

EUROPEAN NETWORK OF ECONOMIC POLICY RESEARCH INSTITUTES

OCCASIONAL PAPER No. 1/SEPTEMBER 2003

ASYMMETRIES IN EUROPEAN LABOUR MARKETS AND MONETARY POLICY IN EUROLAND

DANIEL GROS AND CARSTEN HEFEKER

ISBN 92-9079-455-0

AVAILABLE FOR FREE DOWNLOADING FROM THE ENEPRI WEBSITE (HTTP://WWW.ENEPRI.ORG)
© COPYRIGHT 2003, DANIEL GROS AND CARSTEN HEFEKER

CONTENTS

Int	roduct	ion	1
1.	Long	g-term developments in European labour markets	
		Nominal and real-wage convergence A changing relationship between nominal and real wages Will there be changes in the wage-setting?	5
	1.2	Employment	10
		Trends in employment and unemployment rates	11
2.	How 2.1	to deal with asymmetries in European labour markets?	
	2.2	Fiscal policy and buffer funds	22
	2.3	Increasing labour market flexibility	22
		Labour market reforms so far	23
3.	Euro	pean monetary policy with asymmetric labour markets	29
		Monetary policy works asymmetrically Inflation rates differ	29
		Differences in the transmission of monetary policy	32
		What should the ECB do? Restructuring the ECB?	35
		An alternative	38
4.	Poli	cy recommendations and conclusions	43
Re.	ferenc	es	44

ASYMMETRIES IN EUROPEAN LABOUR MARKETS AND MONETARY POLICY IN EUROLAND

ENEPRI OCCASIONAL PAPER NO. 1

DANIEL GROS AND CARSTEN HEFEKER*

Introduction

Since the advent of the euro, Europe or rather the European Central Bank (ECB) has had to deal constantly with a dilemma: monetary policy has been unified, at least for the 12 member countries of the euro area, but labour markets have not. At the same time, the strictures of the Stability and Growth Pact mean that for many countries fiscal policy is no longer available as an instrument to stimulate output and employment. This renders the ECB's problem even more acute, because it increases the burden on monetary policy to get the economy going, while it is faced with countries that are clearly asymmetric in terms of their labour markets. Thus their need for or their benefits from a more expansionary monetary policy are likely to differ considerably.

The question of how to tailor monetary policy under such circumstances will become even more relevant when the euro area Economic and Monetary Union (EMU) is enlarged in a few years time. The new members will be characterised by even more asymmetries *vis-à-vis* the current members than the latter now exhibit among themselves.

The present paper addresses some of the key issues the ECB would have to address to make the best of this combination of asymmetric labour markets and a common monetary policy. Research on these issues is widely scattered because both labour market and monetary policy specialists mainly just look at their own field. Hence, one purpose of this paper is to bring together two strands of the literature.

The preliminary results suggest that the ECB may be well advised to reconsider its decision-making process. Further, since these asymmetries would pose less of a problem if labour markets were flexible and adapted more or less smoothly to changes in the economic environment, it is also important to analyse how far the attempts to liberalise European labour markets have progressed.

We therefore begin this paper with a long-term overview of the development of European labour markets in terms of wage-setting and unemployment, and the convergence among member countries. The main conclusion is that despite some convergence in wage-setting among the member countries, the outcomes of wage-setting are far from having sufficiently converged. This is particularly the case if one compares the rates of employment/unemployment and the composition of the active labour force across member states. We conclude from this first section that there must

_

^{*} Daniel Gros is the Director of Research at CEPS, Brussels. Carsten Hefeker is at HWWA, Hamburg and the University of Basel.

still be significant asymmetries in the translation of wages into employment. Thus, labour markets in Europe still work asymmetrically.

We then address the asymmetries in EMU labour markets and the modest attempts to liberalise them. In describing the differences in more detail, we draw on a larger research project of ENEPRI and the papers that have been presented at a workshop on "EMU and Asymmetries in Labour Markets". These papers, which are briefly summarised here, provide a more finely grained view on how far and to what extent European labour markets still differ. Since one way to adapt to a common monetary policy would be to have more flexible labour markets, which need not rely on active monetary policy to adjust to shocks, we ask whether recent attempts to liberalise European labour markets have been successful. Unfortunately, there is little evidence that this is the case.

We finally address the implications these asymmetries have for monetary policy. How should the ECB react to the asymmetries it faces and upon what information should it base its decisions? How should developments in individual countries be taken into account by the governing board of the ECB? Some preliminary theoretical results suggest that the ECB would be well advised to reconsider the way it aggregates national developments. Our results suggest that it should place more weight on strong asymmetries and take more account of strong deviations from the simple average than it presumably does at the moment. Therefore, we also briefly discuss type of ECB structure in which this could best be achieved. The study concludes by drawing some policy implications.

1. Long-term developments in European labour markets

1.1 Wages

In the first part of this paper, our aim is to examine the degree to which European labour markets have converged over recent years, especially at the level of employment. Since employment is, according to theory, largely driven by the costs of labour, we first document this development. Here, not only do nominal and real wages play a role, but the effective wages, including non-wage labour costs and the wage share are also important. Therefore these are documented as well.

In most cases, we adopt a long-term perspective because in our view, the period of low inflation and fixed exchange rates of the 1960s can provide valuable insights for the future under the EMU. In most cases we have also included the UK in our empirical analysis. Our results suggest that the UK is not much different from the large euro-area countries in terms of wage-setting, but that there has been some divergence more recently.

Nominal and real wage convergence

There has clearly been convergence in the evolution of nominal wages in Europe. Figure 1 shows five-year averages (to even out short-term fluctuations) in nominal wage growth for the four largest member states and the euro area average, excluding Greece (all data are taken from the AMECO-database). It is apparent that the (West) German values have consistently been the lowest throughout the entire period considered here: 1961-1999. It is also apparent that the dispersion across countries was rather low during

the 1960s (when exchange rates were fixed), but increased dramatically during the 1970s. The 1980s saw a period of slow convergence and the dispersion has actually returned during the last period to the low level of the 1960s. The divergence during the 1970s was due to the different policy choices that were made at that time in reaction to the first oil crisis. Similarly the general acceptance of price stability as an overriding goal for monetary policy has now led to convergence on low-wage inflation.

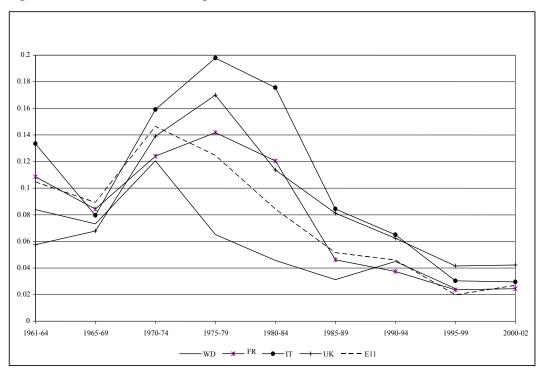


Figure 1. Growth in nominal wages

Not only is the dispersion across countries lower now, but the average wage increases are also lower than they were during the 1960s. From this simple perspective, wage developments in recent years are more compatible with price stability than in earlier periods.

