ECONOMIC PAPERS

No. 36   June 1985

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Employment and Growth in Europe:
A Two-Handed Approach

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EMPLOYMENT AND GROWTH IN EUROPE: A TWO-HANDED APPROACH

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I. INTRODUCTION*

Employment in Europe is today at the same level as it was in 1970. As a result, 11,2% of the labor force is unemployed today compared to only 2% in 1970. These are very gloomy statistics. Do they reflect an inevitable new economic reality, or can employment growth be restored?

It is our opinion, developed in this report, that policy measures can and should be taken now to restore employment growth. These measures must act on supply, on structure, at least as much as on demand; otherwise, gains will be temporary at best and may in fact worsen structural problems. Thus, our call for a two-handed approach.

The European employment problem does not have a single cause. To get a sense of where it comes from, one must take a historical perspective and go back at least to the 1960's. At the cost of some over-simplification, history since then can be conveniently divided between the 1960's, the 1970's and the 1980's.

Low real wages and high productivity growth during most of the 1960's combined to deliver sustained profitabilty, balanced growth and full employment. In this environment of sustained growth, labour market rigidities were partly offset by wage drift and job security provisions could be offered by growing firms at little cost. Welfare programmes could be developed by governments without compromising budget balance.

The adverse supply shocks of the 1970's, together with unwarranted wage increases, turned this virtuous circle into a vicious one. Decreases in productivity growth and increases in the price of imported materials suddenly did require a slow down in labour costs which was not easily accepted by workers. While, in this environment of lower growth, job security provisions were now more expensive for firms to provide, they were more essential for workers threatened by job losses; while welfare programmes were more difficult for governments to finance, the need to do something for the unemployed was more pressing. Firms - faced with higher

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direct and indirect labour and material costs, as well as with artificially low real interest rates - turned to investment and labour-saving technological progress, further worsening the employement problem.

The last stage is that of a cyclical demand shortfall in the early 1980's. It is itself largely a consequence of the supply shocks of the 1970's. Attempts by governments to maintain output, and to maintain or expand transfer programmes in the face of adverse supply shocks had led, by 1980, to high inflation and large budget deficits. The fight against inflation and the return to budget balance have been, in most European countries, the top policy priorities of the last four years. While they have been largely successful on their own terms, there is no doubt that they have had until now further adverse effects on output and employment.

There is, we believe, broad agreement on the general story outlined above. There is less agreement on what this implies for the future course of policy. This is partly because of different views about the priorities of economic policy, and partly because of disagreements over the relative importance of the various factors and over the effects of policy on activity. We believe that we can usefully contribute to the debate by reviewing arguments and facts before stating our policy recommendations. In this way the nature of disagreements may be made clearer and the policy debate may be better focused.

We start our report by reviewing unemployment and employment facts. We then turn to the role of supply and demand factors in explaining the current employment woes. We then consider policy options and make policy recommendations.

II. EMPLOYMENT AND UNEMPLOYMENT FACTS

II.1 Employment

The size of the European employment problem is eloquently documented in Table 1. While the US has achieved substantial employment growth since 1970, European employment has remained constant during the same period, first grinding to a halt in the 70's and then declining since 1980. During the last decade, fifteen and a half million additional jobs have been created in the US while the number of European jobs has decreased by a million and a half.

Table 1
The growth of employment and of the population of working age.
(% rate of change, at annual rate)

	1971-80		1980-84	
	Employment	Population	Employment	Population
EC	0,2	0,6	-0,6	1,0
US	2,0	1,8	0,8	1,5

Source: EC annual report, November 1984

What matters however is not employment growth per se, but employment growth in relation to the growth of the population of working age. This puts the European experience in slightly less bad a light. Table 1 also shows the rate of growth of the population of working age to have been lower in Europe than in the US, although one must question the degree to which population growth is unaffected by the employment outlook when migrant workers represent a substantial fraction of the labor force. Even with this adjustment, the employment performance of Europe remains much worse than that of the US. The difference in growth rates during the 70's is of 1,8% for employment compared to only 1,2% for population. For the 80's, the difference is of 1,4% compared to 0,5% for population.

One might expect this difference in employment growth rates to be reflected in a much worse European output performance. Table 2 shows this not to have been the case, at least for the 70's. European and US growth rates have been nearly identical; consequently the rate of growth of labor productivity has been much higher in Europe than in the US.

Table 2
Output and productivity growth

(% rate of change, at annual rate)

	1971-80		1980-84	
	GDP	GDP per worker	GDP	GDP per worker
EC	2,9	2,8	0,8	1,4
US	2,9	0,9	2,0	1,2

Source: Commission of the EC, Annual Economic Report, 1984/85

Labour productivity is measured in the table as the ratio of GDP to the number of workers employed. If we measure it instead as the ratio of GDP to the number of men hours, the difference is even more pronounced, as Europe has experienced a large decrease in the number of hours per worker since 1970. The ex post facts presented in Table 2 may help to explain the widespread European perception that, as output growth is given, labour productivity increases only lead to lower employment. Although difficult to reconcile with theory, this perception certainly fits the experience of the 1970s.

One would like to know whether Europe has been just blessed with higher labour productivity growth, or instead, whether labour productivity growth reflects an effort on the part of firms to decrease the role of labour in production, and is therefore another manifestation of the employment problem. This, however, requires one to go beyond simple statistics, as one must first have a model of how firms can substitute other factors for labour and must then estimate it to find out how much substitution actually took place. We shall examine this issue in detail

later (see Section III.2). We note however that the European Commission's Annual Report 1984/85 performs such an estimation and concludes that approximately one third of the productivity growth during 1973-81 can be attributed to substitution away from labour in the process of production[1].

Another widespread perception is that the US and Europe differ not only in the number but also in the type of jobs which have been created. The first half of table 3 gives the rate of growth of employment by sector for the EC and the US for the period 1973-81 and shows indeed a much stronger US performance in the service sector. The second half of the table, however, reports deviations of employment growth rates in each sector from aggregate employment growth rates. What comes out then is a very similar picture for Europe and the US. At that level of aggregation, there is no substantial difference between the relative sectoral employment performances of the EC and the US.

Table 3
Employment growth by sector, 1973-81

	Agriculture	Industry	Services
	Rates of growth (annual rate)		
EC	-2,8	-1,6	1,2
US	0,0	0,6	2,9
	Deviations from aggregate rate of growth (annual rate)		
EC	-2,7	-1,5	1,3
US	-1,9	-1,3	1,0

Source: Commission of the EC, Annual Economic Report, 1984/85.

II.2 Unemployment

A higher increase in the working age population than in employment must by definition either lead to a decrease in labour force participation or to higher unemployment, or both. Participation rates have indeed fallen in Europe, especially since 1980. As table 4 shows, however, this has not prevented a sharp increase in the unemployment rate.

(2)

Table 4
Unemployment rates

	1961-70	1971-80	1970	1980	1984
EC	2,1	4,2	2,0	6,1	11,0
US	4,7	6,4	4,9	7,1	7,5

Source: Commission of the EC, Annual Economic Report, 1984/85.

