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Labor Market Rigidities: At the Root of Unemployment in Europe

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The unemployment picture in Europe is bleak. In the European OECD countries, the unemployment rate has moved up from 2.6 percent in 1970 to nearly 11 percent in 1996, ratcheting upward in the 1970s and the early 1980s and again in the mid-1990s. The long-term unemployment rate (relating to those who are unemployed for one year and more) has also risen sharply from 0.9 percent in 1979 to 6.6 percent in 1994. Job growth has been slow. Thus, the first question: how can this development be explained?

This experience differs markedly from that of the United States. As the upper panel of Figure 1 shows, the European unemployment rate was always lower than was the U.S. figure throughout the 1970s; but since the mid-1980s, it has always been higher. The United States has seen no sustained increase in the unemployment rate. Moreover, the long-term unemployment rate is much lower in the United States. Finally, whereas employment increased by 58 percent (47 million additional jobs) from 1970 to 1996, the European economies were weak in generating additional jobs: employment rose by only 12 percent (18 million additional jobs) over that time (lower panel of Figure 1). The employment-population ratio declined in Europe from 65 percent to 60 percent, whereas it rose in the United States from roughly the same level to nearly 75 percent. Thus, a second question: why is the European experience so strikingly different from that of the United States?

In attempting to explain Europe's experience with unemployment since 1970, the contrast with the United States rules out some otherwise plausible explanations.

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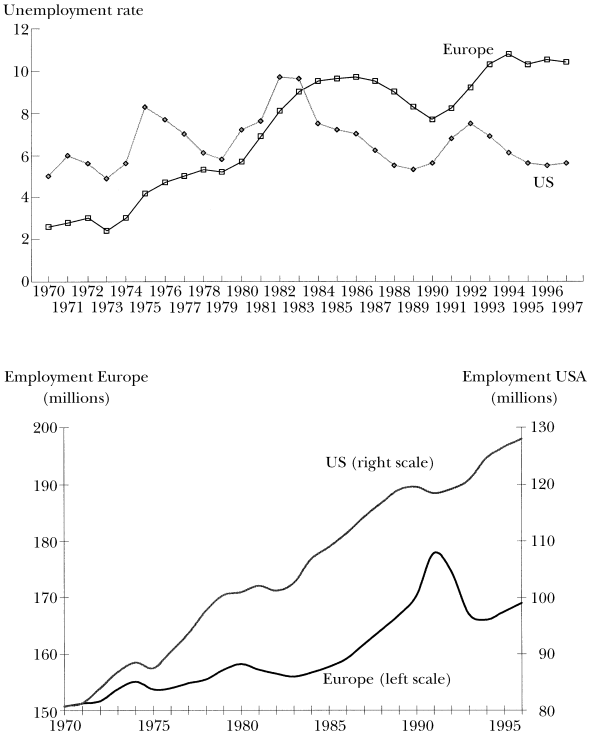
Figure 1
Unemployment Rates and Employment in OECD Europe and the United States



Sources: 1970–1993: OECD, Labor Force Statistics; 1994–1996: own calculations based on OECD Economic Outlook, CD-ROM.

For example, Europe experienced an oil shock in the early and late 1970s, which is a plausible reason for unemployment to rise. But America also experienced such a shock, without having it lead to an ongoing rise in unemployment over 25 years. Similarly, any shocks that Europe has experienced due to technological change or increased trade from developing countries do not seem notably different from those experienced in the United States—yet European experience with unemployment differs dramatically. A final exogenous factor sometimes mentioned is that in some countries, such as Germany, the catching-up process after World War II came more or less to an end in the 1970s; labor productivity only increased by less than 2 percent in OECD Europe in the '80s and '90s instead of by the 5 percent that it had increased in the '60s and early '70s (OECD, 1996a, Table 59). If workers were unwilling to moderate their wage requests as productivity slowed, this could lead to increased unemployment. However, the United States also experienced a productivity slowdown in the early 1970s, without having a permanently higher unemployment rate. Since the catching-up process ended in Europe in the early 1970s,

the increase in labor productivity does not seem to be basically different in Europe than in the United States. Since exogenous economic changes are not a plausible reason for Europe's different experience with unemployment, it seems justified to concentrate on the institutional setting in Europe.

