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## Labour Market Institutions and Unemployment in OECD Countries

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## LABOUR MARKET INSTITUTIONS AND UNEMPLOYMENT IN OECD COUNTRIES

LAWRENCE M. KAHN\*

Unemployment in OECD countries has undergone dramatic shifts over the last 30 years. While in the early 1970s, standardised unemployment rates in most European OECD nations were below 3 percent, by the 1990s, unemployment had skyrocketed to an average of roughly 10 percent in OECD Europe. At the same time, unemployment in the United States went from being relatively high in the early 1970s (roughly double that of European OECD countries) to relatively low in the 1990s (roughly half of that in OECD Europe). Both high unemployment in many European countries and the reversal of unemployment fortunes vis à vis the US have motivated a large literature and considerable policy concern about how to increase employment in Western Europe.

In the 1970s American observers pondered the explanation for the persistently higher US unemployment levels at that time. In contrast, by the 1980s and 1990s, it was European observers who searched for explanations for persistently high European unemployment rates. Increasing labour market flexibility – freeing up the forces of supply and demand to determine pay and employment and diminishing the role of union contracts or government regulations – was seen by some as the key to lowering European unemployment (OECD 1994). Others however doubted that greater flexibility would in fact achieve lower unemployment, pointing instead to low levels of demand for labour as the culprit in Europe's higher unemployment (Glyn and Salverda 2000).

In this paper, I review evidence on the impact of labour market institutions on unemployment. We will see that there is considerable evidence that institutions have affected unemployment, although researchers differ on the importance they place on institutions. While unemployment may be a cost of some labour market policies, in drawing policy implications, we must also take into account possible benefits that these policies produce. These may include providing economic security that private, unregulated markets may not be able to provide.

### Some facts about unemployment and institutions in the OECD

The table shows the evolution of unemployment across 14 OECD countries for the 1973–2002 period. In 1973, on the eve of the first oil crisis, unemployment averaged 2.7 percent in the non-US countries, with especially low rates in Germany (0.8 percent), Japan (1.3 percent) and Norway (1.5 percent). In contrast, unemployment in the US in 1973 stood at 4.8 percent. By the 1990s, these positions had reversed, with the non-US countries averaging 9.9 percent, compared to a 5.6 percent rate in the US. Since 1995, unemployment has come down dramatically in several countries, including Finland, the Netherlands, Spain, Sweden, and the UK, although it has remained stubbornly high in France, Germany and Italy and is still at high levels in Finland and Spain. OECD data also show dramatic declines in unemployment in Denmark and Ireland over the 1990s.<sup>1</sup> As of 2002, the gap between the US and the EU average was much smaller than in the mid 1990s, and several countries had lower unemployment in 2002 than the US.

Figures 1 to 5 illustrate cross-sectional relationships between some key labour market institutions and 1995 unemployment in the OECD. In each case, there is a positive relationship between the



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<sup>1</sup> For example, between 1993 and 2002, unemployment fell from 15.6 to 4.4 percent in Ireland and from 9.6 to 4.5 percent in Denmark (OECD 2002, p. 303; OECD web site: <http://www.oecd.org/dataoecd/41/13/2752342.pdf>, accessed 5 Aug 2003).

**Standardized unemployment rates in selected OECD countries, 1973, 1984, 1995, 2001 and 2002**

	1973	1984	1995	2001	2002
Australia	2.3	8.9	8.2	6.7	6.3
Belgium	2.8	12.1	9.7	6.6	7.3
Canada	5.5	7.8	9.4	7.2	7.7
Finland	2.3	5.2	15.2	9.1	9.1
France	2.6	9.7	11.4	8.5	8.7
Germany <sup>a)</sup>	0.8	7.1	8.2	7.8	8.6
Italy	6.2	9.9	11.5	9.4	9.0
Japan	1.3	2.7	3.1	5.0	5.4
Netherlands	2.2	11.8	6.6	2.4	2.8
Norway	1.5	3.1	5.0	3.6	3.9
Spain	2.5	20.1	22.7	10.6	11.3
Sweden	2.5	3.1	8.8	4.9	4.9
United Kingdom	3.2	11.7	8.5	5.0	5.1
Non-US average (unweighted)	2.7	8.7	9.9	6.7	6.9
European Union	–	–	10.5	7.4	7.7
United States	4.8	7.4	5.6	4.7	5.8

<sup>a)</sup> Prior to 1991, data are for West Germany only.