Two facts strongly come out. The first is what appears like a steady trend increase in the unemployment rate since 1970. The second is the much sharper increase in unemployment in the 1980's; of the total increase in the unemployment rate since 1970, more than half occured after 1980.

What are the characteristics of this unemployment? The next two tables show that it has less to do with the normal process of reallocation across sectors, of workers changing jobs voluntarily or involuntarily, than with the semi-permanent exclusion of some workers from the labour force. Table 5 gives the proportion of unemployment accounted for by the long-term unemployed:

Table 5
Long term unemployment, as a % of unemployment

	US	France	Germany	UK
1979				
6 months and more	8,8	55,1	39,9	39,7
12 months and more	4,2	30,3	19,9	24,7
1983				
6 months and more	23,9	67,3	54,1	57,8
12 months and more	13,3	42,6	28,5	36,2

Source: Table H, Employment Outlook, OECD, September 1984

Long-term unemployment is a large and increasing portion of unemployment in Europe. The proportions are much higher for European countries than for the US; this is true even in 1979, when overall unemployment rates were roughly equal in Europe and the US.

Table 6 gives numbers for youth unemployment (unemployment among those under 25). These also show a higher incidence of unemployment among the young, and an increase in both the level of youth unemployment and its share of total unemployment since 1979. The differences with the US are less marked, however, than for long term unemployment, for example, and there are marked differences across countries; the German experience is particularly noteworthy in this regard.

Table 6
Youth unemployment rate

	US	France	Germany	UK	Italy
1979	11,3	13,3	3,4	10,6	25,6
1984	13,0	24,7	10,5	23,7	33,7

Source: Table 17, Employment Outlook, OECD, September 1984

No employment growth, high and increasing unemployment and the emergence of a class of permanently unemployed. This is the European employment picture over the last 15 years, with a sharp turn for the worse in the last five years.

III. WHY IS EMPLOYMENT SO LOW ?

The historical overview presented in the introduction makes it clear that high materials prices, labour costs, capital deepening, labour market rigidities and deficient demand all share some responsbility for the current employment woes. The difficult set of questions has to do with

their respective contributions. In this section, we review what we do and do not know about the role of these factors in explaining the current employement situation.

Figure 1 provides a useful guide to our investigation. The schedule CC shows the combinations of output and real wages consistent with the existing technology, the existing capital stock and profit maximisation by firms. NN gives the full employment level of output, so that point E gives the level of real wages consistent with full employment. Points to the left of CC correspond to deficient demand. Were the economy at point B, for example, demand reflation would be sufficient to go back to full employment. Were the economy at point A instead, real wage cuts or higher capital would also be needed to return to full employment.

Figure 1 only gives a picture of the economy at a point in time. Over time, capital accumulation may shift the CC locus. Take for example point E, where there is full employment. If, at point E, the return on capital is insufficient, firms will decumulate capital over time and the CC locus will shift to the left, leading – at the same real wage – to increasing unemployment. Or take the case of a demand contraction from E to B: by decreasing profits, it may lead to capital decumulation and shift the CC locus to the left, preventing a return to full employment without a cut in wages.

These two cases are particularly relevant in the current European context. What is required for steady employment growth is the right combination of factor prices, real wages and capital costs, together with the right level of aggregate demand to sustain supply. Let us consider labour costs, the capital constraint and demand in turn.

Fig. 1
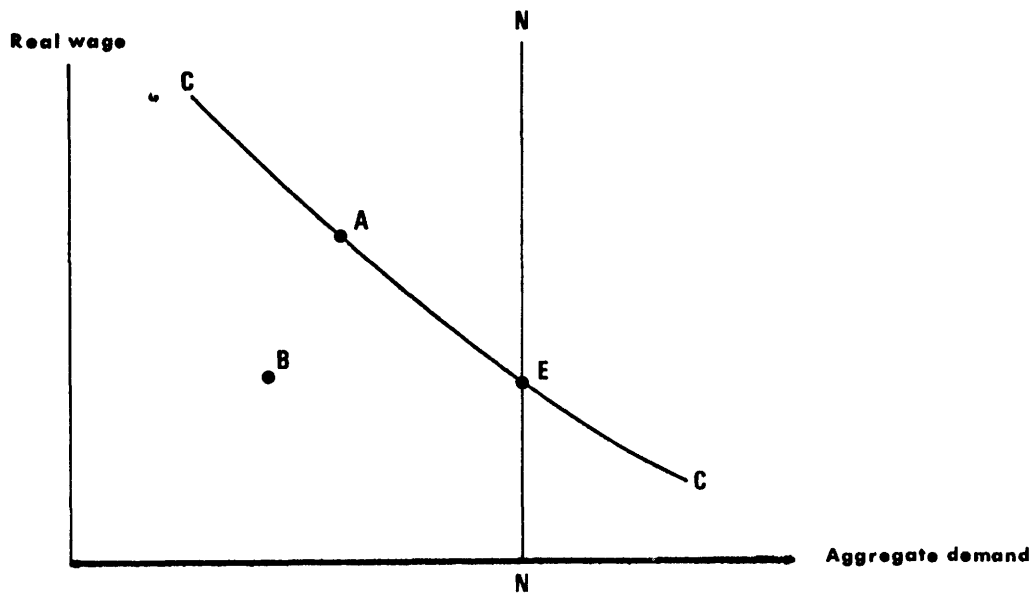
III.1. <u>Real Wages</u>

<u>Wage gap measures</u>

In the aftermath of the two oil shocks, much attention was devoted to wage gaps, which simply measure changes in labour shares from some bench-mark or initial level. Positive wage gaps, the argument went, indicated that real wages were too high, negative wage gaps that wages were too low. Such attempts to learn something from the movement of labour shares alone have now been discredited, for at least two reasons.

The question of whether real wages are too high or too low is not well defined. After a period of capital decumulation for example, real wages may be too high to achieve full employment at the existing capital stock, but may still be low enough to sustain capital accumulation and full employment in the medium or long run.

The other and more important reason is that labor shares are simply not good indicators of a wage problem. They may increase (after an increase in the price of non-labour inputs for example) without reflecting a wage problem. Conversely, an increase in real wages may induce substitution of capital for labor and lead to a wage-induced labour productivity increase, leaving the labour share unchanged and hiding a serious real wage problem.

Production function estimates

The approach that is now used relies on estimation of production functions[2] to disentangle the sources of employment changes. Two recent studies have followed this direction and explored the determinants of output and employment changes in various OECD countries. The findings of one study[3], which focuses on Japan and the UK, are summarized in table 7. They suggest an important role of real wages in the rapid decline of UK manufacturing since 1973: had real wages remained constant, annual growth of labour demand in manufacturing would have been 2.3% higher.

Table 7
Sources of Manufacturing Labour Demand Growth

(average annual % rate of change)

| | 1963-1972 | | 1973-1982 | |
	UK	Japan	UK	Japan
Total growth	-1,5	1,6	-3,9	-0,3
Due to:				
Wages	-1,4	-5,6	-2,3	1,3
Capital	4,2	12,9	2,0	6,3
Material prices	0,2	-0,3	-1,3	2,2
Labour saving				
technical progress	-3,9	-5,6	-1,7	-5,6
Cyclical	0,1	0,3	-0,5	-0,2
Residual	-0,7	-0,0	-0,2	-0,4

Source: L. Lipschitz and S. Schadler, "Relative prices, real wages and macroeconomic policies", IMF Staff Papers, June 1984.

