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Kiel Working Paper No. 927

## HOW COMPETITIVE IS EUROPE'S LABOR?

by  
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May 1999

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## **Abstract**

Europe's labor is not competitiveness taking unemployment as the relevant indicator. The paper looks at other indicators such as job creation, productivity and unit labor costs and skills. It analyzes the reasons for the lack of competitiveness including a low degree of wage differentiation, the impact of the welfare state on the reservation wage and high labor costs to finance the social security system.

J.E.L.-Classification: J00

Europe's labor is not competitive. This holds for the 10 percent who are unemployed in the European Union (1998). In addition, it holds for the unemployed who are in governmental schemes and early retirement and who let the unemployment rate jump to 20 percent and more for quite a few EU countries (Table 1). Standardized OECD unemployment rates vary from the low levels of 3.8 in the Netherlands and 6.3 in the United Kingdom to 18.9 in Spain (1998). The three larger continental countries, Germany, France and Italy, have unemployment rates of 10 percent and more, and this in spite of the fact, that the three countries are not in a recession. When unemployment in labor market schemes and in early retirement is added, the unemployment rate reaches 15 percent, 23 percent and 14.7 percent, respectively for the three countries.

Table 1 — Unemployment rates

	Officially <sup>a</sup> unemployed 1998	Including labor market schemes and early retirement 1996
Austria	4.4	6.9 <sup>c</sup>
Belgium	8.8	21.4
Denmark	5.1	20.5
Finland	11.8	24.0
France	11.9	23.0
Germany	9.7	15.0
Greece	n.a.	20.9
Ireland	7.8	18.4 <sup>b</sup>
Italy	12.3 <sup>d</sup>	14.7 <sup>c</sup>
Luxembourg	2.2	12.2
Netherlands	3.8 <sup>d</sup>	15.6
Portugal	4.9	16.6
Spain	18.9	23.3
Sweden	8.2	14.8 <sup>c</sup>
United Kingdom	6.3 <sup>d</sup>	12.9
EU 15	10.0	n.a.
for comparison:		
US	4.5	n.a.
<sup>a</sup> OECD standardized rates. — <sup>b</sup> Not including early retirement. — <sup>c</sup> Incomplete. — <sup>d</sup> Partly estimated.		

Source: OECD (1998b), Europäische Kommission (1998a, p. 7).

Over the last 30 years, the unemployment rate in the EU-15 countries has ratcheted upward from below 3 percent in 1970 to 10 percent in the late nineties. In each of the three recessions in the 70s, in the 80s and in the 90s, it has moved up 3 to 4 percentage points without reclining when the economic activity picked up. This indicates that labor has become less competitive over time. Long-term unemployment in percent of the unemployed has increased in the last three decades. This is yet another indicator that labor has become less competitive.

### Indicators of a lack in competitiveness of Europe's labor

Raising the question of the competitiveness of Europe's labor requires, of course, to have appropriate criteria that can be used as an indicator of lacking competitiveness. In the product market, a product is not competitive, if it cannot be sold. A firm is not competitive, if it cannot cover its costs. Using an analogous concept, labor is not competitive, if there is no demand for it. Therefore, the unemployment rate is indeed the relevant indicator of a lacking competitiveness of labor. It is an obvious expression that workers cannot find a job in the market.

Besides the unemployment rate, other variables are discussed as indicators of the competitiveness of labor. In the following we look at some of these indicators and ask to what extent they can be used as a signal of a lacking competitiveness of labor.

#### *Job creation*

A potential indicator is job creation. According to this criterion, Europe also shows a poor performance having added only 18 million to its 131-million work force of 1970 up to 1998. In contrast, the US augmented its 79-million workers by 53 million in the same period. Clearly, Europe is not capable of generating a sufficient number of jobs that guarantee a low level of unemployment.

In the major continental countries Germany, France and Italy, employment more or less stagnated in the eighties (with rates of 0.3, 0.2 and 0.0 per year, respectively) and it declined in the nineties (–0.9, 0.1 and –0.5). In contrast, the US expanded its employment with rates of 1.9 and 1.1 per year (Table 2).

