European Unemployment: Why is it So High and What Should be Done About it?

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1. Introduction

At the end of 1997 the average unemployment rate across Europe was just over 10 per cent, more than twice the rate in the United States. Worse, the average (standardised) unemployment rate in Europe has exceeded 10 per cent in every year since 1993. By contrast, the average annual unemployment rate in the United States since the war has never exceeded 10 per cent in any year and the highest annual rate recorded over the past ten years has been 7.5 per cent in 1992.

The failure of European labour markets to achieve full employment is generally regarded as one of the most serious weaknesses of the European approach to economic policy. In the United States, and increasingly in the UK and in other English-speaking countries, the high rates of unemployment are seen to symbolise inefficiency and dysfunctionalism, whose solution requires a radical transformation of the European style of economic management. In Europe it tends to be thought that unemployment is, in some sense, the price to be paid for labour market and social insurance arrangements which preserve the dignity of work and a harmonious society. While there is no attempt to minimise the unemployment problem, the search is for solutions which at the same time preserve the essential elements of the consensual European approach to economic policy.

But the antithesis between low unemployment market capitalism in the United States on the one hand, and high unemployment interventionist Europe on the other, is plainly too simple an account of matters. For many years in the 1960s and 1970s, most European countries had lower unemployment rates than America. The range of variation of unemployment rates in Europe has been large. For example, during the 1980s, the Nordic countries had amongst the lowest unemployment rates of any of the OECD countries despite highly protective social institutions. Further, the relative unemployment rates of different countries have changed over time: in the 1980s, Sweden had one of the lowest unemployment rates in Europe whilst now it is one of the highest, whereas the UK, which was one of the worst performers in the 1980s, has now a relatively low unemployment rate.

Thus many economists have preferred not to focus on the Europe/US comparison but rather look at the overall determinants of unemployment rates within nations. Such investigations have generally examined the impact of variables suggested by economic theory – for example, unemployment benefit systems, trade union coverage, employment protection legislation, structural mismatch, *etc.* – and reasonably good explanations of cross-country differences in unemployment rates have been suggested along these lines. But it has been noted that these correlations are not very stable and, perhaps worse, they appear to provide no explanation of the variation in countries' unemployment rates over

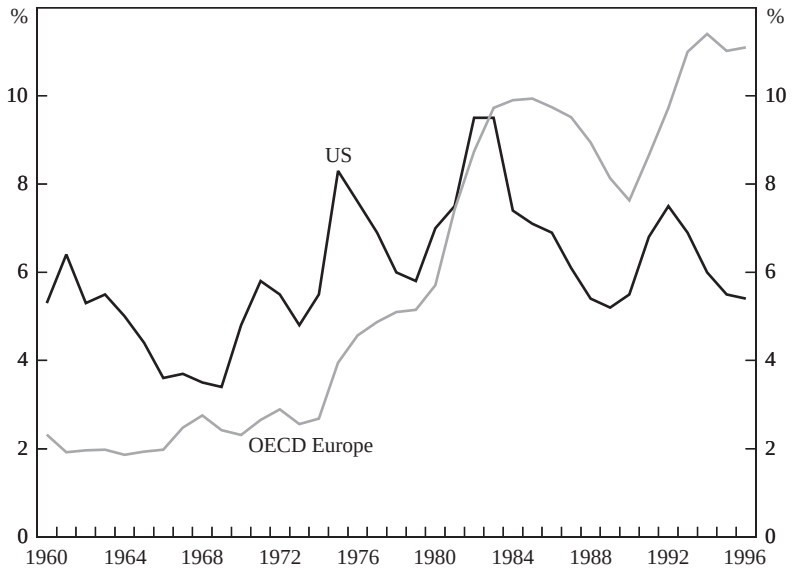
time. For example, in the UK the 1979 Conservative Government of Mrs Thatcher reduced benefits and attacked union power yet generated the sharpest increase in unemployment since the Great Depression. Likewise, in the early 1990s, Sweden lurched from being a low unemployment to a high unemployment country without any enormous change in its structure or institutions.

In this paper I first briefly review the evidence (in Section 2) and offer some general perspectives on its interpretation. Section 3 describes the existing theoretical debate on the causes of unemployment. Because of unsatisfactory features of some existing theories, it turns out to be helpful to construct a simple model of labour market 'sclerosis' which helps to explain a number of key features of labour market experience. Section 4 describes some aspects of the policy debate in Europe and Section 5 offers a brief conclusion.

2. A Brief Review of the Evidence

First, the time series. While it now tends to be taken for granted that the United States has lower unemployment than Europe, this is in fact only quite a recent development. Figure 1 compares the 'European' unemployment rate with that of the United States annually from 1960 to 1996. The European rate is the weighted average of the unemployment rates in 14 countries, weighted by their labour force. The countries are Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Spain, Sweden, Switzerland and the UK. Unemployment rates are standardised for all countries except Austria, Denmark, Ireland and Switzerland. Germany is West Germany until 1991, and the whole country thereafter (arithmetically, the inclusion

Figure 1: Unemployment Rates



Source: Standardised unemployment rates, *OECD Economic Outlook*, various issues.

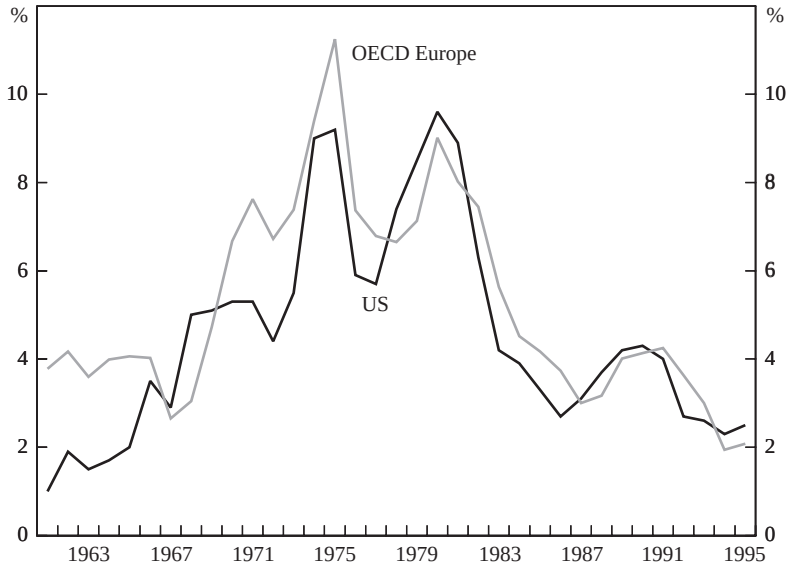
of the former East Germany raises German unemployment by 1.5 to 2.0 percentage points, and thus European unemployment by 0.3 to 0.4 percentage points a year between 1991 and 1994: from 1995 only all Germany figures are reported). I compare Europe with the United States rather than with the rest of the OECD because of doubts concerning the comparability of the Japanese unemployment data with those of Western countries, and the thought that the other English-speaking countries retain some European characteristics, so that any comparison with Europe would be less sharp.

Until the end of the 1970s, average European unemployment was, in every year, substantially lower than the US unemployment rate. By 1979, European unemployment had come quite close to the US level, which was then 5.8 per cent. Unemployment then rose sharply almost everywhere in response to the deflationary policies taken in reaction to OPEC II, and both in the US and in Europe reached around 9.5 per cent in 1982/83. But in the US this turned out to be a peak, and unemployment then started to decline quite rapidly, whereas in Europe unemployment continued to rise. In retrospect, the early 1980s in the US appeared like a cyclical downturn, albeit quite a severe one but followed by a recovery within a normal business-cycle timescale, whereas in Europe the reaction to OPEC II was a substantially and permanently higher rate of unemployment.