A study by Artus[4] also uses a production function approach to investigate the role of manufacturing real wages in influencing employment in major industrialised countries. Its finding is that for the UK, France, Germany (and Japan!) - unlike the US and Canada - excessive growth in real wages is responsible for the increase in unemployment (taking as given the path of the capital stock). For Germany, France and the UK, the gap between actual real wages and warranted wages (that is, wages which would be consistent with full employment given the current capital stock) ranges between 12 and 16% (See Table 8).

Table 8
Actual and warranted real wage growth

(average annual % rate of change)

| | Germany | | United Kingdom | | France | |
	A	W	A	W	A	W
1973-1978	5,7	3,8	3,5	3,6	5,7	4,7
1979-1982	1,9	1,5	2,8	-0,1	2,5	1,8

Note: A = actual, W = warranted.
Source : J. Artus, "The disequilibrium real wage hypothesis: an empirical evaluation", IMF Staff Papers, June 1984.

How seriously should these quantitative estimates be taken? One must use them with some caution, for at least three reasons.

- The first is that, even on its own terms, estimation of production or demand functions is fraught with difficulties. Measurement of the capital stock in periods of rapid changes in factor prices, or in periods of changes in demand patterns or in periods of high rates of bankruptcy is extremely difficult. What is the contribution of shipyard capital to production? Another problem is that of cyclical adjustment, which is usually introduced at the estimation stage rather than incorporated in the theory and plays a major role in the estimation.

- The second is that, even given capital and other factor prices, the relation between real wages and employment also depends on competitiveness, a factor which is not incorporated in the production function approach.

- The third reason is that real wages (or direct labour costs) are not the only labour costs. Turnover costs, or adjustment costs in general, and inflexibility of the wage structure may also affect employment.

We now consider these issues in some detail.

Real wages and import competition

Most of the discussion about real wages takes place implicitly under the assumption of perfect competition. Firms can sell as much as they want at the prevailing price; but in fact European firms are having a very tough time hustling demand at the going price. They view increasing import penetration as a very serious issue, and indeed it is.

To think about the issue of import competition, one must relax the assumption of perfect competition in product markets. We can think of the problem most easily in terms of monopolistic competition, where each firm's demand depends on aggregate demand and the firm's price relative to the

industry average. Import competition here simply takes the form of a reduction in the industry-wide price because the import segment of the industry price falls. All domestic firms face an inward shift of their demand curve. They react by contracting output and employment.

Conversely, if the home country gains in international competitiveness, perhaps because of exchange depreciation at constant wages, there is an expansion in output and employment at the expense of foreign competitors (see appendix 1). In both cases, the real wage, defined as the ratio of the nominal wage to the output price may not change; the production function would simply not detect the wage problem.

In the period 1980 to 1985, there have been offsetting effects from the large dollar appreciation that promoted competitiveness and from the increasing gain in cost competitiveness on the part of the NIC's. The balance is unclear, but as we note below, if the dollar comes down, and competition from the NIC is the only effect left, then there might well be a serious real wage problem.

Hiring and firing costs and employment

The production function approach, or more generally the focus on direct labor costs, neglects altogether the labour costs that arise in connection with movements in employment. These include hiring costs as well as firing costs, severance payments or tenure restrictions. If hiring workers includes a large fixed cost, firms will be much more reluctant to hire if other possibilities are open to them. If dismissing workers is costly, firms will take this into account at hiring time. These costs will have a substantial effect on the level of employment.

An important point here is that, for a given set of severance rules, severance costs will be higher, the lower is the rate of growth or the more variable is demand. In an economy where demand is growing in a stable fashion, severance pay or severance restrictions present little risk for firms. Most firms survive and in most years expect to have positive gross hires. If a mistake is made, it takes the form of hiring a worker a

few months too early. Firms (or the government) can be generous with severance pay because most of the time it does not have to be paid.

Suppose now that growing demand turns flat or that stable demand turns volatile. Extended recession periods become a real possibility. The given severance pay and rules now become an important obstacle to employment creation. Firms respond to a pick up in demand by relying on overtime, not by increasing employment.

There is an interesting conundrum here with important implications for policy. With low growth, severance costs and tenure arrangements represent substantial costs to firms; but once these costs are there, employment growth may in turn be harder to restore and relinquishing the rules becomes more difficult.

What evidence do we have about the size of this effect? Not much, as not much work has been devoted to this issue. One can gather direct evidence on growth and variability of demand. That growth has decreased is obvious. What about variability of demand? Table 9 gives some evidence using OECD data.

Table 9
Changes in sectoral employment shares

	France	Germany	Netherlands	United Kingdom
1957-61	6,16	7,79	4,04	3,23
1961-65	7,29	7,24	6,03	5,04
1965-69	7,04	5,76	7,80	5,28
1969-73	8,12	8,42	7,74	6,91
1973-77	8,14	7,87	8,19	6,54
1977-81	6,52	4,73	6,13	——

Notes : The figures in the table are calculated as $\sum |e_{it} - e_{it-4}|$,

where e_{it} is the % share of sector i in total employment at time t and there are eight sectors in each country (agriculture, mining, manufacturing, utilities, construction, distributive trades and catering, transport and communication, services).
Source : OECD labour force statistics, various years, chained.

At that level of aggregation and with this crude measure, demand appears less, not more, volatile than in the 1960's. It is possible that more disaggregated measures would show more volatility in the recent period. More importantly, changes in sectoral employment shares may be poor proxies for what we are trying to capture. Small changes might result not from smaller variability of demand but from the very ossification of labour markets we discussed above.

One can also examine the dynamic output-employment relation for evidence of the strength of severance-tenure arrangements. One would expect these arrangements to lead to a small and slow response of employment in Europe to output changes. Here again the empirical evidence is only mixed at best. Employment responds to demand and the lag is not very substantial. Moreover, the US and German employment-output linkages are almost identical. However, the employment response to output is much smaller in France and the UK than in the US. Table 10 shows the evidence on this point.

Table 10
Effect of output growth on employment growth

	United States	France	Germany	United Kingdom
Elasticity	0,83	0,33	0,76	0,54
Mean lag (quarters)	1,9	2,2	2,2	3,4

Note: These estimates are obtained from regressions of employment growth on output growth using a third-order unconstrained Almon lag and first order serial correlation correction. The sample period is 1970:1 - 1983:4. The elasticity reported in the table is the sum of the coefficients on output.

Wage dispersion and wage flexibility

A common argument in the European employment discussion concerns wage dispersion, wage flexibility, and work rules in general. The European wage structure, it is said, is both less responsive to supply and demand

changes and much narrower than its US counterpart. Outdated work rules impair productivity and profitability. The result, it is argued, is higher unemployment.

