

# **UNEMPLOYMENT, EFFICIENCY, AND ECONOMIC GROWTH: THE CASE OF FINLAND<sup>1</sup>**

Unemployment and economic stagnation have set their mark on Finland in the 1990s. From 1980 to 1990, the Finnish economy, unlike those of many other European countries, was not far from full employment, even if the rate of unemployment in Finland exceeded that in Sweden by 2 to 3 percentage points year after year: the unemployment rate in Finland hovered between 4 and 5 percent of the labor force, compared with 2 to 3 percent in Sweden (*Figure 1*). The rate of economic growth in Finland was also impressive, averaging 4 percent a year in the 1960s, roughly as in Sweden, and 3 percent a year in the 1970s and 1980s compared with about 2 percent in Sweden.

At the beginning of the 1990s, however, the economic situation of Finland changed dramatically for the worse. Output collapsed from 1991 to 1993, and did not recover until 1996. Sweden experienced a similar slump,

though not quite as deep, and recovered a year earlier than Finland, in 1995. After 1990, unemployment in Finland jumped to unprecedented heights in modern times (not excluding the Great Depression of the 1930s), peaking above 18 percent in 1994 before receding to 15 percent in 1997 and 13 percent in 1998. In Europe, only Spain has had to endure higher recorded unemployment in the 1990s. *Figure 1* shows unemployment in the United Kingdom and Ireland for further comparison, two countries that had much more unemployment than Finland until the early 1990s, when the situation was reversed. The figure shows open unemployment according to the standard definition used by the OECD, and thus does not include those who are employed through various job-creation schemes and retraining programs financed and operated by the government.

This article is in three parts. In the first part, I report estimates of Okun's Law—that is, the relationship between unemployment and the gap between potential output and actual output—in Finland since 1960 in order to explore whether the resumption of rapid economic growth seems likely to suffice to restore full employment. The second part deals with some structural aspects of the unemployment problem and with the need for liberalization of labor markets in order to reduce joblessness in Finland and elsewhere. In the third part, a discussion of the relationship between efficient and well-functioning labor markets and economic growth leads to the conclusion that structural reforms in the labor market seem likely not only to reduce unemployment but also to stimulate economic growth over time, in Finland and elsewhere in the European Union.

## **OKUN IN FINLAND**

According to Okun's Law, a 3 percent decrease in national economic output goes

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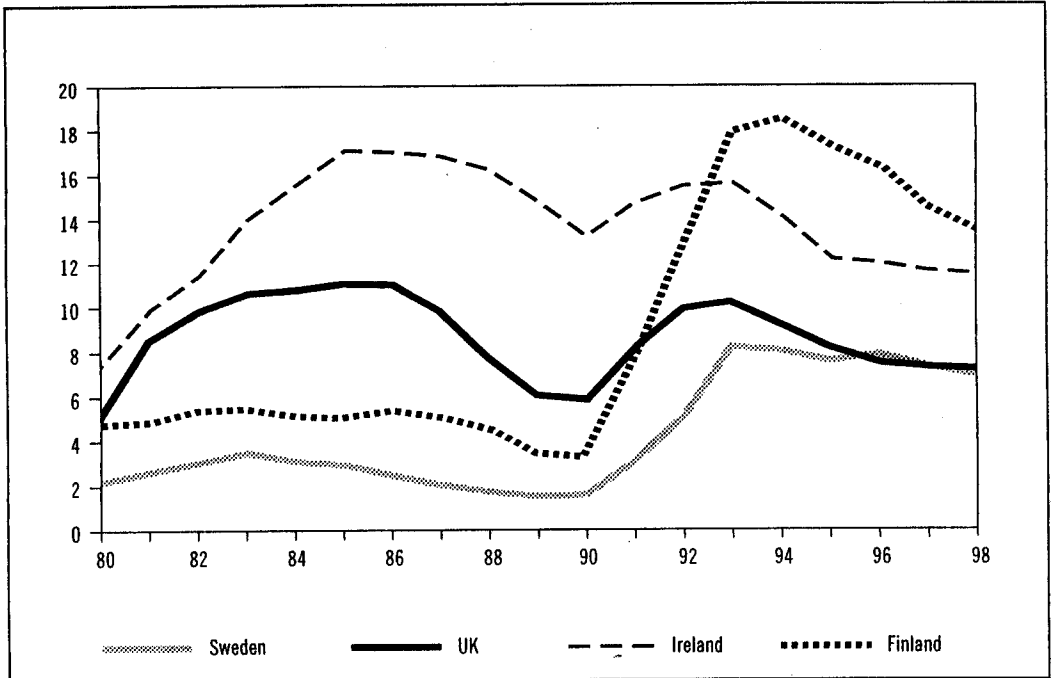


