

EUROPEAN UNEMPLOYMENT:
THE MACRO POLICY DILEMMA
IN THE 1980S

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European unemployment rates are at their highest levels in fifty years. One of the tasks presently facing researchers is the need to disentangle the influence of macroeconomic policy from the other factors which have contributed to the unemployment crisis. This paper examines the extent to which these historic rates could have been reduced by more expansionary macro policies and to what extent they are the result of other factors, such as labour market rigidity.

After many years of unemployment rates lower than US levels, EC rates are now significantly higher. The traditional relationship which Europeans had come to expect between these two rates has been reversed. With this change have come a number of other social disturbances which Europeans have previously labelled "American phenomena". These include the growth of inner cities ghettos and the re-emergence of urban riots.

Section I summarizes the unemployment situation in the EC. The following three sections seek to discover the extent to which the observed increases in unemployment might have been avoided. Section II examines the forces influencing long-term growth prospects to determine how much of the increased unemployment stemmed from actual GDP lagging behind potential GDP. Section III analyses the role of monetary and fiscal policy in producing this growth slowdown. Section IV places monetary and fiscal

policy options within the larger framework of the existing inflation-unemployment tradeoff and labour-market rigidities. The paper concludes with some brief remarks on how changes in the distribution of income between capital and labour may also have had some part to play in keeping European unemployment rates high.

I. Labour Market Trends

As Table 1 indicates, 1981 became the critical year in which EC unemployment rates exceeded US rates, and, while there was a reversion to the more traditional pattern in 1982, the EC rate has remained above the US rate since 1983. But unemployment rates do not tell the whole story. It is not uncommon to experience rising unemployment during periods of slow growth, but such increases in unemployment are usually accompanied by rising levels of net employment. Such increases in the unemployment rate merely reflect the failure of the net job creation to match the net increases in the labour force. The catastrophe in Europe has been the failure, until recently, to generate any new jobs at all. Only in the second half of 1984 did EC employment begin to rise after four years of continuous decline.(1)

1. OECD, Economic Outlook, June 1985, p.26.

TABLE 1
EC AND US UNEMPLOYMENT RATES
(% p.a.)

	<u>1973</u>	<u>1975</u>	<u>1977</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>
Belgium	2.7	5.0	7.4	8.8	10.8	12.6	13.9	14.0
Denmark	0.8	5.0	6.3	6.7	8.9	9.5	10.2	10.0
France	2.6	4.1	4.9	6.4	7.3	8.1	8.3	9.7
Germany	0.8	3.6	3.6	3.0	4.4	6.1	8.0	8.6
Ireland	5.6	8.5	9.2	8.3	10.2	12.3	15.0	16.5
Italy	6.2	5.8	7.0	7.5	8.3	9.0	9.8	10.2
Luxemburg	0.0	0.2	0.5	0.7	1.0	1.3	1.6	1.7
Netherlands	2.2	5.2	5.3	6.0	8.6	11.4	13.7	14.0
UK	3.3	4.6	6.4	6.9	10.6	12.3	13.1	13.2
EC	3.0	4.5	5.5	6.0	7.8	9.2	10.2	10.8
US	4.8	8.3	6.9	7.0	7.5	9.5	9.5	7.4

Sources: OECD, Economic Outlook, June 1985, p.167 and EC, European Economy, November 1984, p.206.

Note: Data for Denmark, Ireland and Luxemburg not strictly comparable. EC average excludes these three countries.

While European economic growth and productivity performance since the first oil shock have not been much below the US, there has been a stunning difference in the relative ability of the two economies to generate jobs. Between 1970 and 1983, a period in which EC real GDP grew at just under 3% p.a., net employment in the EC fell by 1 million jobs. During the same period, the US economy generated 17 million jobs, with a GDP growth rate not too far above that of the EC.(2)

2. Commission of the European Communities, "Annual Economic Review 1984-85," in European Economy, no. 22, November 1984, p.97.

From 1975 to 1983, the US real GDP growth rate was an annual average of 2.22%, while that of the EC was 1.64%. The differential in annual GDP growth rates of six tenths of a percentage point, or a little over 30%, was not enormous. While this difference in real GDP growth might be expected to produce some difference in the growth of employment, the US/EC difference in job creation has been so dramatic as to require factors other than relative GDP growth to account for it.