Many who argue that European policies and institutions have been the cause of high and persistent unemployment in the 1980s and 1990s, have been troubled by the thought that not-dissimilar policies and institutions appeared to have been compatible with full employment in the 1960s and early 1970s. As Nickell (1997, p. 65) puts it 'in the 1960s the unemployment rankings across countries were completely different but, roughly speaking, the labour market institutions were the same. So how can the labour market institutions have anything to do with unemployment?'. An immediate reaction is that perhaps they do not: the United States experienced a substantial fiscal boost in the early 1980s resulting from the Reagan tax cut initiative and the deficits which followed it. By contrast, most European countries followed orthodox fiscal and monetary policies and demand was held back, and even reduced sharply in some countries such as the UK. But at the time, such policies were seen to reflect a feature of reality learnt in the 1970s, namely that even in times of high unemployment, demand expansion led only to inflation. Thus labour market institutions were seen as permitting expansionary policies in the States while preventing them in Europe, and the rather similar inflation outcome in Europe and the US from the early 1980s (Figure 2) provides support for this interpretation. But how then to explain the differences between the period since 1980 from the period before, if labour market institutions had not changed over this time? There are perhaps three general lines of explanation.

The first, most simply, is that there were in fact sufficient changes in institutional arrangements, comparing the 1980s and 1990s with the 1960s and 1970s, to account for the increase in unemployment. Thus Siebert (1997, p. 39) argues that 'institutional changes affecting Europe's labour markets over the last 25 years are a central reason for Europe's poor labour market performance'. Along these lines it may be noted that over this period many governments were happy to legislate to strengthen union rights and employment protection, to improve working conditions through measures affecting hours of work, holiday and parental leave entitlement, and in some countries, minimum wages. In most countries, the scope and generosity of the unemployment benefit system

Figure 2: Inflation Rates



Notes: Weights calculated at current gross domestic product (GDP) and 1990 exchange rates. Inflation is defined as the year-to-year percentage change in the GDP deflator. Turkey is excluded from OECD Europe.

Source: *OECD Economic Outlook*, December 1995.

were increased thus raising the reservation wage. All this involved higher taxes or contributions, which in many countries were levied directly on employment. On this interpretation, Europe's labour market institutions were compatible with a low equilibrium rate of unemployment in the 1960s, but have changed sufficiently over the past 25 years that they are now the source of high equilibrium unemployment.

A second set of explanations rests on the idea of inertia or hysteresis in unemployment. The idea here is that European labour markets do not cause unemployment directly but rather lock in high rates of unemployment caused by macroeconomic downturns, in this particular case, the OPEC shocks. Such explanations suppose that 'institutions had a big impact on the way in which each of the economies of the different countries responded to the major adverse shocks of the 1970s *and* the way in which some of these responses, notably unemployment persisted through the 1980s and 1990s' (Nickell 1997, p. 66). The role of insiders in wage bargaining, the consequences of long spells of unemployment, firing costs and employment protection and capital shortages have all been cited as possible mechanisms through which an adverse shock to unemployment can have long-lasting effects. For example, a firm which has been obliged to cut its workforce in bad times may act in the interests of those who are still employed, the 'insiders', and retain a smaller workforce (and pay them more) when the economy recovers. Similarly, if the experience of unemployment, and in particular of long spells of unemployment, reduces a person's capacity to work effectively in the future (or is thought to do so) it will become difficult for people who have experienced lengthy spells of unemployment to

find work. The strength and persistence of these mechanisms will depend on the institutional structure of the labour market.

A third argument, which has become more popular recently, rests on the interaction of labour market institutions not with macroeconomic recession but with technological change. If recent technological changes have had the effect of increasing the relative demand for skilled labour because of computers and the like, and if there is no corresponding increase in the supply, then one would expect the relative wages of skilled workers to rise. In the United States, there has been a sharp increase in the relative wages of skilled workers, but in most European countries there has been little change in relative wages. A fall in relative demand with no change in relative wages can only lead to a fall in the relative employment rates of unskilled workers. This may then manifest itself in higher unemployment rates of the unskilled, and hence increased unemployment overall. If the rigidity of relative wages in Europe can be ascribed to its labour market institutions, then in the context of skill-biased technical change, they could be responsible for increased unemployment in Europe.

It could also be argued that the European unemployment rate of the 1960s and early 1970s was unsustainably low, reflecting a policy commitment to full employment and a view of the inflation/unemployment trade-off according to which low unemployment might lead to faster, rather than to accelerating, inflation. During the 1960s, inflation, though relatively low, was rising both in Europe and in the US (Figure 2). In Europe the average inflation rate was around 4 per cent in 1960, 8 per cent by the early 1970s and reached nearly 12 per cent in the aftermath of the first OPEC shock. Inflation in the United States was also rising over this period, from only 2 per cent in 1960 to nearly 10 per cent after OPEC I, and excess demand was evidently as much a characteristic of the American economy as of the European economies during the 1960s. Even so, it is possible that due to institutional rigidities, inflation was slower to respond to excess demand in Europe, which in turn allowed the European economies to be run with unemployment further below its equilibrium for longer periods of time than would have been possible in the US.

The second main empirical observation is that differences between the European countries have been large both in absolute terms and relative to the difference between Europe and the US. Since 1960, the average variance of unemployment rates across European countries has been about 30 per cent, which may, for example, be compared with the variance of relative unemployment rates across regions within a country which is typically of the order of 5–10 per cent. Further, even during the recent period of peak unemployment in Europe as say in 1985 or 1990, the average European unemployment rate exceeded that of the US by less than 40 per cent. In these years, if the European countries were ranked in order of their unemployment rates, the US would come about half way down the list (this is consistent with the US having a lower unemployment rate than the EU average because most of the European countries with low unemployment rates are small). By 1995, however, things have diverged more sharply, with the average European unemployment double that of the US and only one country (Switzerland) achieving a lower unemployment rate than America. If perhaps not extraordinary in itself, the high variance of unemployment across European countries counsels against a simplistic explanation of European unemployment. Table 1 presents some measures of

labour market institutions which might be relevant to unemployment. On almost any of these measures, the United States is more different from the European countries than they are different from one another.

Even more striking is the observation that many of the most regulated of the European economies are those with the lowest unemployment rates. During the 1970s and 1980s in particular, the unemployment rate in Sweden, Norway and other corporatist countries was substantially lower than in the United States let alone than elsewhere in Europe. Following this observation, various models (starting with Calmfors and Driffill 1988) have been put forward to show that where the labour force is substantially unionised, centralised wage bargaining can be associated with lower equilibrium unemployment. The reason for this is essentially that there is a 'decentralisation externality', where unions do not take account of various adverse effects of their actions on third parties and force up wages without regard to its effects on unemployment in the economy as a whole. This externality will be 'internalised' if wage bargaining is centralised. In such models the relationship between unemployment and the degree of co-ordination of wage bargaining is not monotonic: there are benefits from complete decentralisation (competition) and from complete centralisation (co-ordination) while intermediate arrangements offer the worst of both worlds. (This was described by Calmfors and Driffill as a hump-shaped relationship between unemployment and the degree of co-ordination of wage bargaining.)

More generally, the free-market equilibrium unemployment rate is neither the minimum attainable or necessarily optimal, particularly given the payment of unemployment benefits. Hence, various interventionary policies may be able to reduce unemployment (e.g. recruitment subsidies or other active labour market policies) so there is no necessary monotonic relationship between unemployment and institutions.

