of some of the locational decisions taken in the steel industry (pp.48-50) arguing that it might well have been economically more justifiable to expand capacity on tidewater sites closer to national markets, and that Manners also notes (p.59; see also Davies and Hagger 1964) that while considerable industrial diversification was taking place, South Wales was weakly represented in the faster growing industries, suggesting possible long-term difficulties.

92. Much of Mid Glamorgan comes under the heading "accessible mining valleys" in Davies and Hagger 1964. Between 1952 and 1958 the main growth areas for industrial employment were Port Talbot (West Glamorgan; steel town, +9,100 jobs), Ebbw Vale (Gwent; steel town, +2,700 jobs), and, in Mid Glamorgan, Aberdare (+2,300 jobs), Merthyr Tydfil (+1,500 jobs) and Bridgend (+800 jobs). The total gain of industrial employment in South Wales was only +2,400 (Davies and Hagger 1964 p.134) as job losses elsewhere continued to offset new employment growth. The impression given is that, steel employment apart, the strategic core of economic growth in post-war Wales was the expansion of service sector employment in Cardiff/Barry (+8,200 jobs 1952-58), and the expansion of industrial jobs in Cardiff's Mid Glamorgan hinterland.

93. See for example Cockerill (1980 pp.136-140), Morgan (1983 p.181), Grant (1982 p.93). A 1973 modernisation plan envisaged massive investment and expansion in some sites and the running down of inland steel plants, with considerable job losses in the localities affected. This high investment plan required very high capacity utilisation to break even, yet in the context of major recession such capacity clearly could not be used. The incoming Labour Government reviewed the plans for the steel industry, reduced the proposed job losses and trimmed the new investment programme, yet even so British Steel was geared to rapidly expanding markets and the failure of markets to materialise meant that in 1978 the Labour Government halted the reprieve of British Steel, starting off the major round of job losses in the steel industry outlined in chapters 7 and 8.

94. The traditional distinction has often been made (e.g. Alden 1977) between the coastal strip of South Wales and the valleys. Certainly, as Alden notes, the valleys have been successful in attracting manufacturing jobs; the question posed in the text is how successful they have been at *retaining* jobs.

95. See especially Lloyd (1979), Merseyside Socialist Research Group (1980), Townsend (1983 pp.94-98). Lloyd shows clearly that inner Merseyside was dominated by large traditional firms in food, drink and tobacco, shipbuilding and electrical engineering, and that these firms were shedding jobs on a large scale between 1966 and 1975. At that particular time employment was still expanding in outer Merseyside, itself increasingly dominated by large branch plant factories, but very soon afterwards these factories themselves became major centres of job loss (Townsend 1983). During a period of rapid industrial change, the results of empirical analysis often

depend critically on the period analysed.

96. Fothergill and Gudgin (1979b p.216). In shift-share terms, Manchester had a structural shift of -5,200 manufacturing jobs per annum between 1954 and 1966, and -5,600 jobs per annum between 1966 and 1971, largely as a result of heavy concentrations of employment in the textiles and clothing industries. Differential shifts were also unfavourable, -4,300 per annum in the first period and -1,000 per annum in the second period. On Merseyside, in contrast, structural shifts were neutral and differential shifts mildly positive (+500 per annum, 1959-66; +2,200 per annum 1966-71), though not by as much as might be expected given the influx of the car industry.

97. See chapter 5 notes 101, 102 and references therein.

98. North Yorkshire, Humberside, Lincolnshire, Norfolk, Suffolk and Cambridgeshire.

99. Apart from some discussion on the spatial implications of concentration of ownership in the brewing industry (Watts 1980 pp.165-245; 1981 pp.57-93) there appears to be very little academic discussion of the geography of the food, drink and tobacco industry, perhaps partly because the relatively stable aggregate levels of employment in this sector do not attract attention. Economic surveys of the industry (for example Burns, McInerney and Swinbank 1983) tend not to deal with the geography of the industry, but one would expect that increased national self-sufficiency in food, combined with an increased volume of interaction between British farmers and food manufacturers, would have geographical implications.

100. All figures taken from *Economic Trends* (various).

101. The 1974 Labour Government took office at an extremely difficult time, with deep recession and high inflation in prospect, the oil price rise to contend with, and a major industrial dispute (which had led to the downfall of the previous Conservative Government) to tackle. The speedy resolution of the coal dispute was politically important in creating trade union goodwill, and in allowing the years of recession, rising unemployment and falling working class living standards to pass without a major eruption of industrial conflict (Coates 1980 pp.25-26, 57-67). Even this political asset eventually became a liability, as impatience at the long years of austerity, especially amongst public service workers, broke out in a series of major strikes in the 1978-79 "winter of discontent", intensifying the atmosphere of self-inflicted crisis, and ensuring electoral defeat in May 1979. As far as Britain's external economic relations are concerned, the Government attempted to counterace the deflationary effects of the oil crisis by securing a very large loan from the International Monetary Fund, in the hope that this loan would provide a breathing space for industrial reconstruction and for the redistribution of income in line with electoral pledges. The 1974-76 recession was exceptionally severe, however, and accordingly the British economy did not gain this breathing space, although the fall in national income was less in the UK than in other advanced industrial nations, but at the expense of a higher rate of inflation. In the meantime, the problem of how to repay the IMF loan became more pressing. The solution adopted, after external pressure, was to cut back on public expenditure, although this had adverse effects on employment levels, while the

extra effects these cutbacks had on standards of living of those in employment in the public sector triggered off the decisive wave of strikes noted above.

Thus the impression is given of 1974-79 as a linked succession of crises; high oil prices, industrial conflict, inflation, unemployment, weak industrial performance, a weak position in state finances, public sector cutbacks, balance of payments problems, and so on. Many of the problems eased off after 1976, with inflation and unemployment returning to more acceptable levels, but the international reflation which Britain had relied on as helping solve her problems was unforthcoming. It would be unfair to decry the performance of the 1974-79 Government merely because of this succession of crises, as many of the problems were inherited, or generated by problems in the *world* economy, and thus largely outside any possible control of Government. Even granted that, no real impression is given that the Government ever mastered the crisis to the extent of being able to anticipate future problems and prepare appropriate responses. Perhaps most damagingly of all in many respects, the much proclaimed industrial strategy turned out to be largely ineffectual (Coates 1980 pp.86-147; Grant 1982), and insufficient to counter the increasingly recognised threat (see e.g. Singh 1977, Blackaby 1979) of deindustrialisation.

For more detailed accounts, see especially Coates (1980, particularly pp.2-52) and Holmes (1985a).

102. *Gazette, Historical Supplement* 1984 pp.8-9.

103. Chapter 2.4 defines the phases of the cycle in terms of whether unemployment is rising or falling, although the concept of a "flat upswing" between two recessions is analytically useful. Unemployment responds to the number of jobs created or lost in a cyclical phase, but rises in employment at a time of relatively high unemployment might reflect not just the number of high-waged steady jobs being created, but also the creation of low status insecure jobs as a result of adverse labour market conditions. It is for reasons such as this that industrial employment change represents arguably a better indicator of the firmness of recovery than total employment change.

104. Townsend (1983) based his survey of recession on the years from 1976 to 1981. In light of the present discussion, 1977 to 1981 would be a slightly more internally coherent period. Such an assessment can of course be reached only with long retrospect, so no criticism is implied.

105. Robinson and Storey (1981) indicate that between 1965 and 1976 employment in Cleveland increased, and manufacturing employment declined less quickly than the national average, indicating a relatively *favourable* performance. Their study period ended in 1976, largely as a result of the regrettably long time lags in the dissemination of Census of Employment data. In a partial updating of information, Robinson and Storey give the rather strange impression that exceptionally high rates of employment in 1980 were linked to what was not a particularly poor performance up to the mid-1970s. The linking feature, the rush of steel closures starting around 1976, is not mentioned.

106. *Financial Times* reports would appear to confirm this impression: "Perhaps the biggest disappointment has been the lack of success of the Laing Offshore oil platform yard .... With too many yards all over Europe chasing too few orders from the oil

companies, the Laing yard, which once employed 2,600, has been mothballed for more than a year." (*Financial Times* 17.3.78; see also *Financial Times* 14.12.76). 1,300 jobs had also been lost on Teesside, out of a total of about 10,000, between 1975 and 1978 in Redpath Dorman Long, a construction engineering subsidiary of the British Steel Corporation (*F.T.* 8.4.78).

107. There is also the technical problem that elements of job loss and employment growth in larger counties are likely to be slightly understated with respect to smaller counties, in that the larger the county the more likely it is that there are two factories within a minimum list heading with contrasting employment trends (growth in one, decline in the other) which cancel each other out. Within the range of county sizes being considered in the text, it is unlikely that comparability between counties is greatly affected by this question.

108. According to *Financial Times* reports the largest industrial job loss events in Tyne and Wear in 1976-77 were at Plessey, Sunderland (2,100 jobs lost in a factory closure; *F.T.* 03.03.77), C.A. Parsons, Newcastle (mechanical engineering; 1,600 jobs lost; *F.T.* 27.04.77) and Jackson Tailoring, Sunderland (600 jobs lost, *F.T.* 25.05.77). Various smaller closures would have been reported in the local press but not in the national press.

109. House (1969 pp.100-115) details the running down of coal mining employment in North East England up to 1965. Even up to 1957 there was still a wide geographical spread of pits in Durham and south east Northumberland, but between 1957 and 1965 many of the inland pits were either closed or sharply reduced in employment while production was consolidated in the large pits along the Durham coast, and around Ashington in Northumberland (House 1969 pp.109-111). Since then, contraction of employment in coal mining has continued at a fast pace and by the early 1980s there was virtually no coal mining employment in County Durham away from the coast.

See also Bulmer (1978); employment in coal mining in County Durham stood at 170,000 in 1923, 101,000 in 1933, 101,000 in 1957 and 26,000 in 1975-76 (Bulmer 1978 p.151); even in numerical terms the job losses in coal mining in County Durham have been greater since 1957 than between 1923 and 1957.

110. The simplest way to confirm this point is by examining a suitably scaled map of the North East. The Tyne and Wear Conurbation is virtually a continuous built-up area with a population of 1,100,000 in 1981. In County Durham the population officially classed as urban stood at 388,000 in 1981, of which 122,000 were in Darlington and Aycliffe, beyond the coalfield and to the South. On the coalfield there are various towns with populations of between 10,000 and 40,000 (e.g. Durham, Seaham, Spennymoor, Stanley, Peterlee, Ferryhill) and also about two dozen discrete settlements with populations of between 1,000 and 10,000 (Easington and Crook being among the larger). This scattered urban population is typical of specialised coal mining areas, although the population in the smaller coal mining towns, or ex-coal mining towns, is classified in the Census (*Preliminary Report for Towns*) as rural. County Durham is, despite its 36% "rural" population, (closely resembling figures for Hereford and Worcester) a highly urbanised county, and one with intense urban decline as a result of job losses in coal mining. Ironically, much of this decline shows up in the Census as "rural" depopulation.

111. An important component of the urban-rural shift in manufacturing would by implication have come under the regional policy net in which firms seeking medium sized production sites, and with moderate labour requirements, paid particular attention to the semi-urban parts of the coalfields. By the mid-1970s the "regional policy industries" with particularly large plants and heavy labour requirements (notably vehicles, and iron and steel; also parts of the chemical industry) had long ceased building up their employment in the Development Areas. Thus while much of the regional policy generated in the 1960s was attracted to the conurbations (especially in the motor industry), semi-urbanised areas were emerging as the main recipients in the 1970s.

112. See for example *Financial Times* 15.2.78, written at a time when the British Leyland plant at Speke had been in a precarious position for a long while, was threatened with closure, and was in the middle of a prolonged strike.

113. Randall (1987), when discussing the Scottish economy in the 1970s, notes the separate but cumulative effects of North Sea Oil, regional policy and the urban-rural shift, but without showing which factors became significant at particular times. The acceleration of employment growth in Scottish rural areas in the late 1970s still remains something of a puzzle. Randall (1985) notes that in 1983-84, a few years after the period being discussed, rural districts in Scotland (everywhere except the central industrial belt, Aberdeen and Dundee) took about half of Government expenditure on economic activity, but that this was concentrated primarily on *non-industrial* activities (notably agriculture, foresty, fishing, tourism), with rural areas taking only 17% of total support for Scotland's industrial sector. It may well have been the case that a high level of non-industrial economic support, in combination with the more spontaneous upturn in the rural industrial sector, might have added up to a considerable boost to employment levels in rural Scotland, even away from the main centres of the oil industry.

114. Employment in the peripheral regions grew by 0.3% in 1976-7 and by 0.1% in 1977-8, while employment in the South grew by 0.2% in 1976-7 and 0.9% in 1977-8, leaving an "annual gap" of -0.1% in 1976-7 and 0.8% in 1977-8 (Tables A4, A6). This is quite a considerable improvement in favour of the South. If London is *excluded* the renewed divergence becomes far less apparent; employment in the "rest of the South" increased by 1.4% in 1976-7 and by 1.2% in 1977-8.

115. See especially the account in Keeble (1980a), and the linkages drawn between London and the rest of the South East.

116. Thus, in June 1966, there were 14,000 unemployed in Merseyside and Prescot Development District, or one unemployed for every 43 in work (2.3% unemployment). There were approximately 7,000 unemployed in the West Midlands conurbation, but this represented one unemployed to about every 160 in work, an extremely tight labour market. Merseyside was the only place in Britain within easy reach of its central urban belt with over 3,000 unemployed and an unemployment rate of over 2%; it thus provided the largest available reservoir of surplus labour south of Glasgow to attract large employers such as the car industry. Merseyside was perhaps the only place in England which could at this time have absorbed 30,000 new jobs in the car industry in a decade, without a previous substantial history of employment in this sector.

117. Keeble (1976 p.186) emphasises the extent to which car firms reported the problems of gaining Industrial Development Certificates in their origin areas as a major reason for expanding on Merseyside and, in the case of Chrysler, Clydeside. He also notes, though, that in a survey in the early 1970s the large majority of firms interviewed considered labour availability an important factor in the choice of a new location.

118. In the case of London, however, strict planning regulations (the Green Belt which in effect limited the physical spread of London to the extent reached by 1939) meant that sites on the fringe of the conurbation were artificially limited. Much industrial expansion took place in the new towns, which could in a wider sense be regarded as part of the London conurbation, especially of one makes a distinction between "city" and "conurbation."

119. Disappointingly, the most detailed empirical study of the London industrial economy at this time (Leigh, North, Gough and Sweet-Escott 1982) no attention is given to this surely fundamental shift in London's pattern of industrial job loss. In fairness, it should be noted that it was the high and sectorally *even* rate of industrial job loss prior to 1977 that was unusual in comparison with other areas, while the high and sectorally uneven rates of job loss in Leigh et al's study period (1976-81) is a more usual pattern of decline.

120. As can be seen from statistics collected by Dennis (1980); see Table 6.28 here, for example.

121. On the whole, the current set of standard statistical regions presents a satisfactory regionalisation, but East Anglia, consisting of Norfolk, Suffolk and Cambridgeshire, is too small a unit. This creates two main problems; firstly that, as noted in the text, relatively small quasi-random shifts in the employment base will represent much larger percentage shifts in East Anglia than in other regions which are about three times the size, and secondly, in many respects East Anglia as defined does not have its own economic identity but represents merely part of the South East. As argued in more detail in chapter 8, a more satisfactory East Anglian region would be given if Lincolnshire and Esssex were added to the three counties presently in the region, to give a workforce in 1977 of 1,333,000 (5.9% of the national total), compared with 681,000 (3.0%) under the "official" system. The rate of manufacturing employment change for 1977-78 would stand at +0.7% in the "unofficial" East Anglian region compared with -0.4% in the "official" region, perhaps giving a better impression of the relative resilience of the East Anglian industrial economy.

122. Regional Studies Association (1983 p.15); statistical information ultimately derived from the Department of Industry.

123. Surprisingly Parsons (1986) pays relatively little attention to the later years of the 1974-79 Labour Government in his political history of regional policy, and yet the switch towards emphasis on an inner city policy (chapter 5 note 60), along with increased public sector stringency, was in many respects, the beginning of a major dismantling of traditional regional policy.

124. See for example Daniels (1985 pp.275-279). Daniels himself, following Greenfield (1966) prefers to use a distinction between producer services and consumer services, paralleling the well-known distinction between producer and consumer industries. This

distinction has been quite popular amongst geographers in recent years (see also Damesick 1986, Marshall 1985), despite some operational difficulties in classification, because as Daniels (1985 p.278) points out, "there is evidence for spatial variation in the location patterns and behaviour of the two groups and this immediately lends itself to geographical enquiry."

The concern here is not so much with the geography of the service sector as with the change in the employment structure in the service sector; questions such as wage levels, the degree of capitalisation of employment (and thus the amount of investment required before jobs can be created) and the level of skills become important. Daniels (1985 p.275) cites a schema, designed for international comparisons, which divides industrial and service activities into three main groups:

(a) those involving intensive uses of capital and skill, e.g. mining, large scale industry, utilities and transport.
(b) those involving only limited use of skills and capital, e.g. construction, cottage industries, trade and personal services.
(c) activities in which skills are of primary importance, e.g. banking, insurance and finance, government services.

This comes rather closer to the classification used here, except that construction is placed in the "industrial" sector (a), while sector (c) is sub-divided into (i) government, (ii) health and education (iii)"private" professional services. Daniels implies that sector (c) is characterised by a relatively low degree of capitalisation. It is argued in the text however (also note 136 below) that if capital intensity is defined in terms of the organic composition of capital (the ratio between "dead labour" and "living labour"), rather than in physical equipment terms, many of the high-skill services, particularly in banking, insurance and finance, are *extremely* capital intensive. The strategic significance of finance capital in a capitalist economy is not so much that it makes money, but rather that it circulates surplus value in its most refined form and allows various possibilities of amassing personal and corporate wealth by judicious regulation of the flow of money and other assets.

From the point of view of capital, therefore, another form of classification of the service sector might be appropriate. Bacon and Eltis (1978) distinguish sharply between marketed services, which are assumed to develop the economy, and non-marketed services (basically, public sector services) which are alleged to be a drain on the economy in that firstly they cause fiscal drag, and secondly in that the allocation of such services is assumed to sub-optimal because of a lack of market pricing.

The lack of homogeneity of the service industries, both in terms of outputs and in terms of work processes, means that a multiplicity of classification schemes is possible. A distinction also needs to be made between service occupations (defined in terms of the type of work, e.g. office work) and service sector employment (defined in terms of the output which is finally sold); these are not necessarily identical. The classification used here is based on sector rather than on occupation.

125. The Standard Industrial Classification was again changed in 1980 so as to conform with United Nations specifications. The classification of the service sector in the main text presents relatively few problems under either the 1968 or 1980 systems, except that "other services" (classes 94, 96-98 in the 1980 SIC)

would appear to need to be split among various of the categories noted in the text.

126. Bacon and Eltis (1978) emphasise the distinction between the "non-market" and the "market" sector, and in effect draw a distinction between "productive" and "unproductive" labourers along these lines, arguing that Britain's economic problems resulted from too rapid an expansion in the non-market sector. The productive/unproductive distinction, though much emphasised by the classical economists, from Quesnay onwards, was effectively jettisoned by the neo-classical school. The distinction made is useful, but if definitions are made in such a way that "unproductive" becomes necessarily a pejorative term, then analytical clarity is sacrificed.

Early definitions of productive and unproductive labour revolved around the type of output. Quesnay (1758/1972) regarded the primary sector (agriculture, mineral extraction, etc.) as productive and manufacturing and services as "sterile", while Smith (1776/1976) regarded activities with a physical output as productive, and services without a permanent physical output as unproductive. Later definitions concentrated more on capital accumulation questions; Marx (1969, vol 1, pp.152-304) regarded employment as productive if wages are paid for out of capital, with the work involved contributing towards capital accumulation, and as unproductive if labour is paid for out of revenue, with no input into capital accumulation (luxury expenditure). The Bacon and Eltis definition is tied to the question of capital accumulation *in a market economy*, with employment being regarded as productive only if the goods or services produced can be sold, at a profit and without subsidy, on the open market. In effect, this requires that an activity be deemed productive only if a capitalist makes profit out of it; the interests of the economy as a whole is axiomatically assumed to be identical with the interests of capitalists, a questionable proposition.

127. The phrase "fiscal crisis" is taken from O'Connor (1973). It is a well known thesis that "society's demands on local and state budgets seemingly are unlimited, but people's willingness and capacity to pay for these demands appear to be narrowly limited" (O'Connor 1973 p.1), leading to a tendency for state expenditure to outrun state income, but these are sharp political disagreements over the responsibilities of various groups for this situation. Conservative theorists in the 1970s pointed to a "crisis of democracy" in which relatively low income groups were able to enforce fresh demands on the state without paying for them, while in contrast O'Connor (1973) notes both the pressures of militarisation on the fiscal position of the state, a very important consideration at the time of the Vietnam War, and the extent to which producer groups were able to socialise costs and privatise benefits, leading to a flow of income from the state to high income groups as the state in effect subsidised profits.

It is nothing unusual for state revenue to outrun state expenditure, the gap being met by borrowing. Problems arise, though, if the situation gets out of hand, and the most likely way in which this will happen is through an erosion of the tax base, relative to state expenditure. At the national scale such a situation is more likely to occur during recessions than during cyclical upturns, while at the local scale an area in particularly intense economic decline will be particularly severely affected by fiscal problems. Thus the fiscal crisis in local government in the 1970s has been most acute in the large cities, and in the inner cities rather than the suburbs, and indeed has been made more acute by patterns of

commuting in which high income tax payers tend to work in the city but pay local taxes outside the city. It should be noted though that in Britain many of these tensions have been alleviated by central Government redistribution of income among local authorities.

128. Reddaway (1973 pp.114-115). Reddaway (p.114) redefines the problem so that the employment effects of SET "largely disappear 'by assumption'", but this is a highly dangerous way of dealing with an *empirical* question.

129. Reddaway's argument at this point provides an excellent example of what might be termed the macroeconomic fallacy. The trap is set by the standard practice of distinguishing sharply between the macroeconomic and the microeconomic levels of analysis, rather than by posing a continuous dialectic interaction between the two levels. From the position noted above, it is a relatively short step to the argument that most of the strategic macroeconomic variables (total employment, total income, total taxation, etc.) are set *purely* macroeconomically, and that consequently any microeconomic disturbances will be precisely cancelled out in an equilibriation process to leave the aggregates undisturbed. Thus, in Reddaway's argument it has no effect on overall levels of employment if taxes are placed on jobs rather than on, say, income or consumption, because only the overall fiscal balance is important for employment levels. If jobs are taxed away in services, therefore, it would be automatically assumed that jobs will be created in industry to compensate. This shows a rather touching but misplaced faith in the ability of the microeconomy to equilibriate and to smooth over any disturbance. It seems rather more realistic to suggest that if the Government disrupts the smooth working of the economy, then these disturbances remain in the system, and perhaps cause a deterioration in macroeconomic payoffs at a later date.

Lest it be thought that the above is solely a critique of "hydraulic Keynesianism", it should immediately be pointed out that the most damaging recent example of the macroeconomic fallacy being used as a guide to policy is to be found under a monetarist guise. The incoming Conservative Government in 1979 assumed that prices could be set purely macroeconomically, by holding the money supply under control, and that any price increases resulting from increases in VAT would have no effect on inflation. Furthermore, it was assumed that output levels were set purely by the equilibriation processes of the microeconomy, and that in consequence there was no need to fear an output decline as a result of shifts in monetary policy. The predictable outcome was accelerating inflation and sharply declining output.

The macroeconomic fallacy in its various forms is generally not the result of ignoring microeconomic questions, but on the contrary usually results from the strong assumption being made that microeconomic processes tend towards a stable equilibrium.

130. Figures in this paragraph taken from *Historical Abstract*, Tables 132, 138, 139.

131. For a recent advocacy of the pre-Keynesian position on unemployment, see Casson (1983). To the casual reader this position, associated in earlier years with Pigou (1933) is paradoxical in that it appears that unemployment is created simultaneously by identifiable job losses, and by wage rates being too high. If the time dimension is expanded, however, a more coherent interpretation emerges in which cyclical shocks can cause large-scale job losses in particular industries, and hence rises in unemployment, while

after the shock there will be a tendency for real wages to decrease to such a point that the labour market clears at full employment. If unemployment persists, it is because wages remain above the market-clearing level. The overall demand for labour is, in contrast with the Keynesian system, seen as irrelevant to the unemployment level, as wage rates, not employment levels, react to overall demand; *changes* in the state of demand for labour are, however, seen as particularly important (Pigou 1933 p.252).

It is unlikely that, under any minimally realistic assumptions about the state of the labour market, the labour market can be expected to clear through a general reduction in wages. It takes fairly modest assumptions about the nature of job-holding to show that a more likely situation in a cyclical recovery under mass unemployment is for wage rates in secure core jobs to be unaffected by unemployment (as there is little overt competition between employed and unemployed for these jobs) while in the secondary labour market the market clearing rate may well be so low as to be regarded as, in effect, unemployment (note 132 below).

132. Dual labour market theory first developed in the USA in the late 1960s and early 1970s as an attempt to explain in institutional terms the persistence of labour market disadvantage amongst women and various minority groups at a time of general economic prosperity. Doeringer and Piore (1971, 1985) is the key early reference; see also Bosanquet and Doeringer (1973) for an attempt to fit dual labour market concepts to the British experience. Gordon (1972) provides a very useful discussion on the difference between neo-classical, dual market and radical approaches to poverty and underemployment, implying a strong overlap between the then existing dual market and radical paradigms.

The basic point is that the core labour market is not an open labour market but an internal market "defined by an enterprise, or by a part of an enterprise, or by a craft or professional community" (Doeringer and Piore 1985 p.x). Entry into the core labour force is restricted, but once inside the core labour market the worker has a high degree of job security and career mobility. The workers outside the core labour market generally find themselves having to adapt to any niches which exist in the labour market and working with lower wages, less job security and at lower levels of productivity than their skills would make them capable of if working in the primary market. An important part of the dual market argument is that once workers have been assimilated into the secondary labour market their expectations become permanently lowered, making the transition into the primary labour market far more difficult, and thus creating permanent disadvantage.

In concrete terms, labour markets can readily be seen to operate in dual, or even multiply segmented, fashion. This is perhaps even more obvious at a time of mass unemployment than at a time of near-full employment; large numbers of workers are in employment but at artificially depressed skill levels while other workers are operating at optimum productivity levels. This is in contrast with the neo-classical argument that a worker's skill level determines marginal productivity, and marginal productivity determines wage rates; many workers are underworked, often drifting between employment and unemployment and hence underpaid.

Axiomatically, the dual labour market approach is far more parsimonious and more realistic in its assumptions than the unitary labour market approach. In a truly unitary labour market all workers would be perpetually bidding for *all* jobs, not just vacancies, with wage rates being set at market-clearing prices; there would be no

such thing as a secure job as at each "auction" the incumbent worker would have to rebid for his job against opposition. No productive economy could successfully operate in this way.

There are several important implications of the dual labour market approach; the one of most immediate present concern is that the wage rate in the primary labour market has *no* market-clearing function, and that there is thus no supposition that an economy could be returned to full employment in a cyclical upswing by a depression of wages in the primary industrial labour market. Any market clearance takes place exclusively in the secondary labour market.

Two characteristics of the primary market need to be noted; firstly that the level of employment is set not by wage rates but by the level of effective demand in the economy, and secondly, that the primary labour market operates at full employment, except for the short term aftermath of a job loss shock when primary workers are still seeking other core jobs. The main impact of a cyclical recession is to reduce the number of core jobs, whether in a few industrial sectors, or across the whole range of the industrial economy. When the labour market settles down after a recessionary shock, the effect is not to create unemployment in the primary market, but to transfer a large number of workers from the primary to the secondary market. The allocation of unemployment among workers ultimately takes place in the secondary market even though recessionary job loss takes place largely in the primary market. In making this point it must be remembered that an ex-industrial worker in long term unemployment is no longer part of the core workforce.

Should one expect market-clearance in the secondary labour market? Ultimately the answer to this question depends on what definitions one chooses to adopt. An overextended secondary labour market implies a depression of wages in the secondary market which implies an increase of employment in the secondary market without the necessity for an autonomous expansion in effective demand; the discussion of the miscellaneous services in the main text suggests that this is the main factor behind the rise of employment in this sector during the years of high unemployment. A full market clearance may be taken to imply, however, that the increase in work done in the secondary labour market corresponds to the increase in the size of the secondary labour market, even if the wages paid are depressed. Empirically this is not the case, although it can be argued, especially in a third world context, that the shortfall occurs not so much in the hours of work done but in the productivity of work done. This can easily be related to the current British context by defining "unemployment" as being a job whose description is to claim benefit at regular intervals and to remain available for the uptake of any alternative employment which is offered; the most spectacular increase of employment in recent years in the secondary labour market took place not in the miscellaneous services, but in "unemployment", an occupation with very low productivity.

Thus seen, unemployment is regarded not so much as absence from work, but as a far point on the low end of the spectrum of productivity rates in the secondary labour market. This definition may appear paradoxical, yet it allows common comparison to be made between various forms of non-job-holding (unemployment, plus very low productivity in self-employment, e.g. begging) to be set, in theoretical terms at least, on a common level, whether there is a comprehensive unemployment insurance scheme, a partial scheme, or none at all. In one sense unemployment does not exist unless one has an unemployment insurance scheme; this however should not be regarded

as an argument that an unemployment insurance scheme *creates* unemployment where none would exist otherwise, but rather as an argument that the definition of unemployment to be broadened to include various low income, low productivity, non-household economic activities which may be regarded as effectively equivalent to unemployment. Yet if this argument is accepted, then a general reduction of wages and other incomes in the secondary labour market will not eliminate unemployment, as unemployment is defined as a condition in which incomes are already too low.

The current note attempts to elucidate at the theoretical level the argument presented empirically in the text, that job loss on a large scale in the industrial sector will lead both to increased unemployment and to increased employment in the lower waged parts of the service sector. It is hoped also that even this brief outline of dual labour market theory shows the way out of the theoretical impasse in which unemployment is "explained" in terms of wage levels being set so high that the labour market, assumed to be unitary, fails to clear; unemployment results primarily from effective demand being too low, but this is shown using theoretical tools not available to Keynes.

133. For example, neither Gershuny and Miles (1983) nor Damesick (1986) note the availability of labour in the context of less than full employment as a causal factor in the rise of service sector employment in the 1970s and 1980s, and yet this, when combined with more traditional modes of explanation (the high cross-sectional income elasticity of demand for services; the low rate of productivity growth in many service activities), indicates the context in which the service sector expands. Even at times of high unemployment, incomes increase, introducing the income elasticity of demand effect, while the presence of mass unemployment depresses wage rates, thus making output in the lower order personal services less expensive than it would otherwise be.

134. See especially Thrift (1987); the "service class" he considers is comprised exclusively of high income, middle class workers, concentrated mostly in the South of England. The term "service class" is ambiguous in that it refers to only a relatively small proportion of those working the service sector, yet the geography of service sector employment is used as a surrogate for the geography of the service class. This class undoubtedly needs to be examined, but withouth any implication that service sector employment is *in general* high income employment. The "fast food economy" is as much part of the service economy as is the "yuppie economy", a point which fits uneasily with projections of a high technology, egalitarian "post-industrial" society.

135. See especially Crum and Gudgin (1977).

136. This uses the Marxian definition of capital intensity ("organic composition of capital") and a definition which has considerable potential theoretical interest in that capital is defined in a way which allows treatment on a common level of both finance and industry. In determining the capital intensity of an operation, it is not just the physical equipment in use per operator which needs to be considered (as in standard definitions of capital intensity), but also the flow of financial assets per operator. It would be naive to assume, for example, that the amount of capital per worker in a City job relates simply to the number of computers, telephones, desks, etc., in an office, without consideration of the large amounts of money passing through the system. At all stages of the process money (representing the residue of past labour) is being

passed through the system in order to generate a return from money; this is as much a process of investment as using money to buy machinery to create an economic return.

It is probably fair to say that Marx's economic analysis was concerned primarily with industrial capitalism, with relatively little attention given to financial capitalism. To understand the capitalist system thoroughly however, both aspects need to be considered, and the living labour/dead labour notion provides a very important conceptual linkage. There are, after all, more ways for a capitalist to make money than to use his financial assets (dead labour) to invest in machinery to produce goods to sell on the market.

137. See Myrdal (1957) and chapter 1.5 above. Myrdal's work was written at a time of smooth economic growth in the industrialised countries, so that cumulative causation could be a relatively "smooth" process; some areas, particularly in the advanced economies, develop quickly, some develop less quickly and others hardly develop at all. In the context of a long cycle downswing, however, the generation of inequality is a far more "jagged" process; some areas grow quickly, some areas show mixed economic tendencies, while others go into decline as their basic economic activities are hig by severe recession.

138. See Massey and Meegan (1982), where the diversity of experience among different sectors is emphasised, on the basis of detailed comparisons between Census of Production results for 1968 and 1973.

139. Thus, if employment in the production industries in September 1984 is set at 100, September 1987 figures would be EA 109.9, EM 97.9, *WM 97.3*, SW 97.2, (GB 93.7), N 93.7, Wa 92.7, SE 92.4, NW 90.2, YH 90.0, Sc 87.8 (*Gazette*, March 1988). In the post-slump recovery the West Midlands had again become one of the more favoured regions rather than one of the less favoured regions.

Chapter 7 The Slump and After; the UK Since 1979

7.1 Introduction and Major Outlines

Enough has been said already to indicate that the UK economy had faced intense difficulties prior to 1979; the slump did not appear from nowhere. From the mid-1960s onwards the economy had been locked into a circuit of severe recessions and inadequate cyclical upswings, with the emergence of a severe inflationary spiral inhibiting any sustained attempts to escape the problem through expansionary macroeconomic strategies. The post-1979 recession has been far more intense than any previous post-1945 recession, while the net decline of employment in the slump roughly equalled the combined net job losses of the three previous recessions (1966-68, 1970-72, 1974-76). The effects of slump on employment and unemployment were severe, but the impact of previous recessions should not be ignored. Inflation rates reached very high levels in 1980 and 1981, but this only represented a perpetuation of the inflationary spiral, and neither the creation nor the intensification of such a spiral.

The effects of slump in the UK domestic economy are thus seen to be in broad line with, but an intensification of, the effects of previous recessions. This is not the place to engage in *detailed* discussion of what impact "Thatcherite" economic policies have had on the economy, a subject on which there has already been vast amounts written at academic, journalistic and political levels, often from highly polarised positions.[1] It does seem reasonable, however, that the author should present his own viewpoint, explicitly but briefly, since large parts of the subsequent argument are materially influenced by the interpretation given of the Thatcher years.

Firstly, it is considered that the slump was on its way anyway, and that Government policy in such circumstances is able to have a substantial, though limited, influence on the depth of recession, but is unable to prevent a recession altogether. It is considered that various policy measures have significantly intensified the degree of slump, but it would be going too far that Government policies *caused* the slump, although they might have hastened the onset of slump. As far as the most virulent phase of slump (mid-1980 to late 1981) is concerned, possibly the most destructive single policy measure was the attempt to reduce artificially the growth of the money supply (through, for example, attempting to cut the public sector borrowing requirement) which forced up interest rates to extremely high levels, making borrowing for investment prohibitively expensive.[2] The minimum lending rate increased from 12%

in May 1979 to 14% from June 1979 and to 17% in November 1979, remaining at 17% until June 1980 before falling back in stages to 12% by March 1981;[3] other interest rates moved roughly in line. Such high interest rates imply high exchange rates as money from abroad is attracted into Britain. The sharp appreciation of the exchange rate for sterling, in part resulting from the tight monetary stance, and in part from sterling's position as a petro-currency (boosted by the "second oil shock" following the fall of the Shah of Iran), placed British industry at an intense competitive disadvantage.[4] Even so, such short term pressures were not the only reasons behind the slump being felt so acutely in the UK in that firstly manufacturing employment in the UK had been on a declining path for a long time (chapter 6 above), and secondly in that unlike previous recessions employment trends *outside* the industrial sector were depressed. A comparison with the 1974-76 recession should help make this latter point more clearly.

In the 1974-76 recession, or at least from June 1974 to June 1976, employment in production and construction industries fell by just over 600,000, the vast majority of this net decline taking place in manufacturing. Employment in services *rose* by nearly 400,000 in the same period, mostly in health, education and local government. In a two year period from December 1979 to December 1981, employment in manufacturing fell by 1,100,000 while employment in services *fell* by 300,000.[5] Thus in these major broad sectors of the economy, the 1979-81 recession was "worse" than the 1974-76 recession by 1,200,000 jobs (with more job losses following in 1982). Most of this deterioration is explained not so much by industrial recession but by the fact that in the 1979-81 period there were substantial job losses in the service sector whereas in the 1974-76 recession, employment increases in the service sector to some extent compensated for industrial job losses.

The decline of employment in services in the slump was particularly noticeable in public administration and education, and also in retail distribution, in which December employment figures are strongly affected by the relative lack of uptake of seasonal labour in years of slump (e.g. 1980, 1981) which is normal in years of upswing (1978, 1979).

The reversal of trends in the public sector services was however the most important differentiating factor between the mid-1970s recession and the slump, at least in so far as the service sector is concerned. A programme of cutting back growth in the public sector was an important component of Government policy at the time, and so one could say that this was another aspect in which Government economic policy adversely affected employment trends. As far as the size of the public sector is concerned, two main aspects of policy may readily be noted:

(a) cutting public sector expenditure, and by implication jobs in the public sector, in order to reduce the public sector borrowing requirement in order to pursue a low monetary growth strategy, and,

(b) reducing the share of public expenditure in the national product.

In the early post-1979 years, the Conservative Government attempted to pursue both aims by a series of cutbacks in the public services, while in later years (from 1983 especially), the Government attempted to pursue the second objective more vigorously by large scale sales of public assets.

It is difficult to assess the extent to which the deteriorating trends in public service employment were due to deliberate Government policy and the extent to which they were due to the underlying economic conditions, which themselves have second round effects on Government economic policy. The evidence of chapter 6 has shown that the post-war expansion of public sector services (particularly health and education) had continued through the early parts of the long cycle downswing from 1966, but had virtually come to a halt in the late 1970s. This is seen in terms of a "crisis of the welfare state"[6] in the context of a declining industrial economy, in which a declining industrial base is financially less and less able to support expansion in the public services as industrial decline continues. It is suggested here that the only way to resolve the problem is to build up the industrial base to allow a more efficient functioning of the whole economy, including the public sector services, to take place. The main direction of causality assumed is that the performance of the industrial sector has an important effect on the performance of the public services, rather than vice versa. Government economic strategy, and earlier academic analysis by Bacon and Eltis (1978), assume a reversed direction of causality in which the degree of preemption of economic resources by the public sector services (or, in broader terms, a "non-marketed" sector) has considerable impact on the performance of the industrial economy. In such an argument, if public sector services are cut, the industrial sector can look after itself. Following such a line of argument, the Government response to slump was not to expand the public sector, as would have been the standard Keynesian response,[7] but rather to search for methods to accelerate *cutbacks* in the public sector. It is doubtful whether such public sector economies had much effect on industrial performance, and it is possible that any such effects were in the opposite direction to those intended, as a policy of contraction of demand affected the size of industrial markets. It seems, clear, however, that policies of contraction in the

public sector had direct and sizeable effects on the level of employment in the service sectors, in the nationalised industries, and on the level of total employment.

It would seem, therefore, that the programme of cutbacks in the public services has been economically counterproductive. It is accepted that during a period of severe recession, an attempt to engineer accelerated growth in the public sector services would probably place considerable strain on the economic system, resulting in possibly severe inflation, but a more sensible strategy would have been to have attempted to preserve the standards of public services rather than to reduce them. The objective of reducing the share of public non-industrial expenditure in the economy would in many circumstances be an important component of any objective of balanced growth in the economy, but such a task ought to be approached constructively, through building up industrial investment, rather than destructively, through attempting to cut public services whenever the economy shows signs of industrial decline.

The second main point to be made concerns intentionality. Much attention has been drawn to the alleged extent to which unemployment has been *created* in order to cure inflation.[8] The question to be posed is whether the Thatcher Government in its early years (say, 1979 or 1980) expected, intended or wanted unemployment to remain at over 3 million for a period of several years. This seems unlikely; it is more likely that the Government genuinely believed in the effectiveness of their policies, and that these policies were for the common good, but badly misread the economic situation.[9] Table 7.1 shows that during the early 1980s monetarist forecasters consistently underestimated the severity of recession, and thus consistently underestimated the adverse side effects of monetarist policies, whereas "Keynesian" forecasters, while not necessarily more accurate, showed less consistently directed biases in their forecasts.

The monetarist position has consistently been that it may sometimes by necessary to engineer a recession in order to eliminate inflation from the system. Friedman (1974), for example, states this clearly:

> "Starting from (a level of high inflation), and with inflationary expectations even more deeply entrenched, an effective policy to end inflation would entail as a side-effect a considerably more severe and protracted recession than we experienced in 1970. The political will to accept such a recession without reversing policy and re-stimulating inflation, is simply not present. What then? If we .... do nothing, we shall suffer even higher rates of inflation - not continuously, but in spurts as

we over-react to temporary recessions. Sooner or later, the public will get fed up, will demand effective action, and we shall then have a really severe recession."[10]

In the monetarist view, therefore, a severe recession is necessary to cure severe inflation. It is highly doubtful, though, whether monetarists as early as 1979 anticipated unemployment reaching as much as 3,000,000. Once unemployment had started to increase substantially, passing 2,000,000 in Summer 1980, the monetarist interpretation would be not that monetarist policies were having an adverse effect on the economy, but rather that the underlying problem was more severe than had previously been appreciated, and required even more severe corrective action.[11] In passing, it is reiterated that the current author's own viewpoint (chapter 2.8) is that the inflationary spirals of the late 1960s and 1970s resulted largely from increased conflict over the national product during periods of slow output growth, resulting in inflation being a more severe problem in times of recession than in times of cyclical upswing, and that any attempt to cure inflation by creating a recession would worsen inflation rather than eliminate it. Thus the rate of inflation stood at around 10% on the onset of slump, increased to around 20% in 1980 at a time when job loss became severe, and reduced to about 5% as economic growth, and the level of unemployment, stabilised around late 1982 (Fig 2.5).