Sources: OECD (1983), p. 23; OECD (1989), p. 19; OECD (2002), p. 303; OECD Web Site: <http://www.oecd.org/dataoecd/41/13/2752342.pdf>

strength of the institution and unemployment in 1995. For example, Figure 1 shows that on average unemployment in 1995 was positively correlated with the percentage of workers covered by collective bargaining contracts. Coverage was very high in several countries, including Belgium, Sweden, Germany, Finland, France and Austria, where it ranged from 89 to 98 percent. In contrast, only 31–36 percent of workers were covered by unions in New Zealand and Canada, 21 percent of Japanese workers had coverage, and 18 percent in the US had union contracts.

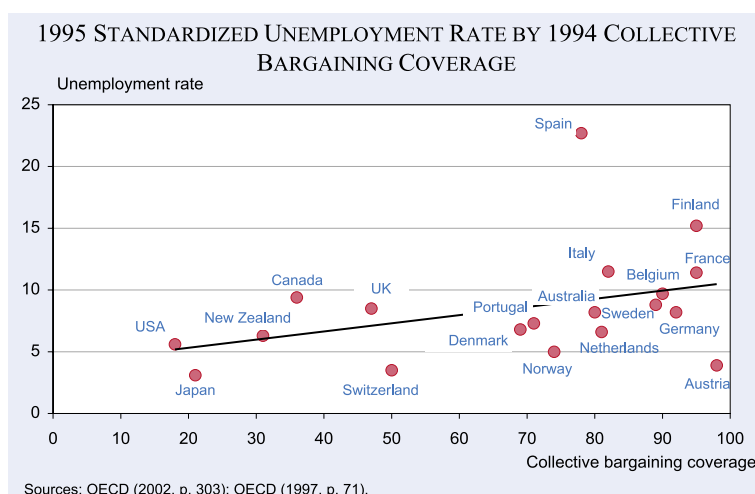
Figure 2 shows a positive relationship between the strength of employment protection mandates and 1995 unemployment. These policies include man-

dated severance pay, as well as limits on the use of temporary workers and are designed to protect the jobs of incumbent employees (Bertola 1999). Countries in Southern Europe such as Italy, Spain and Portugal, as well as France, have especially strong systems of employment protection, while the US has the weakest mandate.

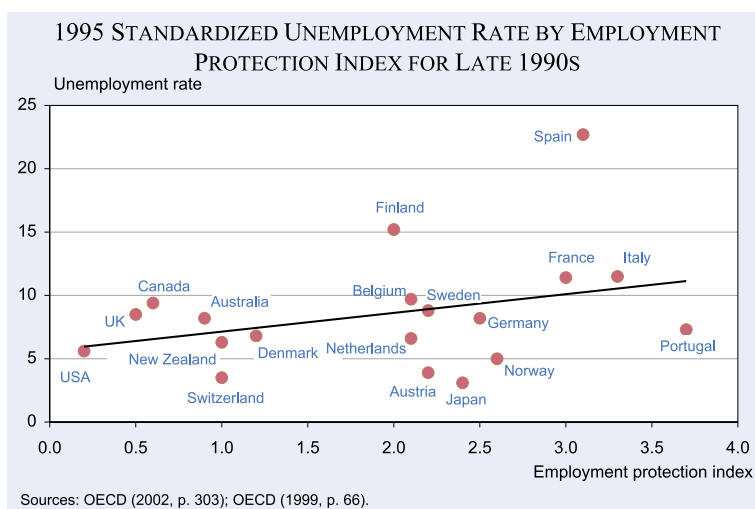
Figure 3 shows that the unemployment insurance (UI) systems vary widely across countries. The Figure shows the maximum duration of UI benefits, which ranged in the 1989–94 period from roughly six months in the US, Italy and Japan, to unlimited duration in Belgium, the UK, Australia, Germany and New Zealand. Again, there was a positively-sloped relationship between UI duration and unemployment in the 1990s.