It may also be noted that economies with centralised wage bargaining may be able to respond in a more co-ordinated way, and hence more quickly, to shocks, as originally suggested by Bruno and Sachs (1985). In an economy where wages are set independently by numerous firms, it is difficult to adjust to a different overall rate of wage growth without disrupting the pattern of relative wages, but with centralised wage bargaining, problems of this type do not arise. A more centralised system would, however, seem less able to deliver the wage flexibility needed to respond to skill-biased technical progress. Indeed, it could be claimed that it was the inability of systems with centralised bargaining to adjust to changes in the relative demand for different types of labour which led to their breakdown during the 1990s (Freeman and Gibbons 1993).

The third main observation is that the ranking of unemployment rates across countries has not been stable over time. Ten years ago, in 1987, the unemployment rates of Sweden, Germany and the UK were 2.3 per cent, 6.3 per cent and 10.6 per cent respectively. Now the order is reversed: in 1997 the unemployment rates were 10.2 per cent (Sweden), 9.7 per cent (Germany) and 7.1 per cent (UK). Table 2 shows the rank order correlations over various periods. Over short periods of time these are quite high, but over longer periods they are much lower. They are typically lower than rank order correlations across regions within European countries, though not across regions within the United States. Again, while institutional arrangements change within each country, it seems implausible to think that they change at the pace necessary to achieve so substantial a re-ordering of

Table 1: Institutional Variables[(a)]
1983–94

	Replace-ment rate		Benefit duration		ALMP		Union coverage		Union co-ordin-ation		Employer co-ordin-ation		Employ-ment pro-tection	Change in inflation	
Austria	60	50	4		8.7	8.3	3		3		3		16	-0.46	0.06
Belgium	60		4		10.0	14.6	3		2		2		17	-0.76	-0.52
Denmark	90		2.5		10.6	10.3	3		3		3		5	-0.86	-0.46
Finland	75	63	4	2	18.4	16.4	3		3	2	3		10	-0.26	-0.72
France	57		3.75	3	7.2	8.8	3		2		2		14	-1.38	-0.30
Germany	63		4		12.9	25.7	3		2		3		15	-0.34	-0.04
Ireland	50	37	4		9.2	9.1	3		1		1		12	-1.52	-0.54
Italy	2	20	0.5		10.1	10.3	3		2		1	2	20	-1.68	-0.52
Netherlands	70		4	2	4.0	6.9	3		2		2		9	-0.14	0.14
Norway	65		1.5		9.5	14.7	3		3		3		11	-0.34	-1.12
Portugal	60	65	0.5	0.8	5.9	18.8	3		2		2		18	-2.74	-1.28
Spain	80	70	3.5		3.2	4.7	3		2		1		19	-1.24	-0.60
Sweden	80		1.2		59.5	59.3	3		3		3		13	-0.75	-1.02
Switzerland	70		1		23.0	8.2	2		1		3		6	-0.12	-0.50
United Kingdom	36	38	4		7.8	6.4	3	2	1		1		7	0.16	-1.02
Australia	39	36	4		4.1	3.2	3		2		1		4	0.02	-1.24
Canada	60	59	0.5	1	6.3	5.9	2		1		1		3	-0.08	-0.84
Japan	60		0.5		5.4	4.3	2		2		2		8	-0.20	-0.36
New Zealand	38	30	4		15.4	6.8	2		2	1	1		2	0.36	-1.22
United States	50		0.5		3.9	3.0	1		1		1		1	-0.04	-0.48

Note: (a) When a variable changes between the two subperiods, the first number is for 1983–88 and the second for 1989–94.

Sources: Jackman *et al.* (1996). 'Replacement rate' and 'Benefit duration': Mainly US Department of Health and Social Services, *Social Security Programmes throughout the World*, 1985 and 1993. See Layard, Nickell and Jackman (1991), Annex 1.3. 'ALMP': *OECD Employment Outlook* 1988 and 1995. For the first subperiod the data relate to 1987 and for the second to 1991. We include all active spending except on the disabled. 'Union coverage', 'Union co-ordination' and 'Employer co-ordination': See Layard, Nickell and Jackman (1991), Annex 1.4 and *OECD Employment Outlook 1994*, pp. 175–185. 'Employment protection': *The OECD Jobs Study 1994*, Part II Table 6.7 col. 5 p. 74. Country ranking with 20 as the most strictly regulated. 'Inflation': *OECD Economic Outlook*.

unemployment rates across countries. Further, as noted above, attempts to explain time-series movements in unemployment rates by the types of factors that explain the international cross-section have not been successful. The model of unemployment sclerosis outlined in Section 3.4 attempts to address the apparent instability in the relationship of unemployment to institutional factors.

Table 2: Rank Order Correlation Coefficients

	1960	1965	1970	1975	1980	1985	1990	1995
1960	1	–	–	–	–	–	–	–
1965	0.96	1	–	–	–	–	–	–
1970	0.74	0.82	1	–	–	–	–	–
1975	0.55	0.50	0.57	1	–	–	–	–
1980	0.62	0.60	0.65	0.80	1	–	–	–
1985	0.50	0.53	0.60	0.77	0.94	1	–	–
1990	0.69	0.65	0.63	0.83	0.89	0.84	1	–
1995	0.43	0.42	0.64	0.26	0.70	0.49	0.54	1

Note: Spearman rank order coefficients of the ordering of the standardised unemployment rates.

Figure A1 in the Appendix graphs the unemployment rate of the 18 major OECD countries. These graphs serve to illustrate the changing fortunes of individual countries, and show no very consistent pattern: for example, in few countries does the variation of unemployment follow a conventional business cycle pattern. There is some evidence of a ratchet effect, where unemployment rises quite sharply but falls back more slowly and does not return to its former level.

3. Explanations

The conventional wisdom is that the high rates of unemployment in Europe, or in some European countries, are structural in nature, although the term structural has been used in a number of different senses. Sometimes it is used to refer broadly to any factors affecting the sustainable, natural or equilibrium rate of unemployment or the NAIRU, and simply means that unemployment is not caused by a deficiency of demand. Sometimes it refers to factors affecting the speed of adjustment, or flexibility, rather than to factors affecting the long-run equilibrium. And sometimes it is used in the narrower sense of sectoral imbalances. However, on none of these definitions has the structural approach been wholly successful. As noted above, the medium-term fluctuations in unemployment seem hard to explain within this framework and there does not seem to be great stability in the cross-section results.

3.1 Models of aggregate wage pressure

The defining feature of aggregate models of European unemployment has been the central role accorded to collective bargaining as the mechanism of wage-setting. At its simplest, the argument is that unions set wages too high and this reduces the demand for labour below the number who would like to work, thus causing what is sometimes called ‘classical’ unemployment. More plausible models based on imperfect competition in the product market with normal cost pricing by firms, have the actual real wage determined by the mark-up of prices over costs chosen by firms. In such models the real wage demands of workers are influenced by the rate of unemployment. In equilibrium, unemployment is needed to restrain wage demands to the attainable real wage.

Hence, 'European' models of unemployment have tended to focus on 'wage push' factors. The harder unions push, the more unemployment is needed to offset that wage pressure. Key variables are seen to be those describing union institutional effectiveness (e.g. the proportion of workers belonging to unions), and those which may affect their power within the wage bargain, such as unemployment benefits which reduce the costs both of strikes and of job losses to union members. The rate of unemployment likewise affects the wage bargain through its effects on the income of workers during strikes and of those who may lose their jobs as a result of a high settlement. The higher the unemployment rate, the more difficult it is for workers in either group to find other work and hence the worse their income prospects.