The economy in 1980 and 1981 behaved in ways almost completely unanticipated by the Government, with exceptionally severe job loss and high rates of inflation coinciding. Given antecedent conditions, a slump would undoubtedly have taken place even without monetarist policy, but probably would not have been so severe; one could perhaps "guesstimate" a peak unemployment figure of around 2¼ million and a peak inflation figure of around 20%, with the inflationary path remaining roughly the same but levels of unemployment remaining consistently lower.[12]

Rapid job loss in a slump does not continue for ever, however, and the economic situation started to stabilise in 1982, but with a persistent level of unemployment of 3 million, perhaps nearly 4 million if concealed unemployment is taken into account (see Table 3.16). The fortuitous extra-economic circumstances of 1982, with a "patriotic" war taking place between the UK and Argentina over the ownership of some sparsely inhabited islands in the South Atlantic, enabled the Government to win a General Election in 1983,[13] despite the emergence of almost unprecedented economic and social problems in its previous term of office. With little hope of reducing unemployment substantially, and no real political will to do so either, the Government appeared increasingly

willing to use unemployment as an economic weapon against people in work, using the imbalance between labour supply and labour demand to keep wage increases low and to allow an increasing proportion of national product to accrue to profits.[14] Various frontal assaults took place on trades unions, their strength eroded by unemployment, to create a climate of bargaining in the work place far more favourable to capital than previously. In terms of class struggle the post-1979 period has in many respects been very one-sided; the slump was a massive defeat for labour, while the recovery was a considerable victory for capital with little of the benefit going to labour. The Conservative Government actively encouraged this trend of events.

The main purpose of chapters 7 and 8 is not to discuss the economic consequences of Mrs. Thatcher, but rather to outline the economic geography of the post-1979 slump. It has been suggested, in chapter 2 above, that a slump has definite characteristics which set it apart from other recessions in a long cycle downswing. These are:

(a) That the slump is generally far more intense than other cyclical recession.

(b) That a slump is far more prolonged than a normal cyclical recession. In the UK, the experience of both the 1929-33 period and the 1979-83 period suggests that after a phase of moderate job loss and moderately rising unemployment ("proto-slump") there follows an extremely sharp downswing, lasting perhaps 18 months, in which job loss appears virtually uncontrollable ("early slump"). There then follows a period of more gradual downturn ("late slump") lasting perhaps the length of a normal cyclical recession. It is as if a slump, like a cyclical upturn in a long cycle upswing, is followed by a mild recession rather than a period of upswing. Only after this secondary recession has taken place does the recovery occur.

(c) Recovery, when it finally takes place, is *potentially* rapid, with the possibility of substantial falls in unemployment and high economic growth rates. This potential is not always fulfilled, however (for example, the post-1983 recovery has been far weaker than might have been expected by comparison with the 1930s), and in any case needs to be set against the sharp falls in output and employment during the slump itself.[15]

When the slump is compared with other cyclical downturns since the mid-1960s (Fig 7.1) it is clear that there has been nothing previously to correspond with the prolonged and rapid rise in unemployment from early 1980 to late 1981. As far as length of recession is concerned, there is not much to choose between the post-1974 recession and the

post-1979 slump, although these two recessions were considerably longer than the previous recessions of the downswing. This broadly conforms to Mandel's observation that during a long cycle downswing recessions increase in duration and become more intense, while upturns become shorter and weaker.

Fig 7.2 is perhaps of even more interest, comparing unemployment rates during the post-1929 slump with those of the post-1979 slump. The similarities become visually even more clear when it is remembered (chapter 3.5 above) that in comparison with the present, pre-war unemployment rates are considerably overstated and that changes in unemployment rates are also comparatively overstated for the pre-war period. The main phases, whose overall identification should be no problem even if boundary points are open to argument, are summarised in Table 7.2 below, and are in conformity with the outline presented above. The similarities up to early 1933 and early 1983 respectively are striking; the contrasts thereafter are equally striking. The basic point is that while in early 1933 the economy moved sharply from a phase of late slump to a phase of rapid recovery (cf chapter 4 above), such a transition still has not occurred in the post-1979 period, (this paragraph was written in late 1986 and has not been updated; during 1987 signs of significant recovery from slump were at last beginning to appear). The "late slump" period lasted perhaps 23 months in the 1929-33 slump, and was followed by a long period of rapid industrial growth and falling unemployment. In contrast, as of late 1986 the phase of late slump has dragged on for five years or more, with no end in sight. Unemployment remains stubbornly high, at about 3¼ million, with no clear upward or downward trend, and industrial employment continues to decline, if only relatively slowly. The bulk of the increases in employment since 1983 outside the expanding financial sector, have tended to be in the "private services" (distribution, hotels and catering, "other services") representing increases in employment in generally low paid industries. As has been emphasised in chapter 6.9, this is indicative of a continued deterioration in the structure of the economy, rather than of any form of improvement. The extent to which the economy is still largely stuck in a phase of late slump and has not moved on to substantial recovery may be regarded as perhaps the major dynamic problem in the UK economy at the current time (1986). Detailed discussion of this point cannot be followed here, for reasons of space.

It would not be surprising if the distinct phases of slump outlined above were to be associated with distinct phases of regional patterns of employment change. This is an issue to be covered in detail in this chapter and the next chapter. It has already been noted, in

chapter 4 above, that during the early part of the 1929-33 slump, up to late 1930, the large scale rise in unemployment was almost exclusively confined to the North (as defined for the purposes of this dissertation) and also the Midlands, with the South emerging relatively untouched. Only in the later stages (1931-33) did unemployment rise significantly in the South, under conditions of regionally even employment growth. While the regional differences, for reasons to be examined in detail later, were not so sharp in the post-1979 recession as in 1930, there are various clear parallels to be noted. Thus, in the early part of the slump, the effects of recession were largely confined to the North and Midlands, with large parts of the South remaining relatively unscathed. In the latter part of slump, differences in regional patterns of change had become less sharp, although they still remained significant. The remainder of this chapter explores such relationships further.

Section 7.2 presents a brief general account of rises in unemployment during the slump, while section 7.3 outlines the main industrial changes of the slump years. Sections 7.4 to 7.7 concentrate in more detail on limited periods, while section 7.8 considers the geography of unemployment change across the slump as a whole. Chapter 8, based on a comparison between the 1978 and 1981 Censuses of Employment, attempts to focus on the geography of employment change.

7.2 The Accumulation of Unemployment During the Slump; General Patterns

In many respects, the growth of unemployment during the slump has been the central social characteristic of slump.[16] Earlier accumulations of unemployment had led to a rate of unemployment which was high by historical standards in 1979, but not so high as to make unemployment a pervasive phenomenon, except in specific localities, notably in the large cities of the North. In June 1979 unemployment was at very high levels in less favoured parts of North East England, Wales, Scotland, Merseyside and especially Northern Ireland (Table 7.3), all of which may be regarded as areas of traditionally high unemployment. These high rates of unemployment resulted, as has been discussed in chapter 5, from a combination of high unemployment rates at even the peak of the long cycle (typically about 2 to 3%, compared with a national average of just over 1%) and faster than average increases in unemployment resulting from relatively poor employment performances in the various cycles of the downswing.[17] Table A10(i), showing unemployment changes by county between June 1976 and June 1979, is particularly instructive in this respect. Unemployment nationally was virtually the same at the end of the period as at the beginning, yet there had been fairly heavy increases in unemployment in peripheral industrial counties with high unemployment as of 1976, and declines of unemployment, often fairly substantial, in the lower unemployment counties of the South and Midlands. Thus the period leading up to the slump, discussed in more detail in chapter 5, was one of considerably economic divergence between localities, with worse-off localities slipping further behind more prosperous parts of the country. It would be highly surprising if the slump had not exacerbated these tendencies, since the intensification of economic difficulties in this period would be expected to be felt particularly severely in those areas with a history of economic vulnerability. As further discussion makes clear, however, the deteriorating position of the West Midlands economy, previously prosperous but having undergone severe difficulties in the 1974-6 recession, was to become an increasingly important feature of slump.

In the preparation of this thesis considerably exploratory work has been undertaken on the monthly counts of unemployment by region and county, largely in order to keep up with events as they happened. It needs to be recognised, however, that changes in the unemployment rate do not always provide an accurate reflection of changes in the local level of employment. The extent of the gap is shown in comparisons made between percentage changes in employment by county and percentage point

increases in unemployment for the period from June 1978 to September 1981, employment figures being taken from the Census of Employment. Table 7.4 and Fig 7.3 present this information.

It is shown that there is often little close correspondence between changes in employment by county and changes in unemployment by county. It is generally possible to infer from changes in the unemployment rate whether counties have shown relatively favourable or relatively unfavourable trends in employment but perhaps not much more than this. Table 7.4 shows that in those counties which escaped slump lightly (employment falling by 2½% or less), there is no real link between the rate of change of employment and the rate of unemployment increase. Whatever the change in employment, unemployment rose in these counties by between 4.0% and 5.3% with only three exceptions, Warwickshire, Hereford and Worcester, and Dumfries and Galloway. This, it is suggested, shows the powerful effect of migratory flows in equalising changes in unemployment rates;[18] in effect there was a national minimum increase in unemployment of 4 percentage points during the period, which applied whether employment increased by 9.9% (Grampian) or fell by 1.8%(Somerset). The three counties with larger increases in unemployment all border on to a conurbation with a severe fall in employment, which sets up migratory currents which tend to equalise increases in unemployment between the depressed conurbation and surrounding more prosperous areas. The effect is particularly strongly marked in the counties adjoining the West Midlands Metropolitan County (Warwickshire; Hereford and Worcester). Much of the migration involved would be, especially in the short term, on a daily basis with the location of employment changing but not the location of residence. An even more important factor, perhaps, would be that people who work in a city, but who live in surrounding counties will be registered as unemployed, if they lose their job, in their county of residence rather than in their county of work.

There is a far higher degree of covariation between employment change and unemployment change in counties more strongly affected by the slump, although because of selective migration each *extra* percentage point fall in employment change is associated with perhaps only half a percentage point rise in unemployment (Fig 7.3). Some clear outliers stand out, however. Unemployment figures are lower than would be expected in Tyne and Wear especially, and to a lesser extent in West Yorkshire, Cornwall and the Isle of Wight. Unemployment rates are higher than would be expected in Staffordshire, Lancashire and the West Midlands (metropolitan county) as well as the three counties mentioned earlier. Ignoring the two "holiday counties" (Cornwall and the Isle of Wight), there is a clear element of regional differentiation. In

particular, West Midlands counties show unusually large increases in unemployment for their decreases in employment, suggesting that migratory patterns have been slow to adapt to the rapid decline of fortune of that region, perhaps precisely because of low initial unemployment rates. The counties with anomalously low increases in unemployment are both heavily urbanised counties in the North-Eastern part of England. It is unclear at this stage whether the successful restriction in unemployment increase is due to a slowing down of gross in-migration or a speeding-up of gross out-migration, or both.

Another way of looking at the figures is to examine the extent to which the underlying structure of change could be predicted from unemployment figures alone. In the more prosperous parts of Britain, virtually nothing could be revealed in this way. Because of this, little attention is given to Southern England in the following discussion of short-term movements in the unemployment rate. It will generally be assumed, however, that in any short time period, unless there are unusual circumstances, the minimum likely rate of increase in unemployment in any county which has escaped the effects of recession in that period is given by the rate of increase of unemployment in the least affected areas of Southern England.

In more depressed areas, figures for the rate of change of unemployment are more informative. Generally, any large increase in unemployment in such an area is to be explained by a substantial job loss event, although the seasonal releases of cohorts of school leavers on to the labour market will also create bulges in the unemployment figures. The increase in the number of unemployed following a major job loss will tend to be smaller than the number of jobs lost, since there are a number of routes (migration, withdrawal from the labour force, self employment, etc.) through which a displaced worker can escape being placed on the local unemployment register without displacing someone else local from an employment opportunity. There are several cases (e.g. Shotton, Corby and Consett, following local steel closures) in which a substantial increase in unemployment in one period, following a major local job loss, is followed by an unusually small rise in unemployment in a subsequent period, implying various lagged relationships between job loss and escape from unemployment on the local labour market. Table 7.5 presents time profiles for unemployment between 1980 and 1982 in the three towns mentioned above.

In each case, unemployment was higher than the national average at the start of the period, particularly in Consett, reflecting earlier accumulations of unemployment, partly due to job losses in the steel industry itself. During 1980, each of the three towns underwent a phase

of extremely rapid increases in unemployment as steel jobs were lost on a large scale. In Shotton, unemployment increased by 3,774 (7.7 percentage points) between January and May 1980. In Corby, unemployment increased by 2,350 (7.3 percentage points) between April and July 1980. In Consett, unemployment increased by 2,546 (8.0 percentage points) between September 1980 and January 1981. In each case, the main responsibility for such heavy increases in unemployment lies with job losses in the British Steel Corporation, although not every job lost in the steel industry is represented in the local unemployment figures.

Following these major bursts of job loss, there was in each case a substantial secondary phase of increasing unemployment, between June 1980 and July 1980 in Shotton, between August 1980 and January 1981 in Corby, and between February 1981 and June 1981 in Consett (the precise timing being unclear in this last case because of a lack of availability of figures for March and April 1981). It would be unwise, however, to jump to the conclusion that these further increases necessarily represent local employment multiplier effects; in each case another factor is involved. Unemployment usually rises between June and July in any year as the influx of school leavers swells the labour market; this can be seen at the national scale for 1980 and 1981 in Table 7.5, and it applies with still more force for the Shotton area, in which school leavers are confronted with a labour market which has suddenly become extremely depressed. This seasonal factor explains the secondary increase in unemployment in Shotton. In Corby, the peak rate of increase of unemployment was in mid-1980, but this was an intermediate phase in the running down and closing down of a large plant; there were still substantial job losses to come later in the year.[19] In Consett, the 1980 increases in unemployment can be explained in terms of the closure of the steelworks in September, with 3,700 jobs being lost, while the increases of early 1981 can be explained in terms of a second factory closure (Ransome Hoffmann Pollard, a bearings manufacturer) with a further loss of 1,250 jobs.[20]

Once this secondary wave of unemployment had passed, unemployment decreased substantially in each of these towns, despite rising national trends, as labour market adjustments took effect. This can be seen very clearly after September 1981 (Table 7.5). While local employment multiplier effects (such as shops closing down in depressed areas) might have some effect on employment levels, adjustments in the labour market, including emigration, would appear to have far more substantial effects on the level of unemployment.

These three case studies are comparatively straightforward in that changes in unemployment are dominated by a single large job loss and its

effects on a relatively small local labour market. Two distinct phases, which may overlap in time, may be identified; a phase of job loss and a phase of labour market adjustment to job loss. The rate of job loss is largely determined by decisions taken by industrialists, generally outside the local area. The extent to which labour market adjustments compensate locally for job loss depends on the characteristics of the local labour market, including the rate of unemployment locally and the rate of unemployment in surrounding areas, and also nationally. The reduction in unemployment in the months after a spate of job loss has occurred is likely to be higher in an area of very high unemployment (e.g. Consett) or a high unemployment area surrounded by low unemployment areas (e.g. Corby) than in an area which, although it has had heavy job losses, still has a medium rate of unemployment. Migration flows from the first two types of area are likely to be far stronger than those from the third type of area.

The West Midlands conurbation is an example of the third type of area. In June 1979, unemployment in the West Midlands metropolitan county stood at 5.6%, the same as the national average. Throughout the slump, unemployment in this county increased extremely rapidly, as inspection of Table A10 will show. The size of the increase in unemployment certainly indicates that the industrial base of the West Midlands was in severe decline, but it does not necessarily indicate that the recession was affecting the West Midlands much more than anywhere else, as contemporary commentators (notably in the national media) were tending to indicate. The comparison between the West Midlands (county) and Tyne and Wear in Table 7.4 is particularly instructive. Both are conurbations, one in a traditionally depressed area (Tyne and Wear) and one in a traditionally prosperous area (West Midlands). Each of these counties had an almost identical rate of decline of employment between 1978 and 1981, yet the percentage point rise in unemployment in Tyne and Wear was only 63% of that of the West Midlands. Any interpretation of recession based *solely* on unemployment figures would tend to conclude, erroneously, that the impact of recession in terms of job loss was far more severe in the West Midlands than in Tyne and Wear, or indeed than in any other county apart from, perhaps, Cleveland. The recession has undoubtedly been severe in the West Midlands (both region and county), but no more so than in various other counties (Table 7.4). What is unique about the West Midlands case is that a far higher proportion of the jobs lost was translated into unemployment than in any other heavily depressed area. Caution must therefore be taken in comparing rates of unemployment change in the West Midlands with rates of change elsewhere.

Given the pitfalls in attempting to evaluate the degree of recession in an area purely on the basis of unemployment statistics, analysis of Census of Employment data (chapter 8 below) is particularly important in assessing the geography of slump. The rate of unemployment may be strongly influenced by the rate of job loss, particularly in a relatively depressed area, but one cannot assume that the geography of job loss completely determines the geography of unemployment. Once this problem is appreciated, analysis may proceed.

Tables A10(i)-(xi) provide details of changes in unemployment by county for various phases during the pre-slump and slump periods. Each time period chosen is one in which the national unemployment rate has increased by approximately one percentage point. As a result, the time intervals are shorter during the most intense phases of slump (mid-1980 to mid-1981) than during less intense phases. Within each period, counties have been ranked according to the increase in unemployment during this period.

Much early experimentation took place on the form of the histogram which could be produced from tables of the type given in Table A10. Broadly parallel work, using U.S.A. state incomes, rather than unemployment, has been conducted for annual periods from 1930 to 1942 by Vining (1945, 1946). This earlier work suggested that a skew in the frequency distribution in the same direction as the business cycle (thus, a positive skew when national incomes are rising, a negative skew when they are falling) is the standard result. Translated into unemployment terms, one would expect a positive skew in histograms of unemployment increase during a business cycle recession. Such a pattern of skew, with a few counties having a large increase of unemployment and most having a lower than average increase in unemployment, may certainly be detected for various time periods during the slump (e.g. September-December 1980, June-December 1981, in Table A10 and Fig 7.4), but the significance of this is not clear, in that (a) it tends to be the more populous counties which generally have larger increases in the unemployment rate, given the problem of urban industrial decline, and (b) the equilibriating effects of migration flows set a lower limit to the rate of increase in unemployment, whatever is happening to employment, thus artificially truncating the lower end of the distribution. A more interesting question than that of skew is whether the distribution is multi-modal or not. One possibility to consider is that histograms produced from the peripheral counties, where the rate of job loss is an important determinant of the rate of change in unemployment, are likely to be different in several important respects from histograms produced from data for Southern England, where the rate of change in unemployment

is often largely independent of the rate of job loss.

Fig 7.4 presents histograms showing the frequency of observations for changes in unemployment at particular rates for the first ten periods used in Table A10. In each histogram, readings for the North and the South are presented separately. It will readily be appreciated from Fig 7.4 why the author showed considerable interest in the form of these histograms in the early stages of this research work (and particularly in 1980 and early 1981). The early histograms in the series show in many respects an extremely sharp differentiation in rates of unemployment change between North and South. Indeed, for the period June 1976 - June 1979 (Fig 7.4(i)) there is only a small degree of overlap between the distributions for North and South; during this period, counties in the South of England generally showed falling unemployment while counties in the North of England and Scotland and Wales generally showed rising unemployment.

The composite nature of the distribution appears clearly in the early part of the slump, as well as in the pre-slump period. The histogram (Fig 7.4(ii)) for June 1979 to June 1980, when unemployment started to rise significantly, would appear as a simple right-skewed distribution if North and South had not been separated. An unusual feature would be the slightness of the left-hand tail of the distribution, small even for a positively skewed distribution; this would probably be explained by migratory currents setting lower limits to the level of feasible increases in unemployment.

Once the distribution is split into its components, however, distinctions between North and South become clearer. Industrial job losses at this stage were substantial in the North although not in the South[21] (Corby being a very prominent exception). Any job losses in the South were generally not large enough to have substantial impact on the local unemployment rate so early in the slump, whereas many of the job losses in the North were sufficient to have a considerable effect. The histogram for changes in unemployment in the North largely reflects the geography of industrial job loss; the distribution is positively skewed, as one might expect (from Vining 1945, 1946), but less strongly than the skew for Southern England. It is doubtful whether much of Southern England was undergoing active net job loss at this stage (section 7.4 below) and the distribution shown for the South is moulded more by labour supply characteristics than by patterns of job loss. One might suggest that in this period a rise in unemployment of about 0.4 to 0.8 percentage points was "normal" for Southern England, and represented the rise which would be given by patterns of migratory flow and the natural demographic increase in the size of the local

labour force. Any substantial extra increases in the rate of unemployment (e.g. in Essex, Leicestershire and, most spectacularly, in Northamptonshire) would quite possibly be explained by an additional component of industrial job loss.

After June 1980, the level of unemployment was rising extremely quickly nationally, while North-South distinctions in the rate of unemployment increase were becoming less clear-cut (Fig 7.4(iii)-(v)). From February 1981 until the end of the year (Fig 7.4(vi)-(vii)) there was little discernable difference in the shape of the histograms for North and South. In passing it should be noted that from June 1980 most of the obviously extreme values on the histograms (in Fig 7.4(iv),(vi)-(xi)) result from large scale seasonal shifts in employment in tourist counties such as Cornwall and Gwynedd.

The situation for most of 1981 was for unemployment to increase at roughly the same rate in North and South, with histograms for counties in each division showing roughly the same form, but for unemployment rates to be higher in the North than in the South at the end of the period, as they were at the beginning of the period. It is suggested that this levelling out of increases in unemployment is to be explained by two main factors:

(a) A spread in the geographical effects of slump at its most virulent phase so that the South as well as the North is affected by large scale industrial job loss (sections 7.6, 7.7 below).

(b) An intensification of the directionality of North-South migration flows as a response to the changing geography of employment, with the effect that unemployment in the South is increased, and unemployment in the North, particularly in areas with recent large scale job losses, is reduced. This migratory flow is presumably by this stage sufficient to cover the gap between rates of employment change in North and South, so that the final result is that unemployment increases at approximately the same rate in different parts of the country.

Table 7.6 shows that from Spring 1981 there was also a considerable levelling in the rate of unemployment increase at the regional scale, especially in comparison with earlier periods. The West Midlands region, however, still had conspicuously larger increases in unemployment than any other region as a result of continued high rates of job loss (section 7.6), in association with relatively low rates of net emigration, as a result of the low ratio, for an industrially depressed area, between the current unemployment rate and the rate of active job loss.

It is probably not coincidental that a spatially even growth in the rate of unemployment emerged just after the peak phase of industrial

job loss (September 1980 - March 1981; see Table 7.7 below). In such a period, the active rate of job loss is falling, reducing some of the dynamic disadvantage of the North with respect to the South, while the large scale effects of previous job losses would still be having an active impact on spatial labour market systems, exerting downward pressure on the high levels of unemployment in the North.

During the course of 1982 and early 1983, however, unemployment tended to rise faster in Northern counties than in Southern counties (Fig 7.4(viii),(ix)) as the "secondary recession" of slump hit the economy. While there were few instances of extremely high rates of job loss in industrialised counties, it is clear from Fig 7.4(viii)(ix), and the corresponding tables in Table A10, that the North was affected more than the South. Furthermore, as the peak phase of slump passed further into history, the migratory currents relating specifically to events in that particularly virulent phase weakened, allowing longer term trends to be more clearly seen.

In the "secondary recovery" (April 1983 - July 1984) rates of unemployment decline were broadly similar in North and South, representing the normal pattern, but some more detailed nuances of this recovery stage will be discussed later (section 7.7(ii)).

Across the slump as a whole, unemployment has of course increased more in the North than in the South. Fig 7.5 shows this clearly. The modal group in the North consists of those counties with increases in unemployment of between 10.0 and 10.9 percentage points whereas the increases in the joint modal groups in the South are 7.0 to 7.9 and 8.0 to 8.9 percentage points. The modal group for the South is effectively the left tail group for the North, while almost half the counties in the North (16 out of 34) had larger increases in unemployment than any county in the South.

7.3 The Industrial Economy in the Slump

The increases in unemployment during the slump may be regarded as the social manifestation of a process of severe industrial decline. Ultimately, industrial job loss must be regarded as the primary cause of the increase in unemployment during the slump. This does not necessarily imply that the unemployed at any given time are predominantly industrial workers since there are powerful displacement mechanisms in operation which tend to ensure that whatever the *origins* of unemployment, the *effects* of unemployment are felt disproportionately by those groups most marginal to the labour market. Thus, in the 1980s, the highest rates of unemployment tend to be found amongst young entrants to the labour market,[22] and particularly amongst black youth, who face racial discrimination as well as all the other hazards of the labour market.[23] A typical mechanism of displacement would be one in which the redundant industrial worker would have both the work discipline and also specific skills which would give him or her preferential access to new jobs elsewhere in the economy, while a young inexperienced worker, who might otherwise have got one of the alternative jobs, would be passed over. While it is undoubtedly true that the older industrial worker who is made redundant often faces severe problems in the labour market,[24] the operations of various diffusion mechanisms ensures that the burden of unemployment generally bears most heavily on the young. Another factor which needs to be considered is that the redundant industrial worker will often be able, through having life savings and redundancy pay, to find the capital to start a small business, while the young unemployed person will tend not to have this escape route.[25]

Thus the fact that unemployment tends to be concentrated amongst the young, with unemployment rates for under 25s being typically twice those for over 25s,[26] does not invalidate the case that the decline in industrial employment is the ultimate cause of mass unemployment. It should perhaps be noted in passing that in the 1930s the diffusion mechanisms in the labour market were much weaker, as young hands were preferred to older industrial workers who had lost their jobs, meaning that unemployment rates were relatively low among young people and high amongst older industrial workers.[27]

The question of industrial change is central to understanding the slump. Table 7.7 shows quarterly percentage changes in employment by industrial sector between 1979 and 1983, while Table 7.8 carries out the same exercise for percentage change in industrial employment by region between 1979 and 1985.

Table 7.7 would indicate that in terms of industrial job loss,

there appears to be a period of "proto-slump" lasting from perhaps September 1979 to the Spring of 1980, when there were substantial industrial job losses, notably in textiles, metal manufacture and shipbuilding, but in the context of modest overall job losses. In the Spring and Summer of 1980 job loss became much more intense and started to have severe effects on virtually every industry. Job losses were exceptionally severe between June 1980 and June 1981, a period of "full slump" in which industrial employment fell by almost 1% per month, and by 11.0% in the course of a whole year. From mid-1981, the rate of job loss eased off slightly, but still remained high. This was a period of "late slump", a secondary recession following the major job losses of the full slump. Industrial employment declined, but less quickly than before, while unemployment continued to increase, but less quickly than before. National figures for industrial employment change (Table 7.8) suggest that this period of secondary recession lasted until early 1983, at which stage the rate of industrial job loss slowed down considerably. The period after that may perhaps best be regarded as "flat recovery."

Not surprisingly, the time profile for unemployment (Fig 7.2) closely mirrors that of industrial employment. Unemployment in late 1979 was lower than at any stage since 1976, but at the turn of the year, unemployment started to increase substantially. There was a very noticeable acceleration in the rate of increase of unemployment around May 1980, and during the phase of "full slump" which followed, unemployment increased by a million in the course of a single year. Unemployment continued to rise quickly in late 1981 and through 1982, but the curve of unemployment was gradually levelling off. From early 1983 onwards, the unemployment curve has been characterised primarily by minor fluctuations around a gradually upward trend.

While the decline of industrial employment is clearly the chief reason for the major post-1979 increases in unemployment, this decline in employment itself has to be explained. The next stage is to consider the relationship between output, employment and hours of work. There is a complicated set of trends and counter-trends behind any shift in the level of industrial employment. Table 7.9 and Figs 7.6 and 7.7 help illustrate some of the main shifts.

The level of industrial production is a convenient starting place for examination. Fig 7.6 shows that industrial production, whether in manufacturing industries alone or in production industries as a whole, fell sharply from June 1979 until about October 1980. From then until late 1983, output remained basically static, with some small-scale fluctuations. From late 1983 onwards, output started to expand again, at a rate of about 3% per annum. This rate of output growth is

certainly not high, but it was high enough to stay almost in line with long term productivity trends, implying that employment levels in manufacturing would be relatively stable, which is in fact what happened (*Gazette*). The lower rate of job loss in this later period was the result of a faster rate of growth of output.

Had the timing of changes in the level of manufacturing employment directly followed output trends, one would expect an extremely sharp fall in manufacturing employment from June 1979 to October 1980, then a continued heavy decline, but at a lesser rate, until about late 1983, then a very slow decline in employment thereafter. Even if one were to allow for the likelihood that much of the variation in the level of output in 1979 was due to seasonal factors, with output being particularly low in the holiday months, one might still expect a rapid and continuous decline in industrial employment from November 1979, and a considerable reduction in the rate of decline from October 1980. Table 7.7 and Figure 7.6 show, however, that the peak phase of employment decline in manufacturing came later than output trends suggest, and lasted from about May 1980 to April 1981. During much of this period, the rate of industrial job loss averaged about 1% per month. There are further problems of interpretation in that the change in output trends in 1980-81, from rapid decline to static output, was an abrupt change (Fig 7.6) while the deceleration in the rate of job loss was much more gradual.

The number of employees in employment in manufacturing is not, however, the ideal indicator of the amount of industrial work done in an economy. The length of the working week is another factor which has to be considered.[28] In general the length of the average working week is likely to increase during a cyclical upswing as the amount of overtime worked increases, and to decrease during a recession, as the amount of overtime decreases, and the number of workers working short time, or temporarily laid off, increases.

The main reason behind the cyclical variability of overtime is fairly obvious. If during a cyclical upswing a firm wishes to expand its workload (in person hour terms) to meet an upsurge in demand, but anticipates that this expansion of workload is liable to be temporary rather than permanent, it is often a more practical strategy to lengthen the working week for employees already in employment, even though this expansion in employment is at overtime rates, rather than to go through the expenses of recruiting and training labour for what might only be a short spell of employment.[29] As of mid-1979 roughly a third of manufacturing operatives were working overtime, with weekly overtime amongst such operatives averaging slightly over eight hours per person;[30]

such a figure may be regarded as fairly typical.

During a recession, and particularly one as severe as that which started in late 1979, a firm is faced with the problem of realising its production on the market. In a mild recession, the problem might merely be that the rate of expansion of the previous upswing might have to be checked. In a severe recession, and particularly in a slump, market demand, and hence output, falls.

In response to such a situation of falling demand, a firm has the following options, in increasing order of severity:

(a) Stockpiling of goods (producing more goods than can be sold, and storing them). This represents a temporary expedient. Such stockpiling would generally take place only when a swift upturn in demand is expected (certainly not the case in 1980 conditions), or as a process of temporary adjustment to conditions prior to more severe measures. Such stockpiling would be of *finished goods* which cannot readily be sold on the depressed market. Smith (1984 pp.20-21) points out that stocks of raw materials and components (*inward*-moving stocks as opposed to outward-moving stocks) were being reduced sharply during the slump, under financial pressure, which considerably intensified the effects of recession.

(b) A reduction in production without a reduction in labour. This again, and obviously, represents a temporary phase.

(c) Reduction of overtime. This is a particularly attractive option for the employer if hours of work need to be cut to a moderate degree, since it reduces labour costs (the proportion of hours worked at standard rates rather than overtime rates increases) and does not involve shedding labour, which is both expensive and unpopular. The scope for meeting a firm's economic problems by cutting overtime is limited. Thus, in mid-1979 only about 4 to 5% of the hours actually worked in manufacturing industry consisted of overtime, and between then and early 1981 overtime fell by a half (Table 7.9). A reduction in overtime therefore produced a cut in labour hours of about 2 to 2½%, which is clearly insufficient to meet a fall in output of 20%.

(d) Introduction of short time, or temporary stoppage of labour. A crisis measure; if prospects improve in the short term future, normal working may resume, but if not, workers are liable to be made redundant.

(e) Redundancy. In a slump, economic conditions are likely to be so severe that eventually the firm has no alternative other than to reduce employment, despite the short term expense of redundancy payments. It should also be noted that there is a time lag

between the announcement of a major redundancy and the redundancy actually taking effect. The law requires 90 days notice for a redundancy affecting over 100 employees.[31]

In considering the time profile of job loss during a slump, it is important to ask the question of whether reductions in overtime precede phases of job loss, or are contemporaneous with such phases. In general it would be illogical to maintain high levels of overtime, while simultaneously cutting substantially the numbers employed. There are specific circumstances in which it is possible to imagine this happening (for instance if a multi-plant firm decides to close a factory down and consolidate production in an alternative factory), but generally it is uneconomical for a firm to shed employment while maintaining high levels of overtime working. A more logical course of action is to reduce overtime first, and only then, if this is insufficient, to reduce employment.

It follows that job loss is not, in terms of timing, the firm's first response to falling output, and that in the early parts of a deep recession, employment trends lag output trends; overtime is cut before employment. Fig 7.7 shows the time series for two measures of the level of labour in manufacturing during the slump. A curve for the number of employees in employment is contrasted with a curve showing an index of the number of hours worked in industry. This index is calculated by adding on to the number of employees in employment the amount of overtime worked, expressed in terms of its full-time employment equivalent, and subtracting the time lost through short-time working, again expressed in terms of a full-time employment equivalent (Table 7.9). This gives an indication of the amount of manufacturing work done in the economy, but the index is not precise, in that, for example, no account is taken of splits between part-time working and full-time working, and the assumption has been made of a standard working week of 40 hours.

One would expect that these two curves would show similar tendencies on the broad scale, and this is indeed the case. At a more detailed scale there are substantial differences, particularly in the period from December 1979 to September 1981. From December 1979 onwards, and especially from May 1980 onwards, employment declined rapidly in manufacturing, as has already been noted; the number of hours worked declined even more rapidly, however. Between December 1979 and January 1981, 773,000 jobs were lost in manufacturing, a sizeable number by any reckoning, but the amount of overtime lost represented the equivalent of a further 209,000 jobs while the increase in short time working represented the equivalent of a job loss of a further 191,000 (Table 7.9). In this 13 month period, there was a "concealed" job loss in manufacturing

of 400,000 to add on to the actual job loss of 773,000.

Throughout 1980, therefore, the industrial recession was even more severe than employment figures suggest, and the proportional drop in the number of hours worked was, up to January 1981, about a third greater than the proportional fall in the number of jobs. The increases in short-time working and reductions in overtime were critical factors.

Trends in 1981 were contradictory. Fig 7.7 shows that while the number of *employees* in employment in manufacturing continued to fall sharply, the number of *hours worked* remained fairly steady, but on a slight declining trend. The figures for hours worked are in accordance with the figures for output (Fig 7.6), while the figures for employment are not in accordance, suggesting that the number of hours worked in the economy is perhaps a more fundamental economic statistic than the number of employees in employment. Examination of Table 7.9 shows that from January 1981 onwards, the amount of overtime gradually increased, while the degree of short-time working declined substantially. Given the form of the time series for the number of hours worked in manufacturing, it is possible to suggest that the reduction of short-time working indicates a relaxation of recessionary pressures.

From early 1982 onwards, the series for employment and for hours worked show a strong degree of concordance. In 1980 and 1981, these series showed strongly divergent trends. As Table 7.10 indicates, examination of the number of employees in employment, the most accessible time series, concentrates attention on a period between about September 1980 and March 1981, while the time series for the number of hours worked concentrates attention on an earlier period, from about June 1980 to December 1980.

The decline in manufacturing output was not noticeably faster in late 1980 than in early 1980; throughout the year the rate of decline stood at around 15% per annum.[32] This raises the question of why the number of hours worked fell considerably faster in late 1980 than in early 1980 while the decline in output did not accelerate to the same degree. The formulation of a question implies a change in productivity trends, and Fig 7.7 shows that such a change took place, but it is the precise nature of that change which is of interest. The productivity index in Fig 7.7 was calculated from the index of man hours worked (Table 7.9, Fig 7.7) and from the official index of industrial production (*Economic Trends*, various; Fig 7.6 here).

Fig 7.7 shows that productivity was falling sharply between November 1979 and September 1980, then rose sharply to recover lost ground between September 1980 and October 1981, and then increased more steadily from October 1981 to date. The slump had a considerable but temporary

depressive effect on levels of productivity.

In the long term, productivity increases through the incorporation of technologically superior forms of production. A substantial temporary fall in productivity cannot be explained by such technical factors (the best technology of 1980 is not worse than the best technology of 1979), but instead needs to be related to workplace factors. The fall in productivity would probably have resulted from the necessity to run operations at less than full capacity as a result of falling demand, which renders impossible the most efficient deployment of manpower. When manufacturing operations are being run at below capacity levels, some tasks are divisible and can be undertaken at lower output levels without loss of efficiency, but other tasks are less divisible, so that any reduction in output reduces efficiency. Overall, productivity declines for a given set of machinery. Furthermore, given the economic conditions of the time (very high interest rates, sharply falling demand), the prospects of increasing productivity through the incorporation of new technology were not bright.

The unwelcome additional pressure on unit costs through declining productivity at a time of high inflation eventually requires corrective action. One may hypothesise that the increased loss put in the second half of 1980 meant the decline of output had passed important thresholds which made rationalisation (elimination of large elements of capacity, including whole factories)[33] the most effective course for reducing production and increasing productivity. A fall in output of 7% in a multi-plant enterprise might not be enough to justify closing a factory, and might tend to result in below-capacity working, while a fall in output of 15% could well justify the closure of a whole factory and the operation of other factories at full capacity, recovering lost productivity.

The discussion so far suggests that the most severe phase of industrial slump lasted from late 1979 to mid-1981. Within that phase there were three main sub-periods. In late 1979 and early 1980, output started to drop sharply, but employment fell rather less quickly. Productivity declined as a result of sub-optimal use of capacity. From about May 1980 until the end of the year, output fell rapidly, but only at the same rate as in the early part of the year. Employment, and total hours of work, fell more rapidly than in the early part of the year as accumulated economic pressures led to a wave of rationalisations. In any individual firm it is likely that overtime reductions would precede job loss, but by late 1980 the stage had been reached in which adjustment to changing conditions by reducing overtime was no longer sufficient, and large scale job loss would be implemented instead. The

third stage, in early 1981, was one in which output and total hours worked had stabilised, but employment continued to decline at a substantial rate.

This picture is one which is derived from manufacturing industry at an aggregate level. It is desirable to have a more disaggregated view.

In terms of job loss, a useful distinction may be drawn between "early shock" industries, in which the onset of slump swiftly precipitates a very large drop in employment, and "prolonged battering" industries in which the onset of slump does not immediately lead to large scale job losses but in which the prolonged pressures of slump eventually force rationalisation and job loss. Examination of Table 7.7 enables these different types of industry to be identified.

At the SIC order level, five major "early shock" industries may be detected; metal manufacture (dominated by iron and steel), textiles, clothing, shipbuilding, and "other manufacturing industries" (notably the tyre industry). In each of these cases there was severe job loss even as early as the second half of 1979 and, with one exception, a sharp acceleration of job loss throughout 1980. In shipbuilding, however, once a wave of job losses had passed through the system in late 1979 and early 1980, the rate of job loss tended to be fairly low.

Shipbuilding aside, the rate of job loss in these industries tended to be very high in early 1980 and even higher in late 1980. Because of the lack of large scale job losses in other industries, job loss in early 1980 tended to be dominated by the "early shock" industries, resulting in a high degree of geographical concentration of job loss, a point discussed in section 7.4 below. Between June 1979 and June 1980, 180,000 jobs were lost in these sectors in Great Britain, accounting for 52.6% of the total manufacturing job loss in sectors representing 24.8% of total manufacturing employment.[34]

Later in 1980, rates of job loss in other sectors started to catch up with rates of job loss in the "early shock" sectors, although the rates of job loss in the "early shock" sectors still remained higher. Once the peak phase of job loss had passed through the system, by Spring 1981, rates of job loss in the "early shock" industries tended to be no higher than in the rest of manufacturing industry, although metal manufacture remained an important exception to this. Between March 1981 and March 1983, employment fell by 11.7% in Britain's manufacturing industry, with the respective figures for early shock sectors being metal manufacture, 20.9%; shipbuilding 9.5%; textiles 12.5%; clothing, footwear, etc. 9.4%; other manufacturing industries 11.9%.

The most distinctive common feature of these early shock sectors

is that as soon as the slump appeared on the horizon jobs were shed rapidly, without any distinct phase of internal readjustment prior to job loss. This suggests a set of industries which were already deeply in trouble before mid-1979, and in which many of the adjustments towards a future of declining output had already been made, giving little scope for the reduction of labour power through the reduction of overtime. Table 7.11 shows very clearly that the pre-slump position of these early shock industries was indeed weak. The long term problems of the iron and steel and textile industries, which each shed half their labour in a decade, are well indicated in the employment figures. In the short term, each of the early shock sectors showed substantial losses of employment in the cyclical upturn between 1977 and 1979 at a time in which other manufacturing sectors showed a slight net increase in employment. There was no great systematic tendency for the 1974-76 recession to be more severe in the five industries indicated in Table 7.11, with job loss averaging 8.7% in two years in the "early shock" industries of the post-1979 slump, compared with 7.6% in other manufacturing sectors.[35] It seems instead that recession in the five industrial sectors which have been identified as early shock industries (metal manufacture, shipbuilding, textiles, clothing and footwear, "other manufacturing industries") did not cease in 1976 but continued through to 1979. These industries were therefore depressed considerably more than other industries immediately before the slump. When the slump came, the continuance of this relationship resulted in a very high rate of job loss in the early shock industries.