Figure 1. Finland, Sweden, UK, and Ireland: Unemployment, 1980–1998 (%).

along with an increase in unemployment of about 1 percent of the labor force in the United States.<sup>2</sup> This law has been shown to hold with remarkable consistency in several other countries as well, even if is not always clear whether the drop in output causes unemployment to increase or conversely. Be that as it may, James Tobin (1983) has described Okun's Law as "one of the most reliable empirical regularities in macroeconomics."

Figures 2 and 3 illustrate Okun's Law in the case of Finland. In Figure 2, the smooth, slightly kinked line represents potential output, that is, the productive capacity of the Finnish economy as predicted by a regression of the logarithm of actual output (Gross Domestic Product, GDP, at constant prices) on a time trend, first for the 1960s and then for the 1970s and the 1980s to acknowledge the structural shift towards slower economic growth that seems to have taken place in Finland and elsewhere in the OECD area around 1970 or shortly there-

after. The two regressions (not shown) seem to confirm that such a shift took place: the slope of the potential-output path for the years 1960–1970 is 0.042, indicating an annual average growth rate of GDP of 4.2 percent during this period, and 0.031 from 1971 to 1990, which indicates 3.1 percent growth per year on average in the 1970s and 1980s. Accordingly, the natural logarithm of potential output follows a piecemeal linear path over time.

The irregular curve in Figure 2 shows the path of actual output, that is, GDP at constant prices. The figure shows that actual output stayed close to potential output for 30 years, from 1960 to 1990. The Finnish economy was operating at or near full capacity. Figure 2 also illustrates the dramatic downturn of 1991–1993, when the output gap, reflecting the extent to which actual output falls short of potential output, took a jump. The output gap had hovered around zero for most of the 1980s and then, all of a sudden, it increased first to 9 percent of potential output in 1991 and then to 19 percent in 1993 before receding gradually to

<sup>2</sup> See Okun (1962).

about 16 percent in 1996. The emergence of the enormous output gap in 1991–1993 coincided with an explosion of unemployment.

The sudden breakdown of the strong relationship between actual and potential output from 1960 to 1990 raises the following questions: To restore full employment, would it suffice to restore economic growth? If not, would it suffice to close the output gap?—for example, by stimulating aggregate demand. If the answer is still No, what is to be done?

*Figure 3* illustrates an attempt to deal with this question. The figure shows a scatterplot of the unemployment rate in Finland from 1960 to 1996 (from *Figure 1*) and the output gap (from *Figure 2*). *Figure 3* shows a clear tendency for unemployment to increase as the output gap increases. Specifically, the regression line, which is based on data from the years 1960–1990, has the slope 0.38. This means that unemployment increases by about one percentage point for every three-percentage-point increase in the output gap, just as predicted by Okun's Law. Moreover, an extrapolation of the regression line for 1960–1990 to 1991–1996 gives an idea of the unemployment that could have been expected to accompany the collapse of output in the early 1990s. As *Figure 3* shows, if the observations for the years 1992–1996 had stayed close to the regression line, an output gap of 16 to 19 percent should have gone hand in hand with unemployment rates of about 10 to 12 percent. This, however, did not happen. Rather, since 1992 unemployment in Finland has exceeded the rates predicted by Okun's Law by a wide margin.<sup>3</sup> Why?

There are at least two ways of explaining why, in *Figure 3*, the regression for 1960–1990 underestimates the increase in unemployment in Finland in the 1990s. In the first place, the increase in actual unemployment in the 1990s far beyond the prediction of Okun's Law may reflect an increase in natural unemployment in a wide sense, as a result of increased actual joblessness or of increased rigidity in labor markets.<sup>4</sup> If so, we have here an example of so-called 'hystere-

sis': a temporary increase in unemployment tends to become permanent because more widespread joblessness reduces the hope of the unemployed of finding work, and thereby, perhaps, also their incentive to look for work. This may well be part of the explanation, but it can hardly be the whole story. Natural unemployment cannot possibly have increased so dramatically in so short a time.