This is not to say that US-style job-search factors have been entirely ignored. But they enter the model through the rather tortuous channel of influencing the amount of competition a worker who becomes unemployed can expect to face in the labour market and hence that worker's chance of finding a job. This in turn affects the expected costs of becoming unemployed which, to the extent that wage demands are moderated by the fear of unemployment, feeds back into lower wage pressure. Thus, for example, long-term unemployment can raise total unemployment within this framework to the extent that the long-term unemployed are less active or effective in job search and therefore do not offer much competition to newly unemployed workers whose fear of unemployment is consequently less. This then leads to higher wage demands for a given total of unemployment. Along the same lines, active labour market policies which bring the long-term unemployed back into the effective job-seeking labour force can depress wage demands, and may hence reduce aggregate unemployment.

The question whether differences in unemployment rates across countries can be explained by factors of these types has been subject to extensive analysis following the innovative work of Bruno and Sachs (1985) and Layard and Nickell (1986). Of numerous subsequent studies, those of Calmfors and Driffill (1988), Layard *et al.* (1991), Elmeskov (1993) and Bean (1994) have perhaps been most influential, while Heylen *et al.* (1996) and Jackman *et al.* (1996) offer the most recent accounts. All these studies suffer from the fact that the number of countries (observations) is small (usually between 15 and 20) relative to the number of possible explanatory variables. By way of illustration, Table 3 reproduces the recent results of Jackman *et al.* (1996).

Whatever may be felt about the statistical power of econometric analysis in this context, such studies do appear to have established some empirical regularities going beyond the simplistic 'all intervention is bad' approach. Most robustly, the evidence is that while measures of union power such as membership or coverage tend to be associated with higher unemployment, highly unionised economies where bargaining is centralised are able to sustain low unemployment rates over long periods of time. It is a matter of concern, however, that the most significant variables are those such as 'employer co-ordination' which are somewhat subjectively measured. Employment protection legislation appears to have no strong effect on overall unemployment because its effects in reducing turnover offset its effects in increasing the duration of spells. Both the magnitude and the duration of unemployment benefits affect unemployment. While the overall burden of taxation tends to increase unemployment, there is no separate effect of labour-specific (payroll) taxes. Active labour market policies generally appear to have

a beneficial effect, though to some extent this may just be a 'Sweden dummy', because Sweden has an extreme value for this variable. (There are also serious problems of endogeneity with this variable, given that spending on active labour market policies may respond to, as well as have an effect on, unemployment.)

From a policy perspective it seems reasonable to conclude that these studies offer some general support for the deregulation of labour markets but caution against headlong

Table 3: Regressions to Explain Log Unemployment Rate
20 OECD countries; 1983–88 and 1989–94

	Total unemployment	Long-term unemployment	Short-term unemployment
Replacement rate (percentage)	0.011	0.004	0.009
	(1.6)	(0.5)	(1.2)
Benefit duration (years)	0.09	0.16	0.04
	(1.3)	(1.9)	(0.6)
ALMP (percentage)	-0.008	-0.03	-0.0008
	(0.7)	(2.0)	(0.07)
Union coverage (1–3)	0.66	0.56	0.54
	(2.7)	(1.7)	(2.2)
Co-ordination (1–3)	-0.68	-0.29	-0.57
	(3.2)	(0.9)	(2.4)
Employment protection (1–20)	-0.005	0.09	-0.04
	(0.2)	(2.7)	(1.6)
Change in inflation (percentage	-0.17	-0.13	-0.15
points per annum)	(1.7)	(1.1)	(1.6)
Constant	-3.96	-3.28	-3.8
	(7.3)	(2.9)	(7.0)
Dummy for 1989–94	0.16	0.1	0.16
	(1.9)	(0.9)	(2.1)
Log short-term unemployment	–	0.94	–
		(4.0)	
R^2	0.59	0.81	0.41
Standard error	0.51	0.59	0.52
No. of observations	40	38	38

Notes: Dependent variables: Total unemployed as percentage of labour force; Long-term unemployed (over one year) as percentage of labour force; Short-term unemployed (under one year) as percentage of labour force.
t-statistics in brackets. These are based on the method of 'random effects'. ALMP is measured by current active labour market spending as percentage of GDP divided by current employment. To handle problems of endogeneity and measurement error, this is instrumented by active labour market spending in 1987 as percentage of GDP divided by the average unemployment rate in 1977–79. The coefficients measure the proportional effect on unemployment of a unit change in an independent variable, where the unit is measured as in Table 2.

or indiscriminate liberalisation. Some interventions may actually have benign effects, for example co-ordinated wage bargaining, others, such as employment protection legislation, have no discernible net effect on unemployment but may have other desirable (or for that matter harmful) effects, while others, like unemployment benefits, may lead to higher unemployment but still be desirable on social grounds. That is to say, these results suggest it may be possible to balance the adverse effects on unemployment of particular institutions (which may be desirable on other grounds) by further appropriately designed interventions which hold unemployment down.

3.2 Models of hysteresis

Since the oil shocks of the 1970s, the underlying growth rate of productivity has slowed down quite considerably throughout the OECD region, but real wages in Europe have continued to grow, while in the United States real wages have fallen. Famously, *The OECD Jobs Study* (OECD 1994) has a graph contrasting real wages and employment in Europe and the US since 1980, which shows wages in Europe growing at about 2 per cent per year with no growth in employment, while in the US, employment grows at about 2 per cent a year with no growth in wages. Some slightly more detailed data is given in Table 4 (Lindbeck 1996).

Table 4: Average Annual Growth Rates of GNP, Employment, Labour Productivity, Real Consumption and Real Product Wage

Per cent

	GNP	**Employment**	**Labour productivity** (Per worker)	**Real consumption wage** (Per hour)	**Real product wage** (Per hour)
			United States		
1973–79	2.5	2.5	0.0	0.6	1.2
1979–85	2.0	1.3	0.6	-0.2	0.0
1985–90	2.7	1.9	0.8	-1.7	-1.5
1990–95	2.4	1.2	1.1	-0.2	0.3
1973–95	2.4	1.8	0.6	-0.3	0.1
			Western Europe		
1973–79	2.7	0.7	2.0	2.2	3.3
1979–85	2.0	0.4	1.6	0.3	0.7
1985–90	3.2	1.3	2.0	1.9	2.2
1990–95	1.7	0.0	1.7	0.8	1.0
1973–95	2.4	0.6	1.8	1.3	1.8

Notes: Western Europe is equivalent to OECD Europe for the GNP, employment and productivity figures. Greece, Iceland, Ireland, Luxembourg, Portugal, Spain and Turkey are excluded in the wage figures.

Sources: For GNP and employment figures: *OECD Economic Outlook*, June 1995. For wage figures: *Wages and Total Labour Costs for Workers*, Swedish Employers' Federation, March 1995.

The hysteresis explanations for this experience conveniently divide into 'insider' and 'outsider' mechanisms; the former concerned with the idea that those who hold on to their jobs after a shock then set wages to further their own interests without regard to the plight of those whose jobs were lost, and the latter with the idea that those who have been unemployed for a long time lose contact with the labour market and are no longer part of the effective labour supply. The theory and evidence on these mechanisms are fully reviewed by Bean (1994), who concludes that there is little evidence in support of the insider channel, but some, if not overwhelming, support for the outsider approach focusing on the effects of long-term unemployment. In this context, the main institutional culprit is the provision, in most European countries, of indefinite and effectively unconditional unemployment benefits to those out of work, which enables unemployed people to abandon job search and to reconcile themselves to a life on the dole.

Though this argument may be reasonably plausible, it cannot account for more than a small part of the problem. For example, even if one were to take the extreme view that long-term unemployed people are no longer capable of work, or stop searching or have become unacceptable to employers, one would still need to explain why, in many countries, the rate of short-term unemployment in the 1980s was up to three times as high as the total unemployment rate in the 1960s.