The employment stagnation suggests that additional forces beyond inappropriate short-term macroeconomic policies may have been at work in producing unemployment rates at levels not witnessed in fifty years. There is general recognition that part of Europe's unemployment difficulties stem from 'structural' causes. "Structural" has become a very broad term which covers a multitude of phenomena. But they have a common characteristic -- their alleviation is not particularly susceptible to expansionary macroeconomic policy. "Structural" causes include demographic changes, such as an unusually large number of young people entering the labour force; the restructuring of manufacturing industries in the face of loss of international competitiveness; a noticeable shift in the distribution of factor income between labour and capital -- and a resultant response from capital in the form of labour shedding.

Part of the increase in European unemployment rates in the past decade has been the result of the failure to absorb unusually high annual increases in entrants into the labour force.

This was largely a demographic problem. The European baby-boom of twenty years ago peaked a few years after the baby boom of the US. The impact on the EC labour force has also occurred a little later than in the US. The growth in the working age population (15-64 years) will drop sharply in the next few years. This growth rate peaked in 1981, when the potential EC labour force (as measured by the population of working age) grew at an annual rate of 1.1%. The manner in which it will decline is shown in Table 2. The rapidly declining trend in potential labour force growth makes it possible to envisage EC labour markets moving from a situation of unacceptable labour surplus to one of excess labour demand within the next ten years.

TABLE 2
GROWTH IN EC POTENTIAL LABOR FORCE
(% p.a.)

<u>1980</u>	<u>1981</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1989</u>
0.8	1.1	0.9	0.9	0.5	0.2	0.1

Source: EC Annual Economic Report 1984-85, Table 12, reprinted in EC, European Economy, No. 22, November 1984.

A variety of "structural" programs have been put in place by governments as unemployment has soared. These have been aimed at both the demand and supply sides of the labour market. Structural measures aimed at cutting the unemployment rate by reducing the supply of labour have included such measures as lowering retirement ages and raising school-leaving ages. In some instances the growth in the labour force has also been held down through the introduction of mandatory training periods

prior to employment. (3)

The range of labour supply policies introduced over the past six or seven years have reduced the actual European labour force below the potential labour force. That is, they have reduced the labour force to a level below what might have been expected if past participation rates were applied to the proportion of the population which is of working age. To the extent that past labour force participation rate trends are allowed to reassert themselves, the present high European unemployment rates are an underestimate of long term unemployment trends. Of course, to the extent that there has been a recent bulge in the age-cohort entering the labour force for the first time, present unemployment rates are an overestimate of longer run trends.

In addition to the measures mentioned above, there have also been a number of efforts programs clearly aimed at moving the distribution of factor income back in the direction from whence it moved during the past decade. These measures have been incorporated in the political agendas of the conservative governments presently in power in much of Western Europe. They are also not absent from the programs of the socialist governments of France, Sweden or Spain. Among the measures have been some seeking reductions in the welfare state and some aimed at deregulation.

3. Commission of the European Communities, Annual Economic Review 1984-85, in European Economy, no. 22, November 1984, p.95.

Could more have been done in the medium-term to absorb the influx of new workers into the labour force and those displaced by shifting international competitiveness? In the absence of further real shocks to the economy, the answer would depend on three prime factors:

1. The underlying potential growth rate of the economy.
2. The macro policy stances of governments which determines how close actual GDP growth rate comes to potential growth.
3. The negotiating stances of capital and labour with respect to increases in the level of real wages and to changes in the distribution of factor income.

There is an understandably high level of uncertainty attached to any measurement of the relative influence of these three influences.

II. Potential Growth Rates

The ability of an economy to absorb a growing labour force obviously depends on the speed with which the economy is growing. There are clear limits to the rate of growth which may be sustained in the long term. These limits are set by such factors as the rate of technical progress, the rates of growth of capital and labour, and the rates of growth of the productivity of these inputs.

Throughout the OECD there has been a downward revision of estimates of potential growth rates and a convergence of long run growth rates to a level in the 2.5% - 3% range.(4) The shift occurred in different countries at different times throughout the nineteen seventies. In the case of Germany, for instance, Woodham (1985) marks the break from high to low growth paths as occurring in 1977 and places the drop as an almost two percentage point fall from a 4.7% trend to a 3% trend.(5)

There are two ways of looking at a result such as this. The bad news is the dimming of long term growth prospects and its consequences for meeting both private and social needs. The good news is that it now takes only a 3% growth rate, rather than a 4.7% growth rate, to keep the unemployment rate from rising.

