Tijdschrift voor Economie en Management
Vol. XLIII, 3, 1998

European Employment
A Tale of Demand and Supply

by P. DE GRAUWE*

I. INTRODUCTION

In this article the nature of the European unemployment problem is analysed. We concentrate on both the demand- and supply side sources of the persistent unemployment in Europe. All too often economists have emphasised one of the two sources at the exclusion of the other. As will be shown in this article both demand and supply are at the core of the unemployment problem in Europe.

II. DIAGNOSTICS OF THE EUROPEAN UNEMPLOYMENT: THE CONTRAST WITH THE US

Much has been said about the differences in the functioning of the labour markets in Europe and the US. These differences are well summarised in the following graph (see Fig 1). First, during recessions American unemployment quite often increases substantially, even more so than European unemployment. This is the case, for example, during the recessions of 1974-76 and 1980-82. It is less so during the recession of 1991-93[1]. However, during the upturn of economic activity, the American unemployment always declines to its pre-recession level. As a result, the long term trend in the American unemployment rate is flat. In contrast, although the European unemployment rate typically increases less than the American one during the recession, it never declines to its pre-recession level. As a result, the

* Centre for Economic Studies, K.U.Leuven, Leuven and Centre for Economic Policy Research, London.

long term trend is upwards. This *ratchet effect* is quite worrisome. It appears that each time Europe is hit by a shock (say, a recession) unemployment goes up, while when the economy improves unemployment stays put or goes down only partially. Thus, temporary disturbances like recessions have permanent effects on European unemployment. This feature is totally absent from the US data.

The ratchet effect in the European unemployment is particularly striking during the 1990s. We see that European unemployment increased by close to 40% during the decade. This increase occurred essentially during two years, i.e. from 1991 to 1993 when unemployment went from 8 % to 11 %. After that, it pretty much remained unchanged despite a recovery of economic activity.

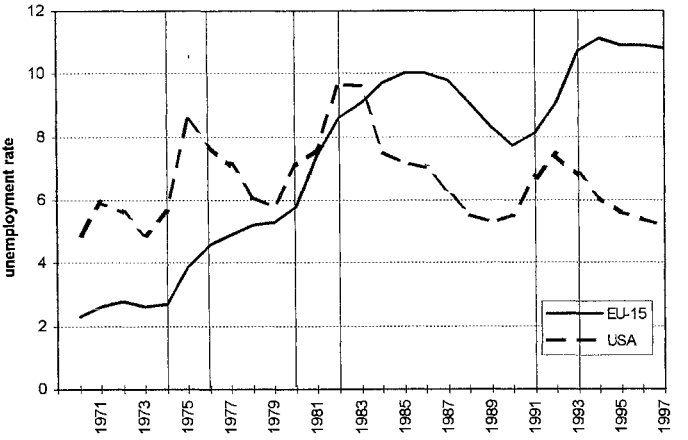
How can we explain this troublesome European phenomenon whereby each shock seems to bring the unemployment rate to a higher level? In what follows we will concentrate our attention on what happened during the 1990s. The analysis can, however, easily be extended to the previous episodes of rising European unemployment.

One story about the increase in unemployment in the European Union during the 1990s is that it is wholly due to labour market rigidities and the high taxation of labour. In this view, the European unemployment is a supply side (micro-economic) problem disconnected from the demand side and, in particular, from the process of disinflation that was pursued during the decade in order to comply to the Maastricht convergence criteria. This is now the consensus view of the European monetary policy makers. The latter consider the unemployment problem to be totally outside the realm of their responsibility.

This story, however, is quite unsatisfactory. It fails to explain the exact dynamics of the increase in unemployment in the European Union. As mentioned earlier (see Figure 1), the increase in unemployment was very much concentrated in just a few years. It is difficult to see how labour market rigidities and taxation of labour, which have not changed much during the period, can be held responsible for the sudden surge of unemployment during the early 1990s.

FIGURE 1

Unemployment in EU, US and Japan



Source: European Commission, European Economy

A more satisfactory hypothesis is one that takes into account both demand *and* supply side phenomena (micro and macro-economic phenomena). We first formulate the hypothesis in very general terms. In the next sections we discuss it in more detail. The hypothesis can be formulated as follows. The recession of the early 1990s was mainly due to a decline in aggregate demand. This led to an increase in unemployment in all industrial countries. The difference between the EU and the Anglo-Saxon countries is that the lack of labour market flexibility in the former countries prevented the rate of unemployment from declining subsequently. Put differently, the labour market rigidities in the EU transform temporary cyclical disturbances into permanent increases in unemployment. This feature is mostly absent from the movements in the unemployment rate in the United States.

III. DEMAND POLICIES DURING THE 1990S

In this section we study the nature of the monetary and fiscal policies in the EU-11 and compare it with the US policy mix during the 1990s. (We have chosen the EU-11, i.e. the group of EU countries that is likely to start EMU on January 1, 1999, because this group has followed

demand policies very much geared towards adhering to the Maastricht-mandated convergence criteria).