Nominal wage developments are not, of course, a sufficient indicator because they must be seen in conjunction with productivity. Hence we now turn to real wage developments. Figure 2 presents real wages (nominal wages deflated by the Consumer Price Index [CPI]) over the same period and for the same countries as above. (Looking at wages deflated by the GDP deflator, Figure 3, which gives real wage costs, yields broadly similar results since, as shown below, these two price indices tend to move together over long time horizons.)

Figure 2. Growth in real compensation per employee (using the CPI deflator)

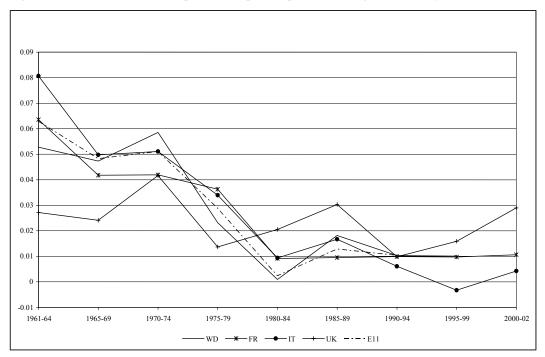
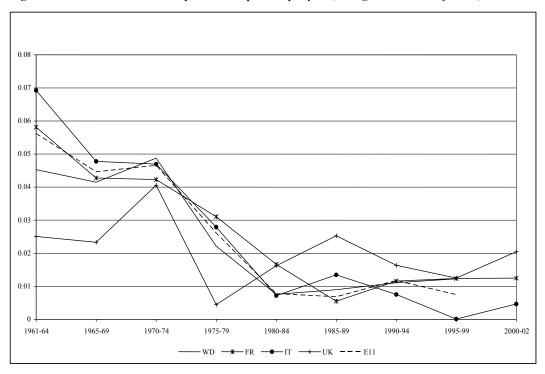


Figure 3. Growth in real compensation per employee (using the GDP deflator)

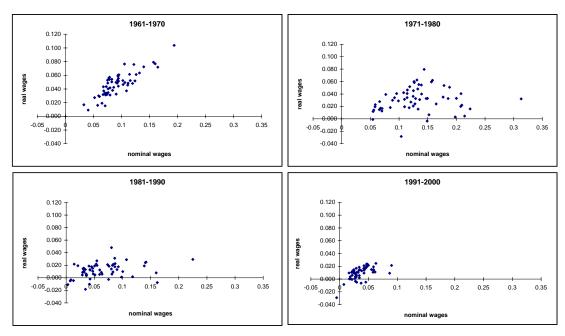


It is interesting to note that during the 1960s, there was considerable divergence. The two outliers of the early 1960s have traded places: during the period of 1961-1964, Italy had by far the highest real wage increases and the UK had the lowest. The difference was over 5% (on average during a five-year period, which means a cumulative difference of over 25%). By contrast, during the late 1990s, Italy showed the lowest real wage increase (close to zero) whereas the UK showed the highest, with about 2.5%. But not only did these two countries trade places, over time a general convergence (even neglecting the UK) has occurred. Real wages now evolve much more in line than they did during previous periods. If one discounts the Italian value for the second half of the 1990s, it appears that real wages in the EU economies are now moving very closely together. This evolution, in most simple economic models, would also imply that unemployment in the countries moves more closely together than before – whether that is indeed the case is scrutinised in the following section.

A changing relationship between nominal and real wages

In an environment of stable prices, nominal wage increases also translate into real wage increases. This is compatible with equilibrium in the labour market only if productivity grows correspondingly. It is well known that productivity growth has slowed considerably since the 1960s; one would thus expect that the relationship between nominal and real wages has changed over time. Figure 4 shows that during the 1960s, nominal wages translated almost one to one into real wages (the simple correlation coefficient is equal to 0.85), but this is no longer the case.

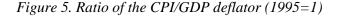
Figure 4. Patterns in the relationship between real and nominal wages

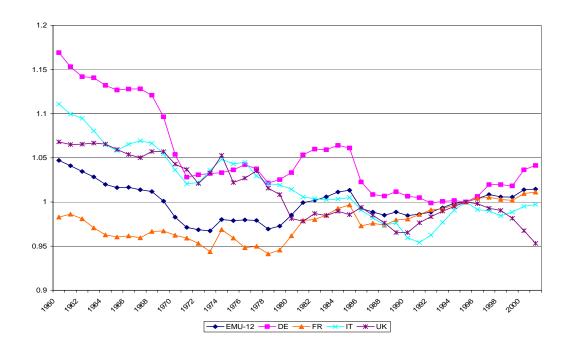


The lower average growth-rate of real wages is, of course, just a reflection of the slowdown in

During the 1970s, there seems to be no relationship between real and nominal wages (the correlation coefficient for this decade drops to 0.16). The same can be said for the 1980s, except that nominal wage growth is on average much lower (the correlation coefficient is slightly higher than that of the 1970s, at 0.33). The last decade seems to see a certain return to the patterns of the 1960s, as price stability and moderate growth allow nominal wage gains to be translated into real ones as well (the value of the correlation coefficient for the 1990s is 0.59).

Real wages are, on the other hand, the costs that firms have to pay. If one looks at wages as costs, one should deflate them with output (value-added) prices. If one looks at the living standard that wages permit, one has to deflate them with the CPI. These two points of view lead to different results only if there is a difference between the evolution of the GDP deflator and the CPI. A difference between these two indices could also become important because the ECB and labour unions (i.e. labour supply) look mainly at the CPI, whereas one would presume that labour demand is more affected by wages deflated by the GDP deflator. Figure 5 shows the ratio of the CPI/GDP deflator.



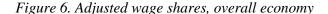


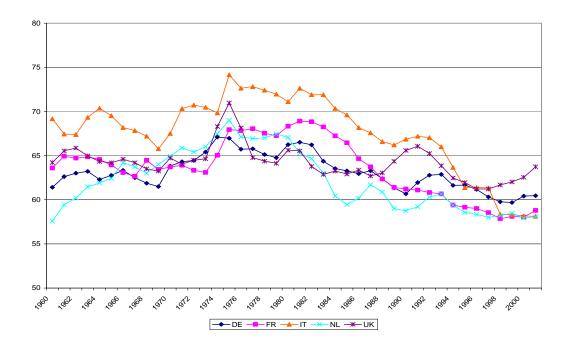
productivity observed in most industrialised countries.

Since consumption accounts for over 60% of GDP on average, one would expect the GDP deflator and the CPI to move closely together, unless the prices for investment and intermediate goods have a consistently different evolution. The data show that indeed, over the long term, these two indices tend to move together.

Since the mid-1980s, there has been little net movement in this ratio for most countries, but recently, the CPI has tended to increase somewhat more than the GDP deflator, by about 0.5% p.a. If this trend were to continue, it would imply that for an inflation rate measured by the CPI of below 1%, the GDP deflator would have to be flat or even declining (as happened in Germany during 2000). But it is not clear what one should expect in the future, because until around 1995, the movement had been in the opposite direction.

The share of wages in the GDP is another way to look at real wages. Figure 6 documents the evolution of the wage share since 1960. It is apparent that there are still considerable differences across member countries and that there has only been limited convergence; for example the UK and Italy have not converged with the other European countries. In particular, the UK diverges after around 1998.





Will there be changes in the wage-setting?