The second possible explanation, which is not necessarily incompatible with the first, is that the inflexible labor-market arrangements inherited from earlier times, in Finland as well as in many other European countries, did not become a binding constraint on the hiring and firing decisions of Finnish employers until the economy took a deep dive in the 1990s. In the 1970s and 1980s, the latent malfunctioning of the Finnish labor market tended to be underrated and overlooked, just as in Sweden, because the government repeatedly devalued the markka in an attempt to preserve the profitability of Finnish exports, and also because the government acted partly as an employer of last resort by expanding public-sector employment when demand for labor in the private sector declined.<sup>5</sup> The expansion of the public sector, however, was considerably less pronounced in Finland than in Sweden, as can be seen by, for example, comparing the share of government consumption, the bulk of which involves the payment of wages and salaries, in GDP in the two countries: this share was 21 percent in Finland in 1997 compared with 26 percent in Sweden. In the early 1990s, when further devaluation of the markka and further fiscal accommodation were, quite correctly, no longer considered feasible, the inflexibility of the Finnish labor market was exposed. This inflexibility became an additional source of unemployment, on top of existing natural (or structural) and cyclical unemployment, forcing employers to lay off workers because wages could not be adjusted. If this hypothesis is correct, the jump in unemployment in the 1990s should not be blamed on the abruptly non-accommodating stance of exchange-rate policy and public-

<sup>3</sup> The same phenomenon has been observed in Sweden. See Gylfason (1997).

<sup>4</sup> For a discussion of this argument, see, for example, Phelps (1994, Chapter 17).

<sup>5</sup> Stenbacka (1997) discusses these points in the context of Finland.

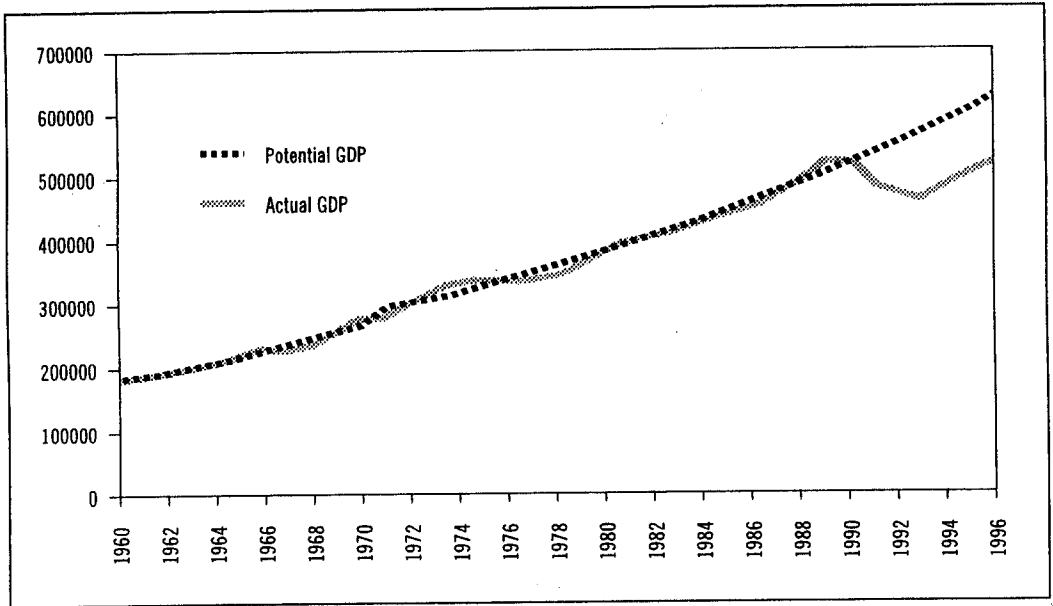


Figure 2. Finland: Actual and Potential GDP, 1960-1996 (FMK Billion at 1990 Prices).