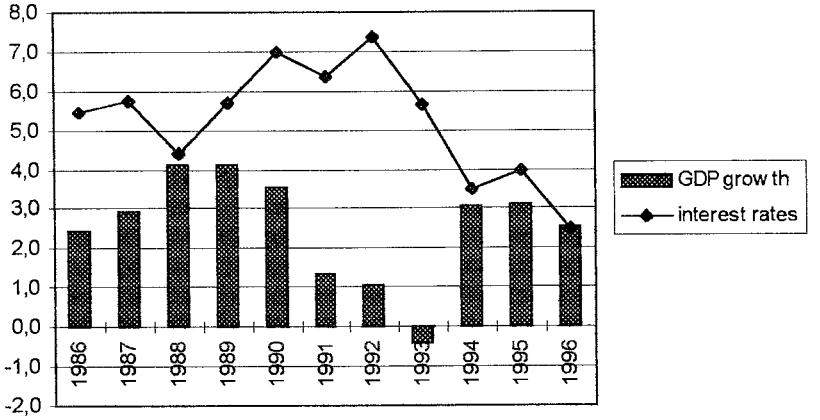
Figure 2 provides some evidence concerning the conduct of *monetary policies*. We present and compare the real short-term interest rates in the EU-11 and in the US during the first half of the 1990s. It is now generally accepted that the short-term real interest rate is the best indicator of the stance of monetary policies. We observe a great contrast between the US and the EU-11's conduct of monetary policies. During the US recession which occurred in 1990-91, the US monetary authorities were willing to let the short term real interest rate drop to 1 to 2 %. In contrast, in the EU-11 the monetary authorities maintained real interest rates well above 5 % throughout the recession.

This policy of keeping historically high short term real interest rates during a recession was very much influenced by the German position in the EMS. During the early 1990s, the German monetary authorities fought a battle against "excessive" inflation (4 % a year), while most of the other EMS-countries decided to continue to peg to the strong DM and were thereby dragged by Germany into applying a policy of strong monetary restriction in the midst of their most serious post-war recession.

Whatever the institutional reasons, one can conclude that the EU-11 followed significantly more restrictive monetary policies than the US during the first half of the 1990s. What about fiscal policies?

FIGURE 2

GDP growth rates and short term real interest rates in EU-11



GDP growth and short term real interest rates in the US

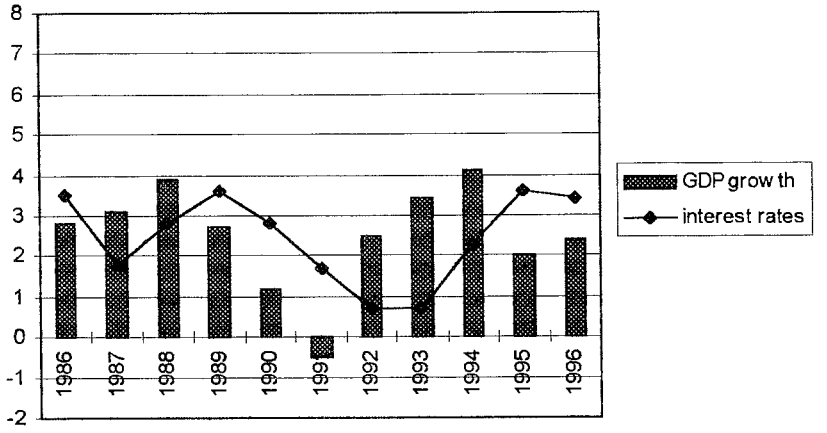
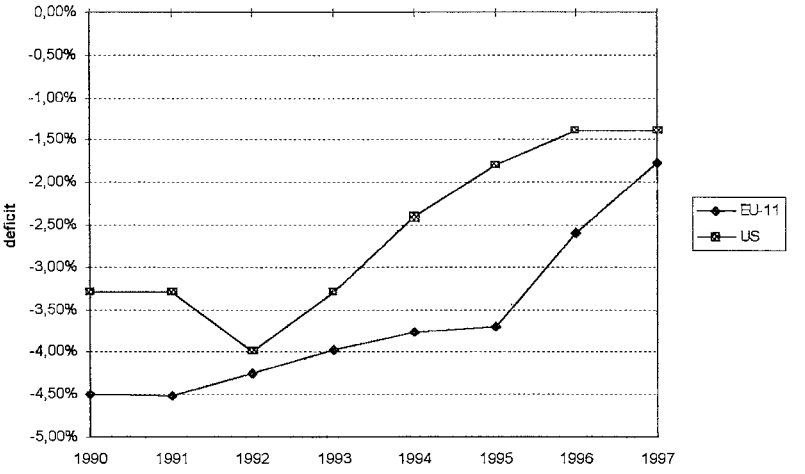


Figure 3 shows the structural budget deficits as measured by the OECD for the EU-11 and for the US. This is the deficit corrected for business cycle influences, and therefore measures the effect of discretionary policies on the government budgets. It can be considered as a good indicator of the nature of the budgetary policies. When the lines in Figure 4 increase, one can say that the authorities followed restrictive fiscal policies (by raising taxes or reducing spending).

From Figure 3 one observes that the EU-11 countries started to apply policies of fiscal restriction from 1991 on. They continued to do so throughout the 1990s and accelerated their efforts in 1996-97 at the approach of the Maastricht deadline. The US applied similar restrictive fiscal policies throughout the 1990s, despite the absence of an explicit institutional framework a la Maastricht.

FIGURE 3

Structural budget deficit (percent of GDP)



Source: OECD, Economic Outlook

Comparing the monetary and fiscal policies of the EU-11 and the US during the first half of the 1990s, we conclude that the EU-11 policy mix can be characterised by monetary *and* fiscal restriction. The US on the other hand, followed quite a different policy mix. It combined fiscal restriction with monetary ease. Thus, the difference between the EU-11 and the US was monetary policy. Both followed similarly restrictive fiscal policies. Their monetary policies, however, were very different, with the EU-11 applying monetary tightness and the US monetary ease during the first half of the 1990s. All this helps to explain why European economic growth during the 1990s dropped to about half its level of the 1980s. No such growth deceleration was

observed in the US. We conclude that the European demand policies pursued during the first half of the 1990s are responsible for a significant decline in output and are therefore also partially responsible for the increase in unemployment which was very much concentrated during the period of restrictive demand policies. In (De Grauwe (1997) more econometric evidence is provided to substantiate this conclusion). In this sense it can be said that the deflationary demand policies produced a significant number of the European unemployed. The labour market rigidities then did the rest and condemned a large part of them to remain unemployed. We analyse these labour market rigidities in more detail in the next section.