Any labor market is surrounded by an array of institutional arrangements that form a complex web of incentives and disincentives on both sides of the market. For example, demand for labor is determined not only by the conventional market elements like output prices and the productivity of labor, but also by specific regulations relating to work time, layoffs, or other matters, and by taxes that raise the cost of paying workers. The supply of labor is partly determined by the reservation wage of potential workers, which in turn is shaped by institutions like the minimum wage, the level and duration of unemployment, welfare and social security payments. When these forces of supply and demand meet in the labor market, their interaction is shaped by formal and traditional rules. For example, these involve the rules that govern trade unions' negotiations; in Germany, there is a constitutional right to bargain collectively (*Tarifautonomie*). Such rules also govern the norms for wage and benefit packages that are often shaped by tax and social welfare laws or established by voluntary contractual arrangements. In Europe, four different institutional layers affecting the labor market can be distinguished: the market process, the rules affecting the wage formation process, the legal system and the system of nonemployment income.

Of course, these effects are often interrelated. Looking at single institutional characteristics one at a time is never very promising, because the effect of a single institutional arrangement can only be understood in its interaction with other institutional rules. For example, a regulation making it difficult to lay off people will bite more if a firm in crisis cannot adjust wages and working time downward. Consequently, the cumulative effect of rules is relevant determining their total impact (Lindbeck, 1996).

Indeed, this paper will argue that institutional changes affecting Europe's labor markets over the last 25 years are a central reason for Europe's poor labor market performance. Moreover, institutional differences between Europe and the United States can explain their different employment pictures. The next section of this paper will provide an overview of institutional change in Europe over the last three decades or so, which offers a primae facie case for this thesis. Then, the paper will examine the evidence on how various institutional arrangements affect the labor market.

Major Institutional Change in Europe

Europe has seen major changes in the institutional characteristics of its labor markets, especially in the late 1960s and in the 1970s. In these two decades, equity considerations gained prominence in all the European countries. This helped to shape the legal norms of labor market institutions as well as income policies and

public insurance schemes, including old-age pensions. Although the institutional characteristics of the wage setting process did not change in a narrow interpretation, other elements of the institutional setting did vary considerably. The tax wedge widened, since more generous social insurance benefits had to be financed from labor productivity. To some extent, new rules on working time negatively affected the increase in labor productivity. Layoff restraints were made more strict and severance pay in the case of closings was increased, both by acts of legislation and by the judicial system. Most importantly, a whole set of measures raised the reservation wage: the duration of unemployment benefits was partly increased; it was made easier to obtain such benefits; the conditions under which unemployed were expected to accept jobs were interpreted more generously (under a standard of ''reasonableness,'' or *Zumutbarkeit*); 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; and the minimum wage, which is applied in some countries, was raised. All these changes occurred more or less simultaneously in each of the countries; and although institutional differences prevail, it is fair to say that these institutional changes took the same direction in all the European countries.

Let me sketch some of the changes in labor market institutions that occurred in the major European countries in the 1960s and 1970s.[1] In France, the minimum wage was raised in 1968, 1974 and 1981, rising from roughly 40 percent of the average monthly wage in the mid-1960s to 50 percent by the late-1980s (OECD, 1994b, Chart 5.14). Whereas the legal minimum wage is presently about 34 percent of the median earnings in the United States, it reaches 60 percent in France (OECD, 1996b, p. 71). Note that the ratio of minimum wage to average wage varies depending on region, education, occupation and age and is more binding for specific groups (OECD, 1994b, Table 5.26). In France, the ratio was 1.16 for the 15- to 19-year-olds in 1987, and 0.75 for the 20- to 24-year-olds. Unemployment benefits were raised in 1979, and guaranteed income benefits were offered in 1989.

Italy followed a similar pattern of more regulated markets in the 1960s and into the 1970s. For example, in 1966, Italy first passed regulations on firing procedures. By 1970, following waves of strikes, these regulations were tightened to the point that firing costs were almost infinite. However, as unemployment stayed high in the 1970s, Italy authorized temporary work contracts in 1977, rules that it would liberalize in 1984 and 1987. Layoffs for economic reasons were authorized in 1986, and firing restrictions were eased for large firms in 1991. In 1992, Italy ended its practice of synchronized wage bargaining across sectors of the economy and the indexation of wage adjustments (the *scala mobile*).

[1] Along with the specific citations given in the text that follows, the picture of evolving European labor market institutions was pieced together from various sources. Useful sources for a general picture involving all countries are OECD (1995b) and Saint-Paul (1996). For specific countries, Saint-Paul (1996) is helpful for France. Information on Germany comes from various annual reports of the Sachverständigenrat. For the Netherlands, see Hartog (1997). For the United Kingdom, see Barrell (1994) and Nickell (1997); I also received information directly from Richard Layard and Peter Robinson.