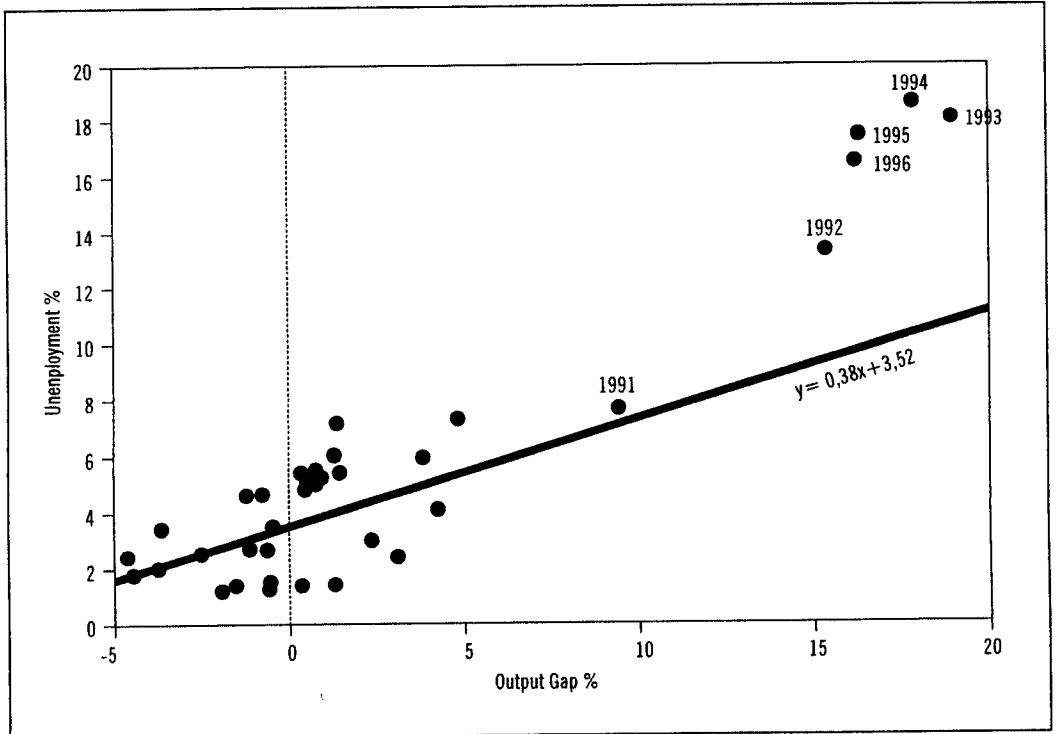


Figure 3. Finland: Unemployment and the Output Gap, 1960-1996.

expenditure policy. Rather, the root cause may be traced to the labor-market rigidity which led to the ultimately unsustainable accommodation of the 1970s and 1980s in the first place.

The main implication of the foregoing discussion is as follows. In order to restore full employment in Finland in a timely manner, it would not be enough simply to restore economic growth. The reason is that the output gap would remain unchanged: actual output would remain permanently below potential output (recall *Figure 2*). Therefore, the rate of economic growth, at least for a time, needs to be higher than it was before the crash in order to close the output gap. But even closing the gap would probably not either be enough to eradicate the unemployment because unemployment has increased far beyond the level predicted by the output gap according to Okun's Law. The Finnish economy is no longer travelling along the regression line shown in *Figure 3*. Institutional constraints that were not binding before have become binding, so that behavior has changed.

A simple analogy may explain the point. Consider the case where the government, by mistake, increases the rate of monetary expansion and thereby triggers a round of wage increases that impose increased costs on employers. When the government realizes its mistake and reverses the increase in monetary expansion, this will generally not suffice to reverse also the nominal wage increase. Therefore, unemployment increases. The damage inflicted on the supply side of the economy through an unwarranted general wage increase tends to last quite long. In order to offset the cost inflation thus induced by the temporary increase in monetary expansion, the government could, in principle, find ways to stimulate aggregate supply and reduce costs—by liberalization of trade and investment or by privatization, for example. In practice, however, it is in most cases not feasible to reverse a temporary bout of inflation. The resulting increase in unemployment cannot either, in general, be quickly reversed. This takes time. However, structural reforms of labor markets would hasten the process.

Likewise, in order to reduce or eliminate unemployment, the Finnish government must not only make an effort to close the output gap by appropriate, non-inflationary stimulus to aggregate supply and demand, but it must also try to find ways to secure increased flexibility in the structure and functioning of the labor market. Without structural reforms aimed at reducing labor-market rigidity, the return to full employment, if it occurs, will be slower than otherwise, other things being equal.

## RIGIDITY? WHAT RIGIDITY?

Stephen Nickell (1997) suggests a useful classification of labor-market rigidity in the OECD area, under five headings.

He shows, first, that the total tax wedge<sup>6</sup> between the real cost of labor to firms and the take-home pay of the typical worker is almost twice as large in Finland and Sweden as it is in Switzerland, to name but one OECD country with a long history of low unemployment. Among 20 OECD countries, only Sweden has a larger tax wedge than Finland (Nickell, 1997, *Table 2*).

