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No. 17 July 1983

The employment miracle in the United States and stagnating employment in the European Community

- a tentative explanation -

MANFRED WEGNER

Internal paper

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ABSTRACT:

In recent years, a period of exceptional expansion of the labour supply, the USA and EC-countries have experienced markedly different rates of job creation. The purpose of this paper is to throw light upon this development. Considered in terms of new jobs created the differences between the American and European performances in this regard have been remarkable. Thus, the USA was able to create 15 million new jobs from 1973 to 1981, a period when the Community as a whole experienced a slight fall in employment. Further substantial reductions occurred in 1982 and 1983. The slowdown of real growth since 1973 cannot explain this divergent performance, since the US average growth rate of real GDP has been only slightly higher than in Europe. The overall real growth rate in the USA between 1973 and 1981 was achieved almost exclusively through an increase in employment; the measured level of total labour productivity remained virtually unchanged. In contrast, the slowdown in the growth of labour productivity was much less pronounced in most of the EC countries after 1973, especially in manufacturing which still represents 27 % of total employment. The European countries - more exposed to external pressures than the USA - seem to have maintained their competitiveness through a marked shedding of labour, so as to achieve a high rate of labour productivity. Even in a period of slow growth the USA succeeded in creating employment in the service sector, which shows in general much slower productivity improvements than in manufacturing. The European countries suffered from a large reduction of employment in agriculture and manufacturing and offset this by only a modest rise in service employment, i.e. half the US rate. Part of the explanation for the insufficient employment performance in Europe is found in the very different wage adjustment process, and a different response to the slowdown in productivity growth and the marked deterioration of the terms of trade caused by the various supply-side shocks. The US tendency towards rigid nominal wages led to stagnant real wage levels in the 1970s. In contrast real wage increase hardly diminished in most European countries until after 1975. After the second oil shock the growth of real wages slowed further or even fell partly as a response to high and rising unemployment. Large real wage gaps can help to explain the decline in profitability since the early 1970s but they fail to account for the sharp jump in unemployment since 1980 in most countries. Other factors must be taken into consideration: changing exchange rate regimes, the growing instability of trade and financial relations as well as the somewhat contractory monetary and budgetary policies put into effect after the second oil price shock. This multiplicity of factors makes it extremely difficult to disentangle that part of unemployment due to demand deficiency and that due to structural problems in the labour market. The problem of inadequate wage adjustment was further compounded by the insufficiently flexible relative wage structure as between countries, sectors and occupations. Because of indexation and other regulations the move was towards greater wage equality in many European countries, so delaying important structural changes.

CONTENTS

I INTRODUCTION

Unemployment has become the central economic policy issue in all the Western industrialized countries, having climbed dramatically almost everywhere in the last ten years. Unemployment rates in the United States and in the European Community stood at more than 10 % of the labour force in mid-1982 and are still rising. A superficial comparison of unemployment rates might suggest that the problems and hence also the causes of rising unemployment are identical or at least similar. Yet even an initial confrontation of the trends of labour supply, employment and overall economic trends reveals large differences between the industrialized countries.

Between 1973 and 1981, more than 15 million jobs were created in the United States, equivalent to an average annual increase of 2 %. In the Community, the numbers in employment in 1982 has fallen back to their 1961 level and will probably decline further. Less than half of the employment growth in the United States since 1973 would have been sufficient in Europe to substantially ease the unemployment problem. For example, annual employment growth of 1 % in the Community from 1973 to 1981 would have meant some 8 1/2 million extra jobs, while there was in fact a 7 1/2 million increase in the number of jobless.

Japan is nowadays often held up as an unattainable model for a successful high employment policy. Its unemployment rate of just under 2 % has doubled compared with the 1960s. Under similar circumstances, some small European industrialized countries, like Austria, Norway and Switzerland, have also managed to hold their unemployment rate to under 2 % from 1974 until very recently. The European Community by contrast has seen a three-fold or four-fold increase in its unemployment rate compared with the 1960s. In some member countries, the deterioration in the labour market situation has been even worse and has recently accelerated rapidly (see table 1).

The facts on employment trends in the United States, Japan, Austria and the member countries of the European Community are presented in Chapter II, with descriptions of the main sectoral trends. Chapter III attempts to analyse the relationship between growth, productivity increases and

employment growth. Chapter IV investigates the influence of real wages, wage costs and relative wage structures on the trend of employment. The final chapter draws a number of economic policy conclusions from experience in the industrialized countries examined.

Table 1 : Real Growth, Employment, Unemployment : 1973 - 1983

		USA	Japan	Austria	EC-10	Total OECD
Unemployment Rates (in % of total labour force)	1974-80	6.8	1.6	1.8	4.0	5.0
	1981	7.6	2.2	2.4	8.3	6.7
	1982	9.7	2.4	3.6	9.8	8.5
	1983	10.6	2.8	4.6	10.9	9.5
Total labour force (a)	1973-80	2.6	0.8	0.4	0.6	1.3
	1981	1.6	1.2	1.3	0.4	1.1
	1982	1.4	1.0	0.4	0.2	1.0
	1983	n.a.	n.a.	n.a.	0.1	n.a.
Total civilian employment (a)	1973-80	2.2	0.7	0.4	0.1	1.1
	1981	1.1	0.8	0.1	-1.6	0.2
	1982	-0.9	1.0	-1.0	-1.4	-0.7
	1983	0.4	1.6	-0.7	-1.1	-0.1
Total civilian employees (a)	1973-80	2.4	1.4	1.0	0.4	1.3
	1981	0.8	1.7	0.4	-1.9	n.a.
	1982	-1.6	1.0	-0.5	-1.6	n.a.
	1983	0.7	n.a.	n.a.	-1.3	n.a.
Real Gross Domestic Product (a)	1973-80	2.3	3.8	3.0	2.3	2.5
	1981	2.0	3.0	0.1	-0.4	1.4
	1982	-1.7	3.0	1.1	0.3	-0.2
	1983	2.9	3.2	1.4	0.5	1.9

Sources : OECD, EUROSTAT, US Bureau of Labour Statistics (BLS).

1982 and 1983 : Forecasts of Services of the EC Commission and the OECD.

(a) Average annual changes or annual changes from previous period

(2)

Table 2 : Civilian Employment by large Sectors

	USA (BLS)				JAPAN (OECD)				EEC-9 (EUROSTAT)			
	Levels in millions											
	1960	1973	1980	1981	1960	1973	1980	1981	1960	1973	1980	1981
Agriculture	5.57	3.57	3.53	3.52	13.40	7.05	5.77	5.57	17.04	9.35	7.62	7.35
Industry (construction included)	22.00	27.26	29.13	29.00	12.65	19.57	19.56	19.70	42.35	43.17	40.13	38.55
Services (Government included)	38.21	54.23	66.64	67.88	18.31	25.97	30.03	30.54	38.99	50.30	57.05	57.49
Total Employment	65.78	85.06	99.30	100.40	44.36	52.59	55.36	55.81	98.38	102.82	104.80	103.39
	Relative Shares in %											
Agriculture	8.5	4.2	3.6	3.5	30.2	13.4	10.4	10.0	17.3	9.1	7.3	7.1
Industry (construction included)	33.4	32.0	29.3	28.9	28.5	37.2	35.3	35.3	43.1	42.0	38.3	37.3
Services (Government included)	58.1	63.8	67.1	67.6	41.3	49.4	54.2	54.7	39.6	48.9	54.4	55.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Average annual changes in %											
	1960-73	1973-81	1982		1960-73	1973-81	1982		1960-73	1973-81	1982	
Agriculture	- 3.4	- 0.2	1.4		- 4.8	- 2.9	-1.6		- 4.5	- 3.0	- 3.7	
Industry (construction included)	1.7	0.8	-6.4		3.4	- 0.1	-0.3		0.1	- 1.4	- 3.3	
Services (Government included)	2.7	2.8	1.5		2.7	2.1	2.3		2.0	1.7	0.5	
Total	2.0	2.1	-0.9		1.3	0.7	1.0		0.3	0.0	- 1.2	

Sources : USA : BLS (Household Data)
Japan : OECD, Labour Force Statistics, Paris 1973,1981
EEC : Eurostat, Statistical Bulletin (20 July 1983)

II EMPLOYMENT TRENDS IN THE MAJOR INDUSTRIALIZED COUNTRIES

The United States

The employment trend in the United States since the first oil crisis has continued a pattern already established in the 1950s and 1960s. During the last twenty years, employment in the United States rose by an annual average of some 2 % to stand at more than 100 million in 1980. In absolute terms, the number of employed persons rose by an annual average of around 1,5 million from 1960 to 1973 and by an annual 1,9 million from 1973 to 1981. This upward trend has begun to ease off only recently. Total employment declined by 1 % in 1982 (the first fall since 1975).

The main trends in the United States in the eight years from 1973 onwards are as follows (see also tables 1 and 2):

- civilian employment increased by 15,3 million, i.e. 2 % annually; the decline in the numbers employed in agriculture (which had been evident since the 1950s and 1960s) came to a halt in the early 1970s;

- the total of more than 15 million new jobs was created predominantly in the service and the government sector, since employment in manufacturing industry has more or less stagnated since 1969; by contrast, employment in mining and construction increased by almost 0,7 million, with the result that overall industrial employment has still risen annually by some 1 % since 1973 (according to survey data).