The wage share indicator also reflects, to a certain degree, the relative political strength of capital and labour. Some authors, like Blanchard and Wolfers (2000), attribute the decrease of the wage share to changing union attitudes. In a very detailed analysis of unionisation in Europe, Booth et al. (2001) observe a decline in union weight in wage-setting, which would be consistent with Blanchard and Wolfers' (2000) interpretation of the evolution of the wage share.

Conversely, de Serres, Scarpetta and de la Maisonneuve (2000) show that the decrease of the wage share up to 1998 is to a large extent due to the effects of employment composition, and that in some industries the wage share has indeed increased, especially in Germany. Hence, it is the change in the sectoral mix towards activities that are less unionised and account for lower wage shares that largely explains the wage moderation observed during the 1980s and early 1990s. If the sectoral structure has changed towards sectors where wage shares are low and/or the sectors with high wage shares have declined, they should report an overall decrease in wage shares, without necessarily lowering the wage shares within the sectors. This would then explain why employment has not increased despite the perceived decrease in wage shares.²

They also show that for a sample of European countries and the United States, the result is in fact that the downward trend in wage shares is dominated by composition effects. Looking only at the business sector and excluding government and agriculture, the decline in the raw wage share is reduced or eliminated for the US, France and Italy. For Germany, this adjusted wage share even shows an upward trend. It is only in the cases of Belgium and the Netherlands that the correction does not change the trend significantly.

The reasons for such results can be detected in the growing importance of the business, insurance and financial services sector, which is a relatively low-wage share sector owing to the high capital intensity of this sector combined with a higher than average human capital intensity. This evidence is consistent with the argument that there has been a shift in Europe towards technologies/activities that are biased against unskilled labour, and/or an increase in the supply of highly skilled labour. Germany is the only country where the level of the wage share in manufacturing was higher in 1995 than in 1975, which explains why the adjusted wage share has even increased. Because this sector has shrunk more significantly over time than elsewhere, it may be a partial explanation why the rise in that sector's wage share is less visible in the aggregate data.

The question is, of course, whether the apparent wage moderation that has been taking place until very recently could also be a sign of a fundamental shift towards wage restraint? One of the factors leading to wage moderation until 1999 could have been the restrictions imposed by the nominal convergence criteria established by the Maastricht

8

.

Another interesting explanation for this may be that labour income is increasingly being substituted by non-financial compensation (probably due to high tax rates on labour income) in the form of stock-options and payroll saving schemes that blur the distinction between wage and capital income (see de Serres et al., 2001).

Treaty in the run-up to the EMU. It could be argued that unions moderated their wage demands to avoid being seen as the culprits of a possible failure to join the EMU.

If this was the case, there are reasons to fear that wage moderation will not last now that the EMU is fully in place and the incentives built into the wage determination process change. There are reasons to expect both a higher and a lower wage-pressure as a result of the common monetary policy (see, for instance, Calmfors, 1998 and Grüner and Hefeker, 1999). Consequently the effects of the EMU on structural unemployment are controversial and depend on a whole set of parameters representing different combinations of nominal rigidity, real-wage rigidity, bargaining structure and workers' bargaining power, and the European Central Bank's objective function (see Bentolila and Saint-Paul, 2000).

So far, most of the work on this question has been purely theoretical, given that the EMU has not been in operation long enough to allow an empirical test. Horn and Persson (1988) have argued that a fixed exchange-rate (or a monetary union) makes unions aware of the fact that devaluations are no longer available as a safety valve for large wage increases. Hence, unions will have to become more moderate in their wage demands to avoid an increase in unemployment. Austria could be cited as the prime example of this argument, where the long-standing credible peg to the German mark has brought social partners to adapt their wage agreements to this constraint (Hochreiter and Winckler, 1995).

Nevertheless, others (Grüner and Hefeker, 1999, and Cukierman and Lippi, 1999) have argued that delegating monetary policy to a new agent, the ECB, can increase wage demands from labour unions and ultimately lead to higher inflation and unemployment as well. Unions may no longer perceive a direct link between their demands and the inflationary response of the central bank, because any single union (even if highly centralised at the national level) is only a negligible part of the overall monetary union. Thus, the expected inflationary response of the ECB to national wage demands is lowered, allowing higher real wages in the perception of the union. The union no longer needs to fear that high nominal wages will lead to higher inflation as well, which allows the union a better trade-off between wages, inflation and unemployment. In this situation, uncooperative behaviour on the part of the unions implies that they all try to exploit this perceived advantage, leading to overall higher wage demands, higher inflation and higher unemployment.

The logical conclusion from this would be that unions in Europe should, to a certain degree, coordinate their wage-setting to prevent such negative externalities from arising. If they were to coordinate their demands, no single union could develop false expectations or perceptions about the behaviour of the other unions. This has been compellingly demonstrated by Tanguy (2000).

He uses simulation analysis to explore how symmetric and asymmetric shocks affect real wages, productivity and unemployment in the four largest EMU member countries. Regardless of whether shocks to the European economies are symmetric or asymmetric, the coordination of unions' wage-setting will avoid the situation where negative shocks lead to unemployment as high as uncoordinated wage-setting does. The reason for this is the internalisation (through coordination) of negative spillovers.

At present, however, the prospects for such coordination among European labour unions are bleak. As Scheremet (2000) and Guichard and Laffargue (2000) find, wage-setting in Germany, Finland, Belgium and Austria is largely productivity-oriented, while this is less the case in France, Italy and the Netherlands.³ There is almost no connection (not even a negative one) in Portugal, Spain and Greece. One reason for this may be the different organisational level of labour unions among the countries. And despite the convergence in inflation rates, inflationary expectations still differ. Finally, the elasticity of wages with respect to unemployment differs significantly across these countries.

This evidence strongly suggests that it would be difficult for European labour unions to agree on a common process of wage formation. Further, it could take a considerable time before attitudes in wage-setting have sufficiently converged.

Indeed, it is not at all clear that cooperation among labour unions is really desirable, because there is a negative side to cooperation too. Borghijs (2000) has argued that the coordinated behaviour of unions increases their bargaining power with firms, which they may exploit to demand higher wages. Should this effect be stronger than the expected positive effect from coordination, attempts to unionise the labour movement could have a strongly adverse impact on employment. He argues instead that product market integration will increase the competition among labour unions and this will lead to more moderate wage-setting. The pro-employment competition effect is then neutralised through cooperation.⁴

The few years of observations available under the EMU regime do not allow any definite judgement. The data presented here (see figures above) suggest that the decline of the wage share has stopped, which also suggests that wage moderation has come to an end. Yet if one compares the euro area data to that of the UK, one has the opposite conclusion: the wage share has gone up much more in the UK, suggesting that wage demands have been more moderate in the euro area

1.2 Employment

Basic economic theory suggests that moderate wage-setting behaviour should be conducive to a higher level of employment. In the EU, this would mean a reduction in the high structural unemployment rate observed during the 1980s and 1990s and an increase in labour force participation rates, which are low compared with the US. The fact that falling unemployment rates and intense employment growth were possible in the last few years without creating excessive inflationary pressure may lead one to the conclusion that such an improvement is on its way. But a closer look at recent trends in the European labour markets and at the process of labour market reform in several EU countries casts some shadows on this optimistic expectation, as a presentation of the trends in employment and unemployment rates demonstrates.⁵

Actually, Scheremet's and Guichard and Laffargue's results differ for Italy.