Table 2 — Employment Growth in major OECD countries

	1980–1989	1989–1998
France	0.2	0.1
Germany <sup>a</sup>	0.3	–0.9 <sup>b</sup>
Italy	0.0	–0.5
United Kingdom	0.8	0.0
United States	1.9	1.1
<sup>a</sup> West Germany for 1980–1989. — <sup>b</sup> 1991–1998.		

Source: OECD (1998a).

*Labor productivity and unit labor costs*

Differences in labor productivity are another candidate as a criterion of competitiveness of labor. If labor productivity is high, it is, under ceteris paribus conditions, easier to pay high wages or to obtain a better employment situation. Productivity differences alone, however, do not measure competitiveness. Labor costs are also relevant. It is labor costs relative to productivity that defines the competitiveness of labor. If labor costs are not supported by productivity, a situation is not sustainable and adjustment in the economy becomes necessary. In most cases, this means shedding labor.

Evaluating labor productivities and labor costs and comparing them between regions of the world is loaded with extreme difficulties. First, data may not be comparable because the methods of defining the data and collecting them vary considerably. Thus, the delineation of what constitutes labor income is different from country to country. Or the definition of full time workers and of self-employed varies markedly. Second, the comparisons are severely affected by

exchange rate movements or by the methods of calculating purchasing power parity as well as by the choice of the base year for the exchange rate.

In manufacturing, labor productivity per hour tends to be lower in most European countries than in the US using US Bureau of Labor Statistics (Table 3). This should imply that labor costs are also low in European countries. This, however, is not the case. Unit labor costs are higher by quite a degree if 1990 purchasing power parity is used. If purchasing power does not distort the results (for instance because of the choice of the base year) this would indicate quite a downward adjustment need of industrial employment in Europe.

Table 3 — Labor productivity<sup>a</sup> and unit labor costs in manufacturing (US=100)<sup>b</sup>

	Productivity <sup>a</sup>		Unit labor costs	
	1985	1996	1985	1996
Belgium	106	101	75	156
France	86	84	96	163
Germany	86	82	71	166
Italy	84	89	60	101
Netherlands	107	97	65	120
Spain	80	68	49	100
Sweden	87	90	82	160
United Kingdom	60	67	100	148
Japan	69	74	74	169
United States	100	100	100	100

<sup>a</sup>Value added per hour worked. — <sup>b</sup>Based on 1990 purchasing power parities.

Source: Durand et al. (1998), Table 1, 3.

For the total economy, productivities also differ if the nominal exchange rate is used (Table 4). Unit labor costs, however, do not differ so significantly between the US and European countries. In column 5 of Table 4, unit labor are defined as the nominal wage sum per person employed divided by real GDP per

Table 4 — Labor productivity and unit labor costs, economy wide, 1997

	Labor productivity per person employed (in 1000 US-\$) <sup>a</sup>	Labor productivity in percent of US	Wage costs per person employed (in 1000 US-\$) <sup>a</sup>	Wage costs per person in percent of US	Unit labor costs I in percent of US <sup>b</sup>	Unit labor costs II <sup>c</sup>	Unit labor costs II in percent of US
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
France	5556.02	101.74	3578.58	93.67	92.07	58.46	95.81
Germany	5274.65	96.59	3634.36	95.13	98.49	58.97	96.63
Italy	4373.26	80.08	3523.14	92.22	115.16	62.98	103.21
Netherlands	4991.15	91.39	3145.11	82.33	90.08	56.29	92.24
Spain	3182.60	58.28	2518.48	65.92	113.12	61.75	101.18
EU-11	4930.56	90.29	3381.60	88.52	98.04	60.53	99.19
United States	5461.11	100.00	3820.36	100.00	100.00	61.02	100.00

<sup>a</sup>Dollar exchange rate: 1997 yearly average. — <sup>b</sup>Nominal wage sum per person divided by real GDP per person employed. — <sup>c</sup>Nominal wage sum divided by nominal GDP.

Source: Sachverständigenrat (1998), OECD (1998a), own calculations.

person employed. This is the traditional definition of unit labor costs; it is an appropriate measure for unit labor costs in an intertemporal analysis. According to this measure, Germany and the EU-11 are on a similar level with the US with only some differences. For cross country comparisons, a more meaningful measure of unit labor costs is to divide the nominal wage sum by nominal GDP because the workers of countries compete in a given year according to the actual nominal exchange rate (Hauf 1997). This measure is equivalent to the share of wages in GDP. Using this indicator, the relative position of EU-countries with respect to the US also does not differ significantly (column 7 of Table 4).