IV. EUROPEAN UNEMPLOYMENT AND THE SUPPLY SIDE

Demand side shocks alone cannot explain the persistent and increasing unemployment in Europe. We need the supply side too, and more in particular the rigidities in the labour market to understand the nature of the problem. The rigidities that matter have recently been studied in detail by Steve Nickel (1997). They are the unemployment benefit schemes, the centralised wage bargaining systems, minimum wages coupled with the high level of taxation on labour[2]. It is important to realise that these rigidities perform a social function. Most of them explicitly or implicitly aim at providing *protection of the income of those who have a job*[3]. Let us analyse some of these.

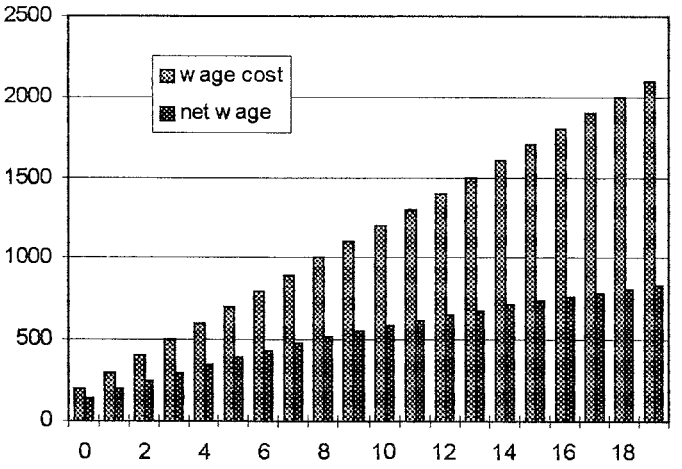
- *Minimum wages* protect the worker (the insider) against the unemployed (the outsider) who would undercut the wage of the worker. At the same time minimum wages protect the profits of the firm against the low wage competition of other firms. It is clear that opening up markets towards trade from low wage countries makes this kind of protection less effective.
- *Unemployment benefits* protect workers from too large an income loss when they become unemployed. At the same time, however, generous unemployment benefits also protect the income of the insiders against competition by the outsiders. The reason is that generous unemployment benefits lead the unemployed to reduce their efforts at finding a job. As a result, the supply of labour is reduced. This has the effect of reducing the downward pressure on wages that normally would accompany an increase in unemployment.

- *Centralised wage bargaining*, by fixing the wage structure for all workers in an industry (or even country), also reduces competition in the labour market and protects the income of those who have a job.

In combination with the high taxation of labour these income protection schemes make the European labour markets very vulnerable to shocks (e.g. a recession). We illustrate this by a stylised example of the combination of unemployment benefits and the taxation of labour.

FIGURE 4

Gross and net wage as function of income level



This will allow us to construct a curve that summarises the essence of the supply side problems in Europe.

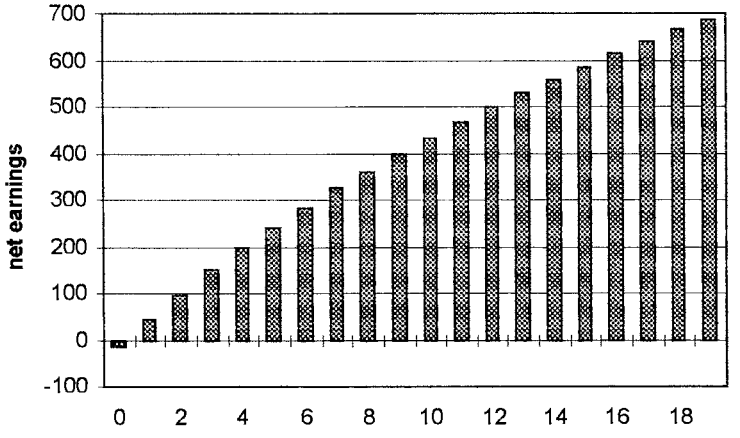
We start from the well-known phenomenon of the tax wedge, i.e. the difference between the gross and net wages which increase with the level of income. We illustrate the phenomenon in Figure 4. It represents the situation of a hypothetical European economy where the gross wage cost of the firm quickly moves to twice the net wage for the worker. We will also assume that income and skill levels are perfectly correlated.

Let us now introduce unemployment benefits (which we arbitrarily set at 150 for everybody who is unemployed). We subtract this number from the net wage of the worker. What we now obtain we call the

net earnings from working. That is, it represents the extra remuneration the worker obtains for his work effort above what he would get if he did not work. We show these numbers in Figure 5:

FIGURE 5

Net earnings from accepting a job



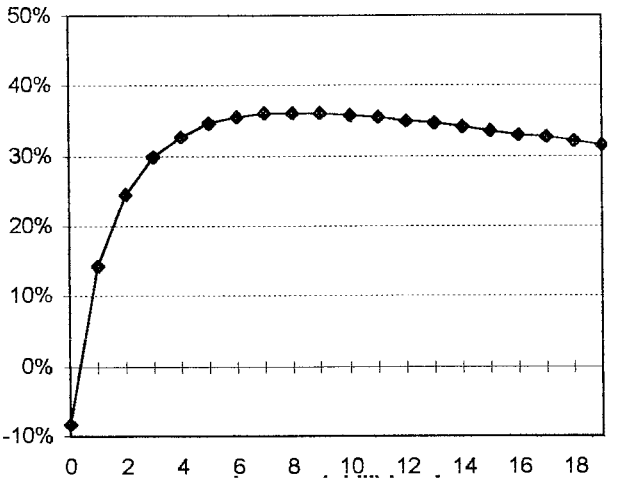
We observe the well-known phenomenon that the remuneration for work effort is extremely low for low-skilled workers. This is the result of the combination of unemployment benefits and high taxation. In Figure 5 we have represented the case, often observed in European countries, that the net remuneration from working is negative for the lowest skill. This often happens when unemployed obtain additional benefits, e.g. rent subsidies, free public transportation, etc.