Employment trends in manufacturing industry will not be analysed in any great detail here. Manufacturing employment practically stopped growing at the end of the 1960s and suffered declines in 1971 and 1975 which were reversed in the following years. Its level in 1981 was the same as in 1969. This virtual stagnation masks a multiplicity of declining and expanding industries. Industries with vigorously expanding employment since 1973 are plastic products, electronic components, and medical and dental instruments (annual rates of increase ranging between 4 % and 6 %), with increases also in machine tools, aircraft, pharmaceuticals and printing products. Employment in mining has been increasing again since the early 1970s, thanks to higher coal production and the creation of new jobs in the oil and natural

Table 3 : USA - Civilian Employment by Economic Sectors, 1960-1981

	Jobs in 1000						Average annual changes in %		Percentage shares		
	1960	1968	1973	1975	1980 (a)	1981 (a)	1960-73	1973-81	1960	1973	1981
FARM SECTORS	5.297	3.662	3.205	3.110	2.822	2.807	- 3.8	- 1.7	7.7	3.6	2.7
INDUSTRY, total	22.179	25.454	26.797	24.536	28.161	27.648	1.5	0.4	32.2	30.1	26.7
Mining	605	497	521	598	722	738	- 1.1	4.4	0.9	0.6	0.7
Public utilities	708	753	825	827	966	997	1.2	2.4	1.0	0.9	1.0
Manufacturing	17.118	20.065	20.438	18.616	20.660	20.177	1.4	- 0.2	24.9	23.0	19.5
Construction	3.748	4.139	5.013	4.495	5.814	5.736	2.3	1.7	5.4	5.6	5.5
SERVICES, total	41.332	51.239	58.978	61.269	71.708	73.031	2.8	2.7	60.1	66.3	70.6
Wholesale & retail trade	11.528	13.395	15.251	16.418	17.471	17.592	2.2	1.8	16.7	17.1	17.0
Transp. & communication	4.249	4.664	4.921	4.841	5.433	5.422	1.1	1.2	6.2	5.5	5.2
Finance, Insurance, real estatement	3.004	3.681	4.452	4.579	5.682	5.816	3.1	3.4	4.4	5.0	5.6
Other services (incl. agricultural sector)	10.925	14.382	17.671	18.077	24.421	25.631	3.7	4.8	15.9	19.8	24.8
Private Households	2.554	2.437	2.089	1.859	1.566	1.574	- 1.5	- 3.5	3.7	2.3	1.5
Non-profit organisation	1.375	1.717	1.787	1.863	2.140	2.110	3.6	2.3	2.0	2.0	2.0
Private economy, total	61.169	69.457	76.173	75.283	87.696	88.600	1.7	1.9	88.9	85.6	85.6
Government	7.697	10.963	12.807	13.632	14.995	14.886	4.0	1.8	11.2	14.4	14.4
Federal (civilian)	1.755	2.098	1.991	2.063	2.207	2.118	1.0	0.5	2.6	2.3	2.0
State + local	5.942	8.865	10.816	11.569	12.788	12.768	4.7	2.1	8.6	12.2	12.3
All sectors	68.808	80.356	88.980	88.915	102.691	103.486	2.0	1.9	100.0	100.0	100.0

Source : U.S. Department of Labour, Bureau of Labour Statistics

Private economy : Establishment Data
Government : National Accounting definitions (Source : Department of Commerce)

(a) Preliminary

gas industries (though production there has not gone up). Employment growth in construction was maintained until 1979 but has since declined again (see table 3).

The United States has steadily become a service society. A total of 70 % of all jobs in 1981 was accounted for by the private and government service sectors. From 1973 to 1981, the number of jobs in these sectors increased by 2,7 % annually. Breaking down the private service sector into 30 service industries allows us to identify the industries which actually made the running in the creation of new jobs in the 1970s [1]. The industries with rapid employment growth in the period 1973-81 were the following (see also table 4):

Table 4 - Employment growth in some services, 1973-1981 United States

Sector	Numbers employed in 1981 (millions)	Increase 1973-1981, annual average (in thousands)	(in %)
Professional services	2 022	775	2.8
Business services	3 605	1 426	6.5
Banks, credit institutions, insurance	4 443	1 064	3.5
Real estate	1 373	300	3.1
Eating and drinking places	6 671	2 044	4.7
Hospitals, doctors, medical services	5 948	1 934	5.0
Amusement and recreation services	1 127	240	3.0
Educational services	1 798	469	3.9
Total	26 987	8 252	4.7

[1] The employment figures broken down by economic sectors (tables 3 and 4) are based on establishment data. All the other figures are taken from (monthly) household surveys.

From 1973 to 1981, these eight sectors experienced an annual increase of between 4 % and 5 %, thus creating more than 8 million new jobs, i.e. almost 60 % of the employment growth in the service sector (including government). The wholesale and retail trades provided another 2,3 million new jobs and the government sector (excluding the armed forces) about 2 million.

The move towards a "service society" has been less evident in the United States in those service sectors which are linked with the production of goods in the traditional sense (transport, the wholesale and retail trades). The exceptions are air transport, the banking and real estate sectors, and business and professional services. The professional service sector provides a number of very different functions, such as legal auditing, bookkeeping, accounting, engineering and architectural services. The business service sector, which includes personnel supply, janatorial and protective services, data-processing, leasing and similar services, is also reflecting the growing transfer to specialized service enterprises of activities that used to be performed largely by industry.

Looking at the long-term trend to the mid-1970s, the government sector made an above-average contribution to employment growth (annual increase of some 3,9 % from 1960 to 1975). Between 1960 and 1981, civilian public employment increased by 7,2 million persons. In 1960, 11 % of total civilian employees worked for some level of government (excluding government enterprises) and this proportion had risen by 1981 to 14,4 %. The increase in employment took place largely at state and local government levels, which benefited from the rapid expansion of welfare, health and education programmes. Since 1975 this trend has been reversed. Since 1981 employment in the government sector has contracted as a result of the cutbacks imposed by the Reagan administration [2].

What might be the future pattern in the 1980s? The Bureau of Labor Statistics recently updated its long-term projections of growth and employment up to 1990 [3]. These show that, particularly after 1985, the growth of the labour supply will slow down. Assuming an annual real growth rate for

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[2] See Tucker (1981).

[3] See Saunders and Personick (1982), in: US Department of Labour, Economic Projections to 1990, March 1982, Washington.

gross domestic product of 2,5 % in the 1980s (slow growth scenario), the total number of employed persons could grow by 1,5 % annually, equivalent to 1,6 million jobs a year. As in the 1960s and 1970s, private services will show the largest increase in employment (2,0 % annual growth in 1979-90), with the best performance once again in health, eating and drinking places and retailing. However, the Bureau also projects employment increases in manufacturing industry and construction. Employment in the government sector, by contrast, is expected to grow more slowly. More favourable growth performance could produce even more rapid increases in employment (2,1 % a year).

Japan

The increase in the numbers employed in Japan was less marked than in the United States, but none the less amounted to an average of around 1,3 % a year from 1960 to 1973, or some 630 000 annually).

In contrast to experience in the United States, the annual growth rate of the employed labour force in Japan has been almost halved since 1973 compared with the 1960s. The following trends may be discerned (see table 5):

- the share of employment in agriculture in Japan is still as high as 10 %; the drift from agriculture has slowed down distinctly, and other sectors, especially industry, have stopped absorbing labour;

- the numbers employed in industry (including construction) have been static, while manufacturing, which now provides some 25 % of total employment, reduced its work force after the first oil crisis by some 1 million and has since increased it only marginally;

- the expansion of the service sector continued in the 1970s, slowing down only a little compared with the period 1960-73.

The 1974/75 recession did not affect the construction sector in Japan, in contrast to developments in most of the other industrialized countries. Employment in construction has continued to increase since 1973, albeit at only half the rate of the period 1960-73.

Table 5 : Japan - Civilian Employment by Economic Sectors, 1960 - 1981

	1000s						Average annual changes in %		Percentage shares		
	1960	1967	1973	1975	1980	1981	1960-73	1973-81	1960	1973	1981
AGRICULTURE	13.400	10.360	7.050	6.610	5.770	5.570	-4.8	-2.9	30.2	13.4	10.0
INDUSTRY, total	12.650	16.640	19.570	18.730	19.560	19.700	3.4	0.1	28.5	37.2	35.3
Mining	430	260	130	160	110	100	-8.8	-3.2	1.0	0.2	0.2
Manufacturing industr.	9.460	12.520	14.430	13.460	13.670	13.850	3.3	-0.5	21.3	27.4	24.8
Electricity, Gas, Water	230	270	340	320	300	310	3.1	-1.1	0.5	0.6	0.6
Building & construct.	2.530	3.590	4.670	4.790	5.480	5.440	4.8	1.9	5.7	8.9	9.7
SERVICES, total	18.310	22.200	25.970	26.890	30.030	30.540	2.7 (c)	2.0	41.3	49.4	54.7
Wholesale & retail (a)		9.470	10.850	11.270	12.480	12.740	2.3	2.0		20.6	22.8
Transport & communic.	2.160	2.890	3.370	3.320	3.500	3.440	3.5 (c)	0.3	4.9	6.4	6.2
Banks, insurance, real estate	14.730 (b)	1.360	1.570	1.700	1.910	2.000	2.4	3.0		3.0	3.5
Social & personal services		6.910	8.380	8.640	10.150	10.420		2.8		16.0	18.7
Central Government (exclud. armed forces)	1.420	1.570	1.800	1.960	1.990	1.940	1.8	0.9	3.2	3.4	3.5
All economic sectors	44.360	49.200	52.590	52.230	55.360	55.810	1.3	0.7	100.0	100.0	100.0

Sources : OECD

(a) Including restaurants

(b) Including wholesale and retail trade, banks, insurance and social and personal services.

(c) 1967-73

The first oil crisis produced a structural break in Japanese economic trends. Economic growth before 1973 was led by manufacturing industry, with rapid growth in industrial employment, paralleling that in the service sector. This growth pattern changed after 1974. Employment in manufacturing fell, while there was an even sharper drop in hours per week. The structure of employment within industry also shifted as a result of changes in the composition of demand. Employment fell disproportionally in the energy-intensive and raw-material-dependent sectors such as steel, textiles, furniture and chemicals.

The employment situation in manufacturing began to recover only gradually as the adjustment process triggered by the oil price shock got under way. Employment slowly picked up again in the sectors buoyed up by the export boom. But the bulk of the adjustment was in the form of a more rapid increase in labour productivity and greater use of overtime, part-time working (particularly by women) and subcontracting through small and medium-sized firms. The example provided by the employment adjustment process in Japan is instructive, but one which the Western industrialized countries can hardly imitate [4].