*Trends in productivity and labor cost*

Trends in labor productivities and in labor costs indicate in which directions both variables move. For the economy as a whole (business sector), labor productivity in the US is increasing at a lower pace than in Europe. Since 1979 it has increased by 0.9 percent per year. In the major countries of the OECD, this rate was higher with more than 2 percent (Table 5). Productivity growth in manufacturing, however, is stronger in the US than in Europe since 1994 (Europäische Kommission 1998b).

Table 5 — Growth of labor productivity<sup>a,b</sup>

	1960–1973	1973–1979	1979–1997
France	5.3	2.9	2.2
Germany	4.5	3.1	2.2
Italy	6.4	2.8	2.0
United Kingdom	4.0	1.6	2.0
United States	2.6	0.3	0.9
Europe <sup>c</sup>	5.4	2.5	2.2

<sup>a</sup>Business sector. — <sup>b</sup>Output per employed person. — <sup>c</sup>Germany, France, Italy, U.K., Austria, Belgium, Denmark, Finland, Greece, Ireland, Netherlands, Norway, Portugal, Spain, Sweden and Switzerland.

Source: OECD (1998a), Annex table 59, own calculation.



Trends in unit labor costs indicate how the relation of labor costs and productivity changes over time. Data are available for the manufacturing sector (OECD 1998, Table 44). In the 90s, the US manages to keep unit labor costs more or less constant (Figure 1). This also holds for Belgium, Denmark, the Netherlands and France during the nineties. They rise in Germany, Spain, the UK and even in Italy (where they have fallen due to the devaluation of the lira in the early nineties).

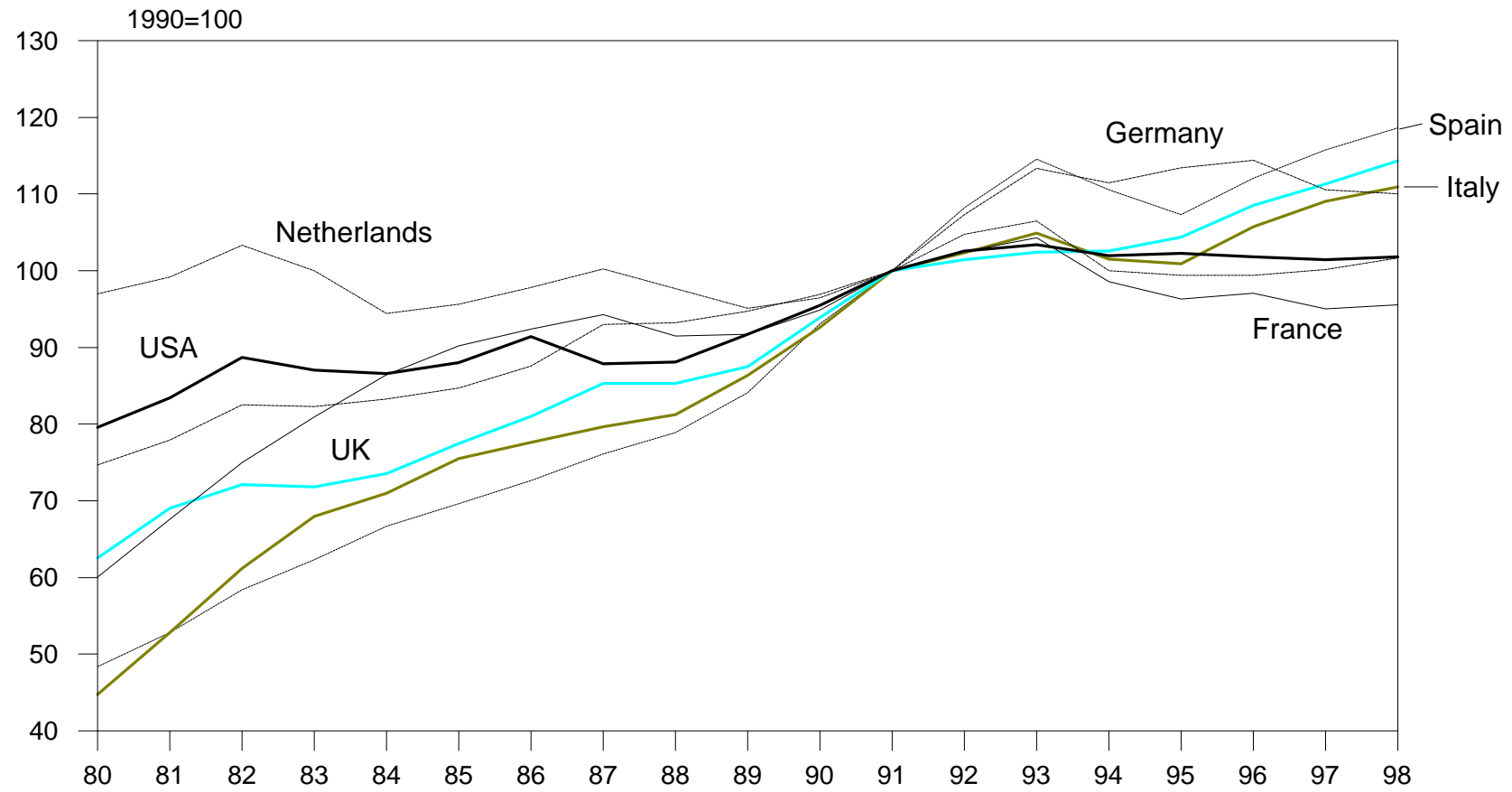
*Unit labor costs — an inadequate measure of the competitiveness of labor*