In second place, Nickell shows that Finland has a more tightly regulated labor market than most other OECD countries along several dimensions, including labor standards, employment protection, minimum leave per year, and the duration of parental leave. This is relevant because excessive regulation along these lines tends to increase labor cost to firms, and thus to discourage employment. Specifically, five out of 20 OECD countries have stricter labor standards than Finland, ten out of 20 offer more employment protection, but none offer more minimum annual leave or longer parental leave than Finland (Nickell, 1997, *Table 3*).

Third, trade unions and employers' associations are more influential in wage bargaining in Finland than in most other OECD countries. For example, Finland has the sec-

6 By the total tax wedge is meant one minus the sum of three tax rates: the payroll tax rate, the income tax rate, and the consumption tax rate.

ond highest rate of union membership or 72 percent (only Sweden, with 82 percent, is higher on the list).<sup>7</sup> Also, Finland has the fifth highest index of centralization in wage bargaining (following Austria, Norway, Sweden, and Denmark). Switzerland has the lowest centralization index as well as the least unemployment in 1983–1996 (Nickell, 1997, *Tables 4 and 10*). Minimum wages in Finland are close to the OECD average: they amount to roughly a half of average wages (Nickell, 1997, *Table 6*).

Fourth, however, according to Nickell, the benefit system in Finland does not seem to provide a particular inducement to the unemployed to remain out of work: unemployment benefits in Finland are lower than in Sweden and Switzerland, for example, but they also last longer. Perhaps the amount and duration of jobless benefits matter less for unemployment than their overall compatibility with work incentives, which is hard to gauge. Only three out of 20 OECD countries have adopted more active labor-market policies than Finland; the three are Sweden, Germany, and Portugal (Nickell, 1997, *Table 7*).

Fifth and last, there is the issue of geographical barriers to labor mobility. Here—surprisingly, perhaps—OECD statistics seem to indicate that Finnish workers are considerably less mobile than their Norwegian, American, and, especially, Swedish counterparts (Nickell, 1997, *Table 8*). Part of the reason may be that Finland, like Norway, has one of the highest rates of home ownership (78 percent) in the OECD area, a significantly higher rate than, for example, Sweden (56 percent) and Switzerland (28 percent). Widespread home ownership tends to reduce labor mobility, other things being equal.

The different types of labor-market rigidity reviewed above do not all cause unemployment. Even so, there is empirical evidence, based on cross-country panel regressions for 20 OECD countries in 1983–1994,

that (1) a large total tax wedge, (2) strong labor unions, and (3) generous unemployment benefits contribute to overall joblessness (Nickell, 1997, *Table 12*). Besides, minimum wages tend to increase youth unemployment. This short list is a good place to begin looking for structural reforms to reduce unemployment.

But even if further empirical research might lead us to want to lengthen the above list, showing perhaps that most or all of the different aspects of inflexibility in labor-market arrangements and institutions reviewed above tend to exacerbate or prolong the unemployment problem in Finland and elsewhere, this would not mean that workers' rights ought to be encroached or that home ownership should be discouraged. No, it would only mean that we are that much closer to understanding unemployment and to being able to prescribe appropriate, incentive-compatible remedies that must not, however, under any circumstances—it almost goes without saying—be worse than the disease.

Ultimately, the overall flexibility of a country's labor market, like that of other markets, needs to be judged primarily by the extent to which real wages are free to adjust to variations in, and to disequilibrium between, demand and supply. Here the Finnish record is unequivocal: as shown in *Figure 4*, real wages<sup>8</sup> in Finland have continued to increase in the 1990s almost as if unemployment had not jumped to unprecedented heights.<sup>9</sup> Only a minor deceleration of real wages occurred following the jump in joblessness after 1990. And as soon as unemployment stopped increasing, having peaked above 18 percent in 1994, real wages resumed their fairly rapid ascendance. It seems most likely that a more flexible labor market would have produced a different outcome: a decrease in real wages accompanied by a wider wage dispersion, yes, and a less dramatic increase in unemployment. But there are many in Finland, especially in

7 Union coverage (i.e., the proportion of the labor force covered by union contracts) is probably a better measure of union clout than is union density or membership. Finland's union coverage, which is above 90 percent, is at or close to the top of the OECD league. See also Nickell (1997, *Table 4*).

8 Real wages are measured here by the real hourly wages of male workers in manufacturing. I am grateful to Rita Asplund for having provided me with the data.

9 For similar figures showing the evolution of real wages and unemployment in Sweden, the European Union, and the United States from 1970 to 1997, see Gylfason, Andersen, Honkapohja, Isachsen, and Williamson (1997, *Chapter 2*).