3.3 Models of structural unemployment

It is well known that unemployment rates differ substantially across groups. In most countries, youth unemployment rates are much higher than adult rates, unemployment rates in professional and managerial occupations are lower than those of manual workers, and the more educated have lower unemployment rates than those leaving school at the minimum school-leaving age. These differentials are quite stable across countries and time periods and seem not greatly affected by variations in aggregate unemployment. Thus many discussions of aggregate unemployment ignore sectoral variation.

The renewed interest in this issue has been sparked by the massive increase in wage inequality in the United States since 1970. This has generally been interpreted in terms of an increase in the rate of skill-biased technological change, which has raised the relative demand for skilled labour. While Europe has presumably been subject to much the same technological developments, the wage distribution in most European countries (the UK being an exception) has remained compressed. Krugman (1994 p. 64) has depicted this as a 'collision between welfare state policies that attempt to equalise economic outcomes and market forces that are pushing towards greater inequality'. The outcome, he suggests, is likely to be unemployment of unskilled workers, so that 'growing US inequality and growing European unemployment are different sides of the same coin' (*op. cit.* p. 62). In other words, structural imbalances in European labour markets may have become much more severe, and this could explain increased unemployment rates of unskilled workers.

Despite the plausibility of this line of argument, it has frequently been noted that in Europe the unemployment rates of skilled as well as of unskilled workers has risen. Indeed the ratio of the two has remained much the same and, in fact, the relative unemployment rate of unskilled workers has, if anything, risen more in the US than in

Europe. Whether this is the relevant statistic, or whether what matters is the absolute (percentage point) difference between skilled and unskilled unemployment rates, which has widened in Europe relative to the US, or the decline in the number of unskilled jobs is, however, a matter of dispute.

Rather than argue about what measure to use, it seems better to analyse how to model the effects of demand shifts on aggregate unemployment. If wages in each sector depend on economy-wide unemployment, then a relative demand shock will change neither relative wages nor aggregate unemployment, but simply the distribution of employment and unemployment between sectors. If on the other hand, wages in each sector are affected only by the unemployment rate in that sector, then a demand shock will be at least, in part, offset by wage adjustments, and any aggregate effect will rest on asymmetries in the sectoral adjustment process. Analysis of this issue turns out to be something of a conceptual minefield but, following earlier work by Layard *et al.* (1991), has been attempted by Nickell and Bell (1995), Manning and Gregg (1997) and by Jackman *et al.* (1997). Given that most empirical wage curves appear to be approximately log linear, studies of this type tend to find that the ratio of sectoral unemployment rates offers the best measure of mismatch, and conclude therefore that it has not increased in Europe in recent years. Empirically, the main reason for this appears to be an increase in the relative supply of skilled workers. This has resulted from the expansion in the education systems in most European countries over this period such that cohorts of relatively well-educated young workers are replacing older workers who received much less education in their youth (Table 5). It then follows that the reason for the stability in the wage distribution is not so much wage rigidity as the absence of structural imbalance in the first place, the increase in demand for the more skilled being matched by an increase in supply.

The implication of this argument, that wages are approximately market-clearing in response to shocks, leaves open the question why there are such large and apparently stable differences between the unemployment rates of different groups. One suggestion (Manning and Gregg 1997) is that labour supply is responsive to relative rather than absolute wages.

A third approach has wages throughout the economy set by a ‘leading sector’. In this case unemployment in the leading sector is independent of relative demand, but unemployment in the other sector(s), given the rigidity of relative wages, does depend on relative demand. In this type of model, a shift in relative demand towards skilled workers (who constitute the leading sector) would, on impact, reduce skilled unemployment and increase unskilled unemployment. Lower unemployment in the leading sector would then lead to wage pressure which would increase unemployment in both sectors until equilibrium was restored in the skilled sector. The effect on aggregate unemployment would thus be measured by the increase in unemployment in the unskilled sector. However, the evidence seems to point to wages being influenced mainly by unemployment rates within their own sector.

Table 5: Annual Growth Rates (x100) in Supply, Employment and Demand for Skills

Countries	Sample (No. obs)	Labour supply	Employ-ment rate	Employ-ment	Sample (No. obs)	Demand	Excess demand
Australia	1979–93	5.36	5.43	0.07	–	–	–
	(15)	(0.17)	(0.19)	(0.05)			
Canada	1979–93	5.49	5.46	0.03	–	–	–
	(14)	(0.17)	(0.17)	(0.07)			
France	1978–94	5.80	6.07	0.27	1984–94	6.47	0.36
	(17)	(0.15)	(0.13)	(0.04)	(11)	(0.23)	(0.08)
United Kingdom	1974–92	6.82	7.03	0.21	1974–92	7.55	0.73
	(19)	(0.31)	(0.32)	(0.08)	(19)	(0.27)	(0.13)
Germany	1976–89	4.54	5.29	0.75	1976–89	5.11	0.58
	(7)	(0.61)	(0.56)	(0.12)	(7)	(0.61)	(0.11)
Italy	1977–92	6.46	6.86	0.41	1977–91	6.52	0.06
	(16)	(0.06)	(0.08)	(0.02)	(12)	(0.15)	(0.14)
Netherlands	1979–93	5.84	5.83	0.00	1979–93	4.75	-1.08
	(8)	(0.34)	(0.34)	(0.00)	(8)	(0.21)	(0.20)
Norway	1972–93	6.02	6.23	0.21	–	–	–
	(22)	(0.12)	(0.13)	(0.03)			
Spain	1977–93	5.05	5.58	0.53	–	–	–
	(17)	(0.22)	(0.24)	(0.07)			
Sweden	1971–93	6.93	6.94	0.01	–	–	–
	(21)	(0.10)	(0.10)	(0.02)			
United States	1970–91	4.59	4.74	0.15	1970–89	5.24	0.41
	(22)	(0.20)	(0.22)	(0.04)	(20)	(0.13)	(0.17)
	1970–79	6.77	6.94	0.16	1970–79	5.67	-1.11
	(10)	(0.15)	(0.21)	(0.09)	(10)	(0.10)	(0.23)
	1979–91	3.21	3.25	0.04	1979–89	4.73	1.48
	(13)	(0.12)	(0.17)	(0.01)	(11)	(0.35)	(0.24)

Notes: The growth rates refer to the annual growth of the ratio of skilled to unskilled in each category and are measured as the estimated coefficients on a linear time trend (x100) interpolated through the series of logarithms. Demand is measured by the share of the total wage bill. Standard errors in brackets.

Source: Jackman *et al.* (1997) which provides details of sources and methods of calculation.

3.4 A model of unemployment sclerosis

The history outlined in Section 2 suggests that the political economy underlying the structural model is not entirely accurate: countries did not at any point consciously choose high unemployment, rather they undertook various policies for various different reasons and only subsequently discovered that the outcome was high unemployment. In this section I suggest a simple model of unemployment ‘sclerosis’, which looks at some implications of this idea.

Suppose then a government has a range of policy instruments which in one way or another improve the conditions of workers. These instruments may be legislation on employment protection, or measures to strengthen union rights, or measures to support declining industries or minimum wages or improvements in the unemployment insurance system. These instruments may, in the short to medium run, reduce unemployment – for example, employment protection is obviously likely to reduce the unemployment inflow in the short run and likewise unions are likely to use their power to protect jobs. But in the longer term, these instruments are more likely to increase than to reduce unemployment. For example, employment protection and trade union rights both strengthen the powers of insiders in the wage bargain and hence increase wage pressure.

To model this, we may assume the equilibrium rate of unemployment at time t (u_t) is affected by policies effective at time t (s_t) according to the equation:

$$u_t = u_N - s_t + as_{t-1} \quad (a > 0) \tag{1}$$

This equation states that a policy instrument s introduced at time t will reduce unemployment at time t by one unit, but if the policy remains in force it will increase (or reduce) unemployment in all subsequent periods by (a–1) units. The case where a>1 represents sclerosis, where the net long-run effect of the policies is to raise unemployment. The equilibrium rate of unemployment in the absence of any such policies is u_N, which takes account of the effects of economic structure and privately created institutions on unemployment.

