EUROPEAN UNEMPLOYMENT, LABOUR MARKET INSTITUTIONS AND ECONOMIC TURBULENCE

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The European unemployment experience during the last 50 years can be divided into a period with low unemployment in the 1950s until the mid-1970s and thereafter a large increase with persistently high unemployment since the 1980s. The challenge to rationalize this experience in terms of labour market institutions is that there were no major changes in those institutions when high European unemployment erupted. As Krugman (1987, p. 68) put it:

The main difficulty with the Eurosclerosis hypothesis is one of timing. Although details can be debated, no strong case exists that Europe's welfare states were much more extensive or intrusive in the 1970s than in the 1960s, and no case at all exists that there was more interference in markets in the 1980s than in the 1970s. Why did a social system that seemed to work extremely well in the 1960s work increasingly badly thereafter?

This article summarizes joint research with Professor Thomas J. Sargent at New York University (Ljungqvist and Sargent 1998, 2002) in which we explore the hypothesis that the outbreak of high European unemployment is connected to observations that the economic environment became more turbulent around the same time. In our analysis, we hold labour market institutions constant and show that the changing economic environment can indeed rationalize the European unemployment experience.

Low European unemployment in the 1950s and 1960s

The level of European unemployment as compared to that of the United States has been the subject of much debate for more than half a century but for different reasons. When European unemployment was discussed in the 1950s and 1960s, the central question was why Europe enjoyed such a persistently low level of unemployment. It was then suggested that a possible explanation could be differences in statistical methods and definitions across countries. As a sign of the importance attached to this issue, President John F. Kennedy in the United States appointed a committee to conduct an international comparison of labour market outcomes. The President's Committee to Appraise Employment and Unemployment Statistics (1962) concluded that Europe did in fact have a much lower unemployment rate than the United States so the difference was not merely a statistical artefact. That confirmation of lower unemployment in Europe prompted Deputy Commissioner Robert J. Myers (1964, pp. 172-173) at the Bureau of Labour Statistics in the United States to write:

From 1958 to 1962, when joblessness in [France, former West Germany, Great Britain, Italy and Sweden] was hovering around 1, 2, or 3 per cent, [the U.S.] rate never fell below 5 per cent and averaged 6 per cent.

The difference between [the U.S.] unemployment rate and the average for these European countries was only a little more than 3 percentage points. But, if we could wipe out that difference, it would mean 2 million more jobs, and perhaps \$ 40 to \$ 50 billion in Gross National Product. We can surely be excused for looking enviously at our European friends to see how they do it. We have profited much in the past from exchange of ideas with Europe. It would be short-sighted indeed to ignore Europe's recent success in holding down unemployment.

This puzzle of significantly lower European unemployment during the 1950s and 1960s is often for-



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gotten in the current debate that attempts to address the causes to high European unemployment in the last couple of decades. Ironically enough, the labour market institution that can potentially explain low unemployment in the 1950s and 1960s might very well be an institution that is today blamed for causing high European unemployment – policies of employment protection. As we will see, the two contradictory assertions about the effects of employment protection could both prove to be true. In particular, how employment protection affects an economy's unemployment will depend on the amount of "turbulence" in the economic environment.

Employment protection decreases unemployment in tranquil economic times

In theoretical analyses, employment protection has ambiguous effects upon an economy's unemployment level. Employment protection is here taken to mean costs incurred by firms that lay off workers, other than severance payments. On the one hand, such costs make firms reluctant to lay off workers and this tends to reduce unemployment. On the other hand, in anticipation of those future layoff costs, firms become cautious and hesitant to hire workers in the first place, which in turn exerts an upward pressure on unemployment. On balance, numerical simulations of the two main models of unemployment have shown that employment protection generally reduces an economy's unemployment rate.¹

The intuition for this common finding is straightforward. Since employment protection makes it costly to reallocate labour across firms and industries, there will be less labour mobility in equilibrium. The smaller amount of labour reallocation will then give rise to less "frictional" unemployment, which is associated precisely with workers moving between firms and industries. Hence, employment protection can be said to buy an economy lower unemployment but at the cost of a less efficient labour allocation. In other words, employment protection locks workers into their current employment and results in higher average

Here one might ask what is wrong with the argument that employment protection should increase unemployment because it becomes too costly for firms to hire workers. The shortcoming of such an argument is that it does not take into account how the wage rate is affected by labour market policies. In equilibrium the wage payments to workers must fall in an economy with costly employment protection since firms would otherwise become unprofitable and go bankrupt. In this sense, there is no free lunch for the employed workers who are enjoying longer job tenures in an economy with employment protection – they pay for it by having to accept lower wages.

These conclusions that policies of employment protection tend to reduce unemployment, but at the cost of a less efficient labour allocation, agree with the insight developed by Deputy Commissioner Myers whom we quoted above. When trying to answer his own query about what explained the low European unemployment rate in the 1950s and 1960s, Myers (1964, pp. 180–181) made the following remark:

One of the differences [between the United States and Europe] lies in our attitude toward layoffs. The typical American employer is not indifferent to the welfare of his work force, but his relationship to his workers is often rather impersonal. The interests of his own employers, the stockholders, tend to make him extremely sensitive to profits and to costs. When business falls off, he soon begins to think of reduction in force ...