The last step in the analysis consists in constructing a curve which is the net earnings from working as a percent of gross wage cost. We show this curve in Figure 6.

It has a strongly non-linear shape. Take the first skill level for which this percentage is positive (when the number is negative rational workers will simply not take a job). This is skill level 1 with a percentage of 15 %. This means that when the firm pays 100 to this worker, the latter's net earnings from his work is only 15. The latter number can be interpreted as the remuneration society gives to this worker for hisdecision to work. The firm, however pays 100 to this same worker.

FIGURE 6

Net earnings from work as % wage cost



Profit maximising firms will make sure that the productivity of this worker is at least 100. Otherwise the worker will simply not keep his job. Thus, the firm expects an effort from the worker worth at least 100. The worker receives for this effort only 15. There is thus a huge distortion between the value that the firms wants to extract from the worker and the effort (measured in money terms) that the worker will be willing to spend on the job. We can also call this distortion the difference in valuation of the same work by the firm and the worker. In this example, the worker values the job he is performing as a very small fraction of the value (the cost) the firm attaches to this work. This distortion in the valuation of the same work by workers and firms is at the core of the European unemployment problem. In Figure 6 we present this distortion graphically as a function of the income level of the worker.

Figure 6 shows that the distortion is the highest for low income (low skill) workers. As the income level increases the net earnings workers obtain from their decision to work increases relative to the wage cost for the firm. As a result, the distance between the value attached by the firm to the workers effort and the value the worker attaches to his effort narrows. The distortion declines. There is a point where the dis-

tortion increases again due to the influence of the progressivity of taxation that is present in a typical European economy.

What is the effect of this difference in valuation of the same work by the firm and the worker? Clearly, the low skilled worker has a very small incentive to supply his services in the (official) labour market. In many European countries the net earnings from work for the lowest skill worker are close to zero, so that this work tends to disappear, and to show up in the unemployment statistics[4]. There is thus no mystery in the fact that a very large fraction of European unemployed are unskilled. In this connection, much has been said about the bias in technological change against the low skilled workers. Empirical evidence in favour of this hypothesis has not been strong (see S. Nickell (1997)). A much more satisfactory explanation is the one provided here: the income protection system together with taxation has created a strong bias against the low-skilled labour.

We can now make the link with the analysis of the demand side of the previous section to explain the European phenomenon of permanent increases in unemployment with each business cycle shock.Suppose that a downturn in economic activity reduces employment uniformly for all skill levels. The workers who loose their job, had accumulated skills while working. Part of these skills is now lost. As a result, each new unemployed moves down in the skill ladder. Let us assume that each of them moves down one step in terms of our Figure 6. For most of the high- and medium skilled workers this does not change the incentive to look for a new job. At the low end, however, the downward movement radically changes these incentives. The less skilled they are, the stronger the "downward slide" into the unemployment trap that the protective system has created. They become permanently unemployed. When the economic activity picks up again, they cannot "climb up the curve" again[5].

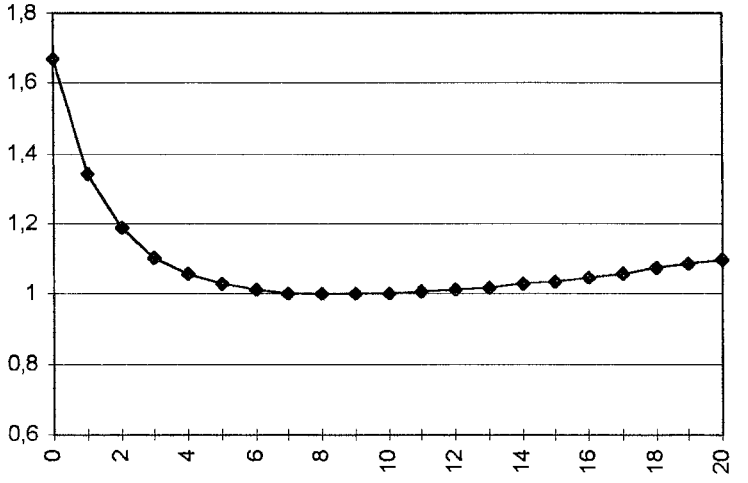
Note that we can phrase this effect also from the point of view of the firm. We can ask the question what the gross wage is the firm would have to pay in order to ensure that the worker has a financial incentive to how supply his services. In order to answer that question let us assume that the median income worker has sufficiently strong incentives to supply his labour services. In Figure 6 this is the worker in the income category labelled 9. We then compute the gross wage cost needed to match the supply incentives of the median worker. The result is given in Figure 7. We observe that this hypothetical gross wage cost is approximately 70 % above the gross wage cost the firm pays

out. (Note that Figure 7 we assume the same tax rates and unemployment benefits as in Figure 6). This gap between the hypothetical and the actual wage cost declines sharply with the skill level.