The remaining manufacturing industries may broadly be classed as "prolonged battering" industries. Typically, such an industry is one which may have had difficulties through the recessions of the 1970s, but was not in immediate difficulty during the 1977-79 cyclical upswing, and then found itself confronted by rapidly falling demand through the slump period. Such an industry, because it had been expanding rather than contracting during the previous cyclical upswing, would have a certain amount of scope to reduce output without reducing employment to the same degree. In labour terms, the firm could either reduce overtime, or allow a temporary fall in productivity (in person hour terms) to adjust to falling levels of demand. Either strategy would statistically be recorded in falls in productivity in terms of the numbers employed.

In the early stages of slump, the typical "prolonged battering" industry would tend to show rapid decreases in output and productivity, but only a relatively small decline in employment. Table 7.12 shows this happening in the chemicals industry in late 1979 and early 1980 (especially in rates of change between the first quarter of 1980 and the second

quarter), and in the engineering and allied industries in late 1979 (especially betweeen the second and third quarters) and early 1980. "Other manufacturing" (SIC orders XIV-XIX, 1968 S.I.C.) also shows a similar type of trend in early 1980. In contrast, the "early shock" industries show rapidly declining output, as with the "prolonged battering" industries, but with substantial early declines in employment and relatively modest declines in productivity; this may be seen in the textiles and clothing industries (Table 7.12), but the effects of the steel strike in early 1980[36] prevent such trends being observable in the metal manufacture industry.

As the slump continues, the downward pressure on output continues, without necessarily intensifying. Rates of output loss were, as Table 7.12 shows, broadly similar in early 1980 and late 1980, although there appeared to be a noticeable intensification of output loss in late 1980 in the engineering and allied industries, to examined more closely later. The important difference between early 1980 and late 1980 is not in output trends, but rather in that firms would have had considerably less flexibility in late 1980 than earlier to reduce overtime and allow productivity to decline in response to falling demand. It is here that the question of "prolonged battering" arises; manufacturing firms might be able to cope with the first six months of intense recession with only moderate levels of redundancy, but the second six months of major slump place too much of a strain on the ability of a firm to keep trading without major rounds of rationalisation and redundancies.

Close examination of industrial trends suggest therefore that the spate of redundancies in mid-1980 (Table 7.13) and the sudden increase in unemployment in the same period (Table A7) was not due to a sudden increase in the *rate of* deterioration in the economy; the economy was deteriorating rapidly but not significantly more so in late 1980 than in early 1980. The important difference between early 1980 and late 1980 is that the accumulated strains of slump had led to a situation where it was no longer economically feasible for firms to postpone large scale job loss in response to falling demand. When this stage was reached, all manufacturing sectors, at the SIC order level, started to shed jobs on a large scale. High rates of job loss were previously confined to the "early shock" sectors; by the summer of 1980 they had spread to the "prolonged battering" industries, and the rate of industrial job loss increased sharply.

Productivity started to rise in late 1980 *when measured in terms of hours worked* indicating again the strategic shift in industry from a policy of allowing productivity to slide to a policy of reduced employment. The legal requirement to give 90 days notice before enacting

a major redundancy involving over 100 workers, would have meant that there was a time lag between firms adopting a strategy of job loss and the onset of increases in productivity. In that the late 1980 round of rationalisation was designed to counteract the early 1980 losses of productivity, as well as to cut output, the scope for increases in productivity was considerable. This is reflected in the steep upward gradient for late 1980 in the productivity curve in Fig 7.7.

In early 1981 economic conditions started to stabilise, with industrial output remaining steady, at about 90% of 1975 levels, instead of declining by 15% in a year, as had happened in 1980. In that industrial output should theoretically rise in line with productivity in the long run, a period in which industrial output is merely steady should be regarded as a period of recession rather than one of recovery. As far as manufacturing industry is concerned, early 1981 may be regarded as the start of the secondary recession and the end of the full slump. Between January 1981 and January 1982, the index of production decreased by 0.4%, the rate of productivity increased by 4.3% and the index of hours worked decreased by 4.4%. Such a set of figures, in which productivity continues to increase through recession, is standard so long as the rate of fall of output is not so fast as to cause major and sudden disruptions to patterns of production in the factory.[37]

In the early part of 1981 it is possible to suggest that industry reverted to a more "natural" growth path, with fairly continuous increases in productivity, and rates of employment change being set primarily by the rate of output growth.[38] This is in contrast to the period of "full slump" (late 1979 and 1980) in which changes in the level of employment are set in part by changes in output levels, but also to a large extent by systematic changes in firms' strategies for dealing with major declines in output as the slump continues. Published statistics for employment admittedly suggest at first a different case, with employment shown as declining as rapidly as in late 1980 in the early months of 1981, with rapid. but slightly less sharp decline in the later months of the year. Inspection of Fig 7.7 suggests a different interpretation from that which might be derived merely from employment statistics. It is found that when industrial labour is measured in terms of hours worked rather than in terms of numbers employed, the curve for 1981 is indeed flat, rather than declining sharply. Comparison of curves for hours worked and employment suggests that the employment series understates the degree of active recession in manufacturing in 1980, but considerably overstates the degree of active recession in 1981. The primary explanation for this discrepancy is that short time working, including temporary stoppage of work, a form of disguised job

loss in many cases, is not accounted for in the series for employment; short-time working and temporary stoppage of labour markedly decreased in intensity through 1981, as Table 7.9 shows, but this affects only the series for hours worked and not the series for employment.

The peak of job loss in manufacturing came in the second half of 1980; the apparent continuation of high rates of job loss into early 1981 is to some extent illusory. In the construction industry, however, a different set of time lags was in operation, resulting in peak phases of job loss in the Winters of 1980-81 and 1981-82 (Table 7.7). As with manufacturing, output in the construction industry was strongly affected by the exceptionally adverse demand conditions of 1980, but the timing of job loss was different.

Two peculiarities of the construction industry, which set it apart from at least the bulk of manufacturing industry, need to be mentioned. There is a considerable degree of seasonality to the work regime, so that the amount of work done tends to be higher in summer than in winter. Secondly the length of the production process in construction means that there is a considerable time lag between changes in demand conditions and changes in output. For example, the lag between start and completion of new dwellings generally averages about 18 to 20 months.[39] This considerably affects the timing of response to recession. If at the beginning of recession the number of new orders in construction falls sharply, from a high level to a low level, there is likely to be a gradual decline in the amount of work currently in progress, lasting a year or more, as the level of new orders remains consistently below the level of output. For the first year and a half of recession, the level of completed output (excluding repairs and maintenance) is set by the level of demand in pre-recessionary conditions, while the value of new orders is set by current levels of demand, and in the conditions of 1980, is likely to be falling. During this period, as time proceeds, there is likely to be a growing imbalance between levels of new orders and completed output, and this imbalance is reflected in falling employment.

A complicated set of relationships is involved between levels of demand, output and employment in the construction industries, in which lags both between demand and output, and between output and employment, need to be considered. Table 7.14 provides a summary of the main trends involved.

The value of orders received, the surrogate for the current level of demand for new building work, peaked in 1977 and was on the decline in 1978 and 1979. From mid-1979 the decline was extremely sharp, with the value of new orders falling by 25.8% between the second quarter of

1979 and the third quarter of 1980. This represents the direct effect of the slump on the building industry. From late 1980, orders started to recover, but without reaching pre-slump levels until 1983.

The value of output also declined during the slump, but for reasons already noted, the decline in output started later than the decline in orders received. Furthermore, the rate of decline was not so sharp, although a fall in output of 18.7% from the last quarter of 1979 to the second quarter of 1981 still represents a considerable decline. The output series for construction resembles the production series for manufacturing, but lagged by about six months, with a falling trend starting from late 1979, intensifying in mid-1980, peaking in late 1980, and a continued fall in output until mid-1981, after which time output stabilised.

In the employment series, construction jobs were lost at an average rate of 10,000 per quarter between late 1979 and the end of 1980, but the rate of job loss intensified considerably over the Autumn and Winter of 1980-81. 56,000 jobs were lost between October 1980 and January 1981, for example. The output per head series presents a familiar picture, with productivity (in employment terms) falling sharply from mid-1979 to late 1980, and then increasing.

It would seem, therefore, that the construction industry shared many of the problems of manufacturing industry during the slump. Since there is a substantially longer time lag in construction than in manufacturing between the level of demand ("new orders") and the level of output, the slump in output and employment in construction, although only slightly less severe than in manufacturing, came at a rather later stage. Table 7.7 shows that the construction industry had only slight job losses up to September 1980, at a time when the recession in manufacturing was acute, but while job loss in manufacturing industry eased off considerably through 1981 and 1982, job loss in construction remained high. An important feature to note when comparing 1978 and 1981 Censuses of Employment (chapter 8 below) is that the bulk of the job losses in manufacturing in the slump are accounted for, while about half the effects of slump on employment levels in the construction industry are excluded.

Having produced a summary of the main outlines of industrial change during the slump, it is now time to look in detail at individual phases of the slump.

7.4 The Beginnings of Slump; 1979 to mid-1980

The period between 1976 and 1979 could be described as one of "flat recovery." Output in manufacturing industry increased slowly, by about 1½% per annum between early 1976 and mid-1979, while the rate of growth of gross domestic product, at slightly under 3% per annum, was sustained chiefly through increases in oil production.[40]

The upswing came to a halt in mid-1979. Between then and early 1981 manufacturing output declined by about a fifth, with major job losses resulting. The discussion of section 7.3 above has emphasised, however, that the timing of industrial job losses during the slump did not exactly correspond with the timing of output decline.

Four main stages of slump, which are examined separately in the sections which follow, may be identified:

(1) "Proto-slump" (mid-1979 to mid-1980, discussed in section 7.4)
A sharp decline in output but only a relatively moderate decline in employment, though with severe job losses in some sectors.

(2) "Full slump", first phase (late 1980, discussed in section 7.5)
Output and employment both declining extremely sharply.

(3) "Full slump", second phase (early 1981, discussed in section 7.6)
Output stabilising, but employment continuing to decline sharply.

(4) "Late slump" (mid-1981 onwards, discussed in section 7.7)
Employment and output beginning to stabilise, but with a continued bias towards job loss. This period can itself be subdivided, on the lines suggested in chapter 2, between a "secondary recession", lasting until early 1983, and a "post-slump recovery", in this case unusually flat, thereafter.

The proto-slump may be regarded as a distinct phase, one which would have had an equivalent in the inter-war years in 1929 and the very early part of 1930. In such a period, it is obvious that a recession is starting, but the degree of severity of the coming recession is perhaps not quite so apparent on the basis of employment figures alone. The level of unemployment in 1929 and early 1930 had responded fairly quickly to changes in the level of output, which started to undergo a severe decline in the final quarter of 1929,[41] but fifty years later, employment change lagged output change by a few months. In the very early stages of slump, falling levels of demand were absorbed by working below capacity, both in machinery and labour, as much as by shedding jobs. This however was an interim phase; job losses were soon to become much more severe.

From the point of view of this researcher (see also chapter 1.2) mid-1980 was clearly marked as a period of transition from a phase in

which a large scale interview programme requesting information on recent industrial closures remained feasible (Easter 1980) to a phase in which the pace of factory closure was so rapid that any information gained was almost instantly obsolescent (July 1980). These interviews were largely exploratory in character and as a result were weighted largely towards firms in sectors of medium to low rates of large scale job loss (for example, food, drink and tobacco, and electrical consumer goods), largely avoiding the sectors with particularly high rates of job loss, such as textiles. Even with this weighting of sectors in which interviews were carried out, the acceleration of job loss in the Summer of 1980 was very clear. Up to mid-1980 one could conceive of job losses in the industrial sector as being sporadic, both by sector and by location, leaving a pattern of discrete incidents of job loss which could be analysed. The early research proceeded according to this conceptualisation of job loss; for example jobs were being lost (on the large scale at least) in textiles but not in chemicals, and were being lose in Strathclyde but not in East Anglia. After mid-1980, job loss became universal rather than sporadic; during the period of full slump, discussed in sections 7.5 and 7.6 below, jobs were being lost in virtually all industrial sectors and in virtually all major localities. The main distinctions became not those of whether jobs were being lost or not, but rather those of how quickly jobs were being lost, ranging from very slowly in aerospace to very quickly in, for example, iron and steel.

In retrospect, and taking into account the events of late 1980 and 1981, it is possible to see that the geographically localised nature of job losses in early 1980, largely dominated by British Steel's massive closure and redundancy programme,[42] could be expressed in terms of the geography of recession in the "early shock" industries, as described in section 7.3 above. These were industries which had been facing difficulties in the upswing between 1976 and 1979, and which were to be particularly drastically affected by the sharp downturn in demand in late 1979 and 1980. Other manufacturing sectors, the "prolonged battering" industries, were able to weather the very early part of the recession, but were unable to absorb indefinitely a continuing drop in demand without making substantial redundancies.

The localised nature of job losses in the early part of 1980 is shown clearly in the unemployment figures (Table A.10(ii), also Table 7.5). Three of the four counties with the fastest rises in unemployment rates between June 1979 and June 1980 were steel closure counties (Clwyd, Northamptonshire, Cleveland). In the fourth, Strathclyde, job losses were spread over a wider range of sectors, with the closure of the Singer sewing machine factory at Clydebank, announced in November 1979, being

particularly prominent. This closure resulted in the loss of 3,000 jobs in addition to the 2,600 jobs lost between 1976 and 1979.[43] The Strathclyde economy was severely affected by the early wave of job losses in shipbuilding, with British Shipbuilders announcing a proposed 3,000 redundancies on Clydeside, to be phased over 18 months, in August 1979.[44] It should not be forgotten, either, that Strathclyde had a substantial iron and steel industry, liable to job losses in the depressed economic conditions of the time.[45] This, however, was a sub-dominant feature of recession in Strathclyde, and job losses in iron and steel were not on the same scale as those in Corby or Shotton.

Job losses in Strathclyde were widespread between mid-1979 and mid-1980, but were concentrated, as Townsend (1983 pp.98-100) points out, mainly in the metal using industries. The discussion of chapter 6.8 above has shown that Strathclyde also suffered from substantial job losses in the 1976-79 cyclical upswing, and to a greater extent than any local economy of comparable size. The early part of the slump thus tended to accentuate existing weaknesses, rather than induce a series of job losses in industries which had previously been relatively secure. Unemployment in Strathclyde after mid-1980 tended to rise more slowly than the UK average, as the impact of recession started to be felt in industries and localities outside the "early shock" category.

The impression that the early part of recession hit Scotland severely is corroborated by regional unemployment figures (Table A7). Between May 1979 and May 1980, unemployment in the UK rose by 0.8 percentage points, from 5.4% to 6.2%. Unemployment in Scotland rose in the same period by 1.4 percentage points (from 7.3% to 8.7%), while in other regions the percentage point increases were N +1.5, Wa +1.2, NW +1.2, NI +1.0, YH +1.0, EM +0.9, EA +0.5, SE +0.4, SW +0.2. These figures indicate a definite North-South split in economic experience, with only small scale increases in unemployment in Southern England. Tables A.5 and A.6 suggest that during this period employment was increasing in Southern England, despite the onset of rapid decline elsewhere. The precise extent of this increase is uncertain; the lack of any Census of Employment in 1979 or 1980 means that any regional employment figure given is an estimate rather than a measurement or enumeration.

While the steel closure areas and the more urbanised parts of Scotland suffered a severe recessionary shock in 1979 and early 1980, large increases in unemployment were by no means confined to these areas. Table A10(ii) shows that between June 1979 and June 1980, unemployment increased by between 1.6 and 2.2 percentage points (inclusive) in 14 counties, most of which were highly urbanised. All the conurbations,

except for Strathclyde, with its even more severe problems, and Greater London appear in this medium-to-high range. In addition, such densely urbanised counties as Staffordshire, Lancashire and Humberside also appear in this range. Counties in the West Midlands, North West and Yorkshire and Humberside are particularly strongly represented in this range of experience, indicating why unemployment rates in these three regions tended to increase more quickly than the national average. Most of these counties with slightly higher than average increases in unemployment are in the "manufacturing heartland" of the UK (WM, EM, NW, YH)[46] although none of the East Midlands counties is represented. Indeed, the only county in the East Midlands with an above average increase in unemployment, Lincolnshire, is perhaps best regarded as the northernmost part of East Anglia, rather than as part of the East Midlands coalfield industrial complex. A series of redundancies in Aveling-Barford, then a construction equipment wing of British Leyland, and in various engineering firms, helps explain the relatively large increases in unemployment in Lincolnshire when compared with the rest of the East Midlands and East Anglia.[47] In the coalfield industrial counties of the East Midlands (Derbyshire, Leicestershire, Nottinghamshire) the increase in unemployment remained slightly but noticeably below the national average.

The general picture for the manufacturing heartland at this early stage of the slump was for unemployment to be around the national average at the start of the period, and to increase at a rate slightly faster than the national average (although slightly more slowly in the East Midlands). There is no clear sign at this stage of a distinctive "West Midlands problem", although increases in unemployment were well above average in Telford new town, Shropshire,[48] and also in Staffordshire, from a low base of unemployment. Chapter 6.8(vii) above has noted that there were substantial job losses in the Staffordshire pottery industry in 1977-78; it is possible that Staffordshire's problems in 1979-80 resulted primarily from an intensification of this earlier problem.[49] As far as Telford is concerned, the heavy concentration of employment in manufacturing in new towns often makes such places more vulnerable to recession than the region as a whole; Irvine is a Scottish example.[50]

Various parts of the West Midlands regions showed particularly large increases in unemployment between mid-1979 and mid-1980, but in the West Midlands conurbation the increase in unemployment was lower than in Greater Manchester and West Yorkshire, and only very slightly higher than in South Yorkshire. The differences are so small that no significant differences in the rate of employment change between these conurbations should be inferred. The performance of the West Midlands

economy was running in line with that of the North West and Yorkshire and Humberside at this stage, which is not unusual in a time of recession. It is quite likely that the intensification of job loss in the textiles and clothing industries was the main reason for certain counties, notably Greater Manchester, Lancashire and West Yorkshire, having higher than average rates of increase of unemployment.[51]

Merseyside and Tyne and Wear, the two English metropolitan counties with a history of particularly high unemployment, also had slightly higher than average rises in unemployment. There is strong reason to believe, however, that the decline in employment was much more severe than the moderate increase in unemployment would suggest. Thus the presence of high levels of unemployment at the beginning of the period (over twice the national average in Merseyside) sets up a considerable pressure gradient for outward migration, with the implication that much of the job loss which takes place in a high unemployment area is concealed, in the unemployment figures, by a substantial level of net emigration from that area. This relationship has already been discussed, (section 7.2), but needs continually to be borne in mind. The most likely conclusion to be drawn about Merseyside and Tyne and Wear is that manufacturing job loss continued at an extremely rapid rate in the early stages of slump in continuance of, and in an intensification of, trends in existence during the late 1970s (chapter 6 above), although as the slump continued, the rate of job losses in other areas started to approach the rate of job loss in these "traditional" centres of job loss.

Little needs to be said about increases in unemployment in Southern England between mid-1979 and mid-1980, except to reiterate that such increases were small, and probably often accompanied increases in employment. Nothing definite can be inferred about employment trends from unemployment trends, however, for reasons already noted (section 7.2 above). The minimum normal increase in unemployment appears to have been around 0.4 percentage points, although it is possible for counties with highly seasonal patterns of unemployment (in this case, Cornwall) to have an even lower increase (Table A.10(ii)). Year to year changes in the rate of unemployment in tourist centres can be highly erratic, even if the same month in each year is being compared; much depends on whether it is a "good" summer (hot, dry, low exchange rates, etc.) or a "bad" summer (cold, wet, high exchange rates, etc.).

The early slump may be summed up as a period in which the rate of industrial job loss was high, but sporadic. Table 7.8, which provides quarterly estimates of regional job loss in industry, suggests that the rate of job loss was particularly high in Scotland, and moderately high in other peripheral regions. These official estimates need to be

treated with a certain degree of caution, but even so it is noticeable that the rate of industrial job loss was assessed as being particularly low in the South West, and slightly below average in the West Midlands, this latter being in strong contrast to what was to happen later.

7.5 Full Slump ; late 1980

When seen in terms of output figures, the slump may be said to have started in late 1979. There are, however, significant time lags between the onset of a dramatic fall in output and the onset of a dramatic decline in employment, with a corresponding increase in unemployment. The most virulent phase of slump, in which there were simultaneously rapid falls in industrial output, and substantial increases in unemployment, may be said to have lasted from about May 1980 until about December 1980 or January 1981, on the evidence of Fig 7.6 and Table A.7. The UK unemployment rate rose from 6.2% in May 1980 to 6.9% in June, 7.8% in July and 8.3% in August, when the numbers registered as unemployed exceeded 2 million. The increase in employment in the seasonally adjusted series was less spectacular (from 6.1% in May to 7.0% in August) but still represented a sharp upward shift in the unemployment trajectory. This fast rate of unemployment increase, with an increase of approximately one percentage point every three months, continued from mid-1980 to mid-1981, with unemployment increasing from 6.2% in May 1980 to 11.2% in June 1981.

Clearly the period from mid-1980 to mid-1981 was an absolutely critical period in recent British labour market history. Even in the late 1980s, and possibly up to the end of the century and beyond, the primary economic task for any Government with a serious commitment to full employment would be to reverse the effects of job losses between 1980 and 1982. This is not so easily done. To remedy the damage incurred during two years of slump could well take two decades or more of patient reconstruction following the end of slump.

One of the most important industrial features of mid-1980 was the extent to which heavy job losses were spreading to sectors in which employment had been relatively stable in early 1980. Table 7.7 shows that this was particularly conspicuous in the engineering industries, and in other metal using industries. For example, in mechanical engineering employment fell by 1.6% in the second quarter of 1980 but by 3.7% in the final quarter, while employment in the metal goods industry fell by 0.2% in the last quarter of 1979, 1.1% in the first quarter of 1980 and as much as 4.1% in the third quarter of 1980. Job loss in the "early shock" sectors such as metal manufacture, and textiles and clothing, continued to intensify in late 1980, but the main reason why the rate of industrial job loss was significantly higher in late 1980 than in early 1980 was that the effects of job loss in slump were now significant in the "prolonged battering" industries.

In employment terms, the slump not only intensified, but also *spread*, in the second half of 1980. This may be seen in spatial terms as well as in sectoral terms. Table 7.8 suggests,[52] for example, that industrial job loss in Southern England was relatively light in the second quarter of 1980, but that during the rest of 1980 and early 1981 the rate of industrial job loss in Southern England was only very slightly lower than Great Britain as a whole. Scotland, which suffered more than any other region during the early part of slump, also had a rate of job loss closely aligned to the Great Britain average by late 1980. The slump had reached its maximum intensity in the final quarter of 1980, yet regional patterns of employment change were at that stage fairly even. Part of this evenness of employment change can be related to the extent to which construction, a geographically ubiquitous industry, was shedding employment in substantial numbers in the final quarter of 1980 after employment had remained fairly stable in earlier quarters. All regions suffered from heavy job losses in this sector.

Although the general pattern for late 1980 would seem to be that rates of industrial job loss were becoming higher, but spatially more uniform, the West Midlands remains a notable exception. Table 7.8 shows that between September 1979 and March 1980, the rate of industrial job loss in the West Midlands was consistently, and often substantially, higher than the national average. The difference was particularly acute in the first quarter of 1981, when industrial employment fell by 4.5% in the West Midlands, compared with a drop of 3.1% in Great Britain as a whole. The developing impact of recession in the West Midlands, which is strongly linked to the problems of the car industry, needs to be closely observed in the discussion which follows.

In this section, the account of late 1980 is divided into a discussion of Summer 1980 (section 7.5(i)) and a discussion of Autumn 1980 (section 7.5(ii)).

7.5 (i) Summer 1980

Table A10(iii) shows changes in unemployment by county between June 1980 and September 1980. This, as noted above, was the period in which unemployment first started to increase at an apparently uncontrollable rate as firms started to have no option other than to reduce employment by substantial amounts in the face of the pressures of several months of falling output.

Three features of Table A10(iii) are particularly noteworthy, and merit further comment. These are, firstly, the high rates of unemployment increase throughout Wales, secondly, the high rate of unemployment increase throughout the West Midlands, and thirdly the low rate of unemployment increase throughout Scotland. The use of the word "throughout" in each case is meant to indicate that each county in the respective regions is affected by the tendency involved, but not necessarily to the same degree. Unemployment in this period in Wales, for example, increased by over three percentage points in the steel closure counties of West Glamorgan and Gwent, but only by 1.8 percentage points in rural Powys, compared with a U.K. average increase of 1.5 percentage points.

(a) Wales

The high rates of increase of unemployment in Wales are the easiest to explain, and relate primarily to the recession in the steel industry. Table 7.7 shows that high rates of job loss in this sector were by no means confined to the early part of 1980, the period in which they were most conspicuous, through the relative lack of job loss elsewhere, but instead continued through late 1980 and 1981. The early rounds of redundancies had been heaviest in Cleveland (Teesside/ Hartlepool) and the isolated outposts of steel-making in Shotton (Clwyd) and Corby (Northamptonshire). The next round of steel redundancies in the summer of 1980 was concentrated in South Wales. A redundancy programme announced in May 1980 allowed for a cut of 3,600 jobs at Llanwern steelworks, Gwent and 6,000 jobs at Port Talbot, West Glamorgan.[53] These jobs represented 2.2% of the total 1978 employment (all sectors) in Gwent, 3.7% in West Glamorgan and 0.9% of the employment of Wales as a whole. This, when added on to the by now considerable leakage of jobs in other sectors, accounts for the high increases in unemployment in Wales as a whole, and for Gwent and West Glamorgan in particular, during this period.

These job losses could be regarded as having been "in the pipe-line"

for some time, given the severity of recession, the particular problems of the British Steel Corporation, the policy decision to undertake large scale rationalisation and the relatively light degree of rationalisation in South Wales in previous years. Townsend (1983 p.101) notes that contemporary accounts tended to agree that South Wales was "lucky" to keep both the modernised steelworks at Llanwern and Port Talbot, despite the large scale loss of jobs, although Wales suffered far more than its share of British Steel job losses (at Shotton, Llanwern and Port Talbot notably).

Major job losses in the iron and steel industry in Gwent and West Glamorgan would tend to increase unemployment in surrounding counties through the normal diffusion mechanisms such as changes in the pattern of migration, and the registration of unemployed steel workers at the place of residence rather than the place of work, which might be in a different county. It is probably largely for these reasons, rather than through any especially high local rate of job loss, that increases in the unemployment rate were significantly faster than average in Dyfed and South Glamorgan. It is quite probable, however, that Mid Glamorgan, with its concentration of branch plant factories, would have had high levels of job loss in this period to account for the large increase in unemployment in Summer 1980. Census of Employment statistics, discussed in chapter 8 below, show that Mid Glamorgan had a very high rate of industrial job loss between 1978 and 1981, although establishing the precise timing of job loss is difficult, given that the job losses were spread over a large number of industrial sectors, and given that redundancy statistics, although given by month, region and sector, are not available at the county level.

The unemployment figures would appear to suggest that the recession in Wales in the Summer of 1980 was exceptionally severe. This contrasts with the impression given in Table 7.8 that recession in Wales was only slightly more severe than average in Summer 1980, but considerably more severe than the average in the Autumn. It would seem, however, that the official estimates are in error on this point. These estimates indicate 8,000 jobs being lost in the metal manufacture industry in Wales between September and December 1980, but only 3,000 jobs lost between June and September 1980.[54] Other sources, however, would appear to indicate that the peak of job losses in Wales took place in the third quarter of 1980 rather than the final quarter.[55] Unpublished redundancy statistics show that there were 7,400 redundancies in the Welsh iron and steel industry in July, August and September 1980, with a peak of 4,900 in July 1980, compared with 1,600 in October, November and December 1980.[56] If it is assumed that 5,000 iron and steel

job losses have been incorrectly regarded, in the *Gazette* employment estimates, as occurring in the final quarter of 1980 rather than the third quarter, new employment estimates could be produced to show a rate of industrial job loss of 4.1% in Wales between June and September 1980 (compared with the *Gazette*'s estimate of 2.8%) and 4.1% between September and December 1980 (compared with the *Gazette*'s estimate of 5.3%). These new figures suggest that the rate of industrial job loss in Wales in Summer 1980 was almost twice as high as the UK average.

Thus recession at this stage was exceptionally severe in Wales, where the recession was still dominated by job losses in the iron and steel sector. The West Midlands was the only other region which had a substantially higher than average rate of industrial job loss in this quarter, with a decline in industrial employment of 3.6%.

(b) The West Midlands

Two main questions need to be asked about the impact of the slump on the West Midlands. The first question is why recession in the region was so severe. The second, more detailed, question is why the greater degree of severity of recessions in the West Midlands than elsewhere became prominent only as late as mid-1980, and not earlier.

The main problem faced by the West Midlands region, or perhaps more specifically the West Midlands conurbation, was that the dominant local industry, the vehicles industry, was severely affected by the slump. Output in the motor vehicles industry in the first quarter of 1981 was 31.9% below its level a year earlier, and 35.3% below the level of output two years earlier.[57] The degree of import penetration in the motor vehicles sector actually fell during the early part of the slump, from 31% in the year to December 1979, to 28% in the year to December 1980[58] suggesting that the particularly severe problems of the British vehicles industry at this stage were due primarily to an exceptionally depressed level of demand, rather than to an acceleration of declining competitiveness. After 1981, however, when economic conditions had stabilised, the ratio of import penetration started to rise again, reaching 35% by the end of 1982.

Quite clearly, a drop of output of almost a third in a major industry in a single year will have far-reaching effects on employment levels. The decline of output in the motor vehicles industry was nearly as severe as the decline of output in the iron and steel industry, which reached 36.7% between the last quarter of 1979 and the last quarter of 1980.[59] To place these figures in a historical perspective, output in coal mining, the industry which dominated the geography of job loss between

the wars, fell by only 10.3% between 1930 and 1931, the worst year for output in that industry during the slump,[60] while the output of the textile industry fell, according to which estimate one chooses to believe, by between 10% and 20% between 1929 and 1930.[61] Such historical comparisons highlight the exceptional difficulties faced by the vehicles and iron and steel industries in 1980. Despite the great intensity of job loss in these sectors, productivity fell considerably between late 1979 and late 1980. Table 7.15 shows that while output losses in the motor vehicles industry could exceed 10% per quarter, the rate of job loss generally remained within a range of between 3% and 6% per quarter.

The severity of the slump in the motor vehicle industry was thus so great that even substantial job loss programmes were unable to keep pace with the decline in output. This imbalance leads to a considerable depression in productivity levels, which is highly unlikely to be permanent. In metal manufacture, where a comparable process was taking place, productivity (in output per head terms) fell by 21.9% between the last quarter of 1979 and the last quarter of 1980, before rising by 41.0% in the following year.[62] In the motor vehicle industry, in which the programme of rationalisation was somewhat less intense, productivity (in output per head terms) fell by 18.7% between the first quarter of 1980 and the first quarter of 1981, before rising by 23.4% in the following year, just surpassing 1980 productivity levels again.[63]

In a situation in which the rate of job loss during a period of intense depression falls a long way behind the rate of output loss, the logic of the situation is such that further large scale job losses are likely even when output has ceased to decline to any great extent, as firms reorganise production in such a way as to meet existing levels of demand with earlier levels of productivity.

Townsend[64] emphasises the extent to which the major job losses in the West Midlands can be interpreted in terms of patterns of corporate restructuring, with for example British Leyland reducing its workforce from 198,000 in 1977 to 97,000 in 1981, with a high proportion of these jobs being lost in the West Midlands Metropolitan County. The severity of recession in the West Midlands needs, however, to be seen primarily in the context of the *sectoral* problems of the vehicles industry, rather than in the *corporate* decisions taken by vehicles manufacturers, in that

(a) the decline in output in the critical period considerably outpaced the rate of job loss through corporate rationalisation decisions; it is assumed that output levels are set by what the firm can sell, rather than by what the firm wants to sell.

(b) this happened during a period when the degree of import penetration was stable, implying that global geographical shifts

in production were not the critical factor, and

(c) the rate of job loss in the vehicles sector in the West Midlands during the slump was closely aligned with the national average (chapter 8 below), in contrast with the events of the 1974-76 recession (chapter 6 above).

The basic problem the West Midlands faced was an exceptionally severe recession in an industry which was locally dominant. Indeed, it could be argued that the West Midlands conurbation, with its concentration of employment in the vehicles industry, represents the last specialised industrial area of the 19th century type. In 1978 employment in the motor vehicles sector (MLH 381) stood at 468,600 in Great Britain, and at 127,600 (27% of the total) in the West Midlands Metropolitan County, the only other large concentrations of employment being in the South East and the North West, although no other single county had more than 45,000 employees in this sector. As a result of the large scale contraction in output in this sector in 1980, the West Midlands Metropolitan County experienced a decline in employment to a degree similar to that found in steel closure counties.[65]

The West Midlands Metropolitan County showed an extremely rapid increase in unemployment between June 1980 and September 1980, with unemployment rising from 7.3% to 10.1%, almost twice the national rate of increase. Furthermore, as a result of the normal diffusion mechanisms, surrounding counties (Hereford and Worcester, Shropshire, Staffordshire) also showed increases in employment considerably faster than the national average. Table 7.4 suggests that during the slump as a whole, the increase in unemployment in these "outer Midland" counties was much faster than would be expected, given their respective rates of job loss, adding support to this diffusion based interpretation of events, rather than the hypothesis that all West Midlands counties had exceptionally high rates of job loss in the third quarter of 1980.

It is largely due to accidental features that the exceptional severity of the West Midlands recession is recorded as starting around March 1980 rather than in late 1979 (Table 7.8). Table 7.15 shows that there was an abnormal decline in output, without any corresponding decline in employment, in the vehicles industry in the third quarter of 1979, while in the next two quarters, the level of output rebounded sharply. There is an obvious implication that industrial action was responsible for a considerable distortion in the time series for production.[66] "A national engineering pay dispute involving an estimated 1.5 million workers began with one day stoppages on 6, 13, and 20 August, and continued with a series of two day stoppages during September."[67] This dispute was resolved on October 4, at an estimated cost of 16

million working days. Between the second and third quarters of 1979, output fell by 7.6% in mechanical engineering, 6.7% in vehicles and by 18.7% in motor vehicles, where the engineering stoppage clearly had a highly disruptive effect. The rebound in production from its *artificially* depressed levels came at precisely the time at which the slump started, and insulated the West Midlands region, where the stoppages would have had most effect, from some of the early impact of slump. When this protection weakened, however, the fundamental problems of the West Midlands economy became clearly revealed.

(c) Scotland

Scottish trends were, as for much of the slump period, obscure. It was noted earlier (section 6.3(i)) that the Scottish economy, and particularly the Strathclyde economy, was severely affected by the early part of the slump, up to mid-1980. In the Summer of 1980, however, Scotland showed only relatively small increases in unemployment (Table A.10(iii)). This relative improvement is probably not the result of a single factor, but rather the resultant of several tendencies.

Much of the relative improvement in the Scottish economy during these summer months could be explained by the high degree of seasonality in the Scottish employment structure, particularly away from the Clydeside conurbation. This leads, under neutral cyclical conditions, to sizeable decreases in unemployment in the summer and sizeable increases in unemployment during the winter. In the far from neutral economic conditions of 1980, unemployment in the UK rose by 1.6 percentage points between June and September, but rose in Scotland by only 0.9 points. Once seasonally adjusted figures are introduced, this contrast appears far less impressive, with an increase in the unemployment rate of 1.0 points in the UK and 0.8 points in Scotland.[68]

It would seem therefore that the raw unemployment figures of Table A.10(iii) overstate the improvement of the position of the Scottish economy with respect to the rest of the UK in the Summer of 1980. It still remains the case, however, that Scotland was the only peripheral region of the UK with a lower rate of industrial job loss in the third quarter of 1980 than in the first quarter (Table 7.8). It is not possible to ascertain, from official published statistics, the extent to which the improvement in the relative position of the Scottish economy came about through a relative improvement in the position of the Strathclyde economy, and to what extent it came about through a relative improvement in the rest of Scotland.

Quite possibly both sets of factors are involved. A comparison of

the 1978 and 1981 Censuses of Employment (chapter 8 below) shows that employment levels in all the Scottish regions outside Strathclyde were remarkably stable given the context of the time. This was a feature which was not noticeable in 1977-78 (chapter 6.8 above). Possibly this reflects a tendency for the slump to intensify only relatively slightly in the less densely urbanised parts of Scotland, with low rates of job loss during the "full slump".

Strathclyde region, like the rest of Scotland, also had only a relatively low rate of increase of unemployment in the Summer of 1980. This could reflect in part migratory factors, which might be expected to have a particularly strong effect when an area which has just suffered heavy job losses is surrounded by areas with more stable employment and lower employment rates. It may also be the case, however, that the rate of job loss in Strathclyde was slowing down, despite the general intensification of slump. Job losses in Strathclyde in early 1980 were particularly severe, but could be regarded as "one-off" events. Thus job losses in shipbuilding had slowed down considerably, with a 1.3% decline of employment in the UK in the third quarter of 1980, compared with 3.8% in the first quarter; the number of redundancies in shipbuilding in Scotland declined from 1,500 between February and June 1980 to 600 between July and November 1980.[69] Furthermore, it is possible to close a large Singer factory only once; the large job losses in this factory in late 1979 and early 1980 were not to be repeated in late 1980.

(d) Other regions

There seems to be little point in discussing in detail what was happening in the specific period June 1980 to September 1980 at a *regional* scale for regions other than those already discussed (WM, Wa, Sc). Table 7.8 suggests that Wales and the West Midlands had unusually high rates of industrial employment decline, while in the other regions of the periphery the rate of decline was slightly faster than the national average, while in the core regions (SE, EA, SW, also EM) the rate of decline was slower than the national average. Many of these trends are general to the slump as a whole, rather than to June - September 1980 in particular, and are perhaps best discussed in the context of a detailed study of employment change between 1978 and 1981 (chapter 8 below) rather than in terms of what was happening in particular short periods. A feature which merits emphasis at this stage, however, is that rates of industrial job loss in Southern England were becoming substantial by the third quarter of 1980, after having been slight in the early slump. This is another indication of a shift from a phase of early recession,

in which job losses were concentrated in vulnerable sectors and locations, to full slump, in which recession, in terms of job loss, hits all areas and all industrial sectors, but with varying degrees of intensity. Another point to note is that the East Midlands, a highly industrialised region, showed a relatively low degree of acceleration of job loss during late 1980, despite fairly high rates of job loss in the early slump. The large industrial base of this region makes it vulnerable to industrial decline, but within the East Midlands industrial sector there tends to be a concentration of employment in industries which are less vulnerable than most to recession. It is possible also that the relative stability of the East Midlands results in part from the region being less exposed than most to rationalisation in industrial structure by large corporations.[70]

As far as individual counties are concerned, only two of the thirteen counties with percentage point increases of unemployment greater than 1.8 between June 1980 and September 1980 were outside Wales or the West Midlands. In each case the continuation of job loss in an "early shock" industrial sector may be held largely responsible; the running down of steel employment at Corby in the case of Northamptonshire, and the continued decline of the wool textile industry (see chapter 8) in the case of West Yorkshire, where there was also a high rate of increase in unemployment between June 1979 and June 1980.

7.5 (ii) Autumn 1980

In terms of rates of industrial job loss, the slump intensified in the final quarter of 1980, largely as a result of the sudden and sharp onset of decline in the construction industry which resulted from a mixture of seasonal and cyclical factors, as outlined in section 7.3 above. Between March 1980 and September 1980, employment in the construction industry fell by about 4,000 from a total employment level of over a million.[71] The normal summer peak of outdoor activity counteracted the tendency for employment to decline during the slump, and allowed employment levels to stabilise temporarily. In the six months after September 1980, however, the construction industry was numerically the largest source of jobs lost, with a decline in employment of 93,000 (Table 7.16). The difference between 4,000 and 93,000 is 89,000, or 1.1% of the total employed population in September 1980. The rapid deterioration of levels of employment in the construction industry thus accounts for about half the increase in the rate of job loss between mid-1980 and late 1980. Job loss accelerated in other sectors as well, notably in metal goods, mechanical engineering and vehicles (a constellation of sectors strongly represented in the West Midlands economy), but the time profile of employment change in the construction industry was largely responsible for the *peaking* of job loss (as opposed to the generally high level of job loss over a longer period) in late 1980 and early 1981.

An important geographical effect of the increased rate of job loss in the construction industry is that it reinforced the tendency for industrial job loss to be spread across all regions, rather than to be concentrated in a few, as in the early stages of recession. The figures for industrial employment change by region for the final quarter of 1980 (Table 7.8) are therefore not very informative. The Northern region showed a much higher than average rate of job loss, largely bacause of the closure of the steelworks at Consett, discussed later, while East Anglia, the South West and the East Midlands showed, as so often in previous recessions, rates of industrial job loss considerably below the national average. The rates of job loss in the South East, the West Midlands, Yorkshire and Humberside, the North West, and Scotland remained close to the national average, provided that the official estimates for industrial employment by region are reasonably accurate. Wales would seem to have had a somewhat higher than average rate of industrial job loss, but probably not nearly to so great an extent as the official estimates suggest. This point was discussed in section 7.4 above.