There is no question that silly rules impair employment: prohibiting Sunday work, or requiring statutory surcharges for night hours, etc. simply close-off jobs that might otherwise appear. There is no doubt that here the difference with the US is spectacular.

Wage dispersion

What about wage dispersion and wage flexibility? We start with wage dispersion. Table 11 shows comparative data on wage dispersion in the United States, the United Kingdom, and Germany for a sample of nine industries in 1975 and 1982 and reports coefficients of variation. The facts are clear: although the increase in dispersion from 1975 to 1982 has apparently been twice as large in Germany as in the United States, the United States has still greater dispersion than either Germany or the United Kingdom.

Table 11
Wage dispersion: 1975 and 1982

	United States		United Kingdom		Germany	
	1975	1982	1975	1982	1975	1982
Mean	6,35	11,63	3,26	6,80	6,19	10,44
Standard deviations	2,32	5,48	0,61	1,85	1,19	3,06
Coefficients of variation	0,37	0,47	0,21	0,27	0,19	0,29

Note: All numbers are in dollars. The means, standard deviations, and coefficients of variation are computed using a sample of nine industries: apparel, textiles, iron and steel, motor vehicles, chemicals, leather, paper, electrical equipment, and electrical machinery.
Source: US Bureau of Labor Statistics, unpublished data.

This picture is confirmed by studies of wage dispersion at a more disaggregated level[5]: wage dispersion is lower in Europe than in the US.

But what is the relation of wage dispersion to employment? This is far from being an easy question to answer. Lower wage dispersion could simply be the result of market forces and reflect a different technology and skill distribution in Europe. This is, however, quite unlikely; there is little reason to expect Europe and the US to differ so drastically in this respect. Furthermore, once government regulation, union wage-setting and tradition have taken their toll, there is no longer a presumption that wage differentials reflect productivity differentials. Employment and technology will adjust to the wage structure rather than the converse. What does this imply?

A compression of wage differentials, say by the imposition of a minimum wage, will simply cut out low-wage industries, substituting imports for domestic employment or abolishing the goods altogether (i.e. shoeshines and home-delivered rolls). The same is true when regional wage differentials are not allowed: labour in disadvantaged areas will be unemployed rather than employed at lower wages.

One must, however, bear in mind that there are two ends to the wage distribution: low wage-dispersion, for a given mean wage, implies relatively low wages at the top. High-wage industries get cheap labour and low-wage industries go out of business. The net effect in the short run is adverse. But in the long run, capacity can expand and create more jobs in the high-wage industries. The ultimate effect on employment may be small.

Wage flexibility

What about short-run wage flexibility, i.e. the response of wages to shifts in supply and demand? The standard approach has been to estimate relations in the form:

$$W_i/W = a + b \ (U_i/U),$$

where W_i/W refers to the growth of wages in a particular region or sector relative to aggregate wage growth and (U_i/U) refers to unemployment (or vacancies) in that region or sector relative to the aggregate. The coefficient b can then be thought of as a measure of wage flexibility. Estimates of b for the UK are very low, suggesting little wage flexibility; we are not aware, however, of systematic inter-country comparisons[6].
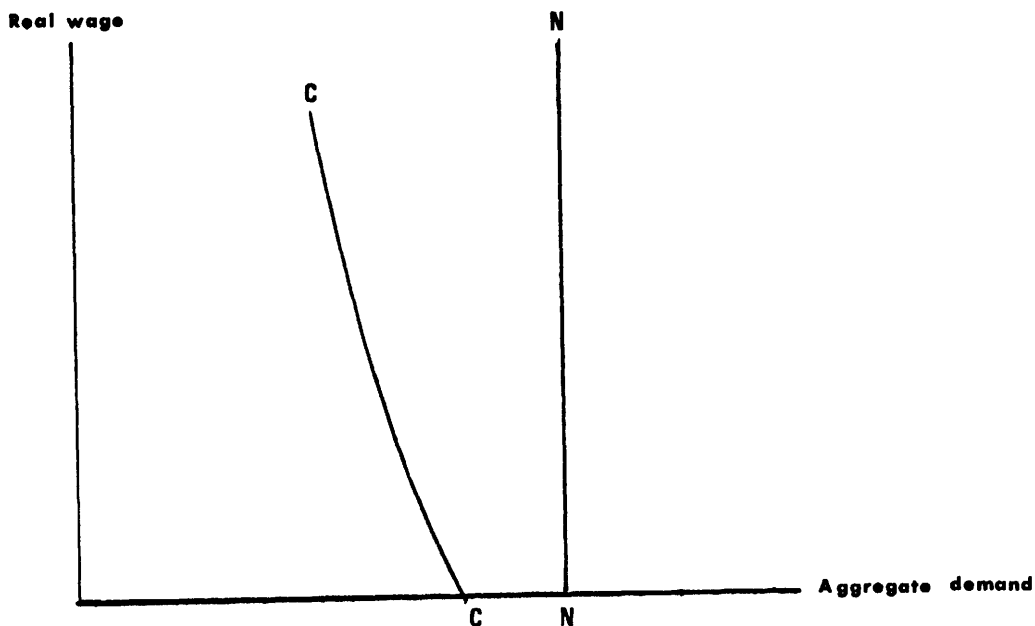
Again, suppose that wage flexibility is low in Europe. How is wage flexibility related to employment? The relation here is more straightforward. The less wage flexibility, the harder it is for expanding sectors to recruit new labour and the harder it is for declining sectors to remain competitive. Given the constant need for labour reallocation, the less wage flexibility there is, the higher is the equilibrium level of unemployment and the lower is the level of employment. This is hard to quantify but is surely present in Europe.

III.2. **The capital constraint**

In considering the capital constraint, we start by reviewing the conceptual issues associated with the role of capital in the current employment situation.

Does it make sense to think of a separate capital constraint? As we have seen, at a point in time it surely does. If the capital stock is low, for whatever reason, fewer workers can be employed at any given real wage. In Figure 1 (page 9), the lower the capital stock, the lower the level of employment at a given real wage. If in the short run there is little substitution between capital and labour and if the capital stock is low, the economy may be more accurately described by Figure 2. In that case there is simply no real wage at which the economy can in the short run achieve full employment. In a real sense, the constraint on employment is in this case first and foremost a capital constraint.

Fig. 2

Real wage   **N**

                           C

                                                  Aggregate demand

                                        C   N

But capital is not a given, unaffected by economic events. In a longer time perspective it is endogenous, being determined by the state of demand and factor prices. In that perspective, low capital may come from an increase in the cost of capital at given real wages. This increase may come from increases in real interest rates or changes in the tax treatment. If real wages remain at their initial level, this increase in cost leads to decumulation of capital in parallel with a steady decrease in employment. The process stops when the economy has run itself into extinction or when real wages finally decrease to offset the higher cost of capital.

Low capital may, on the other hand, come from an increase in wages or in general labour costs in the face of a constant required rate of return on capital. In this case, the increase in labour costs leads firms to emigrate or to try to save on labour and shift to a more capital-intensive technology. But it also squeezes profits, leading on balance to less investment and to capital decumulation. Capital deepening together with an overall decrease in capital accumulation combine in turn to lead to a steady decrease in employment. Again, the process stops only when either real wages give or when the required return on capital decreases.