It must be noted, however, that a divergence of unit labor costs between countries cannot be taken as an indicator of the competitiveness of labor. This is due to the fact that a country can lower its unit labor costs by shedding labor. If jobs are destroyed, the numerator of the term defining unit labor costs, namely nominal wages per head, is reduced whereas the denominator, productivity per head, is increased. This reduces unit labor costs. The more jobs are reduced the lower are the unit labor costs. Therefore, an international or intertemporal comparison of unit labor costs would only make sense if employment-neutral or unemployment-neutral unit labor costs are considered. Unfortunately, such data are not available. The bottom line is that more than 10 percent of European labor is not competitive. For the given wages, labor productivity is not sufficiently high so that firms are not interested enough to hire workers.

*A broad concept of the competitiveness of labor*

Competitiveness of labor does not necessarily mean that labor of a country actually has to compete directly with labor in other countries. Even if there would be no international competition, labor costs have to be in line with labor productivities. Thus, the workers of a country compete with capital if capital can easily be substituted for labor. Take the extreme case where both factors of production are perfect substitutes. Then, workers would be fully replaced by machines if the relative factor prices are out of line. A similar question arises if labor can be substituted by new labor-saving technological knowledge. In an

Figure 1 — Unit Labor Costs, Manufacturing Sector



Source: OECD (1998), Table 44.

open economy, there are additional very powerful mechanisms that link the labor markets of countries. One such mechanism is trade. If labor costs surpass labor productivity, the firms of a country lose their international competitiveness with respect to the given level of their employment. Another mechanism is locational competition through the mobility of (physical) capital. If labor costs are not supported by productivity, firms may relocate and invest elsewhere. This means that the capital stock of a country is reduced or does not grow as fast as it otherwise could if wage policy were more moderate. By the outflow of capital or by reduced capital accumulation, labor productivity is negatively affected.

#### *Differentiation of skills*

For Europe's unskilled labor, the issue of competitiveness becomes more pressing. Both in Europe and in North America, relative demand is going against unskilled workers. Taking Germany as an example, demand for the unskilled decreased by 4.2 million in the period 1976–1995, whereas demand for the skilled increased by 6.2 million (Siebert 1998a). Economists have two candidates of explanation for this phenomenon: labor-saving technological progress and intensified trade with labor-abundant countries that were newly integrated into the international division of labor like China. The debate among economists on the causes of this phenomenon concludes that the shift is mainly due to labor-saving technological progress and not to trade although labor-saving technological progress may be influenced by the degree of openness of an economy (Siebert 1999a). The shift in relative demand means that the terms of trade move against unskilled labor. If relative wages do not follow, unemployment will result. A large proportion of the unemployed have low skills.

