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Special Topic Prize

Solving the unemployment puzzle in Europe

Jens Verner Andersen & Jørn Henrik Rasmussen

High unemployment is a problem in most European countries. The starting point of this article is that structural problems in the labour market and economic disincentives due to benefit and tax systems are the main reason why Europe faces severe unemployment. Many suggestions have been made to solve the problem, but few countries have succeeded in fighting unemployment. This paper points out that Denmark has succeeded in fighting unemployment with a battery of instruments primarily structural in kind.

Along the same lines, Europe also has to structure tax and benefit systems to make work pay. Especially high Net Replacement Rates at the lower end of the wage distribution create disincentives to work and reforms need to be implemented to make the benefit system more employment friendly. One suggestion – which this paper discusses – is to introduce an employment-conditional scheme through the tax system – the so-called Earned Income Tax Credit (EITC). The EITC improves employment opportunities for low skilled workers by strengthening incentives to work without reducing benefit entitlements. This is achieved by introducing a tax credit given to low income people with a job. Simulations suggest that the EITC can improve employment although it is not a “free lunch”. Distortions arise from financing the EITC and from the withdrawal of the tax credit.



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Solving the unemployment puzzle in Europe

1. Introduction

The common currency in Europe is by far the boldest chapter we have seen in European integration. The participating countries have formally given up power to set interest rates and exchange rates, the two most important prices in a modern economy, and have sharply circumscribed their use of fiscal policy as well. The changes are so revolutionary that scepticism has abounded during the process, and some still expect the euro to fail. Indeed, the labour market might be an area that will cause a potential instability, not least due to an unemployment rate exceeding 10 percent in the euro-zone.

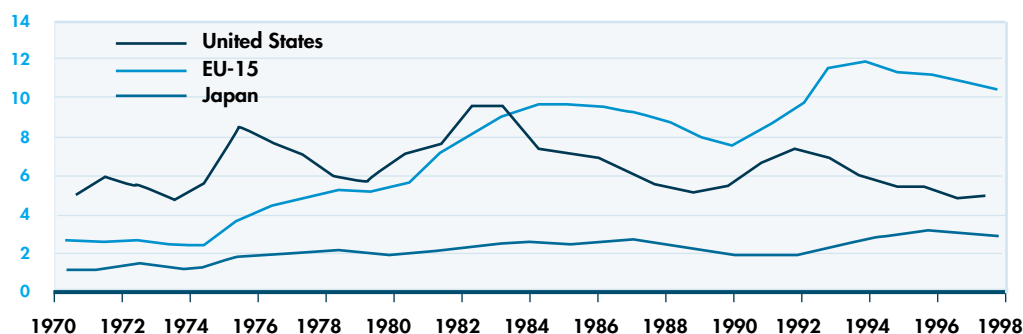
Since Europe is heavily burdened by a high level of structural unemployment, an economic policy which focuses on increasing aggregate demand will not be able to solve the problem. The use of a monetary policy is also limited in the long term as a means to fight unemployment. The question is what can be done to solve the unemployment puzzle? The right thing to do is to focus on structural reforms in the tax and benefit system and in the labour market.

Following a description of European unemployment (in Section 2), this article will try to show what might be done to get Europe back to work. The focus will primarily be on the Danish labour market reform, which was launched back in 1993 and is still ongoing (Section 3). Denmark has used a wide range of instruments, among others the "right and obligation" to work, a shorter maximum period of unemployment benefits, a special attention to weak groups of unemployed, and tightening of availability rules. In Section 4 we will focus on the need to reform European tax and benefit systems. One way to improve incentives is to introduce tax benefits that are conditional upon employment – such as the so-called Earned Income Tax Credit.

2. The unemployment problem

The average unemployment rate in Europe has been at a high level since the second oil-crisis in the late-1970s. In 1998 approximately 11 percent of the European work force was out of work or more than twice the level in the US (see Figure 1).

Figure 1. Unemployment in EU-15, the US and Japan, 1970-98. (Percent of labour force)



Source: OECD.