Despite its rapid industrialization, Japan too has become a "service society". In 1981, almost 55 % of the employed labour force were working in the service sector (including government). With the earlier, rapid decline of the agricultural workforce, employment in the service sectors expanded, and this continued at a steady pace even in the 1970s. Two differences may be observed here compared with the United States and the European countries:

- the wholesale and retail trades (including restaurants) provide a disproportionally large share of total employment in Japan, and this share continued to rise even after 1973 (in 1981, it was 22,8 %); in Japan, there are almost 20 persons employed in distributive trades to every 100 000 inhabitants (compared with 10 to every 100 000 inhabitants in the United States). The Japanese distributive system, unlike other sectors of industry, is "overmanned" and still lacking in efficiency, but it acts as an important social safety net (family business, the elderly), with a predominance of self-employed persons and unpaid family workers (35 % of total employment in this sector);

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[4] See Economic Planning Agency (1979) and Ernst (1980).

- employment in the government sector accounts for only a very small proportion (3,5 % in 1981) of total employment; the percentages (excluding the armed forces) in the United States and in the Federal Republic of Germany are 15 % and 13 %, respectively; this low level of employment in the government sector is largely due to the fact that public-sector welfare, social security and health services are not yet very highly developed in Japan, their functions being performed either by households or by large firms.

Thus, the 4,5 million new jobs created in the service sector (including government) in the eight years since 1973 have more than offset the decline in agriculture. The largest increases were in "other services" and in "banking, insurance, real estate". The high proportion of self-employed persons (and family workers) in these sectors reflects the large number of small and medium-sized firms, which also still play an important role in the industrial sector. There are a number of indications which suggest that employment trends in the service sector have been much less influenced by the growth rate of industry since 1973 and that this pattern will continue.

Austria

Only four relatively small industrialized countries in Europe (Switzerland, Norway, Sweden and Austria) managed to maintain full employment in the crisis period following 1973. While the unemployment rate in the European Community averaged some 5,4 % in the period 1975 to 1980, it did not rise above its 1960s level in the abovementioned countries, remaining at under 2 % until 1980.

Table 6 - Employment performance in selected countries, 1973-1981

		Austria	Norway	Sweden	Switzerland	EC-10
Unemployment rate (a)	1975-80	1.9	1.9	1.9	(0.4)	5.4
	1981-82	3.0	2.3	2.8	(0.3)	8.8
Total employment (annual average growth rate in %)	1975-79	0.9	2.3	0.7	-0.5	0.1
	1979-81	0.6	1.6	0.5	1.5	-1.5

Source: OECD, Historical Statistics 1960-1980 (Paris 1982) and Labour Force Statistics.
(a) As a percentage of the labour force (standardized OECD figures).

Each of these countries has special features which may help to "explain" their success in maintaining full employment at least until the onset of the current recession. The example of Austria will be analysed in some detail here, since it reveals close parallels to the pattern in the United States.

As in the case of the Community countries, the labour supply in Austria has increased since 1974 (by an annual average of 1,5 % of domestic employees. At the same time, however, there was in Austria a steady increase in the employed labour force (with the exception of 1975) and an even sharper increase in the number of wage and salary earners (some 0,4 % and 1 % a year respectively). The increase in the demand for labour was encouraged by a combination of factors, including the demand effects of an expansionary fiscal policy, large-scale cuts in working hours (which had been introduced on social policy grounds at a time when there was a shortage of labour) and an active labour market promotion policy. However, the service sector also made an important contribution to job creation [5].

Despite the impact of the 1973 oil crisis, employment in industry did not begin to decline in Austria until 1975. However, following the sharp drop of 3,2 % which occurred in 1975, it was only in 1977 that the numbers employed in industry showed any major improvement.

Table 7 - Employment, 1960-1980 — Austria

Sector	Annual rates of change in %		Percentage share			
	1960-73	1974-80	1960	1973	1974	1980
Agriculture	- 4.7	- 3.1	21.6	11.8	13.0	10.5
Industry	+ 0.3	0.0	40.5	42.5	41.1	40.3
of which: manufacturing	+ 0.3	- 0.1	30.6	32.1	30.2	29.5
Services	+ 1.4[a]	+ 2.1	37.9[a]	45.7[a]	46.0	49.2
Total	- 0.1[a]	+ 0.4	100.0[a]	100.0[a]	100.0	100.0

Source: 1960-73 - OECD, Historical Statistics 1960-1980, Paris 1982;
1974-80 - OECD, Labour Force Statistics 1969-1980, Paris 1982.
(a) Excluding the armed forces.

[5] See Butschek (1981 and 1982).

The number of wage and salary earners in the service sector continued to increase even during the period of crisis. The annual growth of employment in this sector amounted to some 2,2 % from 1974 to 1981; this increase was significantly steadier and faster than in the Federal Republic of Germany, for example, and matched that in the United States. The fastest expansion in employment in the service sector was in educational and health services, which benefited both from government policies and from tourism. Employment also increased at an above-average rate in hotels and catering, legal and economic services and in banking and finance. Public services and the distributive trades, which in 1979 provided respectively some 32 % and 24 % of jobs in the service sector, also expanded their work force by 2 % annually (accounting for 25 % of the increase in the service sector). Austria evidently experienced a catching-up process in the development of public and social services once the sharp growth of industry eased off.

The unemployment rate in Austria showed little or no increase even in the years of declining or weak growth (1975 and 1978). Only after 1981 did unemployment begin to rise distinctly, as the current recession spread to Austria and labour hoarding could no longer be continued (see table 1). The unemployment rate could conceivably reach some 4,5 % of the dependent labour force in 1983. The increase in hidden unemployment, which Butschek (1982, p. 111) estimated at 0,4 % for 1979, has also in recent years indicated growing labour market problems. In Austria too, despite all the successes of employment policy, the question which is being asked with increasing urgency is whether full employment can be maintained in the future. As in the past, the labour supply will probably grow by more than 1 % annually up to 1986 (an annual average increase of some 30 000 persons), as a result of population structure and rising female activity rates. Only after 1986 will the growth of the labour supply ease, slowing down increasingly (by 1990, it will be down to only 0,3 %) [6].

The Austrian Institute for Economic Research takes the view that, assuming otherwise unchanged conditions, 4 % annual real growth would be necessary to absorb the additional labour force potential in the medium term (up to 1986). Various simulations of labour demand in the 1980s, point to a further, albeit slower, increase in the total number of employees even

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[6] Beirat für Wirtschafts- und Sozialfragen (1980).

in the event of slower economic growth. With economic growth of 2 1/2 % a year, the demand for labour as a whole and for employees would increase annually by only some 0,4 % and 1 %, respectively, producing an excess supply of 162 000 persons in 1986, equivalent to an unemployment rate of 5,4 %. An optimistic variant assuming 3 1/2 % growth would result in a substantially lower over-supply of labour, amounting to 48 000 persons in 1986.

The countries of the European Community

The trend in the Community countries followed a very different pattern from that in the United States and Japan. Total employment in the Community of Nine stabilized during the 1960s at around 102 million, reached cyclical a peak in 1974 (105 million), which was exceeded only in 1979, but dropped in 1981 and again in 1982.

In the period 1960-73, countries with relatively high rates of growth in total employment (Denmark, the Netherlands, France and Belgium) contrasted with countries where there was a decline (Italy) or little or no change in the employed labour force (Ireland, the Federal Republic of Germany and the United Kingdom). In the period 1973-81, the growth of employment slowed down generally or became negative. There were two exceptions: Italy, which reversed its downward trend, and Ireland, where stagnation in the level of employment was followed by marked growth (see table 8).

A comparison with the United States reveals sectoral differences which offer a possible, though insufficient, explanation for the stagnation of employment in Europe. Industrial employment declined distinctly in almost all the member countries, while in the United States it increased (up to 1980). The growth of employment in the service industries in the Community in the period 1973-81 was only a little over half that in the United States, with the share of the service sector itself being at the same time smaller in the Community than in the United States.

Table 8 : Employment, Real Growth and Labour Productivity, 1960-1981

(Average annual changes in %)

	Civilian Employment								Real Gross Domestic Product		Real GDP per employed person	
	Total		Agriculture		Industry		Services					
	1960-73	1973-81	1960-73	1973-81	1960-73	1973-81	1960-73	1973-81	1960-73	1973-81	1960-73	1973-81
F.R. Germany	0.2	-0.4	-4.7	-3.9	0.1	-1.4	1.5	1.1	4.5	2.1	4.2	2.5
France	0.7	0.1	-4.4	-2.8	0.9	-1.4	2.1	1.6	5.6	2.4	4.9	2.3
Italy	-0.4	0.8	-5.0	-2.5	0.8	-0.0	1.6	2.2	5.3	2.4	5.6	1.7
United Kingdom	0.2	-0.8	-3.5	-1.2	-0.6	-2.9	1.1	0.4	3.1	0.5	2.9	1.4
Netherlands	0.9 (b)	0.1 (b)	-3.1 (b)	-1.5 (b)	0.2 (b)	-1.9 (b)	2.0 (b)	1.4 (b)	5.0	1.8	4.1	1.7
Belgium	0.6	-0.2	-6.1	-2.8	0.1	-3.0	1.9	1.6	4.9	1.9	4.2	2.1
Denmark	1.1	0.1	-3.5	-2.4	0.7	-3.3	3.3	1.8	4.7	1.4	3.5	1.3
Ireland	0	1.0	-3.1	-2.4 (a)	2.1	2.0 (a)	1.0	2.3 (a)	4.4	3.4	4.3	2.4
EC-9	0.2	-0.1	-4.5	-2.8	0.1	-1.4	1.8	1.5	4.6	1.9	4.4	2.0
United States	2.0	2.0	-3.4	-0.2	1.7	0.8	2.7	2.8	4.0	2.1	2.0	0.2
Japan	1.3	0.7	-4.8	-2.9	3.4	0.1	2.7	2.1	10.3	3.6	9.1	2.9

Source : Eurostat ; OECD; Statistisches Bundesamt (F.R. Germany : revised figures).
Real GDP in prices and purchasing power parities of 1975

(a) 1973-80
(b) Man-years

The national averages mask sectoral differences which we will look at only briefly:

- the drift from agriculture continued at a slower pace; it was less rapid in those member countries in which agriculture already accounted for a low proportion of employment (the United Kingdom, the Netherlands), and was due almost entirely to a drop in the number of self-employed and of unpaid family workers who, taking the Community average, still account for 70 % of the agricultural work force;

- the decline almost everywhere in employment in the secondary sector was due largely to manufacturing industry, the main countries affected here being the United Kingdom, Belgium and Denmark; only Italy and above all Ireland were not affected by the decline; as a result of the recession, employment in building and construction fell;

- employment in the tertiary sector continued to expand in all the member countries, with the sharpest increases being in Italy and Ireland, and the lowest increases being in the United Kingdom and the Federal Republic of Germany.