In the absence of approaches which attempt to directly estimate aggregate production functions, there are two simple methods of obtaining estimates of potential growth rates.(6) One is to decompose the sources of growth of GDP into such constituent parts as the growth in the labour force, the growth in hours worked, and the growth in labour productivity. Another is to estimate the relationship between unemployment and the

4. Douglas M. Woodham, "How Fast Can Europe Grow?", Federal Reserve Bank of New York, Quarterly Review, Summer 1985 Vol. 10, no.2, pp.28-35.

5. Ibid., p.29.

6. A recent survey of trends in growth potential in developed countries is found in IMF, World Economic Outlook 1985, Supplementary Note 6, pp.163-71.

growth of GDP and then find the GDP growth rate at which there would be a stable level of unemployment, i.e. to measure Okun's Law. The first method produces the estimates for the EC in the 1977-83 period found in Table 3.(7)

TABLE 3
SOURCES OF LONG-TERM GROWTH
IN EC POTENTIAL GDP GROWTH
1977-1983

annual growth in:	
labour force	0.7%
labour productivity	2.3%

potential GDP	3.0%

As mentioned earlier, if actual GDP growth exceeds potential GDP growth, the unemployment rate will fall; if it falls short of potential, unemployment will rise. Over the period 1977-83, the actual EC GDP growth rate was a mere 1.6%. This represents a shortfall of 1.4% from the above estimate of the real growth rate necessary to keep the unemployment rate from rising.

Woodham has found that an Okun's Law similar to that of the US exists in Germany and the UK, although the time path of the adjustment differs from the US experience. He reports a 0.4 percentage point drop in the unemployment rate for each percent-

7. Due allowance should be made for the crude method which does not correct for cyclical effects, changes in hours worked etc. Labour productivity is measured by the growth in real value-added per person employed in industry. The data were obtained from OECD, Historical Statistics 1960-1983, Table 3.9, p. 48. More refined estimates of the gap between actual and potential growth for individual countries may be found in EC, European Economy, No. 22, November 1984, p.124.

age point by which the GDP growth-rate exceeds the full-capacity growth path for a year.(8) However, according to Woodham, the US unemployment rate adjusts almost simultaneously, while it takes two years in the German case, and three in the UK case, before the effects on the unemployment rate are fully felt.

If Woodham's coefficient of 0.4 were to be considered typical across the EC and were applied to shortfalls between actual GDP growth rates from 1980 to 1985 and the 3% potential growth estimated in Table 3, it would suggest that 1985 EC unemployment should around 9% -- 3.5 points above the 1979 5.5% level. There is an approximately two point discrepancy between this estimate and actual 1985 levels which hover around 11%. Thus, slow growth was not responsible for for all the observed increase in unemployment over these years. Okun's Law (and, by implication, the macro policies of governments) accounts for 3.5 points of the unemployment increase since 1979. Two points are unaccounted.

Perhaps the strongest evidence of the extra unemployment which has been created because governments have not adopted policies to place economies on their long-term growth paths is contained in the study by Layard et. al.(9) These researchers argue that in 1981-83 unemployment was running a little over a

8. Woodham, op. cit.

9. Richard Layard, Giorgio Basevi, Olivier Blanchard, Willem Buiter and Rudiger Dornbusch, Europe: The Case for Unsustainable Growth, Centre for European Policy Studies Papers no. 8/9, 1984.

percentage point above the level of unemployment which would be associated with long-term capacity of the EC economy.(10) Those were years when the average level of EC unemployment was 8.8%, considerably below today's levels.

So why didn't real income grow faster? In seeking explanations for the shortfall we must turn our attention to the other two factors mentioned above - - the policy stance of governments and the bargaining stances with respect to income distribution and real wage of the private sector.

III. Macro Policy Stance

There can be little doubt about the deflationary nature of the macro policies followed in much of Western Europe during the worst unemployment crisis since the Great Depression. In many ways, European governments seem to have adopted the policies advocated by the Reagan Administration without noticing that the Reagan Administration had not adopted them itself.