Apart from the desirability of the situation, one has to recognise that the influence of labour unions has been in a deep decline in recent years (Franz and Steiner, 1999).

⁵ This section draws heavily on Gros et al. (2001).

Trends in employment and unemployment rates

If one wants to identify changes in structural unemployment, one has to look at developments over a period that comprises a full cycle or at least compare two points in time during which the economy was at a similar cyclical position. This is clearly not the case if one compares 1995 with 1999 or 2000, because in 1995 the European economy had only recovered weakly from the trough of the recession, whereas in 1999-2000, it was close to potential output. Thus it seems much more appropriate to compare the recent data (1999-2000) with data from a decade ago, i.e. 1990, when Europe was also on an upswing – on the back of the positive expectations created by the internal market programme. This is the time horizon we will adopt wherever possible.

Looking at the 1990-1999 period yields a less reassuring picture for Europe. During this period, the unemployment rate fell from 5.7% to 4.3% in the US, while in the EU it actually *increased* from 8.4% to 9.3%.⁶ The employment rate, which is the proportion of the working-age population (15 to 64 years) that is employed, improved from 61.6% to 62.6%.⁷

This comparison of the situation at the beginning of the 1990s and at the end of the same decade is the combined result of the worsening of the European labour markets during the first half of the 1990s, and the recuperation of employment in the second half of the same decade. Whether this evolution is of a cyclical nature or whether, on the contrary, the recent employment creation in some EU countries (notably France and Spain) is an indication of a structural improvement, is very much debated.

One way to shed light on this question is to analyse the labour market situation of different population groups, since there have been significant changes in the composition of labour supply and of labour demand. Table 1 reports both the unemployment and the employment rates of men and women for three different age groups (16-24, 25-54 and 55-64) in 1990 and 1999. Table 2 gives the same information regarding the four largest countries in the euro area (Germany, France, Italy and Spain), which jointly represent around 85% of the euro area's labour force.

Unemployment rates in the EU increased for almost all age groups (the only exception being women, aged 15-24). This is replicated in most of the four largest countries in the euro area as shown in Table 2. Unemployment rates increased for all groups in Germany, France and Italy, while in Spain they decreased mainly for young workers and slightly for men aged 25-54.

⁷ The range of variation of employment rates both within EU countries and within regions of certain EU countries is even higher than the difference between the EU and the US. We will disregard this variation in what follows, but it should be kept in mind that an increase in the employment rate in the EU would require either a significant reallocation of employment across the regions or a much higher geographical mobility among workers than currently exists.

⁶ During the year 2000, the unemployment rate reduced significantly in the EU. Nevertheless, it still remains slightly above the 1990 level.

Table 1. Employment and unemployment rates in the EU in the 1990s

	Unem	employment rates						Employment rates					
	1990	1990			1999			1990			1999		
	All	Men	Women	All	Men	Women	All	Men	Women	All	Men	Women	
All	8.4	6.7	10.8	9.3	8.2	10.9	61.6	74.7	48.7	62.6	72.0	53.1	
15-24	15.8	13.6	18.3	17.2	16.1	17.0	46.2	50.7	40.6	39.5	43.4	35.5	
25-54	6.8	5.3	9.2	8.1	6.9	9.2	73.4	88.8	55.6	75.5	86.3	64.7	
55-64	6.5	6.2	6.9	7.8	8.4	7.7	38.3	53.1	25.4	38.6	48.3	27.8	
	Variation unemployment rate EU, 1990-99		emplo	Variation employment rate EU, 1990-99		Differences unemployment rate US-EU, 1990			Differences unemployment rate US-EU, 1999				
All	0.9	1.5	0.1	1.0	-2.7	4.4	-2.7	-1.0	-5.2	-5.0	-4.1	-6.5	
15-24	1.4	2.5	-1.3	-6.7	-7.3	-5.1	-4.6	-2.0	-7.6	-7.3	-5.8	-7.5	
25-54	1.3	1.6	0.0	2.1	-2.5	9.1	-2.2	-0.7	-4.6	-4.9	-3.9	-5.8	
55-64	1.3	2.2	0.8	0.3	-4.8	2.4	-3.2	-2.4	-4.1	-5.1	-5.7	-5.1	

Source: OECD, Employment Outlook, 2000.

As for employment rates, the most noticeable feature is the increase of female employment in both areas: the proportion of working age women who are employed has increased by 4.4 percentage points (p.p.) in the EU. This increase is especially driven by women in the 25-54 age group, but the countries show some variations. The increase in the employment rate of women aged 25-54 is higher in Germany and Spain than in France and Italy.

Table 1 also shows a significant difference with the US. It is obvious that the US has been much more successful in creating employment in all categories than Europe. This comparison graphically illustrates the rationale behind the EU Council's pledge in Lisbon in March 2000, to regain the conditions for full employment, in which the overall employment rate should increase to 70% by 2010 (and to 60% for women).

This goal cannot be reached by merely reversing the relatively small fall in prime-aged male employment rates, because the employment rate for this group remains high, close to the US level. The large increase in the overall employment rate set as a goal in Lisbon can only be reached if the employment prospects of the groups with low employment rates are improved. Employment policies should thus focus on young and female workers and also on older workers who are close to retirement. There is general agreement that the lower employment rates of young workers and adult women with low levels of education are very much related to standard labour market practices, such as minimum wages, firing costs and collective bargaining procedures.

The aggregate differences between the US and the EU are well known. Yet there are important differences even within the EU and the eurozone. Table 2 presents the relevant data for the three large euro countries Germany, France and Italy. Panel A shows the levels of employment and unemployment and Panel B shows the variations.

Table 2. Employment and unemployment rates in the four largest euro-area countries in the 1990s

Panel A

	Germ	any					France						
	1990			1999	99			1990			1999		
	All	Men	Women	All	Men	Women	All	Men	Women	All	Men	Women	
Unemployment rates													
All	6.3	5.4	7.5	8.7	8.3	9.3	9.2	7.0	12.1	11.8	10.3	13.7	
15-24	5.6	5.3	6.0	8.5	9.1	7.7	19.1	15.3	23.9	26.6	24.2	29.7	
25-54	5.7	4.7	7.1	7.9	7.3	8.7	8.0	5.9	10.7	10.7	9.0	12.6	
55-64	11.6	9.9	15.2	13.9	12.8	15.5	6.7	6.0	7.6	8.7	8.7	8.7	
Employ	yment r	ates											
All	64.1	75.7	52.2	64.9	73.1	56.5	59.9	69.7	50.3	59.8	66.8	52.9	
15-24	56.4	58.7	54.0	46.8	50.7	42.8	29.5	33.6	25.2	20.8	24.3	17.3	
25-54	78.0	86.9	59.6	78.2	87.0	69.2	77.4	89.8	65.1	77.0	85.7	68.5	
55-64	36.8	52.0	22.4	38.5	48.0	28.9	35.6	43.0	28.8	34.2	38.9	29.6	

	Italy	taly						Spain					
	1990	1990		1999	1990			990			1999		
	All	Men	Women	All	Men	Women	All	Men	Women	All	Men	Women	
Unemp	Unemployment rates												
All	9.9	6.5	15.8	11.8	9.0	16.4	16.1	11.8	24.4	15.9	11.1	23.2	
15-24	28.9	23.4	35.4	32.9	28.6	38.3	30.1	23.2	39.7	28.5	21.7	37.3	
25-54	6.6	3.9	11.3	9.5	6.9	13.6	13.1	9.3	20.6	13.9	9.2	21.0	
55-64	1.8	1.7	2.0	4.9	4.6	5.6	8.1	8.4	7.2	9.9	9.4	11.2	
Employ	yment r	ates											
All	53.9	72.0	36.4	52.5	67.1	38.1	51.1	71.0	31.6	53.8	69.6	38.3	
15-24	33.3	38.8	27.8	25.5	30.3	20.8	38.3	47.4	28.7	33.9	41.3	26.2	
25-54	68.0	90.2	46.2	66.9	84.3	49.5	61.1	85.5	37.2	65.6	84.2	47.6	
55-64	32.0	50.9	14.7	27.5	40.8	15.0	36.8	57.2	18.1	34.9	52.4	19.1	

Source: OECD, Employment Outlook, 2000.