A comparative and detailed analysis of the trends in manufacturing industry by member country would go beyond the objectives of this investigation and would seem to be of only limited use in answering the question we are concerned with here. Suffice it to say that, in all the Community countries, employment in manufacturing slumped in 1974/75 and the numbers in employment continued to decline in the years thereafter, with a few exceptions. Since 1981, the fall in industrial employment has become sharper in all the member countries.

A more worthwhile exercise is to look at the differences in employment trends in the service sector in the various member countries. However, this exercise is much more difficult, since comparable statistics are not available at a sufficient level of detail. Nevertheless, the rough breakdown in table 9 [7] is sufficient to bring out a number of striking differences for the period 1973-81:

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[7] The statistics of table 8 are not directly comparable with those of table 9; the latter are of more recent date and include already revisions for the F.R. of Germany. The tables also have different sources (table 8: Social statistics; table 9: National accounting).

- the wholesale and retail trade (including repair services): stagnating or declining employment in the Federal Republic of Germany, Belgium, the Netherlands and the United Kingdom;

- hotels and catering services: low rates of increase; there was a significant increase only in Italy and Belgium;

- transport services: a fall in employment in the Federal Republic of Germany and in the United Kingdom, stagnation in the Netherlands;

- communications: slow growth in employment in the Federal Republic of Germany and stagnation in the United Kingdom; strong growth rates elsewhere;

- banking and insurance: vigorous growth in employment, though here again the Federal Republic of Germany is the exception;

- "other market services": here occurred the sharpest increases in employment;

- there has been disproportionately rapid growth in the government sector, which together with domestic services and services provided by private non-profit institutions account for some 16 % to 21 % of total employment.

Table 9 : EEC Member States - Employment by branch, 1973-1981

	Average annual changes in %							Percentage shares 1981					
	D(c)	F	I	UK	NL	B	EC-9(c)	D(d)	F	I	UK	NL	B
AGRICULTURE	-4.1	-2.8	-2.5	-1.2	-1.5	-2.8	-2.7	5.5	8.6	12.7	2.7	5.8	3.7
INDUSTRY, total	-1.3	-1.4	-0.0	-2.9	-1.9	-3.0	-1.2	44.2	33.5	36.1	33.8	30.0	31.5
- Fuel and power products	-0.4	-0.2	1.6	-0.4	-0.4	-2.2	-0.1	1.9	1.4	0.9	2.6	1.3	1.6
- Manufacturing	-1.3	-1.5	0.1	-3.3	-2.0	-3.4	-1.2	34.3	23.8	26.7	24.4	20.1	22.7
- Building and construction	-1.6	-1.4	-0.1	-2.1	-1.8	-1.6	-1.1	8.0	8.3	8.5	6.8	8.6	7.2
SERVICES, total	1.1	1.6	2.2	0.4	1.4	1.6	1.5	50.3	57.8	51.2	63.5	64.1	65.5
- Repair and trade services	0.0 (a) (b)	0.9	2.0	-0.7 (a) (b)	-0.2	0.2	(0.6)	13.3 (a) (b)	14.5	15.8	13.8 (a) (b)	17.3	16.1
- Lodging and catering serv.		0.8	1.3		-1.0	2.4			2.8	2.9		2.3	3.1
- Transport services	-0.8	0.4	1.4	-1.2	0.0	0.6	0.4	3.7	4.0	4.7	5.4	5.0	7.2
- Communication services	0.1	2.2	2.2	-0.0	2.5			1.9	2.1	1.2	1.9	1.7	
- Credit & Insurance instit.	1.3	2.3	5.3	1.4	3.1	2.3	2.7	2.8	2.5	1.7	19.7	3.7	3.5
- Other market services	2.0	3.8	2.1		3.4	4.2		10.7	13.5	7.2		17.9	13.7
Privat sector, total	-0.8	0.1	0.5	-1.3	-0.1	-0.9	-0.2	82.1	81.7	82.3	77.3	83.7	78.2
- General Government (including armed forces)	2.4	1.1	2.3	0.9	2.3	2.9	1.7	14.9	18.3	15.3	22.7	15.3	19.1
- Other non-market services	1.8		0.8		-8.2	-2.5		3.0		2.4		1.0	2.7
All sectors	-0.3	0.1	0.8	-0.8	0.1	-0.2	0.1	100	100	100	100	100	100

(a) Wholesale and retail trade only.
(b) Included in "Other market services"
(c) 1973-80
(d) 1980

Source: Eurostat (for F,I,UK,NL,B,DK)
Statistisches Bundesamt (National Accounts , revised results 1960 to 1981 for the F.R. Germany)

III SLOWER ECONOMIC GROWTH, REDUCED PRODUCTIVITY GAINS AND EMPLOYMENT

Since the early 1970s, most of the industrialized countries have experienced a combination of rising inflation rates and high unemployment. In addition, in the wake of the first oil crisis, the trend rates of economic growth have fallen dramatically almost everywhere. In the debate on the causes of the upsurge in employment, the main blame is usually placed on the marked decline in economic growth. It is often argued that unemployment cannot be brought down unless we manage to return to the rates of growth in real output current in the 1960s. While there is no doubt a positive link between economic growth and employment, the latter is also dependent on other factors, such as the growth of labour productivity, sectoral changes in the mise of economic activity and the ways in which work and working hours are organized.

In Japan, Austria and the United States, at least in the period 1973-81, the growth rates of total output rose faster than the Community average. But this in no way provides an explanation for the difference in employment trends. Whereas, from 1973 to 1981, real GDP in the United States grew only 3 % faster in aggregate than in the Community, the numbers employed in the United States increased by 17 %, but stagnated in the Community. Similar disparities between economic growth and employment growth can be found within the Community: with annual growth in real GDP averaging 2 % to 2,5 % (1973-1981), the employed labour force declined in the Federal Republic of Germany and Belgium, remained broadly unchanged in France, and increased in Italy (see table 8).

Real economic growth and productivity gains

The trend of productivity growth, no matter how this concept is defined, is a reflection and probably an important causal factor in these divergent growth/employment performances. The slowdown in productivity growth has been evident in all the industrialized countries since the first oil price shock. It has cyclical causes (degree of capacity utilization), once-for-all causes (oil price change) and longer-term causes, and it followed a very different pattern in the various industrialized countries.

Table 10 - Real GDP per man-hour in selected countries, 1950-81

	Annual average rates of increase in %				Differences 1973-81 over	In $ at 1975 prices and purchasing power parities		
	1870-50	1950-60	1960-73	1973-81	1960-73	1960	1973	1981
Fed. Rep. of Germany (D)	1.5	6.9	5.4	3.7	- 1.7	4.12	8.16	10.89
France	1.9	4.4	5.5	3.3	- 2.2	4.16	8.38	10.89
Italy	1.4	4.4	6.9	(2.5) [c]				
Netherlands	1.4	3.4	5.3	2.4 [a]	- 2.9	4.63	9.02	10.64 [b]
Belgium	1.3	3.2	5.4	4.2 [c]				
United Kingdom	1.4	2.2	3.9	2.9	- 1.0	4.33	7.10	8.92
U S A	2.3	2.3	2.6	1.1	- 1.5	7.43	10.42	11.40
Japan	1.6	5.7	9.3	3.1	- 6.2	1.65	5.24	6.67
Average [d]	1.7	4.2	5.3	2.8	- 2.5			

Source: Maddison (1982, 1982 a)

(a) 1973-80
(b) 1980
(c) 1973-79
(d) D,F,NL,UK,USA,J

The decline in labour productivity growth during 1973-81 was less pronounced in the countries which already had a slower productivity trend in the 1960s (the United Kingdom and the United States), but also in the Federal Republic of Germany. It was sharpest in Japan (see table 10).

The sharper the decline in productivity growth in relation to the slowdown in economic growth, the less drastic were the necessary adjustments in employment trends (or, to be more precise, in the volume of work, defined as the product of the numbers employed and average annual working hours per person employed). In other words, the greater the gap between the economic growth rate and the growth rate of labour productivity, the greater the increase in employment (or in the volume of work). However, the tautological links between real growth, productivity growth and changes in employment make us go round in circles, unless we can explain:

- why the break in trend in labour productivity occurred, and
- why the employment pattern differed so much from country to country.

Declining productivity growth: an unsolved puzzle

The slowdown in productivity growth is sometimes described as the major economic ill facing present-day industrialized societies. "More than anything else - higher oil prices, deteriorating terms of trade, greater instability in capital and exchange markets, high inflation - slow productivity growth is the root cause of the halt in the rise in living standards and of the political malaise affecting the Western countries" [8]. The reasons for this decline in productivity growth have been the subject of persistent controversy.

Much has been written on the slowdown in productivity growth in the American economy [9], and the topic is as yet by no means exhausted [10]. Recent research work has not yet produced any satisfactory solution to the "Great Productivity Mystery". Most studies on growth (growth accounting) have shown that less than half of the observed slowdown in the growth of output per unit of labour input is attributable to the capital intensity of production, to the training and experience of labour, to increasing regulation and to the aging of the capital stock.

For example, Nordhaus (1982), as well as Denison, was bold enough to attempt a simplified assessment of the causes of the slowdown in productivity growth during the period 1973-80 (as compared with 1948-65) in the private sector in the United States, identifying the following pattern (in percentage points):

Overall slowdown :	2.5	Sources :	
- cyclical	0.3	- capital stock	0.3
- trend	2.2	- labour	0.1
		- energy	0.2
		- regulation	0.2
		- R & D	0.1
		- sectoral shifts	0.3
		- unexplained	1.0

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[8] W.D. Nordhaus (1982).