The second strand of the model is a policy reaction function. The government is assumed to react to unemployment in excess of some target (u*) by increasing policy interventions:

$$s_t = s_{t-1} + b(u_t - u^*) \quad (b > 0) \tag{2}$$

Equations (1) and (2) give a simple dynamic equation for s_t:

$$s_t = gs_{t-1} + u_{gap} \tag{3}$$

where $g = (1 + ab)/(1 + b)$ and $u_{gap} = b(u_N - u^*)/(1 + b)$

Equation (3) is stable if g<1, for which a necessary condition is that a<1. While the more interesting case is where a>1, and Equation (3) is unstable, it is nonetheless worth considering the properties of the system when it is stable.

If a<1, the system converges to a stable equilibrium given by:

$$u = u^* \quad \text{and} \tag{4a}$$

$$s = (u_N - u^*)/(1 - a) \tag{4b}$$

This equilibrium has a few interesting properties:

- The unemployment rate reflects policy objectives not institutions. This is consistent, for example, with the rather obvious point that countries which have had low unemployment are typically those which wanted to have low unemployment like say Sweden.

- If we cannot observe u^*, Equations (4a) and (4b) together give $u = u_N - (1-a)s$, so that unemployment will be increasing in factors affecting the 'innate' natural rate and decreasing in policy instruments which can offset it.

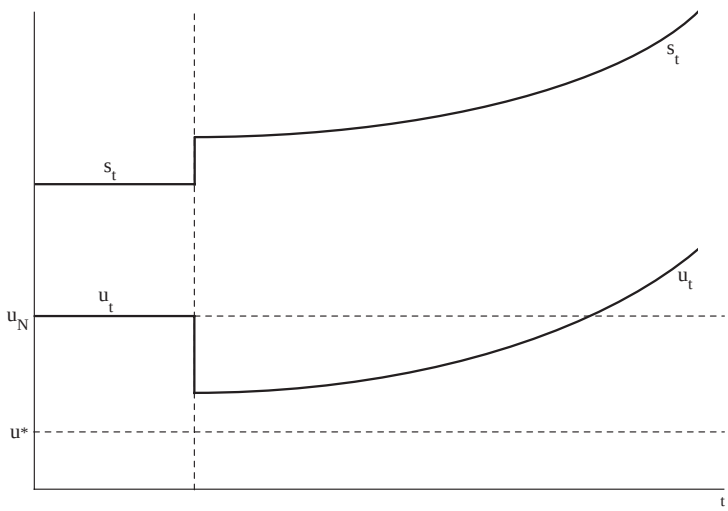
The more interesting case is where the long-run effects of interventions are adverse (a>1). In this case the dynamic equations for u_t and s_t are:

$$u_t = u^* + (u_N - u^*)g^t/(1+ab) \quad \text{and} \tag{5a}$$

$$s_t = (u_N - u^*)(g^t - 1)/(a-1) \tag{5b}$$

It may be noted from Equations (5a) and (5b) that both u_t and s_t will be increasing over time. This model is intended to capture some of the features of the data set out in Figure 1. Suppose that in the immediate postwar period the European countries decide to introduce interventionist policies which include the aim of reducing unemployment to some target value, u^*. Initially the policies have the effect of reducing unemployment below u_N, but as time proceeds, unemployment starts to rise, further policies are introduced and we move into the vicious spiral of increasing unemployment leading to further interventions which, in the long run, lead to even higher unemployment. The model described by Equations (5a) and (5b) is illustrated in Figure 3, which is similar to Figure 1 with u_N taken as the US average unemployment rate of around 6 per cent.

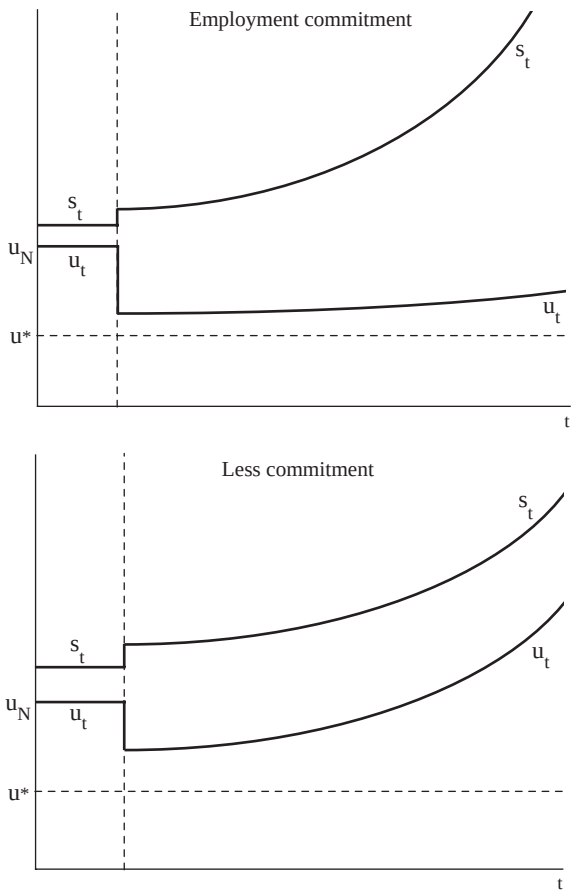
Figure 3: Timepath of Unemployment and of Policy



The unstable paths described by Equations (5a) and (5b) may be thought consistent with the lack of robust findings in the international cross-section data. The nature of the correlation between s and u will depend on the source of differences between countries. If, for example, different countries embark on the interventionary policy regime given

in Equation (2) at different times, for political or historical reasons, then a cross-section at any point in time will essentially be contrasting countries with high values of t, and hence, other things equal, of s_t and u_t, with countries with lower values of these variables. Thus we would expect to find a positive correlation between s and u. Perhaps more interestingly, countries strongly committed to full employment, which could be represented by a low value of u^* or a high value of b, will tend to have more interventionary policies, which will in turn lead to lower unemployment than countries which are less concerned about unemployment. Figure 4 shows the timepaths of s_t and u_t for two otherwise identical countries which differ in the parameter b, the employment commitment of the government. This will lead to a negative relationship between s and u, which might, roughly speaking, correspond to the difference observed in the 1970s and 1980s between the EU and the European countries outside the EU.

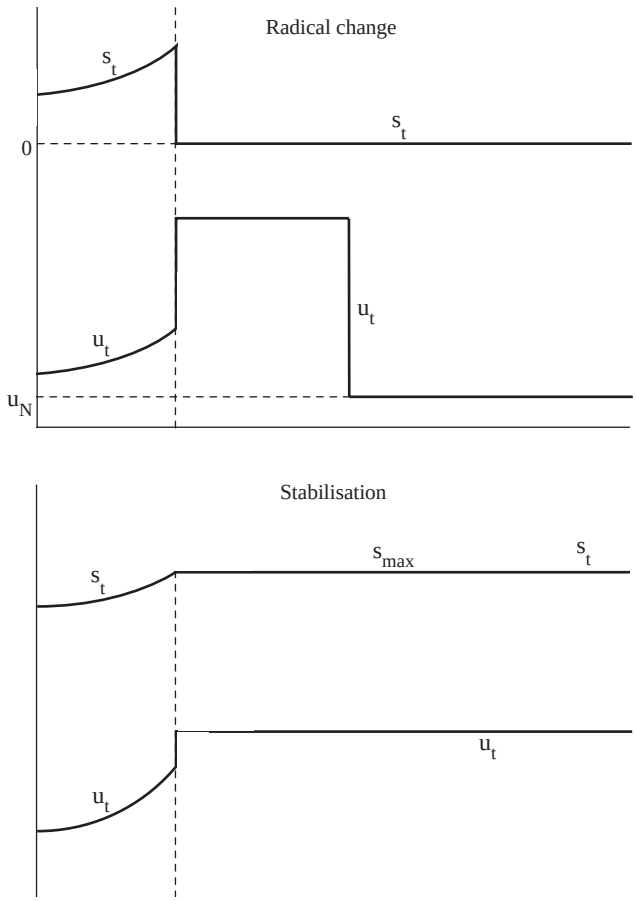
Figure 4: The Policy Stance and the Timepath of Unemployment