A closer look at the data reveals that in most respects, Germany and France are very similar in terms of the relative structure of employment rates: within the employment rates, the overall averages and the relative values for men and women are quite similar. The main difference between France and Germany concerns the youngest group (15-24 years) where the German apprenticeship system leads to a much higher employment ratio.

Panel B (Table 2 cont.)

	Variations in the unemployment rate, Germany, 1990-99			Variations in the employment rate, Germany, 1990-99			Variations in the unemployment rate, Italy, 1990-99			Variations in the employment rate, Italy, 1990-99			
	All	Men	Women	All	Men	Women	All	Men	Women	All	Men	Women	
All	2.0	2.9	1.8	0.8	-2.6	4.3	1.9	2.5	0.6	-1.4	-4.9	1.7	
15-24	3.5	3.8	1.7	-9.6	-8.0	-11.2	4.0	5.2	2.9	-7.8	-8.5	-7.0	
25-54	2.2	2.6	1.6	0.2	0.1	9.6	2.9	3.0	2.3	-1.1	-5.9	3.3	
55-64	2.3	3.1	0.3	1.7	-4.0	6.5	3.1	2.9	3.6	-4.5	-10.1	0.3	
	Variations in the unemployment rate, France, 1990-99			emplo	Variations in the employment rate, France, 1990-99			Variations in the unemployment rate, Spain, 1990-99			Variations in the employment rate, Spain, 1990-99		
All	2.6	3.3	1.6	-0.1	-2.9	2.6	-0.2	-0.7	-1.2	2.7	-1.4	6.7	
15-24	7.5	8.9	6.2	-8.7	-9.3	-7.9	-1.6	-1.5	-2.4	-4.4	-6.1	-2.5	
25-54	2.7	3.1	1.9	-0.4	-4.1	3.4	0.8	-0.1	0.4	4.5	-1.3	10.4	
55-64	0.9	2.7	1.1	-1.4	-4.1	0.8	1.8	1.0	4.0	-1.9	-4.8	1.0	

Source: OECD, Employment Outlook, 2000.

The data for Spain and Italy reveal some important differences when compared with France and Germany, but there are some similarities among them across different age classes. The two 'Latin' countries have lower overall employment ratios, which mainly result from very low employment ratios for women in the main working age bracket (25-54). This key difference seems to have diminished over the period considered, but it remains important even in recent data.

The analysis of the labour market situation by age and gender thus already yields some insights as to where to aim labour market policies. There is another aspect that is even more relevant in the discussion of the relationship between labour markets and the 'new economy'. This is the relative supply of skilled and unskilled workers, since the new economy should increase both the rate of technological progress and the bias in favour of skilled labour.⁸

Table 3 reports the composition of the population and employment rates by age, gender and educational attainments in the four largest euro-area countries (Germany, France, Italy and Spain) as of 1999. The proportion of population with university degrees is increasing fast, as new cohorts in some countries of southern Europe are entering universities at a higher rate.

Thus, there are large differences in the employment rate among the population groups considered above. Moreover, there have been large changes in the supply of different educational groups. This suggests that one should analyse the changes in the composition of employment by gender and educational attainment in some detail, as we proceed to do below in Tables 4 and 5.

This has been an extensively researched topic in labour economics. See, for instance, Bound and Johnson (1992), Katz and Murphy (1992), Nickell and Bell (1995) and Snower (1999).

Table 3. Labour supply and employment rates by age, gender and educational attainments: the four largest euro-area countries, 1999

Age/ educational	Population	weights (%)	Employme	Employment rates (%)		
attainment	Men	Women	Men	Women		
16-24	9.9	9.9	39.2	31.1		
Secondary level	4.0	4.3	44.5	37.3		
Primary level	5.9	5.6	33.4	21.1		
25-54	31.5	31.0	86.0	63.1		
Tertiary level	5.9	4.4	91.4	79.3		
Secondary level	11.7	11.0	86.9	68.6		
Primary level	13.9	15.6	80.4	44.9		
55-64	8.3	8.5	44.4	24.6		
Tertiary level	1.1	0.4	62.4	46.3		
Secondary level	2.3	1.8	42.6	29.6		
Primary level	4.9	6.3	37.5	17.9		
TOTAL	49.7	50.4	71.2	51.1		

Notes: Tertiary level of education: ISCED 5-7. Secondary level of education: ISCED 3-4. Primary level of education: ISCED 1-2

Sources: European Labour Force Survey (1999) and Current Population Survey (March Supplement, 1999).

Tables 4 and 5 break down the aggregate employment rate into two components:

- 1) Changes in the composition of the population, i.e. the result of differences in population weights, holding employment rates equal at the 1992 levels (the last row), and
- 2) Changes in group-specific employment rates, i.e. the results from differences in employment rates, holding population weights at the 1999 level (the most important elements are shown from the second to the last row).9

Because of data availability, the base year this time is 1992 instead of 1990 (however, this should not affect the conclusions).

 $e^{1999} - e^{1992} = \sum_{i} \alpha_{i}^{1999} e_{i}^{1999} - \sum_{i} \alpha_{i}^{1992} e_{i}^{1992} = \sum_{i} e_{i}^{1992} (\alpha_{i}^{1999} - \alpha_{i}^{1999}) + \sum_{i} \alpha_{i}^{1999} (e_{i}^{1999} - e_{i}^{1992}) \quad \text{where} \quad e^{t} \quad \text{is} \quad \text{the}$

employment rate at year t, α_i is the weight of group i in total population and groups are defined by age (15-24, 25-54, 55-64), gender and education (tertiary, secondary and primary).

The decomposition is given by the following expression:

Table 4. Changes in employment rates and the composition of the population in the US, UK and the euro-4, 1992-1999 (p.p.)

	UK*	Euro-4	Germany	France	Italy	Spain
Change in the employment rate	+3.4	+2.3	-1.2	+0.3	+4.0	+6.2
Variation due to the change in the employment rates of highly educated workers	0.50	-0.3	0.22	0.6	-0.14	-0.67
Variation due to the change in the employment rates of workers with secondary education	1.31	-0.2	0.32	0.1	-1.11	0.43
Variation due to the change in the employment rates of workers with primary education	-1.36	-0.9	-0.75	-3.1	-1.47	2.22
Variation due to the change in the employment rates of women with a high degree of education	0.27	-0.1	0.36	-0.3	-0.04	-0.31
Variation due to the change in the employment rates of women with secondary education	0.34	0.4	1.22	0.2	-0.31	0.29
Variation due to the change in the employment rates of women with primary education	-0.84	-0.1	-0.23	-1.2	-0.35	1.35
Variation due to the change in the composition of the population	2.97	3.8	-0.95	3.8	6.76	4.21

^{*} For the UK, the variation is over the period of 1993-1999.