A number of measures may be used to track the contractionary stance of monetary and fiscal policy in European countries. In the case of fiscal policy, the tables below show changes in the direction of fiscal policy, using a number of indicators. The least useful of these is the general government surplus or deficit. Table 4 shows the level of the nominal budget balance as a percentage of GDP. A more accurate measure

10. Layard et al. p.18.

is obtained by correcting this indicator for cyclical influences to obtain the structural budget balance (Table 5). This in turn may be corrected for the impact of inflation, which reduces the real value of net outstanding government debt by making use of real rather than nominal interest payments (Table 6). Tables 5 and 6 show changes in the levels of the appropriate measures and may be used as more accurate measures of the direction in which fiscal policy is moving.

As Table 4 indicates, public sector budget deficits, as a percentage of GDP, peaked in the three years 1982-84. Only France and Greece continue to increase their government share. Table 5 shows that fiscal policy, as measured by the high employment budget balance average for the EC, has been successively contractionary since 1982 -- four years of increasingly tighter fiscal policy, despite continuing increases in unemployment. According to this table, 1981 was the only year in the past six years in which there was a tilt towards more expansionary fiscal policies in the EC average. Table 6 presents a more mixed picture. However, both of these tables suggest that 1981 was the last year of a tilt towards a significant expansionary fiscal stance at the EC level.

Both Tables 5 and 6 offer interesting insight into individual countries' macro policies. Germany has had five years in which each year's fiscal policy has become more contractionary. Denmark has had three such years. The picture is more ambiguous with respect to the other member-states, although France appears

to have had at least two such years. Both tables also suggest that, with the exception of Greece and the Netherlands (and perhaps Italy), all member states tightened their fiscal policy even further in 1985. The Thatcher government has gone through two policy reversals during the past six years. A three year contractionary stance (1980-82) was reversed for 1983-4, before being reintroduced in 1985.(11) Summing across the EC row of Table 6 to find the net change in the aggregate EC fiscal stance in the years since 1979, we find that 1985 fiscal policy, as measured by the inflation-adjusted structural budget balance, was still more stringent than 1979 by 0.87% of GDP.

TABLE 4
GENERAL GOVERNMENT BUDGET BALANCE
(% of GDP)

	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
Belgium	-7.0	-8.6	-14.1	-12.6	-13.4	-11.8	-10.3
Denmark	-1.9	-3.3	- 6.9	- 9.3	- 7.5	- 4.5	- 3.0
Germany	-2.7	-3.1	- 3.8	- 3.4	- 2.8	- 2.3	- 1.5
Greece	-1.9	-4.9	- 9.6	- 8.2	- 9.5	-10.5	-11.0
France	-0.7	+0.2	- 1.8	- 2.7	- 3.1	- 2.8	- 3.2
Italy	-9.5	-8.0	-11.9	-12.6	-12.4	-13.5	-13.1
Netherlands	-4.0	-4.0	- 5.4	- 7.0	- 6.1	- 5.7	- 5.6
UK	-3.2	-3.9	- 3.2	- 2.3	- 3.5	- 4.0	- 3.6
EC	-3.4	-3.4	- 4.9	- 5.2	- 5.2	- 5.3	- 4.9

(Data are not available for Ireland and Luxembourg.)

Source: OECD, Economic Outlook, June 1985 p.3.

11. The Thatcher policies are examined by Buiter and Miller in two articles. See Willem E. Buiter and Marcus H. Miller, "Changing the Rules: Economic Consequences of the Thatcher Regime", Brookings Papers on Economic Activity 1982 No.2, pp.305-380 and Buiter and Miller, "The Thatcher Experiment: The First Two Years", Brookings Papers on Economic Activity, 1981 No.2, 315-79.

TABLE 5
CHANGES IN GENERAL GOVERNMENT
STRUCTURAL BUDGET BALANCE
(% of GDP)

	1980	1981	1982	1983	1984	1985
Belgium	-2.3	-3.3	+1.9	+0.1	+1.1	+1.4
Denmark	+0.8	-1.2	-3.3	+1.7	+1.2	+0.7
Germany	-0.2	+0.1	+1.4	+1.2	+0.4	+0.5
Greece	n.a.	n.a.	+2.1	-0.7	-1.1	-0.5
France	+1.3	-1.0	-0.6	+0.1	+1.1	+0.3
Italy	+1.0	-3.4	+0.3	+1.6	-0.5	+0.4
Netherlands	+0.1	-0.4	0.0	+1.1	-0.4	-0.4
UK	+1.1	+2.9	+1.8	-1.3	-0.7	+0.3

EC +0.52 -0.31 +0.71 +0.43 +0.18 +0.38
(Data are not available for Ireland and Luxembourg.)