The capital constraint in this case is a dynamic implication of the labour cost problem. However, as time passes, the capital decumulation leads to a true capital constraint and makes the labour cost problem steadily more severe. When capital has decumulated, the decrease in real wages necessary to achieve full employment quickly is much larger than at the beginning of the process.

Finally, low capital accumulation can come from low demand at given factor prices. This is the well known and empirically very strong accelerator relation between demand and investment.

With these preliminary remarks in mind, what can we say about the role of capital in the European unemployment problem? Table 12 gives the basic investment numbers since 1970.

Table 12
The investment performance

	Investment as % of GDP		Rate of change, %	
	EC	US	EC	US
1971-80	21,3	18,5	1,5	2,4
1980	20,8	15,6	1,6	-6,1
1981	19,9	15,5	-4,5	1,5
1982	18,9	14,3	-1,7	6,8
1983	18,5	14,6	-0,1	8,4
1984	18,7	15,8	3,2	13,2

Sources: Commission of the EC, Annual Economic Report, 1984/85 Statistical Annex Table 14, and Data Resources Inc.

There is again a sharp contrast between the 1970s and the 1980s, and between the US and Europe. The rate of growth of investment in Europe in the 1970s was small, but higher than the rate of employment. This suggests — and estimated production functions seem to confirm this view — that the 1970s were a period of low capital accumulation and of capital

deepening. The strong productivity growth performance of Europe in the 1970s was at least partly a reflection of the labour cost problem.

What about the 1980s? The dismal performance of investment, especially compared to that of the US, may either be bad news or mixed news. It is bad news if it simply reflects capital decumulation: firms faced with low aggregate demand since 1980 (more on this in Sec. III.3.) and high real interest rates and labour costs have responded by cutting investment spending. It is mixed news if it reflects not only capital decumulation but also the choice by firms of less capital-intensive technologies, a partial undoing of the earlier period of capital deepening. That is, firms think that labour market improvements are here to stay, believe that the cost of labour will be lower in the future than in the past, and are returning to more labour-intensive technologies. In this latter case prospects for employment ar less grim than in the former.

How can we tell? This is not easy to do without looking at a more disaggregated picture of investment in the last five years. However, some hint is given by the recent behaviour of capacity utilization. If low investment reflects the net disappearance of capital, one would expect capacity utilization numbers to be high despite the lack of output growth. If low investment reflects instead a shift towards more labour-intensive machinery, the firms should be in a position to satisfy an increase in demand. Recent capacity utilization numbers give credence to the bad news hypothesis: while GDP growth in Germany over 1983-84 was 3,4%, the increase in capacity utilization (in manufacturing) over the same period was 5,7%. Capacity utilization rates are now high in many EC countries![7]

Overall, the evidence suggests that although capital has not been the limiting factor, the decline in investment over the last five years implies that, were aggregate demand to be increased, capital shortage might turn out to be a relevant constraint on expansion of output[8].

III.3. Deficient demand

One remarkable feature of the recent unemployment experience is the sharp increase in unemployment in the early 1980s in all the EC countries. One would not expect supply factors (except for clearly identifiable major changes, such as a doubling of the price of oil) to lead to such a rapid and generalized increase in unemployment in so short a time. Rather one would expect these factors to increase slowly the sustainable rate of unemployment, perhaps by increasing the rate of inflation at a given rate of unemployment and forcing governments to accept more unemployment, or to lead slowly to a deterioration of the trade balance over time, leading governments to force a decrease in the product wage.

It is our opinion that a sharp decrease in aggregate demand is indeed the proximate cause of the rise in unemployment in the EC since 1980. The use of monetary policy to fight inflation and the major shift in fiscal policy towards "budgetary consolidation", however justified, seem to explain much of the poor growth performance of the 1980s[9]. Consider the figures given in Table 13 concerning fiscal policy. They show cyclically adjusted, inflation-adjusted deficits for the larger EC countries as well as for the US[10].

Table 13
Fiscal balances: % GDP

	(mid-cycle, inflation-adjusted, general government) minus sign = deficit				
	US	D	UK	F	I
1979	1,3	-3,3	0,6	-1,0	-1,2
1984	-1,3	0,8	1,7	-0,2	-1,9

Sources: OECD, "Structural budget deficits and fiscal stance", Working Paper 15, July 1984, and OECD Economic Outlook, July 1984.

It is clear that there has been a dramatic change in fiscal policy in Europe during the period. Structural deficits have been reduced in almost all EC countries. For the EC as a whole, cyclically and inflation-adjusted deficits were reduced by close to 2% of GDP from 1981 to 1984[11].

It is difficult to determine the respective roles of fiscal consolidation and monetary stabilization in the contraction of aggregate demand in the last four years. The theory of fiscal and monetary policy under flexible exchange rates suggests that much of the change in the fiscal stance gets dissipated in exchange rate movements. However, the strength of the fiscal-led US recovery is proof that fiscal policy can be very effective in the country in which it originates, even under flexible rates.

The argument must be symmetrical and apply to the European contraction, with one important qualification. Fiscal expansion in the US has largely taken place through tax reductions on both households and firms. Fiscal stabilization in Europe has largely taken place through reductions in transfer programmes and government consumption. In that sense, despite their opposite effects on the budget, both fiscal programmes may have improved incentives.

This being said, two important caveats must be made which will relate this conclusion to the discussion of the role of supply factors. The first is that, even if aggregate demand is the proximate cause of the sharp increase in unemployment, it is quite possible that, behind the scenes, the sustainable level of unemployment has smoothly but steadily increased during the same period.

The second caveat is that what demand does, demand cannot necessarily undo. For example, it is possible for a sharp decrease in demand to create Keynesian unemployment, but to lead to classical unemployment over time through its adverse effect on investment and capital accumulation. In this case, although an increase in demand early in the process would sustain an increase in output, the same increase later may be

of little use, as the capital stock is no longer there to allow for an increase in production. We have seen that the investment performance of the EC has been poor for the last four years. Whether this tells us that Keynesian unemployment is slowly becoming classical depends on whether this low level of investment reflects reverse capital widening or reverse capital deepening, an issue we have already discussed.

Quantifying the contributions of supply and demand factors in the determination of unemployment is obviously very difficult. As the sustainable rate of unemployment is also the non-accelerating inflationary rate of unemployment (the NAIRU), there would appear to be a way of estimating this rate and its evolution through time just by estimating the unemployment rate at which inflation does not accelerate. But this turns out not to yield very precise estimates[12]. Empirical results suggest an increase in the sustainable rate, but give little indication as to the size of the increase.

What is needed therefore is an estimation of a structural model. Layard and Nickell[13] have recently attempted such a task for the UK. Their model does not include all of the factors we have considered in this section (e.g. it does not include measures of wage dispersion or of the decrease in employment flexibility), and their way of measuring some of the factors they include, such as the mismatch index or the effects of unions, is certainly subject to discussion and disagreement. Nevertheless their results shed light on the issue. They are summarized in Table 14, which gives the average unemployment rate as well as their estimated natural rate for the various periods.