Sources: European Labour Force Survey and Current Population Survey.

The first two entries in the first row of Table 4 show that over this period the overall change in the employment ratio was broadly similar in the UK and the euro-4 group. But there are considerable differences in the origins of this common development. The change in the aggregate employment rate in EU countries is mostly driven by the population composition effect. This is particularly the case for the euro-4 group, where the entry in the last row (the effect of change in the composition of population, 3.8 p.p.) is actually larger than that of the first row (the overall increase in employment, 2.3 p.p.). This implies that if the employment rates of all the groups considered here had merely stayed constant, the employment rate in the euro-4 group would have increased by 3.8 p.p., instead of the 2.3 p.p. actually observed. The actual outcome was lower because employment rates fell in some important subgroups, such as workers with less than tertiary education. The picture for the UK is a bit different, but nevertheless closer to that of the euro-4 than to the US (see Gros et al., 2001).

Table 5. Changes in employment rates and in the composition of the population in selected EU countries, 1992-99 (p.p.)

	Belgium	Netherlands	Portugal	Austria*	Sweden*	Finland*	Denmark
Change in the employment rate	+2.4	+7.7	-0.6	-0.2	-3.0	+11.3	+3.1
Variation due to the change in the employment rates of highly educated workers	0.25	1.31	-0.07	0.05	-1.46	1.05	-0.50
Variation due to the change in the employment rates of workers with secondary education	0.18	4.59	0.07	0.10	-1.74	4.05	1.42
Variation due to the change in the employment rates of workers with primary education	-0.73	2.71	0.34	-0.85	-0.40	1.37	0.01
Variation due to the change in the employment rates of women with a high degree of education	0.28	1.05	-0.06	0.00	-0.76	0.42	-0.45
Variation due to the change in the employment rates of women with secondary education	0.39	3.73	0.16	0.73	-1.18	1.71	0.29
Variation due to the change in the employment rates of women with primary education	0.39	1.40	1.55	-0.46	-0.26	0.48	-0.16
Variation due to the change in the composition of the population	2.70	-0.96	-0.95	-0.44	0.61	4.83	2.13

^{*} For Austria, Sweden and Finland, the variation is over the period of 1995-99.

Sources: European Labour Force Survey and Current Population Survey.

Summing up, overall employment in Europe increased because an increasing number of people have a higher level of education and thus work in occupations for which the barriers to employment that result from collective wage agreements, working hours and firing rules are less important.

The analysis presented so far has one encouraging implication: the effects from the changes in the composition of the population are bound to continue as a result of the continuing changes in the age composition of the population and of the continuation of the educational upgrading of the labour force. Hence, even under unchanged group-specific employment rates, the aggregate employment rate ought to increase.¹⁰

So far, we have shown that there are huge differences across the four largest countries, within each one of them (which becomes obvious if one disaggregates the national figures) and also in their relative position in comparison to the US. To obtain a

¹⁰ For estimations and projections of this, see Gros et al. (2001).

somewhat broader picture of the European labour market as a whole, however, it may be useful to look at the rates of employment/unemployment and their variation for all European countries over time.

This view also serves as a summary measure of whether European labour markets have converged in terms of employment/unemployment over the last decades. We have calculated the correlation between single countries and the EU-15 average over the 1980s and 1990s. We have done this for the levels of employment and unemployment (Figures 7 and 9) and for the changes in employment and unemployment as well (Figures 8 and 10). Finally, we have calculated the correlation for the growth of employment in Europe (Figure 11). ¹⁴ This glosses over many of the finer details that we presented in the former section, but may serve as a useful indicator of what monetary policy is likely to look at as a basis for its decision.

The evidence, at best, is unclear. There is no valid general conclusion to characterise all countries on all of the considered dimensions. Some countries have become closer to the European average and others more detached from it in comparison to the 1980s. Italy and Finland, for example, have clearly converged towards the European average (on all dimensions) whereas Greece, Ireland and the UK have moved away from the average. Except for employment levels, the correlation for Western Germany has fallen during this period, whereas for France it has increased (except in growth of employment).

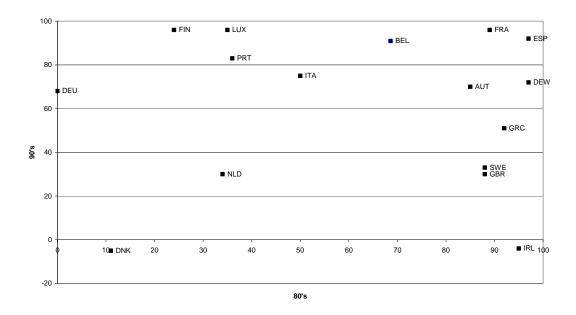


Figure 7. Correlation of unemployment rates with EU-15 average (levels)

¹⁴ Data for united Germany (DEU) are available only for the 1990s. The comparison is only possible for Western Germany (DEW).

Figure 8. Correlation of unemployment rates with EU-15 average (changes)

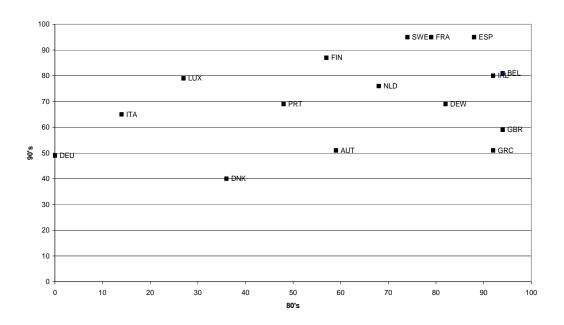


Figure 9. Correlation of employment rates with EU-15 average (levels)

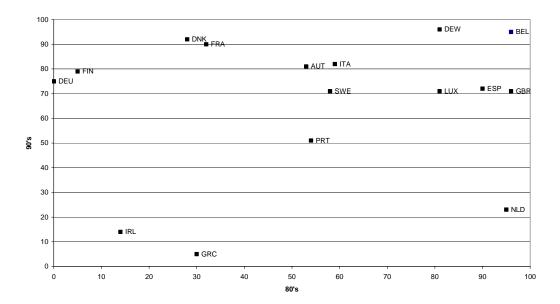


Figure 10. Correlation of employment rates with EU-15 average (changes)

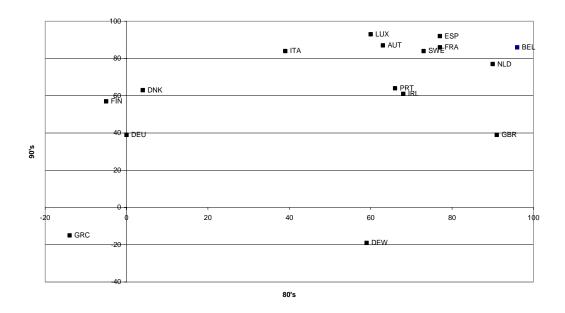
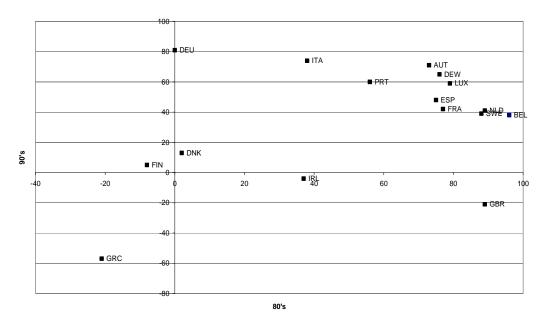


Figure 11. Correlation of employment growth with EU-15 average (persons)



As found in the evidence on wages, there is some convergence for some countries on all accounts, for some on some accounts and there are clearly countries that have moved away from the average. What this demonstrates is that for Europe as a whole, one cannot really detect a strong convergence of employment or unemployment, despite the existence of some convergence in wage-setting.