Most of the events that affected Germany's labor market institutions from the late 1960s to the late 1970s have tended to make the labor market more rigid. From 1968 to 1973, Germany operated under a policy of ''harmonized action'' (*Konzentriete Aktion*) in which trade unions, employers' associations and government were to coordinate in determining fiscal, social and income policies. During this time, sick leave of 100 percent of pay for six weeks applicable to clerks was extended to other workers in 1969. In 1972, mandatory social plans were required for the closing of a firm. From 1970 to 1975, there was a continuous increase in the share of social insurance payments (*Sozialleistungsquote*) from 13 percent to 18 percent of GDP (Sachverständigenrat, 1994/95, Figure 36). Unemployment benefits of various sorts were raised in 1975; in general, the benefit for government labor market schemes was to be 90 percent of the previous net wage. In 1976, the codetermination law was passed, under which half the members of the supervisory board of big firms have to be worker representatives.

In other European countries, institutional changes were headed in a similar direction. In the Netherlands, guaranteed income benefits were introduced in 1963 and continuously expanded throughout the 1960s. A law requiring advance notice of firings was passed in 1976. In the Scandinavian countries, governmental labor market policies kept the level of official unemployment low, thus hiding the true extent of the unemployment problem.

In the United Kingdom, trade unions were traditionally strong whereas the labor market was never as heavily regulated as was common in other European countries. Several laws contributing to rigid labor markets were passed in the 1960s and 1970s; for example, the Redundancy Payment Act of 1965; the Unfair Dismissal Law of 1971; and the Employment Protection Consolidation Act of 1978.

Whereas Europe looks like a more or less homogenous train on the track to the welfare state in the 1960s and the 1970s, marked differences in the institutional approaches of individual countries have developed since the mid-1980s. The labor market performance of different nations is demonstrably sensitive to the approach they have taken. Four different performance groups may be distinguished:[2] 1) the Scandinavian countries who only experienced unemployment in the '90s (except Denmark) and who are now attempting to restructure the welfare state; 2) the French-Mediterranean countries (except Portugal) who have not succeeded in improving the functioning of their labor markets; 3) Germany, which has carried out only minor institutional changes; and, 4) the Netherlands and the United Kingdom, who have taken a new approach to the labor market that resulted in a reduction in the unemployment rate since the mid-'80s, most notably in the Netherlands.

Of course, not every country can easily be classified into one of these four groups. Austria follows the French pattern. Denmark lies between the French and German patterns. The classification of Belgium as following the French or Dutch pattern depends on whether one believes that unemployment has fallen in Belgium,

[2] For a similar but not identical view, see Paqué (1996).

which in turn depends on whether the Belgian definition of the unemployment rate or the standardized OECD rates are used.

The Scandinavian countries (except Denmark) managed to keep the unemployment rate low in the '80s (2.6 percent in Sweden in the period 1980–1990) but saw themselves challenged with a dramatic increase in unemployment in the '90s (9.5 percent in Sweden in 1993–95). The increase in public sector spending—in Sweden up to 70 percent of GDP in 1992 (Lindbeck et al., 1994, p. 5) had camouflaged the underlying labor market issues, which became apparent when the welfare state could no longer be financed. A policy reversal became necessary, and a restructuring of the welfare state was undertaken. A positive impact in terms of reduced unemployment has not yet evolved except in Norway (which has oil to cushion the transition).

France can stand as the exemplar of the French-Mediterranean model, in which little has been done to alter the institutions that have created inflexibility in labor markets. The country has tinkered with offering temporary employment contracts, which allow an employer to limit a work contract to a specific period of time. Temporary contracts were extended in 1979, restricted in 1982 and 1983, extended in 1985 and 1986, and then restricted again in 1989. Clearly, this dalliance with temporary contracts reflects an ambiguity in French feelings about government labor market restrictions: they are feared to cause unemployment, but seem impossible to give up. French society seems to be unwilling to accept a comprehensive reform (Saint-Paul, 1996); the failed revision of minimum wages for young workers during the Balladur government is a striking example.

A third approach, involving only minor institutional changes, is that of Germany. Unemployment benefits were slightly scaled back in 1982 and were reduced marginally again in 1994. The Employment Promotion Act of 1985 allowed temporary work contracts of up to 18 months, and these provisions were later expanded in 1996. In 1986, it was ruled that unemployment benefits would not be available at all for workers temporarily underemployed due to strikes in the same industry. Caps on the increase in social health care costs were passed in 1989, 1992 and 1996. These labor market reforms are undeniable, but mostly minor in their overall impact.

The fourth approach is that of the British and Dutch, where labor market institutions have been significantly overhauled, and unemployment rates have dropped as a result. Since the mid-1980s, the Netherlands implemented wage restraints, causing a fall in the real labor cost per unit of output. Moreover, it restructured the welfare state (Hartog and Theeuwes, 1997). Between 1985 and 1987, the government benefits for unemployment, sickness and disability were scaled back from 80 to 70 percent of the previous wage. More restrictive definitions of disability were put in place in 1993. In 1994, employers were made directly liable for wages of sick employees in their first six weeks off the job, rather than those costs being born by government, and employer contributions for sick leave were for the first time tied to the sickness record of the firm. From 1985–96, the Netherlands experienced strong employment growth of 1.8 percent per year.