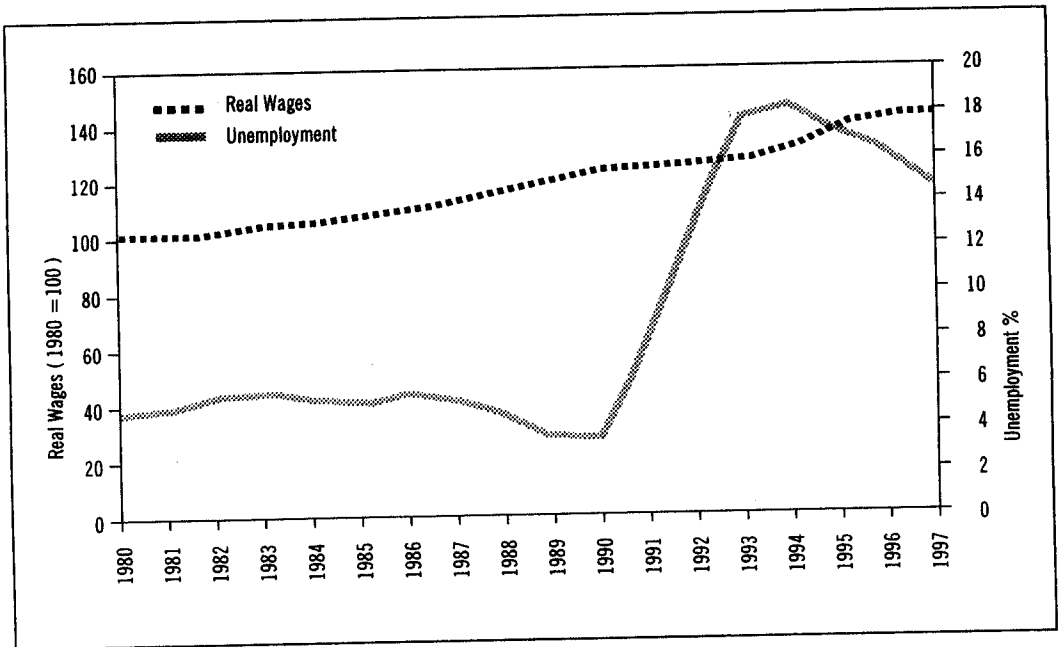


Figure 4. Finland: Real Wages and Unemployment, 1980–1997.

the labor movement and in the political arena, who would have objected to a real wage cut and to increased wage dispersion. In effect, they carried the day. In this sense, the dramatic increase in unemployment that occurred in Finland in the 1990s may be said to be voluntary from a social point of view. From the individual point of view of most of those who lost their jobs, however, their lack of work is involuntary on their part, very much so.

One further aspect of labor markets needs to be discussed: centralization vs. decentralization. Some argue that centralization of wage bargaining is a good thing because it reduces the risk that individual unions and workers make wage demands that are out of line and thus threaten to destabilize wage formation by inducing others to make corresponding demands. This may be true as far as it goes. Against this possibility, however, we must weigh the likely disadvantages of centralization and the correspondent benefits of decentralization, for these are by and large the same in labor markets as in other markets. Therefore, the benefits of decentralization (i.e., wage bargaining firm by firm) seem almost

certain to outweigh those of centralized wage setting in labor markets as in other markets.

One of the vital strengths of a well-functioning and fair market economy is that it allows prices of goods and services, interest rates, and exchange rates for the most part to be freely determined by demand and supply in markets without major interference by the government, which, at the same time, seeks to maintain tolerable economic and social equality by fiscal and other means without creating severe distortions in the market-based allocation of resources. This, at least, is the ideal, even if few governments manage to live by it in detail. I have yet to see a cost-benefit analysis which convincingly exempts the labor market from this general principle.

### FROM UNEMPLOYMENT TO ECONOMIC GROWTH

One of the main lessons of the endogenous-growth revolution of the last 10–15 years is that increased efficiency is good for growth. Inefficiency impedes growth, perhaps even

in the long run. Does this mean that unemployment is an impediment to economic growth?<sup>10</sup>

In general, unemployment causes inefficiency and economic waste by keeping a nation's output below its productive potential, sometimes far below, as has been the case in Finland since the early 1990s and in Europe since the early 1980s, and much longer in many other parts of the world. Output lost through lack of work is like loss of sleep: it cannot be recovered. But does this type of inefficiency impede growth?