Table 14
Actual and "natural" unemployment rates in the UK

	1967-74	1975-79	1980-83
Actual rate	3,8	6,8	13,8
"natural" rate	4,1	7,8	10,7

Source : R. Layard and S. Nickell, "The Causes of British Unemployment",
National Institute Economic Review 1/85, N° 111, February 1985, Table 7.

The table suggests two conclusions. The first is that of a substantial 6,6% increase in the sustainable rate of unemployment since the beginning of the 1970s. The second is of a large increase in the actual rate over this sustainable rate since 1980.

IV. THE MEDIUM-TERM OUTLOOK

Things have been grim for the last five years. Is there light at the end of the tunnel? Table 15 gives the forecasts of the EC Commission:

Table 15
Forecasts for 1985

	1984	1985
GDP* volume	2,2	2,3
Employment*	0,0	0,0
Population of working age*	0,9	0,5
Unemployment rate	11,0	11,5
Real unit labour cost*	-0,9	-1,2
Inflation rate (private consumption)	5,1	4,2
Cyclically and inflation adjusted budget balance (as % of GNP)	-2,0	-1,6

* growth rate
Source : Commission of the EC, Annual Economic Report, 1984/1985.

These forecasts do not suggest dramatic changes in the near future. Positive growth is forecast, but at a rate so low that employment is not expected to increase. As a result, unemployment is expected to increase further, to 11,5%.

The good news is thin. Inflation will decrease by another 0,9%. Investment intentions are stronger than in the recent past, leading the Commission to forecast a growth of 3,6% in investment for 1985. Real unit labour costs will decrease, by another 1,2%, bringing the total decease since 1981 to 3,8%. This is indeed good news if the real wage problem is at the centre of the European problem. Although this represents a shift in income distribution, it still represents a relatively small decrease in labour costs. Are there signs that other labour costs, direct and indirect, are also decreasing?

The EC report's list of measures implemented or likely to be implemented in the near future is no cause for optimism[14]. Many of the changes are programmes or legal modifications which will make low employment more tolerable - such as work sharing, early retirement, and youth training - but do not go to the core of the unemployment problem. Isolated experiments, such as the lifting of legal restrictions on the organization of the work week, or the length of initial training periods, are taking place; but at this stage they are of marginal quantitative importance.

The forecasts therefore are for more of the same. Can one reasonably hope for pleasant surprises? Can one hope for an investment boom of the US variety? US evidence shows the strong performance of US investment to be due for the most part to the strong output performance. Given the expected stance of fiscal policy, one should not expect an investment boom in Europe. The uncertainties seem, if anything, to be on the down side, the main one being the dollar.

Although we do not expect a sudden collapse of the dollar, surprises, if they happen, are more likely to be in the direction of dollar depreciation. That is, the current high dollar is consistent with expectations of a further small appreciation with large probability, and of a large decline or collapse with a small probability. A dollar depreciation would easily wipe out the progress made in Europe on the real wage front in the last few years. (We have discussed this earlier. See Section III.1, Real wages and import competition.)

V. THREE INFERIOR OPTIONS

To set the stage for our own proposal, we review three other options and show why they are inferior.

V.1. Stay on course and hope for the best

The first is to pursue the austerity strategy. As we have seen, this strategy can claim some victories: fiscal consolidation has been achieved in many - but not in all - countries; inflation is down by 6% since 1980. But is the strategy winning on the employment front? We have seen that the near future does not hold much promise. But is it just a matter of time before the strategy succeeds?

We do not believe that it will. The question posed by the austerity strategy is this: as slack leads to a deterioration in short-run profitability, do the slack-induced cuts in real wages more than compensate? If so, each day is a victory on the way to prosperity. If not, each day is another day of destruction of the economy's supply-side potential.

The answer, we believe, has been given by the performance of the last few years. Despite some real wage cuts, the investment performance has been dismal. As we have discussed, it probably does not have much to do with a return to more labour-intensive technologies, but is more a

response to poor profitability. The short-term outlook under current policies is not satisfactory; we see no reason why the medium-term outlook would be any better.

V.2. Further cuts in real wages

Another option is to go for major cuts in real wages. The argument for further wage cuts is a powerful one. If labour costs are too high, there is simply no way to restore steady full-employment growth. One way of reducing labour costs is obviously to reduce real wages. In all likelihood, however, the only way to get major wage concessions is to intensify the austerity measures. Given our assessment of current austerity programmes, our appraisal of this strategy is not positive. Two further elements are relevant here.

The first is that unemployment as a method of wage reductions may not work in the medium run. What workers give up under pressure, they may want back, at least in part, if and when the economy improves. Even if the gains are permanent, unemployment runs into diminishing returns. We have seen that the proportion of long-term unemployed in total unemployment has steadily increased. Many of the long-term unemployed have effectively ceased looking for work and, as a result, may be inefficient draftees in the fight against high real wages and inflation.

Some empricial evidence can be adduced on that point. One can regress Phillips curve type relations, separating unemployment between less than 6 months (U_s) and more than 6 months $(U)_l$ Such a relation, estimated for the UK and D for the period 1964-1982, gives:

UK: $w = .64$ p(-1) $+ .36$ w(-1) -3.1 U_s $+ .3$ U_l $+ .004$ time
   (2.2)   (2.2)   (2.2)   (.5)   (2.0)

D : $w = .36$ p(-1) $+ .64$ w(-1) -1.7 U_s $- .2$ U_l $+ .002$ time
   (1.9)   (1.9)   (1.6)   (.1)   (1.1)

where w is the rate of growth of hourly manufacturing wages and p is the rate of CPI inflation (t-statistics are in parentheses). These regressions suggest that the long-term unemployed have played no decisive role in wage negotiations.

The second element is that, as we have argued, real wages (or, more generally, direct labour costs) are not the only obstacle to employment growth. Rigidities of all sorts are probably as important. Austerity and high unemployment may wear out some of them, but they hardly seem to be the best tools for the job.

V.3. Demand expansion

The opposite strategy to consolidation is demand expansion. Advocates of a demand expansion have argued that it would increase output and productivity, directly solving the unemployment problem and indirectly solving any real wage problem by temporarily boosting productivity growth above real wage growth.

To a large extent this has been the strategy followed by the US in the 1980s, although - and this is important - with strong supply-side support in the form of deregulation and substantial tax subsidies to investment. There is little doubt that the place is booming and that the US malaise has all but disappeared. But this expansion has not come without unpleasant side-effects. Overvaluation of the dollar is creating serious difficulties in trade-exposed manufacturing and agriculture. Public and external debt are rising, implying the need for a perhaps painful fiscal consolidation in the future.

These side-effects may still be worth the price for the US. But the US is not Europe. A straight, across-the-board demand expansion would probably be much less successful in Europe. There is no doubt that it could reduce unemployment somewhat; but the previous section makes clear that there would be serious risks involved.