The United Kingdom saw a similar pattern of thoroughgoing reform. With the arrival of the Thatcher government in the 1980s, British labor market institutions were reshaped. A series of laws throughout the 1980s weakened union power by extending the grounds for refusing to join a union; enacting limits on picketing; prohibiting actions that force contracts with union employers; requiring ballots for union elections and for unions to hold political funds; strengthening employer power to get injunctions against strikes; and extending individual rights to work against a union. By 1990, the closed union shop and the secondary strike had been effectively abolished in Britain. As legislation reduced the power of trade unions, membership declined. Wage councils were eliminated. Employment protection legislation was weakened; for example, a 1985 law said that to be protected under the laws against unfair dismissal, one had to have been employed at that job for two years, not just one. There was a continuous decline in how much of wages would be replaced by various benefits from 1980 into the early 1990s. After 1986, under the ''Restart Program,'' the unemployed had to undergo mandatory counseling after six months without work and prove their own efforts to get a new job. In 1996, the duration of unemployment benefits was reduced from one year to six months. There was also a switch away from payroll taxes toward commodity taxes, which presumably have less impact on labor markets. The overall impact of these changes was that labor markets were made somewhat more flexible (Nickell, 1997). Britain's unemployment rate has fallen since the mid-'80s but it still remains high and possibly higher than one would have expected after all the institutional changes (Nickell, 1997). Also, the dispersion of earnings in Britain has increased since the mid-'80s. Employment has increased only slightly since 1994; however, Britain has fared better than the rest of the European Union.

It is difficult to summarize the extent of Europe's institutional changes in a compact form. However, starting from a simple notion of an equilibrium in a classically clearing labor market, institutional arrangements can influence the clearing function of the labor market in basically three ways: by weakening 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; by distorting the labor supply; and by impairing the equilibrating function of the market mechanism (for instance, by influencing bargaining behavior). Europe has seen major changes in the institutional characteristics of its labor markets, especially in the late 1960s and in the 1970s, which plausibly could produce all three of these effects. The next section reviews a variety of evidence on how Europe's institutional change has affected labor markets.

Evidence on the Effects of Institutional Change

This review of the empirical evidence begins with general evidence that European labor markets are less flexible than those of the United States and then moves into a discussion of the various main reasons why this is so, including factors

like the reservation wage of labor, the cost of hiring and firing, and the extent of wage coordination across a country. Throughout the discussion, it is worth remembering that many of these changes occurred more or less simultaneously, which implies that their effects may have compounded each other.

Wage and Employment Flexibility

Two important characteristics of the equilibrating function of the labor market are how labor demand reacts to the real wage—that is, the employment response to the wage rate or wage elasticity of labor demand—and how the wage rate reacts to unemployment—that is, the wage response to unemployment or unemployment elasticity of the wage rate. The wage elasticity of labor demand indicates how effective wage restraint is in bringing about new jobs, whereas the unemployment elasticity of the wage rate denotes the extent to which workers and trade unions are prepared to exercise wage restraint in the event of unemployment.

The long-run wage elasticity of labor demand in the private sector—that is, how the labor demand of firms reacts to wages—seems to be similar between European countries and the United States, with the long-run wage elasticity in both places being roughly −1; that is, a 1 percent reduction in labor costs tends to increase labor demand in the private sector by 1 percent (OECD, 1994b, Table 5.1).[3] However, the speed of this response in the short-run exhibits significant differences. In the United States, half of the adjustment in employment takes place within a single year, while European countries like Germany or France need two years for half of the adjustment.

How the wage responds to unemployment also differs markedly between countries. This elasticity, which can be viewed as a measure of the institutional characteristics of labor markets, is a mirror image of the quantity adjustment in the labor market. In the United States and the United Kingdom, half of the wage adjustment takes place in one year; it is therefore not surprising that both countries show a relatively low long-term response with an elasticity of −1. Some European countries need a longer time. For example, in Germany, it needs four years for half of the wage adjustment to take place. The long-term response of wages to unemployment also tends to be higher in Europe; for example, the elasticity has been estimated at −3 for Germany and −3.5 for France (OECD, 1994b, Table 5.2). This indicates that in some European countries, the institutional characteristics of the labor market do require a large correction of the real wage, if a disequilibrium in the labor market exists. One reason may be that a higher level of unemployment requires a larger correction.