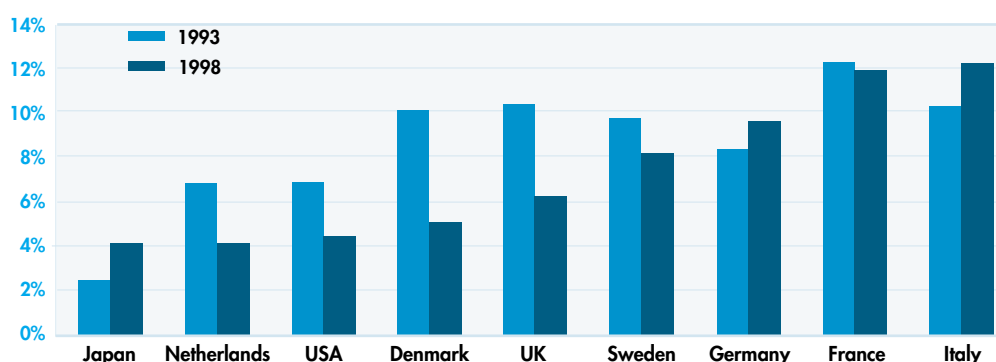
The views in this paper are those of the authors and do not necessarily reflect the views of Danmarks Nationalbank and the Ministry of Finance, Denmark. We are grateful for comments from Chris Hurst of the EIB and from Sten Lohmann of the Danish Ministry of Finance.

Though reforms have made the US labour market more flexible, lower unemployment has been achieved at the expense of growing inequity and poverty.

While Europe has remained at a high level of unemployment since the last oil-crisis, unemployment in the US has fallen. Undoubtedly, the liberal labour market policy introduced when Reagan was President has played a major role in the decline. Basically, these policies have consisted of a gradual decline in the real minimum wage, the full taxation of unemployment insurance, and a work requirement for those on welfare (Feldstein, 1997). Though these reforms have made the US labour market more flexible, many on both sides of the Atlantic believe that lower unemployment has been achieved at the expense of growing inequity and poverty. As a result, there seems to be consensus in Europe that the American model, which would result in a dismantling of the welfare system, is not the right way to solve employment problems.

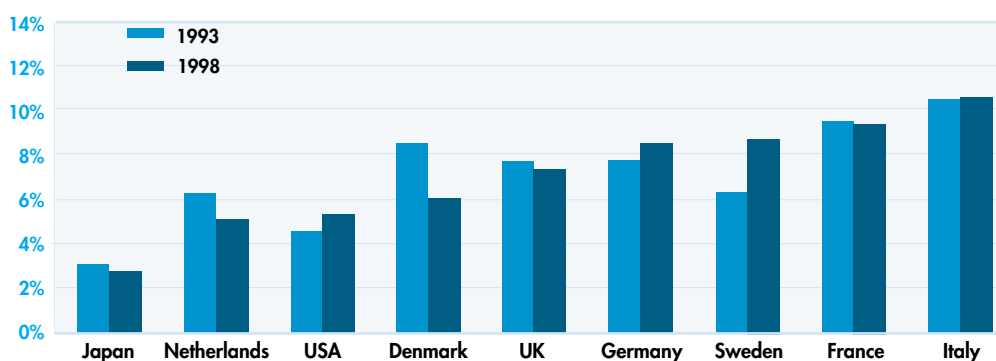
Although the average unemployment rate in Europe is higher than in the US, this is not the case for all individual European countries. This is illustrated in Figure 2. The persistence of high unemployment in some countries despite recovered economic conditions in the 1980s has led economists to conclude that unemployment in Europe is mainly ascribable to structural factors (1). Higher structural unemployment in Europe finds support in Figure 3. Those European countries experiencing low unemployment, such as Denmark and the Netherlands also face low structural unemployment.