While most studies of the impact of institutions on unemployment focus on labour market institutions, other regulations can affect unemployment as well. Figure 4 shows a positive relationship between the stringency of product market regulation and 1995 unemployment. These policies include formal barriers to entering industries, public ownership, and price controls. Italy, France and Portugal had especially tightly regulated product markets in the 1990s, while the UK, the US, New Zealand and Canada had the least encumbered product markets. The final institution for which I show data is the average labour tax rate, which is the sum of payroll, direct and indirect taxes, whose positive relationship with unemployment can be seen in Figure 5. The high tax countries include Sweden, Italy, France and Finland, while Japan, New Zealand and Switzerland have relatively low labour taxes.

**Figure 1**



The positively-sloped lines in Figures 1 to 5 suggest that certain institutions may have raised unemployment rates in the 1990s. However, before making such a conclusion, one needs to take account of other influences on unemployment, such as macroeconomic policies and labour force composition, that may be correlated with the presence of particular institutions. For example, prime age workers may be more likely to unionise than youth are (possibly affecting the

**Figure 2**

overall collective bargaining coverage rate), and they generally have lower unemployment than youth. Thus, Figure 1's positive correlation between collective bargaining coverage and unemployment could mask an even stronger effect. Moreover, high unemployment can affect a country's decision to raise UI benefits or enact stronger employment protection provisions or even workers' desires to be protected by collective bargaining contracts. In these cases, it is possible that the positive relationships in Figures 1 to 5 reflect the impact of unemployment on institutions rather than vice-versa.

Even if some of the relationships shown in Figures 1 to 5 do reflect the impact of institutions on unemployment, it may be difficult to disentangle the impact of specific institutions such as collective bargaining from that of, say, employment protection. This problem arises since in many cases the same countries with high unemployment – such as

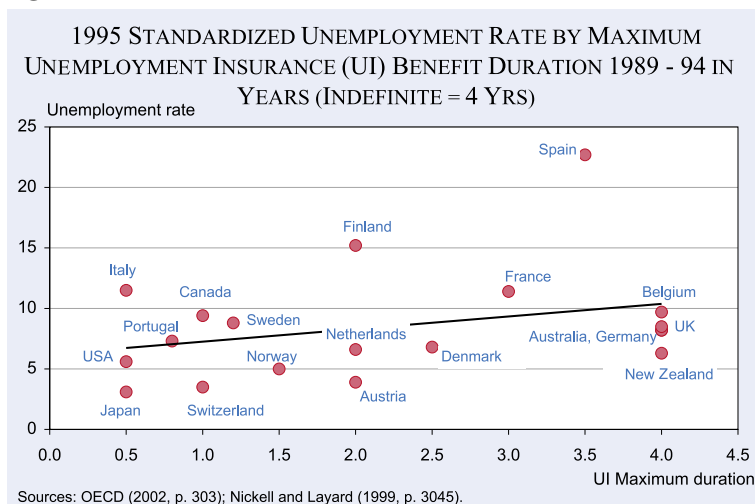
France, Italy, Germany or Belgium (as can be seen in Figures 1 to 5) – also have high levels of collective bargaining coverage, employment protection, labour taxes, and so on. It may be difficult to apportion “credit” (or “blame”) to specific institutions in these cases.

A final point to consider about institutions and unemployment before examining the results of econometric studies of the issue is that in the early 1970s, many of the countries with extensive labour market institutional interventions had low unemployment