Wage Differentiation

The impact of institutional arrangements is clearly seen with respect to wage differentiation. Centralization of wage formation or coordination of wage policies

[3] For Germany, a lower elasticity of 0.73 has been estimated in other studies; still other studies find an even lower elasticity (OECD, 1995a, Table 2.5).

across an economy tends to lead to less wage differentiation; the typical pattern here is that 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 completely fulfill their function of bringing about the necessary adjustments to a new equilibrium with more employment; then, as the alternative to adjusting the price of labor, adjustments take place via changes in the quantity of employment. A more differentiated wage structure has become more important in recent years, as it has become more common to reorganize work around small, customer-oriented teams (Lindbeck and Snower, 1996). Differentiated wages are also especially relevant in an environment of intensive structural change in the foreign trade-oriented economies of Europe.

It is striking that in the 1980s and 1990s, relative wages have become more differentiated in the United States and the United Kingdom, while differentiation has remained largely unchanged in some European countries. Relative wages, or earning dispersion, can be measured by taking the ratio of various earnings deciles to one another. As examples, it is typical to use the ratio of the ninth decile to the median, or the ratio of the ninth decile to the first decile, which are referred to as the 90/50 or 90/10 ratios, respectively. According to such measures, a trend of increased differentiation can be observed during the 1980s and 1990s for the United States and the United Kingdom (OECD, 1996b, Table 3.1). In contrast, some European countries are characterized by a reduction in dispersion (Germany in the 1980s and 1990s, Belgium in the mid-1980s to 1990s), some 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) (OECD, 1996, Table 3.1).

A country that 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, from 5.2 percent in Sweden to 25 percent in the United States (OECD, 1996b, Table 3.2).[4] It can also be shown that the incidence of low pay varies inversely with unemployment benefit replacement rates (Table 3.3).

The inequality in dispersion of earnings observed in a single year—the snapshot dispersion—will capture only part of the longer-term picture, since there will be mobility over time across the income distribution. Within a five-year period, the patterns of vertical mobility in the OECD countries do not appear to be too different from one another (OECD, 1996b, p. 94): over a five-year period, for example, approximately half of the workers move up one or more quintiles, but two-thirds

[4] The corresponding share of low-wage employment as a share of total employment in other countries is as follows: Belgium, 7.2 percent; Netherlands, 11.9 percent; Italy, 12.5 percent; Germany, 13.3 percent; France, 13.3 percent; and United Kingdom, 19.6 percent (OECD, 1996b, Table 3.2).

of the inequality still persists. A longer time horizon appears to be associated with stronger vertical mobility in the United States (Addison, 1997). However, for low-paid workers below 65 percent of median earnings, mobility across the income distribution varies considerably between OECD countries. More than half of them are in a higher earning status after five years in Italy (69.8 percent), Denmark (68.3 percent), the United Kingdom (52.9 percent) and France (50.2 percent) in contrast to Germany (44 percent) and the United States (26.9 percent). In some countries, a large proportion of low-paid workers soon leave full-time employment (about 40 percent in both Germany and the United States). In general, a low share of low-paid workers seems to be associated with a high vertical mobility (OECD, 1996c, Table 3.9). However, this finding may be somewhat deceptive, since lower wage dispersion means by definition a smaller proportion of low-paid workers, and so their greater mobility is occurring across a more compressed income distribution.

Additional clues for the relevance of earning dispersions may be obtained if qualifications, regional dimensions and sectoral aspects are taken into consideration. With respect to qualifications of nonmanual and manual workers, wage differentiation in the United States has increased and is high relative to Europe. In some European countries, this type of wage differentiation has been reduced in the '80s (for France, see Katz, Loveman and Blanchflower, 1995, Table 1.3) or remained constant (Freeman and Katz, 1994, Table 2.1). It is hard to conceive that the European labor force is so much more homogeneous with respect to qualifications than the U.S. labor force that no additional wage differentiation is necessary. This is also contradicted by the fact that a large portion of the unemployed in Europe consists of the low-skilled, whose employment status would presumably benefit most from greater wage differentiation.

One should also expect the regional wage structure to react to regional differences in unemployment. This should be especially true for Europe, where the regional mobility of people is relatively low. But for the period 1975-1990, Germany shows a different picture: the unemployment rates of west German Länder became more diverse over this time, but the regional wage structure remained constant (Siebert, 1994, Table 7.1). Sectoral wage structures may be more difficult to compare, because of the difficulty of sorting out the competing influences of other factors. However, some empirical estimates indicate that sectoral wage differentiation is high and increasing in the United States, whereas it is stable or moderately declining in most European countries (Freeman, 1988, Table 2; Davis, 1992; OECD, 1995b, Table 1.11).