2. How to deal with asymmetries in European labour markets?

The limited convergence is not much cause for concern if one were to conclude that labour markets have been increasingly liberalised and therefore, the adjustment potential of labour markets in European countries is high enough to be able to account for asymmetric developments. If that was the case, a common monetary policy should pose no problems, despite the asymmetries.

The standard approach to this question can be found in literature on the so-called 'Optimum Currency Area' (OCA) (for surveys, see Eichengreen and Bayoumi, 1996 or Gros and Thygesen, 1998). There, countries are grouped according to the symmetry of shocks that hit them and to the potential alternative adjustment mechanism (apart from monetary policy) that they have to address these shocks. In that approach, a common monetary policy poses no problem if there are only symmetric shocks.¹¹

Quite a large amount of literature has been devoted to this subject, trying to find out how far European countries are hit by asymmetric shocks. We will not enter into that discussion here because there are already a significant number of surveys on this subject. The upshot of these studies is that there are basically two circles in Europe, an inner core of countries, comprising Germany and its immediate neighbours that form the Optimum Currency Area, and the periphery that is characterised by asymmetric shocks.

That would suggest that a common monetary policy would only be appropriate for the inner core of the EMU members. ¹² But the theory of Optimum Currency Areas builds on two dubious assumptions. The first is the assumption of inflexible labour markets with fixed nominal-wages, but flexible real-wages. Flexible nominal-wages on the one hand or inflexible real-wages on the other hand are both incompatible with that theory. ¹³ Therefore, the theory is basically irrelevant if labour markets are flexible. This in turn leads to the interesting question of what is the degree of labour market flexibility within European labour markets. The second assumption, which is the focus of the next chapter, is that monetary policy works symmetrically in member states.

The discussion above suggests that in the past labour markets have not been sufficiently flexible to ensure full employment. But that may be changing now. Before we examine the degree of liberalisation and flexibilisation of European labour markets, we briefly look at alternative adjustment mechanisms that are compatible with a common monetary policy. From the OCA theory, labour mobility and fiscal integration immediately spring to mind as such alternative mechanisms. If these are sufficiently powerful, no further problems should arise.

We will argue below that this approach neglects the important influence of the asymmetric effects of a common monetary policy.

¹² Notice that this is essentially a static theory that does not take into account that industry structure and thus the incidence of shocks could adjust to the introduction of a monetary union (Frankel and Rose, 1996).

¹³ Evidence on the degree of real-wage rigidity in European countries is presented by Layard et al. (1991) and Vinals and Jimeno (1997).

2.1 Labour mobility

Most of the literature on labour mobility has taken the US as a natural comparison, concluding that labour in the US is much more mobile than in Europe (Obstfeld and Peri, 1998). This conclusion would suggest that Europe is obviously not an Optimum Currency Area. Blanchard and Katz (1992), for instance, have shown that in reaction to regional shocks, US workers tend to move from one region to another. Using the same methodology, Decressin and Fatas (1995) have shown that in Europe, instead of migration, the participation rate varies. If regions are hit by negative shocks and unemployment increases, some people simply drop out of the labour market, which shows up as at least some adjustment in the official unemployment rates. Nahuis and Parikh (2000) support this finding and report that female participation reacts with especial strength to unemployment. Migration is not an adjustment mechanism as it does not react in any significant amount to variations in GDP or to variations in unemployment. An increase of 1% in GDP leads to a 0.005% reaction in migration; for unemployment the response is even lower (0.00095%).

The negative conclusion this implies for the prospects of the EMU has to be qualified a bit, however, if one takes into account that the labour movement response within countries is not higher than that across borders. In that sense, most countries do not themselves constitute Optimum Currency Areas either (see the survey by Gros and Hefeker, 1999).

2.2 Fiscal policy and buffer funds

The major difference between nation states and the EMU, of course, is the different degree of fiscal centralisation. Another argument put forward in the OCA theory is the need for fiscal integration if countries surrender their independent monetary policy (see Ingram, 1959 and Kenen, 1969). Given that the EU budget is so limited, it is hardly conceivable that there would be a wide-ranging redistribution across European countries. And the current situation clearly rules out any further increases in the European budget. With the enlargement to begin very soon, member states have made it clear that they are not willing to expand the current system of regional support. This could leave the member states alone to find mechanisms able to account for large, negative, exogenous shocks once monetary policy is lost.

One such innovative concept is the Finnish EMU buffer fund. Alho (2000) describes the Finnish idea of setting up an emergency fund that could be stuffed in good times and allow the country to draw upon it when negative shocks occur. He finds, however, that one problem of this fund is that it would hardly be big enough to account for big shocks. And maybe even more problematic is the involved, moral hazard problem, wherein people would be invited to trust in such a fund instead of making all possible efforts to adjust to shocks themselves. The fund would be subject to a standard time consistency problem, because the promises of any government not to use the fund, (and allow maximum private efforts to deal with shocks) would just not be credible.

2.3 Increasing labour market flexibility

Because labour mobility and fiscal redistribution in Europe are too low, labour market flexibilisation is needed. Although the OCA took the structure of labour markets as given and looked for alternative adjustment mechanisms, the dismal conclusions from

that evidence could be discarded if the markets became more flexible. Therefore, adjustment would come from within the labour markets and alternative mechanisms to adjust to shocks would no longer be necessary.

Thus, it is interesting to see how far European economies have come in liberalising labour markets. In the next section, we review some recent developments in the attempts to liberalise European labour markets. If these attempts were found to be successful to a large extent, one might be confident that the situation in labour markets would improve and that any existing asymmetries would pose no problem for monetary policy. In that case, labour markets would be able to adjust to all kinds of shocks and to every monetary policy. Unfortunately, we show that European labour markets in general are quite a distance away from being flexible enough. And there is no reason to expect that this should change in the foreseeable future, as suggested by the theoretical literature.

Labour market reforms so far

Labour market reforms have been under discussion for the last 20 years, during which time the different EU countries have undertaken extensive reforms of their labour markets. He But Bertola et al. (2000) conclude that labour market reforms have been 'marginal' and in some cases, 'contradictory', and that there are substantial differences in the approach to labour market and product market regulation across EU countries. Hence, if this assessment is true, the reductions of unemployment rates in recent years would be only a transitory phenomenon.