Figures for changes in unemployment by county in late 1980 (Table A10(iv)) are not very informative either, increases in unemployment tending to be greatest in those counties with a large tourist industry and hence a heavily seasonal rhythm of unemployment. The four counties which have the greatest seasonal fluctuations in unemployment rates (Cornwall, Isle of Wight, Gwynedd, Highlands) have already been identified by brackets in Table A10, but the size of the increases in unemployment in Dorset, Devon, Dumfries and Galloway, etc., can largely be explained through the effects of the close of the tourist season.

The only county with an *exceptionally* large increase in unemployment not explicable in terms of the tourist industry seems to be Durham. As Table 7.17 shows, this increase in unemployment was dominated by events in Consett, with the final closure in September 1980 of a large steelworks, which had employed 3,750 in late 1979.[72] The long term profile of unemployment in Consett has already been noted in Table 7.5. The rise of unemployment in the final quarter of 1980 was also higher than the national average in the County Durham travel-to-work areas of Darlington and South West Durham, and in Teesside in neighbouring Cleveland. Unemployment increases were generally low in Central Durham, Peterlee and Hartlepool. While the large increases in unemployment in Teesside and, even more notably, in Consett were the result of the continued depression in the iron and steel industry, it is impossible to ascertain from Table 7.17 whether the variations in the rate of unemployment increase between other local areas in Durham and Cleveland resulted from spatial variations in the current rate of job loss, or from labour market adjustments following earlier phases of job losses. Such problems create considerable difficulties for any fine grained analysis of the impact of recession.

This type of uncertainty about the interpretation of unemployment figures tends to be most acute in small labour markets, where accidents of timing of even moderate job losses may lead to irregularities in the cyclical profile of change in unemployment. Larger labour markets would tend to be less subject to quasi-random fluctuations in deviations from the national rate of change in the unemployment rate; systematic factors would tend to be relatively more important.

It is in this context that it is noteworthy that all the conurbations, except for the West Midlands, had average or below average increases in unemployment in the final quarter of 1980 (Table A.10(iv)). In the previous quarter, two of the three conurbations with the highest rates of unemployment, Strathclyde and Tyne and Wear, each had lower than average increases of unemployment (Table A.10(iii)). This initially suggests the possibility that labour market adjustments, such as

increases in net emigration from areas with earlier high rates of job loss, is an important equalising factor. Another possibility, however, is that the relatively low rate of increase in unemployment in the conurbations in late 1980 is a result of seasonal factors. This is not meant to imply that seasonal fluctuations in unemployment are unusually high in the conurbations; on the contrary, the point is that seasonal fluctuations in heavily urbanised areas tend to be *below* average. In the autumn and winter months, employment tends to contract less, and unemployment tends to increase less, in conurbations than in less urbanised areas, while in the spring and summer months unemployment tends to decline less quickly in conurbations than elsewhere. Table 7.18 shows that this relationship applied in the last pre-slump year, 1978-79; it would also have applied to earlier years. Trends in unemployment in conurbations, relative to other areas, are distinctly more favourable between September and March than between March and September.

A further point to note from Table 7.18 is that unemployment in conurbations tends to increase *much* more slowly than average between September and December, but only slightly more slowly between December and March. This finding is based on pre-slump evidence. Applying this finding to late 1980 and early 1981, it readily becomes understandable why unemployment increases in late 1980 were lower in the conurbations than elsewhere, while there was very little systematic difference between conurbations and non-conurbations in the first quarter of 1981. Unemployment in the conurbations increased relatively slightly in late 1980, not because of any subtle labour market adjustments to earlier job losses, but rather because purely seasonal declines in employment as winter draws in tend to be less in conurbations than in other areas, even at a time of slump.

7.6 Full Slump: Early 1981

Throughout the first half of 1981, unemployment increased very quickly, as in the second half of 1980, indicating a continued high rate of job loss. It would be a mistake, however, to assume that background economic trends had continued unchanged. Fig 7.7 indicates that around this time there had been a switch from a phase of rapidly declining output and declining productivity, to a phase of steady output and rapidly rising productivity. The time series for productivity requires particularly close attention. Industrial productivity in early 1981 was not growing at the standard long term rate of growth of about 3% or 4% per annum, but instead was increasing twice as quickly. This, however, lasted only for as long as productivity rates were below the levels of June 1979. When this earlier level of productivity had been reached, or closely approached, in mid-1981, the productivity growth rate reverted to its long-term "natural" trend.[73]

This tends to imply that the rationale for job losses in early 1981 was rather different from that of 1980. In 1980, there had been an exceptionally severe problem of declining industrial demand, which forced substantial cutbacks in production, which led to substantial job losses. The chaotic economic conditions of the time meant that maintaining levels of productivity was a far lower priority for firms than reducing output.[74] Demand conditions stabilised in early 1981, but firms found themselves faced with a situation where productivity levels were abnormally low, given the existing techniques of production. This led to a situation in which a further round of severe job losses was required, not, as in 1980, to decrease the level of output, but rather to reorganise production in such a way that productivity could revert to "normal" levels.[75]

Not all sectors had stabilised their output levels by the first quarter of 1981, though. The vehicles sector in particular was still suffering from declining output (Table 7.15), and not surprisingly the rate of job loss was much higher in this sector than in manufacturing as a whole (Table 7.7). Output in the vehicles industry recovered in the second and third quarters of 1981, but, as Table 7.15 shows, rates of job loss remained high as the next wave of rationalisation brought about a return to earlier levels of productivity. Table 7.19 shows that during 1981 the rates of job loss were extremely high in the vehicles industry, in metal manufacture, and in construction. The high rates of job losses in the vehicles industry indicated that the severe problems of the West Midlands economy, the specialised centre of this industry, were likely to continue into 1981. The high rate of job loss in the construction

industry resulted, it was argued in section 7.3, from the long time lags between initiation and completion of construction projects, so that the response of the construction industry to slump lags the response of other industries by several months.

As far as the geography of industrial employment change is concerned, Table 7.8 suggests that regional rates of industrial job loss were, on the whole, fairly even through 1981. The main exception is that the West Midlands region appears, on the evidence of Table 7.8, to have had substantially higher than average rates of job loss in the first quarter of 1981 and also in the third quarter. It is likely that the same would also apply for the second quarter of 1981, and that the official employment estimates are in error on this relatively minor point. Table A10(vi) shows, for example, that between February 1981 and June 1981, the West Midlands Metropolitan County had a rate of increase of unemployment almost twice the national average, implying a high rate of active job loss.

Table 7.20 shows figures for industrial employment change by region on an annual basis, rather than on the quarterly basis of Table 7.8. It can be clearly seen that while the rate of job loss was only slightly greater in 1980 than in 1981, regional differences in the rate of job loss were considerably smaller in 1981 than in 1980; the general level of deviations from the national average had roughly halved.[76] This gradual convergence of rates of job loss, combined with the effects of labour market adjustments on unemployment levels, discussed in section 7.5 above, make it difficult to identify any strong pattern in the accumulation of unemployment. Fig 7.4 shows a considerable uniformity in rates of increase in unemployment in early 1981, with only relatively small deviations from the mean being involved.

On a county by county basis, Table A10(v) shows that five counties had an increase of unemployment of 1.4 percentage points or more, compared with a national average of 1.0, between December and February 1981. A closer examination, however, shows that these were all counties with relatively small labour markets (Powys and Borders especially), and with rates of increase of unemployment only slightly higher than the more heavily populated counties of the West Midlands (Metropolitan County) and Staffordshire. The numerical increase in unemployment in these two West Midlands counties stood at 23,600, compared with 7,600 in the five smaller counties with higher rates of increase of unemployment.[77] Thus, despite initial appearances to the contrary, the urban West Midlands represented the most significant zone of accumulation of unemployment in early 1981, the result which one would expect, given the high rates of industrial job loss in the region at this time. It should also briefly

be mentioned that Shropshire and Hereford and Worcester each had slightly higher than average rates of increase of unemployment, probably as a result of the operation of the usual diffusion mechanisms.

In the provincial conurbations other than the West Midlands, unemployment tended to increase by around the national average in early 1981. This is in contrast with the situation in late 1980 when conurbations had relatively low increases in unemployment. This change of trend was due, as section 7.5(ii) above noted, to seasonal factors rather than to any general process of labour market adjustment following an unusually heavy spate of job losses.

In Wales, however, it is highly likely that the relative slightness of the unemployment increases in early 1981 represented a genuine labour market adjustment to the exceptionally heavy job losses (Table 7.8) of 1980. Table A10(v) shows that apart from Powys, each county in Wales had a lower than average rate of increase of unemployment in the first quarter of 1981, this being particularly strongly marked in West Glamorgan and Mid Glamorgan. Table A10(vi) shows that this trend was still operative in the second quarter of 1981, with South Glamorgan, Mid Glamorgan and Gwent each having a lower than average rate of increase of unemployment, and Clwyd actually having a decrease in unemployment. The fact that unemployment in Clwyd *decreased* in this period was largely due to the seasonal upturn on the coastal belt, a feature that was held in common by neighbouring Gwynedd. Table 7.5 shows the steel closure town of Shotton also had a lower than average increase in unemployment during the period, but this was an additional factor, not a dominant one.

By February 1981, unemployment in the UK stood at 10.3%, much higher than it was before the slump, but still lower than in subsequent years. Unemployment continued to increase substantially between February and June 1981 with, as Table A10(vi) shows, increases in unemployment tending to be higher than average in industrialised counties which already had slightly higher than average rates of unemployment. These included the West Midlands (Metropolitan County), South Yorkshire, Cheshire, Staffordshire, Nottinghamshire and Greater Manchester. Counties with unemployment rates *much* higher than the national average tended to have rather lower than average increases in unemployment during this quarter.

At this stage of the slump, industrial job loss was widely diffused across sectors (Table 7.19), with few sectors avoiding the effects of recession. Job losses were still much more severe than average in metal manufacturing, and to a lesser extent in vehicles, but the general impression given is that virtually all production industries were shedding jobs. Employment in the service sector, however, was fairly stable, with *Gazette* estimates[78] suggesting that employment in this sector was

actually increasing, by 75,000 (+0.6%), between March and June 1981. With manufacturing employment declining by an estimated 2.2% in the same period, it becomes clear that the degree of vulnerability to recession at this stage depended quite largely on the local balance between industries and services. Table 7.8 suggests, furthermore, that inter-regional differences in the rate of *industrial* job loss were relatively slight in the second quarter of 1981, the rate of job loss ranging from -1.2% in the South West to -2.7% in Yorkshire and Humberside.

Urban industrial areas would thus be more prone to job loss at this stage of the slump than less industrialised areas. These urban industrial areas would already tend to have higher than average rates of unemployment because of previous rounds of job loss, both before and during the slump. This form of continuity of recessionary patterns explains why the counties which showed much higher than average increases in employment in the second quarter of 1981 also had slightly higher than average rates of unemployment beforehand. An important sub-group in these counties is that of the more prosperous group of provincial metropolitan counties (South Yorkshire, West Yorkshire, Greater Manchester) which had unemployment rates around the national average at the beginning of the slump, slightly higher than average increases in unemployment during the most serious phases of slump, and much higher than average increases in unemployment in the spring quarter of 1981, partly because of the widespread nature of job loss at this stage, and partly because these conurbations tend to share relatively weakly in the seasonal upturn in economic activity in the spring months.

Counties with unusually high unemployment rates, and relatively slight increases in unemployment, such as Clwyd, Gwent and Mid Glamorgan in the second quarter of 1981, may be regarded as going through an adjustment phase after a severe round of job losses. During the early part of 1981, the slump was passing through a phase in which job losses were strongly concentrated in particular industries and particular places, and moving towards a phase in which industrial job losses were spatially and sectorally more diffuse. The type of very big industrial closures in iron and steel in 1980, for example, was not so prominent in 1981.[79] Some areas developed extremely high unemployment rates of job loss in 1981, there is a likelihood that unemployment in such areas would increase more slowly than the national average, since there will be a considerable "pressure gradient" for net outward migration. It would take quite a long time before there was a *general* tendency for areas with high levels of unemployment to have lower than average levels of increase of unemployment, and indeed this form of adjustment is stronger during periods of cyclical recovery than during periods of late recession.

It would seem, however, that certain high unemployment areas were beginning to show, in 1981, signs of convergence towards the national average. Such convergence soon reaches its limits, however; areas which develop particularly high rates of unemployment during a severe recession will tend to continue to have higher than average rates of unemployment into the indefinite future unless, as seems unlikely, such high unemployment areas have much faster than average rates of growth of employment in the recovery phase.

7.7 The Late Slump and Beyond

After mid-1981, the rate of increase of unemployment slowed down considerably. The economy could be said to have moved into a phase of "late slump." The main disruptive effects and after-effects of the crash of 1980 had passed through the system, leaving behind a phase of more steady economic growth. The general climate of the period from about mid-1981 to early 1983 was still predominantly recessionary, however, with unemployment tending to increase gradually. The analysis of chapter 2 above has suggested that it is as though the main part of the slump were followed, not by a cyclical recovery, but rather by a secondary recession, of comparable intensity to a "normal" cyclical recession, but starting at the end of a phase of extremely intense recession, rather than at the end of a cyclical upswing. When this secondary recession is over, the post-slump recovery may commence.

Fig 7.6 helps indicate some of the main industrial features of the secondary recession, or "late slump". The most important features are that industrial output remained static between mid-1981 and mid-1982, while productivity in manufacturing increased fairly steadily, at around its long-term growth rate of about 3-4%, rather than fluctuating sharply, as in the earlier part of the slump. It needs to be emphasised, however, that the sharp reduction in the rate of increase of unemployment which dated from mid-1981 (Table A7) did not result from any sharp change in output trends at this point; the industrial output curve was flat in both early 1981 and late 1981. Fig 7.7 indicates instead that there were abnormally high rates of increase in productivity in early 1981, but more normal, and lower, rates of productivity increase in late 1981. The earlier discussion has suggested that in 1980 the urgent need to cut production resulted in substantial decreases in productivity, and that the need to recover normal levels of productivity led to a further spate of rationalisations of production and job losses, even under conditions in which levels of output were stable, rather than declining. Once this wave of job losses had passed through the system, more normal conditions were present, in terms of current industrial change, though not in terms of unemployment.

A definite upswing in industrial production started towards the end of 1982, with a fairly steady growth in industrial output over a period of several years thereafter. The main surprise, perhaps, given the analysis in chapter 2, is that the upturn in output has not been far sharper. It is more normal for a post-slump recovery to be vigorous rather than steady; the railway boom of the 1840s and the consumer goods boom of the 1930s were earlier examples of powerful post-slump growth.

A period of steady growth is undoubtedly to be welcome, but the fact that growth is *merely* steady does not help reduce unemployment totals.

There is much that needs to be said about the post-slump economy, both about the precise nature of economic trends, and about the policies which need to be followed to set in motion a genuine and substantial economic upswing. Space does not allow for a detailed treatment of these important questions.[80] Furthermore, relatively little is said in this thesis on spatial patterns of employment change after 1981. Detailed Census of Employment results for 1984 have recently been published, but too late to be incorporated into the present discussion. What follows is more an outline of events since 1981, rather than a detailed treatment.

7.7 (i) The Second Half of 1981

Unemployment started to increase more slowly in late 1981 than in early 1981, as a result of a reduction in the rate of job loss. The geography of unemployment increase in this period (Table A10(vii)) was dominated by seasonal increases in unemployment in coastal and rural counties. In Clwyd, for example, the heavy rate of increase in unemployment was accounted for not by continued job losses in the depressed industrial areas, but rather by a sharp rise in unemployment in the coastal residue. Combined figures for Shotton and Wrexham travel-to-work areas show an increase of unemployment of 1.1 percentage points (from 17.1% to 18.2%), in line with the national average, while the coastal residue had an increase of unemployment of 3.1 percentage points (from 10.7% to 13.8%). Even in a county with particularly large-scale industrial job loss, it is not necessarily the case that a large increase in unemployment in a given period is due to industrial factors.

In those counties which were not heavily influenced by seasonal downturns in employment, the patterns of increase of unemployment were diverse. Various counties in the West Midlands and industrial South Wales[81] had noticeably above average increases in unemployment. In the West Midlands, this simply reflected the fact that rates of industrial job loss were much higher than anywhere else in the second half of 1981 (Table 7.8). In Wales, rates of industrial job loss were also high, but considerably lower than in the West Midlands. Slightly higher than average rates of industrial job loss in the North West and Yorkshire and Humberside were reflected in slightly higher than average increases in unemployment in South Yorkshire, Humberside and Merseyside.

Most counties in Southern England had, yet again, relatively small increases in unemployment, although Greater London represented an important if temporary exception. Unemployment remained virtually static in four out of five East Midlands counties, Lincolnshire, Northamptonshire, Leicestershire and Derbyshire. This is in contrast with the previous period (February 1981-June 1981), when the counties of the East Midlands each had higher than average increases in unemployment. Table 7.8 suggests that the rate of industrial job loss in the East Midlands was considerably below the national average in the second half of 1981; this seems to have been reflected in the unemployment figures.

Several counties with previously unusually high unemployment rates had smaller than average increases in unemployment in the second half of 1981. These included Durham, Tayside, Fife, Strathclyde, Tyne and Wear, Central and Cleveland. In the cases of Cleveland, Strathclyde and Tyne and Wear, three heavily urbanised counties, the difference

between the national rate of increase in unemployment and the local rate of increase were relatively small, and seasonal factors may well be partially responsible for the existence of these differentials. The discussion in chapter 7.5(ii) above points out that densely urbanised counties tend to suffer less than lightly urbanised counties from purely seasonal job losses, and as a result unemployment differentials tend to shift in favour of densely urbanised counties towards the end of the calendar year. Such an explanation does not convincingly fit the cases of Durham, Fife and Tayside, three counties of medium urbanisation whose increase in unemployment in the second half of 1981 stood at only 0.3 percentage points, compared with a national average of 1.1 points. It is unlikely that any of these counties had a rate of job loss greatly lower than the national average at this stage; it seems instead that the slightness of the rate of increase in unemployment was a result of labour market adjustment. In Northamptonshire and Lincolnshire, the static unemployment rates in late 1981 are probably to be explained by a combination of labour market adjustment following earlier rounds of heavy job losses, along with favourable current employment performances.

This process of adjustment is perhaps most readily noted at the local scale. In Consett, for example, unemployment fell from 26.4% to 24.9%. This may be regarded, perhaps, as an extreme case, but increases in unemployment at this stage often tended to be less in high unemployment areas than in low unemployment areas in the same region, once the degree of urbanisation has been controlled for. Thus, in the North Eastern case, unemployment rose by 0.3 points (from a base of 19.1%) in Wearside, by 0.5 points (from a base of 20.0%) in Hartlepool, and by 0.9 points (from a base of 12.4%) on North Tyneside. The North Tyneside increase was slightly below the national average, while the increases in Hartlepool and on Wearside were considerably below the national average.

7.7(ii) 1982 and After

Note:

This section was written in late 1986 and has not been altered, apart from minor changes in phrasing, since then. After the text was written, growth at last started to accelerate, even if signs were appearing that this growth was unstable, and unemployment at last started to fall. Chapter 10 below presents an updated picture of the post-1982 years.

Industrial output remained flat during the first half of 1982, but started to move substantially upwards towards the end of the year. One can suggest that the secondary recession ("late slump") ended at around the beginning of 1983, and that the period after was one of post-slump recovery.[82] This however is a judgment reached retrospectively. It would be very difficult to indicate with certainty exactly when the economy moved from late slump to post-slump recovery; on the basis of Fig 7.7, November 1982 would seem an obvious candidate, although there was the usual slight time lag between an upturn in industrial output and the downturn in unemployment which started in March 1983.[83] This downturn in unemployment turned out to be very slight, and unemployment started to increase again in late 1983 and early 1984. In the years since then, up to 1986, unemployment has tended to fluctuate slightly without showing either strong upward or strong downward trends.[84]

A situation has been reached which may perhaps be described as "equilibrium at less than full employment." It is still a puzzling question why unemployment has shown no real tendency to fall since 1983. At the root of Keynes's *General Theory* was the practical question of whether, in post-slump conditions, market forces would lead to an equilibrium of full employment, or less than full employment.[85] When Keynes was developing his theory in final form, in the mid-1930s, unemployment was falling. The main question was how far and how fast it would fall. Conditions in the mid-1980s have been more serious still, since unemployment has not even been falling. Throughout 1983 and most of 1984, the present author considered that the secondary recession of the late slump was unusually prolonged, and that the post-slump recovery had not yet arrived. As time went on, and the economy continued to grow steadily, it became more clear that the situation was one in which the post-slump recovery had arrived, but was unusually weak. Growth rates were comparable with those of the period of full employment, but the theoretical expectation is that, on the upswing of a long cycle, growth rates should be much faster than this if there is high unemployment. It would seem that currently economic decisions, on investment, employment,

etc., are based on the expectation of 3% growth and steady unemployment. This expectation is empirically correct, but one can pose a typical Keynesian question here. If the state of expectations changed upwards, through some general change in "business psychology", would there be forthcoming a period of accelerated growth and sustained falls in unemployment? This question, which is highly important, is left open-ended here. A more detailed discussion, in some other place, would be highly desirable.[86]

As far as the economic geography of the post-slump period is concerned, the general tendency has been for employment growth to be substantial in the core regions, with little net employment growth taking place in the periphery.[87] This in itself is not a new phenomenon, but whereas in the 1950s and early 1960s such differential growth took place against a background of full employment, in the mid-1980s the problem is much more acute. Thus, the areas in which few jobs are being created already have very high levels of unemployment.

The relative evenness of patterns of employment change in 1981, itself the result of a conjunction of a highly unusual set of forces, did not persist into later years. As far as unemployment is concerned, Table A.10(viii) shows for the first half of 1982 a very noticeable tendency for increases in unemployment to be above average in high unemployment areas, but below average in low unemployment areas. The one main exception was that counties which had a high rate of unemployment in December 1981 primarily as a result of seasonal factors (e.g. Cornwall, Gwynedd) had a low rate of increase of unemployment, and even decreases in unemployment, as winter turned to summer. In addition, the increase of unemployment was relatively small in West Glamorgan and South Glamorgan, but not in Gwent or Mid Glamorgan.

There would appear to be, overall, a distinct banding of unemployment increases in early 1982, with high unemployment industrial areas tending to have much larger increases in unemployment than low unemployment areas. The possibility was considered, and rejected, that this banding was due to a change in the denominator used in calculating unemployment rates. For both December 1981 and July 1982, as indeed for the whole of the preceding part of the slump, the denominator used was the mid-1977 estimate of numbers in employment plus the unemployed.[88]

It would seem that the banding of unemployment increases resulted in part from seasonal factors (urban industrial areas having relatively small summer seasonal increases in employment) and in part from a renewed divergence in the rate of industrial job loss. When such a process of divergence takes place, more vulnerable counties such as Humberside, Durham, Gwent, Merseyside and Tyne and Wear, are likely to be relatively

more affected by industrial job loss than less vulnerable counties such as Surrey and Norfolk.

Derbyshire had a particularly large increase in unemployment, from 9.9% in December 1981 to 12.0% in July 1982, a rate of increase almost twice as fast as in the UK as a whole, even though unemployment had previously been below the national average. Unemployment increased substantially in both Chesterfield and Derby; presumably this could be linked to specific industrial closures.

In Humberside, unemployment increased much faster in the port city of Hull than in Scunthorpe, which had previously borne the brunt of recession as a result of job losses in steel-making. In County Durham, however, the main increases in unemployment came in areas with very high unemployment, such as Consett and Peterlee, rather than in areas with lower unemployment, such as Central Durham and Darlington/South West Durham. Thus while the Midland and peripheral industrial areas tend to have higher than average rates of job loss, and of increases in unemployment, there is no guarantee that the worst effects of this secondary recession would be concentrated exclusively in areas severely affected by the main slump, or in areas which had avoided the worst effects of 1980 and 1981. There was a complicated mixture of tendencies.

Unemployment continued to increase, according to the seasonally adjusted series, until April 1983, before dipping slightly. Unfortunately there are difficulties in comparing unemployment figures for July 1982 and April 1983, in that there was a major change in the method of assessing unemployment benefit which became effective from November 1982.[89] Unemployment figures on the new basis related only to those who *claim* (and receive) unemployment benefit, etc., and exclude those who were previously registered at Jobcentres, but not claiming benefit. At the county and local scale, unemployment figures are available on both the old and the new basis for October 1982,[90] which allows data splicing to take place, as in Table A10(ix). The corrections involved are listed in Table 7.21, and range from 0.2 percentage points in the Borders region to 3.0 points in the Western Isles.

As far as the substantive changes noted in Table A10(ix) are concerned, perhaps the most interesting points to be made concern counties in which unemployment was relatively static, or in some cases falling, between July 1982 and April 1983. Most of the large-scale rises in unemployment would have been fairly predictable, given the seasonal factors involved. It is perhaps more noteworthy that unemployment fell sharply in Northumberland, and that most of the counties in which unemployment increased by less than 0.4 percentage points were in the main industrial belts of Britain, rather than in the relatively prosperous

South of England. The pressure on the industrial areas was being released slightly, although the West Midlands Metropolitan County was still suffering from rapidly increasing unemployment and, presumably, substantial further job losses.

The decline in unemployment in Northumberland can be traced to an incident of job creation. Unemployment in the Morpeth travel-to-work area declined sharply by 992 (1.6% of the local workforce) between March 1983 and April 1983, with a further fall of 348 in the register in the following month, and another 122 in the month after that. Female unemployment remained static during this period, so that the fall in unemployment was primarily a fall in male unemployment. Such a pattern must surely have resulted from a particular decision to bring specified employment to the area concerned, with perhaps 1,500 predominantly male jobs being created. Elements of job creation were taking place during the worst stages of slump, even in manufacturing, but it is only at this stage that such job creation can be substantial enough, and employment decline in other sectors slight enough, for industrial job creation to be revealed so clearly in falling unemployment figures. This suggests that a stage had at last been reached in which a strengthened regional policy, had it been applied, would have opened the possibility of making a substantial dent in the unemployment figures in the assisted regions.

Unemployment decreased substantially between July 1982 and April 1983 in both Northumberland and Fife. Unemployment had also stabilised in various other industrialised counties of the Midlands and periphery, such as Staffordshire, Humberside, Cumbria, Strathclyde, Gwent, Nottinghamshire and Northamptonshire, while counties in Southern England were generally still showing substantial increases in unemployment.

The situation was not simply one, however, of large unemployment increases in the South and small unemployment increases in the Midlands and North. A more appropriate way of describing the situation would be to suggest that unemployment increases tended to be in line with the national average in Southern England, but more scattered elsewhere. Outside Southern England, it can be inferred that unemployment increased quickly if industrial job loss was still an important factor, but increased much more slowly than the national average if the effects of industrial job loss were relatively slight. In this latter case, the general drift of labour from high unemployment areas to low unemployment areas placed a brake on unemployment increases.

There was clearly scope for considerably variability in unemployment performance at the local level as well as at the county level. This may be seen even in those counties where aggregate levels of unemployment were stable in late 1982 and early 1983. For example, in Humberside,

unemployment in Grimsby increased by 1.0 percentage points between July 1982 and March 1983, no doubt partly, if not largely, due to seasonal factors, while falling by 0.4 percentage points in Hull and Scunthorpe. In Strathclyde region, unemployment increased substantially in the resort town of Ayr (+1.4 percentage points) and also in Dumbarton (+1.2) and Irvine (+0.9), but only slightly in Glasgow (+0.4), Greenock (+0.3), North Lanarkshire (+0.1) and Paisley (0.0), while Kilmarnock showed a rapid decline in unemployment (-1.4), though from a high base. The drop in unemployment in Kilmarnock suggests, as in Morpeth, the presence of actual job creation. Unemployment fell by 381 (1.1% of the workforce) between March 1983 and April 1983, and by 216 and 258 in the next two months. Again this fall in unemployment was primarily a fall in male unemployment; female unemployment decreased by only 120 in these three months.

There were some signs of localised economic recovery in the Spring of 1983, and this recovery later became more general, if short-lived. Table A10(x) shows that between April 1983 and July 1984 there were few counties which did not show declines in unemployment. Tyne and Wear and Cleveland, however, still suffered from increasing unemployment, corroborating the impression given in Table 7.8 that the Northern region was still showing substantial rates of industrial job loss at a time when the employment base in manufacturing was beginning to stabilise in other regions.

Greater London was showing increased unemployment, in strong contrast to the rest of Southern England. Indeed, there were signs that a gap in unemployment rates was beginning to open up between London and the rest of the South East. This is a feature which needs closer examination. Even during the 1970s, when London was a major centre of job loss (chapter 6 above), unemployment rates in London were aligned with the rest of the region, but this alignment was disappearing in the mid-1980s.

Table 7.21 indicates in more detail the changed labour market relationship between London and the surrounding region. Confusingly, figures calculated on the "old" pre-1982 basis show unemployment in London being consistently slightly lower than in the rest of the South East, at least up to 1981, while figures calculated on the "new" basis (claimants only) show an almost exact match between London and the rest of the South East between 1979 and 1982, and slightly lower unemployment rates in London between 1976 and 1978. The non-claimant element amongst those who would have been registered as unemployed under the "old" regulations was evidently higher in London than in the rest of the South East; this is confirmed by Table 7.21.

Employment estimates in the *Gazette*[91] suggest that in the critical period between March 1983 and September 1984, employment grew in the South East region by 160,000, or 1.5% per annum (not seasonally adjusted). Within the South East, employment in London fell by 37,000 (-0.7% per annum), while increasing in the rest of the South East by 197,000 (+3.6% per annum). This is a very large differential, but under different labour market conditions migratory flows would have been powerful enough to ensure that no gap in unemployment would have opened up between London and the rest of the South East. In the mid-1980s, however, even the expanding areas of the South East were still zones of high unemployment. This means that there was likely to be a substantial idle local workforce capable of filling a substantial proportion of any local vacancies which are opened up as a result of employment expansion. There is no general labour shortage in the expanding areas, and this inhibits a certain proportion of the inward migration which would have taken place had the expanding areas been zones of labour scarcity. As a result, the draining off of surplus labour from London, usually very effective when surrounding expanding areas have almost full employment, has become less effective in the mid-1980s, and gradually a situation is emerging in which London has considerably higher levels of unemployment than the rest of the South East. Table A10(xi) shows this process as becoming even more noticeable in 1984-85 than in 1983-84; unemployment in London continued to grow as the number of jobs remained static,[92] while the increase in jobs elsewhere absorbed local unemployment rather than London's surplus labour.

Table A10(xi) covers the period from September 1984 to September 1985, and brings the narrative more closely up to date. There was a major revision of the statistical basis for presenting local unemployment figures in late 1984.[93] The effects of this revision on published unemployment rates are listed in Table 7.22. An important component of this change is that local unemployment rates have, from late 1984, been published on the basis of mid-1983 or later estimates of the size of the local workforce, rather than on the basis of mid-1977 estimates. This has the general effect of reducing measured unemployment rates. In counties with substantial net emigration, however, the effects of the change will be to increase measured unemployment rates. This effect is particularly large in certain counties which have been severely affected by slump, such as Merseyside, Cleveland, Durham, Tyne and Wear, Strathclyde and the West Midlands (Metropolitan County). There is a tendency for any updating of the denominator in unemployment rates to produce some degree of divergence between local unemployment rates.

1984-85 was a year in which unemployment increased nationally.

There was a dip in the growth rate in this year, but this was in part a statistical illusion, with the effects on GDP of the miners' strike (March 1984 - March 1985)[94] over threatened pit closures being to reduce measured growth rates from the second quarter of 1984 to the first quarter of 1985 (when a strike period is being compared with a non-strike period) and to increase measured growth rates from the second quarter of 1985 to the first quarter of 1986 (when a non-strike period is being compared with a strike period). The suggested interpretation of Table 7.23 is that the "underlying" rate of growth has been around 3% from early 1983 onwards, with little variation other than that caused by the miners' strike.

Patterns of unemployment change by county in 1984-85 (Table A10(xi)) are at first sight complicated. Most of the counties which had especially large increases in unemployment also had a substantial concentration of employment in tourism, and were generally rural rather than heavily urbanised. The Summer of 1985 was, even by the normal standards of British summers, cold and wet, in comparison with the warm dry summers of the previous two years. As a result, summer seasonal employment was lower in 1985 than in 1984, and this was reflected in increases in unemployment in counties heavily dependent on this type of employment.

The tendency, noted for 1983-84, for unemployment to rise in London, while declining in the rest of the South East continued into 1984-85, and quite possibly indicates a long-term tendency in the geography of the UK.[96] The South East was not, however, the only region in which unemployment in the main conurbation was increasing faster than in other urbanised areas; West Yorkshire, Tyne and Wear and Strathclyde showed noticeably higher than average rates of increase in unemployment, while Greater Manchester and Merseyside were at or above the national average. In contrast, many but not all, the other urban industrial counties in the same regions had static unemployment or declines in unemployment during the period, for example, Cleveland, Cheshire, Durham, and several of the Scottish regions. In addition, Humberside had a relatively small increase in unemployment when compared with West Yorkshire or South Yorkshire. The conditions which make such a differential accumulation of unemployment most likely are a combination of continued job loss in the cities, the primary mechanism for generating unemployment, together with a labour surplus (relatively high unemployment; relatively low rates of growth of new jobs) in surrounding counties. In the 1970s Merseyside, Strathclyde and Tyne and Wear accumulated unemployment particularly sharply as a result of these factors, whereas London, which could drain off its surplus labour relatively quickly, and the other provincial conurbations,

with lower rates of job loss, accumulated less unemployment. In the mid and late 1980s, the situation appears appropriate for a continued accumulation of unemployment, or lack of decrease of unemployment, in the conurbations as jobs continue to be lost there and increased numbers of jobs outside the conurbation are taken up by local inhabitants rather than migrants.[97] Table A10(xi) illustrates one stage of this process. If this diagnosis is correct, the intense economic problems of the conurbations, particularly in their "social" aspects (i.e. high rates of unemployment) will not disappear quickly, even in the event of a substantial economic recovery. The future for the less urbanised industrial counties in the periphery is bleak, but perhaps not as bleak as in the corresponding conurbations.

The situation in the West Midlands region in 1984-85 was the reverse of this, with the main industrial conurbation having a relatively small increase in unemployment, and surrounding counties, notably Staffordshire and Shropshire, having larger increases. Warwickshire, closely tied in with the economy of the West Midlands Metropolitan County, had static unemployment. It seems that industry-specific factors were important. In the West Midlands region, employment fell by 0.5% between June 1984 and June 1985 in the metal goods, engineering and vehicles sector, the core of the conurbation's economy, whereas in other manufacturing industries, less strongly represented in the conurbation, employment fell by as much as 2.1%.

It is possible, though not certain, that the West Midlands conurbation has the best chance of any British *industrial* conurbation (thus, excluding London) of maintaining a sustained industrial recovery, despite the severity of the earlier slump. Even so, the general indications are that the industrial conurbations will all face considerable economic problems in future years.[98]

7.8 The Accumulation of Unemployment in the Slump as a Whole

Table 7.24 summarises changes in unemployment rates by county through the period between June 1979 and September 1985, distinguishing between the period of rapidly rising unemployment up to July 1982 and the period thereafter with more gradual increases. In calculating this table, 1985 unemployment rates have been converted to their pre-1982 equivalents, using Table 7.22. This implies that the unemployment rates are calculated using a stable base (the mid-1977 working population), rather than a floating base (the working population in the middle of the year concerned).

It is useful to study the accumulation of unemployment over a fairly long period, not only in order to be able to provide a convenient summary of that period, avoiding "local detail", but also because various fundamental labour market relationships can be revealed which are often concealed in short period analysis. Lagged responses, for example through migration, are often particularly important in the functioning of the labour market, and a time period considerably longer than the length of the lag is required in order to study satisfactorily the patterns involved.

In Table 7.24 there is a clear degree of "banding" of rates of unemployment increases shown in the period from June 1979 to July 1982. Counties in Southern England and Scotland (Strathclyde and Central excepted) had relatively small increases in unemployment, concentrated in a band between about +5 and +7 percentage points. This narrow band of rates of unemployment increase conceals large differences in the rate of employment change; for example, employment in Buckinghamshire rose by 4.8% between 1978 and 1981, while in Greater London employment fell by 3.7% in the same period, yet Buckinghamshire showed a slightly larger increase in unemployment than London (Table 7.4). Differential patterns of migration have a very powerful effect both in causing banding in the rate of unemployment increase and in causing convergence of unemployment rates at various spatial scales.

In the Midlands and North, there was also a strong degree of banding of rates of increase in unemployment, this time with the increases ranging from about 7½ to 9 percentage points. This higher rate of increase reflects higher rates of job loss, but many inter-county differences in the rate of job loss are levelled out in the unemployment figures. A limited group of counties had particularly large increases in unemployment. These include, with increases in percentage points in brackets, the West Midlands county (+11.4), Staffordshire (+10.6), Shropshire (+10.3), Cleveland (+10.3), Humberside (+9.9), Clwyd (+9.8),

Greater Manchester (+9.6), South Yorkshire (+9.2) and Northamptonshire (+9.1). In most of these cases, all except for Staffordshire and Shropshire, the large increases in unemployment can be related to unusually high rates of job loss (Table 7.4),with the problems of the iron and steel industry often being prominent. In Shropshire and Staffordshire, the overall rate of job loss was relatively moderate, but the increases in unemployment were high as a result of labour market adjustment within the West Midlands region. In the region's core conurbation, job loss was very intense during the slump, with 11.8% of the total 1978 employment having disappeared by September 1981.[99] When such a high rate of job loss occurs, the result is usually heavy net emigration; in a region with a base of relatively low unemployment, however, net emigration from the region is restricted and unemployment based on the decline of the core conurbation spreads mainly *within* the region rather than outside it. A region which has a high rate of job loss and a low rate of net emigration does not remain a region of low unemployment for long. During the slump, unemployment rates in the West Midlands were quickly catching up with those of the peripheral regions.

The basic picture for the 1979-82 period, however, is for three groups of county to emerge; those with relatively small increases in unemployment, mainly situated in the South of England, those with medium to high increases in unemployment, mainly situated in the periphery and Midlands, and those with very large increases in unemployment, which have suffered particularly severe industrial decline. This is the picture according to increases in unemployment. Chapter 8 below examines the geography of slump in terms of employment change, using the results of the 1978 and 1981 Censuses of Employment.

The banding effect is not so strong during "recovery" as during recession. One reason is that both prosperous and depressed counties can have relatively favourable shifts in their unemployment rates during such a period, while intermediate counties can have less favourable shifts. Prosperous counties may have favourable shifts because they are prosperous, while depressed counties often can have favourable shifts through the processes of labour market adjustment following a shock. Amongst the nine counties identified earlier as having particularly large increases in unemployment up to mid-1982, Shropshire, Cleveland and South Yorkshire continued to have substantial increases in unemployment after mid-1982, while Greater Manchester and Clwyd had moderately high increases in unemployment, with Humberside and the West Midlands having a small increase in unemployment, and Staffordshire and Northamptonshire showing decreases in unemployment. There would appear to be a distinction to be drawn between those counties which were vulnerable before, during and

after the slump (notably Cleveland, also perhaps Greater Manchester) and those whose vulnerability was confined to specific industries and to the slump period itself (notably Northamptonshire and Humberside, also perhaps the West Midlands). It is easier, however, to make comments about specific counties than to generalise; the range of experience is highly diverse.

There are large numbers of counties in Southern England, and in Scotland (also Cumbria) in which unemployment has remained stable since 1982, following a slump in which the rate of unemployment increase was relatively slow. These counties can easily be identified in Table 7.24. Other counties, some of which have already been mentioned, had small increases in unemployment (or in the cases of Staffordshire and Northamptonshire, decreases) following a period of above average increases in unemployment. Several counties, with diverse experiences during the main part of the slump, had moderate increases in unemployment, between about 1½ and 2 percentage points (compared with a Great Britain average of 1.8), between July 1982 and September 1985.

Counties with still larger increases in unemployment tended to be either highly urbanised (notably Greater London, South Glamorgan, South Yorkshire) or to have notably low levels of urbanisation (notably Gwynedd, Dyfed, Powys, Shropshire, Cornwall, North Yorkshire, Highlands). The phenomenon of the renewed accumulation of unemployment in London has already been noted (section 7.7(ii) above), with the suggestion that the presence of non-negligible unemployment in surrounding counties had started to check migration from London. The situation in South Wales is almost a mirror image, with a service based city (Cardiff in South Glamorgan) attracting net inward migration while the depressed industrial areas of South Wales (Mid Glamorgan, West Glamorgan, Gwent) are sources of population dispersal. Indirect evidence of this is given in Table 7.22. Unemployment rates measured on a 1984 base were higher than those measured on a 1978 base (implying declining population) in Mid and West Glamorgan and Gwent, but lower (implying rising population) in South Glamorgan. Table 7.24 shows that up to 1982 unemployment was accumulating more slowly in South Glamorgan than in the rest of South Wales; Table 7.4 demonstrates that this was the result of a much lower rate of job loss in South Glamorgan. After 1982, unemployment was still rising quickly in Mid Glamorgan and West Glamorgan, though relatively slowly in Gwent, while rising extremely quickly, in the context of the period, in South Glamorgan. It would appear that more favourable economic conditions in a major service centre attracted migration into Cardiff and surrounds from the rest of South Wales, while migration out of Cardiff is checked by a depressed economy in the rest of the region.