### The reasons for the lack of competitiveness of Europe's labor

The reasons why Europe's labor is not competitive are manifold. One of the reasons is that Europe has more and more intervened in its labor market. Another is that the financing of social security in European countries is linked to the work contract which raises labor costs. A third reason is the lacking wage differentiation. A fourth reason, linked to the lack of wage differentiation, is the reservation wage that has been driven upward by the expansion of the welfare state.

#### *No functioning labor market*

Europe has changed its institutional arrangement of the labor market in the last four decades, especially in the late 1960s and in the '70s. These institutional arrangements impair the equilibrating function of the market mechanism.

In European countries, wage formation exhibits characteristics that are not in line with a market process: wages are, as a rule, not established in an anonymous market; they also not determined on the firm level but on the industry level or even at the economy level. In some countries, results obtained in industry negotiations are extended by covert bargaining coordination to other sectors of the economy (Austria, Germany) or even by overt bargaining coordination to the economy as a whole (Finland, Sweden up to the '90s, Belgium, Spain, Portugal). This is quite in contrast to wage formation in the United States and the UK which is decentralized and shows low coordination of wage changes across the economy.

The relatively high unionization rates in European countries show the collective nature of the bargaining process. In Finland, Norway, Sweden, high unionization rates are typically associated with high coverage rates. Germany has a high coverage rate in public services and in industry; German unions have leverage on wages by implicit extension and to some extent by mandatory expansion of bargained wage in some labor intensive sectors. However, even in

European countries where formal unionization is not high, a substantial proportion of workers may have their wages determined by union negotiations, because in one way or another negotiated wages become mandatory. In France, for example, where only 10 percent of workers are officially unionized, the coverage rate is 90 percent; coverage rates also exceed unionization rates markedly in Austria, Belgium, Netherlands, Spain. Of course, all of these European cases contrast markedly to the United States which has low rates of unionization and coverage.

It has been hypothesized that a hump shaped relationship exists between centralization of wage bargaining and unemployment. According to this hypothesis, both extreme decentralization and extreme centralization go hand in hand with low unemployment, whereas intermediate forms of centralization in wage formation tend to result in higher unemployment. The relevance of such a hump shaped curve of the real wage level and the degree of centralization which was established for the period from the mid '70s to the mid '80s (Calmfors and Drifill 1988, Table 2) is highly questionable for the '90s; for instance, the Nordic countries which were an earlier example of centralization and low unemployment now have higher unemployment. Econometric studies suggest that the relationship has broken down (Dohse and Krieger-Boden 1998).

When the institutional arrangements limit the equilibrating function of labor markets and of the wage rate, then, as the alternative to adjusting the price of labor, adjustments take place via changes in the quantity of employment. This means that unemployment may result. Institutional arrangements may also weaken the demand for labor, making it less attractive to hire a worker by explicitly pushing up the wage costs or by introducing a negative shadow price for labor; they may distort the labor supply.

*High labor costs to finance social security systems*

Most continental European countries spend a relative high proportion of gross wage income to finance their social security systems. The social security shares in GDP (social security contributions relative to GDP) reach more than double the relative share of the US (and the UK) with levels of nearly 20 percent for France and 15 percent for Belgium, Germany, Italy, the Netherlands and Sweden (Table 6). With labor productivity being lower in Europe, there is less

Table 6 — Social security contribution shares in the EU, 1996

Country	Social security shares <sup>a</sup>			Tax share	Tax and contribution share
	Total	of which <sup>b</sup>			
		Employers	Employees		
Austria	15.3	7.5	6.5	28.7	44.0
Belgium	14.9	9.1	4.5	31.1	46.0
Denmark	1.6	0.3	1.3	50.6	52.2
Finland	12.4	9.9	2.0	35.8	48.2
France	19.7	12.2	5.9	26.0	45.7
Germany	15.5	7.8	6.7	22.6	38.1
Greece	12.4	6.0	6.5	28.1	40.6
Ireland	4.5	2.8	1.5	29.1	33.7
Italy	14.8	10.3	2.9	28.5	43.2
Luxembourg	11.9	5.5	4.9	32.8	44.7
Netherlands	17.1	2.9	10.8	26.1	43.3
Portugal	9.0	5.0	3.3	25.9	34.9
Spain	12.1	8.6	1.9	21.6	33.7
Sweden	15.5	12.9	2.3	36.5	52.0
United Kingdom	6.2	3.4	2.6	29.8	36.0
for comparison: United States	7.0	3.7	3.0	21.5	28.5

<sup>a</sup>In percent of GDP according to macroeconomic accounting. — <sup>b</sup>Does not add to the total.