Note: A positive sign indicates a move toward more contractionary fiscal policy.

Source: OECD, Economic Outlook, June 1985, p.4 and December 1984, p.30.

TABLE 6
CHANGES IN GENERAL GOVERNMENT INFLATION-
ADJUSTED STRUCTURAL BUDGET BALANCE
(% of GDP)

	1980	1981	1982	1983	1984	1985
Belgium	-1.0	-2.4	+3.1	-0.7	+1.4	+0.2
Denmark	+0.9	-0.7	-2.5	+1.9	+1.3	+0.7
Germany	0.0	+0.2	+1.4	+1.0	+0.3	+0.5
Greece	n.a.	n.a.	+1.7	-0.8	-0.8	-0.1
France	+1.5	-1.0	-0.6	0.0	+1.0	+0.2
Italy	+4.4	-4.7	-0.6	+1.3	-2.4	-0.9
Netherlands	+1.0	-0.1	-0.1	-0.2	-0.4	-0.6
UK	+2.4	+0.4	+0.4	-2.5	-0.7	+0.5

EC +1.46 -0.87 +0.35 -0.04 -0.16 +0.13
(Data are not available for Ireland and Luxembourg.)

Note: A positive sign indicates a move toward a more contractionary fiscal policy.

Source: OECD, Economic Outlook, June 1985, p.4 and December 1984, p.30.

The manner in which monetary policy within the Community was controlled during this period may be seen through an examination of the growth in the real money supply and real interest rates. Tables 7 and 8 show the severity of the monetary policies followed in recent years in Western Europe. There is a rather direct connection between monetary policy and exchange rate policy during the period. When the dollar was rising against European currencies from 1980-1985, there existed some latitude for easier European monetary policies. It is not clear that this latitude was fully used.

TABLE 7
ANNUAL GROWTH IN REAL MONEY SUPPLY
(M1 plus Quasi-Money, % p.a.)

	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>
Belgium	-1.5	0.2	-1.2	2.3	1.0
Denmark	2.4	0.3	0.0	18.0	11.8
Germany	3.8	4.1	0.4	-0.5	3.2
Greece	5.7	12.7	3.5	0.3	10.2
France	-2.1	-0.6	-0.9	1.8	1.3
Ireland	3.1	0.2	-2.0	-11.6	2.1
Italy	-6.6	-7.1	-0.8	-1.5	1.0
Netherlands	-1.5	-0.3	1.5	8.3	4.6
UK	-1.0	14.3	3.6	7.3	7.3
EC	-1.9	0.9	0.3	2.0	4.5

Source: OECD Economic Outlook: Historical Statistics 1960-1983, Table 10.4, p.99; OECD, Main Economic Indicators, July 1985, p.136 and OECD, Economic Outlook, June 1985, p.126.

TABLE 8
REAL LONG-TERM INTEREST RATES

	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>
Belgium	8.0	8.1	5.9	5.5	6.6
Denmark	10.1	8.4	8.2	5.8	8.1
Germany	3.9	5.9	4.1	4.6	5.1
Greece	---	---	---	---	---
France	1.6	3.8	3.7	4.4	5.0
Ireland	1.1	0.1	1.6	3.0	6.9
Italy	-4.4	0.8	2.0	2.8	3.8
Netherlands	4.3	5.7	3.8	6.6	4.2
UK	-6.5	1.2	4.4	4.9	5.8

EC

--- --- --- ---

Source: OECD Economic Outlook: Historical Statistics 1960-1983, Table 10.8, p.101; Main Economic Indicators, July 1985, p. 27 and OECD, Economic Outlook, June 1985, p.126.

Table 7 shows that 1984 was the first recent year in which several member-states did not have negative growth in the real money supply. For the Community as a whole, these deflationary policies were most evident in 1980, when EC real money supply declined at an annual rate of just under 2%. The years 1983 and 1984 marked the end of the slow growth era for the EC aggregate.

Real long-term interest rates have remained at extraordinary levels (Table 8). Real rates are real ex-post rather than real ex-ante rates, i.e. the deflation of nominal rates has been done with actual, rather than expected, rates of inflation. This table suggests that real interest rates rose

continuously between 1982 and 1984 in the big three members -- France, Germany and the UK. The wild fluctuation of UK interest rates were the result of a strict monetarist policy of targeting the growth of nominal sterling (M3). This policy was finally abandoned after 1981.