Figure 2. Standardised unemployment in selected countries



Source: OECD (1998)

Figure 3. Structural unemployment in selected countries



Source: OECD (1998)

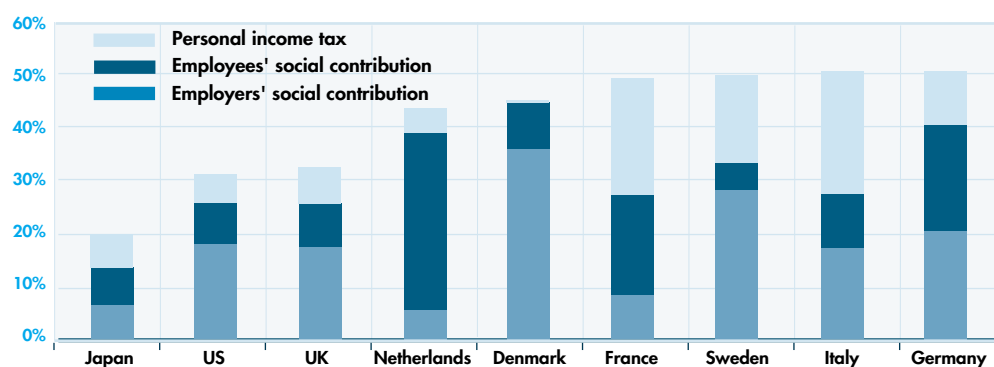
1) The starting point for most analytical discussions of unemployment trends is the framework introduced by Friedman and Phelps a generation ago. From this framework it follows that unemployment can be divided into two components; a cyclical fluctuation around a natural rate of unemployment and a structural movement from the natural rate itself. A change in the cyclical component can be attributed to changes in aggregated demand. Changes in labour market institutions, demographic shifts, tax reforms, etc. may change the structural component.

More flexibility is certainly needed to get Europe back to work, and this does not have to result in a labour market along American lines.

What might explain differences in structural unemployment and thus differences in unemployment levels? An important key word is the degree of flexibility in the labour market. This is about how well labour supply meets labour demand. More flexibility is certainly needed to get Europe back to work, and this does not necessarily result in a labour market along American lines. For example flexibility can be increased by removing regulation on work hours, lowering firing costs, and by tightening availability-rules. An excessive degree of job protection makes it difficult for firms to adapt changes in demand and this increases the level of structural unemployment. Indeed, European countries with low unemployment – like Denmark and the Netherlands – also rank low regarding job protection, while Germany and Italy both have relatively strict rules.

Although the success of fighting unemployment depends on the level of flexibility in the labour market, it is also important to investigate the disincentive problem of the European tax and benefit systems. Most taxes create disincentives to work due to the wedge between workers' salaries and firms' labour expenses. Figure 4 shows the tax burden of an unmarried average productive worker (APW).

Figure 4. Labour taxes. Single person at APW-level without children, 1996. (Percent of gross wages)



Note: As a percentage of gross wage earnings. APW stands for "Average Productive Worker" and is defined as the average income of a skilled full time worker in manufacturing.

Source: OECD (1997b)

The Nordic countries put a relatively high emphasis on income taxes in financing the welfare state, while countries like Germany, France and the Netherlands use social security payments to a larger extent. The total tax on labour in most Scandinavian and European countries is between 45 and 50 percentage of gross salaries, while the level in the US and the UK is only around 30 percent.

State unemployment benefit systems provide insurance against job loss, which may be difficult to obtain from private insurers. This is a source of welfare gain, but unemployment benefits can also have negative effects on labour market outcomes as they create disincentives to work. Especially low skilled workers seem to lack economic incentives to work as their potential wage is close to what can be obtained from the benefit system. A measure of economic incentives to work can be obtained by comparing the after tax earnings to after tax benefit - the so-called Net Replacement Rates (2). This is shown in Table 1.

2) In most countries Net Replacement Rates depend on several factors such as duration of unemployment, previous income-level and family status.

Table 1. Net replacement rates at different earning levels

	2/3 of APW earnings	APW earnings
Denmark	95	80
France	88	75
Germany	77	79
Italy	46	47
Netherlands	84	82
Sweden	85	85
UK	80	67
US	60	60
Japan	67	59

Note: The Net Replacement Rates (NRR) is dependent on duration of unemployment and family conditions. The NRR in the table is after one month of unemployment and for a married person with a dependent spouse and two children.