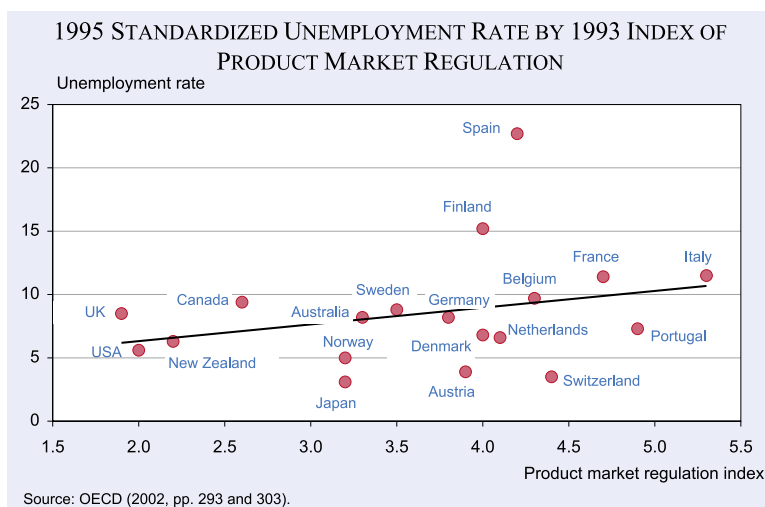
rates. Figure 6, for example, shows a strong, negatively sloped relationship between 1970 collective bargaining coverage and 1973 unemployment, the exact opposite relationship to the one for the mid 1990s in Figure 1. This contrast between the early 1970s and the mid 1990s suggests that the impact of institutions on unemployment may differ across time periods. And any study of the role institutions may play must confront this contrast, as well as the reversal of unemployment fortunes between the US and much of OECD-Europe between the 1970s and the 1990s. I now turn to some recent research that attempts to shed light on these issues.

### Economic research on the impact of institutions on unemployment

Economic theory predicts that certain institutions should raise unemployment, while for other institutions, theory cannot make strong predictions.<sup>2</sup> For example, we expect unions to raise wages above competitive levels (that's one reason why workers form unions in the first place), leading to employment reductions if firms are allowed to decide how many workers to hire. Moreover, unions also attempt to take wages out of competition by reducing the impact of market

**Figure 3**

<sup>2</sup> This discussion draws on Blanchard and Wolfers (2000), Blau and Kahn (2002), Bertola (1999), Calmfors and Driffill (1988) and Nickell and Layard (1999).

**Figure 4**

forces on wages. If this happens, then unions may cause shortages and surpluses of labour with respect to particular local markets, perhaps adding to unemployment. It is also widely believed that unions compress wages, especially raising the wages of the young, women and the less educated (Blau and Kahn 1996; Blau and Kahn 2002). We therefore would predict larger unemployment effects on these groups than for prime-age males. Other institutions that raise union power will amplify these effects. These may include UI benefits, employment protection, and product market regulation: workers covered by more generous UI benefits or employment protection mandates and workers in industries protected against the competition of new entrants are likely to be more aggressive in bargaining than otherwise.

The type of union representation also has been hypothesised to affect wage levels and thus unemployment (Calmfors and Driffill 1988). In particular, more coordinated wage-setting, as exemplified by industry-wide or economy-wide bargaining units, on the one hand give workers more power than decentralised units, since there is less scope for non-union competition in the larger units. On the other hand, unions in highly centralised units are more likely to take into account the economy-wide

effects of their wage bargains and thus are expected to act with some restraint. The net effect of these two opposing forces is an empirical question.

Labour market institutions may have direct effects on unemployment apart from their impact on union power. For example, more generous UI benefits raise the duration of unemployment. Labour taxes raise a wedge between labour costs and wages received and thus are expected to lower employment. We might expect labour taxes to be shifted to

workers in the form of lower wages, possibly leading to lower employment levels without raising unemployment (workers may drop out of the labour force and thus not be counted as unemployed). However, the presence of wage floors due to unions or minimum wage laws may prevent this shifting from occurring. Unemployment will then be the likely result (Nickell and Layard 1999). Employment protection has theoretically ambiguous effects: these mandates lower both layoffs and new hiring (Bertola 1999). One might make a similar argument about product market regulations that protect existing firms. In both cases, the impact of these institutions cannot be predicted a priori.

While theory leads us to predict that many of these institutions raise unemployment, and Figures 1 to 5 are consistent with these notions, Figure 6's depic-