Efficiency is, by definition, reflected in the amount of output produced per unit of capital (or, where relevant, per unit of all inputs combined). Therefore, trade liberalization is good for growth because the gains from trade increase output at full employment and a given stock of capital. Stabilization is good for growth because the gains from reducing or eradicating the distortions that result from inflation increase the amount of output produced by a given stock of real and financial capital at full employment (and may also stimulate saving). Privatization is good for growth because it increases the quantity and quality of the output that can be squeezed out of given inputs at full employment. Education is good for growth—well, you know how to finish the sentence. The reduction or eradication of unemployment, however, is different from the above four cases of increased growth through increased efficiency in that the very existence of unemployment violates the assumption of full employment.

There are two possibilities. On the one hand, when output decreases because of increased unemployment, the amount of output per unit of capital also decreases, if the capital stock remains unchanged, or if it decreases less than employment, which is often the case. In such circumstances, increased unemployment is generally inimical to economic growth. But this is not to say that full employment is necessarily good for growth, not at all. Full employment was the pride of the Soviet Union and its satellites in

Central and Eastern Europe. And how did they do it? By force. It was simply illegal to be unemployed. The unemployed were regularly denounced as 'hooligans' in Pravda and other local news media. This meant that millions upon millions of workers were trapped in gigantic, grossly inefficient state enterprises, thus deprived of the mobility between employers and places that is the hallmark of an efficient labor market in a mixed economy. Moreover, when the state is the sole employer, firms do not compete for workers, nor do workers who do not get along with their employer move elsewhere, for they have nowhere else to go. In a market economy, on the other hand, labor mobility is typically accompanied by temporary unemployment, as workers move about, looking for better jobs or better wages. But that is the cost of efficiency.

On the other hand, increased joblessness for a time can be an inevitable, even desirable, consequence of necessary reallocation and reorganization in order to increase economic efficiency. This is partly what Joseph Schumpeter (1950, *Chapter 7*) meant by 'creative destruction.' For example, the transformation of economic activity in the former Soviet Union in recent years was bound to transfer workers from the collapsing state sector to the rapidly expanding private sector. In Russia, this transfer occurred with remarkably little fuss. In 1993, one in five Russian workers found a new job. In 1995, the registered unemployment rate was 3½ percent of the labor force and the open unemployment rate was about 8 percent (and 9 percent in 1996), which is not much in view of the massive contraction of recorded output in Russia since communism collapsed. In Russia, therefore, the still fairly modest increase in unemployment in the 1990s is a sign of increased efficiency and of a well-functioning, flexible labor market. Is Russia's sheer size responsible for the resilience of its labor market? — a huge area, almost twice as large as the United States, also without language barriers. Hardly. A similar resilience has been observed, for example, in the Baltic countries (Estonia, Latvia, and Lithuania), where unemployment hovered between 5 and 9 percent in



1994–1996, despite massive restructuring.

Take another case: Ireland. Ireland's growth performance over the past decade or so has been impressive. Output per capita grew by more than 5 percent per year in 1985–1995 and even more rapidly in 1996 and 1997. The growth of Irish output per head, a European record, has been accompanied by one of Europe's highest rates of unemployment in this period, or one-sixth of the labor force on average.<sup>11</sup> The massive, persistent unemployment has clearly involved considerable inefficiency and waste, but it can also be viewed as a natural consequence of the radical transformation of the Irish economy that has taken place, away from agriculture via industry to trade and services. The share of agriculture in Ireland's labor force fell from 37 percent in 1960 to 14 percent in 1990, which means that almost a quarter of the labor force left the land in a period of 30 years. The share of agriculture in GDP fell from 30 percent in 1949 to 8 percent in 1994. The share of exports of goods and services in Irish GDP rose from 48 percent in 1980 to 75 percent in 1995, the highest such figure in Europe.<sup>12</sup> Such shifts in economic structure call for flexibility in work and pay and footloose labor. However, the economic transformation of Ireland does not explain the country's continuing unemployment problem in full because, after all, Ireland shares with the rest of the European Union many of the labor-market rigidities that have helped make lack of work so persistent and problematic in Europe since the early 1980s.

European labor markets are, with few exceptions, comparatively rigid. The wages of most workers are set, directly or indirectly, through collective bargaining between labor unions and employers' associations. Work and pay are tightly regulated. Real wages in the European Union have risen by more than 60 percent on average since 1970, and unemployment has more than quadrupled, from 2½ percent of the labor

force in 1970 to 11 percent in 1996. European labor unions have succeeded in raising real wages, yes, but at the expense of jobs. In the United States, on the other hand, labor markets are generally flexible and wages are negotiated firm by firm. Real wages have increased by about 15 percent since 1970 and unemployment has fluctuated between 5 and 10 percent, without a tendency to increase over time. Today, unemployment in America is no higher than it was before the first oil crisis in the early 1970s. The American way of work and pay thus seems more conducive to job creation than the European one—at the cost of a considerably less even distribution of income in the United States than in many European countries.