Again, individual conurbations have individual case histories making generalisation difficult. South Yorkshire, Tyne and Wear and Merseyside all showed higher than average increases in unemployment during the period 1982-85, but it is not clear to what extent this is due to continued weakness of the urban economy and to what extent it is due to a redirection of migration flows, or to some combination of both. Indeed, on a more general point, Table 7.24 does not provide all that many clues as to what the geography of employment change has been from 1982 onwards. Further research along this line would require a comparison of the 1981 and 1984 Censuses of Employment. The results of the 1984 Census of Employment were made available too late to be incorporated into the present account. It is perhaps wisest not to speculate too much on what has been happening to the space economy after 1982. A more soundly based approach would be to conduct an analysis of employment change between 1981 and 1984, and to integrate this analysis with discussion of the relevant unemployment figures.

As far as the slump as a whole is concerned, however, it is the events of 1980, 1981 and early 1982 which dominate the geography of unemployment; what happened in later years produced, in aggregate terms, modifications on an existing pattern rather than a fresh pattern. It is to the earlier period that discussion now returns in order to consider in detail the geography of job loss.

Table 7.1 Forecasts and Outturns of Unemployment in the Early 1980s

Date	Forecaster	GDP change, %, 1979-80	Unemployment 1980 (millions)
Nov 79	NIESR (National Institute)	+0.2	1.4*
	London Business School	-1.1	1.3
	HM Treasury	-2.0	1.5+
Dec 79	Hoare Govett	-1.0	1.5
Jan 80	Cambridge Econometrics	-1.2	1.7
	Philips and Drew	-1.7	1.4
	Hoare Govett	-0.3	1.5
Feb 80	NIESR	-0.5	1.6*
	St. James	-1.6	1.5
Mar 80	OECD	-2	1.5
	London Business School	-1.7	1.5
	Hoare Govett	-1.5	1.5
	Cambridge Econometrics	-3.4	1.8
	St. James	-1.6	1.5
	Philips and Drew	-1.7	1.4
Apr 80	Cambridge Economic Policy Group	-8.0 (1979-81)	2.5 (1981)
May 80	NIESR	-1.1	1.6**
	Outturn	-2.6	1.8 (average)
			2.2 (fourth quarter)

*fourth quarter +Manpower Service Commission estimates, based on Treasury growth projections, published February 1980.

Source: *The Times*, 9.1.80, 8.2.80, 18.2.80, 1.3.80, 27.5.80.

Table 7.2 The Phases of Slump, 1929-1937 and 1979-1988

Phase	Date	Duration (months)	Unemployment (%) at end of period	Change in unemployment (percentage point)
"Proto-slump"	June 1929-Dec 1929	6	8.4	+0.8
Full slump	Dec 1929-Feb 1931	14	16.3	+7.9
Late slump	Feb 1931-Jan 1933	23	17.8	+1.5
Recovery	Jan 1933-Aug 1937	55	7.5	-10.3
"Proto-slump"	June 1979-May 1980	11	6.2	+0.7
Full slump	May 1980-Sep 1981	16	12.6	+6.4
Late slump	Sept 1981-Jan 1983	16	14.4	+1.8
"Recovery"	Jan 1983-Sep 1986	44	14.9	+0.5
Recovery II	Sept 1986-*Feb 1988*	17	13.7	-1.2

Source: Table A7; *Gazette*.

Inter-war unemployment rates have been reduced by a quarter to allow for comparison to be made with 1980s unemployment rates (see chapter 3.5).

An attempt has been made to place all post-1982 figures in pre-1982 terms, by taking account of major discontinuities. This involves the addition of 1.0 points to the January 1983 figure (to take into account the October 1982 changes in method of calculation), and a total of 2.9 points to the September 1986 figures, to take into account firstly the expansion of the denominator in the official unemployment statistics (which reduced the official unemployment rate by about 1.7 points; compare for example figures for 1985 in *Gazette*, December 1985 p.S20 and *Gazette*, June 1987 p.S20) and secondly a discontinuity in February 1986 which reduced the unemployment rate by about 0.2 points. In the February 1988 figures, the latest available at the time of writing, an extra 1.2 points have been added in an attempt to take account of various changes in the administration of unemployment benefits (Restart, etc.) in very recent years (see note 84).

Table 7.3 Travel to Work Areas in Great Britain with over 8½% Unemployment, June 1979

Travel to work area	Unemployment rate (%)	Travel to work area	Unemployment rate (%)
Irvine (Strathclyde)	13.7	Widnes (Merseyside)	10.4
Hartlepool (Cleveland)	13.0	Bathgate (Lothian)	10.2
Liverpool (Merseyside)	12.3	Mexborough (S. Yorkshire)	10.2
N. Lanarkshire (Strathclyde)	12.2	Wigan (Merseyside)	9.5
Wearside (Tyne and Wear)	12.0	Dundee (Tayside)	9.3
Consett (Durham)	11.4	Teesside (Cleveland)	9.2
Ebbw Wale (Gwent)	11.4	Glasgow (Strathclyde)	9.1
Greenock (Strathclyde)	11.3	Ayr (Strathclyde)	9.0
Wrexham (Clwyd)	11.2	Kilmarnock (Strathclyde)	9.0
Dumbarton (Strathclyde)	11.0	Morpeth (Northumberland)	8.8
Peterlee (Durham)	10.9		
South Tyne (Tyne and Wear)	10.9	(U.K. Average	5.6)
Bargoed (Mid Glamorgan)	10.8		
Birkenhead (Merseyside)	10.7		

(All travel to work areas in Northern Ireland had unemployment rates of 9% or more, ranging from 9.0% in Belfast to 24.4% in Strabane).

Source: *Gazette*, July 1979, pp.684-685.

Table 7.4 Changes in Employment and Unemployment by County, June 1978 to September 1981, as a Percentage of June 1978 Employment

	Change in Emp.	Inverse of Change in Unemp.		Change in Emp.	Inverse of Change in Unemp.
Cleveland	-12.7	-10.6	Greater London(m)	-3.7	-5.1
Mid Glamorgan	-12.5	-9.0	Central	-3.5	-6.5
Tyne and Wear(m)	-12.0	-6.9	Cumbria	-3.3	-6.1
West Midlands(m)	-11.8	-11.0	Norfolk	-3.2	-4.7
Clwyd	-11.7	-8.6	Avon	-3.1	-4.9
Durham	-11.6	-8.8	Kent	-2.7	-5.7
Humberside	-11.2	-8.5	Powys	-2.6	-5.6
West Glamorgan	-11.1	-9.7	Warwickshire	-2.1	-8.9
Merseyside(m)	-11.0	-8.5	Hereford & Worcester	-2.0	-7.5
Gwent	-10.0	-9.1	Suffolk	-2.0	-4.7
Strathclyde(m)	-9.6	-7.9	Somerset	-1.8	-4.0
West Yorkshire(m)	-9.5	-6.7	Lothians	-1.4	-5.3
Greater Manchester(m)	-9.3	-8.4	North Yorkshire	-0.9	-4.8
South Yorkshire(m)	-8.8	-9.2	Wiltshire	-0.7	-4.2
Northamptonshire	-7.9	-8.0	Devon	-0.7	-5.3
Cheshire	-7.3	-8.0	Gloucestershire	-0.4	-4.5
Northumberland	-7.2	-6.8	Dorset	-0.3	-4.8
Staffordshire	-7.2	-9.9	Berkshire	-0.2	-4.3
Cornwall	-5.8	-5.1	Oxfordshire	+0.7	-4.6
Dyfed	-5.8	-7.6	Hertfordshire	+0.9	-4.9
Tayside	-5.6	-6.7	Cambridgeshire	+1.1	-5.1
Derbyshire	-5.6	-6.4	Highlands	+2.0	-4.5
Leicestershire	-5.5	-6.6	Hampshire	+2.8	-5.1
Lancashire	-5.5	-7.4	West Sussex	+2.9	-4.2
Shropshire	-5.5	-9.4	East Sussex	+3.2	-4.0
Bedfordshire	-5.0	-7.0	Borders	+3.9	-4.0
Essex	-4.8	-6.1	Surrey	+4.0	-4.0
Nottinghamshire	-4.7	-6.3	Buckinghamshire	+4.8	-5.2
Fife	-4.5	-5.5	Dumfries & Galloway	+6.5	-6.1
Lincolnshire	-4.0	-6.1	Grampian	+9.9	-4.0
South Glamorgan	-3.9	-5.8			
Gwynedd	-3.9	-7.0	(Island Areas	+2.6	-6.0)
Isle of Wight	-3.7	-4.3			
			Great Britain	*-5.2*	*-6.6*

Sources: Census of Employment, 1978, 1981 (unpublished data for employment by County).
Unemployment rates for counties, June 1978 and September 1981 in *Gazette*, July 1978 and October 1981.

Change in employment is the 1981 employment minus the 1978 employment, as a percentage of 1978 employment.
Inverse change in unemployment is the June 1978 unemployment rate minus the September 1981 unemployment rate (in each case using a mid-1977 base figure for the size of the workforce).

Fig 7.3 gives a graphical representation of these data.

Table 7.5 Profiles of Unemployment Following a Major Job Loss; Three Steel Closure Towns 1980-81

Month		UK		Shotton (Clwyd, Wales)		Corby (Northants. EM)		Consett (Durham, N)	
		Unemp. rate (%)	Change since previous month	Unemp. rate (%)	Change since previous month	Unemp. rate (%)	Change since previous month	Unemp. rate (%)	Change since previous month
1980	J	6.1	+0.5	6.9		7.4		11.6	
	F	6.2	+0.1	8.4	+1.5	7.5	+0.1	12.3	+0.7
	M	6.1	-0.1	10.9	+2.5	7.8	+0.3	12.1	-0.2
	A	6.3	+0.2	14.0	+3.1	8.4	+0.6	12.7	+0.6
	M	6.2	-0.1	14.6	+0.6	11.1	+2.7	12.3	-0.4
	J	6.9	+0.7	*14.5*	*-0.1*	12.6	+1.5	13.8	+1.5
	J	7.8	+0.9	16.2	+1.7	15.7	+3.1	14.9	+1.1
	A	8.3	+0.5	*16.1*	*-0.1*	16.7	+1.0	15.4	+0.5
	S	8.4	+0.1	*15.3*	*-0.8*	18.0	+1.3	15.5	+0.1
	O	8.5	+0.1	*14.6*	*-0.7*	18.5	+0.5	16.6	+1.1
	N	8.9	+0.4	14.9	+0.3	19.8	+1.3	18.4	+1.8
	D	9.3	+0.4	15.3	+0.4	21.2	+1.4	22.4	+4.0
1981	J	10.0	+0.7	15.7	+0.4	22.1	+0.9	23.5	+1.1
	F	10.2	+0.2	16.0	+0.3	*21.5*	*-0.6*	23.8	+0.3
	M	10.3	+0.1	n.a.		*n.a.*		n.a.	
	A	10.4	+0.1	n.a.		*n.a.*		n.a.	
	M	10.6	+0.2	16.3	(+0.1)	*21.2*	*(-0.1)*	25.6	(+0.6)
	J	11.1	+0.5	16.2	-0.1	21.9	+0.7	26.4	+0.8
	J	11.8	+0.7	17.8	+1.6	22.3	+0.4	26.6	+0.2
	A	12.2	+0.4	18.1	+0.3	22.0	-0.3	26.9	+0.3
	S	12.4	+0.2	18.4	+0.3	21.8	-0.2	27.0	+0.1
	O	12.4	-0.0	17.7	-0.7	20.8	-1.0	25.8	-1.2
	N	12.2	-0.2	17.7	-0.0	20.7	-0.1	25.2	-0.6
	D	12.2	-0.0	17.7	-0.0	20.0	-0.7	24.9	-0.3

Italicised figures indicate a fall in unemployment subsequent to a major job loss.

Sources: *Gazette*, 1980, 1981, 1982; compiled from monthly unemployment reports.

Unemployment figures at the local level were not made available for March 1981 or April 1981 as a result of an industrial dispute. Bracketed figures given for May 1981 represent *average* change over a three month period.

Table 7.6 Increases in Unemployment by Region, 1979-1983

Quarter ending	Increase in unemployment (percentage point)											
	SE	EA	SW	WM	EM	YH	NW	N	Wa	Sc	NI	UK
Dec 1979	-0.2	0.0	+0.1	-0.4	0.0	-0.2	-0.3	-0.2	-0.1	+0.2	-1.1	+0.1
Mar 1980	+0.4	+0.5	+0.2	+0.5	+0.4	+0.6	+0.7	+0.8	+0.5	+0.9	+0.4	+0.5
Jun 1980	+0.3	+0.4	+0.1	+1.0	+1.1	+1.0	+1.1	+1.3	+0.6	+1.0	+1.2	+0.8
Sept 1980	+1.4	+1.2	+1.3	+2.6	+1.3	+1.8	+1.7	+1.4	+2.6	+0.8	+2.7	+1.5
Dec 1980	+0.6	+1.0	+1.2	+1.0	+0.8	+0.9	+0.8	+1.1	+1.0	+0.9	+0.8	+0.9
Mar 1981	+0.9	+1.2	+0.8	+1.7	+1.1	+1.2	+1.2	+1.2	+1.1	+1.3	+1.0	+1.1
Jun 1981	+0.7	+0.3	+0.3	+1.2	+1.1	+1.0	+1.2	+1.1	+0.3	+0.8	+0.7	+0.8
Sept 1981	+1.3	+0.9	+1.0	+1.9	+0.9	+1.5	+1.5	+1.3	+1.8	+0.8	+1.7	+1.4
Dec 1981	-0.2	0.0	0.0	-0.3	-0.6	-0.5	-0.3	-0.4	0.0	+0.1	-0.9	-0.3
Mar 1982	+0.3	+0.4	+0.1	+0.1	+0.2	+0.1	+0.1	0.0	0.0	+0.3	+0.2	+0.2
Jun 1982	+0.1	0.0	-0.1	+0.2	+0.6	+0.4	+0.7	+0.7	-0.4	+0.4	+1.0	+0.3
Sept 1982	+1.2	+0.9	+0.9	+1.6	+0.9	+1.4	+1.2	+1.4	+1.8	+0.5	+1.9	+1.2
Dec 1982	0.0	+0.3	+0.5	-0.2	0.0	-0.1	-0.1	-0.3	+0.4	+0.3	-0.9	+0.0
Mar 1983	+0.3	+0.5	+0.3	+0.4	+0.5	+0.2	+0.3	+0.1	+0.2	+0.4	+0.2	+0.4
Jun 1983	-0.7	-1.1	-1.5	-0.8	-0.9	-1.0	-0.5	-0.8	-1.3	-0.9	0.0	-0.8
Sept 1983	+0.6	+0.3	+0.8	+0.6	+0.6	+1.0	+1.0	+1.3	+1.1	+o.7	+1.8	+0.8

Source: Table A7, based on *Gazette*.

See also Table A8, which shows that the Cn index for regional inequality in unemployment increased from 1.7 in January 1980 to 2.5 in February 1981, and to 2.8 by September 1981, stabilising at around this figure.

Table 7.7 Changes in Employment by Industry, Production Industries, 1979-83 (Estimates)

Industry (SIC orders)		Change in employment (%)															
		Jun-Sep 1979	Sep-Dec 1979	Dec-Mar 1980	Mar-Jun 1980	Jun-Sep 1980	Sep-Dec 1980	Dec-Mar 1981	Mar-Jun 1981	Jun-Sep 1981	Sep-Dec 1981	Dec-Mar 1982	Mar-Jun 1982	Jun-Sep 1982	Sep-Dec 1982	Dec-Mar 1983	Mar-Jun 1983
II	Mining and quarrying	-0.3	+0.6	+0.3	-0.6	-0.3	-0.9	-1.2	-0.9	-0.6	-1.2	-0.6	-0.9	-0.6	-0.6	-0.9	-2.2
III	Food, drink, tobacco	+1.3	-0.4	-2.6	+0.1	-0.9	-1.4	-3.8	-0.3	+0.3	-1.6	-2.6	+0.3	-0.2	-2.2	-2.5	-0.3
IV,V	Chemicals, etc.	+0.2	-0.2	-1.0	-1.3	-1.5	-2.6	-2.2	-2.0	-0.2	-1.4	-1.4	-1.2	-1.9	-1.7	-1.5	-1.3
VI	Metal manufacture	-0.5	-1.8	-2.3	-5.5	-4.3	-6.3	-6.4	-3.9	-2.5	-2.2	-1.6	-2.3	-2.7	-3.8	-4.0	-2.3
VII	Mechanical engineering	0.0	-1.0	-1.5	-1.6	-2.5	-3.7	-3.5	-2.8	-0.6	-2.5	-1.3	-2.2	-0.8	-3.1	-2.4	-1.6
VIII,IX	Instrument & elec. engineering	+0.6	+0.1	-1.8	-0.9	-1.9	-2.5	-2.5	-1.6	-0.7	-1.7	-1.5	-1.5	+0.8	-0.9	-1.7	-0.5
X	Shipbuilding	-0.6	-3.0	-3.8	-1.9	-1.3	-0.7	0.0	-5.4	+2.9	0.0	-0.7	-1.4	-2.1	-2.2	-0.7	-3.0
XI	Vehicles	+0.3	-1.0	-1.8	-2.2	-2.7	-3.2	-4.3	-3.5	-3.0	-2.4	-1.6	-2.8	-1.8	-2.0	-1.9	-0.8
XII	Metal goods	0.0	-0.2	-1.1	-1.9	-4.1	-4.0	-4.6	-2.0	-0.2	-0.9	-1.8	-0.7	-2.8	-2.2	-2.4	-0.5
XIII	Textiles	-1.8	-3.2	-4.8	-3.8	-6.3	-4.7	-3.5	-3.3	-0.9	-1.6	-1.9	-1.6	-0.7	-1.7	-1.4	-0.7
XIV,XV	Clothing, etc.	-1.0	-2.1	-3.7	-4.6	-3.7	-5.0	-4.3	-1.9	-2.3	-1.4	-1.0	+0.3	-1.0	-1.7	-0.7	+0.4
XVI	Bricks, pottery, etc.	+0.4	-1.5	-2.0	-1.6	-2.4	-6.3	-2.2	-1.8	-1.4	-2.3	-1.4	+1.0	-2.9	-3.0	-0.5	-0.5
XVII	Timber, furniture, etc.	+0.4	-1.6	-3.2	-1.2	-3.0	-3.0	-0.9	-1.4	-0.9	-3.2	-1.9	-1.5	+1.5	-0.5	0.0	0.0
XVIII	Paper, printing,publishing	+0.7	+0.2	-0.9	-0.9	-1.1	-1.7	-1.1	-1.5	-0.4	-0.4	-1.2	-1.4	-0.4	-1.4	-1.0	-1.0
XIX	Other manufacturing industries	+0.3	-2.2	-4.5	-2.0	-4.5	-5.8	-2.3	-0.4	-0.8	-1.6	-2.0	-1.7	-0.8	-3.0	-2.2	+1.8
XX	Construction	+0.9	-1.0	-1.0	+0.3	-0.6	-3.9	-3.8	-2.1	-2.4	-4.6	-2.2	+0.7	+0.1	-2.1	-3.1	-0.7
XXI	Gas, electricity, water	+0.9	0.0	0.0	+0.3	+0.9	-0.3	-0.9	-0.9	0.0	-0.9	-1.2	0.0	0.0	-1.2	-0.9	-0.3
	All production industries	+0.2	-0.9	-1.8	-1.4	-2.1	-3.2	-3.1	-2.0	-1.0	-2.1	-1.6	-0.9	-0.7	-2.0	-1.9	-0.9

Source: *Gazette*, Oct 1983, pp.S9-S10.

These figures are based on estimates, rather than on precise enumerations. Furthermore, the degree of rounding to which the figures are published make it possible to calculate rates of change only to an accuracy of about ± 0.5% (depending on sector). The figures presented are to be regarded therefore merely as approximations.

Figures for employment, and for job loss, in order VI (Metal manufacture) are dominated by the iron and steel industry. Since the rate of job loss in iron and steel was considerably greater than in the manufacture of other metals, the figures presented for metal manufacture understate the rate of job loss in the iron and steel industry.

Table 7.8 Employment Change in Production Industries by Region, Quarterly Estimates, 1979-1985

Quarter ending		Employment Change in Production Industries (Including construction) (%)										
		SE	EA	SW	WM	EM	YH	NW	N	Wa	Sc	GB
1979	Sept	+0.4	+0.8	+0.3	-0.1	+0.6	+0.1	+0.2	+0.3	+0.5	-0.3	+0.3
	Dec	-1.0	0.0	-0.5	-1.0	-1.0	-1.3	-1.5	-1.5	-0.8	-1.4	-1.1
1980	Mar	-1.8	-3.1	-1.6	-1.5	-1.9	-1.9	-1.8	-2.1	-2.3	-2.7	-1.9
	June	-0.9	-0.8	-0.4	-2.1	-1.7	-1.8	-1.5	-1.5	-3.6	-1.8	-1.5
	Sept	-1.7	-2.1	-2.0	-3.6	-1.6	-2.2	-2.3	-2.4	-2.8*	-2.5	-2.3
	Dec	-3.3	-2.6	-2.0	-3.5	-2.8	-3.4	-3.6	-4.5	-5.3*	-3.0	-3.4
1981	Mar	-2.2	-3.8	-3.3	-4.5	-3.4	-3.5	-3.2	-2.6	-3.8	-3.5	-3.1
	June	-2.3	-1.3	-1.2	-1.9	-1.6	-2.7	-2.3	-2.0	-2.3	-1.9	-2.1
	Sept	-1.1	-0.7	-0.5	-2.1	-0.5	-0.9	-1.0	-0.6	-1.0	-2.1	-1.1
	Dec	-2.1	-2.1	-1.8	-2.4	-1.6	-2.5	-2.4	-2.3	-2.5	-1.7	-2.1
1982	Mar	-1.6	-2.6	-1.6	-1.8	-1.1	-1.2	-1.9	-1.3	-1.8	-2.1	-1.6
	June	-0.6	0.0	0.0	-1.4	-0.8	-1.3	-1.7	-1.3	-0.8	-0.8	-0.9
	Sept	-0.5	-0.4	-0.8	-1.0	-0.6	-0.4	-0.5	-1.6	-1.0	-1.0	-0.7
	Dec	-1.8	-1.2	-2.3	-1.8	-2.1	-2.0	-2.1	-2.5	-2.0	-1.9	-1.9
1983	Mar	-0.9	-1.4	-1.0	-2.0	-1.8	-1.5	-2.0	-2.3	-1.5	-1.9	-1.6
	June	0.0	-0.5	-0.5	-0.7	-0.3	-1.2	-0.8	-1.4	-0.6	-1.0	-0.6
	Sept	+0.2	+1.4	+0.5	+0.4	+0.8	+0.4	+0.2	-0.8	+0.3	+0.1	+0.3
	Dec	-0.6	+0.9	0.0	-0.7	-0.7	-1.0	-0.9	-1.7	-1.5	-0.8	-0.7
1984	Mar	-0.8	-1.8	-0.7	-0.8	-1.9	-1.6	-1.4	-1.2	-1.3	-1.1	-1.1
	June	-0.2	+1.0	+0.9	-0.1	+0.5	-0.8	-0.5	-0.9	+0.3	+0.2	-0.1
	Sept	+0.6	+1.7	+0.6	+0.1	+0.8	+0.9	+0.2	-0.3	-0.3	+0.1	+0.5
	Dec	-0.5	-0.4	-0.6	0.0	-0.7	-0.4	-1.1	-0.3	-1.3	-0.4	-0.6
1985	Mar	-0.9	-1.8	0.0	-1.4	-0.6	-2.0	-1.1	-1.1	-0.9	-1.1	-1.0

Source: *Gazette*, various (Table 1.5).

(Jan 1981 for Mar 1979-Dec 1979; July 1981 for Dec 1979-Sept 1980; Apr 1982 for Sept 1980-81; May 1983 for Sept 1981-Dec 1981; July 1983 for Dec 1981-Sept 1982; April 1984 for Sept 1982-Dec 1982; August 1984 for Dec 1982-Mar 1983; October 1984 for Mar 1983-Dec 1984-Mar 1985).

* Section 7.5(i) suggests alternative figures for Wales of 4.1% to September 1980 and 4.1% to December 1980.

Table 7.9 Person Week Equivalents Worked in Manufacturing Industry, 1979-1983 (Great Britain)

(All figures in thousands)

Date	Employees in employment (manuf.)	Hours of overtime worked per week	Hours lost per week through short time	Person week equivalent of (a) Hours gained through overtime	(b) Hours lost through short time	Total person weeks worked per week
1979 June	7053	15688	339	392	-8	7437
J	7085	16126	605	403	-15	7473
A	7079	11931	296	298	-7	7370
S	7060	12646	786	316	-20	7356
O	7027	14617	1630	365	-41	7351
N	7015	15794	947	395	-24	7386
D	6992	16062	868	402	-22	7372
1980 J	6921	13484	1181	337	-30	7228
F	6879	14300	1737	358	-43	7194
M	6839	13776	2738	344	-68	7115
A	6787	12698	2111	317	-53	7051
M	6746	12782	2352	320	-59	7007
J	6711	12530	2777	313	-69	6955
J	6667	11592	2961	290	-74	6883
A	6598	9839	3791	246	-95	6749
S	6531	9959	5417	249	-135	6645
O	6450	9486	7252	237	-181	6506
N	6366	9264	7470	232	-187	6411
D	6310	9192	7475	230	-187	6353
1981 J	6219	7716	8515	193	-213	6199
F	6158	8388	8043	210	-201	6167
M	6106	8510	6829	213	-171	6148
A	6056	9157	5709	229	-143	6142
M	6020	8923	4527	223	-113	6130
J	5974	9228	3667	231	-92	6113
J	5967	9306	2655	233	-66	6134
A	5951	8978	2369	224	-59	6116
S	5924	9981	2280	250	-57	6117
O	5895	10142	2096	254	-52	6097
N	5860	10554	2091	264	-52	6072
D	5825	10760	1791	269	-45	6049

Table 7.9 (cont.)

(All figures in thousands)

Date	Employees in employment (manuf.)	Hours of overtime worked per week	Hours lost per week through short time	Person week equivalent of (a) Hours gained through overtime	(b) Hours lost through short time	Total person weeks worked per week
1982 J	5755	9055	1981	226	-50	5931
F	5741	10362	2104	259	-53	5947
M	5736	10521	2010	263	-50	5949
A	5690	9863	1743	247	-44	5893
M	5666	10747	1570	269	-39	5896
J	5667	10710	1457	268	-36	5899
J	5648	10389	1040	260	-26	5882
A	5624	9590	1209	240	-30	5834
S	5617	9951	1421	249	-36	5830
O	5570	10195	1663	255	-42	5783
N	5528	10057	2078	251	-52	5727
D	5507	10171	1717	254	-43	5718
1983 J	5416	8384	1723	210	-43	5583
F	5397	9505	1796	238	-45	5590
M	5415	9834	1479	246	-37	5624
A	5365	9381	1442	235	-36	5564
M	5347	10280	1052	257	-26	5578
J	5374	9867	997	247	-25	5596
J	5351	10449	736	261	-18	5594
A	5355	9833	543	246	-14	5587

Source: *Gazette*, various. Table 1.2; *Monthly Digest of Statistics*, various, Table 3.8 (see also *Gazette*, Table 1.11). The series has been truncated at August 1983, the date at which the new Standard Industrial Classification became operative, though it is unlikely that updating the series presents any problem.

In calculating the "total person weeks worked per week" series, a standard working week of 40 hours has been assumed.

Fig 7.7 graphs the main series used; see also Table 7.10 below.

Table 7.10 Quarterly Rates of Decline in Manufacturing Work, Great Britain, 1979-1983

Quarter	Rate of change (% per quarter)	
	Number of employees in employment	Quantity of work (Person weeks worked per week)
June 1979-Sept 1979	+0.1	-1.1
Sept 1979-Dec 1979	-1.0	+0.2
Dec 1979-Mar 1980	-2.2	-3.5
Mar 1980-June 1980	-1.9	-2.2
June 1980-Sept 1980	-2.7	-4.5
Sept 1980-Dec 1980	-3.4	-4.4
Dec 1980-Mar 1981	-3.2	-3.2
Mar 1981-June 1981	-2.2	-0.6
June 1981-Sept 1981	-0.8	+0.1
Sept 1981-Dec 1981	-1.7	-1.1
Dec 1981-Mar 1982	-1.5	-1.7
Mar 1982-June 1982	-1.2	-0.8
June 1982-Sept 1982	-0.9	-1.2
Sept 1982-Dec 1982	-2.0	-1.9
Dec 1982-Mar 1983	-1.7	-1.6
Mar 1983-June 1983	-0.8	-0.5

Source: Table 7.9

Table 7.11 Employment Profiles in the "Early Shock" Industries, 1973-1983

Emp. (000s)	VI Metal manuf.	X Shipbuilding	XIII Textiles	XIV,XV Clothing, footwear,etc.	XIX "Other manuf. industries"	All other manuf. sectors
June 1973	518	177	555	462	344	5608
1974	507	175	546	446	351	5680
1975	501	174	494	424	323	5418
1976	469	175	480	404	321	5250
1977	483	173	480	410	324	5280
1978	464	171	461	401	318	5278
1979	442	166	439	391	314	5301
1980	399	151	382	350	288	5141
1981	322	140	318	302	252	4647
1982	295	141	299	289	237	4394
1983	259	130	286	280	227	4164
Change (%)						
1973-83	-50.0	-26.6	-48.5	-39.4	-34.0	-25.7
1977-79	-8.5	-4.0	-8.5	-4.6	-3.1	+0.4
1979-80	-9.7	-9.0	-13.0	-10.5	-8.3	-3.0
1980-83	-35.1	-13.9	-25.1	-20.0	-21.2	-19.0

Source: *Gazette*, various

Table 7.12 Changes in Output, Employment and Employment Per Head, by Broad Industry Sector, 1979-1981

Change (%) in Period (quarter ending)	Industry grouping: (i) "Early shock" — Metal manufacture O	E	O/E	Textiles, leather and clothing O	E	O/E	(ii) "Prolonged battering" — Food, drink, tobacco O	E	O/E	Chemicals etc. O	E	O/E	Engineering and allied industries O	E	O/E	Other manufacturing O	E	O/E
1979 . 2	+12.0	-0.7	+12.8	+3.3	-1.0	+4.4	+3.5	+0.6	+2.8	+7.7	+0.3	+7.3	+3.0	-0.2	+3.1	+6.0	-0.3	+6.3
. 3	-6.4	-0.9	-5.5	-2.6	-1.1	-1.6	+0.6	+0.2	+0.4	+0.4	-0.1	-15.1	-8.0	-0.3	-7.7	-0.3	-0.1	-0.1
. 4	-0.2	-1.6	+1.4	-4.2	-2.1	-2.1	-2.1	+0.0	-2.1	-1.7	-0.2	-1.5	+4.4	-0.7	+5.2	-1.0	-0.7	-0.3
1980 . 1	*-45.4*	-2.1	*-44.3*	-6.0	-3.3	-2.7	+1.0	-0.3	+1.3	+0.4	-0.2	+0.5	+1.5	-0.9	+2.4	-2.4	-1.0	-1.4
. 2	*+56.1*	-4.0	*+62.7*	-6.8	-4.2	-2.8	-1.4	-1.4	+0.0	-10.1	-1.2	-9.0	-4.6	-1.3	-3.3	-6.5	-1.7	-5.0
. 3	*-14.2*	-5.6	*-9.1*	-5.3	-4.8	-0.5	-1.0	-1.6	+0.5	-6.6	-1.9	-4.8	-3.6	-2.7	-1.0	-3.8	-2.6	-1.2
. 4	-11.0	-6.2	-5.2	-6.2	-4.7	-1.7	+1.1	-1.2	+2.3	-1.3	-2.1	+0.9	-6.6	-3.1	-3.6	-5.0	-3.1	-1.9
1981 . 1	+8.7	-5.8	+15.4	-0.4	-4.1	+3.9	-1.5	-1.6	+0.1	+4.1	-1.8	+6.0	-4.0	-2.8	-1.2	+0.5	-1.7	+2.2
. 2	+3.3	-4.4	+8.1	+0.3	-2.3	+2.6	-2.3	-1.2	-0.9	+0.9	-1.8	+2.7	+1.6	-3.0	+4.6	-0.5	-1.4	+0.9
. 3	+1.3	-3.4	+4.8	+0.9	-2.9	+4.0	+0.7	-1.7	+2.3	+4.0	-1.4	+5.6	+2.4	-1.7	+4.1	-0.1	-1.5	+1.4
. 4	+6.7	-1.1	+7.9	-0.4	-1.0	+0.7	+0.8	-0.8	+1.5	-1.7	-0.9	-0.9	-0.5	-1.6	+1.2	-0.5	-1.0	+0.5
(1979.2-1980.2)	-20.4	-8.3	-13.2	-18.2	-10.3	-8.8	-1.8	-1.5	-0.4	-10.9	-1.7	-9.5	-6.9	-3.2	-3.8	-9.9	-3.5	-6.6
(1980.2-1981.2)	-7.3	-20.3	+7.5	-11.3	-15.0	+4.3	-3.6	-5.5	+2.0	-3.2	-7.4	+4.5	-12.1	-10.9	-1.4	-8.6	-8.5	-0.0

Source: Based on *Monthly Digest of Statistics*, August 1983, pp.59-60.
All data seasonally adjusted.
O = Output, E = Employment, O/E = Productivity on an employment basis, not an hours of work basis.
Italicised figures are severely affected by a national strike in the British Steel Corporation.

Table 7.13 Rates of Redundancy by Region, 1977-1984

Date (year and quarter)	Redundancies per 1000 employees in employment in June preceding										
	SE	EA	SW	WM	EM	YH	NW	N	Wa	Sc	GB
1977 (ave)	0.8	1.1	2.0	0.7	0.9	1.7	3.0	*3.8*	3.0	3.7	1.8
1978 (ave)	0.9	1.6	1.9	1.1	1.0	1.9	3.6	3.8	*4.7*	2.8	1.9
1979 (ave)	0.9	1.1	1.7	2.2	1.4	2.2	3.8	3.0	2.8	*3.9*	2.1
1980 .1	2.3	1.2	2.8	4.3	6.2	4.0	6.1	4.7	*8.7*	5.9	4.1
.2	1.9	1.6	3.4	5.8	5.8	4.3	7.6	4.8	*8.6*	6.0	4.4
.3	2.3	2.9	4.6	10.6	6.5	8.4	9.0	8.9	*16.5*	8.2	6.5
.4	2.9	5.4	5.8	10.7	7.9	9.0	*12.2*	8.8	10.8	7.1	6.8
1981 .1	3.7	4.4	7.0	6.7	6.0	8.6	9.7	9.4	*11.3*	6.9	5.9
.2	3.7	4.2	4.5	6.7	6.2	10.8	10.4	7.8	*11.2*	8.5	6.6
.3	3.2	3.5	4.1	7.0	5.1	6.9	7.7	*8.4*	7.8	6.0	5.1
.4	3.7	4.2	4.0	7.6	5.0	6.4	8.0	*8.8*	7.4	7.5	5.4
1982 .1	2.9	1.6	3.8	4.6	3.5	5.4	6.9	5.8	*7.0*	6.5	4.5
.2	3.0	1.7	4.0	3.9	4.4	5.4	7.3	*8.1*	5.6	5.4	4.5
.3	2.7	2.4	3.7	4.7	4.9	5.6	6.5	*6.7*	5.4	*6.7*	4.5
.4	2.6	3.8	4.6	6.2	6.9	8.6	6.9	*8.7*	8.6	6.0	5.3
1983 .1	2.2	2.1	4.6	5.5	4.1	5.9	5.6	*6.2*	5.0	5.3	4.1
.2	1.9	1.6	3.0	4.5	3.6	4.9	5.8	*7.0*	4.1	4.6	3.6
.3	2.0	1.1	3.3	4.2	3.3	4.3	4.9	*6.7*	3.6	5.1	3.5
.4	2.1	1.4	4.7	3.9	4.2	5.6	5.1	*7.0*	4.9	4.4	3.8
1984 .1	1.2	1.2	2.2	3.1	3.1	4.7	4.3	*5.8*	3.3	4.0	2.8
.2	1.6	0.4	2.6	3.4	3.4	3.7	3.9	*8.8*	2.6	5.1	3.1

Regions with the highest redundancy rate at any particular time are italicised.

Source: *Gazette* (various). The *Gazette* quarterly statistics for confirmed redundancies by region go back only as far as the first quarter of 1982. Rates for 1980 and 1981 are based on unpublished data.

Martin (1982 p.379) graphs monthly redundancy rates for each region between 1978 and 1981, using the same unpublished data source (Department of Employment; Manpower Services Commission).

Table 7.14 Key Indicators in the Construction Industry, Great Britain, 1978-1982

Quarter		Value of output	Value of orders received	Employees in Employment	Output per head
		(1975=100)	(1975=100)	(000s)	(1975=100)
1978	3	105.5	99.2	1314	111.4
	4	103.8	95.8	1325	108.7
1979	1	96.4	87.0	1331	100.5
	2	101.9	93.9	1317	107.4
	3	102.3	85.2	1358	104.6
	4	102.2	86.4	1350	105.1
1980	1	100.3	80.5	1332	104.5
	2	97.4	74.7	1318	102.6
	3	94.5	69.7	1327	98.8
	4	90.0	72.2	1308	95.5
1981	1	87.0	77.4	1242	97.2
	2	83.1	80.7	1208	95.5
	3	85.5	81.7	1186	100.1
	4	82.9	79.0	1155	99.6
1982	1	84.0	84.3	1090	107.0
	2	84.6	78.6	1083	108.4
	3	92.1	83.8	1091	117.2

Source: Output and Orders, *Economic Trends* (various) p.30.
Employees in Employment, *Housing and Construction Statistics* (various).
This series varies from series published in the *Gazette* "which do not include construction employees in building and civil engineering establishments run by authorities whose major activity is classified to some other industry (e.g. national and local government, etc.)" (*Housing and Construction Statistics*). The figures for employees in employment, from which output per head figures are calculated, refer to January, April, July and October of each year.

Table 7.15 Changes in Employment and Output in the Motor Vehicles Industry, 1979-1983

Quarter	Motor vehicle industry (MLH 381)			Change (%) since previous quarter in		
	Output (1975=100)	Employment (000s)	Productivity	Output	Employment	Productivity
1979.2	108.3	469.8	231	-	-	-
.3	88.0	470.3	187	-18.7	+0.1	-18.8
.4	95.4	466.5	205	+8.4	-0.8	+9.3
1980.1	100.3	441.5	227	+5.1	-5.4	+11.1
.2	88.7	428.7	207	-11.6	-2.9	-8.9
.3	82.5	410.3	201	-7.0	-4.3	-2.8
.4	72.3	387.8	186	-12.4	-5.5	-7.3
1981.1	68.3	369.6	185	-5.5	-4.7	-0.9
.2	72.6	351.7	206	+6.3	-4.8	+11.7
.3	78.0	332.9	234	+7.4	-5.3	+13.5
.4	74.8	328.1	225	-4.1	-1.4	-4.1
1982.1	73.0	320.2	228	-2.4	-2.4	+1.4
.2	70.2	310.2	226	-3.8	-3.1	-0.7
.3	69.1	304.8	227	-1.6	-1.7	+0.2
.4	69.1	294.4	235	+0.0	-3.4	+3.5
1983.1	70.8	291.2	243	+2.5	-1.1	+3.6

Source: Employment, *Gazette*, various, Table 1.3 (mid-quarter figures, i.e. Feb, May, Aug, Nov).
Output, *Monthly Digest of Statistics*, July 1983 p.56; all figures for output are seasonally adjusted.
Productivity: output index ÷ employment index x 1000.

The temporary sharp drop in productivity in the third quarter of 1979 reflects an engineering strike, but shifts in productivity from early 1981 reflect cyclical factors: (1) a sharp slump-induced decline in productivity in 1980 (2) an increase in productivity in 1981 as the industry restructures in response to a more depressed long-term level of demand.

Table 7.16 Jobs Lost in Production Industries, September 1980 to March 1981

Sector	Change in employment (000s)	(%)
Construction	-93	-7.5
Mechanical engineering	-61	-7.1
Vehicles	-50	-7.4
Metal manufacture	-47	-12.3
Electrical and instrument engineering	-43	-4.9
Metal goods	-42	-8.5
Food, drink and tobacco	-34	-5.1
Clothing, footwear, etc.	-31	-8.0
Textiles	-29	-8.1
Other manufacturing industries	-22	-8.0
Chemicals etc.	-22	-4.8
Bricks, pottery, glass, cement, etc.	-20	-8.3
Paper, printing and publishing	-15	-2.8
Timber, furniture, etc.	-9	-3.9
Mining and quarrying	-7	-2.0
Gas, electricity and water	-4	-1.2
Shipbuilding	-1	-0.7
All production industries	-529	-6.3
All manufacturing industries	-425	-6.5

Source: *Gazette*, October 1983, pp.S9-10.

Table 7.17 Increases in Unemployment by Travel to Work Area, County Durham and Cleveland, September 1980 to December 1980

County/area	Unemployment		Increase	
	September 1980	December 1980	Percentage point	Thousand
Durham	11.2	13.0	+1.8	+4.1
Consett	15.5	22.4	+6.9	+2.2
Darlington and SW Durham	9.7	11.3	+1.6	+1.3
Central Durham	10.7	11.4	+0.7	+0.5
Peterlee	13.0	13.3	+0.3	+0.1
Cleveland	14.1	15.5	+1.4	+3.9
Teesside	13.7	15.3	+1.6	+3.6
Hartlepool	15.9	16.5	+0.6	+0.3

Source: *Gazette*, October 1980, January 1981.