Such a strategy relies in effect on two bets. The first is that demand expansion creates enough investment and capital accumulation to avoid any capital constraint. The second is that demand expansion will remove the rigidities which must be overcome if full employment is to be achieved again. The second bet is a very risky one for Europe. There is little reason to expect many of the rigidities to disappear by themselves. Indeed, demand expansion may well alleviate the perceived need for structural changes. In that case improvements would be temporary at best, doing little to restore sustained employment growth in the future.

VI. THE TWO-HANDED APPROACH

Neither supply nor demand measures will by themselves create and sustain employment growth. This simple point forms the basis of our approach: structural changes on the supply side are required if employment growth is to be sustained, but a boost is needed to start the process. This boost must come from timely supply measures, sustained and validated by demand. As, in any event, the process of return to full employment is likely to take some time, some emergency measures may have to be taken to alleviate and distribute the burden of low employment more fairly. We develop each of these points in turn.

VI.1. The need for structural changes

Steady employment growth implies the removal of many rigidities. How much flexibility needs to be reintroduced and in what particular form will depend upon circumstances. The direction however is clear and the key idea should be - in addition to the removal of the most blatant restrictions - to increase the menu of options available to firms and workers. We shall take only a few examples.

The standard employment relation in Europe is now one in which, after a short training period, workers are given substantial job guarantees which make termination costly for the firm. Firms could instead offer two types of contracts: one with job guarantees and one of fixed length (such

contracts are now being considered in Germany, under the Flexi-Konzept).
Presumably workers choosing the tenure contracts would pay for the
insurance in the form of lower wages. Alternatively, severance payments
could be decreased or the initial training period could be made longer.
The latter possibility now exists in Belgium.

There is no question that many such changes, if applied across the
board, would decrease the job security of those already holding jobs. The
issue arises of whether changes should only apply to new contracts and
preserve existing rights, in effect creating a dual structure in the labour
market, at least during a transition period.

We believe that this dual structure between two types of employed
workers is much less objectionable than the current dual structure which
has the employed on one side and the unemployed on the other. We also
return to an argument we made before: if employment growth is restored, job
security provisions are less essential for workers than they are today. In
the end it is the stronger macro performance which provides the security,
not regulations.

Along the same lines, measures which allow for more flexible hours,
for more flexible weeks, and which remove the tax penalties or the legal
restrictions on part-time employment or work-sharing should also be passed
by government, giving more options to firms and workers. Here again, many
governments have started doing just that; all that is needed is an
intensification of this effort.

Measures which allow for more wage flexibility and more potential
wage dispersion are also essential. The tax and transfer system can be
used to achieve some of this, for example to decrease the cost of low-
skilled labour. Where social insurance benefits have become more citizens'
rights than workers' rights, there might be an argument for financing them
out of income taxation. As income taxation is more progressive, this would
lead to a reduction of the costs of low-skilled versus high-skilled labour
to firms, although the usual negative incentive effects of progressive
taxation must be taken into account. Clearly, the same can be accomplished

by decreasing social security and other contributions on low wages directly.

Sectoral and regional differences must be recognized in national wage agreements. For example, trigger schemes, which would exempt regions or sectors in difficulty from minimum wage legislation or from wages negotiated in national agreements, should be considered.

These are only some of the measures which should be considered. Rigidities exist in goods markets as well, in the form of trade protection (both within the EC and with respect to countries outside the EC), obstacles to the creation of new firms, and in financial markets. These rigidities should also be removed.

VI.2. A supply boost

All of the above measures are essential for long-term employment growth. But they will only make a gradual contribution; something much more immediate is needed to change the course of events. We believe that, in the short run, Europe should be given a supply boost, i.e. a set of timely supply incentives which, together with demand, would start improving employment now rather than in five years. In turn, an improvement in employment prospects now will make it easier to obtain the social compact needed to achieve labour market changes.

To accomplish this we advocate both investment incentives and marginal employment subsidies. Investment incentives are essential if we are to avoid a situation where demand expansion runs into the capital constraint. The incentives could take various forms. The most attractive is a large investment tax credit for a period of a few years, as it provides an incentive for firms to shift investment forward in time[15] and thus may start the process of renewed growth earlier[16].

Pending more fundamental changes in labour markets, we are also in favour of substantial marginal employment subsidies: labour taxes on net increases in employment in existing firms and on hiring by new firms should

be partially or fully waived. This will further increase profitability and employment. There are obvious difficulties in implementing such subsidies - in deciding about when and how to phase them out[17], in avoiding abuse and losses in tax revenues that do not create employment. Given what is at stake, these problems are worth confronting.

Finally, these measures and the associated expansion, if it comes, must not lead to renewed wage growth for the time being. As we have seen, real wages are surely too high to achieve full employment today, given the low capital stock. They may also be too high to sustain steady employment and capital growth, but nobody knows by how much; there would almost surely be a wage problem if the dollar went down sharply.

We believe that structural changes on the supply side are more important than wage cuts at this stage, that they require a social compact which may not be feasible if workers are asked to take substantial wage cuts. A reasonable goal is for negotiated real wages to remain constant. This implies, once wage drift is taken into account, about a 1 to 2% rate of increase per year in real wages and little change in unit labour costs.

VI.3. Supply and demand

Supply measures, without accommodating demand policies, will have little impact on employment and output, at least in the short run. As we have seen, the experience of the 1980s in Europe strongly confirms that if firms do not see improved sales prospects, they will not increase capacity in response only to an improvement in factor prices. The US experience during the same period shows on the other hand that the combination of reductions in factor prices and of a complementary demand expansion leads to very large increases in investment. The same is just as true of employment. Thus it is essential to make sure that demand is there to sustain supply.

Will demand be there? Investment tax credits create demand for investment goods. Increased competitiveness will shift some demand towards European products, but the effect is likely to be slow. These two effects are clearly not enough to make much of a dent in the unemployment rate in the near future.

We believe that, in the countries which have substantially achieved fiscal consolidation, tax reductions incurred because of additional investment and employment by firms should not be compensated by increases in other taxes. The old principle that public deficits should only finance investment so that they can be repaid later applies here. By their very nature the tax shortfalls will only be incurred if supply is increased; they should be considered investments in the future tax base. Some countries might even consider going further. To the extent that income tax reductions are actually being considered for the future, as in Germany, a good case can be made for implementing them now.

Monetary policy must also play an important role. With increasing supply, the economy can accommodate higher demand and there should be no hesitation in increasing nominal money growth to go along with real growth. The extent of demand expansion as well as the relative use of fiscal versus monetary policy must of course be adapted to each country. Those countries in which the adjustment has been small, both in terms of fiscal consolidation and the inflation rate, should obviously concentrate relatively more on consolidation and supply-side improvements, while being relatively more moderate in domestic demand management.

We are reluctant to quote target real growth rates. But we want to re-emphasize the major theme of the 1984 report by the CEPS Macroeconomic Group. To decrease unemployment, a period of growth in excess of trend will be needed. If the supply side is there, there should be no reluctance on the part of governments to aim for higher growth rates for the near future.

VI.4. <u>Emergency measures</u>

Even under the most optimistic scenarios, the next few years will still be years of high unemployment. Emergency measures should be considered to alleviate and distribute more evenly the unemployment burden: job programmes for the long-term unemployed and work-sharing. They will not solve structural problems and only marginally contribute to steady employment growth. They even go against the grain and the logic of some of the structural reforms. They should nevertheless be considered in view of the welfare effects of current employment.