Source: Calculations of Sachverständigenrat, based on OECD Revenue Statistics 1965–1997, Edition 1998, based on financial statistics.

room for net wages. To some part, a low share as the 1.6 percent in Denmark indicate that social security is financed by taxation. In other countries, a low social security share goes together with a low share of tax plus social security contributions as in Ireland (4.5, 33.7) and in the United Kingdom (6.2, 36.0). In addition to leaving less room for net wages, the tax wedge between the gross wage that firms have to pay and the net wage that workers see in their pocket reduces the willingness of workers to agree to wage moderation.

Another important aspect of the impact of financing social security systems is how much of the social security share is carried by firms and how much by the employees. Thus, the Netherlands has assigned the bulk of the social security costs to the employees whereas in Italy, in France and Spain the major share is borne by the employers. Especially if the financing of social security is paid over-proportionally by firms as in the Mediterranean approach, raising social security shares as in France and Italy means that labor costs are increased.

#### *Not enough wage differentiation*

Centralization of wage formation or coordination of wage policies across an economy tend to lead to less wage differentiation; the typical pattern here is that wages in the the lower segments of the wage structure are raised relatively more for equity reasons. A lower degree of wage differentiation indicates that the wage rates do not fulfill their function to bring about the necessary adjustments to a new equilibrium with more employment.<sup>1</sup>

Relative wages have become more differentiated in the United States and the United Kingdom in the last twenty years, while the wage structure has remained largely unchanged in most of the continental European countries. In some

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<sup>1</sup> A more differentiated wage structure has become more important in the last decade, as it has become more common to reorganize work around small, customer oriented teams. Differentiated wages are also especially relevant in an environment of intensive structural change in the foreign trade oriented economies of Europe.

European countries even a reduction in dispersion can be observed (Germany in the 1980s and '90s, Belgium in the mid 1980s to '90s), others are characterized by a stable dispersion (Netherlands) or by near stability (France, with a greater dispersion in the upper deciles of the distribution), and some by a small increase in dispersion without a consistent trend for male or female employees (Austria, Sweden).

A country which institutionally prohibits flexible wages at the lower end can be expected to have a low percentage of employment in low-paid jobs. This is exactly what can be observed. Defining low-paid workers as those who earn less than two-thirds of the median wage, the percentage of low-paid workers in total employment varies noticeably with the dispersion of earnings (Siebert 1997).

*The impact of the higher reservation wage*

The lack of wage differentiation and the malfunctioning of the labor market are partly due to an increase in the reservation wage.

The reservation wage is influenced by the two different layers of income floors that the typical European economy provides for people who cannot earn their living in the labor market. One layer is social welfare benefits. Welfare benefits are provided for an unlimited period of time and are supposed to cover the subsistence level; they are means tested and not linked to previous income. Guaranteed income benefits that are provided irrespective of work history have been introduced in some countries. Guaranteed income benefits have risen considerably, changing the relative incentive for work and nonwork.

The other layer of the income floor is unemployment benefits that are usually limited and linked to previous work income in most European countries (a major exception being the UK). Net replacement rates — that is, the ratio of unemployment benefits to the previous wage income after tax tend to reach high levels in the European OECD countries (for instance 70 percent in 1994 for a couple with no children at the average production worker level of earnings,



data for 1994, OECD 1996, Table 2.1); this layer is intended to be higher than the income layer from welfare payments.

The expansion of the European welfare state in the '70s effectively raised these income levels and the reservation wage by a whole set of measures: the duration of benefits was often increased;<sup>2</sup> it was made easier to obtain unemployment benefits; the conditions under which unemployed were expected to accept jobs were interpreted more generously; governmental schemes for the unemployed were extended; the relative distance between the lowest wage in the labor market and nonworking income in welfare programs became more narrow; social security benefits were given more graciously.