The Institutional Characteristics of Bargaining

Wage formation in the United States comes close to being a market process; it is decentralized, with low unionization and low coordination of wage changes across the economy. However, wage negotiations in European countries exhibit characteristics that move wage formation away from the market process (OECD, 1994a): wages are often not determined on the firm level but on the industry level

or even at the economy-wide 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).

The relatively high unionization rates in European countries show the collective nature of the bargaining process. However, even in European countries where formal unionization is not high, a substantial proportion of workers may have their wages determined by union negotiations, which is known as the ''coverage rate.'' In France, for example, only 10 percent of workers are officially unionized, but the coverage rate is 92 percent; coverage rates also exceed unionization rates markedly in Austria, Belgium, the Netherlands and Spain (OECD, 1994a, Chart 5.1). In Finland, Norway and 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. Of course, all of these European cases contrast markedly to the United States, which has low rates of unionization and coverage.

A more centralized form of bargaining, meaning high unionization and high coverage rates, can be expected to move wage formation away from a market solution, but the strength of employer associations have to be taken into account as well. Austria, for example, has strong unions and strong employer associations, and the combination of the two has been associated with a positive employment picture; it has been argued that in spite of monopoly power, unions tend to take into account the overall impact of wages on unemployment (OECD, 1994a). This suggests an interesting hump-shaped relation between centralization 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, at least for the period from the mid-'70s to the mid-'80s (Calmfors and Drifill, 1988, Table 2). The relevance of such a hump-shaped curve of the real wage level and the degree of centralization does depend on many different institutional characteristics. It is highly questionable whether these statistical results will survive if data for the '90s are included; for instance, the Nordic countries that were an earlier example of centralization and low unemployment now have higher unemployment. In any case, since labor is not as homogenous as assumed by theory, centralization hinders the necessary dispersion in the wage structure (Calmfors, 1993, p. 183).

Empirical analysis using cross-sectional analysis for 20 countries from 1983–88 confirms that the unemployment rate rises with the coverage of collective bargaining; weak coordination across the labor market, especially on the employers' side, seems to favor unemployment (Layard, Nickell and Jackman, 1991, p. 55; Nickell, 1997, Table A3). Employers possibly have become less concerned with wage increases since they have new options of relocating their capital in globalized markets.

It should be noted that the form of wage bargaining has been changing in European countries since the mid-'80s. Union coverage has fallen in some Euro-

pean countries, such as the United Kingdom and the Netherlands (OECD, 1994a, Table 5.8). Wage bargaining has become more decentralized in some European OECD countries (Lindbeck and Snower, 1996, p. 3). However, France experienced a significant increase in union coverage in the 1980s (OECD, 1994a).

The Tax Wedge

In most European countries, those taxes that have an especially negative impact on employment have risen during the 1970s and 1980s. Taxes influence the demand for and the supply of labor in a number of ways, which can differ across countries. In some countries, such as Germany, a 1 percent increase in employers' social security contributions leads to an increase in labor costs of 1 percent, and where employers' social security contributions end up in an increase in total labor costs, unemployment will rise in the long run (OECD, 1994b, Chart 9.4). In other countries, such as the United States, wages adjust downward so that total labor costs remain unchanged (OECD, 1994b, Table 9.5). These different reactions apparently reflect different institutional properties of wage setting behavior.

Regardless of how the tax burden is eventually distributed, however, both payroll and income taxes create the tax wedge between labor costs for firms (producers' wage) and net income for workers (consumption wage). The level of net income defines the incentives for people to work; it influences the willingness for wage restraint and the bargaining behavior of trade unions. The overall marginal tax wedge, including employers' and employees' social security contributions, has increased since the 1970s in most European OECD countries (OECD, 1994b, Table 9.1). Extensions of social insurance are the main reason for the increase. For instance, in Germany, social security contributions for unemployment, retirement, health and nursing insurance increased from 26.5 percent of the gross wage in 1970 to 42.1 percent by 1997. Assuming a given increase in labor productivity, higher social security contributions leave less room for increases in the net income for workers. Insofar as the contributions are borne by firms (and the net claims of workers do not adjust downward), the increase in social security contributions weakens the demand for labor in the long run and adds to unemployment.

The implicit taxation of demand for labor in the form of contributions to social security is relatively heavy in some European countries. Whereas employers bear a smaller share relative to employees in the Netherlands (7.9 vs. 33.5 percent) and an equal share in Germany (21.05 vs. 21.05 percent), other countries require a much higher contribution from firms, such as France (33.5 vs 18.6 percent) and Italy (46.1 vs. 10.0 percent) (OECD, 1996c, Table 17). Spain also has high employer's contributions (OECD, 1994b, Chart 9.7). We should expect that demand for labor is more severely affected in these countries.