In Equations (5a) and (5b), unemployment and policy interventions increase explosively over time, and this cannot, of course, go on forever. We can imagine governments could react in one of two ways. First, they might realise that their policies were unsustainable

and were doing no good in the long run, and reverse them. A sudden reduction in *s* would be associated in the short run with a sharp increase in unemployment, but in the long run with a reduction of the unemployment rate to u_N. An alternative approach would be to imagine that there might be some ceiling or maximum value *s* might take, and once it reached that maximum it would be held constant at that value. A government adopting this approach would see a small increase in unemployment the year it stabilised *s*, and unemployment thereafter remaining at the higher level. The contrast between these two approaches is shown in Figure 5.

Figure 5: Radical Change versus Stabilisation



Obviously, this application of the model attempts to capture in a simple way, the contrast between the confrontational Thatcherite policies pursued in the UK (and in some other countries) and the more consensual and gradualist policies followed in most of continental Europe. Note that immediately following the ‘big bang’, unemployment rises to unprecedented heights at a time when the interventionary policies which were its cause are being dismantled. (This is rather akin to the argument often heard in

Eastern Europe or Russia to the effect that high unemployment is caused not by the liberalisation but by the mess that preceded it.)

Why should we observe the perverse short-run effect? If one has for many years been supporting an inefficient industrial sector and then abandons that support, clearly in the short run firms will fail and workers will be thrown out of their jobs. The money saved can, of course, fund other activities and will do so in the long run, but jobs can be destroyed more quickly than they can be created and in the short run, given the combination of the structural imbalance and the consequential macroeconomic tightening, unemployment will emerge. Similarly, a loosening of employment protection legislation in the first instance is likely to lead to a greater rate of job separations.

More generally, it might be that governments, concerned about the apparent trend towards ever-increasing intervention, would choose to introduce a new regime within which s was stable. In some countries, s might be stabilised at a high level and in others at a low level. But it may be noted that, after the introduction of the new policy regime (of constant s), the short-run effects on unemployment and the long-run effects go in opposite directions, which again makes difficult the task of identifying the relationship of s and u.

4. Policy Initiatives

In describing a 'European approach' to economic policy, one encounters immediately a fundamental socio-political difference between most of the nations of continental Europe which maintain a consensual, corporatist outlook on policy as against the neo-liberal approach of the UK and increasingly of some of the smaller economies such as Denmark or the Netherlands. Most of the continental countries base their approach to employment policy on the principle that people should be able to earn a decent living, to support themselves and their dependents with wages and social benefits derived from their work, and that the structure of wages plays an important role in maintaining social cohesion. Economic well-being is the responsibility of the 'social partners' (employers, unions and government), and employers and unions are thus involved in areas of policy formation going beyond the employment contract. This contrasts with the orthodox liberal position which is that wages should be set to clear markets and thus should reflect market forces, while social objectives should be the responsibility of governments accountable to the people through the processes of representative democracy, and should be implemented through the tax and social security systems.

This fundamental difference between the UK and the other major EU countries, in particular France and Germany, has bedevilled the development of any coherent EU approach to employment or labour market policy. Under the former Conservative Government, the UK refused to sign the 'Social Chapter' of the Maastricht Treaty, because of ideological objections to, for example, the requirement that countries introduce a minimum wage and controls over working hours. While, arguably, these problems could have been finessed, there is no doubting that the direction of social policy within the EU as embodied in the Social Chapter has been in the direction of enhancing worker protection and raising employment costs.

Most government policy on unemployment in Europe has been based on the premise that unemployment is caused by there being too few jobs. Hence policies have attempted either to create more jobs, or to reduce the labour supply. In the former category, there is in many European countries, a clear nostalgia for old-fashioned Keynesian-style public investment policies, and in some quarters an aspiration that co-ordinated demand expansion throughout the EU could allow an increase in activity without running into the balance of payments constraint. (It could, of course, but it is inflationary pressure rather than the balance of payments which is the fundamental constraint on demand.) There are also policies to maintain activity in uncommercial sectors (e.g. agriculture), primarily on employment grounds. Attempts to achieve wage moderation also fall into this category, especially where this can be achieved through agreement with the union movement (the 'social partners'). In much of Europe there is an aversion to reducing unemployment through the creation of 'bad jobs', and a belief that the American free enterprise approach has bought full employment at the expense of creating an 'underclass' of people whose living standards fall well below a socially acceptable level.

Of the latter, two types of policy have been particularly important: limits on hours of work and early retirement. As shown in Table 6, overall labour supply, taking together hours and participation, is substantially lower in most European countries than in the United States.

In the UK, by contrast, policies have been focused on deregulation and increasing labour market flexibility. Examples include the gradual erosion of trade union rights during the 1980s, the ending of the wage councils (which imposed minimum wages in various low-pay sectors) in 1993, and weakening of employment protection legislation. At the same time, the value of unemployment benefits was allowed to fall relative to wages, and the duration of benefit entitlement was reduced from a year to six months in 1996, while the unemployed were encouraged to search more actively through the Restart program which had been introduced in 1986 and gradually extended. The final step, taken by the new Labour Government's Welfare to Work program is to require young people after 9 months to take work or go on a training scheme, or else lose their benefit.

While most employment policies remain at a national level, the European Union (EU) has itself been sufficiently concerned about the high unemployment rates in many of its member states to mount a number of policy initiatives with the objective of tackling unemployment. The most substantial of these was the Employment White Paper ('Delors Report') which was published in December 1993 (Commission of the European Communities 1993). The White Paper set a target of halving the EU unemployment rate, which then stood at 10.7 per cent, by the year 2000. By December 1997, the unemployment rate had been reduced but only to 10.4 per cent, and the target now looks unattainable.

The White Paper focused on the perceived 'competitive weaknesses' of the EU economies and proposed policies of increased investment and labour market deregulation to improve competitiveness. At the time, the White Paper proposals generated controversy because the proposed investment initiatives were largely in the area of public infrastructure, e.g. improved transport links, and were seen by some as being inspired more by a belief in job creation through public works than by any argument about improving regional competitiveness. The accompanying idea that these projects could be financed by the

Table 6: Measures of Labour Supply
1995

	Employment/ population ratio Whole working-age population (Per cent)	**Employment/ population ratio** Males aged 25–54 (Per cent)	**Annual hours worked per worker**	**Overall labour supply** (Per cent)
Austria	67.3	86.6	1 600	51.6
Belgium	56.1	87.4	1 580	42.6
Denmark	75.0	86.6	1 510	54.5
Finland	67.1	82.4	1 770	57.1
France	59.8	87.9	1 650	47.4
Germany	65.2	87.0	1 600	50.0
Ireland	53.2	80.3	1 750	44.8
Italy	54.0	84.3	1 730	44.9
Netherlands	62.2	86.5	1 510	45.2
Norway	73.3	87.4	1 430	50.4
Portugal	69.3	90.6	2 000	66.6
Spain	47.5	81.5	1 820	41.6
Sweden	75.6	88.2	1 510	52.0
Switzerland	78.6	94.7	1 640	62.0
United Kingdom	69.6	86.7	1 750	58.6
Canada	70.6	84.7	1 740	59.0
United States	73.1	88.2	1 940	68.2
Japan	73.4	95.9	1 960	69.2
Australia	68.2	86.5	1 870	61.3
New Zealand	68.0	86.6	1 830	59.8