Source: OECD (1997a)

Table 1 shows Net Replacement Rates of between 75 and 95 percent, with the US as an exception. A Net Replacement Rate of 95 percent as in Denmark for low-income people does indeed affect incentives to work. However, several non-economic factors such as social networks and strictness of availability rules also influence people's decisions to take a job.

3. The Danish strategy

Between 1993 and 1998 unemployment in Denmark was almost cut in half, dropping steadily from around 10 percent in 1993 to 5 percent in June 1998. Long-term unemployment is among the lowest in Europe at 1.5 percent (1997) and youth unemployment has been reduced to 6.0 percent (1997) compared to a European average of 20 percent (European Commission, 1998). What is the secret behind the “job miracle in Denmark”? The achievements have been accomplished by pursuing a balanced strategy of two elements. The first is the continued implementation of an economic policy designed to create a framework for stable economic development, notably through maintaining low inflation, a balance of payment surplus and a reduction in public debt. The second part of the strategy is a continuation of the structural reforms initiated in 1993 (the third phase of the reform was adopted by the Danish parliament in the autumn of 1998).

The experience of Denmark confirms strong interactions between macroeconomic and structural policies.

The experiences from Denmark confirm strong interactions between macro- and structural policies. The favourable climate since 1993 has reinforced the actions implemented in the labour market and vice versa (Elmeskov, 1998).

The cornerstone of the reform was the decision in 1993 to refocus employment systems towards a much more active labour market policy. The strategy involves measures to improve the ability of the unemployed to compete in the market through upgrading of skills and job training as well as measures to maintain their contact with the labour market through work experience. It also includes the right and obligation to “activation”. This is discussed further in the Box.

Box 1: The Danish labour market reforms, 1993-98

“Activation” of the unemployed

- Within the first three months of unemployment all the unemployed are interviewed in order to assess individual qualifications and possibilities, and *individual action plans* are formulated.
- The period of “activation” is advanced. An unemployed person has the *right and obligation* to full time “activation” after one year of unemployment. For young people below twenty-five, the right and obligation to this begins after six months.
- *Availability rules are tightened*. The obligation to accept job offers outside former occupation is brought forward and in the latest reform is advanced from one year to 3 months.

Limiting the duration of unemployment benefits

- The *maximum period* of unemployment benefits was successively lowered. From a maximum of seven years in the 1994 reform, to five years in the 1996 reform and finally in the latest reform, the maximum duration is set to four years.

Education

- *Special efforts to prevent bottlenecks* including upgrading of qualifications among the unemployed.
- The possibility for the unemployed to take up education of their own choice is restricted.

Source: Ministry of Finance, Denmark.

Special attention in the Danish strategy to the unemployed under 25 has given some remarkable results. In particular, the reduction of the unemployment benefit period for young unskilled persons to 6 months has been important both in terms of enhanced job search incentives and in terms of stronger incentives to complete education.

The lessons from the Danish experiences serve as a guideline in the debate on the employment strategy in Europe and the initiatives to be taken in efforts to fight unemployment. It is possible to reduce unemployment by giving incentives to work without cutting the benefit level for the unemployed. The main conclusion is that the key to success is a broad range of labour market reforms. There is no single universal instrument to be pointed out from the Danish experiences, but a wide range of well co-ordinated measures. The primary aim has been to improve active job search behaviour and reduce disincentive problems.

As a supplement to labour market reforms one might also improve structures in the tax and benefit system to fight unemployment. Any tax or transfer payment distorts incentives, but the size of the distortion can be limited if the tax or transfer system is well designed. Many things can be done to improve the economic incentives to work in Europe. One proposal is the Earned Income Tax Credit (EITC), and this is explored in next section.

Key to success is a broad range of labour market reforms.

4. Improving incentives to work - Introducing an earned income tax credit

Taxes and benefits are one of the most direct way in which governments can affect the economic incentives for individuals to work and for employers to hire labour. The “poverty” and “unemployment” traps are two ways in which taxes and benefits may fail to “make work pay”. Withdrawal of benefits combined with high marginal taxes can create a so-called poverty trap, where low-income earners are left with severe disincentives to increase work hours and effort. In the extreme case where the marginal effective tax rates (METR) is 100 percent, the poverty trap is total, and there is no economic incentive to increase work.