TABLE 9
CHANGES IN THE EC POLICY MIX 1980-84

	1980	1981	1982	1983	1984
Real Long-Run Interest Rates (%)	3.9	5.9	4.1	4.6	5.1
Growth of Real Money Supply (% p.a.)	-1.9	0.9	0.3	2.0	4.5
Changes in Real Structural Budget Balance (% of GDP)	+1.46	-0.87	+0.35	-0.04	-0.16

Sources: Interest rates and money supply from Tables 7 and 8; structural budget balance from Table 6. German interest rates as a proxy for EC rates.

Some brief points may be made about the aggregate EC policy mix if German interest rates are used as a proxy for EC-wide interest rates and are combined with changes in the aggregate EC inflation-adjusted structural budget balance. The EC real money growth may also be combined with this fiscal measure to obtain an alternative policy-mix indicator. Table 9 assembles such data (from Tables 6-8) to examine changes in the policy-mix. It indicates that recent EC macro-policy has been conducted within a

relatively narrow real interest rate band, set at very high levels (4% to 6%), but with large shifts in fiscal policy (real structural budget balance: +1.5% to -0.9% of GDP). Using the money supply as the monetary policy measure gives a wider fluctuation in policy (-2% to +4.5%). This measure of the mix highlights the policy reversal which took place from 1980 to 1981. In 1980 there was an extremely deflationary policy mix (+1.46% of GDP for the fiscal measure and negative real money growth of 1.9%). In fiscal policy loosened (-0.87%) and there was real monetary growth again (0.9%). Later, 1983 and 1984 become years of somewhat easier monetary and fiscal policy.

IV. The Inflation-Unemployment Tradeoff

The coexistence of relatively stringent monetary and fiscal policies at a time of high and rising unemployment suggests either the existence of a policy objective other than low unemployment, or little faith in macro policy as a way of alleviating unemployment. Tobin attributes the use of deflationary policies at a time of massive unemployment to European policymakers acceptance of new monetarist theories which embody the use of the rational expectations hypothesis.(12) These ideas have won much less support in US policy-making circles. Rational expectations models suggest that monetary policy has no effects on the real sector of the economy except to the extent that

12. James Tobin, "Monetarism: An Ebbing Tide?", The Economist, April 27, 1985, pp.23-25.

economic agents do not yet understand the policy. Once they do, and have come to know what to expect, all monetary effects are translated into price effects rather than real effects. Tobin's explanation provides a demand-side reason why EC governments have avoided reflation in the face of rising unemployment.

The existence of a policy objective more overriding than the alleviation of unemployment coupled with an agnosticism about the ability to reduce unemployment may be explained by governmental fears of re-igniting the inflation which, EC-wide, had peaked at 15% in 1975 but remained at double digit levels through 1980.⁽¹³⁾ As is commonly known, the race downward from double-digit inflation has been led by Germany which has been the only member-state to avoid a year of double-digit inflation in the past decade. Indeed, in the past quarter-century, the German inflation rate has never exceeded 7%, except in 1970 (7.5%) and 1971 (7.6%).

Spurred in part by their common membership with Germany in EMS, EC members have been in a race with each other to drop out of the double-digit inflation league. Even though the EC inflation rate fell below 10% in 1981, there were still six member-states with rates in double digits in that year -- Denmark, Greece, France, Ireland, Italy and the UK. The UK dropped out of the double-digit league in 1982, followed by Denmark in 1983, and France and Ireland in 1984. When Italy

13. Inflation measured by annual percentage changes in EC GDP deflator from EC, European Economy, No. 22 1984, Table 17, p.213.

left the club in 1985, Greece remained the lone member. As inflation rates were brought down across Europe, unemployment rates rose. Much of the reluctance to espouse more expansionary macro policies to deal with unemployment may be traced to the desire of policy-makers to prevent the re-emergence of high inflationary expectations. Much of the reduction in inflation may be attributed to old-fashioned swingingly deflationary macro policies. The ex-post trade-off between inflation and unemployment in the EC aggregates over the past twelve years is found in Table 10.

TABLE 10.
THE EC TRADE-OFF

	INFLATION	UNEMPLOYMENT
1973	8.3%	3.0%
1975	15.0%	4.5%
1977	9.6%	5.5%
1980	10.9%	6.0%
1981	9.2%	7.8%
1982	9.0%	9.2%
1983	6.4%	10.2%
1984	4.7%	10.8%

Source: Annual growth in EC GDP deflator from EC, European Economy No. 22, November 1984, p.213; unemployment data from Table 1 above.