[9] E. Denison (1979), J. Kendrick (1981), B.M. Fraumani and D.W. Jorgenson (1981), M.N. Baily (1981) and National Institute of Economic and Social Research (1982).

[10] See papers by Maddison, Denison, Jorgenson and others prepared for a conference on International Comparison of Productivity and Causes of the Slowdown, held on 30 September 1982 under the auspices of the American Enterprise Institute for Public Policy Research.

Other authors reached differing conclusions as to the role and impact of the oil price rise on the efficiency of the capital stock and on productivity growth (Jorgenson, Baily) or as regards the effect of slower growth rates in investment and capital accumulation on labour productivity.

Similar difficulties arise in attempting to explain the differences in productivity trends and in the rate of slowdown in productivity growth in Europe since 1973. Because the decline in productivity growth was so general and affected all the countries concerned simultaneously, it seems reasonable to begin by looking for a common explanation. Factors that spring to mind are:

- the slowdown in economic growth since 1973, with the two recession periods of 1974-75 and 1980-81, resulting in lower capacity utilization, a declining propensity to invest and thus a slower growth in the productive capital stock;

- the rapid rise in energy prices which has affected all the industrialized countries since 1974;

- the effects of inflation since the early 1970s and economic policy reactions thereto.

The correlation between output and productivity has long been known as the Kaldor-Verdoorn Law. It suggests that, with significant economies of scale, a deceleration in economic growth results in a corresponding slowdown in productivity growth, particularly in manufacturing industry. These medium-term dynamic affects are difficult to measure for the economy as a whole and are obscured by many other factors [11].

As a result of the rise in oil prices, energy costs have now risen to some 7 % - 14 % of GDP at factor cost, from 1 % - 2 % in 1973. This major shift in relative prices has induced fundamental changes in the allocation of ressources. In particular, higher-priced energy has increasingly been replaced by other production factors, and the growth of demand and of productivity has been weakened. Considerable controversy has arisen as to the

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[11] OECD (1980), Nordhaus (1982).

direct influence of the energy factor on the slowdown in productivity. In the case of the United States, its influence is estimated to be in the region of 0.1 to 1.5 percentage points. Nordhaus [12], by contrast, estimates the effects of the rise in energy prices on productivity in the OECD as a whole during the period 1973-79 at only 0.14 percentage points (while labour productivity growth slowed by 2.4 percentage points compared with 1963-73).

Since 1973, the increase in the capital stock per employee (capital intensity) has fallen off distinctly in all of the countries considered, and, as a result of the two oil price shocks, part of the existing capital stock has become prematurely obsolete (Table 11). Moreover, owing to increasing uncertainty on world financial and exchange markets and the rapid rise in labour costs, the growth of gross fixed capital formation slackened distinctly in the 1970s, which has meant a slowdown in the introduction of new technologies ("embodied" technical progress).

The discussion about capital's explanatory role in the deceleration of productivity growth has produced conflicting conclusions [13]. Yet the slower rise in capital intensity (capital-labour ratio) is obviously a key factor in "explaining" the slowdown in productivity growth in many industrialized countries, for example the Netherlands, Japan and the United States (see tables 5 and 10)[14]. Once this is accepted, the question of deciding whether the role of capital should be measured by reference to gross or net capital stocks, how the share of capital in total factor inputs or the coefficients of elasticity of output with respect to capital services should be assessed or how rapidly the capital stock has been made obsolescent through the oil price shocks becomes less important. With regard to these matters the OECD analyses published so far provide, as we have said, conflicting evidence.

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[12] Nordhaus (1980).

[13] See Norsworthy, Harper and Kunze (1979), Baily (1981), Kendrick (1981), on the one hand, and Denison (1982), Nordhaus (1982), Maddison (1982), on the other.

[14] These are based on Maddison (1982) and contradict the results which Nordhaus (1982) derives from unpublished OECD data.

Table 11: Growth of Capital Stock per Person Employed and of Real Private Investment

(Average annual growth rates in %)

	Capital-labour-ratio			Real Gross Capital Formation (excluding housing)	
	1960-73	1973-80	1973-80 (a)	1960-73	1973-80
F.R. Germany	6.2	4.7	4.1	4.3	2.4
France	4.8	4.7	3.9	6.3 (d)	1.5
Italy	(5.1)	(2.7) (b)			
United Kingdom	4.2	3.4	2.8	5.5 (e)	4.7
Netherland	5.8	3.4	2.8	5.5	0.4
Japan	10.8	6.9 (c)	6.3 (c)	14.4 (f)	2.1
USA	2.3	0.7 (c)	-0.1 (c)	5.3	1.0

Source : Maddison (1982 a)

(a) Under the assumption that 5% of the 1973 stock has been rendered useless by the energy price rise.

(b) 1973-78

(c) 1973-79

d) 1963-73

e) 1962-73

f) 1965-73

Another important reason for the slowdown in productivity trends is the recent distinct narrowing of the technological gap between the United States on the one hand and Europe and Japan on the other. As they move closer to the American level of productivity, the European industrialized countries find it more difficult to maintain the more rapid productivity growth of the past, since the risks and costs of process and product innovation increase. Higher R & D efforts are required in these conditions and the growth of investment and capital stock made more difficult. An international comparison [15] has shown that the level of productivity in most of the European countries is approaching that in the United States in the economy as a whole but that the gap is still large if one takes manufacturing industry alone. In 1960, the United Kingdom had achieved only 60 % and 40 % of productivity levels in the United States, at the full economy and industrial level, respectively.

Many other reasons can be advanced in attempting to explain the slowdown in productivity growth but we cannot go into these here [16]. Denison has carried out a very detailed analysis of the various factors involved and concludes, with respect to the United States, that a "residual" comprising all the changes that cannot be directly measured - and in particular the slowdown in advances in knowledge - accounts for around 70 % of the total decline in labour productivity and remains a mystery. The only possible explanation is perhaps "that everything had gone wrong at once" [17].

However, the general slowdown in productivity growth is more and more frequently being attributed to changes in general socio-political conditions, changes which may have reached "critical mass" proportions. Persistent inflation is often identified as a major factor in this economic environment. Inflation may, through a deterioration in the allocation of resources and in economic policy reactions, have damaged the propensity to invest and the innovative drive and hence productivity growth. Changes in social, institutional and tax-related environment and the increasing size of the public sector, so it is argued, have in the longer term reduced the efficiency of the private-sector production and growth process in favour of

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[15] Roy (1982).

[16] See, for the European countries, Boyer and Petit (1980, 1981), Wegner (1980), Maddison (1982).

[17] According to Denison (1979, 1982), this residual increased by 1,4 % annually in 1948-73 and decreased by 0,25 % in 1973-81.

other priorities (more equity, increased social protection). However, there is no direct evidence for such a hypothesis and it is contradicted by the uniformity of the slowdown in productivity growth in the United States and Japan, which have very different traditions and behaviourial patterns [18].

From Denison's failure to explain the residual in the slowdown in productivity growth since 1973, Olson [19] drew the radical conclusion that the deceleration in productivity and the simultaneous emergence of stagflation have a common cause, namely the rigidities introduced into the economy by collective interest groups. The widespread network of cartelistic and lobbying organizations and informal collusions developed gradually during the long periods of stability and high growth; they are mainly engaged in distributional coalitions seeking redistributions towards their own clients. After a while, this network reduces society's capacity to adopt new technologies and establish barriers to entry that reduce the capacity to reallocate resources quickly in response to changing conditions and ultimately undermine the growth rate. Olson uses these collective behaviour patterns to explain the rise of Japan and Germany after the Second World War, the slow economic growth of Great Britain, the emergence of massive involuntary unemployment and the inability to cope with the supply shocks which occurred in the early 1970s.

Manufacturing industry and export dependence

A number of differences in overall employment and productivity trends as between the United States and the European industrialized countries can also be traced back to differing trends in manufacturing industry. The main differences are (see Table 12).

- the proportion of total employment accounted for by manufacturing industry is higher in Europe than in the United States, i.e. some 28 % of employment (1980) in the European Community and some 20 % in the United States;

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[18] See also Ostry and Koromzay (1982).

[19] Olson (1982).

Table 12 Labour productivity in Manufacturing and Export dependence 1960-1981

		USA	JAPAN	EC	D	F	I	UK	NL	B	DK
Manufacturing		Average annual changes in % (a)									
Employment	1960-73	1.5	3.0	0.5	0.5	1.2	1.4	-0.5	0.2	0.6	0.2
	1973-81	0.7	-0.4	-1.7	-1.6	-1.4	0.0	-2.9	-1.8	-1.8	-1.8
Output	1960-73	4.7	13.0	5.4	5.2	6.6	4.8	3.0	6.4	6.5	5.2
	1973-81	2.3	6.5	1.5	1.9	2.3	3.3	-1.7	1.7	1.1	1.8
Output per hour	1960-73	3.0	10.7	5.8	5.5	6.0	6.9	4.3	7.6	7.0	6.4
	1973-81	1.7	6.8	4.0	4.5	4.6	3.7	2.2	5.1	6.2	4.1
Unit labour costs (in U.S. $)	1960-73	1.9	4.9	4.2	6.1	2.8	5.4	2.6	6.1	4.6	5.0
	1973-81	7.7	7.2	9.9	9.1	9.4	8.1	15.0	8.0	8.6	7.7
Export dependence (Goods and Services)		Share of exports in GDP, in current prices and purchasing power parities									
	1960	4.9	10.6 (b)	19.3	17.5	13.9	12.1	20.4	37.3	37.4	23.1 (c)
	1973	6.6	10.0	22.7	20.8	17.2	17.0	23.2	47.6	54.4	26.5
	1981	9.2	15.5	29.0	28.0	22.2	24.7	26.1	56.8	67.1	32.8

Sources : Manufacturing : US-Bureau of Labor Statistics
News USDL-82-197, June 2, 1982
Monthly Labor Review, Dec. 1981
(Capdevielle, Alvarez and Cooper)

Export dependence : Eurostat, National Accounts ESA-Aggregates 1960-1981, Luxembourg 1983

(a) Rates of change computed from the least squares trend of the logarithms of the index numbers.