If we assume that the actual wage cost paid out by the firm reflects the productivity of the worker, we can interpret Figure 7 as follows[6]. For low levels of skill, the firm has to bear a wage cost which is significantly above labour productivity in order to make these low-skill jobs attractive to the worker. As Figure 7 suggests, for low skill workers this extra wage cost above productivity reaches 60 to 70 %. A firm that would want to attract a worker who has lost his job would have to pay a wage exceeding the (reduced) productivity of the worker so as to give him a net wage that is high enough to give him the incentive to take on this new job. Most firms will not want to do this. Thus, the worker may perceive the problem in a very different way. He observes that no firm is willing to provide him with a job that will give him a net income worth doing the extra effort. Note that in this interpretation, the unemployment benefits together with the high taxation work in the same way as minimum wages. Thus, even if there are no explicit minimum wages, the combination of generous unemployment benefits and labour taxes create de facto minimum wages[7].

FIGURE 7

Gross wage gap



Several aspects should be noted about the mechanism described in the previous sections. First, as the low skilled withdraw from the labour market, their withdrawal eliminates a potential labour market equilibrating mechanism, i.e. a downward movement on the wage level. Thus, we will observe considerable wage rigidity despite large scale unemployment[8]. The existence of considerable wage rigidity in Europe as opposed to the US has been well documented.

Second, econometric studies looking at the correlation between unemployment and protective measures (such as unemployment benefits or minimum wages), have often failed to discover much relation. This has to do with the fact that these measures are in place for a long time. As long as no shock occur, they do not affect unemployment much. When shocks occur, these measures start to "bite".

We conclude that the existence of the distortion that we illustrated in Figure 4 makes it all but inevitable that in a labour market based on free contracts low skilled labour will tend to disappear over time.

The only way the employment of unskilled labour can be made profitable again is by removing the distortion. If this is not possible, the government will have to take over that segment of the labour market. This is what is happening in Europe today. We come back to this issue in a later section.

V. HOW TO DEVISE THE RIGHT POLICIES?

The European unemployment problem can also be described as follows. Negative shocks lead workers (especially low-skilled workers) to fall into the unemployment trap. In order to get out of this trap they should be *pulled* and *pushed* out of it. The pulling must come from macro-economic policies that are sufficiently conducive to economic growth. We have argued that they were not sufficiently so during the 1990s. In the next section we analyse the prospects for more stimulatory demand policies in the future EMU. Pulling alone will however not help, if the unemployed are not pushed out of the trap. Here labour market reform together with a reduction of the taxation on labour are the appropriate responses. They will give incentives to workers to want to be employed and to firms to want to hire the unemployed. All this is well-known. There are, however, great obstacles to implement such policies which we discuss in section VI.

VI. RISK OF DEFLATIONARY DEMAND POLICIES IN THE FUTURE EMU

Is there a risk that the authorities of the future euro-area will repeat the policy errors of the 1990s and pursue too deflationary macro-economic policies in the euro-area? This is the question we analyse in this section. We first analyse monetary policies and then fiscal policies in the future EMU.

A. *The risk of monetary deflation in the future EMU*

One of the challenges confronting the ECB is to establish a reputation of an institution capable of producing low inflation. This challenge looms large over the future operations of the ECB. There is now a universal recognition in the financial markets that the establishment of such a strong reputation is the foremost priority of the future ECB. But how low will inflation have to be to give the ECB the reputation it seeks? One benchmark is probably going to be the inflation rate that the present EU-countries likely to enter EMU in 1999, have achieved. Anything higher than this benchmark may be interpreted by the market as insufficient to acquire a low inflation reputation. In table 1 we show the rates of inflation achieved in these EU-countries. We observe the remarkable phenomenon that the EU-11 have now been able to reduce their inflation rates to less than 2 % on average.

Should we rejoice about these successes in lowering inflation in the EU-11? The answer is not so sure. Two issues arise here. First, there is the issue of what the inflation objective should be. Second, there is the question of the trade-off between inflation and output stabilisation.

What should be the inflation target of the European monetary authorities? In the economic literature two arguments have been developed recently suggesting that an inflation target of less than 2 % is probably too low. First, there is a measurement problem. As was stressed by the Boskin report, our conventional measures of inflation do not sufficiently take into account quality improvements (See Advisory Commission to Study the Consumer Price Index (1996), Gordon (1996) and Shapiro and Wilcox (1996)). This leads to an upward bias estimated to be 1.1 % on average in the US. Second, the existence of money illusion leads to a situation in which *real* wage flexibility is enhanced when there is some inflation. In a dynamic world some sectors need to reduce real wages, others to increase them. When inflation is zero,

real wage reduction can only occur through nominal wage declines. This is made difficult in the presence of money illusion. Recently Akerlof et al. (1996) has estimated that an inflation rate of 1 to 2 % will take care of the required inter-sectoral real wage adjustments.

TABLE 1

Harmonised rates of inflation EU-11 (August 1997)	
Austria	1,4%
Belgium	1,8%
France	1,4%
Finland	1,0%
Germany	1,4%
Italy	2,3%
Luxembourg	1,3%
Ireland	1,6%
Netherlands	1,7%
Portugal	2,3%
Spain	2,4%
Average EU-11	1,7%

Source: European Commission, Eurostat

All this (quality bias + real wage adjustments) suggests that the inflation target the authorities should pursue is of the order of 2 to 3 % a year. Seen from this perspective, the inflation rate achieved in the EU-11 in 1997 seems to be too low. If this inflation rate will be used as a benchmark to judge the performance of the future ECB, there is a good chance that the ECB will target too low an inflation rate for some time.

The second issue that arises is the trade-off between inflation and output stabilisation. The Maastricht Treaty states that the primary objective of the ECB is to ensure price stability. The Treaty, however, also stipulates that the ECB should support the general economic objectives of the Community, provided these objectives do not endanger price stability. One of these objectives is the maintenance of high

employment. The Treaty, thus recognises a clear hierarchy in the objectives to be pursued by the ECB, in which price stability overrides the other economic objectives. Nevertheless, the Treaty does recognise the responsibility of the ECB as far as employment is concerned.