The unemployment trap is another problem arising when high benefits are combined with low expected earnings, since the unemployed person is left with small economic incentives to look for a job (3). In other words the unemployment trap is a result of the high Net Replacement Rates discussed before.

The most straightforward solution to the unemployment trap is to cut down out-of-work income support schemes. Most economists agree that a general cut in benefit levels would tend to stimulate employment. However as Sørensen (1997) puts it, “although some countries with generous benefit systems may have scope for pursuing such a policy, most European governments remain unwilling to implement major benefit cuts, since this would compromise the fundamental equity goals of the welfare state”.

Thus, recent proposals for reform have focused on measures intended to improve employment opportunities for low-skilled workers and to strengthen incentives to work without seriously cutting the living standards of benefit recipients. The most notable proposals are the use of employment-conditional schemes provided as tax credits or through the benefit system. We will in this article only focus on a scheme provided through the tax system - or the so-called Earned Income Tax Credit (EITC), which Phelps (1997) and Van der Ploeg (1997), among others, have advocated. The idea behind the EITC is to give a tax credit only if a person has a job and hereby to strengthen incentives to work without reducing the income of the unemployed.

The idea behind the EITC is to give a tax credit only if the person has a job and thereby to strengthen incentives to work without reducing the income of the unemployed.

However, several factors need to be considered, before introducing an EITC programme. First of all, the governments need to take into account the trade-offs they face. A general allowance given to all the employed will be expensive, and imply a significant “dead-weight loss” because large tax deductions are given to people who are not lacking work-incentives. This is an argument in favour of focusing the EITC to low-income workers, but this is not without problems either. An EITC targeted at low income workers includes a withdrawal in the absolute amount of the tax credit as income rises. This implies higher Marginal Effective Tax Rates (METRs) in the region where the EITC is phased-out. The policy-maker therefore faces a trade off between a slow phase-out, which implies large government cost, or a fast phase-out, which implies distortions from very high METRs in the phase-out range.

An EITC-reform can be constructed in many ways and be more or less targeted at low-income earners. It can also be based on other factors than income, e.g. number of children, age, sex or marital status. Generally, it is a good idea to condition the EITC on non-financial factors if it helps to isolate the target group. In this way the dead-weight losses are minimised. For example, if young people in particular lack economic incentives to work the EITC could then be conditioned on age.

3) Empirical findings for most European countries indicate that a significant number of people lack economic incentives to work, and a large proportion of employed face very high METR's, see OECD (1996, 1997) and Pedersen & Smith (1995, 1998).

If the EITC is financed by income taxes on high incomes, then this implies distortions due to a lower labour supply from this group.

Six OECD countries (4) – mainly English-speaking countries – have introduced employment-conditional schemes. The EITC was introduced in the US as far back as 1975, and has been expanded several times. This scheme is also conditional on income and number of children. Eissa and Libman (1995) have evaluated the effect from this EITC for single mothers with children and concluded that it improves employment, but at a high cost. However, this is justified since the main focus of the EITC in the US is a poverty support scheme rather than a program to increase employment.

Since most European government budgets are under pressure, a proper evaluation of the EITC also needs to take into account how the reform is financed. If the EITC reform is financed within the income tax system, e.g. by higher income taxes for high incomes, then this implies distortions due to lower labour supply from this group. These considerations suggest that employment-conditional schemes are more likely to be viable in countries where out-of-work benefits are low relative to average earnings and where the earning distribution is sufficiently wide (see, for example, OECD (1996) and Bassanini et al. (1999)).

Simulations with Computable General Equilibrium models indicate that introducing an EITC targeted at low-skilled workers might be a helpful instrument in cutting unemployment. Bovenberg et al. (1998) have carried out simulations on the Dutch model, MIMIC, while Pedersen and Stephensen (1999) use the Danish DREAM model. Rasmussen and Lundsgaard (1998) provide another study which supports the view that introducing an EITC has a positive employment effect, but they also show that introducing the EITC implies large distortions, due to lower hourly labour supply among people with incomes above the level where the programme phases out.