In addition, other policy measures affected the incentive structure relevant for the labor market; for instance, the legal minimum wage was raised in France in the '70s and '80s.<sup>3</sup> Minimum wages set by law have a greater effect on the level of unemployment as soon as they approach the market clearing wage of lower paid jobs. European countries with an explicit minimum wage that is applied economy wide are characterized by high unemployment rates (Belgium, France, Greece, Portugal, Spain, with the exception of the Netherlands. In France, Spain, Portugal, and Greece (the French-Mediterranean group of countries), the minimum wage applying to 18 year old workers is surely one major reason for the high youth unemployment rate.

The increase in the European reservation had several effects. A first consequence of a high reservation wage is that the floor of the wage structure moves upward and the earnings distribution is truncated from below. This is generally to the detriment of low-skilled workers, who are more likely to be priced out of

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<sup>2</sup> The duration of unemployment benefits in Europe differs markedly from that of the United States. Depending on age and the employment record, it reaches a maximum of 54 months in the Netherlands, 33 months in France and 32 months in Germany; in contrast, it is 39 months in the United States in high unemployment states (OECD 1996, Chart 2.3).

<sup>3</sup> OECD 1994, Chart 5.14.

the market. The institutional features pushing up the reservation wage are the cause of unemployment of low-skilled persons. This is especially relevant when labor demand is shifting against the less qualified.

A second consequence of a high reservation wage is that trade unions (and “insiders” who are already settled in the labor market) are less prepared to take into consideration the costs that wage increases which surpass productivity growth can have on unemployment. Although trade unions pay attention to the level of unemployment to some extent, they have a reduced incentive to consider what sort of impact wage rises will have on unemployment. In a way, the wage cartel shifts the burden of its behavior to a third party, the government or to the taxpayer. Moreover, the bargaining power of insiders is unintentionally increased if outsiders are taken care of by the government, since both sides realize that insiders would now suffer less from actions that would take them off the job. The OECD points to “... considerable evidence that benefits affect unemployment rates. Countries which currently have high unemployment and significantly reduce benefit disincentives may experience a considerable improvement in their unemployment situation within a few years; and conversely, countries with high entitlements which do not reduce them may find that other policies alone are not enough” (1994, p. 213).

With an expansion of the welfare state, the assignment of responsibilities of different players of economic policies is reshuffled. In the typical pattern, the institutions of wage policy are responsible for employment, fiscal policy for growth and redistribution, and monetary policy for price level stability. However, the rise of the welfare state shifts the responsibility for employment away from the social partners to fiscal and social policy, that is, to the government.

A third consequence is that the unemployed have a lower incentive to search for or to accept work at a low market wage rate. Thus, a higher reservation wage traps people in unemployment and impairs the market clearing role of wages. The reduced incentive to work is aggravated by high effective marginal

tax rates for the transition from social assistance benefits to market income; in some European countries, earning a dollar of income results in losing a dollar of government benefits effectively a 100 percent tax on wages. This further discourages effort and establishes a poverty trap. Moreover, there is a distortion of directing work effort to the black market as social security (such as health and old age insurance) continues to be provided for the officially unemployed.

### Policy Conclusion

The institutional changes described have made part of labor uncompetitive in most European countries. There is a sizable section of the labor force for which the labor market does not function anymore. The combination of intensified competition in a global economy and of labor-saving technical progress requires flexibility in wages, but this flexibility is prevented by institutional conditions.

If Europe wants to make its labor more competitive, it has to revamp its institutional structure (Siebert 1999b). This means three different lines of attack: i) an institutional approach must be found by which wage formation is decentralized, ii) social security costs, i.e. the tax on labor, should be reduced by redesigning the social security systems, iii) the reservation wage defined by the welfare state should be lowered.