(b) 1965

(c) 1967

- the slowdown in the growth of manufacturing output has been sharper in Europe than in Japan or the United States since 1973, as compared with 1960-73; however, the decline in manufacturing was as a rule more marked everywhere than the general slowdown in growth;

- in most of the Community countries (and also in Japan), the statistically recorded growth rate of productivity per man-hour has declined much less sharply, as compared with the 1960s, than in the United States, where it has fallen by an average of almost two thirds; as a result, productivity per man-hour in the period 1973-81 increased in the European Community more than twice as fast as in the United States;

- in the Community countries, the numbers employed in manufacturing industry declined significantly from 1973 to 1981 (except in Italy), while in the United States they increased slightly.

There are a number of signs to suggest that the declining and threatened competitiveness of European industry in the 1970s was defended largely by a marked shedding of labour which can explain partly the continuing high level of productivity. At the same time, considerable use was made of cuts in working hours in Europe, once again in contrast with the United States[20].

The need for self-defence in the form of continued high, albeit somewhat slower, productivity growth in manufacturing industry is closely related to the considerably higher export dependence of the European industrialized countries compared with the United States and also Japan. The share of exports (goods and services) has risen in all the European countries except the Netherlands, picking up speed since 1973; in the United States, the increase in the share of exports has been distinctly slower (see Table 12).

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[20] Information on trends in manufacturing industry is based on publications of the US Bureau of Labor Statistics.

IV REAL WAGES, ADJUSTMENT PROBLEMS AND EMPLOYMENT

The economies of the European Community are much more strongly integrated within the international competitive system than the United States and Japan. Because of the need to maintain competitiveness and because of the impact of restrictive anti-inflationary policies, the apparent productivity growth per man-hour in manufacturing has therefore declined only slightly in Europe as compared with the United States and Japan. There are doubts if and how far the continuing high level of productivity growth in the exposed sectors in Europe since 1973 has been achieved by means of more rapid technical progress and an accelerated increase in the capital-labour ratio. In any case, the large-scale shedding of labour was important. The numbers employed in manufacturing industry in the Community have declined by 1,7 % annually since 1973, and the number of weekly working hours per person employed has fallen by almost 1 % annually. What are the factors behind this dramatic labour shedding process since 1973?

Real wages and employment

The argument frequently put forward in the academic and political debate is that the lack of employment opportunities and the sharp and persistent rise in unemployment are essentially the result of real wages being too high, making it unprofitable for firms to absorb all of the labour force potential. The explanation of this "classical" unemployment (as opposed to cyclical, "Keynesian" unemployment caused by a deficiency of aggregate effective demand) starts from the tenet of neo-classical theory, based on a partial analysis, that labour demand is a declining function of real labour costs. If the real wage rate rises above the point of equilibrium (where the supply and demand curves meet), demand for labour will be reduced. In the longer term, because of the change in factor price relationships, capital is increasingly substituted for labour. At the same time, sharp increases in real wages in excess of productivity growth depress the profitability and earnings of firms, thus reducing incentives to invest in the extension of production capacities.

Factual evidence shows how varied the wage adjustment process has been in the industrialized countries. This adjustment process has taken on a completely new significance as a result of the supply shocks and the

slowdown in productivity growth on the one hand and the new regime of floating exchange rates and the changes in economic policy on the other. Since 1973, particularly in the United States and most of the European countries, differences in the degree of flexibility of real wages have emerged, and these have been coupled with differences in employment trends. It is generally agreed that, in the United States, the adjustment of nominal wages was sluggish, as a result of three-year wage agreements, and that consequently real wages [21] rose only a little or actually fell because of the faster rise in inflation. In Europe, by contrast, nominal wages accelerated with inflation, and real wages therefore continued to rise despite the supply shocks and the decline in productivity growth. The factors behind this were the spread of labour-market regulation and of indexation mechanisms, underestimation of the repercussions and uncertainties caused by the oil shock and the sharp fluctuations in exchange rates, and the differing role of the unions and of incomes policies in the wage formation process. Although real wages adjusted better to the changes in the general environment after the second oil price shock in 1979-81 (e.g. in Germany, the Netherlands and the United Kingdom), they often continued to rise faster than labour productivity.

It has become standard practice to take as the yardstick for wage adjustment the gap between the rise in the real product wage and the growth of labour productivity. This "real labour cost gap" (real wage gap) has recently often been seen as a measure of the disequilibrium in the labour market. The real labour cost gap shows the deviation of the rise in real wages from the rate that would have left the wage share unchanged with reference to a base period. In tables 13 and 14, the real labour cost gap (taking 1972 as the base year) is compared with the trend of employment.

- The United States did not, either in the 1960s or in the 1970s, have any sustained real per capita wage increases that were significantly in excess of the low rate of productivity growth adjusted for changes in the terms of trade. Real wages followed the pronounced cyclical fluctuations

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[21] Or, to be more precise, real compensation from paid employment.

Table 13 : Employment, Labour Productivity and Real Wages 1960-1983

(Average annual changes in % - Whole economy)

		USA	Japan	EEC-10
Employment	1960-73	2.0	1.2	0.2
	1973-81	1.9	0.9	-0.1
	1973-75	-0.1	-0.3	-0.4
	1975-79	3.5	1.4	0.4
	1979-81	0.8	0.9	-0.8
	1981-83	-0.3	1.3	-1.3
Labour productivity (a) (per person employed)	1960-73	2.0	9.1	4.4
	1973-81	0.2	2.7	2.0
	1973-75	-0.7	0.9	0.7
	1975-79	0.8	3.7	3.1
	1979-81	0.1	2.7	1.2
	1981-83	0.3	1.8	1.7
Real product wage (b) (per wage and salary earner)	1960-73	2.0	8.2	4.4
	1973-81	0.3	4.2	2.4
	1973-75	-0.8	6.1	3.6
	1975-79	1.1	3.4	2.0
	1979-81	-0.1	3.6	2.1
	1981-83	0.2	3.1	0.4
Real wage gap (c) (Indices 1972 = 100)	1975	99.8	112.7	106.8
	1979	100.8	111.3	102.6
	1981	100.6	113.1	104.4
	1983	100.7	116.2	101.8

Sources: Services of the Commission; Eurostat; 1982 and 1983, estimates

(a) Real GDP (prices 1975) per person employed
(b) Compensation of employees deflated by the implicit price deflator of GDP
(c) Real wage gap : Compensation per wage and salary earner deflated by GDP-deflator, minus labour productivity.

in productivity, but were flat taking the period 1973-81 as a whole. Neither in the 1960s nor since 1973 has any real wage gap developed. The numbers in employment rose sharply, by a cumulative total of 18 % from 1973 to 1981.

- In Japan, real wage growth in the 1960s was over a long period below the high rate of productivity growth, producing a rapid improvement in the profit ratio up to 1969. It was not until the first oil price shock that labour costs began to accelerate, especially in manufacturing industry,where the fall-off in productivity growth was very pronounced. Since then, a wide gap has opened up between the rise in real wages and productivity growth, though this was corrected to some extent after 1976, particularly after the second oil price shock. However, the low level of the wage share obtaining in the early 1970s was not restored. Despite this relatively wide real labour cost gap, employment problems have not emerged in Japan. The pronounced flexibility of wages and the unusually fast growth of productivity in certain sectors have, admittedly, benefited exports and the employment situation in the service industries. The wage share in manufacturing remained significantly lower than in the United States and the Community; total hourly labour costs expressed in dollars are still well below the labour costs of Japan's main competitors, the United States and Europe [22].

- After a fairly long period of stable wage shares in the 1960s and a rise beginning at the end of the 1960s, real wages in most of the European countries increased further in the period 1972-75, outstripping productivity growth. The real labour cost gap which developed during that period generally narrowed after 1975, but widened again after the second oil price shock, as productivity increases slowed down further and the terms of trade deteriorated once again. Only a few Community countries (United Kingdom, Federal Republic of Germany, Netherlands and Denmark) managed to secure an adjustment of real wage trends to the changed circumstances. In a number of countries the adjustment was still hesitant by 1981 or had not occurred at all (Italy, Belgium, Ireland and France).

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[22] Economic Policy Committee,"Real Labour Costs, Profitability and Employment",Report to the Council, Brussels, 25 Oct. 1982 (Doc.II/435/82 fin.).

Table 14 : Real Wages and Labour Costs in the Member States of the EC 1973-83
(Average annual changes in % - Whole economy)

		D	F	I	UK	NL	B	EC-10
Employment	1973-81	-0.4	0.1	0.8	-0.8	0.1	-0.2	-0.1
	1973-75	-2.1	0.2	0.8	-0.1	-0.3	0.0	-0.4
	1975-79	0.2	0.5	0.8	0.1	0.5	0.1	0.4
	1979-81	0.1	-0.3	0.7	-3.4	-0.4	-1.1	-0.8
	1981-83	-1.7	-0.9	-0.2	-2.1	-1.9	-1.9	-1.3
Labour productivity (a) (per person employed)	1973-81	2.5	2.3	1.7	1.4	1.7	2.1	2.0
	1973-75	1.6	1.9	-0.6	-0.8	1.5	1.2	0.7
	1975-79	3.7	3.2	3.0	2.4	2.6	2.8	3.1
	1979-81	1.0	1.1	1.2	1.5	0.3	1.7	1.2
	1981-83	1.5	1.4	0.1	4.1	1.0	1.5	1.7
Real product wage (per wage and salary earner)	1973-81	2.4	3.5	2.4	1.2	1.6	3.7	2.4
	1973-75	2.9	5.2	3.0	3.3	3.9	4.5	3.6
	1975-79	2.5	3.1	2.0	0.1	1.8	3.6	2.0
	1979-81	1.8	2.6	2.5	1.6	-1.0	3.2	2.1
	1981-83	-0.3	0.6	-0.5	2.1	0.1	-1.0	0.4
Real wage gap (c) (Indices 1972 = 100)	1975	104.4	107.8	108.3	108.6	105.3	107.7	106.8
	1979	99.6	107.6	104.1	99.1	102.5	111.0	102.6
	1981	101.1	111.1	106.8	99.5	99.6	114.1	104.4
	1983	97.4	109.8	105.7	95.6	97.8	108.3	101.8

Sources : Services of the Commission; Eurostat; 1982 and 1983, estimates
(a) Real GDP (1975 prices) per person employed
(b) Compensation of employees deflated by the implicit price index deflator of GDP
(c) See Table 13 footnote (c)

A large number of econometric analyses carried out over the last forty years have attempted to establish and quantify the link between real wages and labour demand. Most of these are confined to national economies and are based either on individual labour demand equations or on overall models. More recently, several comparative analyses covering the OECD countries have been published [23]. Some found that there was no link whatsoever[24]. The conclusions reached in most of the studies are not conclusive, and the only point on which there is in fact agreement is that, as a result of the supply shock after 1973, a real wage problem developed and that this contributed to the deterioration of the employment situation. Estimates of the contributory role of the real wage factor vary widely. Some estimates of real wage elasticity with respect to demand for employment indicate values of between -0.1 and -2; however, most of the results are in the range between -0.3 and -0.5, suggesting that employment would in the longer term increase by 0,5 %, if (other things being equal) real wages fell by 1 %. With such relatively low elasticities, a reduction in real wages of some 10 % would be necessary in order to increase employment by 5 % (which would not necessarily result in an equivalent fall in unemployment).