Table 7.18 Seasonal Variability of Unemployment in Conurbations in a Pre-Slump Year 1978-79

Conurbation	Change in unemployment (percentage point) in conurbation, minus UK change in unemployment			
	June 1978 -Sept 1978	Sept 1978 -Dec 1978	Dec 1978 -Mar 1979	Mar 1979 -June 1979
Greater London	0.0	+0.2	-0.1	-0.1
West Midlands	+0.5	-0.3	-0.1	+0.2
South Yorkshire	+0.1	-0.1	+0.1	+0.4
West Yorkshire	+0.2	-0.2	0.0	0.0
Greater Manchester	+0.1	-0.4	-0.1	+0.2
Merseyside	+0.6	-0.3	-0.2	+0.4
Tyne and Wear	-0.1	-0.1	-0.2	+0.3
Strathclyde	-0.8	0.0	+0.3	+0.5
UK (Change in unemployment rate)	*+0.3*	*-0.7*	*+0.2*	*-0.2*

Source: *Gazette* (various).

Table 7.19 Industrial Job Loss During 1981

Sector	Change in employment			
	Dec 1980-Dec 1981		Dec 1980-Jun 1981	
	000s	%	000s	%
XX Construction	-146	-12.3	-69	-5.8
XI Vehicles	-82	-12.5	-50	-7.6
VII Mechanical engineering	-75	-9.1	-51	-6.2
VIII,IX Electrical & inst. engineering	-54	-6.4	-34	-4.0
VI Metal manufacture	-51	-14.2	-36	-10.1
XII Metal goods	-36	-7.6	-31	-6.5
III Food, drink and tobacco	-35	-5.4	-27	-4.1
XIV,XV Clothing, footwear, etc.	-31	-9.6	-20	-6.2
XIII Textiles	-31	-9.1	-23	-6.7
IV,V Chemicals, etc.	-26	-5.8	-19	-4.2
XVIII Paper, printing and publishing	-18	-3.4	-14	-2.7
XVI Bricks, pottery, glass, cement,etc.	-17	-7.6	-9	-4.0
XVII Timber, furniture, etc.	-14	-6.3	-5	-2.2
XIX Other manufacturing industries	-13	-5.0	-7	-2.7
II Mining and quarrying	-13	-3.8	-7	-2.0
X Shipbuilding	-10	-2.7	-8	-5.4
All manufacturing industries	-489	-7.7	-336	-5.3
All index of production industries	-647	-8.0	-418	-5.1

Source: *Gazette*, October 1983, pp.S9-10.

Table 7.20 Employment Change in Production Industries by Region, Annual Estimates, 1979-1985

Period	SE	EA	SW	WM	EM	YH	NW	N	Wa	Sc	GB
Mar 1979-Mar 1980	-2.3	-1.3	-1.6	-2.9	-1.7	-2.8	-3.3	-2.7	-2.0	-3.8	-2.6
Mar 1980-Mar 1981	-7.8	-9.0	-7.6	-13.1	-9.0	-10.3	-10.1	-10.4	-14.6	-10.3	-10.0
Mar 1981-Mar 1982	-6.9	-6.6	-5.0	-8.0	-4.7	-7.1	-7.4	-7.2	-7.5	-7.6	-6.8
Mar 1982-Mar 1983	-3.8	-2.9	-4.0	-6.0	-5.2	-5.2	-6.3	-7.5	-5.2	-5.4	-5.1
Mar 1983-Mar 1984	-1.2	-0.0	-0.7	-1.9	-2.1	-3.4	-2.8	-4.9	-3.2	-2.8	-2.1
Mar 1984-Mar 1985	-1.0	+0.5	+0.9	-1.4	0.0	-2.0	-2.3	-2.5	-2.2	-1.1	-1.2

Sources: As Table 7.8.

For each datum point, care has been taken to use the latest available revision, as in Table 7.8.

Table 7.21 Unemployment in London and the South East, Annual Averages, 1976-1984

Year	Unemployment rate					
	(i) "Old" basis (Number registered)			(ii) "New" basis (Number of claimants)		
	(a)	(b)		(a)	(b)	
	London	South East (Total)	Difference (a)-(b)	London	South East (Total)	Difference (a)-(b)
1976	4.0	4.2	-0.2	3.8	4.0	-0.2
1977	4.3	4.5	-0.2	4.1	4.3	-0.2
1978	4.0	4.2	-0.2	3.7	3.9	-0.2
1979	3.6	3.7	-0.1	3.4	3.4	0.0
1980	4.6	4.8	-0.2	4.2	4.2	0.0
1981	7.8	8.1	-0.3	6.9	7.0	-0.1
1982	-	-	-	8.5	8.5	0.0
1983	-	-	-	9.5	9.3	+0.2
1984	-	-	-	9.9	9.5	+0.4

Source: *Gazette* (various).

Table 7.22 The Effects of Various Changes in Measuring Unemployment on the Unemployment Rates of Various Counties, 1982-1985

	Effect of Change				Effect of Change		
County	1982	1984	Total	County	1982	1984	Total
Bedfordshire	+1.1	0.0	+1.1	Humberside	+0.8	-0.7	+0.1
Berkshire	+1.0	+0.2	+1.2	North Yorkshire	+1.0	0.0	+1.0
Buckinghamshire	+0.7	+1.0	+1.7	South Yorkshire	+0.7	-0.5	+0.2
East Sussex	+0.9	+0.9	+1.8	West Yorkshire	+0.8	-0.6	+0.2
Essex	+0.9	+0.6	+1.5	Cheshire	+2.0	+0.2	+2.2
Hampshire	+0.9	+0.5	+1.4	Lancashire	+1.4	-0.5	+0.9
Hertfordshire	+0.7	+0.2	+0.9	Greater Manchester	+1.2	-0.2	+1.0
Isle of Wight	+0.6	+0.4	+1.0	Merseyside	+1.7	-1.6	+0.1
Kent	+0.9	+0.5	+1.4	Cleveland	+0.6	-1.5	-0.9
Oxfordshire	+0.8	+0.4	+1.2	Cumbria	+0.6	-0.5	+0.1
Surrey	+0.5	-	-	Durham	+0.3	-1.5	-1.2
West Sussex	+0.7	+0.1	+0.8	Northumberland	+0.9	-0.8	+0.1
Greater London	+1.1	+0.1	+1.2	Tyne and Wear	+0.8	-1.8	-1.0
Cambridgeshire	+0.6	+0.8	+1.4	Clwyd	+0.9	0.0	+0.9
Norfolk	+0.6	+0.5	+1.1	Dyfed	+1.7	-0.2	+1.5
Suffolk	+0.3	+0.5	+0.8	Gwent	+0.8	-1.0	-0.2
Avon	+1.0	+0.1	+1.1	Gwynedd	+1.4	-0.1	+1.3
Cornwall	+1.2	-0.1	+1.1	Mid Glamorgan	+1.7	-1.4	+0.3
Devon	+0.7	+0.7	+1.4	Powys	+1.6	+0.1	+1.7
Dorset	+0.5	+0.6	+1.1	South Glamorgan	+1.7	+0.7	+2.4
Gloucestershire	+0.8	+0.3	+1.1	West Glamorgan	+2.0	-0.6	+1.4
Somerset	+0.3	-0.1	+0.2	Borders	+0.2	-0.3	-0.1
Wiltshire	+0.3	+0.2	+0.5	Central	+1.0	+0.3	+1.3
Hereford & Worcester	+0.8	-0.1	+0.7	Dumfries and Galloway	+0.9	+0.1	+1.0
Shropshire	+1.7	+0.4	+2.1	Fife	+0.5	-0.5	+0.0
Staffordshire	+0.9	-1.0	-0.1	Grampian	+0.8	+0.8	+1.6
Warwickshire	-	-	-	Highland	+0.3	+0.9	+1.2
West Midlands	+1.4	-0.6	+0.8	Lothian	+1.8	+0.3	+2.1
Derbyshire	+0.9	-1.4	-0.5	Strathclyde	+0.9	-0.7	+0.2
Leicestershire	+1.2	+0.1	+1.3	Tayside	+0.8	0.0	+0.8
Lincolnshire	+1.0	+0.2	+1.2	Orkneys	+1.6	+0.6	+2.2
Northamptonshire	+1.0	-0.3	+0.7	Shetlands	+1.5	+0.1	+1.6
Nottinghamshire	+0.4	+0.1	+0.5	Western Isles	+3.0	+2.4	+5.4

Source: 1982 changes: based on *Gazette* 1982, Nov, Dec (comparison of figures for October 1982 on two different bases).

1984 changes: based on differences between July 1984 unemployment rates (old basis) and September 1984 unemployment rates (new basis). The differents between the two sets of figures represent primarily an updating of the figures for the size of the local workforce, and thus reflect changes in the distribution of population between 1977 and 1984.

Figures given are the amounts which need to be added to local unemployment figures *after* a change of counting method (October 1982, August 1984) to give approximate comparability with earlier figures.

Table 7.23 Economic Growth Rates, Quarterly Figures, 1982-1985

Year and quarter		Growth rate		Effect of coal dispute on growth rate figures (increase + or decrease -)	
		(1) Across one year	(2) Across two years (annual rate)	(1) Across one year	(2) Across two years (annual rate)
1982	3	+1.9	-0.2	0	0
	4	+1.5	+0.5	0	0
1983	1	+3.0	+1.6	0	0
	2	+2.7	+1.6	0	0
	3	+3.7	+2.5	0	0
	4	+3.7	+2.6	0	0
1984	1	+2.6	+2.8	0	0
	2	+2.2	+2.5	-	-
	3	+2.1	+2.9	-	-
	4	+2.6	+3.1	-	-
1985	1	+3.1	+2.9	-	-
	2	+4.9	+4.3	+	Unclear

Source: Based on *Economic Trends*, September 1985, p.6.

Table 7.24 Changes in the Unemployment Rate by County 1979-1985

	County		Increase in unemployment Jun 79 -Jul 82	Jul 82 -Sep 85	Jun 79 -Sep 85		County		Increase in unemployment Jun 79 -Jul 82	Jul 82 -Sep 85	Jun 8 -Sep 85
1	Shropshire	WM	+10.5	+2.6	+13.1	34=	Gt London	SEm	+6.1	+2.5	+8.6
2=	Cleveland	N	+10.3	+2.1	+12.4		Lincolnshire	EM	+6.7	+1.9	+8.6
	Dyfed	Wa	+8.0	+4.4	+12.4		Fife	Sc	+7.0	+1.6	+8.6
4	W. Midlands	WMm	+11.4	+0.9	+12.3	37	Lothian	Sc	+6.7	+1.8	+8.5
5	S. Yorkshire	YHm	+9.2	+3.0	+12.2	38	Tayside	Sc	+6.9	+1.5	+8.4
6	Gwynedd	Wa	+7.0	+4.5	+11.5	39=	Norfolk	EA	+6.8	+1.5	+8.3
7=	Gt Manchester	NWm	+9.6	+1.7	+11.3		N. Yorkshire	YH	+5.3	+3.0	+8.3
	Clwyd	Wa	+9.8	+1.5	+11.3		Highlands	Sc	+5.0	+3.3	+8.3
9	Mid Glamorgan	Wa	+8.8	+2.1	+10.9	42	Dorset	SW	+6.2	+1.9	+8.1
10	W. Glamorgan	Wa	+8.7	+2.1	+10.8	43	Devon	SW	+7.0	+1.1	+8.1
11	Central	Sc	+8.6	+2.0	+10.6	44=	Bedfordshire	SE	+7.0	+0.9	+7.9
12=	Humberside	YH	+9.9	+0.6	+10.5		Leics.	EM	+6.7	+1.2	+7.9
	Powys	WA	+7.3	+3.2	+10.5	46	Gloucs.	SW	+5.3	+2.3	+7.6
14	Heref & Worcs	WM	+8.7	+1.7	+10.4	47	Hampshire	SE	+6.2	+1.2	+7.4
15=	Staffordshire	WM	+10.6	-0.3	+10.3	48	Avon	SW	+5.5	+1.8	+7.3
	Merseyside	NWm	+8.3	+2.0	+10.3	49=	Bucks	SE	+6.4	+0.6	+7.0
17	Isle of Wight	SE	+8.0	+2.2	+10.2		Cambs.	EA	+6.3	+0.7	+7.0
18=	Cheshire	NW	+8.5	+1.6	+10.1		Cumbria	N	+6.6	+0.4	+7.0
	Tyne and Wear	Nm	+7.7	+2.4	+10.1		Dumf & Gall	Sc	+6.7	+0.3	+7.0
20=	Lancashire	NW	+8.7	+1.1	+9.8	53	Somerset	SW	+4.9	+2.0	+6.9
	Durham	N	+8.6	+1.2	+9.8	54	Suffolk	EA	+5.8	+0.6	+6.4
	S. Glamorgan	Wa	+6.7	+3.1	+9.8	55	Wiltshire	SW	+5.7	+0.4	+6.1
23=	W. Yorkshire	YHm	+8.3	+1.3	+9.6	56	Herts.	SE	+5.6	+0.4	+6.0
	Strathclyde	Scm	+8.5	+1.1	+9.6	57	Borders	Sc	+5.6	+0.1	+5.7
25	Derbyshire	EM	+7.8	+1.6	+9.4	58	West Sussex	SE	+5.2	+0.2	+5.4
26	Gwent	Wa	+8.8	+0.5	+9.3	59	Oxfordshire	SE	+5.3	+0.0	+5.3
27	Essex	SE	+8.1	+1.1	+9.2	60	Grampian	Sc	+4.3	+0.5	+4.8
28=	Cornwall	SW	+6.2	+2.9	+9.1	61	Berkshire	SE	+3.9	+0.8	+4.7
	Northants.	EM	+9.1	-0.1	+9.0		Surrey	SE	+4.7	-	-
30	Kent	SE	+7.0	+2.0	+9.0						
31	East Sussex	SE	+6.8	+2.1	+8.9		W. Isles	Sc	+13.3	-0.3	+13.0
32=	Notts.	EM	+7.2	+1.6	+8.8		Orkneys	Sc	+7.0	-0.2	+6.8
	Northumb.	N	+7.9	+0.9	+8.8		Shetlands	Sc	+3.7	+0.0	+3.7

Source: As Table A10, and using the corrections indicated in Table 7.23.

Notes to Chapter 7

1. Clearly there have been several million words written, in a variety of media, on the politics and economics of Thatcherism. It would be an unrealistic task in terms of the present thesis to attempt to construct anything like a complete bibliography of the interpretations of the early Thatcher years, scattered amongst large numbers of books, newspaper and magazine articles, not forgetting radio and television programmes. A more detailed historical reconstruction of these years, now that the polemic has faded away, would be welcome.

The most interesting publication from a Conservative perspective is Bruce-Gardyne (1984), as it genuinely attempts to deal with the economic difficulties of the early 1980s rather than assuming them away, and also avoids the hagiographic excesses of much of the less sophisticated brand of recent Conservative writing. It has also to be remembered that the types of political programme which may be conveniently summarised as "Thatcherism" do not belong to the mainstream of post-war Conservatism and that in the early Thatcher years there was considerable internal resistance to the new drift in politics. Gilmour (1983) provides a "traditionalist" critique of Thatcherism, arguing that the "monetarist cure" (pp.136-157) which was at the centre of the economic policies of the new Conservatism, was largely and directly responsible for slump, for record levels of unemployment, and for causing inflation to accelerate. As a result of monetarism, Gilmour (p.150) argues, Britain suffered from the early 1980s both earlier and more severely than elsewhere, instead of having a relatively mild recession through the cushioning effect of North Sea oil.

Holmes (1985b) writes about the first Thatcher Government as an academic, but wholly uncritically. The basic assertions, concerning the Government's economic record, are that unemployment wasn't the Government's fault, the Government was correct not to worry about unemployment, jobs were being lost because industry was overmanned, the Government's economic policy was basically correct, and so on; none of these statements is backed by any evidence, or subjected to critical analysis. Had such evidence or analysis been provided, a useful contribution to the political debate might have been made; as things stand, though, Holmes (1985b) is party political propaganda masquerading as academic analysis. Holmes's books on earlier Governments (1982, 1985a) maintain some validity as they attempt a critical appraisal of each Government's work; when Holmes turns to the Thatcher Government however, he tamely accepts every explanation and excuse the Government has to offer. Bruce-Gardyne (1984) is a much better book.

Outside the Conservative Party, Bleaney (1983) usefully identifies two main strands of intellectual opposition to Mrs. Thatcher's early economic strategy, in agreement that Thatcherism was disastrous, but in disagreement as to why it was disastrous. What might be termed the social democratic line "regards Thatcherism as a fundamentally irrational phenomenon .... It is ideology run riot so that it no longer responds to reality but pursues its blinkered course regardless of where it culminates. The Tories, in other words, are so convinced of the correctness of their own world that they do not adjust to the obvious destruction of the economy .... but take all the adverse evidence merely as proof of how much harder they have to push their preconceived policies." (Bleaney 1983 pp.132-133). What might be termed the Marxist left line "sees Conservative strategy as an unusually energetic and forthright

expression of the class interests of British capital" (Bleaney 1983 p.133), in which an attempt is made to inflict a historic defeat on the working class, using this as a basis for the revival of British capital in a low wage economy; to a certain extent mass unemployment is *deliberate*. While presenting these approaches as alternatives, Bleaney proceeds to suggest that if Thatcherism is to be understood at a deeper level, a marriage of these approaches is required.

The second type of approach above, while correctly emphasising the class interest basis of Thatcherism, shows the same misjudgment as the Conservative hagiographical approach, in greatly overestimating the intelligence and farsightedness of Mrs. Thatcher. Bleaney (1983 p.132) introduces the chess-player metaphor (Is Conservative policy "such a far-sighted move on the chessboard that we are unable to understand its relevance to the present situation?") yet no chess-player could ever hope for much success merely by following dogmatically a preconceived plan and without paying attention to what is actually happening. A chess-player who insisted on "no U-turns" would have no sense of danger and would be doomed to defeat by a reasonably competent opponent. That Thatcherism has in political terms remained undefeated is due more to good fortune than to omniscience or farsightedness; to believe otherwise is to believe that the Falklands War was planned in advance, as early as 1980, to reverse the decline in popularity caused by the preplanned rise in unemployment which was merely part of a broader strategy to defeat the working class. While certainly part of the Thatcher objective is to beat the working class into tame submission, the deliberate creation of mass unemployment would be strategically an incredibly risky way of going about this, as the creation of mass unemployment is the most certain way possible to create electoral unpopularity and to create conditions for a major *reversal* in policy when an opposition party gains power. It seems far more likely that the *creation* of mass unemployment was accidental not deliberate, but that once mass unemployment was firmly entrenched it was seen by the Government as a useful weapon in the class war.

A more promising starting point for analysis comes from the Marxian theory of ideology. Ideology is seen as a set of interlinked concepts concerning the structure and operation of the social world, derived from class interests. Such ideology may be unconscious, in which class interests are unwittingly presented as universal interests, or it may be more fully conscious, in which case the attempt is made to impose class interests on the rest of society. The victory of Thatcherism over traditional Conservatism can be seen as a major shift from unwitting ideology, based on "patrician" class interests, to a conscious ideology, in favour of capital but based on a petit bourgeois viewpoint. Any ideological construction of the world which is not purely ephemeral will have instrumental value in that it will provide clear guidance for action in particular situations. There is however a wide gulf between what is instrumentally useful and what is scientifically true, and any ideology will have its blind spots, partly arising from the confusion of class interests and universal interests, and partly because many of the links in the ideological chain of analysis may provide a scientifically inaccurate, or even blatantly incorrect, analysis of the social world. In other words, different ideologies lead to characteristic sets of *mis*interpretations, as well as interpretations, of the world. A pragmatist, when seeing events taking radically unforseen new directions, would probably attempt to adjust his mode of thinking; a dogmatist, by sticking rigidly to ideological convictions, would often tend to undertake actions which intensify the effects of unforseen problems, rather than mitigate these

effects. Thus the mass unemployment and industrial collapse of the early 1980s seems to have been linked not to the prosecution of class war by the Government, but rather to the systematic blundering by a Government of rigid and limited ideological persuasions.

It is remarkable how little the succession of crises, often self-inflicted, of the 1980s has dented the self-confidence of the Government. What is involved here is a genuine innovation in political management, at least in the British context. It is perhaps only from 1982 onwards, as the Government gained in confidence and internal Cabinet dissent weakened, that it became clear that a new style of government, rather than merely a change in policy, was emerging. Under old-style political management, an enormous amount of political energy was spent in trying to head off political and economic crises, and in trying to resolve these crises as painlessly as possible. The result, detectable in both Labour and Conservative Governments, has been a form of political paralysis in which the original programmes for change have in late term long been jettisoned and the Government is attempting little more than survival in a hostile environment. The Thatcher approach, on the contrary, has been to *welcome* crises and to use each crisis as an indication of what needs to be done. This approach has several advantages:

(1) The paralysis caused by excessive attempts to avoid crises is overcome, and the Government can pay attention to its more fundamental tasks. Less time is wasted.

(2) If a Government, whether of left or right persuasion, is committed to wide-ranging social change, the status quo is something which needs to be broken rather than preserved; no attempt should be made either to avoid crises or to conceal crises. Once a crisis occurs the Government can place all its efforts into resolving the crisis in such a way that its political and social aims are advanced. If enough crises are brought to a head (sometimes deliberately, if things are going too quietly), then there is no need for a detailed blueprint for the future, as decisive social change comes of its own accord.

(3) Stupidity can be made to appear as though it were part of the master-plan. After all, if a monumental blunder occurs, the worst that can happen is that a political crisis appears.

Much as one might deplore the results, it must be conceded that in terms of the Government's own objectives this style of political management has been highly successful. There are lessons here which could be learned by any opposition party aspiring to government.

It is hoped that the above outline at least partially resolves the dichotomy between views which see irrationality but no intentionality in the early years of the Thatcher Government, and views which see intentionality but no irrationality. Various critiques of Thatcherism (e.g. Pollard 1982 pp.165-185, Keegan 1984) have concentrated on the mistakes in economic policy made by the Conservative Government which had the effect of considerably intensifying the slump, and raising unemployment, while other critiques (e.g. Keys et al 1983) have concentrated on the extent to which damage has been part of a deliberate policy. The basic point would seem to be that the Government has been *uninterested* in unemployment, with little real interest as to whether unemployment is 1,000,000 or 3,000,000, either figure providing an acceptably large labour surplus for capital. Thus the creation of unemployment has for the most part not been deliberate, even though relatively little attempt has been made to reduce unemployment. The Government is

well aware of the dangers of unemployment becoming a political issue, but with judicious news management (note 84 below) this danger has largely passed.

Other background reading is provided in the collections of papers edited by Bell (1985), for the most part presenting centrist views in opposition to Thatcherism, and Minogue and Biddiss (1987), for the most part sympathetic to Thatcherism. See also the later chapters of Whitehead (1985) where the first Thatcher Government is seen as the final stage in the downward political spiral of the 1970s.

For the reader interested in economic questions, though, possibly the best general background reading on the first Thatcher Government is provided by Riddell (1983). The economic issues are presented clearly and fairly, and the author succeeds in what must be a very difficult task, that of presenting an even-handed account of the Thatcher Government, seeking neither to praise nor condemn. Riddell finds it impossible not to conclude, however, that Government economic policy was in disarray and that unemployment was pushed up to unnecessarily high levels. A reading of Riddell (1983), along with the more narrowly focused account of Keegan (1984), is thus recommended.

2. For details of the attempted monetary squeeze see Keegan (1984 pp.137-163); the dangerously adverse effects of this policy on British industry are argued on pp.147-148. One of the ironies of the situation was that despite the attempts to engineer a tight monetary squeeze, the money supply increased sharply in Summer 1980 (Keegan 1984 p.152), and that these money supply figures suggested to some that the monetarist squeeze was not tight enough, rather than too tight. It would be a basic methodological error to assume that since the money supply was running out of control in 1980 there was no real monetary squeeze, or that the monetary squeeze was ineffective and hence not responsible for intense industrial recession; to argue in such a fashion would be to confuse the distinction between ex ante intentions and ex post outcomes. The point is that the Government operated on the basis of a naive model in the economy in which an intention to squeeze monetary growth rates would actually cause monetary growth rates to fall and prices to stabilise without having any substantial effects on output growth or employment; in fact the effects of this policy were completely at variance with the intentions, and the squeeze was felt primarily in output and employment terms, and not in monetary or price terms.

Figures for monthly changes in the M3 money supply, the "broad" definition of money, are presented in *Economic Trends*. Annual rates of change, from second quarter to second quarter, stood at 7.5% in 1976-7, 15.7% in 1977-8, 13.7% in 1978-9, 15.0% in 1979-80, 16.3% in 1980-1, and 22.7% in 1981-2. After the slump, the rate of monetary growth slowed down; 11.8% in 1982-3, 8.4% in 1983-4, 11.7% in 1984-5, but 19.0% in 1985-6 and 19.2% in 1986-7 (*Economic Trends, Annual Supplement* 1988 pp.151-152). Such indicators show firstly the perverse effects of trying to run a strong monetary squeeze at a time of recession, between 1980 and 1982, and secondly the highly inflationary nature of the boom after 1985, revealing itself more in terms of house prices and share values than in terms of retail prices.

3. *Economic Trends* (various). At a time, in Autumn 1980, when the economy was in chaos, the Prime Minister responded to lobbying by industrialists for interest rate cuts (Keegan 1984 p.155), although the main damage to industry had already been done.

4. The sterling exchange rate has been in long-term decline, as one would expect in a competitively weak economy; for example the pound was valued at $4.03 in 1948, and $2.50 in 1973, reaching a trough of $1.65 in late 1976. Between 1978 and 1980 there was a strong appreciation in the value of the pound, which was *not* underpinned by any underlying competitive improvement in the industrial economy, but instead was the cause of a significant loss of competitiveness in British industry. In October 1980 the pound stood at $2.42, an increase of 46%, or 10% per annum, since the 1976 trough was reached. Against a basket of major currencies, sterling's appreciation, at 29% (or 6.5% per annum) to November 1980 was somewhat lower, but still great enough to cause a significant deterioration, relative to competitors, in costs and prices in British industry.

The acute overvaluation of sterling in 1980 is shown by the rapidity of its subsequent depreciation; by February 1985 the pound stood at only $1.09. Admittedly this was an extreme case, in that the USA dollar could be said to have been considerably overvalued at this stage, but against a range of major currencies the pound had depreciated from 101.2 in November 1980 (1975=100) to 71.3 in February 1985, a fall of 29.5%, or 8.0% per annum. By the end of 1987 sterling had risen sharply (to $1.83) against the dollar, but very slightly (to 75.8) against a range of major currencies.

Such violent fluctuations in the exchange rate might present many opportunities for profit in the financial sector, but can present a nightmare for planning in the industrial sector. There is a grave danger of a ratchet effect coming into operation with periods of currency overvaluation with respect to medium term norms causing a severe loss of industrial competitiveness and permanent cutbacks in industrial production, and phases of currency depreciation having little stimulating effect on a weakened industrial base. Events in the first half of the 1980s would appear to fit this pattern.

Figures taken from *Economic Trends* (various); *Economic Trends, Annual Supplement* 1988.

5. All figures based on *Gazette, Historical Supplement* August 1984 Table 1.2.

6. This phrase is taken from Offe (1984); see also chapter 6, note 127, and Gough (1983). The direction of emphasis here is not that state expenditure was (supposedly) retarding the growth of the industrial economy (the argument of Bacon and Eltis 1978), but rather that the problems faced by the industrial economy were jeopardising the working of the welfare state.

7. The standard argument is that in a recession the growth rate of the economy slows down substantially, in turn reducing substantially the growth rate of the tax base, and hence Government income, while Government expenditures tend to increase more rapidly than before, because of increasing welfare payments, etc. Thus in a recession the proportion of state expenditure in the national product tends to increase, while a budget deficit tends to come into being, or to increase in size. The standard Keynesian argument is that this is to be welcomed as increased Government expenditure acts as a stabiliser to the economy, preventing an over-rapid decline in demand and hence in production. In this line of argument, attempts to reduce Government expenditure and to "balance the budget" are short-sighted and counter-productive as while they improve the balance sheet of the state they intensify the problems of inadequate demand in the economy. The standard Keynesian response is thus to allow the budget deficit to increase in size during a recession, and

indeed even to speed up the increase in the budget deficit.

Clearly there are limitations to such a policy, but not as great as the limitations of trying to reduce budget deficits during a major recession. Despite all the Government's attempts to cut back on state expenditure, the ratio of general Government expenditure to gross domestic product actually *increased* substantially during the slump, from 42.9% in 1978 and 43.5% in 1979 to 45.1% in 1980, 46.0% in 1981 and 46.5% in 1982. Indeed as Thompson (1986 pp.17-20) shows, the only category of state expenditure which actually declined in real terms during the slump was fixed investment; current expenditure and grants and subsidies increased substantially. It would appear that a badly timed deflation had relatively little impact on Government expenditure but a great impact on private sector production.

It should also be noted that the proportion of Government expenditure to national income started to decline once the slump was over; 46.0% in 1983, 45.9% in 1984, 44.8% in 1985 and 43.3% in 1986. The tendency since the mid-1960s for the proportion of state expenditure in national income to increase has undoubtedly represented an imbalance in the structure of the economy, but the lesson would seem to be that the attempt to correct this imbalance is best made during cyclical upswings and avoided during recessions.

Figures in the above note are based on *Economic Trends Annual Supplement* 1988, Tables 8 (GDP at current market prices) and 158; figures for earlier years are graphed in Thompson (1986 p.17); see also Bacon and Eltis (1978 p.29).

8. The unemployed as victims of the fight against inflation was a common notion at the time; see for example Nairn 1983 p.285 (although this was a passing reference in a discussion of another subject). To some extent this notion holds, yet it seems to overstate the intentionality of the process and to downgrade the depth of *industrial* crisis.

9. Thus Keegan (1984 p.132) notes "I have found virtually no evidence that the Tories either wanted or expected unemployment to rise to such heights." Closer to the centre of power, Bruce-Gardyne (1984), a Treasury Minister during the first Thatcher Government, notes "a horrendous rise in unemployment and factory closures *which had not remotely been forseen*" (p.ix; emphasis added); there seems to be no reason to dispute this.

10. Friedman (1974 p.18).

11. Such statements were commonplace among Government Ministers of the time and have been echoed since (for example Holmes 1985b). Much of the Government's rhetoric of "resoluteness" dates from this time, yet much of this resoluteness, certainly in the context being discussed, consists in an unwillingness to face serious problems or to admit mistakes.

12. The basis of this admittedly crude "guesstimate" is that unemployment increased perhaps twice as quickly as it need have done, as a result of Government policy, while the rate of inflation was unaffected by policy. The direction of any likely error in this guesstimate is that unemployment under an alternative neutral policy would perhaps have been slightly higher than the 2¼ million suggested, for reasons suggested below, while inflation would perhaps, if one accepts that Government anti-inflation policy had perverse results, have been lower than 20% at its peak figure.

One might expect that during a slump unemployment would increase at roughly the same rate in countries with comparable economic structures. In the UK male unemployment (on a post-1982 basis) rose from 6.5% in 1979 to 15.9% in 1983, an increase of 9.4 points (*Gazette*, various). This is an understatement of the total increase; 1979 unemployment on the "old" basis stood at 6.7%, 0.2 points higher than the "new" figure, while 1981 unemployment stood at 13.7% on the "old" basis and (ignoring an obvious miscalculation in the December 1982 *Gazette*) 12.9% on the "new" basis, a difference of 0.8 points. Taking this into account, male unemployment increased by 10.0 percentage points between 1979 and 1983.

Comparable increases in other countries were 4.7 points in the USA, 2.2 points in France (but 4.2 points up to 1985), 5.5 points in West Germany, 5.6 points in Belgium, 5.5 points in Canada, 5.1 points in Australia and 3.7 points in New Zealand (*United Nations Yearbook of Labour Statistics* 1987 pp.563-578). Most of these figures are slightly over half the UK rise in unemployment, and given also that UK industry was already competitively weak in the late 1970s it seems likely that less than half, rather than more than half, of the UK's increase of unemployment can be directly attributed to Government policies. This estimate closely approximates to what might be called the "consensus view" (e.g. Pratten 1982, Riddell 1983 p.91). Thus peak unemployment under "neutral" policies would probably have been closer to 2½ million than to 2 million. It should perhaps be noted in passing that certain particularly competitive economies and some of the smaller European countries (e.g. Japan, Austria, Norway, Sweden, Finland, Switzerland) had relatively slight increases in unemployment. Also, interpreting published statistics for third world unemployment is extremely hazardous (see Godfrey 1986).

International comparisons for male unemployment are more meaningful than international comparisons for total unemployment, given the wide international differences in the treatment of female unemployment (chapter 3.5).

13. Given the pace of "instant revisionism" in the 1980s it is perhaps not too surprising that this type of interpretation has been derided, on spurious grounds, as mere orthodoxy by Sanders, Ward, Marsh and Fletcher (1987).

Opinion poll results, as graphed by Sanders et al (p.286) show that Government popularity ratings (the proportion of respondents intending to vote Conservative) fluctuated between about 30% and 37% between June 1979 and June 1980, but that as the severity of slump became readily apparent the Government rating fell sharply, fluctuating between about 22% and 26% (with the exception of an 18% rating in December 1981) between June 1981 and April 1982. Then came the Falklands crisis, and within a month the Government rating had jumped to 36%, a level around which it fluctuated until the 1983 General Election. It would be difficult to find a more clear-cut case of cause and effect.

Sanders et al view the situation differently, arguing that the Falklands War had only a very slight and short-lived effect on Government popularity and that the real reasons for the upsurge in Government popularity were economic. The implausibility of such an assessment is evident; Government popularity quite understandably collapses when unemployment rises by 2,000,000, but the reader is expected to believe that as soon as the unemployment figure temporarily drops below 3,000,000 (2,969,000 in May 1982) the electorate in their masses realise how bright the future is, and how

unimportant the tribulations of the recent past have been, and flock back to the Conservative fold, having been encouraged to do so by sympathetic media (a factor noted in Sanders et al p.298).

The "proof" of this unlikely, indeed absurd, scenario is carried out through a process of curve-fitting, yet curve-fitting is a very poor method for establishing causality and especially for identifying the reasons behind sudden changes in the system. Visual inspection of the curve for Government popularity suggests a long-lasting trough in Government popularity between mid-1981 and early 1982, with the very low rating in December 1981 being anomalous (one would wish to search deeper for reasons for this drop in rating). Under the methodology used by Sanders et al this December 1981 rating takes on an exaggerated significance, being regarded as a sharp turning point; thus Government popularity was regarded as being on a falling trend in late 1981 and a *rising* trend in early 1982, a conjunction which would not be at all apparent if the rogue result for December 1981 were omitted. Extrapolation of this spurious rising trend through the Spring and early Summer of 1982 until it reaches the Government popularity ratings actually achieved in late 1982 suggests to Sanders et all that the Falklands factor had psephological significance, and then only slight, only for the three months or so when the Government popularity curve was above the "expected" curve. This result, it is emphasised, has no empirical significance, and merely mirrors the assumptions made by Sanders et al that there were no significant discontinuities in the Government rating performance, and that the Government rating could be modelled in terms of simple quadratic equations (Sanders et al p.291). One does not have to be an expert mathematician to realise that quadratic equations, which provide a single turning point, are hazardous to use if the turning point identified is an outlier in an otherwise fairly flat curve.

Sanders et al place considerable emphasis in the role of rising personal economic expectations in causing the jump in Government popularity in early 1982, yet the graph they produce (p.302) show that personal expectations (percentage thinking their own situation will get better minus those thinking their situation will get worse) were continuously *negative* from July 1979 to October 1982. The increase in Government popularity was complete *before* economic expectations were rising. Admittedly the negativity of personal economic expectations was declining in early 1982, but this means that people were thinking that things were getting worse, but not as quickly as before, rather than getting better. A deceleration in the rate of deterioration is hardly likely to be the cause of a sudden change in attitudes.

Complex political questions are posed by the high Conservative ratings from 1982 onwards. Up to 1982 the Government was widely perceived, perhaps accurately, as incompetent and destructive, and Conservative support was falling close to its irreducible base level. A piece of diplomatic blindness by the Government led it to assume that there was no need to provide any effective protection for British possessions in the South Atlantic, and Argentina, taking advantage of this, launched an invasion force. A competent Government would never have found itself involved in a Falklands War in the first place, but by winning the war the Government found itself surrounded, for the first time in its term of office, by an aura of competence. If the Conservatives did not perceive the irony of the situation then neither did the electorate, and the Conservatives were re-elected in 1983, largely on account of the Falklands factor.

Once the Conservatives had achieved a reputation for competence, such a reputation was difficult to disperse. The Falkland factor

has been and gone, but the shift in underlying perceptions has continued, and the Conservative Government finds itself still with that most prized asset in politics, a reputation for competence, one enhanced by the calmer economic conditions of a post-slump upswing. There is little doubt that such a reputation has been made safer by the weakness of the official Opposition which since the 1983 defeat has conspicuously failed to make any effective and wide-ranging challenge to the Government record. If an Opposition fails to oppose, and the Government is still seen as fit to govern, then it is difficult to see how Government and Opposition can ever change roles.

In political analysis, perhaps the critical question is not that between establishing correlations between time series A, or events B and C, and Government *popularity*, but rather that of finding what conditions lead to an administration being regarded as *competent or incompetent*. In the electoral central ground, voters are swayed not so much by whether they like or dislike the various parties, but by the extent to which they regard the various parties as competent to run the country. The critical factor about the Falklands War, and one with still significant political effects, is that it banished the stigma of incompetence of the early Thatcher years; not even the "banana-skins" of more recent years could alter this perception.

14. More recently, and even more blatantly, the Government has used more direct methods to redistribute income towards high income groups, by reducing the top rate of income tax to 40% in the 1988 Budget, by cutting social security benefits as far as is politically feasible (a persistent policy theme), and by the proposed introduction of a poll tax to finance local government, by which high income groups pay much less than before and low income groups pay much more than they can afford.

The Government appears to have consistently judged the success of their economic policies according to what effect they have on the finances of the already wealthy, and have shown themselves not displeased if appreciating capital values have benefited the lesser wealthy and the more prosperous sections of the working class, thus securing their electoral base. Mass unemployment is not, it seems, perceived as an economic issue except to the extent that it creates a supply of cheap labour and makes it easier to neutralise any remnants of trade union power.

15. Thus, in the production and construction industries, the index of output peaked at 109.0 in the second quarter of 1979 and fell to 94.7 in the first quarter of 1981, a drop of 13.1%, or 7.7% per annum. It was not until late 1986 the index of output in production and construction surpassed that of mid-1979, even though the rate of growth of output (first quarter of 1981 to first quarter of 1987) stood at 2.8%. This rate of growth, though positive, was not sufficient to surpass the rate of growth of productivity, so industrial employment continued to fall; even now, therefore, the industrial problems of the 1960s and 1970s have still not been fully resolved.

In contrast, while UK industrial output fell by 10.2%, or 3.7 per annum, between the slump years of 1929 and 1932, pre-slump levels of industrial output were surpassed in less than two years, and by 1937 industrial output was 46% higher than at the 1932 trough, a growth rate of 7.8% per annum, and 30% higher than at the 1929 peak, a growth rate of 3.3% per annum. This is a far more substantial industrial recovery than in the 1980s.

Figures taken from *Economic Trends* (various) and Mitchell (1975 p.357).

16. See for example Friend and Metcalf (1981), Sinfield (1981), Showler and Sinfield (1981), Smith (1981), Taylor (1982), Marsden (1982), Jordan (1982), Seabrook (1982), Coyle (1984), Kelvin and Jarrett (1985), Ashton (1986), Fryer and Ullah (1987), McRae (1987), Moon and Richardson (1985).

17. There has also been a strong demographic component in Northern Ireland's unemployment, such that the rate of unemployment in Northern Ireland, when compared with unemployment rates in British periphery, overstates the extent of economic decline in Northern Ireland. See chapter 5.5(g).

18. See also chapters 3.2, 4.4(ii), 5.4. Such factors as changing participation rates, etc., might help in explaining an aggregate mismatch in a single place between the number of job losses and the increase in unemployment, but not the great and systematic geographical variability of this relationship.

19. The Corby works was engaged in the production of steel tubes, and in the manufacture of steel for those tubes; in 1980, however, the steel-making part of the operation closed down, leaving only the tube-making remaining. At the end of 1979, British Steel Corporation employment at Corby stood at 11,000 while by September 1980, 5,500 jobs had been lost, with about 1,000 redundancies still to take place (*Financial Times* 15.9.80). The *Financial Times* source does not give details on the precise timing of these job losses, but unpublished redundancy figures show 1,500 steel redundancies taking effect in the East Midlands in February 1980, and between 600 and 900 redundancies taking effect in each of the next four months.

20. *Financial Times* 14.11.80; see also *Financial Times* 13.12.79 for background to the decision to close Consett steelworks.

21. This was widely recognised at the time; for example Townsend (1981 p.36) notes that as of late 1980 "the greatest impact of recession is still concentrated on a relatively few areas," although "by mid-1980 the characteristic 'deepening and spreading' effects of recession reached industry in virtually all areas of the UK"; "the low rate of unemployment (in the South East) in mid-1980 was presumably associated with a delayed impact of recession on the service sector." Martin (1982), using redundancy data, shows that recession came much earlier to the periphery and Midlands than to the South, and remained far more intense in the periphery and Midlands.

Similarly there was widespread press attention to the sharpening of unemployment differentials in 1980. One would suspect that just about every major newspaper published in a depressed industrial area would have run an article at some stage in 1980 or early 1981 comparing the run-down, high unemployment economy locally with continued prosperity in some area of Southern England chosen to provide a contrast. Sometimes, though, the point was missed completely; Gillespie and Owen (1981) even tried to suggest that the peripheral regions had escaped lightly from recession.

22. See note 26 below for unemployment rates by age at January 1982, indicating a concentration of unemployment amongst the young.