A temporary job programme for the long-term unemployed will not in the context of the suggested social compact lead to real wage and inflation explosions. We have shown that the long-term unemployed have little effect on either one. Thus, removing them from the unemployment pool will have little effect also. Measures which ensure that the long-term unemployed can find a place in a public programme should be considered. After many years of low public capital accumulation and maintenance, there are many projects for which the skills of the long-term unemployed can be used.

Similar arguments apply to work-sharing. The fallacy underlying much of the discussion about work-sharing is that there is a permanent shortage of jobs in Europe. There is no basis for such a proposition. Yet for the next few years, there is indeed a shortage and, as a consequence, great inequity between those who have a job, and hence a career and the prospect of fulfillment, and the unemployed who are left out. Not having a job means that over time their ability to screen themselves into employment deteriorates. After three or four years of recession, having held at best temporary jobs, their lifetime career opportunities are dramatically different from those privileged to have had a job. Voluntary work-sharing is a possible answer, even if it involves extra costs and hence quite possibly some cuts in aggregate employment. But it must be clear that work-sharing is second best. It is a sensible strategy for the transition, given the assurance that a transition is taking place. It must not become a palliative, which makes reform less pressing and ultimately leaves everybody worse off.

In summary, we believe Europe should tackle its employment problem. What is now needed is a social pact in which supply-friendly measures go hand in hand with a vigorous recovery.

Appendix 1 : Monopolistic competition and
labour demand in the open economy

Consider the standard monopolistic competition model applied to macroeconomics. The firm faces a demand $D_i = A(p_i/p)^{-x}$ and technology is represented by a constant unit labour requirement $D_i = N_i$. The firm therefore maximizes profits:

$$V_i = p_i D_i - wN_i.$$

The closed economy wage-price relation therefore is:

$$w/p_i = (x-1)/x,$$

where x is the elasticity of demand faced by the individual firm defined positive and larger than unity, and pi is the price charged by the ith firm. Labour demand of the typical firm is

$$N_i = K(P/w)^x.$$

Here K depends on the industry level of demand. The industry price level is given by

$$P = \left[\frac{1}{m}\left(\sum_i P_i^{1-x} + \sum_j P_j^{*1-x} \right) \right]^{\frac{1}{1-x}}$$

where m is the number of firms and the indices i and j denote domestic and foreign firms.

Now for domestic firms the price is fixed by the wage. But foreign prices enter the aggregate price index and hence employment determination. The industry real wage therefore becomes a function of the relative wage in a common currency and the relative number of domestic and foreign firms.

$$P/w = z(a+(1-a)(w*/w)^{1-x})^{\frac{1}{1-x}}$$

where a is the fraction of firms that are domestic in the sense that their wage is w. The term z is a constant. A cut in foreign prices, holding constant real aggregate demand K, lowers the industry average price, P, and hence employment in each firm. The impact is larger the higher the elasticity of demand and the larger the number of foreign relative to domestic firms. In the limit, if the market is primarily served by foreign firms, the employment elasticity with respect to the relative wage is equal to the demand elasticity.

The model of course also serves to explain why, given wages in national currencies, exchange rate movements cause PPP deviations. The relative price of domestic and foreign output is simply determined by the relative wage and the exchange rate.*

* See R. Dornbusch, "Purschasing Power Parity", unpublished manuscript, MIT, January 1985.

Notes and Sources

1. Commission of the EC, Annual Economic Report, 1984/85. See Tables 3-12 and the appendix to Chapter 3.

2. This approach actually rarely estimates production functions themselves, but rather cost functions, share equations, or demand functions. That is, it usually recovers characteristics of the technology from the joint relation of factor and product prices on one hand, and factor demands and output supply on the other. We shall use "production function" estimation as a generic name in what follows.

3. L. Lipschitz and S. Schadler, "Relative prices, real wages, and macroeconomic policies", IMF Staff Papers, June 1984.

4. J. Artus, "The disequilibrium real wage hypothesis: an empirical evaluation", IMF Staff Papers, June 1984.

5. See for example G. Psacharopoulos and R. Layard, "Human capital and earnings: British evidence and a critique", Review of Economic Studies, July 1979, 485-503. That study finds that around 1970, the variance of log annual earnings for males who had worked at least a week was .44 for the UK and .67 for the US.

6. For the UK, see for example C. Pissarides and I. McMaster, "Sector specific and economy wide influences on industrial wages in Britain", mimeo 571, London School of Economics, October 1984. For a critique of this general approach, see L. Bell and R. Freeman, "Does a flexible industry wage structure increase employment? The US experience", mimeo, Harvard University, January 1985.

7. Another suggestive piece of evidence is given by the behaviour of estimated investment functions. If there were a strong tendency towards reverse capital deepening, one would expect investment to do worse given output. In fact, given output, investment has been doing surprisingly well over the last two years in some countries, including Germany. There are, however, other interpretations for this behaviour, including more optimistic expectations of future output.

8. The capital constraint is not as absolute as capacity utilization figures may suggest. Capital which is used with one shift of workers can be used with two shifts, or at weekends. Put another way, the work-week of capital has some flexibility which is not reflected in these figures.

9. These issues have been discussed in past CEPS reports. See in particular R. Layard et al., Europe: the Case for Unsustainable Growth, CEPS Papers No. 8/9, May 1984, and O. Blanchard and R. Dornbusch, US Deficits, the Dollar and Europe, CEPS Papers No. 6, February 1984, Centre for European Policy Studies, Brussels.

10. While some adjustment for the level of economic activity is needed, it is essential to remember that the standard cyclical adjustment, which is obtained by measuring deviations of output from an estimated underlying trend, is very primitive and subject to disagreement. Indeed, what the cyclical adjustment should be depends on whether low output is due to low demand or to supply factors, the very issues discussed in this report.

11. Commission of the EC, Annual Economic Report, 1984/85.

12. Such an approach was followed in Europe: the Case for Unsustainable Growth, op. cit. See in particular Appendix A in accompanying CEPS Working Document (Economic) No. 8, Centre for European Policy Studies, Brussels, May 1984.

13. R. Layard and S. Nickell, "The Causes of British Unemployment", <u>National Institute Economic Review</u>, 1/85, No. 111, February 1985, Table 7.

14. Commission of the EC, <u>Annual Economic Report, 1984/85, pp.102-104.</u>

15. New and young firms, which often are making losses, should be allowed to carry the loss and sell the resulting tax credits.

16. Such an investment tax credit was advocated in two previous CEPS reports, R. Dornbusch <u>et al</u>., <u>Macroeconomic prospects...</u>, 1983, and <u>Europe, the Case for Unsustainable Growth</u>, op cit.

17. Permanent marginal employment subsidies would apply to a larger and larger portion of the labour force, making the programme too costly for governments. The subsidies must therefore be temporary. The date of expiry, or the conditions under which the subsidies might be extended, must be made clear to firms when the programme is introduced to decrease the uncertainty associated with hiring decisions.

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