Real wages, inflation and adjustment problems

The comparative analyses carried out by the OECD Secretariat and by the services of the Commission of the European Communities throw up no clear empirical conclusion on the link between real wage costs and employment, certainly not for the period after 1973. It was not possible to demonstrate with any certainty, and as a generally valid finding, the extent to which the real labour cost problem is the main cause of unemployment. The various definitions of the "real labour cost gap" result in quite large empirical differences in the identification and ranking of the "problem countries" [25], as the findings of the OECD, the Commission of the European Communities and the German Council of Economic Advisers show. The major handicap in using the link between the real labour cost gap and

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[23] OECD (1982); Grubb, Layard, Symons (1982 a), Sachs (1979), Branson and Rotemberg (1980), Bruno and Sachs (1981).

[24] Geary and Kennan (1982).

[25] Earlier OECD analyses revealed no real labour cost gap in Italy, while in Economic Outlook no. 32 of December 1982, it is less than that in France (see Table 14).

employment lies elsewhere, namely in the fact that it is not a sufficient indicator to explain the trend of employment. The real per capita product wage and the apparent average productivity do not follow trends that are independent of each other. In very open national economies, a rapid rise in real wages often forces companies to cut their workforces rapidly, since those exposed to competition have to shut down unprofitable capacity or to close down marginal establishments, as can be seen from the example of the United Kingdom or the Netherlands. The resultant rise in labour productivity may leave the real labour cost gap unchanged, even though the high real wage level has created a massive deterioration in employment, particularly in manufacturing.

Interpreting the real wage gap as an indicator of the "pricing out of work" phenomenon raises a similar problem when a comparison is made between the United States and the Federal Republic of Germany. The United States and the Federal Republic of Germany have broadly similar positive trends in the real labour cost gap. However, with similar real growth rates for 1973-80 (2,4 % a year), the trends of employment were entirely different, rising in the United States and declining (particularly in manufacturing) in the Federal Republic of Germany. These differences are probably partly attributable to the persistent undervaluation of the DM in the 1960s, which resulted in an expansion of the export-dependent, industrial sector[26]; then, in the 1970s, the positive effects of wage adjustment were overshadowed by the appreciation of the DM.

Lastly, the influence of real wages on employment also depends on the inflation rate and on the intensity of the anti-inflationary policy pursued. The real wage problems which have arisen in Europe since 1973 are largely the result of inadequate adjustment to unforeseen increases in raw material prices (i.e. deteriorations in the terms of trade amounting to some 10% in each of the two periods 1973-74 and 1979-80) and, an even more decisive factor, to the sharp slackening in productivity growth amounting to some 2 - 2 1/2 % annually (see Table 10), equivalent to a real wage loss of some 16 - 20 % over that eight-year period alone. Thus, because we realized too late that the period of growth had come to an end, we have "drifted"

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[26] Institut für Weltwirtschaft (1980), Strukturbericht; a contrary view is taken by Kalmbach (1980).

into a situation of very high real wage levels. In this situation, economic policy makers had two choices: either "confirming" the rise in real wages and keeping the degree of capacity utilization and the activity rate as high as possible, which meant inflation, or attempting to halt the rise in the inflation rate and, as a price for this, accepting short-term losses in growth and rising unemployment[27] . The United States and Italy provide examples of the first choice, with Italy, as an export-dependent country, accepting continual currency depreciations. The Federal Republic of Germany and the Netherlands opted for the painful strategy of stability. The scope for passing on higher costs (wages, non-wage labour costs, raw material prices) was most restricted in those countries which pursued a "tight" exchange rate policy as part of their counterinflationary policy and which were exposed to international competition in respect of a large proportion of their production. In these countries, any rigidity in wage behaviour reduced the profitability of firms, which reacted by cutting output and employment.

The increase in the real product wage has slackened significantly in almost all the countries since 1979 and has in some cases actually become negative (Table 14). Despite this, the employment situation (except in Japan) has generally deteriorated. It may be concluded from this that demand for labour is influenced by a wide variety of factors and not just by real wages. It can even be argued that, since the beginning of the 1980s, worldwide demand deficieny has probably been the main factor behind the rapid increase in unemployment.

The argument over whether aggregate demand and wage increases improve the employment situation or whether an improvement requires cuts in real wages is an old one. The debate is not just between Keynesians or trade unionists, who often see only the purchasing power role and demand-generating aspect of wage incomes, and neo-classicists and employers, who stress only the cost aspect, the role of profits and relative price changes. It is also about whether to rely on essentially cyclical/short-term explanations of the employment crisis or to focus more on the range of long-term/structural causes. the interrelationship between wage costs, inflation,

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[27] See Grubb et al. (1982).

employment and economic growth is much more complex than this, so that the "Keynesian versus classical unemployment" line of reasoning does not provide an adequate explanation. A synthesis has emerged recently in the form of the modern macroeconomic disequilibrium theory[28]. This theory postulates that unemployment has at present both Keynesian and classical causes and that it can therefore be overcome only through a two-pronged economic policy aimed at expanding overall demand and increasing production capacities by means of moderation in real wages.

Just as difficult as the analysis of causes and correct diagnosis of the problem is the question of how real wage cuts are arrived at and ultimately lead to higher business profits and possibly to increased investment. The framework and forms of wage formation, trade union pressures, energy prices, non-wage costs and the scope for passing them on, the rise in labour productivity and output prices, the effects of exchange rate changes and of the level of competition, and the level of dependence on foreign trade are all factors at work here and influence one another. Since the effects of wage rate changes on employment in open economies have become so uncertain and since the structural shifts brought about by excessively high real wages become almost irreversible, it might be concluded that there is little or no hope of influencing the employment situation through an aggressive policy of wage reductions alone[29]. At all events, the universal recipe of real wage cuts cannot be applied by all the industrialized countries simultaneously, since this would initiate futile beggar-my-neighbour policies and would ultimately produce deflation.

Real wages and the relative wage structure

Changes in real wages are misleading as an indicator of the flexibility of wage adjustments to the extent that they provide only average values for an economy. It seems to be more important for any explanation of the employment trend to include sectoral and regional differences and differences in vocational skills, i.e. the relative wage structure. On a very

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[28] Malinvaud (1977, 1980), Maddison and Wilstra (1982), Sachs (1983), Dornbusch et al. (1983).

[29] Bombach (1978).

general level, wage differentiation in the United States has remained high and has presumably increased further in Japan since the first oil price shock. In most of the European countries, the tendency to squeeze wage differentials strengthened in the 1970s, even though the differences in productivity growth between sectors and within sectors probably tended to widen. The empirical facts below tend to bear this out, although they are neither fully comparable nor complete.

The United States, like Japan, benefited from the dual nature of its labour market. In the United States, the decline in real wages after the first oil price shock was essentially the result of moderation in the non-unionized sector, where the employment reaction was stronger than in the high-wage, organized sector. However, at the end of the 1970s it became clear that the above-average wage settlements in a number of industries with a high degree of unionization resulted in employment difficulties where the industries were exposed to increased international competition (steel, motor vehicles). Similarly, relative per capita wages in most of the service sectors were significantly lower than the average for industry[30] and thus allowed flexible adjustment and an expansion of employment.

A comparative survey[31] of wage structures in six Community countries provides material for a number of general conclusions, though these need to be modified and supplemented in various respects:

- in industry and in a small number of service sectors (for which comparable information is available), the United Kingdom, France and Italy show relatively large inequalities in per capita wages, while the Federal Republic of Germany shows the gratest degree of uniformity among the six countries, with Belgium and the Netherlands occupying an intermediate position;

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[30] The lowest per capita wages are in the hotel trade, personal services, amusement and recreation, educational services and the "social services" sector.

[31] Saunders, Marsden (1981).

- in the case of total labour costs, i.e. including non-wage costs, Germany once again and also the Netherlands show the smallest differences between the various branches, while the United Kingdom and Italy show the largest differences;

- wage differentials narrowed somewhat in the United Kingdom during the 1970s, and even more so in France; all in all, however, seen the wide differences in inflation rates and in trade union policy, wage structures in the United Kingdom and in Germany changed remarkedly little; among the few groups to imrove their positions were coalmining (in France and Germany) and women (in the United Kingdom and the Netherlands);

- among the various determinants of relative wage inequalities, differences relating to trade or profession were the dominant factors. The United Kingdom is something of an exception, with the very wide overall spread of wages owing relatively little to differences between trades or professions: major inequalities in wages, particularly of manual workers, are to be found within one and the same branch of industry and vocational group (possibly due in some cases to the extensive use of overtime).

If we leave aside the particular case of the United Kingdom, where general economic growth in the 1970s was especially low, there are strong grounds for suspecting that the levelling of the intersectoral wage structure has hindered the growth of employment and has increased pressures towards labour-saving in the structurally weak industries (and regions).