For more detailed accounts, see Roberts (1984), Jackson (1985), McRae (1987). McRae (pp.5-6) makes the important point that a young worker's employment history can often depend critically on the time at which the labour market is entered, with for example a school

leaver of the late 1970s having much better early employment prospects than a school leaver of the early 1980s, even one with better qualifications, and that this advantage persists in later years as the slightly older worker is likely to have a less fragmented work record. For very large numbers of young people, employment history has been a succession of Government training schemes, of spells of unemployment and of a sequence of low-paid and low-skilled jobs (McRae 1987 p.11). In effect large numbers of young people have been condemned to the secondary labour market (see chapter 6 note 132; the term "underclass" is also gaining currency) through the accident of entering the labour market at a time in which there were very few openings in the labour market.

23. See especially Brown (1985 pp.150-227), also Smith (1981), Ullah (1987). It is difficult to establish comparative rates for black and white unemployment since although there has been ethnic monitoring of claimants of unemployment benefit (*Gazette*, various, Table 2.17; series discontinued in 1982), there is obviously no ethnic monitoring of people in work. Survey evidence suggests that while unemployment rates for black and white were roughly equal in 1974 (a point also indicated in the 1971 Census; Smith 1981 p.3), the rise in unemployment has affected blacks even more than whites; "it is therefore correct to identify unemployment as a major new factor of racial inequality for both young and old" (Brown 1985 p.174; see also p.222 where a time series for ethnic minority unemployment is matched to the time series for total unemployment). The 1982 survey reported in Brown (1985) showed 13% unemployment for white men compared with 25% unemployment for West Indian men and 20% for Asian men, although within the Asian group male unemployment rates varied sharply, being very little above white unemployment rates amongst Indian and "African Asian" groups, but 29% among Bangladeshi and Pakistani males. The difference between white rates of unemployment and West Indian and Asian rates of unemployment is to be found among both men and women, across all age groups, and in all regions (Brown 1985 pp.151-153, 189-191). Within more restricted areas with relatively high concentrations of black population, unemployment rates between white and black vary relatively little, however; this may be explained in terms of patterns of intra-racial segregation, in which it tends to be the economically more disadvantaged part of the white population which lives in local areas with a relatively large black population (Brown 1985 pp.183-184).

24. Percentage unemployment rates for men nearing retirement age tend to be much higher than average (note 26 below). Even this does not fully represent the problems of the older unemployed worker in that an older worker, once unemployed, is likely to stay unemployed for much longer than a younger worker. Thus, as of October 1982, 52% of unemployed males aged over 55 had been unemployed for over a year. This contrasts with 44% for males aged 25-54 and 27% for males aged under 25. It may well be that many of the over 55s, with life savings to fall back on, feel relatively little incentive to compete for employment on the labour market. It is undoubtedly also the case though that the older unemployed worker will find it more difficult to compete for jobs, even if temporary jobs, than a younger unemployed worker, implying that an unemployment spell once started may well remain unbroken for a long period, with considerable associated hardships.

25. Thus, the present writer, when travelling across Britain in the years just after the slump, found that quite a few of the guest houses he was staying in were run by skilled industrial workers who were made redundant in the slump and who had invested redundancy

money in the tourist trade despite the uncertain levels of demand at that time.

26. *Gazette*, various, Table 2.15. The spread of male unemployment rates by age in January 1982 was estimated as: under 18, 23%; 18-19, 25%; 20-24, 21%; 25-34, 15%; 35-44, 12%; 45-54, 11%; 55-59, 13%; 60 and over, 20%. Female unemployment rates in the two youngest age groups were slightly lower than male unemployment rates; female unemployment rates in older age groups were lower than corresponding male unemployment rates, but as shown in chapter 3, note 44, this is largely an artificial effect in that a shortfall in employment among married women will be reflected as much by a withdrawal into domestic labour as by recorded unemployment.

27. Beveridge (1937 p14) shows that in February 1931, with a total male unemployment rate of 23.1%, unemployment amongst males aged 18-20 stood at 15.8% compared with around 21% or 22% in age groups between 21 and 45. At ages higher than 45, the male unemployment rate increased noticeably (24.4% aged 45-49; 27.1% aged 50-54; 28.5% aged 55-59; 34.5% aged 60-64). Beveridge suggested that the risk of losing one's job did not materially increase with advancing years, but that the probability of finding a new job deteriorated with age. This contrasts with the current situation in which experience tends to be more of an asset than youth in labour markets, and unemployment is concentrated among the young.

28. This factor is often neglected; for example Massey and Meegan (1982), in attempting to outline the factors affecting levels of output, productivity and employment, fail to mention either the question of overtime, or the length of the working week, yet this would have an effect on all three variables considered by Massey and Meegan. The level of overtime is often a critical strategic variable in adjusting labour inputs to changing output requirements.

29. Thus cyclical fluctuations in the number of overtime hours worked tend to be greater than cyclical fluctuations in employment. Since the mid-1950s the following percentage changes in overtime in manufacturing through phases of the cycle may be noted: 1957-58, -10.9%; 1958-61, +46.3%; 1961-1963, -12.9%; 1963-66, +42.3%; 1966-68, -8.2%; 1968-70, +1.9%; 1970-72, -22.6%; 1972-74, +15.2%; 1974-76, -24.0%; 1976-79, +11.3%; 1979-83, -34.1%.

All figures are for June (except 1958, where the May 24th figure has been used). Sources: *Historical Abstract* Table 146; *Yearbook* (various); *Gazette* (various).

30. *Gazette*, various; also Table 7.9 here. Not surprisingly, given that full employment implies labour shortages, the percentage of manufacturing operatives working overtime increased substantially during the long boom, averaging 20% in 1952, 30% in 1960 and 35% in 1965 (*Historical Abstract* Table 146). This proportion remained high during the downswing despite the large reductions in manufacturing employment, but was cyclically variable, typically 35% at cyclical peaks, 30% in recessions and 25% during the more intense phases of slump in late 1980 and 1981, before reverting to 30% in 1982. A 5 point shift in the proportion of operatives working overtime is roughly equivalent to a 1% change in employment.

31. Grunfeld (1980) provides a detailed text on redundancy law at the time of the slump. For redundancies affecting between 30 and 100 employees, 30 days notice rather than 90 would be required. Aggregate figures for redundancies announced, and for those finally implemented, have been used in various studies of the geography of

slump (Martin 1982, 1984, Townsend 1982), these being available much earlier than Census of Employment statistics, and giving a month by month coverage. From May 1983 (in the December 1983 *Gazette*) these monthly statistics have been openly published, and a discussion is made in the *Gazette* (1983 pp.245-259) of earlier redundancy statistics by year, sector and region, with some cautionary notes about the use of these statistics.

32. *Economic Trends* (various) Table 26; also Fig 7.6 in text.

33. The word "rationalisation" has undergone some significant changes in definition. In the 1920s there was much discussion (e.g. Meakin 1928, Davies 1929; see also Booth and Pack 1985) of trying to overcome industrial problems by "rationalisation", by bringing about concentration of the ownership structure of industry, driving out smaller and weaker firms and production units, and building on the success of the more efficient units. Obviously there are connotations of job loss, but there are also implications that production is genuinely becoming more rationally structured.

In more recent years "rationalisation" has simply become a euphemism for disinvestment; the only sense in which production becomes more "rational" is that in a situation of overcapacity, disinvestment can stem the decline in profits. For more detailed discussion see Massey and Meegan (1982 pp.87-119).

34. Calculations based on *Gazette*, October 1983, pp.S9-S10; see also Table 7.7.

35. Calculated from Table 7.11.

36. See the account in Morgan (1983), where the steel strike is related to the more general crisis of the steel industry, and to the political decisions of the incoming Conservative Government firstly to impose very severe cash limits on the nationalised British Steel Corporation, thus speeding up the pre-existing redundancy programme, and secondly to take on one of the more fragmented and weaker sections of organised labour. See also note 42 below.

37. It has been clearly established that a cyclical pattern can be observed in changes in productivity, and that in the early part of recession there is a delay before the size of the workforce adjusts to the changed level of demand (Wenban-Smith 1981 p.57). Godley and Shepherd (1964) suggested that under such circumstances unemployment would be below its equilibrium level, and would tend to increase, not only through the continuance of recession, but also through the reversion of productivity to longer term trend levels. The argument in the text, and also in Wenban-Smith (1982), is that this process was happening on a very large scale from late 1980 onwards.

The analysis in the text would seem to imply, at least in the context of slump, that changes in productivity are not merely cyclically variable, but actually set the phases of the business cycle. A recession is caused by a reduction in the size of markets below what was expected when the relevant investment and employment decisions were taken. In the early part of recession this causes a considerable shock to the industrial system, leading to below-capacity working and sub-optimal levels of productivity. Productivity rates are well below trends as a result of the initial shock of recession. Markets continue to be depressed beyond the early stage of recession, but this is no longer a shock to producers, and indeed producers would at this stage be urgently seeking ways to recover lost productivity (or, in a mild recession, lost productivity growth) in

order to maintain or enhance their competitive position in depressed market conditions. Job loss continues, even though the intensity of downswing, in output terms, is weakening. The rises in productivity at this stage are, however, substantial and provide a critical signal not just for further reorganisation of production using existing capital stock but also for a genuine expansion in investment. This sets the upswing of the cycle in motion.

It is potentially dangerous to construct a model of the business cycle on the basis of the experience of slump, as the slump is the least typical of business cycles. As a result it is quite possible that many of the relationships cited in the model above would turn out to be relatively insignificant in the context of a "normal" business cycle. This question can only be solved empirically, by close study of month by month changes in output, productivity and employment in pre-1980 business cycles. Such an analysis, whether it ultimately supported the interpretation above or not, would undoubtedly provide important new insights into the structure of the business cycle.

38 The word "natural" is used here in a Harrod sense (Harrod 1939, 1973), with the implication that once the violent economic fluctuations of the slump have passed through the system, productivity will tend to grow at its long-run average rate with only minor fluctuations around its trend, and, given the slightness of fluctuations in the productivity growth rate, fluctuations in employment will be set primarily by fluctuations in the output growth rate, with lag effects being relatively slight.

Suggestions that there has been a Thatcherite "productivity miracle" (e.g. Walters 1986 pp.171-177) are unacceptably wide of the mark, being based on comparisons between the mid-1980 productivity *trough*, itself largely a creation of Mrs. Thatcher, and later productivity peaks. The apparently spectacular increases in productivity in late 1980 represented simply a response to earlier sharp declines in productivity, while the late 1982 productivity spurt represents merely a return to the natural growth path following the unusually depressed productivity growth path in the three preceding years (see Table 7.6).

Neither has the subsequent growth of productivity been anything out of the ordinary, as the following table shows:

	Increase in output (% per annum)		
	Whole economy, per person employed	Manufacturing per person employed	per hour
1960 - 1973	+2.6	+3.6	n.a.
1973 - 1979.2	+1.4	+1.1	+1.4
1979.2-1983.1	+1.3	+2.5	+3.3
1983.1-1987.4	+2.1	+4.9	+4.4

(Source: *Economic Trends* various; all figures seasonally adjusted).

These figures are indicative of a turning point in the long cycle having been reached, not a Government-inspired revival. The low rate of productivity growth on a "whole economy" basis is a side-effect of the loosening of the labour market resulting from high unemployment which encourages the expansion of low wage, low productivity jobs in the service sector (chapter 6.9) while the high rate of productivity growth in manufacturing can be said to represent a clearing of the backlog of unused investment opportunities which accumulated in the depressed economic conditions of the 1970s and early 1980s. Whether this new industrial growth is securely enough based to carry a new "technological paradigm" (Freeman, Clark and

Soete 1982) through the next long cycle remains to be seen; industrial output trends are somewhat less favourable than productivity trends. It perhaps needs to be emphasised, especially given the weight of premature discussion of the "post-industrial economy", that it is the industrial sector rather than the service sector which is pushing productivity growth rates upwards; the suggestion that the industrial economy is in terminal decline and that the industrial sector is irrelevant as a motor for economic recovery is not to be taken too seriously.

39. *Housing and Construction Statistics* (various). The time lag from start to completion is generally slightly longer in the public sector (20.9 months in 1979, 19.9 months in 1980, 18.6 months in 1986) than in the private sector (16.9 months in 1979, 17.6 months in 1980, 17.4 months in 1986).

40. Slightly different periodisations will give slightly different results. Figures on an annual basis show that between 1976 and 1979 industrial output increased by 10.4%, or 3.4% per annum, but that if MLH 104 (extraction of mineral oil and natural gas) is excluded, the increase of output stands at only 3.6%, or 1.2% per annum. Similarly, gross domestic product, on an output basis, increased by 8.3%, or 2.7% per annum, in these years, but by only 5.3% (1.7% per annum) if MLH 104 is excluded.

It is difficult to resist the conclusion that it was only as as result of the "fortuitous" effects of North Sea oil that the British economy crawled out of recession between 1976 and 1979. Admittedly the above figures probably exaggerate the degree to which the recovery was dependent on North Sea oil in that the sudden shift in the structure of the balance of payments resulting from the development of the oil industry was an important factor pushing up sterling exchange rates, with these high exchange rates acting as a check to expansion in other sectors. This effect was probably relatively slight though; if it was not, this would be a clear sign that the economy was being badly handled and oil revenues wasted.

41. See for example the various Royal Economic Society memoranda on current economic conditions (London and Cambridge Economic Service, various). Quarterly index numbers of industrial production (1924=100) stood at 114.8 in the final quarter of 1929, then 109.6, 100.9 and 90.7 in the first three quarters of 1930 (LCES *Memorandum No. 20*, January 1931). Various series for production and unemployment show that the decline started in the final quarter of 1929 rather than the first quarter of 1930 (LCES *Memorandum No. 19*, January 1930, pp.3, 8-9, 11-12).

That output changes were translated into employment changes far quicker in the 1929-33 slump than in the 1979-83 slump reflects various institutional changes in the labour market, and in particular the greater legal security of employment in 1979, resulting from legislation on compensation for redundancy (note 31), and other factors.

42. For further discussion of the British Steel Corporation's closure and redundancy programme see especially Bryer, Brignall and Maunders (1982), Upham (1980) and Morgan (1983). For a detailed account of the strike in early 1980 see Hartley, Kelly and Nicholson (1983).

There can be little doubt that BSC was in a highly vulnerable position in the second half of the 1970s, burdened by severe overcapacity and falling demand. The 1974-79 Labour Government successively held back, then permitted, steel closures, with major

job losses taking place in 1978 (chapter 6 note 93). What was happening in 1979 and early 1980, though, was a major *acceleration* in cutbacks in steel production and unemployment, *before* the effects of slump had set in. In other words there was a "Thatcher effect" as well as a "slump effect"; the steel closure programme would appear to have gone far beyond what was economically rational. Bryer et al (1982 p.179) note that

> "to sustain (the view that these closures were rational) it would be necessary to believe BSC's arguments:
> (a) that it is not worthwhile attempting to regain BSC's lost home market share to imports;
> (b) that BSC should voluntarily give up a large part of its exports ....,
> (c) that BSC had low labour productivity and that this was, and still is, a major factor affecting its past and prospective performance.
> None of these arguments has any substance."

The political background must therefore be considered. It is no secret that the incoming Government in 1979 was deeply hostile to the idea of nationalised industries, and to organised labour in the nationalised industries. Furthermore it was relatively straightforward to assemble a senior management sympathetic to the Government. The overt side to the Government's hostility to the nationalised industries lay in the intention to apply ever stricter cash limits to the nationalised sector; the hidden side was a long-term strategy, prepared in opposition, to disengage the Government from the nationalised industries, to destroy union power in these industries, and to prepare the way for denationalisation (see for example the leaked Ridley report outlined in *The Economist*, 27.5.78 pp.21-22). The steel unions were seen by the Government as a relatively easy target (a point emphasised by Morgan 1983 pp.189-194), while more difficult targets, such as the National Union of Mineworkers, could be left until later (note 94 below). It is important to note that a steel strike was actively provoked by the Government and BSC, and that once this strike had been defeated, massive job loss programmes could proceed unhindered by concerted industrial action. The parallels with the coal industry in the mid-1980s are obvious (note 94), but the coal strike lasted much longer than the steel strike.

The first stage of the provocation was a deliberately low pay offer with the plea that only self-financing pay offers could be afforded (Upham 1980 p.12). Hartley et al (1983 p.24) note "a pay offer of such misjudged tactlessness that some observers were led to suspect that the strike had been engineered by a conspiracy of politicians and managers." While delicate pay negotiations were taking place, "news dribbled out that BSC's new plan involved contraction of output and capacity to 15.2 m.t. (from 19.1 m.t. in 1976 and 17.3 m.t. in 1978), the surrender of most exports, the total closure of Consett, large inroads into capacity at Scunthorpe, Port Talbot and Llanwern, widespread shift reductions and closures in mills, and a shakeout at all continuing plants" (Upham 1980 p.12; bracketed note added). Upham treats this as a "unique public sector industrial relations blunder," leaving the ISTC with "no alternative but to break with its tradition of restraint", but it appears in retrospect more like deliberate provovation. The unions "won" the strike in that BSC's pay offer was considerably improved (Hartley et al 1983 p.165), yet were placed in such a position as to be unable to call for rearguard action to defeat the massive job losses which took effect in 1980.

The author is well aware that in this chapter and the next, indeed throughout this thesis, the discussion has been based on the

outcomes of economic events, rather than on the decisions which brought about the events. This is because the historical record usually presents a series of outcomes (e.g. employment change in a given industry in a given year) rather than a series of options. This introduces the central problem of economic inference, intentionality from outcomes. The economist's shorthand, freely followed in this thesis, is to assume that a given set of outcomes results from an economically rational set of decisions based on the information available at the time the decision was made. Thus if a large firm closes a factory at a time of recession, it is assumed that the deteriorating prospects for trade place a firm in such a position that it feels that it needs to cut production so as to avoid producing goods which cannot be sold, and that the complete closure of a prticular factory, although not necessarily the only rational way to deal with the situation, is certainly one rational way. If the economic environment forces large numbers of firms to take broadly similar types of decision, then a set of significant changes in the economic environment may be inferred, and explored further. In the large majority of cases of job loss in the slump, there would appear to be no reason to disbelieve that job loss programmes were forced on firms by the effects of slump, and that while some firms might have overreacted or underreacted slightly, virtually all firms operated, or attempted to operate, within a band of economic rationality.

Serious doubts remain as to whether the British Steel Corporation redundancy programme represented a rational response to slump. Indeed a detailed study by Bryer, Brignall and Maunders (1982) suggests that the BSC's industrial strategies have been highly irrational, and that there was a systematic tendency to downgrade the viability of steel plants, leading to a systematic overstatement of the number of jobs which needed to be lost. Among the specific charges Bryer et al (p.3) make is that the BSC closed "perfectly viable steel plants" at Corby, Shotton and Consett. These plants all closed in 1980, the year being discussed in the text. Is must be emphasised that the crux of the argument made by Bryer et al is not that steel closures were "a bad thing", but that these closures were *irrational* on the basis of the financial information available to BSC. It is as though an arbitrary decision had been taken to reduce the size of BSC's workforce to 100,000 (Upham 1980 p.13) from a 1977 figure of 168,000 (Hartley et al 1983 p.23); indeed in 1981 BSC's employment actually fell below 100,000, to 94,000 (Hartley et al p.23). The main text, both here and in chapter 8, treats these job losses as being caused by slump, as it would not be possible to prove any other case solely on the basis of employment statistics, the main data source being used. There is a strong suspicion though, supported by the work of earlier writers, that there was a definite BSC effect, and that heavy job losses were not simply the result of intense slump on an abnormally vulnerable industry.

43. Townsend (1983 pp.99, 176), *Financial Times* 5.11.77, 13.10.79. Townsend gives 4,800 jobs as having been lost in the few years leading up to the Singer closure, but this is an underestimate in that the earlier of these *Financial Times* reports cites an existing employment level of 5,600 in a factory which later closed.

44. *Financial Times* 18.8.79. In addition to the 3,000 Clydeside redundancies, 1,100 redundancies were planned in Dundee, 1,000 in Birkenhead, and 700 in North East England (mostly Sunderland, also Teesside). This totals 6,000 redundancies. A later report (*Financial Times* 2.9 79) indicates that 3,200 of these jobs would be lost by Christmas 1979, with about 1,500 of the Clydeside redundancies taking effect during this period.

The fact that large scale job losses and reductions of capacity were being implemented just before the slump gathered pace meant that the depressive effect of the slump itself did not have as severe an impact on the shipbuilding industry as on industries which were not in the middle of a rationalisation plan, and at later stages of slump job losses in shipbuilding were relatively slight when compared with other industries.

45. According to unpublished Census of Employment statistics, there were 37,000 iron and steel jobs (MLH 311, 312, 313, 341) in Strathclyde in 1978, representing 3.8% of total employment, and 24,500 iron and steel jobs in 1981, representing 2.8% of total employment.

46. See Townsend (1983 pp.107-126); the "manufacturing heartland" is a convenient phrase to use when discussing the outer core, or Midland, regions (WM, EM) and the inner peripheral regions (NW, YH) as a group, although in most sets of conjunctures these two sets of regions react differently.

47. Townsend (1983 p.120), *Financial Times* 15.6.79.

48. Unemployment in the Oakengates travel-to-work area increased from 7.9% in June 1979 to 11.0% in June 1980, a rise of 3.1 percentage points, and over twice the national average.

49. Official redundancy statistics, compiled by the Manpower Services Commission, show that the West Midlands pottery industry (based chiefly in Staffordshire) was virtually free of redundancies in the first three months of 1980, but that 500 redundancies took effect in April 1980, and a total of 610 further redundancies took effect in June and July. Figures rounded to the nearest ten.

50. See especially Townsend (1983 pp.175-188). The point is not that new towns are in any sense "inefficient" locations, but rather that their growth has been heavily dependent on manufacturing industry.

51. In the North West, 2,630 redundancies took effect in the man-made fibres industry between February and May 1980, with nearly half these jobs being lost in February. This would appear to relate to the closure of a Courtauld's factory at Preston, Lancashire (announced in the *Financial Times* 17.11.79; see also Townsend 1983 pp.77-82, 112). A further 1,540 redundancies took place in the North West cotton industry between January and April 1980, but then the rate of job loss increased substantially in this industry, averaging over 1,000 per month for the rest of the year. In addition, about 300 redundancies per month were being announced in the clothing industry.

In Yorkshire and Humberside, textile job losses in the first quarter of 1980 were concentrated in the carpet industry, with 510 redundancies taking effect in February and 440 in March. It would appear that these represent job losses at the Associated Weavers plant at Bradford (*Financial Times* 16.11.79, 30.11.79). Redundancies in the woollen and worsted industry were averaging 200 per month in early 1980, but there was a noticeable acceleration later in the year, with 410 redundancies in May, 650 in June, 740 in July and an average of about 500 per month during the rest of the year. Redundancies in the clothing industry were relatively slight in the early months of 1980, but averaged about 300 a month from May onwards.

These substantial early job losses in the textile and clothing

industries between them imply a faster than average increase in unemployment in the counties concerned, confirming the point made in the main text.

52. It would be unwise to use a stronger word than "suggests" in that the employment figures of Tables 7.7 and 7.8 are merely estimates, although probably quite good estimates.

53. *Financial Times* 29.5.80. This was of course just one phase in a wider steel closure programme.

54. *Gazette*, July 1981, Table 1.5; April 1982, Table 1.5.

55. See especially Martin (1982 p.379), who graphs redundancy rates by industry and by month through the critical slump years.

56. The detailed series of redundancy statistics has been compiled by the Manpower Services Commission, and later by the Department of Employment.

57. *Monthly Digest of Statistics*, July 1983 p.56. Statistics for the motor vehicle industry relate solely to MLH 381; at the SIC Order level (MLHs 380-385) the decline in output was 9.5% across a single year (up to the first quarter of 1981) and 19.2% across two years. The aerospace sector was largely immune from recession at this time.

58. *Monthly Digest of Statistics*, December 1983 p.101. The ratio cited is imports as a proportion of home demand plus exports, and relates to 1980 SIC class 35, "manufacturing of motor vehicles and parts thereof". Corresponding figures using the 1968 SIC are available (e.g. *Monthly Digest of Statistics*, July 1983 p.137), but fail to separate motor vehicles from the aerospace industry.

A longer run of statistics, compiled from various issues of the *Monthly Digest of Statistics*, is of interest:

	Year ending (December)							
	1979	1980	1981	1982	1983	1984	1985	1986
Import ratio (%)	31	28	30	35	40	39	39	40
Export ratio (%)	25	28	29	25	22	23	22	22

During the main part of the slump, depressed domestic markets rather than imports were the main problem, and indeed Britain's export markets were slightly more secure than her domestic markets. When the first signs of upturn came, a familiar and long-standing problem re-emerged; world economic expansion stimulated industrial production as well as consumption in Britain's competitor countries, but stimulated consumption far more than production in Britain, resulting in increased imports but no further penetration of export markets. If anything, the problem is more acute in the 1980s post-slump recovery than in earlier cyclical upswings in that Government economic policies have been strongly geared towards boosting consumption, with relatively little effort paid to direct measures to boost industrial production (see also chapter 6, note 76).

59. *Monthly Digest of Statistics*, July 1983 p.55. These are quarter-on-quarter statistics rather than year-on-year statistics, so that the steel strike of early 1980 has no direct effect on the measured rate of change.

60. Based on Mines Department statistics, quoted in the annual *Statistical Abstract*, and also in Kirby (1977). Other sources imply

a slightly lesser rate of decline of output; 9.8% for mining and quarrying according to Feinstein (1972, T112), and 9.6% in London and Cambridge Economic Society, (*Memorandum No. 26*), 1934.

61. Feinstein (1972, T112) gives the relatively low figure of 12.6%, while higher figures are given of 19.3% in *Statistical Abstract* (vol 83 p.307) and of 20.9% in London and Cambridge Economic Society (*Memorandum No. 26*), 1934.

62. *Monthly Digest of Statistics*, July 1983 p.59. As in note 59 above, the steel strike of 1980 would have had no direct effect on these figures.

63. Based on output figures in *Monthly Digest of Statistics*, July 1983 p.56 and on employment statistics in *Gazette*, June 1980 p.656, June 1981 p.S10, June 1982 p.S13. Employment figures are taken for February (mid-quarter) in each case. Across two years productivity rose by 0.4%.

64. Townsend (1983 pp.76-77, 121-124). See Marshall and Mawson (1987 pp.99-104), Spencer, Taylor et al (1986 pp.92-112) for more detailed accounts.

65. See Table 7.4. A more detailed discussion follows in chapter 8.

66. Table 7.12 shows a similar, though even more strongly marked, pattern of change in productivity and output figures in the iron and steel industry in early 1980.

67. *Gazette*, January 1980, p.29. The engineering strike can be seen as the last of a long series of 1970s style strikes, where the grounds for dispute are over pay rather than over threatened job losses, the underlying economic conditions being those of high inflation but relatively steady employment levels. The basic union demand was for a £80 a week basic rate and an hour off the working week, as opposed to the pre-existing basic rate of £60. Behind the 1970s style dispute, however, the spectre of slump lurked; "Some companies hit by falling demand would welcome any excuse to shut their plants" (*Economist*, 8.9.79 p.90). The same *Economist* report (see also *Economist* 15.9.79 p.94) confirms that vehicle production was severely hit by the engineering strike.

68. The usual caution is needed when interpreting seasonally adjusted statistics at a time of unusually intense economic change; have differentials been seasonally over-adjusted, seasonally under-adjusted or neither?

69. Figures are available for Scotland as a whole, but not for constituent regions, or for Strathclyde and the "rest of Scotland". The peak month for redundancies in Scottish shipbuilding was May 1980 (510 redundancies taking effect).

70. This point was argued in Townsend (1983 pp.120-121). Cudgin (1978), when discussing the post-war industrial development of the East Midlands, emphasises firstly the relative success of the region, and secondly the great importance in the region of the growth to maturity of locally owned "small" firms. Presumably the legacy of an expanding locally-owned manufacturing sector was an important factor insulating the East Midlands from the worst effects of the early 1980s wave of corporate rationalisations, although as Townsend (1983 p.121) notes another important factor was that the East

Midlands factories owned by large firms tended to be in less vulnerable economic sectors anyway.

71. *Gazette*, October 1983 p.S10. See also Table 7.14. According to the *Gazette* figures, employment in construction actually increased slightly (by 11,000) between April and July 1980, despite the slump. The corresponding increase in the previous year, however, was 42,000. This reduction in the normal seasonal increase of employment shows the effects of slump.

72. *Financial Times* 15.12.78, 13.12.79. See also note 42 above.

73. See Fig 7.6. It is assumed that in "normal" conditions productivity in manufacturing would grow by perhaps 3% or 4% per annum, chiefly as a result of technological improvement. Productivity changes after a slump pose some interesting theoretical questions. A slump is preceded by a period of long cycle downswing in which recession dominates and productivity growth rates tend to be depressed. One can suggest that a long term "productivity gap" is created. This would suggest that in a post-slump period there is a backlog of investment and innovation, and that in the relatively smooth conditions of a post-slump upswing at least part of the lost ground is regained. High productivity growth rates become built into the system and a longer term upswing starts. It may well be with such a mechanism that the transition from long cycle downswing to long cycle upswing takes place.

74. See section 7.3. To a large extent this interpretation of intentions is based on interpretations of productivity changes in Fig 7.6. This interpretation, that in 1980 firms found it more important to reduce output than to maintain productivity, is highly plausible, but the problem still remains of how much it is possible to infer intentions from outcomes.

75. See section 7.3. It may be left an open question whether "normal" levels include allowance for longer term productivity gaps, as in note 73 above.

76. For reasons discussed in chapter 3.6, it is considered inadvisable to use a standard deviation measure on spatially grouped data, although with boundaries remaining constant this is perhaps a fairly minor point. The narrowing of the spread of rates of industrial employment change in 1981 is so clear that it is unnecessary, for the purposes of the text, to present any precise measure of deviation.

77. These five smaller counties were Powys, Central, Fife, Lincolnshire, Borders.

78. *Gazette*, October 1983, p.S9. This increase in employment was due largely to seasonal factors; the seasonally adjusted figures show a decline in service sector employment of 57,000. Service sector employment remained stable after June 1981 according to *Gazette, Historical Supplement*, August 1984, and started to increase from 1983 onwards.

79. Substantial further job losses in BSC were planned when a new Chairman of BSC (Ian McGregor) announced in December 1980 a plan for massive restructuring of the industry, involving perhaps 25,000 redundancies (Hartley, Kelly and Nicholson p.163). Such had been the scale of labour-shedding in 1980, with major closures at Consett, Corby and Shotton, that even these proposed job losses seemed modest

in comparison. See note 42.

80. Some preliminary discussion is presented in the concluding chapter.

81. Notably West Midlands (Metropolitan County), South Glamorgan, Hereford and Worcester, Mid Glamorgan; also West Glamorgan and Shropshire.

82. The series for cyclical indicators for the UK economy, published monthly in *Economic Trends*, indicates a trough in May 1981 (January 1981 according to new estimates first published in *Economic Trends*, November 1987). The upturn thereafter was far weaker than in previous cycles.

83. March 1983 was the start of a reduction in unemployment on a seasonally adjusted basis; raw figures show a peak in January 1983.

84. Since the passage in the main text was written, official figures for unemployment have shown a conspicuous downward tendency. Thus, according to the *Gazette* (April 1988 p.S18), unemployment in the UK fell from 3,322,900 (12.0%) in September 1986 to 2,870,200 in September 1987 and 2,665,500 in February 1988. A reduction in unemployment is greatly to be welcomed, and indeed other economic indicators suggest that a reduction in unemployment has actually taken place. The following points need to be borne in mind however:

(1) Male employment increased by 22,000 from September 1986 to September 1987, while male unemployment decreased by 277,500 in the same period (*Gazette*, April 1988 pp.S9, S19-20). Female employment increased by 235,000 while female unemployment decreased by 185,200 in the same period. Self-employment is assumed to have increased by 207,000; the male/female split is not indicated.

These figures, and especially the male figures, quite simply do not tally. In an economy in which the workforce is expanding demographically, any fall in unemployment is likely to be considerably *less* than any rise in employment. It can be concluded that, at the very minimum, the recent decline in employment is far more modest than the official statistics suggest.

(2) Various administrative changes have been introduced since Summer 1986; the *Restart* programme, a new "Availablity for Work" test and a tightening of rules for claiming benefits. The *Employment Institute Economic Report* (May 1988) notes that

> "Of these the *Restart* programme, aimed at the long-term unemployed, is the most significant. Between the introduction nationally of the programme in July 1986 and April 1987 around 1 million claimants were interviewed and offered help with job search, given advice on job opportunities, or directed towards government employment or training programmes. Evidence based on a pilot *Restart* programme suggests that, compared to a control group, about 10 per cent of claimants called for interviews left the unemployment count. The available data suggest that only 1 per cent of *Restart* interviewees were actually helped into jobs."

Many of the remainder were disqualified from benefit or switched to other benefits such as sickness benefit.

Unlike earlier administrative changes, this change did not reduce unemployment figures at a stroke, but instead gradually squeezed the unemployment figures, so that more were removed from the register at the end of month 2 than at the end of month 1, and

more at the end of month 3 than at the end of month 2, and so on. In effect, administrative changes imparted an illusory downward trend to the unemployment figures. It would be politically extremely naive to assume that this was accidental.

(3) Simultaneously, the denominator in the unemployment rate was expanded, to incorporate not simply the unemployed plus employees in employment, but rather, unemployed plus employees in employment, plus self-employed and HM Forces. This left the *numbers* unemployed unaffected, but reduced the unemployment rate by about an eighth, making it much easier to get the unemployment rate down to single figures.

(4) The timing of these administrative changes is of interest. It may be reasonably assumed that the Government was planning a General Election for Summer or Autumn 1987, and was noting that economic indicators were favourable as of 1986 and were likely to remain favourable through most of 1987. These are almost the classic circumstances in which a pre-election boom may be generated; in addition the inflation rate was low while the forthcoming deregulation of the City (the "Big Bang") was another factor helping to create a boom. It was in precisely this pre-election phase, not earlier, not later, that the administrative squeeze on unemployment figures was implemented.

The inescapable conclusion was that the Government was forseeing a pre-election consumer boom, but was worried that this boom would have relatively small effects on unemployment figures. If by some manipulation it could be made to appear that the boom was making strong inroads into unemployment, and that the Government was thus solving the unemployment problem, then the chances would be strongly in favour of the Government winning the next General Election, as indeed happened in June 1987.

Much as one deplores this strategem, one must admit that it worked brilliantly, though it has to be conceded that some blame must be attached to the Opposition for allowing this ruse to go unchallenged. Tha Labour Party had been successfully scared off from using the economy or unemployment as an election issue by a combination of a standard pre-election boom and massaged unemployment figures. Even now (mid-1988) the Labour Party refuses to address itself to the question of how to eliminate mass unemployment, assuming perhaps that it is best left to the Conservatives, or to the "free market", and contents itself with futile discussion on whether it is better to aim for a "fair" economy or an "equal" economy. With continuing mass unemployment the economy can be neither fair nor equal.

It is necessary to examine in more detail the question of how much the recorded fall in unemployment is genuine.

According to official figures unemployment on a seasonally adjusted basis peaked in July 1986, the date at which the new measures were introduced. From June 1986 to December 1987 total unemployment is alleged to have fallen by 594,900 (2.1 percentage points), with the fall in male unemployment being 381,100 (2.3 points) and the fall in female unemployment 213,800 (2.0 points). All these figures, taken from *Gazette*, May 1988, are seasonally adjusted UK totals.

In the same period, male employment (seasonally adjusted) increased by 27,000 and female employment by 365,000. In addition, self-employment increased by an estimated 296,000. Extrapolating from Labour Force Survey results (*Gazette*, March 1988 p.147), about 70% of this increase in self-employment would be among males, with male self-employment increasing by about 206,000 and female

self-employment by about 90,000. This suggests that male employment, including self-employment, increased by 233,000 and that female employment increased by 455,000.

Had the size of the workforce remained constant, these increases in employment would have been directly reflected in equal and opposite falls in unemployment, whether concealed or registered. Instead, the size of the workforce increased demographically (holding activity rates constant) by 153,000 males and 94,000 females (based on *Gazette*, March 1988 pp.122-123). According to the same *Gazette* article, increased activity rates would have added in the same period 100,000 males and 280,000 females to the workforce; it is from the data source that the *Employment Institute Economic Report* (May 1988) takes its figures for the size of labour force increase. A close reading of the *Gazette* article shows however that these labour force estimates are based on the assumption that the fall in unemployment since mid-1986 is as given in the official figures, and the auxiliary assumption that each 100,000 fall in unemployment would, by increasing the activity rates, increase the size of the male workforce by 21,000 and the female workforce by 31,000. In that it would appear that the recent fall in unemployment is much exaggerated in the official unemployment statistics, the increase in the size of the labour force according to the *Gazette* projections is also much exaggerated.

If this weighting of changes in the activity rate (which can be regarded largely but not entirely as changes in concealed unemployment) to changes in unemployment is accepted, it is algebraically relatively simple to produce unemployment figures consistent with other information. Thus:

June 1986-Dec 1987	Male	Female	Total
Change in employment	+233	+455	+688
Change in workforce	+180(+253)	+265(+374)	+444(+627)
Change in unemployment	-53(-381)	-190(-214)	-244(-595)

(All figures in thousands; official figures are bracketed).

If the above figures are broadly correct (and anyone undertaking a detailed labour market study of the late 1980s would do well to subject such estimates to critical scrutiny), seasonally adjusted unemployment on a pre-1986 basis would, at December 1987, have stood at 2,964,000 (10.7%) instead of 2,614,000 (9.4%); the fall over 18 months would have been 0.9 percentage points instead of the official figure of 2.2 percentage points. Male unemployment rates would have fallen, on these calculations, to 13.2% rather than 11.2%, a fall of 0.3 points rather than 2.3 points. Female unemployment would have fallen to 7.0% rather than 6.8%, a fall of 1.8 points rather than 2.0 points.

It would seem therefore that the special measures introduced in Summer 1986 have affected the male unemployed rather than the female unemployed, and that while almost all the fall in measured female unemployment is genuine, almost all the measured fall in male unemployment is fictitious. There would seem to be three likely main reasons for this pattern: (1) discrimination against men in the new measures, through, for example, the male unemployed being more likely to be treated as "scroungers" and thus subjected to more demanding availability-for-work tests; (2) that, partly because of the greater buoyancy of the female labour market than the male labour market in the 1980s, a higher proportion of male unemployed than female unemployed are long-term unemployed (*Gazette*, various; Table 2.8) and will thus be drawn into the orbit of the special

measures; and (3) that long-term unemployed women, if hard-pressed by the special measures, are more likely to escape into employment as a result of rapidly increasing demand for female labour.

The March 1988 unemployment rate in the UK would probably be about 10.5%, instead of 9.0%, excluding the effects of the special measures. If the calculation is made by removing the self-employed and HM Forces from the denominator, this percentage would increase to 11.9% (using end-1987 ratios). The pre-election massage of the figures thus reduced the percentage unemployment rate by a quarter. Reversing the October 1982 changes, this would represent an unemployment rate of about 12.6%, or perhaps 12.7% if various minor discontinuities are allowed for. Since August 1982, unemployment has fallen by about 1.3 percentage points, hardly a very impressive figure given the lack of labour shortages in the economy.

85. It is intended to follow up this thesis with a critical examination of Keynes's *General Theory*. The question will be discussed in more detail of whether it is meaningful to discuss unemployment rates in terms of equilibrium, or whether it is more appropriate to view unemployment rates as being primarily determined by the accumulation of past events.

86. Since the text was written, indeed as the text was being written, a much more bullish economic climate has been developing, and growth has accelerated and unemployment declined (though not as sharply as the official figures suggest; see note 84). Gross domestic product increased by 1.7% in the final quarter of 1986, and by 5.3% in the year starting in the third quarter of 1986 (*Economic Trends*, March 1988 p.6; GDP at 1980 prices, average estimate), compared with an average of 3.1% between 1982 and 1986. This all implies a considerable increase in economic confidence, and indeed an element of overconfidence as the euphoria in stock markets in 1986-87 preceded the October 1987 crash. The crash undoubtedly dented economic confidence, but fortunately not enough to plunge the economy into recession (or so it appears, as of mid-1988). Most importantly, increased confidence has surfaced in the "real economy" of material production and has not merely been restricted to the financial sector. Manufacturing productivity, for example, increased in output per hour terms by 8.1% per annum between the first quarter of 1986 and the third quarter of 1987. This is an impressive figure, even though part of it represents merely a cyclical rebound following the loss of productivity in the mini-recession of 1985; between the third quarter of 1984 and the third quarter of 1987 manufacturing productivity increased by 4.4% per annum, a definite improvement on 1979-84. Figures for productivity are taken from *Economic Trends*, March 1988 p.34; see also note 38 above.

So many intangibles are involved in creating a climate of business confidence or lack of business confidence that one cannot simply assume that an increase in confidence will have been caused by purely objective factors. Indeed the causality may well be in the opposite direction in that increased confidence will, by speeding up the growth of production and investment, bring about the objective economic conditions which justify both the initial increase in confidence and also future increases in confidence. In certain conditions it is perfectly possible to "talk up" the economy, and build up a virtuous circle of growth.