Job Protection Legislation

In the 1960s and in the 1970s, most European countries passed job protection legislation that regulated the procedures that had to be followed in the case

of dismissals. In general, dismissals had to be approved by work councils, which would consider social aspects like marital status, number of children and health. Severance pay became mandatory; in some countries, like Germany, ''social closing plans'' had to be established in the case of major restructuring of firms (OECD, 1993, Tables 3.7–3.8). The legal norms were further developed by the labor courts.

The intent of this complex legislation was to make jobs more ''secure,'' and indeed, those who had a job were protected. However, this type of legislation only looked at the first-order effect in a very static sense and neglected the long-term impact on the demand for labor. From an intertemporal view, job protection rules make dismissals costly (Van Long and Siebert, 1983). Hiring a worker becomes a somewhat irreversible decision. If the layoff constraints are strong enough, hiring a worker becomes an irreversible investment with a longer horizon than buying a machine. Of course, it took some time before firms fully experienced the impact of these restraints, but eventually it became clear to them that in the case of a crisis—perhaps an unfavorable development of the sector or of the economy—their adjustment costs would rise. Firms anticipated these costs by hiring fewer people. Thus, the demand for labor was eventually weakened.

Layoff constraints offer a vivid illustration of how the cumulative effects of regulations can be more negative than they would be taken alone. The costs of layoff restraints on labor demand would be lower if, in the case of an economic crisis, firms could instead adjust wages or working hours downward. However, wages are sticky downward for a variety of reasons: union contracts, efficiency wage concerns, and so on. Moreover, European employers are only developing flexibility with respect to working hours in the '90s. Since they lacked flexibility on other dimensions, firms were strongly induced to anticipate layoff restraints by cutting back on their current hiring.

Job protection rules can be considered to be at the core of continental Europe's policy toward the unemployment problem: protecting those who have a job is reducing the incentives to create new jobs. Across Europe, political decision making with respect to rules for the labor market today still shows a short-term orientation of a similar nature: in most continental countries, the use of temporary work contracts is legally restricted, overtime rules reduce flexibility with respect to working time, and product market regulations have a negative impact on the labor market.[5] Empirical studies indicate that job security legislation (including requirements for severance pay) are positively correlated with the unemployment rate in OECD countries (OECD, 1993, p. 105). In some countries, like France and Germany, only timid attempts are being made to allow temporary work contracts that partly evade the impact of job protection legislation.

[5] This is especially relevant in the service sector. A case in point is that until the late 1980s, telecommunications in Europe was organized as a public monopoly. This reduced incentives to introduce new products, including potential new exports. It can be expected that the public monopoly negatively affected employment in the long run and in the economy as a whole.

The Reservation Wage in the Welfare State

The rise of the European welfare state in the 1970s effectively raised the reservation wage by a whole set of measures: the duration of benefits was often increased; 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; and the minimum wage, which is applied in some countries, was raised. In many of these steps, redistributional targets played a major role. The result was that labor market incentives for workers were altered.

The typical European economy has two different layers of income floors for people who cannot earn their living in the labor market. One layer is social welfare benefits. Originally intended to protect those who are old (and have insufficient pensions) and those who are physically unable to work, welfare benefits now also cover some who may be able to work. 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, for instance, in the Netherlands in 1963, Finland in 1972 and France in 1989 (OECD, 1994b, Table 8.6). In some countries, guaranteed income benefits have risen considerably, changing the relative incentive for work and nonwork. For instance, in Germany, social security benefits for an employee (married, one child) increased from 65.7 percent of the net wage income of the lowest-paid job in industry in 1970 to 85 percent by 1994 (Siebert, 1994, Table 8.3).

The other layer of the income floor is unemployment benefits that are usually limited and linked to previous work income. Net replacement rates—that is, the ratio of unemployment benefits to the previous wage income after tax—reached 70 percent in the European OECD countries in 1994 for a couple with no children at the average production worker level of earnings (OECD, 1996b, Table 2.1); these benefits are meant to be higher than is income from welfare.[6] The most common replacement rates taking into account the specific characteristics of the unemployed such as work income or family status is in the range of 41 to 60 percent in Germany and the United Kingdom and 81 to 100 percent in Denmark and Sweden, whereas it ranges from 21 to 40 percent in the United States (OECD, 1996b, p. 33, see also Chart 2.4). 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 weeks in the United States in high unemployment states (OECD, 1996b, Chart 2.3). In the 1970s and 1980s, in general, entitlements were raised in the European countries. The OECD index of benefit