The European fear that inflationary forces are bubbling just below the surface, and need to be sat on by governments for an extended period of time before high inflationary expectations are finally crushed, comes in part from a belief in the rigidity of EC labour markets. The rigidity or flexibility of labour market adjustment may be thought of as involving any of the three

components in the wage bill: the real or nominal wage rate per hour; average hours worked; or number of employees.

In a comparative study of the postwar US, UK and Japan manufacturing industries, Robert Gordon has shown that the US has the least volatile nominal wage bill.(14) In his decomposition of wage bill volatility, Gordon finds that both real and nominal US wage rates exhibit less volatility than those in either the UK or Japan. His results run counter to those of both Sachs (1979), and Branson and Rotemberg (1980). Moreover, he reports levels of volatility of UK and Japanese real wage growth which are 2-3 times US levels.(15) Gordon also finds that the US has greater volatility in employment than the other two countries, but less volatility in average hours worked. The general picture which emerges from his work is one of US labour markets adjusting through levels of employment, while UK and Japanese labour markets adjust through wage rates and hours worked. But present conditions in EC labour markets would suggest that recent years have been ones in which more of the adjustment has occurred through employment levels.

But is volatility, as measured by a standard deviation, a sufficient definition of flexibility or rigidity? Perhaps not,

14. Volatility is measured by standard deviations of four-quarter percentage rates of change. See Robert J. Gordon, "Why US Wage and Employment Behaviour Differs from that of Britain and Japan", Economic Journal, vol.92, March 1983, pp.13-44.

15. Jeffrey Sachs, "Wages, Profits and Macroeconomic Adjustment: A comparative Study", Brookings Papers on Economic Activity 1979:2, pp.269-319.

since these concepts usually imply flexibility (or rigidity) in the face of a shock of some kind. The measurement of a response to a shock requires a bivariate measure encompassing one variable for the shock and one for the response. Gordon, for example, finds that the nominal wage responsiveness to a change in nominal GNP was several times greater in the UK and Japan than in the US.(16)

In their study of real wage rigidity and unemployment, Grubb, Jackman and Layard see wage rigidity as the "extra unemployment which occurs in the face of a deflationary shock" and find that the US has the highest degree of nominal wage rigidity in the OECD, with the UK having, by far, the highest degree of real wage rigidity.(17) According to their results, most EC countries have greater real wage rigidity than the US. In attempting to use their measures of rigidity to explain the actual pre-1980 increase in unemployment, Grubb et al. find that their estimates overpredict unemployment. But, since the 1980 level of EC unemployment amounted to only 6.1%, well below the 11.5% rate reached by 1985, they may have merely got the timing wrong.(18)

16Ibid., p.22.

17. Dennis Grubb, Richard Jackman and Richard Layard, "Wage Rigidity and Unemployment in OECD Countries", European Economic Review, vol. 21, 1983 pp.11-39.

18. Taylor criticises Grubb et al. for using an unusual definition of real wage rigidity, rather than relying on the more standard notion that wage rigidity measures the extent to which the real wage fails to adjust fast enough to changes in labour

What is the scope for getting European unemployment rates down through a macro strategy of producing short-term GDP growth rates above potential GDP growth? In attempting to discover how much room has existed for the use of traditional demand stimulation as a way of reducing the climb in European unemployment rates, it is necessary to have estimates of the manner in which the NAIRU -- the non-accelerating inflation rate of unemployment -- has shifted.(19) The gap between the observed unemployment rate and the NAIRU provides a measure of the extent of labour market slack which could have been eliminated by demand stimulation without arousing fears of excessive new inflation.

A number of researchers have tracked the manner in which the European NAIRU has shifted upwards in recent years.(20) These

productivity. John B. Taylor, "Comment: Wage Rigidity and Unemployment in OECD Countries", European Economic Review, Vol. 21, 1983, pp.45-49.

19. The concept of the NAIRU originates with the notion that there exists a trade-off between inflation and unemployment (i.e. a Phillips Curve) in the short run, but that there is a downward limit to the ability of macro policy to reduce unemployment in the long run. Reductions in unemployment below this lower bound require structural changes in the labour market. If macro policy is used, it will merely cause the inflation rate to accelerate.