In many other industrial countries, specific laws, collective agreements, or vigorous public opinion protect the workers against layoffs except under the most critical circumstances. Despite falling demand, the employer counts on retraining his permanent employees. He is obliged to find work for them to do ...

These arrangements are certainly effective in holding down unemployment. But they involve a very heavy cost. They partly explain the traditionally lower productivity and lower income levels in other countries. Here is something we

job tenures but at the cost of making the economy less agile and responsive to changing economic conditions.

¹The two main models of unemployment are the search model and the matching model. See Alvarez and Veracierto (2001) and Mortensen and Pissarides (1999) for a discussion of layoff costs in the search model and the matching model, respectively. Ljungqvist (2002) offers a critical evaluation of layoff costs in those and other models of the labour market.

can learn from our neighbours, therefore, but are we quite sure we want to learn it? Are there not better ways to reduce unemployment?

An implication of Myers' reasoning which is born out by formal analyses is that an economy with more employment protection should have a lower inflow rate of workers into unemployment. As we will see next, a low inflow rate into unemployment has characterized Europe both before and after the outbreak of high unemployment.

Outbreak of high European long-term unemployment

European unemployment rose sharply at the end of the 1970s and early 1980s, and has since then remained persistently high. Meanwhile the US unemployment rate has continued to fluctuate around its post-World War II average. The increase in European unemployment was not caused by a larger fraction of workers becoming unemployed but rather by a lengthening of the average duration of unemployment spells. As noted by Layard, Nickell and Jackman (1991, p. 4):

The rise in European unemployment has been associated with a massive increase in long-term unemployment. In most European countries the proportion of workers entering unemployment is quite small: it is much lower than in the USA and has risen little. The huge difference is in the duration of unemployment: nearly half of Europe's unemployed have now been out of work for over a year.

As implied by this quote, the increase in the average duration of unemployment spells is very unevenly distributed among the unemployed in Europe. The group of long-term unemployed workers with spells of 12 months or more constitutes a significant share of total unemployment at any point in time. Since the long-term unemployed by definition remain unemployed for an extended period of time, they also account for a disproportionate share of the increase in the average length of unemployment spells. In contrast, many of the short-term unemployed in the statistics "change names" between quarters and most workers actually experience relatively short unemployment spells when transitioning between jobs in Europe.

Since the European unemployment problem is synonymous with long-term unemployment, it is understandable that long-term unemployment and its consequences are a major policy concern in Europe. At the same time we know surprisingly little about the long-term unemployed and their circumstances. Machin and Manning (1999) provide an overview of what is known in the Handbook of Labour Economics. The picture that emerges is that the long-term unemployed workers in Europe today are diverse. However, there are some discernible patterns and a lack of others when it comes to the incidence of long-term unemployment (LTU) in various groups of unemployed workers, as noted by Machin and Manning (1999, p. 3093):

In all countries there is a higher incidence of LTU among older workers and a lower rate among young workers ...

Differences in the incidence of LTU by education are less marked. Most countries seem to have a higher incidence among less-educated but the differences are often small.

Another pattern during the 1980s, as observed by the OECD (1992, p. 67), is that "former manufacturing workers tend to be overrepresented among the long-term unemployed, reflecting the impact of structural adjustment in industry".

Today's problem of long-term unemployment stands in sharp contrast to the situation in the 1950s and 1960s. It is difficult to find any writings expressing concern about long-term unemployment during that time. One exception is the work by Adrian Sinfield (1968) who tried to bring attention to the plight of long-term unemployed workers. But as Sinfield himself suggested, the lack of interest from policy makers then was probably due to the very small number of long-term unemployed. Defining "long-term" as six months and over, Sinfield concluded that long-term unemployment during the 1960s typically affected half a percent of a country's labour force. In countries such as former West Germany and the Scandinavian countries, it was less than two tenths of a percent. However, Sinfield did document significant longterm unemployment in the 1960s in one country -Belgium. The problem of long-term unemployment that arose in the wake of structural change in Belgium now looms as an omen for what was in store for the rest of Europe.

Increased economic turbulence starting in the 1970s

It is a widely held notion that the economic environment has become more turbulent in the two last decades. The OECD Jobs Study (1994a, pp. 29-30) sums it up as follows:

In the stable post-World War II economic environment, standards of living in most OECD countries grew rapidly, narrowing the gap with the area's highest per capita income country, the United States. The OECD area's terms of trade evolved favourably; trade and payments systems were progressively liberalised, without major problems; GDP and international trade grew strongly.

In the 1970s, the economic environment became turbulent. The two oil price rises, in 1973/74 and 1979/80, imparted major terms-of-trade shocks, each of the order of 2% of OECD-area GDP, and each sending large relative price changes through all OECD economies. Exchange rates became volatile after the breakdown of the Bretton Woods system of fixed exchange rates. Then there came, mainly in the 1980s, waves of financial-market liberalisation and product market deregulation which greatly enhanced the potential efficiency of OECD economies, and also accelerated the pace of change. All these developments challenged the capacity of economies and societies to adapt. At the same time, the need to adapt was heightened by pervasive technological change, especially as the new information technologies appeared; and by the trend towards globalisation.