Bassanini et al. (1999) have in a recent paper simulated the effect of introducing the EITC in four OECD countries. The EITC is targeted at low-income workers, so that workers earning less than 60 percent of the average income (5) receive a 10 percent tax credit of gross earnings. The EITC is phased-out for earnings between 60-90 percent, implying that a person earning 90 percent of the average income or more does not receive any credit. The EITC is financed by higher income taxes on people earning above 90 percent of the average income. Table 2 reproduces some results from Bassanini et al. (1999) which indicate that introducing an EITC may improve employment with a positive effect in the range of 0.3-0.7 percent of the labour force. The table supports the view that introducing a targeted EITC can increase employment. The results also show that this is not a “free lunch” due to the distortion for higher wage workers noted by Rasmussen and Lundsgaard (1998) above.

Table 2. Labour supply and social welfare effects from a 10 percent targeted EITC. (Percentage change)

	UK	USA	Germany	Sweden
Employment effect	0,7%	0,6%	0,3%	0,5%
Total labour supply effect	0,4%	0,2%	0,0%-	0,5%
Social welfare effect	-0,1%	-0,2%	-0,4%	-0,8%

Source: Bassanini, Rasmussen and Scarpetta (1999). Total labour supply includes both the effect on employment and on hourly labour supply. The change in social welfare is in percent of GDP.

4) Canada, New Zealand, Ireland, Italy, United States and United Kingdom.

5) Average income is defined as the concept “Average productive Worker”, see OECD (1997b).

Indeed, the simulation results of introducing the EITC in Bassanini *et al.* (1999) come out with a negative welfare effect in all four countries, when the reform is evaluated on pure grounds of efficiency, i.e. when all individuals are given the same weight in the social welfare function. However, the reform can give a positive welfare effect if the government puts higher weight on people located in the low-income region (those who gain from the tax reform), i.e. if equity considerations are taken into account.

This highlights an interesting point about the impact of the EITC on the wage distribution. It widens the before-tax wage distribution by lowering the price on low skilled labour, while the after-tax distribution is narrowed. The EITC, therefore, implies that wage distributions become more uneven gross of taxes, but more even net of taxes.

The EITC will work differently across Europe, due to different labour market structures and tax systems. For example, it would be relatively less attractive to introduce the EITC in the Nordic countries, since the narrower wage distribution makes it more difficult to target low-income groups. It should also be recognised that the EITC will complicate the tax systems, and most European tax systems are complicated already today. Furthermore it may be argued that governments should be cautious to introduce schemes that might help solving today's problems - but which are expensive and difficult to remove in the future, when they are less needed.

5. Concluding comments

Persistent high unemployment is one of the most serious problems Europe has been facing since the late-1970s. Structural problems in the labour market and in the tax systems are the main reason why some European countries face a higher unemployment than others. Many suggestions, including the OECD Jobs Study and the EU Luxembourg Process, have been made to solve the problem. However, few countries have yet succeeded in fighting unemployment.

This article points out that solving the European unemployment puzzle is a complex matter that needs a wide range of instruments. Countries like Denmark have shown some ways to fight unemployment by carrying out well-targeted labour market reforms. The primary aim of the Danish initiatives have been to enhance active job search behaviour and reduce disincentives to work. Denmark has shown that it is possible to reduce unemployment without cutting unemployment benefits.

Europe can to some extent fight unemployment by implementing structural reforms in the labour market, but most European countries also need to reduce structural problems in the tax and benefit systems. The EITC is one interesting proposal which improves economic incentives to work without reducing benefit levels. The EITC can help fight unemployment in Europe, but it is not without problems, and it is only one instrument among a wide range of measures needed to solve the European unemployment puzzle.

Europe can fight unemployment by implementing reforms in the labour markets, but most European countries also need to reduce structural problems in the tax and benefit system. The EITC can help.

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