The puzzle, as it stood in 1986, and as reflected in the text, was why there had been so little sign of accelerated growth since the slump, in contrast with the three previous post-slump periods (mid to late 1840s; late 1880s; mid-1930s); was it simply lack of confidence or were deeper factors involved? In 1988 the puzzle is

why it took so long for the phase of accelerated growth to have materialised; could the economy have moved on to a 4%+ growth path around 1983 with a little more entrepreneurial confidence? In other words, have the years from 1983 to 1986 represented wasted opportunity rather than consolidation? This is the type of question which can perhaps never be answered empirically given the tangle of ex ante and ex post factors involved; the present author's own theoretical presuppositions, based on the concepts of slump and post-slump recovery developed in chapter 2, are that there were indeed wasted opportunities, both nationally and internationally. This viewpoint, however, is open to discussion.

87. See further discussion in chapter 10, and Tables A4 and 10.1. Between 1983 and 1986, employment increased by over 1% per annum in each of the five core regions (SE, EA, SW, WM, EM), but declined in the North West, Wales and Scotland.

88. *Gazette*, January 1982 p.S30; August 1982 p.S27. The denominator changed to mid-1983 in the August 1984 statistics (*Gazette*, September 1984; Table 7.22; note 93 below).

89. *Gazette*, September 1982 pp.389-393; November 1982 p.S20.

90. *Gazette*, November 1982 pp.S26-27; December 1982 pp.S34-35.

91. *Gazette*, *Historical Supplement*, April 1985.

92. Employment in Greater London stood at 3,454,000 in June 1983, 3,459,000 in June 1984 and 3,456,000 in June 1985 (*Gazette*, *Historical Supplement*, February 1987; figures are estimates). More recent figures show an increase in employment in Greater London to 3,469,000 in June 1986 and 3,474,000 in June 1987 (*Gazette*, March 1988 p.S13), though not perhaps to the extent that might have been expected given the financial boom and the rise in house prices. Even so, a substantial contrast with the job losses of the 1970s is presented. Unsurprisingly the improvement results from an upsurge in service sector employment (an increase of 5.9% between 1983 and 1987) rather than any stemming of the decline of manufacturing employment (a fall of 18.2% between 1983 and 1987). The rapid increases in service sector employment are largely responsible for the current land price boom in London, while declining manufacturing employment has relatively little effect on house prices, etc.

93. The main changes, brought into effect in August 1984, were (i) the long overdue updating of the denominator for local unemployment statistics, to a mid-1983 base figure; (ii) a wide-ranging revision of the existing travel-to-work areas (*Gazette*, *Occasional Supplement No. 3*, September 1984); and (iii) the calculation of unemployment totals on a ward basis rather than a postcode basis (*Gazette*, September 1984 pp.398-399).

94. The miners' strike of 1984-85 was quite probably the key domestic political event of the mid-1980s. An unusual feature of the slump, in comparison with previous recessions, was that job losses in coal mining had been relatively slight, a decline of 25,800, or 7.1%, between June 1979 and June 1982. That coal mining had avoided the extremely heavy job losses of the manufacturing sector was due not to economic factors but rather to political factors. Put quite simply, Mrs. Thatcher was scared that if there was a coal strike, the Government would fall. Thus, as Bruce-Gardyne (1984 p.83) notes, "In February 1981 the Coal Board revealed its plans for pit closures needed to move to profitability. The NUM called for all-out

strike action. The government, mindful of its predecessors' double drubbing by the miners, in 1972 and again in 1974, beat retreat." This is an insider view, confirming the outsider view of Government retreat provided by, for example, Beynon (1985 pp.13-14). The situation described is one of union strength in that the NUM could get what it wanted merely by the threat of strike and without need of recourse to actual strike action. It is likely that had union organisation in the mining industry been weaker the employment trends in the peripheral regions, described in this chapter and chapter 8, would have been even worse than was actually the case. The fate of the steel industry is an indication of what might have happened.

There can be little doubt that Mrs. Thatcher, when elected to power, was determined to take on the unions and win, whether or not this implied major job losses. A leaked memorandum written by Nicholas Ridley, reported in *The Economist* 27.5.78, pp.21-22, (also Beynon and McMylor 1985 pp.35-36) notes that "The eventual battle should be on ground chosen by the Tories, in a field they think could be won (railways, British Leyland, the Civil Service or steel). Every precaution should be taken against a challenge in electricity or gas .... The group believes that the most likely battleground will be the coal industry." Various tactics for defeating any strike were also noted, including (in the coal industry), building up stocks of coal and making contingency plans for importing coal, and (more generally) cutting off social security benefits to strikers' families, building up a large mobile squad of police to tackle strikers and the recruitment of non-union lorry drivers to cross picket lines. Such tactics were conspicuously applied in 1984-85.

After the 1983 General Election the situation was, therefore, that the Government, still smarting from its tactical defeat in 1981 and with a long-term strategy to collapse union power in the nationalised industries, before denationalising these industries, was seeking to precipitate confrontation with the NUM at the first opportunity at which it seemed likely that the Government would win. Despite the much reduced base of coal mining employment, defeating the miners was, in the 1970s and 1980s, the most difficult industrial task facing any anti-union Conservative Government; if such a victory could be accomplished then the backbone of industrial resistance to Thatcherism would have been broken.

Thus 1984-85 was a decisive confrontation, not just in the mining industry but in the more general political sphere. The strike was brought about by a deliberately provocative list of pit closures drawn up by the National Coal Board, and not open to negotiation; the immediate trigger was the announcement of a pit closure at Cortonwood in Yorkshire (Beynon 1985 p.15). At this particular stage, as Beynon (pp.14-15) emphasises, the NUM leadership was aware that it was strategically not a good moment, in contrast with 1981 or 1982, to hold a coal strike; in March 1984 stocks were high and winter was still a long time off. This was the obverse of the Government's decision to pick the right moment to provoke a coal strike.

This is not the place to write in detail about the actual progress of the strike though it seems in retrospect to have been a major tactical mistake by the NUM leadership not to have held a national ballot on the question of strike action and instead to have relied on the strike spreading on a region-by-region basis; some very damaging splits within the NUM might well have been avoided in that way. An even more critical problem, though, was the ambivalence of the response to the strike by the Labour Party leadership, in itself partly a reflection of the trauma of electoral defeat in 1983. It is a legitimate strategic consideration that following a damaging

election defeat the Labour Party needed a period of consolidation before launching a major assault on the Government, and that the miners' strike was arguably too polarising an issue on which to organise a major challenge. Set against this, at least three points need to be made. Firstly, in the years since the miners' strike, the Labour Party has still conspicuously failed to offer any concerted challenge to the legitimacy of the policies of the Conservative Government, preferring instead to rely on an ineffectual piecemeal criticism; even the question of mass unemployment has by now (1988) virtually disappeared from the Labour Party's political agenda. The perspective of a few years hindsight confirms the impression given at the time that the slightness of official Labour Party support for the strike represented vacillation rather than part of a coherent strategy to overcome Thatcherism. Secondly, the weakness of the Labour Party response in itself helped polarise the issue by leaving unchallenged the Conservative Government's presentation of the issue as one of legitimate government resisting extra-parliamentary attempts at overthrowing a democratically elected Government. Undoubtedly some of the more inflammatory comments made by the NUM leadership lent some support to this presentation, but a more constructive response by the Labour Party would have been to point out that the strike was caused by union resistance to a Government's attempt, at a time of mass unemployment, to destroy thousands of jobs in pursuance of a vendetta against a single trade union. Reasoned argument of this case could have dispelled much of the damaging impression that the coal strike was merely a Scargillism versus Thatcherism battle, and that support for the defence of employment necessarily meant uncritical support for the political aims of Mr. Scargill. Thirdly, the failure of the Labour Party leadership to provide greater support for the strike indicates that the leadership was unaware of quite what a key political issue was at stake.

One's admiration must go to the miners who pursued the battle to the end, resisting for far longer than the Government would have thought possible, and overcoming both financial hardship and state harassment. Something which should not be forgotten, either, is the flourishing of Miners' Support Groups as people, often a long way from the coalfields, recognised that at long last a section of organised labour was fighting back against the indignities imposed on the British people by Mrs. Thatcher. While it lasted the strike generated the hope that at last, and despite the 1983 election results, Thatcherism had overreached itself and more positive political developments were imminent; see for example most of the essays in Beynon (ed. 1985). This, alas, was not to be. Ultimately, after a year of valiant struggle the strike was lost, the critical result politically being not that new forms of opposition to Thatcherism built up but rather that the most difficult single obstacle to unconstrained Thatcherism had been overcome. Furthermore, job losses in coal mining after the strike were intense; employment in "coal extraction and solid fuels" stood at 238,200 in March 1984 at the start of the strike, 228,000 in March 1985 at the end of the strike, 189,200 in March 1986, 156,800 in March 1987 and 145,900 in December 1987, a fall of 82,100 or 36.0% in slightly less than three years.

For a more detailed analysis of the miners' strike, undertaken in the later months of the strike, and hence written without the benefit of hindsight, see Beynon (ed) (1985).

95. The normal convention is used of measuring growth rates by comparing output (expenditure, etc.) in one quarter with the corresponding level a year previously. The attempt to assess the short-term economic effects of the strike on the basis of a comparison of successive quarters is hazardous because of seasonal factors.

96. As of early 1989 the gap in unemployment rates between London and the rest of the South East had reached a whole percentage point. The gap has continued to widen since then, and on the latest figures (March 1988), has reached 1.3 points.

97. It is difficult to know how much to trust the unemployment differentials indicated by current unemployment statistics (note 84 above), but one would expect that these differentials have been artificially reduced by the massaging of figures. The following figures, showing unemployment rate by conurbation minus unemployment rate by region are of interest:

	Mar 1983	Sep 1984	Mar 1988		Mar 1983	Sep 1984	Mar 1988
Greater London	0.0	+0.5	+1.3	South Yorkshire	+1.6	+2.4	+5.0
West Midlands (met)	+3.5	+1.1	+2.5	West Yorkshire	-1.2	-1.0	-0.3
Greater Manchester	-1.4	-1.0	+0.5	Tyne and Wear	-0.6	+1.2	+2.3
Merseyside	+3.1	+4.6	+6.6	Cleveland	+2.8	+4.6	+4.7
				Strathclyde	+2.2	+3.1	+3.9

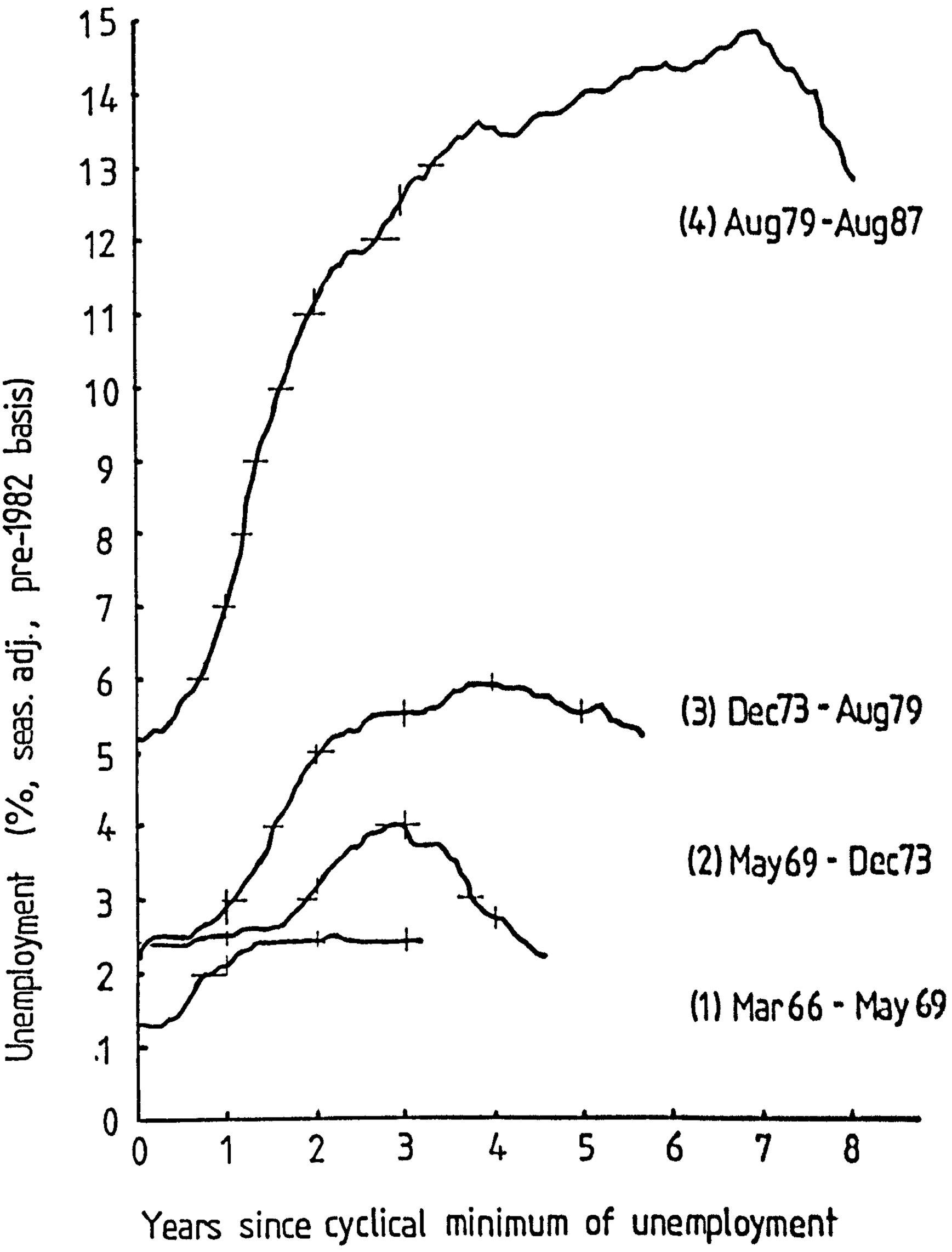
March 1983 rates are based on 1977 base figures (Table 7.22) while September 1984 figures are the first available using a 1984 base.

The clear impression given is that in all conurbations, except perhaps the West Midlands, unemployment after the slump has remained far more sticky than in the rest of the region, supporting the projections made in the text.

98. For recent attempts to project the fugures and problems of particular conurbations see the reports published as a result of the ESRC Inner Cities Research Programme, e.g. Robinson et al (1987), Lever and Moore (1986), Buck et al (1986), Spencer et al (1986), Boddy et al (1986).

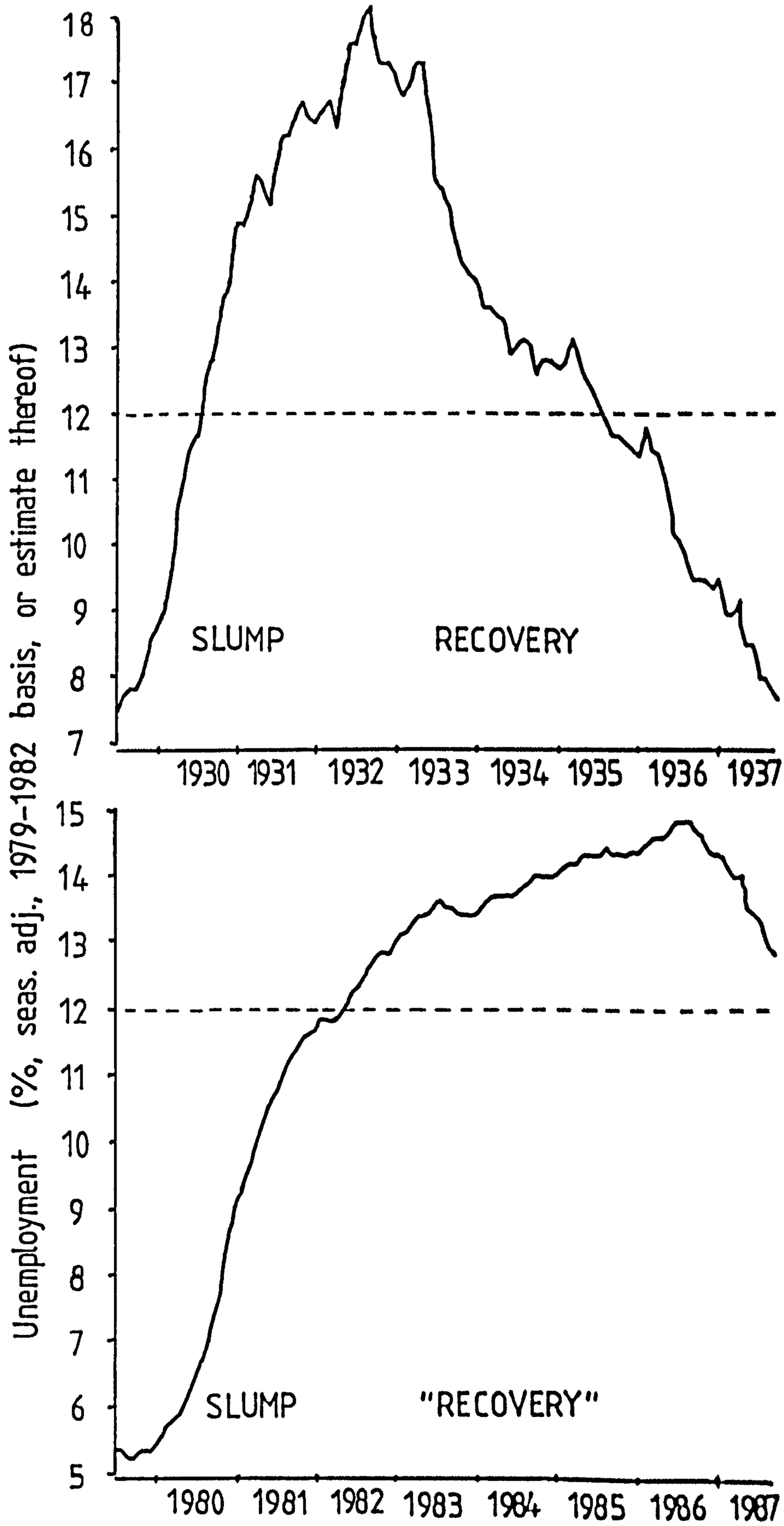
99. See discussion in chapter 8 below.

Fig 7.1 UK Unemployment Rates During Post-1966 Business Cycles



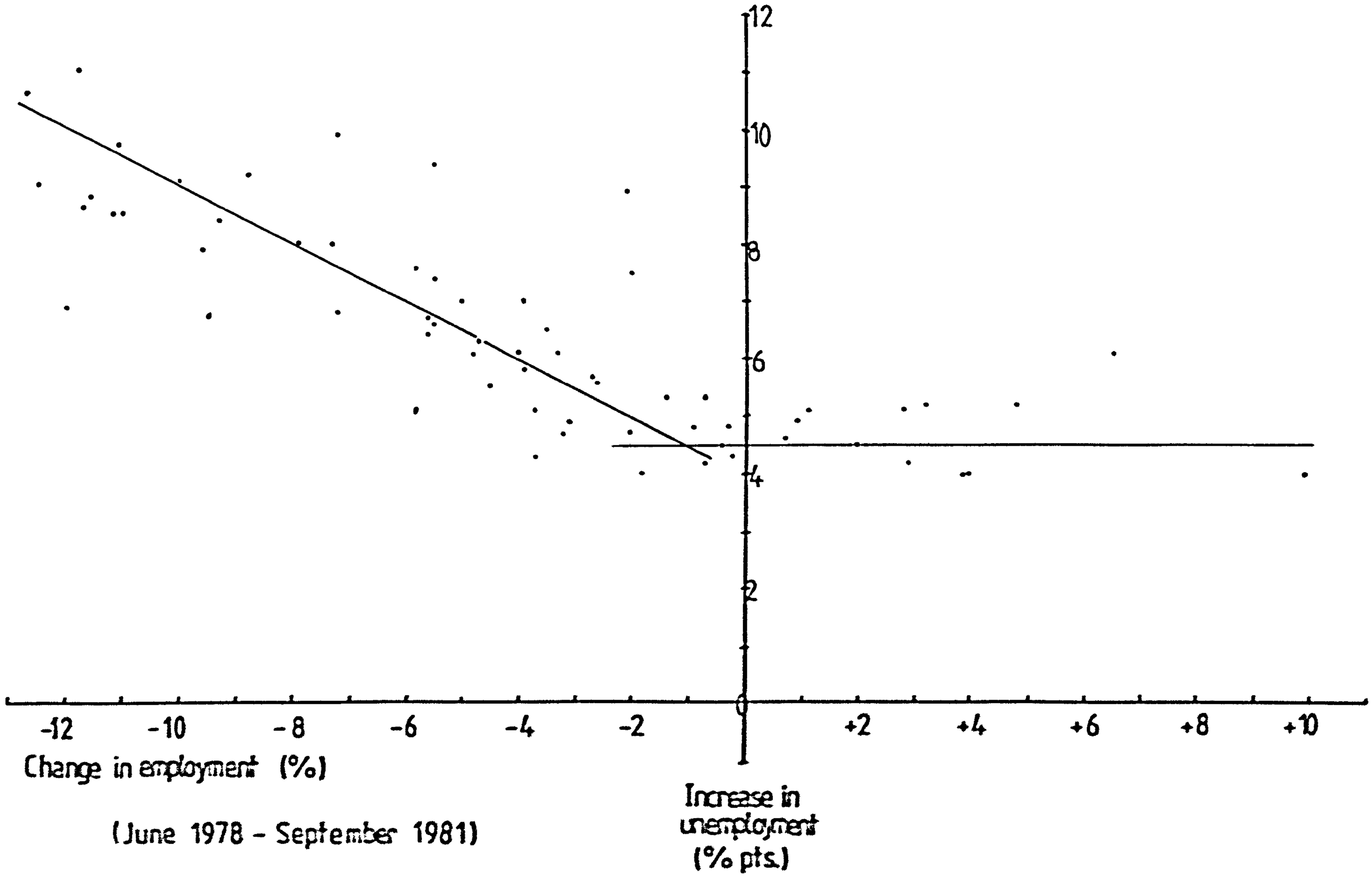
Source: *Gazette* (various), *Historical Abstract*.
For post-1979 figures, whenever there has been a change in the official method of calculation, data have been spliced to accord to pre-1979 methods of measurement.

Fig 7.2 Unemployment Rates in Two Slumps: the 1930s and the 1980s



Source: 1979-1987; as Fig 7.1. 1929-1937; *Historical Abstract*, with allowance made both for seasonal variation, and for changes in method of counting. Final rates reduced by a quarter for comparability.

Fig 7.3 Changes in Employment and Unemployment by County, 1978-81



Source: Table 7.4

Fig 7.4 Changes in Unemployment by County (Histogram) for short periods, 1976-1985

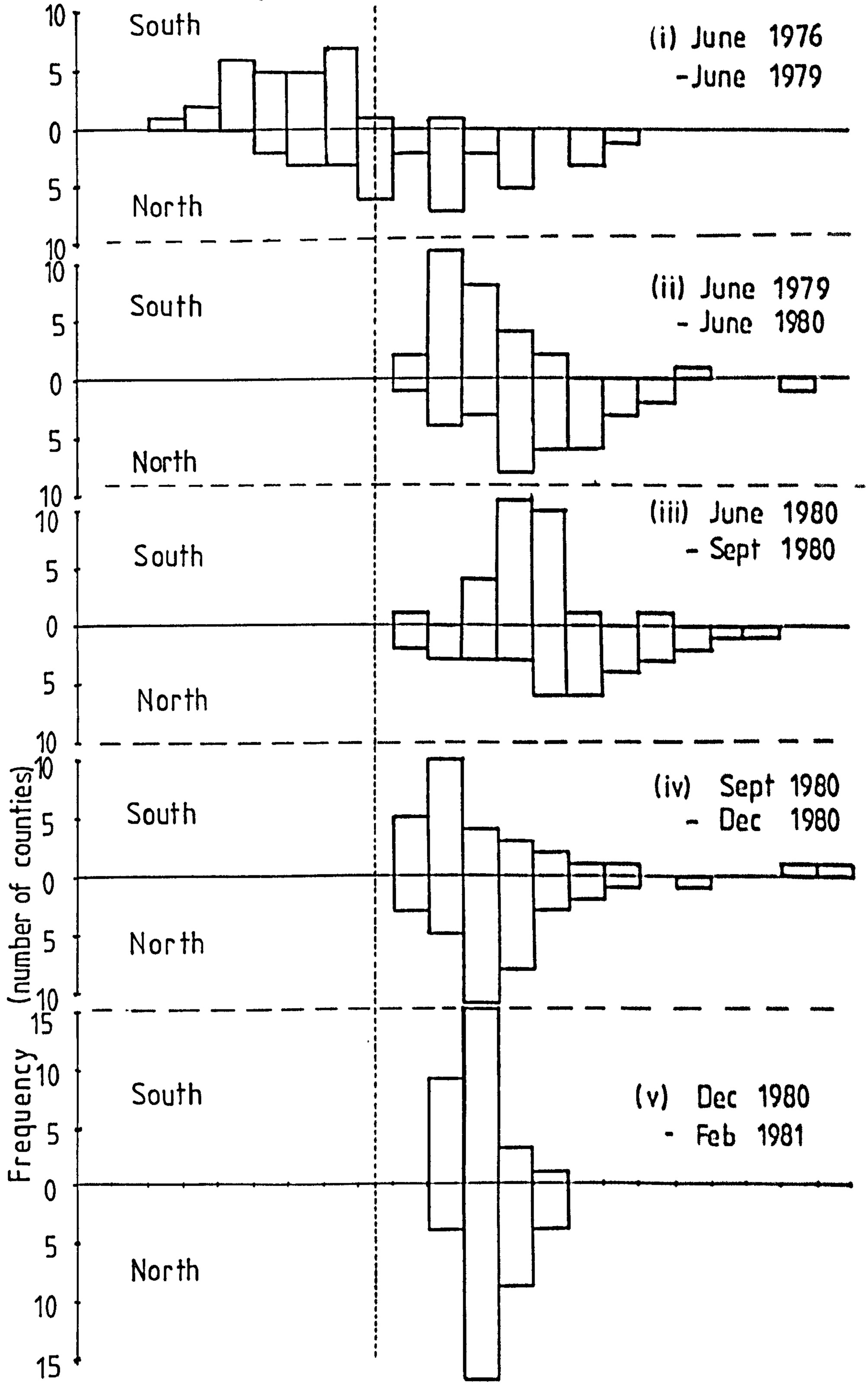
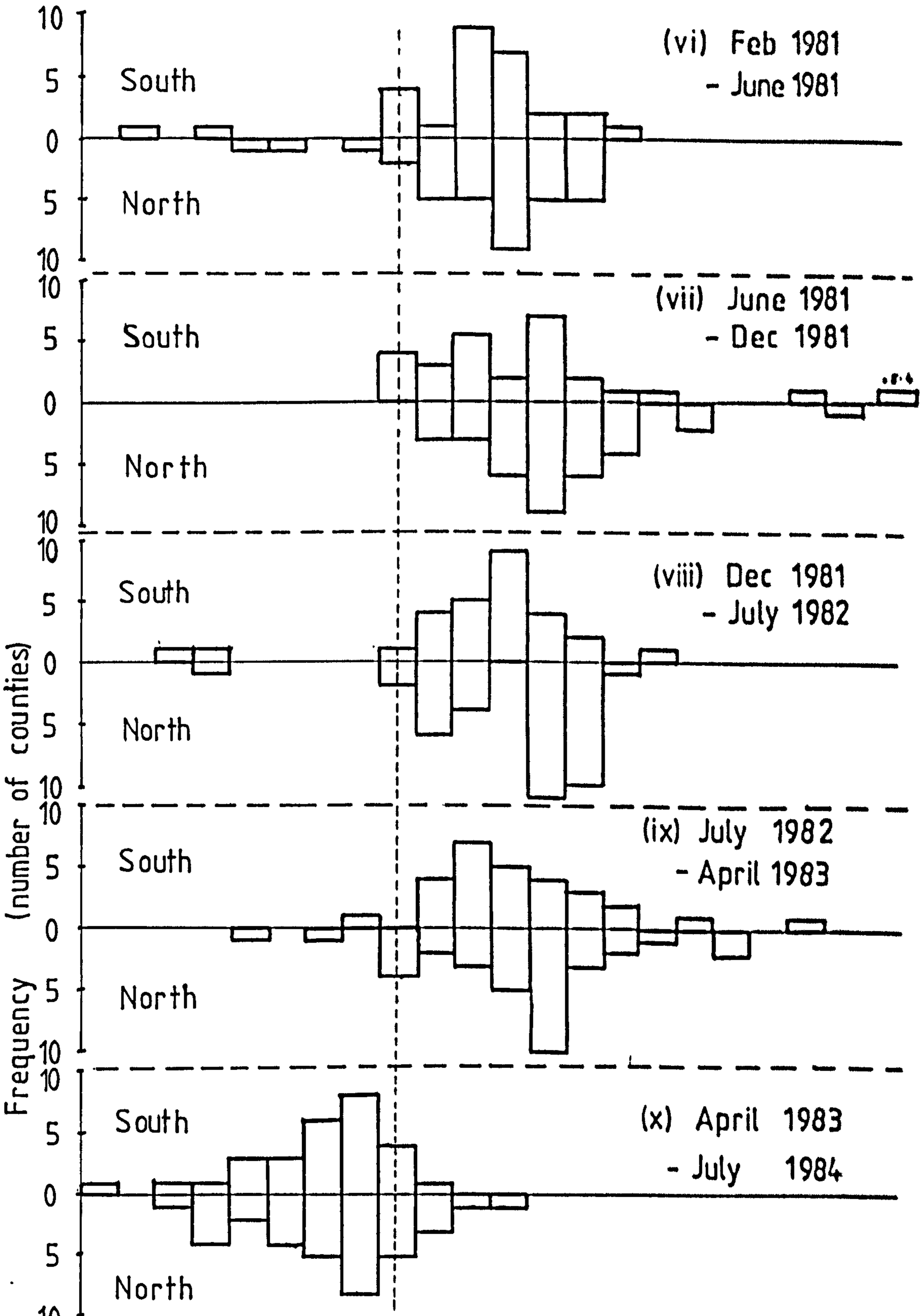
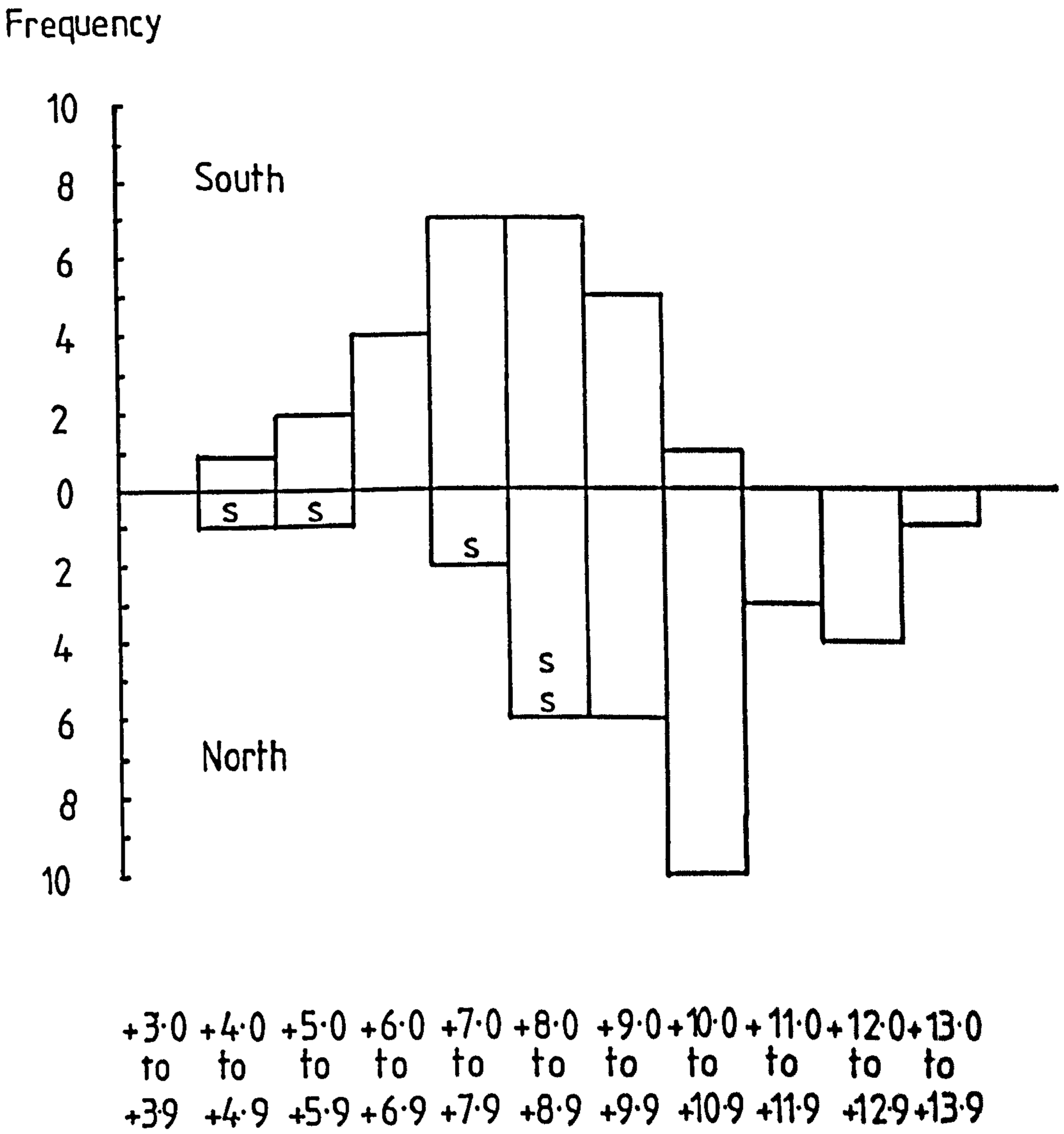


Fig 7.4 (continued)



Source: Table A.10

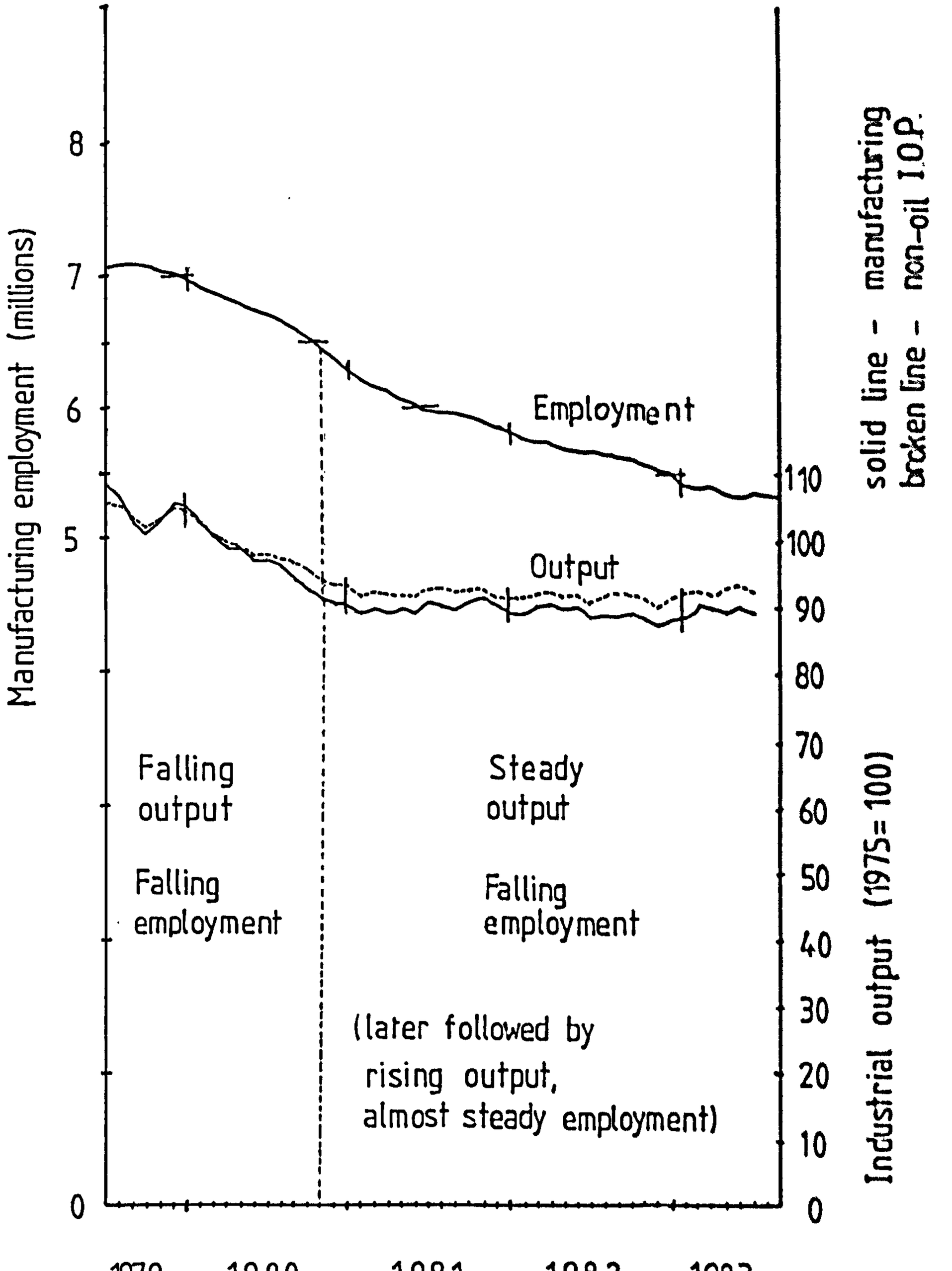
Fig 7.5 Changes in Unemployment by County (histogram) for 1979-85, taken as a whole



Source: Table 7.24

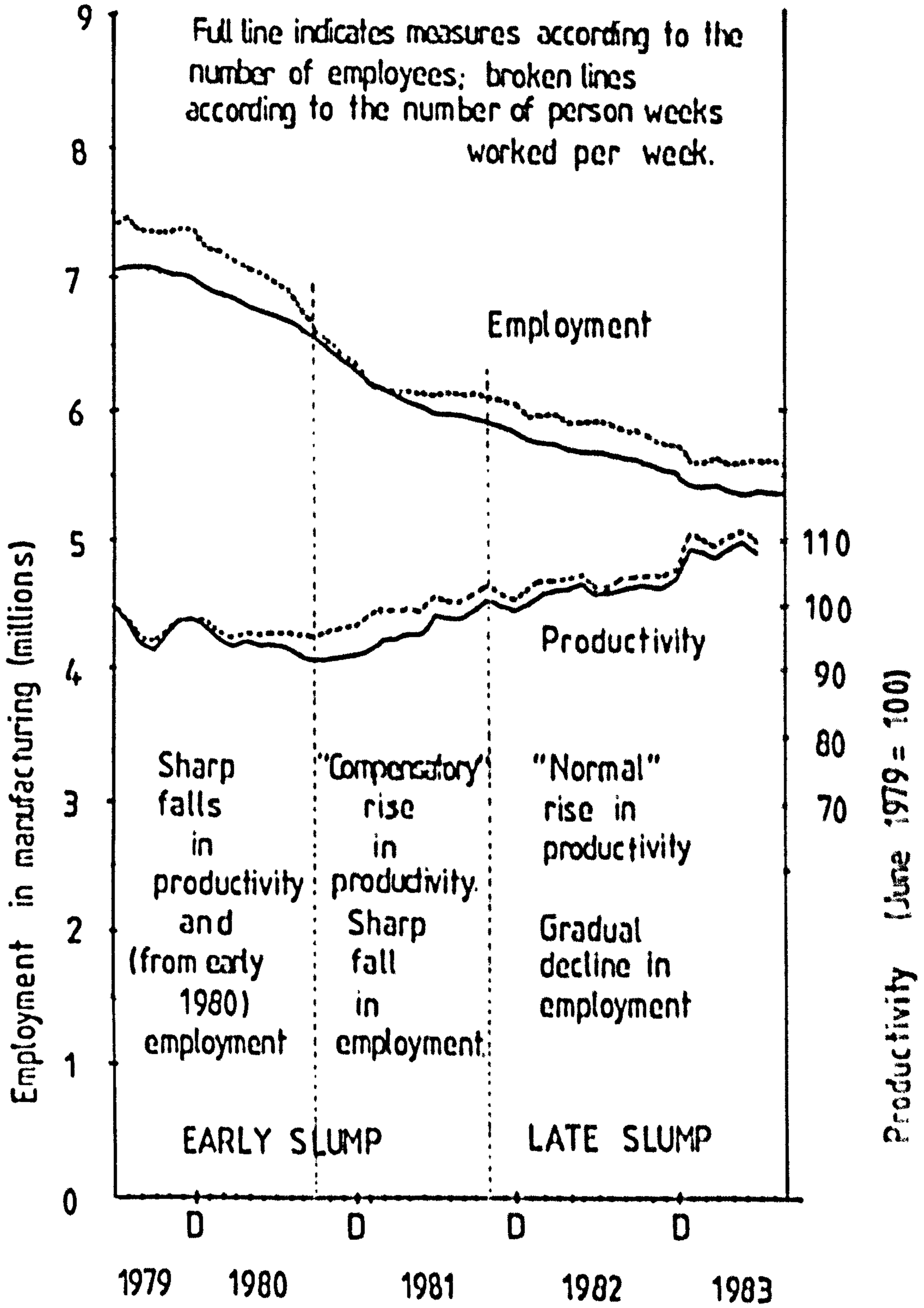
Scottish regions with increases in employment betwen 1978 and 1981 are marked S. These might be expected to have a "Southern" profile of unemployment change.

Fig 7.6 Industrial Output and Employment, 1979-1983



Source: *Gazette, Monthly Digest of Statistics* (various). Some data splicing has been required on the output series.

Fig 7.7 Industrial Employment and Productivity (Two Measures) 1979-83



Source: Table 7.9 (employment); *Monthly Digest of Statistics* (output)