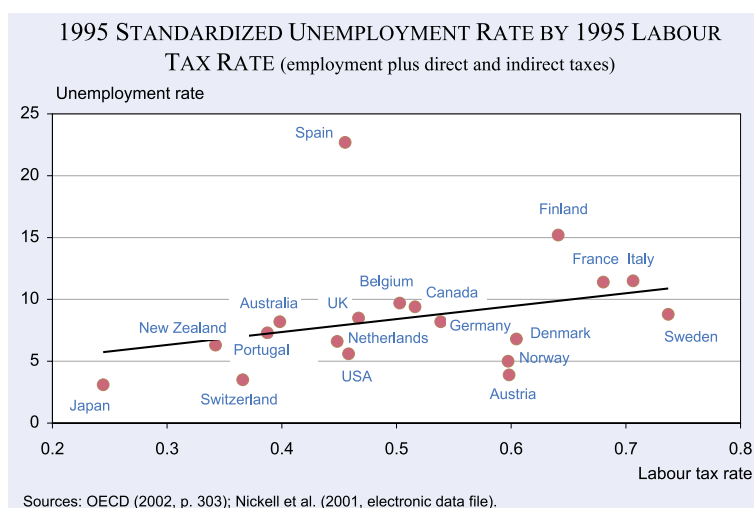
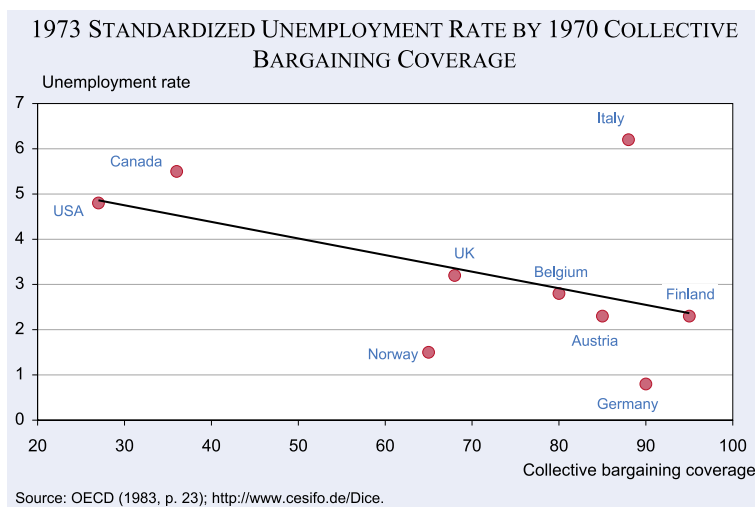
**Figure 5**

Figure 6



tion of a negative relationship between union coverage and unemployment in the early 1970s should cause us some hesitation. Blanchard and Wolfers (2000) suggest an explanation of both the 1970s and the 1990s patterns shown in the Figures. Specifically, as noted, unions tend to take wages out of competition by reducing the impact of market forces on pay. This means that when the government follows expansionary monetary and fiscal policies, as in the early 1970s, unions in effect restrain wages compared to more market-oriented wage-setting arrangements. This can lead to explosive growth in employment in unionised economies, as wage cost increases fail to keep up with market forces, possibly explaining the low unemployment there in the 1970s. Conversely, when governments follow contractionary policies, such as in the 1990s, unions keep wages rising at their customary pace, leading to high unemployment.

Econometric studies have generally found that institutions do affect unemployment. For example, Nickell and Layard (1999), studying 20 OECD countries over the 1983–1994 period, found in a multiple regression framework that there were significantly positive effects of union density (fraction of workers who are union members), collective bargaining coverage, generous UI systems, and labour taxes on unemployment. At the same, greater government spending on active labour market policy (training, public employment schemes, and the like) and more coordinated wage setting had significantly negative effects on unemployment. The latter finding suggests that the wage restraining effects of coordination outweigh the bargaining power enhancement effects (see above). Notably, employment protection man-

dates did not have a significant effect, perhaps reflecting the theoretical ambiguity associated with this institution which I noted earlier.

This analysis was particularly striking, since the authors were able to control for macroeconomic conditions and since an effect of each of the institutions was estimated while controlling for the other institutions. But as Nickell and Layard (1999) acknowledge, this cross-sectional analysis, while strongly suggesting that institutions affect unem-