V SUMMARY

In the 1970s, unemployment became the most serious economic problem confronting the Western world. There are at present 33 million unemployed persons in the Western industrialized countries. Unemployment has thus increased fourfold, and in some countries tenfold, compared with the 1960s. There are many reasons why this dramatic deterioration has occurred. One of them is the acceleration in the growth of the labour supply as a result of demographic trends and the steady increase in female participation rates. The potential labour force in Europe will continue to expand into the second half of the 1980s and will not begin to decline significantly until after 1990. The European economies are therefore faced with the major challenge of creating millions of new jobs, both for the many young people seeking employment for the first time and for the unemployed who have lost the jobs they once had.

If the present level of unemployment is to be halved by 1990, and assuming that the existing activity-rate trends continue, some 10 to 11 million jobs will have to be created in the European Community from 1984 to 1990. This target implies an annual increase of some 1,5 % in numbers employed. Can the Community seriously expect to accomplish such a task in seven years? The United States created some 14 million jobs in the seven years from 1974 to 1980, while during the same period employment in the European Community, with a labour force of comparable size, increased by slightly less than 1 1/2 million. In comparing experience in the United States and in the Community, can we learn any lessons as to how we in Europe can deal with the employment problems of the 1980s? Three strategies which might generate additional demand for labour will be examined briefly below [32] :

- boosting economic growth;
- forgoing productivity growth;
- moderating or reducing real wages.

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[32] We leave aside here the question of reductions in working lifetimes and in the annual duration of work, which have recently often been put at the top of the list; see inter alia Wegner (1980).

Increased employment through faster economic growth?

Restoring the growth rates of real gross domestic product witnessed in the 1960s is often seen as an essential condition for overcoming current unemployment. However, most of the medium-term projections for the Community anticipate a slow recovery from the long period of stagnation, with growth rates averaging some 2-3 % annually. Given the expected increase in the potential labour force in the Community, permanent real growth of 5 % a year, if not more, would probably be needed to bring unemployment down to a tolerable level. The radical changes in our economic environment and attitudes, the instability and uncertainty of world economic conditions and general scepticism as to the effectiveness of governments' expansionary policies in face of their high level of indebtedness make it improbable that the European industrialized countries can return quickly, if they can return at all, to the growth path of the 1960s. It is also an open question whether such a growth rate is in fact desirable if it entails a rapid deterioration in the natural environment and greater dependence on energy imports. An even more serious matter is that, despite the intensive research into growth during the past twenty years, we are not much wiser on the question of whether and how sustained growth can in fact be "produced".

But was slower economic growth really the main cause of the employment problems of the 1970s'? In the 1960s, the numbers employed in the Community showed little or no increase despite vigorous economic growth. Since the first oil price crisis, the average growth rate of real GDP in the Community has fallen drastically, i.e. by half, whereas the numbers employed in the period 1973-80 continued to increase, albeit only slightly. A marked decline in the numbers employed did not set in until economic activity began to stagnate in mid-1980. Since then, employment has been falling in most of the European countries: in the Community, more than 4 million jobs disappeared from 1980 to 1983.

It is instructive to compare experience in the United States and in Europe since 1973. The differences in employment trends show that even relatively low economic growth such as that in the United States, which was only slightly higher than in Europe, does not necessarily slow down the rate of job creation. The explanation for the American "employment miracle" can be found in the service sector. The total of more than 15 million new

jobs created in the United States between 1973 to 1981 arose almost exclusively in private service industries (12 million) and in the government sector (2 million). In the Community, by contrast, service employment growth (1,5 % annually in the 1973-1981 period) was only a little over half that in the United States, while there was a marked drop in the numbers employed in agriculture (a fall of 2 million) and in industry (a fall of 4,7 million). What has happened in the United States shows how much future employment potential there is in Europe also, if we succeed in securing a flexible and increasingly private-enterprise supply of jobs in services, which are among the most highly regulated branches of economic activity. A large proportion of social, leisure, health and educational services will remain labour-intensive in the future. Lastly, tomorrow's "information society" could provide further impetus to the development of service jobs and activities and to the rapid expansion of a "quarternary" sector. The scope for increased employment in the service sector must, however, be left for fuller examination elsewhere.

A consistently high level of economic growth may be desirable, but it must remain very doubtful whether more rapid growth is the "royal road" to restoring full employment in the 1980s.

Forgoing productivity growth?

Economic growth in the United States since 1973 has been accomplished almost exclusively through the increase in employment. The statistically recorded labour productivity of the economy has therefore increased only slightly. There has been much controversy over why there has been virtually no growth in labour productivity, and American economists have come to refer to the phenomenon as the "great productivity mystery". In the European industrialized countries, the relatively high rate of productivity growth obtaining in the 1960s has been halved since 1973, although productivity growth per man-hour in manufacturing, which is still a key sector, has generally declined less sharply. It would seem that, in the struggle for their share of world markets, which are growing more slowly, the European industrialized countries have reacted by rapidly reducing employment so as to improve their competitiveness through higher productivity growth. After 1973, Europe, which is much more dependent on external trade than the United States and consequently also more vulnerable, achieved a further distinct increase in its share of exports.

The levelling-off of overall productivity growth in the 1970s was the result of a combination of cyclical, non-recurring and long-term factors. Labour productivity generally increased more slowly in the service sector than in industry and agriculture and this can partly explain the sharp growth in service employment. However, this does not explain why there were such marked differences between employment trends in the service sector as between the United States and the Community and as between the Community countries themselves. The larger number of rules and regulations, the many obstacles in particular to the setting up of new businesses and the less flexible attitude of labour were certainly all factors contributing to the considerably lower growth of service employment in a number of Community countries as compared with the United States. Another striking phenomenon is that the increase in service employment in the United States was greatest in those sectors in which there was an above-average decrease in working hours or in which there was the sharpest increase in part-time working. The European economies should therefore remove the obstacles to increased employment in labour-intensive service industries as quickly as possible. Promoting the supply of services and boosting job creation in the service industries would be a legitimate component of employment policy, even though this would mean slower productivity growth in the economy as a whole.

There has been much talk recently of the danger of an acceleration in productivity growth as a result of the increased use of new technologies such as microelectronics and computers. The use of such technologies in the next decade could under certain circumstances lead to redundancies in industry, in clerical occupations and in a number of service industries, thereby accentuating employment problems still further. A call has therefore been made for the effects of technological progress on employment to be controled and restricted so as to prevent technologically induced unemployment from becoming even greater. Yet in today's world economy with its division of labour, a return to simpler, more labour-intensive technologies is a Utopian solution. Voluntarily renouncing productivity growth through a policy of opposing technological progress and maintaining existing structures is not a viable way of overcoming employment problems. Such a course would merely provide a cosmetic solution to the problems of unemployment, while creating other, and probably more serious, difficulties. Experience in the United States and Japan shows that it is possible to have

not only highly productive and competitive export and manufacturing industries, but also more rapid expansion of labour-intensive services.

Moderating or reducing real wages

In the academic and public debate, the shortage of employment opportunities and the current level of unemployment are often blamed on excessively high real wages, on the grounds that they push up the cost of the production factor "labour" disproportionately, causing an increasing number of jobs to be "rationalized away". The facts show that since 1973 most of the European industrialized countries have "drifted" into a situation of very high real wage levels, meaning that relatively high real wage increases continued to be granted even after productivity growth had suddenly slackened and massive oil price rises had produced a distinct deterioration in the terms of trade and hence in the real incomes available for distribution. The excessive increases in real wages were not so much the result of aggressive trade union policies, but rather the consequence, first, of labour market regulation, rules against unfair dismissal and wage indexation arrangements and, second, of underestimating the repercussions of the oil price shock and of exchange rate fluctuations. The wage adjustment process itself has followed very different patterns in the industrialized countries.

For example, in the United States nominal wages adjusted only sluggishly because of multi-year wage agreements. This meant that as inflation accelerated, real wages rose only slightly or actually fell. Some European economies succeeded in adjusting real wages to less favourable conditions relatively quickly, but others, even after the second oil price shock, continued to pay themselves high real wage increases thus further damaging company profitability.

Moderating the growth of real wages must certainly form part of any policy to create jobs through increased investment. But today it has almost become the fashion to see renunciation of real wage increases or a pause in real wage growth as the main way out of the employment crisis. This may be a prescription for an individual country or group of countries in order to stimulate exports. But it is doubtful whether employment can be increased through general real wage cuts alone. Economists are anything

but agreed as to whether we are now chiefly suffering from "classical unemployment" as a result of excessively high real wages or whether we have to fight two things simultaneously: the shortage of new jobs due to insufficient profitability and "keynesian unemployment" due to insufficient aggregate demand.

Business profitability and hence business investment have been severely affected by a number of factors during the last ten years. Costs for the production factor "labour", including soaring non-wage costs, have increasingly taken on the character of fixed charges and may thus have deterred some firms from taking on additional labour. However, an even greater obstacle to the unavoidable structural adjustment of the European economies is the increasing levelling of wage structures, even though the need for adjustment has become greater as a result of the supply shock, changes in demand, the shift in relative prices and costs and technological progress. While wage differentials have remained high in the United States and presumably increased further in Japan after the first oil price shock, wage differentials as between sectors, regions and skills were eroded further in most of the European countries in the 1970s. This trend is evident particularly in the service industries, which have very different and often disproportionately low productivity levels. Personal services have accordingly often become too expensive, prompting consumers to switch from labour-intensive services to capital-intensive, machine-made service products, or to resort to the underground economy and "do-it-yourself". Achieving greater flexibility in working conditions and in wage structures will be one of the most urgent tasks for economic policy-makers in the years ahead. This renders institutional reform of the price and wage formation process an increasing necessity. Only through such reform can the conflict between macroeconomic stability and microeconomic adjustment be eased.

There are no quick-acting miracle cures for the problems of employment. Nor can success be expected from any strategy applied in isolation. New and permanent jobs will be created only through a combination of sustained economic growth, dynamic structural change, more efficient labour markets, including a relatively mobile labour force, flexible and differentiated wage settlements, an intensified training policy and a sensible approach to reductions in working hours.

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