Note: Column (4) is column (1) multiplied by column (3) divided by 2 080 (i.e. 52 weeks of 40 hours).
Source: *OECD Employment Outlook 1996*, Tables A, B and C.

issue of EU bonds which would not count as part of national budget deficits (which were, at the time, subject to strict limitation by reason of the Maastricht criteria for EMU) was likewise seen to undermine the principles of sound finance which have been a prerequisite for monetary union. Thus when the European Council met at Essen in December 1994 to determine what measures to take on the basis of the White Paper, it abandoned the public investment initiative and instead focused on five areas (the 'Essen Conclusions') on which member states were urged to take action. These were:

- investment in vocational education;
- increasing the employment intensity of growth;
- reducing non-wage labour costs;
- improving the effectiveness of labour market policy; and
- more help for groups particularly hard hit by unemployment.

It is clear that the Essen Conclusions do not embody a specific hypothesis about the causes of high unemployment in Europe or what might be done about it. Rather there are various piecemeal proposals for intervention which seem likely to encounter minimum resistance. The administrative procedure following Essen has been a series of studies and meetings in which member governments are invited to outline their progress in tackling unemployment.

In the meantime, the OECD published in 1994 its celebrated *Jobs Study*, which has provided one of the finest and most comprehensive statistical sources for the analysis of unemployment. Though the research for the OECD study was carried out at the same time as that for the EU White Paper, it appears that the two pieces of work were undertaken completely independently of one another with no communication between those involved. The OECD study was not specifically directed at Europe, but it was clearly concerned about European labour market problems, and its recommendations are particularly aimed at European countries. Unlike the EU study, however, it approached the labour market from a free market rather than a consensualist ideological standpoint, and its conclusions embody a general thrust towards deregulation and greater flexibility.

5. Conclusion: Implications for Policy

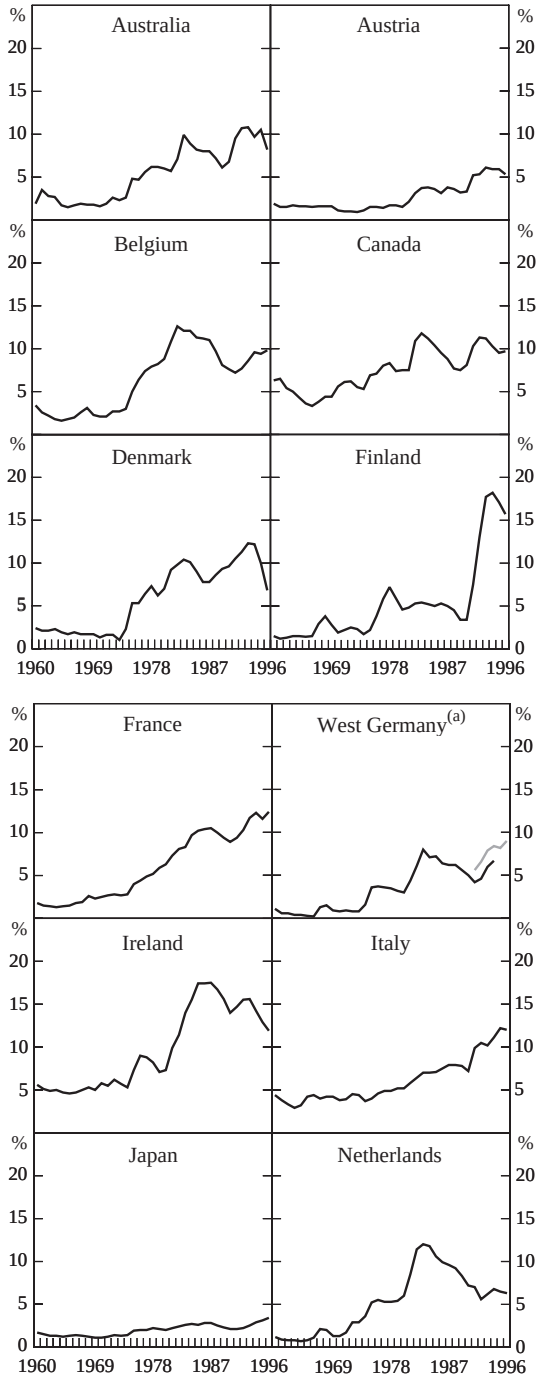
Policy choices could perhaps be seen in terms of 'first best' as against 'second best' approaches. The first-best approach puts its faith in the workings of the market and favours policies of flexibility, deregulation and generally the reduction of government intervention in the labour market. Second-best policies, by contrast, recognise the imperfections of economic arrangements and seek instead to offset and counteract their ill-effects by suitably designed interventions. The evidence reviewed in this paper has essentially been inconclusive in terms of this distinction: there is no conclusive evidence that economies where governments intervene a lot in the labour market have higher unemployment rates than economies where the role of government is minimal.

However, the sclerosis model sketched in Section 3.4 suggests that such static evaluations may not address the right question. The model suggests that interventionary policies may assist matters in the short run, but in the long run they only make things worse. According to this model, the right policy is not to attempt to ameliorate the problems created by one set of interventions by further intervention but rather to remove the first set and recreate a free market in labour. Any beneficial effects of policy interventions on unemployment today are bought at the expense of higher unemployment in the future. The model also suggests that reversing such policies may have adverse effects in the short run, which again means that static comparisons at a point in time may miss the key elements of policy development.

If this analysis is correct, the prospects for European unemployment must be pessimistic. There is political and ideological aversion to economic liberalism throughout most of continental Europe, in particular among the bigger countries which influence EU policy. The financial consequences of ever-increasing government expenditure seem likely to restrain further growth of labour market intervention, but Europe as a whole appears condemned to high unemployment, as the cumulative effect of its past policies weaken market forces and inhibit the functioning of the labour market.

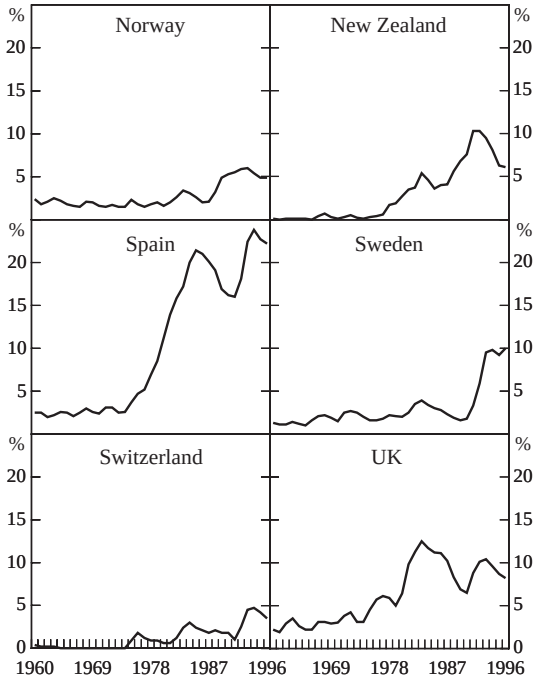
Appendix

Figure A1: Unemployment



continued

Figure A1: Unemployment (*continued*)



Note: (a) Grey line is for the whole of Germany, 1991–96.

Source: Standardised unemployment rates, *OECD Economic Outlook*, various issues.

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