ployment, cannot control for country-specific factors that may be correlated with unemployment and institutions (such as the composition effects I mentioned earlier). Nickell et al. (2001), however, were able to construct a longer time series of data on unemployment and institutions and thereby control for country fixed effects and trends. The authors studied unemployment in the OECD from 1961 to 1992, and their analysis also took into account the possibility that the effects of some institutions interact with others. For example, one might expect greater coordination to reduce the effects of taxes (Daveri and Tabellini 2000 make a similar argument). Moreover, the authors took account of macroeconomic shocks as well. Overall, the authors found unambiguous evidence that coordination lowered unemployment and more generous UI systems raised unemployment; however, the effects of labour taxes, union density and employment protection could not be so easily characterised because they depended heavily on the level of coordination. More importantly, the authors found that the combination of institutional changes over the 1961–92 did a very good job of predicting changes in unemployment in most of the countries studied. These findings provide some strong evidence in support of the idea that institutions affect unemployment; however, their interaction models suggest that it may be difficult to disentangle the effects of all of the individual institutions. The OECD (2002) used a similar time-series cross-section design to that of Nickell et al. (2001) and found for 20 countries that over the 1982–98 period, more stringent product market regulation significantly reduced total employment, controlling for other institutions and country fixed effects.



While Nickell et al. (2001) and the OECD (2002) studied the impact of institutions per se on unemployment, Blanchard and Wolfers (2000) examined how institutions interacted with macroeconomic shocks over the 1960-96 period. The authors found that, while international differences in macroeconomic shocks alone could explain only a small portion of the evolution of unemployment across countries during this period, interactions between shocks and labour market institutions such as several of those in Figures 1 to 5 greatly improved the explanatory power of their models. As noted earlier, during the expansionary 1960s and early 1970s, interventionist institutions were associated with low unemployment, keeping wage increases lower than in more free market economies in the face of the expansionary macroeconomic forces of the day; however, by the 1980s and 1990s, these institutions raised unemployment by keeping wage increases higher than otherwise during this period of contractionary macroeconomic forces.<sup>3</sup>

As noted earlier, to the extent that unions compress wages, we expect them to have especially large unemployment effects on low wage groups. Bertola, Blau and Kahn (2003) investigated this issue over the 1960-96 period by examining separately by gender the effects of labour market institutions on the relative employment and unemployment of younger and older individuals in relation to people aged 25-54, as well as these outcomes for women compared to men. We found that more extensive involvement of unions in wage-setting decreases the employment-population ratio of young and older individuals relative to the prime-aged, and of prime age women relative to prime age men. There was also evidence that unionization raises the unemployment rate of young men and prime age women compared to prime age men. The stronger results for employment than for unemployment for young women and older individuals suggest that union wage-setting policies (or direct reductions in force among older workers) price these groups out of employment and drive some disemployed individuals in these groups to non-labour-force (education, home production or retirement) states. Employment losses are thus con-

centrated on groups with best alternative uses of their time and thus may be more socially acceptable in societies with a traditional division of labour in the family than employment losses among prime age males would be. Increasingly in high unemployment countries in the OECD, youth in particular seem to be shut out of the job market. In contrast to these findings on the impact of unions on demographic employment differentials, Nickell and Bell (1995) find little evidence of more pronounced relative unemployment increases for the less-educated in countries with more rigid labour markets.<sup>4</sup>

While many of the studies mentioned above estimate econometric models of the impact of institutions across 15-20 OECD countries, some have examined the effect of reforms on individual countries' experience with unemployment. Nickell and van Ours (2000), for example, studied the remarkable decline in the 1990s of unemployment in the Netherlands and the UK, as shown in Table 1. The authors attributed the largest portion of the Netherlands' decline in unemployment to the agreement by Dutch unions in the early 1980s to practice wage restraint, an agreement whose implementation was facilitated by the Netherlands' centralised wage setting institutions. A smaller role in explaining the falling unemployment rate there was played by a combination of the expansion of active labour market policies, a reduction in UI benefit replacement ratios and a reduction in labour tax rates. For the UK, the authors attributed important portions of this unemployment decline to reductions in union density and union coverage, with smaller contributions from reductions in taxes and in UI benefit replacement rates. An additional factor contributing to lower unemployment in the UK, according to Pissarides (2002), is that during the 1990s the Bank of England began targeting inflation rather than

<sup>3</sup> Bertola, Blau and Kahn (2002) modified Blanchard and Wolfers's (2000) model to include time-varying institutions and the relative size of the youth population as factors that could by themselves affect unemployment. We found that indeed, institutions and demographic factors per se had effects, although they were modest. As with Blanchard and Wolfers (2000), we found that interactions between institutions and the macroeconomic environment were the most important factor.