Supporting the notion of a more turbulent economic environment is the now well documented finding of increased labour earnings instability for individual workers in the United States. Katz and Autor (1999, p. 1495) summarize the state of knowledge in the Handbook of Labour Economics:

A consistent finding across studies and data sets is that large increases in both the permanent and transitory components of earning variation have contributed to the rise in cross-section earnings inequality in the United States from the late 1970s to early 1990s. The increase in the overall permanent component consists of both the sharp

rise in returns to education and a large increase in the apparent returns to other persistent (unmeasured) worker attributes. The rise in cross-sectional residual inequality for males (controlling for experience and education) in the 1980s seems to consist of approximately equal increases in the permanent and transitory factors.

Another line of empirical inquiry that addresses economic turbulence in labour markets is the research on displaced workers, individuals with established work histories who have involuntarily separated from their jobs. Studies such as Jacobson, LaLonde and Sullivan (1993) and Schoeni and Dardia (1996) find substantial longrun earnings losses of 17 to 25 percent for displaced workers in the United States. European studies of displaced workers have only begun to appear. A common finding seems to be that earnings losses and reemployment probabilities of displaced workers are both smaller in Europe than in the United States. For Germany, Burda and Mertens (2001) remark:

A central finding is that German workers displaced in 1986 and subsequently reemployed experienced significantly less wage growth loss than their counterparts in the United States. ... while wage growth for displaced workers in the lowest quartile is marginally higher in comparison with other low wage workers, high wage workers in the upper three quartiles exhibit average losses of around 17%. While the latter figure is comparable to the wage losses estimated in the US, the bulk of displacement in Germany occurs in the lower segment of the wage distribution.

Could it really be the case that fewer are displaced in Germany and have lower wage losses? This apparent "win-win" impression is deceptive, especially when one considers reemployment probabilities, for those who are longterm unemployed after displacement. As only around 80% of all displaced workers are observed in socially insured employment even 4 years afterwards, it seems that lower displacement wage losses in Germany come at the cost of lower reemployment probabilities, raising the issue of the distribution of the burden of unemployment and adjustment. In this sense, the hypothesis put forward by Ljungqvist and Sargent (1998) seems to receive support at the microeconometric level.

We now turn to our explanation of the European unemployment experience based upon the analysis in Ljungqvist and Sargent (1998), and its extension in Ljungqvist and Sargent (2002).

Labour market institutions in turbulent economic times

As discussed above Europe's low unemployment in the 1950s and 1960s can be attributed to various forms of employment protection that had the effect of lowering frictional unemployment. These layoff costs can therefore explain why Europe had such low unemployment in spite of its generous unemployment benefits. It resolves the puzzle pointed out by OECD (1994b, chapter 8) that earlier empirical studies had found a negative crosscountry correlation between benefit levels and aggregate unemployment in the 1960s and early 1970s. When including more recent data, the same OECD study concludes that unemployment rates do actually increase in response to higher benefits but only after long lags, in some cases 10 to 20 years. Our analysis suggests that these lags are purely coincidental, and that the real explanation for persistently higher European unemployment from the 1980s is to be found in a more turbulent economic environment.

In our model, unemployment benefits with generous replacement rates are not much of a problem in tranquil times when laid off workers can find new jobs with pay comparable to previous earnings. But the adverse incentive effects of the entitlement program come unleashed in times of economic turbulence when unlucky workers experience shocks that diminish their earnings potential - old human capital becomes obsolete because of new technologies, firm-specific and industry-specific skills are lost during restructuring in response to increased international competition, union wage premia fall after deregulation, etc. Displaced workers in Europe who found themselves under these circumstances will have a hard time to find new jobs that are acceptable to them. Their earnings potentials have fallen yet they compare any job prospects with their lost earnings since benefits are based upon past earnings via replacement rates. Because of the difficulty in finding acceptable jobs, many displaced workers in our model become discouraged and they reduce their search intensities in the job market which further exacerbate the

adverse effects of generous benefits in turbulent economic times. In contrast, in an economy with stingy rules for unemployment benefits such as in the United States, our model predicts that the unemployed workers "bite the bullet" and search intensively for less well-paying jobs as compared to their lost earnings.

Economic turbulence in our model has hardly any effect on the unemployment rate in the United States while it causes long-term unemployment to explode in Europe. The sharp increase in European unemployment is due to both the direct effect of generous benefits as described and an indirect effect from institutions that reduce the return to work. The indirect effect works as follows. According to our analysis, Europe has had both frictional unemployment and a substantial amount of structural unemployment during the last two decades of economic turbulence. By structural unemployment we mean to refer to those longterm unemployed workers who have to a large degree withdrawn from labour market participation. Employment protection or layoff costs increase the incidence of such transitions into inactivity because these costs reduce the payoff to work and therefore make labour market participation less attractive. In turbulent times, it becomes more important than ever to reform benefit systems and other labour market institutions so to ensure proper incentives to work.

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