20. Wolfgang Franz, "The Past Decade's Natural Rate and the Dynamics of German Unemployment", European Economic Review, vol. 21 (1983), pp.51-76; Robert J. Gordon, "The Past Decade's Natural Rate and the Dynamics of German Unemployment: Comment", European Economic Review, vol. 21 (1983), pp.83-7; Richard Layard, Giorgio Basevi, Olivier Blanchard, Willem Buiter and Rudiger Dornbusch, Europe: The Case for Unsustainable Growth, Centre for European Policy Studies Papers no. 8/9, 1984; David T. Coe and Francesco Gagliardi, "Nominal Wage Determination in Ten OECD Countries", OECD Economics and Statistics Working Paper no. 19, March 1985.

have included estimates for a number of individual countries as well as for the EC. Germany and the UK are the two countries for which the largest number of estimates exist. The central tendencies of the estimates for these two countries would roughly suggest a present German NAIRU between 5% and 6% and a UK NAIRU between 8% and 9.5%. With mid-1985 actual unemployment rates of 8.8% for Germany and 13.4% for the UK, there would appear to be a spread of 2-3 percentage points between actual unemployment rates and those at which wage increases might be expected to cause inflation to accelerate. Layard et al. made this point particularly forcefully in their 1984 study, issued to coincide with the annual economic report of the EC.(21)

The manner in which the European NAIRU has grown since the 1973 oil shock is striking. Table 11 shows the case of Germany, as an example, while Table 12 provides a Europe-wide estimate.

TABLE 11
GERMAN UNEMPLOYMENT RATES

	NAIRU	ACTUAL
1965	1.7%	-
1973	1.8%	0.8%
1976	3.1%	3.7%
1979	4.3%	3.2%
1981	5.0%	4.4%

Source: Robert J. Gordon(1983), p.87 and OECD, Economic Outlook, June 1985, p.16

21. Layard et al., op. cit.

TABLE 12
EC UNEMPLOYMENT RATES

	NAIRU	ACTUAL
1966-70	2.6%	2.4%
1971-75	5.3%	3.2%
1976-80	5.3%	5.4%
1981-83	7.6%	8.8%

Source: Richard Layard et al., op. cit., p.18.

V. Factor-Income Distribution

There have been profound shifts in European factor shares in the past fifteen years. The 1970s saw labour's share of GDP rise sharply throughout the EC from a 1961-70 average of 74.4% to a 1971-80 average of 75.7%, with a peak in 1975 at 77.8%.⁽²²⁾ In the early years of the present decade the labour share was above the 1970s average, though declining. Not until 1984 did labour's share fall below the average of the previous decade.

Part of the rising unemployment across Western Europe may be seen as fallout from a process by which factor shares of GDP are altered toward more historical levels. Significant shifts in factor income shares presage or accompany major social changes. In social systems relying on market allocation devices, such changes may be expected to provoke responses in the opposite direction.

22. EC, European Community, No. 22, November 1984, p.216.

This paper shrinks from the ambitious tasks of determining "normal" levels of factor shares and the adjustment process by which they would be approached. Moreover, lacking a theory of the state, the paper is not competent to establish links between the macro policy of conservative governments and this adjustment process.

Shifting factor shares are a reflection of changes in the relative bargaining strength of capital and labour. When real wages grow faster than increases in productivity, labour's share of GDP rises. This is what happened through much of the 1970s. However, recent European experience has seen real wage increases lag behind productivity increases. This has been accompanied by substantial labour-shedding. Both of these phenomena alter factor income distribution back in the direction from whence it has come. Some of the rising unemployment may be a reflection of this induced labour shedding.

Conclusion

Western Europe has paid a very high price for the rapid elimination of the inflation of the mid-1970s. It has seen unemployment rates move from 3% in 1973 to 11% in 1985. Part of that price could have avoided if less deflationary policies had been followed. The observed gaps between actual GDP and estimated potential GDP, on the one hand, and between actual unemployment and estimated NAIRUs, on the other, suggest that a

considerable margin existed for easier monetary and fiscal policies without producing severe inflation. This margin appears to have been 2-3 percentage points on the average EC unemployment rate. This margin would have been larger in the absence of structural changes which reduced feasible long-term growth. It might also have been larger if factor income distribution had not undergone such drastic changes in the past fifteen years.