<sup>4</sup> Other studies find mixed evidence on the question of changes in relative employment and relative wages across skill groups in countries with differing wage-setting institutions. Card, Kramarz and Lemieux (1999) found that over the 1980s, relative wages were more rigid in France than in Canada, where in turn wages were less flexible than in the US. Yet, relative employment across skill levels changed similarly in all the three countries. Krueger and Pischke (1998) and Blau and Kahn (2000) similarly find that the wages and employment of low-skill German workers both changed more favorably than those in the U.S. over the 1980s. In contrast, a study by Freeman and Schettkat (2000) of the US and Germany from the 1970s to the 1990s found that the relative wages of low-skill men fell in the United States compared to Germany, while their relative employment fell in Germany compared to the US. But these effects were too small to account for much of the rise in the overall German unemployment rate compared to the US. Finally, Kahn (2000) used international microdata to find that overall unionization was associated with lower relative employment of the young but not the less educated.

the exchange rate and also became independent as of 1997. These monetary reforms greatly increased the credibility of the UK's anti-inflation policies and made it possible for unemployment to fall without igniting inflation.

The cases of the UK and the Netherlands provide interesting evidence on the impact of specific reforms. Moreover, Nickell (2002) finds that in general, OECD countries with declining unemployment in the 1990s more often had experienced reforms of their labour market institutions than countries whose unemployment did not decline much. These reforms included reductions in the generosity of UI systems, increased use of active labour market policies, declining union coverage, or increased coordination of wage-setting, all of which we expect to lead to lower unemployment. Thus, the countries with dramatically declining unemployment rates as shown in the table usually got there through reforms that either made labour markets more flexible or through wage restraint.

## Conclusions

Most studies find that institutions such as collective bargaining, UI, and labour taxes raise unemployment. We should not underestimate the costs to society of high unemployment levels. In addition to the lost output and income associated with unemployment, there is some evidence that joblessness has adverse psychological effects on the unemployed and adverse effects on the rest of society as well. On the one hand, Sen (1997) and Goldsmith, Veum and Darity (1996) survey a variety of evidence on many of these consequences of unemployment and find them to include social exclusion, loss of morale and motivation, deteriorating physical health (partly caused by the loss of income and partly caused by the mental health problems associated with joblessness) and the deterioration of family relations. On the other hand, Ruhm (2000) finds that mortality increases with aggregate economic activity, due in part to reduced exercise, increased smoking and increased obesity. Thus, findings are mixed on the impact of

unemployment on physical health, with some studies finding negative effects and others positive effects. But workers voluntarily choose to take jobs during economic upturns, suggesting that on net they believe they are better off employed than unemployed. An additional social consequence of unemployment is surveyed by Freeman (1999), who notes that for the United States joblessness contributes to crime. Overall, then, unemployment is something we as a society would like to try to avoid. Moreover, even if the government uses active labour market policies including public employment to counteract the effects of institutions on unemployment, the result may be a less efficient economy than if unemployment had not been high in the first place.<sup>5</sup>

A tempting policy implication is that countries should follow the lead of the UK and the Netherlands and make their labour markets more flexible. But the gains attributable to such policies must always be weighed against the costs of reducing the scope of social insurance programs, as many reforms of the UI or employment protection systems would entail. In an example of such an analysis, Gruber (1997) used consumption data to weigh the insurance value of UI programs in the US against the output lost due to their positive effect on the duration of unemployment. He in fact found that the insurance gained was well worth the direct unemployment costs, although he did not account for the indirect effects on health and crime. But Gruber's (1997) research reminds us that both the costs as well as the benefits of institutional reform should be taken into account by anyone who wishes to reform institutions to lower unemployment.

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<sup>5</sup> In Kahn (2003) I find evidence consistent with the idea that unionization leads to a shift toward public employment, although studies such as Algan et al. (2002) and Forslund and Krueger (1997) suggest that public employment and active labour market policies can have only small positive and perhaps even negative effects on overall unemployment, in contrast to Nickell and Layard's (1999) results showing a negative effect of active labour market policies on unemployment.



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