How the future ECB will be filling out this mandate is difficult to predict. Today the general "discours" of European central bankers is that the high European unemployment has nothing to do with monetary policies, and that it has everything to do with supply side problems and labour market rigidities. Our analysis of the deflationary process of the 1990s suggests that this view is wrong. We argued that the excessive monetary deflation during 1992-93 contributed to the large increase in unemployment during these two years. An increase that subsequently attained a permanent character mainly because of the rigidities in the European labour markets. Thus, the right view about the responsibilities of the European monetary authorities is that they should try to mitigate recessions so as to avoid excessive increases in unemployment, which subsequently have a tendency of becoming permanent. The right view, therefore, recognises that the European unemployment problem is the result of demand *and* supply, and therefore requires action both on the demand and the supply side. The European monetary authorities cannot just pull out of the game and leave it to other levels of government to tackle the unemployment problem, as they have done during the 1990s.

B. *The deflationary effects of the stability pact*

At first sight, things look much brighter on the fiscal front. After many years of fiscal restrictions, the EU-11 countries have successfully reduced their government budget deficits to the required 3 %. It appears now in 1997 that they will be reaping the benefits of their budgetary orthodoxy, so that they will be able to relax the budgetary tightness. In addition, the European business cycle is improving, reducing even further the need to continue applying budgetary restriction. The stability pact may, however, interfere in this optimistic prospect.

The need for a stability pact had been hotly debated by economists. One of the main points of criticism levied against this pact is that it will rob the government budget of its automatic stabilisers, thereby aggravating recessions. Against this criticism, officials have replied first that when the recession is severe enough (more than 2 % decline of GDP) the sanctions do not apply, and second, that once

the steady state of a balanced budget is reached, the 3 % ceiling on the budget deficit should provide ample leeway for the deficit to increase during a recession (see European Commission (1997), and Buti (1997)). This is undoubtedly so. One problem, however, is that during the transition towards the steady state, new recessions are likely to arise, robbing the budgets of part of their automatic stabilisers.

A more fundamental criticism against the stability pact is the following. Whereas the Maastricht Treaty had set as a norm that the government debt ratio should converge to 60 %, the stability pact has fundamentally changed this norm. Instead of 60 %, the new norm for the debt to GDP ratio under the stability pact is 0 %. This can be explained as follows. According to the stability pact, countries have to avoid exceeding the limit of 3 % for the budget deficit. In addition, the stability pact stipulates, quite sensibly, that this necessitates setting medium term budgetary targets which are "close-to-balance or in surplus", given that in a recession deficits increase automatically by several percentage points[9]. This new objective of budget balance, if taken seriously, implies that governments should stop borrowing. In other words, the government debt should remain constant. In a growing world, this implies that in the long run the debt/GDP ratio should converge to zero[10]. This requirement is quite a significant change relative to the Maastricht norm of 60 % for the debt to GDP ratio[11]. It has important implications, which we analyse now.

As long as the norm was the Maastricht 60 % debt/GDP ratio, countries that came close to it had the prospect of being able to significantly relax their budgetary tightness. For example, if the economy is growing at 5 % a year, then the deficit can be set at 3 % and at the same time the debt/GDP can be stabilised at the required level of 60 %[12]. Most countries with a high debt level had the prospect that, as they approached the 60 % norm, they would be able to increase the deficit again without endangering this norm. True, until the magic 60 % was reached, these countries would have to maintain their budget deficits *below* 3 % so as to reach the target. But once they had reached it, they would be able to return to the 3 % budget deficit, thereby creating a budgetary "dividend" that could be used, for example, to face the increasing cost of financing pensions. The prospect of being able to do this, created an expectation in many countries with a high debt level that there was light at the end of the tunnel.

The operation of the stability pact changes the nature of this dynamics. Countries will not be able to relax fiscal policies when they

come in the neighbourhood of the 60 % debt norm. They will have to continue their budgetary effort. The light in the tunnel will be a receding one.

One could argue, of course, that the stability pact will not be applied, so that one should not worry too much about it. There is indeed a good chance that it will not be put into practice, when governments realise that a literal application of its precepts will lead them on a road of continuing deflation. In addition, there is also no serious scientific argument for applying a pact that, if taken seriously, will force governments (who invest in infrastructure and other public goods) to reduce their debt ratios to zero, much in the same way as there is no serious argument to be made for firms who invest, to reduce their debt ratio to zero.

VII. HOW TO DEVISE POLICIES TO TACKLE THE LABOUR MARKET RIGIDITIES IN EUROPE

Two approaches have been followed to eliminate the unemployment trap that we analysed in section III. A first approach could be called the Anglo-Saxon one, the second will be called the continental European approach.

A. *The Anglo-Saxon approach*

This approach consists in reducing the level of income protection. We represent the effect of such a policy in Figure 8. We assume that the unemployment benefits are reduced by half. The net earnings curve can now shift upwards. Working becomes more valuable and thus more attractive *for all workers*. However, the relative improvement is the greatest for the low skilled workers. If, like in our example, the unemployment benefits are reduced by half, the net earnings from working for the lowest skilled worker are tripled. This effect is much smaller in relative terms for higher income workers. We conclude that the distortion which drives out unskilled labour from the economy is considerably reduced.