In the 1950s and 1960s, on the other hand, approximately the same labor market institutions on both sides of the Atlantic produced the opposite outcome, that is, less unemployment in Europe than in the United States. In those years, rapid economic growth helped prevent the rigidity of European labor markets from becoming a binding constraint. When growth began to falter after the first oil shock in the 1970s, however, the rigidity became binding. Firing restrictions, for example, did not deter the hiring of new workers in the 1960s because employers had reason to expect economic growth to continue and thus to be able to expand their workforce. By the 1980s, however, this had changed. Economic growth had slowed down. This meant that legal restrictions on firing deterred hiring, and unemployment began to rise. Less economic growth gave rise to more unemployment.<sup>13</sup>

It would thus neither be wise nor fair to attribute the unemployment in Europe to labor union activity alone. There are more reasons why joblessness persists and wages do not adjust to clear the labor market, including the reluctance of employers to reduce wages to market-clearing levels for fear of demoralizing the labor force and thus reducing its efficiency (the so-called effi-

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<sup>11</sup> In Europe, only Spain had (marginally) more unemployment than Ireland from 1985 to 1995. Spain's Gross National Product (GNP) per capita also grew quite fast during this period, or by 2½ percent per year on average.

<sup>12</sup> Belgium and Estonia tied for second place in the European export league in 1995, with an export share of 74 percent.

<sup>13</sup> See *Pissarides (1990)*.

ciency-wage hypothesis), in addition to various welfare-state-policy stipulations and tax wedges, as already mentioned, that tend to compress the wage structure and thus price some low-skilled workers out of their jobs.

A comparison of Europe and East Asia conveys a similar impression. Take Singapore. Since the 1960s, the Singaporeans have succeeded in creating conditions for exceptionally rapid economic growth combined with low inflation and little or no unemployment—2½ per cent of the labor force in 1995. Flexible labor markets have almost surely contributed to this outcome. By design, the labor market in Singapore is essentially free. Wages are set by supply and demand without much interference from the authorities, labor unions, or employers' associations. This liberal arrangement has probably increased income differentials in the city state, true, but still not beyond those observed in, for example, the United States and the United Kingdom. Labor relations are generally peaceful.

Like the people of Singapore, several other East Asian nations, including Japan, Korea, Taiwan, and Thailand—and Malaysia, too, to some extent—long ago resolved to decentralize their labor markets by making each firm rather than each industry or even the economy as a whole the chief forum for wage decisions. The aim was to reduce the risk of excessive wage claims that are frequently put forward by large labor unions with many members from different backgrounds, some of whom work in well-run, efficient enterprises able to pay good wages, while others do not. In this way, it was thought, wage claims would accord more closely with productivity developments, because workers would have a personal stake in the success of the firms that gave them work. The idea was that the advantages of efficiency through non-intervention by the state are no smaller, and no less tangible, in labor markets than in other markets.

The efficiency thus attained seems likely to have contributed significantly to East Asia's rapid economic growth over the past 30 years. However, the sudden exposure to a serious economic shock, such as the one of 1997–1998, when currency and equity val-

ues collapsed across the region, is a useful, if unpleasant, reminder that efficiency and flexibility are not the sole desirable attributes of labor market arrangements. There is also a basic human need for a fair system of social security, including unemployment insurance in some form, designed to fend off the worst social and economic ramifications of the shock and of others that may follow in the future.

The upshot of this discussion is this: there is no simple, all-encompassing relationship between unemployment and economic growth. In some cases, such as that of the European Union since the early 1980s, persistent lack of work reflects deep-seated inefficiency through lack of flexibility in labor markets, and thus leads to economic waste and social misery, both of which are inimical to growth. In other cases, such as Ireland and Russia, for example, or Chile in the 1970s and early 1980s, increased unemployment is to some extent a natural consequence of necessary structural change: increased joblessness in the short run is then a price you pay for more growth and more and better jobs in the future. Widespread urban unemployment in parts of Africa and Latin America is most often a mixture of both phenomena. And then there is the tendency for a slowdown in economic growth to increase unemployment. The connection between jobs and growth needs to be assessed case by case.

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