Appendix

Table A1 — Development of shares in the EU, 1996

Country		Social security shares <sup>a</sup>			Tax share	Tax and contribution share
		Total	of which			
			Employers	Employees		
Austria	1980	12.5	6.2	5.1	27.8	40.3
	1985	13.5	6.7	5.8	28.9	42.4
	1993	14.8	7.2	6.3	28.7	43.4
	1996	15.3	7.5	6.5	28.7	44.0
Belgium	1980	13.3	8.5	3.8	30.4	43.7
	1985	15.1	8.9	4.8	31.8	46.9
	1993	15.8	9.7	4.8	29.1	44.9
	1996	14.9	9.1	4.5	31.1	46.0
Denmark	1980	0.8	0.3	0.5	44.7	45.5
	1985	1.9	0.9	1.0	47.2	49.0
	1993	1.6	0.3	1.3	48.7	49.2
	1996	1.6	0.3	1.3	50.6	52.2
Finland	1980	7.2	6.9	0.0	28.8	36.9
	1985	7.1	6.8	0.0	33.7	40.8
	1993	12.0	10.2	1.2	33.4	45.4
	1996	12.4	9.9	2.0	35.8	48.2
France	1980	17.8	11.9	4.6	23.9	41.7
	1985	19.3	12.5	5.2	25.2	44.5
	1993	19.6	12.0	6.0	24.3	43.9
	1996	19.7	12.2	5.9	26.0	45.7
Germany	1980	13.1	7.0	5.8	25.1	38.2
	1985	13.9	7.2	6.0	24.2	38.1
	1993	15.1	7.7	6.6	23.9	39.0
	1996	15.5	7.8	6.7	22.6	38.1
Greece	1980	9.7	4.2	4.3	19.7	29.4
	1985	12.5	5.2	5.6	22.8	35.1
	1993	12.3	6.1	6.2	27.3	39.5
	1996	12.4	6.0	6.6	28.1	40.6
Ireland	1980	4.7	3.1	1.5	28.0	32.8
	1985	5.4	3.4	1.9	31.0	36.4
	1993	5.4	3.3	1.9	29.9	35.4
	1996	4.5	2.8	1.5	29.1	33.7
Italy	1980	11.5	8.6	2.1	18.8	30.4
	1985	12.0	8.6	2.3	22.6	34.5
	1993	13.8	9.1	2.9	30.0	43.8
	1996	14.8	10.3	2.9	28.5	43.2

Table A1 continued

Country		Social security shares <sup>a</sup>			Tax share	Tax and contribution share
		Total	of which			
			Employers	Employees		
Luxembourg	1980	12.2	6.7	4.6	29.9	42.0
	1985	12.3	6.0	4.5	34.4	46.7
	1993	12.3	6.0	4.7	31.6	43.9
	1996	11.8	5.4	4.7	32.3	44.1
Netherlands	1980	17.2	8.0	7.1	28.0	45.2
	1985	19.5	7.8	8.7	24.6	44.1
	1993	18.1	3.4	11.3	29.3	47.5
	1996	17.1	2.9	10.8	26.1	43.3
Portugal	1980	7.4	4.4	2.8	17.7	25.1
	1985	7.2	4.1	2.8	20.5	27.6
	1993	8.7	5.2	3.2	23.7	32.4
	1996	9.0	5.0	3.3	25.9	34.9
Spain	1980	11.6	9.0	2.6	12.3	23.9
	1985	11.8	6.9	2.1	16.7	28.5
	1993	13.1	9.1	2.2	21.5	34.7
	1996	12.1	8.6	1.9	21.6	33.7
Sweden	1980	14.1	13.5	0.0	34.8	48.8
	1985	12.5	11.9	0.1	37.5	50.0
	1993	13.7	12.8	0.6	36.4	50.1
	1996	15.5	12.9	2.3	38.5	52.0
United Kingdom	1980	5.9	3.6	2.3	29.3	35.1
	1985	6.7	3.4	3.1	30.8	37.5
	1993	6.0	3.7	2.3	27.5	33.5
	1996	6.2	3.4	2.6	29.8	36.0
for comparison: United States	1980	5.9	3.2	2.5	21.0	26.9
	1985	6.6	3.6	2.7	19.5	26.0
	1993	6.9	3.6	2.9	20.1	27.0
	1995	7.0	3.6	3.0	20.9	27.9
	1996	7.0	3.7	3.0	21.5	28.5

<sup>a</sup>In percent of GDP according to macroeconomic accounting.

Source: Calculations of Sachverständigenrat, based on OECD Revenue Statistics 1965–1997, Edition 1998, based on financial statistics.

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