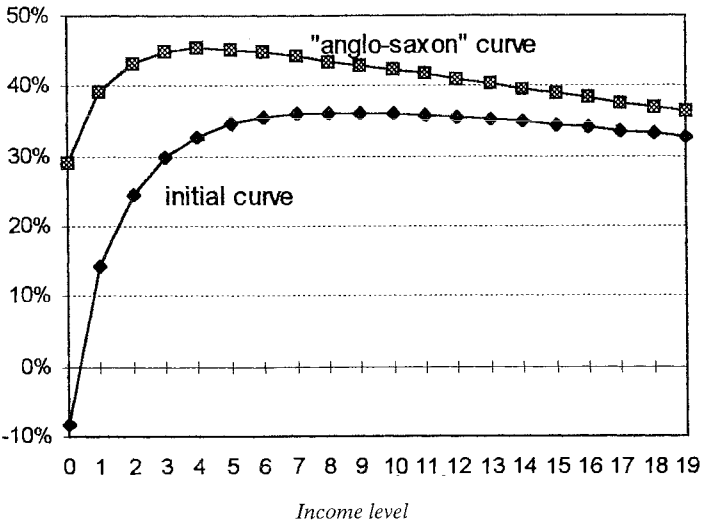
While making work more valuable for everybody, this change towards the Anglo-Saxon model reduces the degree of income protection of workers with a job. It is clear that these workers will resist such a change forcefully. As a result, on the European continent where the resistance has been the highest, governments have attempted to elim-

inate the unemployment trap by other means, i.e. without affecting the degree of income protection of workers.

B. *The continental approach*

FIGURE 8

Net earnings from works as % wage cost

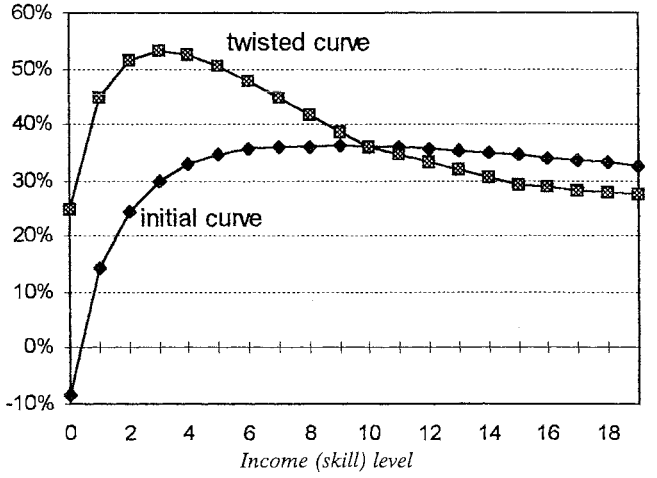


The country that stands out for attempting this approach is France. Instead of reducing the unemployment benefits, it has introduced schemes aimed at subsidising low skill workers, in two ways. One is by direct subsidies. The other is by reducing the tax burden on low-skill workers. The government budget constraint being very tight as a result of the Maastricht budgetary criteria, the government has compensated these direct and indirect subsidies by raising taxes on higher income workers. Similar policies have been applied in countries like Belgium and Italy, and to a lesser degree in Germany. The effect of these policies has been *to twist* the net earnings curve. We show this (in an idealised way) in Figure 9: We assume that at the lower end of the skill distribution all taxes are removed. This drastically increases the net wage of workers, and therefore also the value of work for them.

However, the price of this policy is double. First, the degree of progressivity of the total tax burden increases significantly. The reason is that tax rates which are now very low for low income workers must catch up to reach the "normal" rates for income levels that are not too high. Second, the total tax burden for higher income workers must increase to balance the budget.

FIGURE 9

Net earnings from works as % wage cost



What will be the effects of this twist in the net earnings curve?. Clearly, this policy should make low-skilled work more attractive both for the worker and the firm, and should stimulate the employment of unskilled workers. However, the price these countries will pay could be very high. The policy of twisting the net earnings curve pursued in countries like France, Belgium and Italy increases the level of taxation on higher skilled workers. As a result, high-skilled work is made less valuable and therefore less attractive. This shift is likely to have grave long run consequences. Most of the job creation potential for highly developed economies is located at the higher end of the skill distribution. As a result, continental European countries will increase their already significant handicap in creating high-skilled jobs. The net employment effect of the continental European solution of twisting the net earnings curve may very well be negative.

We conclude that the continental approach to solving the unemployment problem is based on an illusion, i.e. that one can solve the unemployment problem while keeping the system of income protection of workers in place. Continental European policy makers continue to entertain the fiction that there is a third way. This third way is one where workers can continue to enjoy the comfort of stable and regulated income, while the government will subsidise the outsiders into the job market. In the long run this will force continental European governments to increase their job subsidies when with each macro-economic shock, more workers fall into the unemployment trap.

VIII. CONCLUSION

From the analysis of this paper we distil three conclusions. First, there is a responsibility for macro-economic management to regulate aggregate demand. This Keynesian idea has been completely neglected in Europe (but not in the US) during the 1990s. This neglect is partly responsible for the strong build-up of the unemployment rate in Europe during the 1990s. In fact, one can argue that precisely because the European supply side is so rigid the responsibility for regulating aggregate demand is more important. One can only hope that the future EMU will make it possible to pursue less deflationary demand management policies.

Second, there exist policies to reduce the unemployment trap which the income protection schemes have spanned for the low-skilled workers in Europe. These policies, however, necessarily imply reducing the degree of income protection that workers in Europe now receive. Continental European policies now start from the proposition that the unemployment trap of the low skilled can be eliminated without affecting the degree of income protection of workers. We have stressed that this "third way" can only work if the government takes over the labour market of the low-skilled workers.