[6] Some countries have additional intermediate forms of support, for instance, *Arbeitslosenhilfe* in Germany, which is paid after *Arbeitslosengeld* is terminated and is generally provided indefinitely.

entitlements increased markedly already in the '60s for the Netherlands and Belgium and thereafter for almost all the other European countries, except for Germany, where it remained relatively stable, and the United Kingdom, where it fell in the 1980s (OECD, 1996b, Chart 2.2).[7] During this time, some European countries increased the duration of unemployment benefits (OECD, 1994b, Chart 8.1), access to unemployment benefits was made easier in general, and 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 1970s and 1980s (OECD, 1994b, Chart 5.14), and in the Netherlands, the minimum wage was first raised in the '70s and then lowered in 1983 (OECD, 1993, p. 167). 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 (Jackman, 1995, Table 7). 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.

Taking all these factors together, the European reservation wage was raised in the '70s and '80s. This has had several effects.

First, 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 strengthens the 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.

The recent experience of the Netherlands offers a nice illustration of how people respond to differences in unemployment and disability benefits. In the Netherlands, unemployment benefits are gradually phased down after some period of time, so the recipient then receives only the social minimum. However, prior to 1993, disability benefits were not gradually reduced, but instead were indexed to

[7] A negative income tax is by no means an automatic solution for the disincentives engendered by the two layers of the income floor. A negative income tax begins with a guaranteed level of income support, which brings up the problems involved in a guaranteed minimum. It can be expected that under European conditions the political process will push up the guaranteed minimum. Further, a negative income tax would affect the behavior of the young generation in the socialization process by getting them used to receiving income without work, which would discourage work effort in the long run (Siebert, 1994).

the price level. Thus, it was more favorable to claim disability rather than unemployment benefits, and the Netherlands observed an explosion in disability benefit recipients.

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 that surpass productivity growth can have on unemployment. It is already generally true that in wage negotiations, trade unions pay attention to the level of unemployment only to some extent and only with a time lag. But if the unemployed are more-or-less protected by governmental schemes, trade unions 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 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.

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 players to fiscal and social policy—that is, to the government.

Wage negotiations have been shown to respond to social policies in a number of European OECD countries. Higher benefit duration and replacement rates tend to raise unemployment, both in a cross-section analysis of 20 countries in the period 1983–88 by Layard, Nickell and Jackman (1991, p. 55) and in a time series analysis (p. 433, see also OECD, 1993, p. 106). Layard, Nickell and Jackman conclude that economies respond well to exogenous shocks if they have an unemployment benefit system that discourages long-term unemployment, by which they mean a system that offers unemployment benefits for a relatively short duration of 15 months or less.[8]

In the United States, it also seems true that the length of the benefit periods has a greater impact on the exit rate from unemployment than does the benefit level. Empirical studies for the United States indicate that an increase in potential benefits of one week is associated with an increase in the average spell of unemployment of about one day; however, the U.S. exit rate from unemployment falls steadily over time, but then jumps upward at the point where benefits are exhausted (Katz and Meyer, 1990).

The OECD (1994b, p. 213) concludes: ''There is considerable evidence that benefits affect unemployment rates. Countries which currently have high unemployment and significantly reduce benefit disincentives may experience a consid-

[8] Several studies indicate that active governmental employment programs where the government provides jobs for the unemployed tend to raise the wage level instead of reducing it by increasing the labor supply and by wage competition as one might expect (OECD, 1993, p. 50).

erable 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. In the long term, if unemployment is to be kept low, it is vital to limit entitlements to benefit and refuse benefit to people who are not available for work, and give employers and local governments incentives to tackle employment problems.''

A third 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 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, as has been the common pattern recently (Nickell, 1997).

Conclusion

The institutional phenomena described in this paper have led to a dual labor market 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. Once created, unemployment is reinforced by ratchet effects; it becomes more and more difficult to find employment again when one has been out of employment for a while. The unemployed lose qualifications relative to the employed; in severe cases, they may lose their social competence altogether. Unemployment can easily become persistent, and to overcome rising unemployment in a self-enforcing trap, it takes a comprehensive push of institutional change.

The majority of European countries have made only marginal changes to their labor market institutions in the 1990s. On average, they did not succeed in reducing unemployment noticeably; in most countries, like Germany and France, it is still rising. However, the Dutch-British experience suggests that more comprehensive institutional changes can improve the functioning of the labor market and create more employment. Indeed, the specter of unemployment that is haunting Europe will not be exorcised unless governments are prepared to undertake major reforms of the institutional setup of the labor market. With the upcoming monetary union, reforms of the labor market are even more pressing since with low labor mobility in Europe, flexibility of the labor markets will be an even more important economic adjustment mechanism.

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