Third, if we want to eliminate the unemployment trap for the low-skilled workers while maintaining the market system in the labour markets, a lot of convincing will have to be done. The elimination of this unemployment trap is not only a technical problem of identifying which rigidities matter and how to remove them. It is indeed relatively easy to identify those rigidities that harm employment and to propose to abolish them. It should be realised that making the labour markets more flexible is a euphemism for eliminating or reducing the de-

gree of protection of workers' wages. Phrased in those terms, it becomes clear that it is an intense political problem. European workers, who today benefit from the many protective devices will certainly resist and will use their strong political power to oppose change[13]. The main political challenge, therefore, is how to convince those that have a job that it is also in their long term interest to have less protective measures. Failure to do so will inevitably put Europe on the road towards increasing unemployment for the low-skilled workers and an increasing call on the state to directly intervene in the employment process.

NOTEN

1. Note that we have indicated the period of recessions by vertical shaded areas. We have also taken the EU recessions as the reference.
2. See also the recent study of Daveri and Tabellini (1997) on the importance of taxation of labour.
3. Some labour market rigidities also arise because of measures to protect the *employment* of workers. The most important one here is the job protection legislation (e.g. restrictions on firing workers, high redundancy payments). According to the previously cited work of Steve Nickel these protective measures do not seem to affect unemployment very much, contrary to income protection measures.
4. It also, and quit inevitably, leads to a thriving "underground economy" for unskilled labour.
5. Note that this analysis also explains why unskilled newcomers in the labour market will find it very difficult to climb the ladder and to escape from the unemployment trap.
6. This is not an unreasonable assumption to make. After all, profit maximising firms will try to match tha wage cost to the productivity of the last worker employed.
7. This phenomenon may also explain why the econometric evidence between explicit minimum wages and unemployment is so weak. We ofte find that countries with low or non-existent minimum wages have high unemployment. See Card and Krueger (1995).
8. This has also been tressed in the insider-outsider models proposed by Lindbeck and Snower (1988). See also Blanchard and Summers (1986).
9. According to a recent study of the European Commission, budget deficits in the EU-countries have increased on average by 3.6 % of GDP during recessions over the period 1961-96. See European Commission (1997).
10. The rate of change of the debt to GDP ratio can be written as:
$$b_t = d_t - gb_t \qquad (1)$$
where b_t is the debt to GDP ratio in period t, d_t is the deficit as a percent of GDP in period t, and g is the nominal growth rate (assumed to be constant). The stability pact now sets a new objective for countries, i.e. that they aim for a balanced budget. This means that $d_t = 0$ in (1). As a result we obtain:
$$b_t = -gb_t \qquad (2)$$
The solution of this simple differential equation:
$$b_t = C\, e^{-gt} \qquad (3)$$
This shows that the debt to GDP ratio must go to zero as t goes to infinity.
11. One could argue that the difference between the Maastricht budgetary norms and the stability pact is not as pronounced as represented here. The Maastricht Treaty also stipulates that countries should avoid "excessive deficits" once they are in EMU. The protocol then refers to 3 % as the limit not to be exceeded. Countries failing to avoid excessive deficits could be sanctioned. By filling in the detail of these sanctions and the

exact conditions under which they will apply, the stability pact has certainly made these Treaty provisions more binding. In that sense, the stability pact represents a significant tightening.

12. This can be seen from equation (1) in the previous footnote. It the debt/GDP ratio is stabilised at the level of 60 % we find that d = 0.6 g. With a nominal growth rate (g) of 5 % the Maastricht debt target of 60 % allows countries to set their deficits at 3 % on average, and still keep this debt target unchanged.
13. See the interesting work of Saint Paul (1997) on the political economy of labour market rigidities.

REFERENCES

Advisory Commission to Study the Consumer Price Index, 1996, Toward a More Accurate Measure of the Cost of Living, Final Report to the Senate Finance Committee, December, (Washington, D.C.)

Akerlof, G., Dickens, W., and Perry, G., 1996, The Macroeconomics of Low Inflation, Brookings Papers on Economic Activity, no. 1, 1-76.

Blanchard, O., and Summers, L., 1986, Hysteresis and the European Unemployment Problem, NBER Macroeconomic Manual.

Buti, M., Franco, D., Ongena, H., 1997, Budgetary Policies during Recessions. Retroactive Applications of the 'Stability and Growth Pact' to the Post-War Period, European Commission, D.G.II, Economic Papers, 121, May.

Card, D., and Krueger, A., 1995, Myth and Measurement. The New Economics Of Minimum Wages, (Princeton University Press).

Daveri, F., and Tabellini, G., 1997, Unemployment, Growth and Taxation in Industrial Countries, CEPR discussion Paper, 1681.

European Commission (D.G.II), 1997, Economic Policy in EMU, Part B, Special Topics, Economic Papers, 125, November.

Friedman, M., 1969, The Optimum Quantity of Money, in M. Friedman, ed., The Optimum Quantity of Money and other Essays, (Aldine, Chicago).

Gordon, R., 1996, Problems in the Measurement and Performance of the Service-Sector Productivity in the US, NBER Working paper, 5519.

Hochreiter, E., 1997, Disinflation, Fiscal Positions and Seigniorage. A Comparative Analysis of the EU-countries 1970-96, (Oesterreichisches Nationalbank), mimeo, September.

Lindbeck, A., and Snower, D., 1988, The Insider-Outsider Theory of Employment and Unemployment, (MIT press, Cambridge, MA).

Nickell, S., 1997, Unemployment and Labor Market Rigidities: Europe versus North America, *Journal of Economic Perspectives* 11, 3, 55-74.

Saint-Paul, G., 1997,The Rise and Persistence of Rigidities, CEPR Discussion Paper, 1571.

Shapiro, Matthew, and David Wilcox, 1996, Mismeasurement in the Consumer Price Index: an Evaluation, NBER Working Paper, 5590.

Smets, F., 1995, Central Bank Macroeconomic Models and the Monetary Policy Transmission Mechanism, in Financial Structure and the Monetary Policy Transmission Mechanism, (BIS).