An important milestone in the process of labour market reform in the EU is the coordination of the employment policies agreed at the Luxembourg European Council of November 1997. Under the so-called 'Luxembourg process', countries are required to elaborate an annual National Action Plan (NAP) under guidelines that should be the basis for employment policies in the EU, according to the Council. These policies put emphasis on the 'employability', 'entrepreneurship', 'adaptability' and 'equal opportunities' of the labour force. NAPs should spell out employment and regulation policies that meet these guidelines, and submit them for evaluation by the European Commission. The grant of Cohesion Funds was recently made conditional on having received a positive evaluation.

At first sight, the approach embedded in the Luxembourg process to fight structural unemployment seems sound. But the diagnosis of the problem is inadequate, as it does not identify the still-pervasive protection of insiders in the labour market. In practice, the results so far have been disappointing. First, the only quantitative targets for employment policies refer to the proportion of unemployed, i.e. those already covered by active labour market policies (Guideline 1 regarding 'employability'), whose effectiveness in reducing unemployment is not always rigorously assessed. Secondly, the supervision of NAPs by the Commission is not effective. Thus, while some countries take the process seriously and perform a thorough analysis of their employment policies and try to find new measures to improve the functioning of the

¹⁴ This section is based on Gros et al. (2001).

labour market, others introduce only marginal reforms and keep the ineffective measures of the past. Admittedly, it may still be too early to judge a long-term process that is being updated from time to time. In particular, the introduction of the quantitative targets for employment rates agreed by the European Council (in Lisbon, 2000 and in Stockholm, 2001) may introduce some peer pressure on those countries that have less employment-friendly policies. The problem with this approach, however, is that there will be a considerable time lag between the enactment of reforms and the payoff in terms of higher employment. Governments are thus constantly tempted to adopt the measures that promise the quickest results, even if these are only transitory. Instead of a full-fledged analysis, we look below at the development of 'atypical' labour contracts that allow more flexibility than standard contracts.

There seems to have been a permanent change in the labour market over the last decade, derived from the liberalisation of atypical employment contracts, such as part-time contracts in the Netherlands and fixed-term employment contracts (first in Spain and more recently in France and Italy). Among the myriad of labour market reforms introduced in EU countries over the last two decades, the most consistent line of reform is the liberalisation of atypical employment contracts in an attempt to reduce Employment Protection Legislation (EPL) for new entrants in the labour market.

The impact of this partial liberalisation can be seen in the numbers. Since 1985, for instance, the proportion of employees under temporary contracts increased in almost all EU countries, with the exception of Greece (see Table 6).

There are wide differences in the importance of temporary contracts just among the euro-4, ranging from close to a third in Spain to less than 10% in Italy. But the overall trend is unmistakable: temporary contracts are no longer just a marginal phenomenon. Their growth has actually accounted for a large part of all employment creation. Figure 12 reports the decomposition of employment growth by contract duration (permanent or temporary) in the EU over the 1990-1998 period, showing that the rate of growth of temporary employment in recent years was almost nine times that of the rate of growth of permanent employment, with temporary contracts providing one-half of all employment creation. During the recession of the early 1990s, temporary contracts actually continued to grow, whereas permanent employment declined.

But should one expect a lasting reduction in unemployment from more temporary contracts? Recent theoretical work suggests that in principle, a dualisation of the labour market produced by this type of measure has ambiguous effects on unemployment (see Dolado et al., 2001, and Blanchard and Landier, 2001), as temporary employment increases both the flows from unemployment to employment and the flows from employment to unemployment.

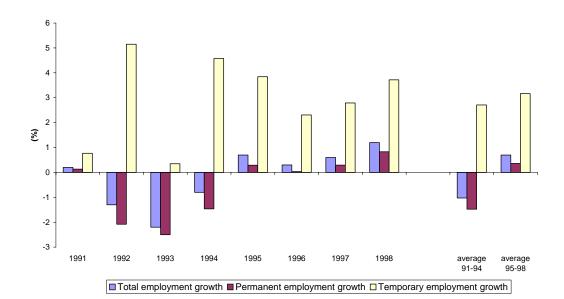
¹⁵ To this one could add the special tax breaks and subsidies to social security contributions that have been introduced in some countries as a measure to promote employment among some targeted disadvantaged groups in the labour market.

Table 6. Temporary employment in selected EU countries

	% T	empora	ry emplo	yees	Variation
	1985	1990	1996	1998	1985-98
Spain	15.6	29.8	33.6	32.9	17.3
Men	14.4	27.8	31.9	32.1	17.7
Women	18.4	34.2	36.7	34.4	16.0
Finland	10.5	11.5	17.3	17.7	7.2
Men	9.6		14.1	13.3	3.7
Women	11.3		20.5	21.9	10.6
Portugal	14.4	18.3	10.6	17.3	2.9
Men	13.5	16.8	10.2	16.2	2.7
Women	15.9	20.5	11.1	18.6	2.7
France	4.7	10.5	12.6	13.9	9.2
Men	4.8	9.4	11.5	13.0	8.2
Women	4.6	12.0	13.9	15.0	10.4
Greece	21.1	16.5	11.0	13.0	-8.0
Men	21.8	16.9	10.5	12.0	-9.8
Women	19.6	15.0	11.9	14.7	-4.9
Germany	10.0	10.5	11.1	12.3	2.3
Men	9.2	9.8	11.0	12.1	2.9
Women	11.1	11.6	11.2	12.5	1.4
Netherlands	7.5	7.6	12.0	12.7	5.2
Men	5.9	6.1	9.1	10.2	4.3
Women	10.8	10.2	15.9	16.1	5.3
Italy	4.8	5.2	7.5	8.6	3.8
Men	3.6	3.9	6.6	7.5	3.9
Women	7.0	7.6	8.9	10.3	3.3
UK	7.0	5.2	7.1	7.1	0.1
Men	5.7	3.7	6.0	6.0	0.3
Women	8.8	7.0	8.2	8.3	-0.5

Source: European Commission (2000).

Figure 12. Employment growth in the EU by type of employment contract



The effects of temporary employment on labour productivity are also controversial: on the one hand, temporary jobs may be 'stepping stones' into the labour market that enhance the professional careers of some workers (see Booth et al., 2001); on the other hand, as the employment spell shortens, there are less incentives for investment in firm-specific human capital, on both the side of employers and the side of the workers. As for wages, workers under temporary contracts earn about 10% less than workers of similar characteristics under permanent employment contracts. Temporary employment may also create a buffer leading to higher wage pressure by workers under permanent contracts, insofar as the insiders in wage-setting are permanent employees (see Bentolila and Dolado, 1994, for evidence on Spain, and Blanchard and Landier, 2001, for evidence on France).

In addition, such temporary contracts create a division in the labour markets. Labour markets not only feature a division between insiders and outsiders (i.e. those who have a job and those who do not have one) but also reveal an additional division among regular and temporary employees. From political and economic perspectives, such divisions may lead to political and social conflicts (see Saint-Paul, 2001).

As for the recent trend towards the reduction in labour taxation, by means of income tax reform or by overall or targeted reductions in social security contributions, there are also doubts about the implications for structural unemployment. Theoretically, in a standard wage-bargaining model, labour taxation only affects real-wages in the long term, so that the reduction of non-wage labour costs translates into higher wages. Nevertheless, if minimum wages are binding, the reduction in labour taxation may enhance long-term employment and thus generate a decrease in structural unemployment. Empirical evidence on this matter is not totally conclusive. On the one hand, Nickell and Layard (1999), using panel data for OECD countries, find short-term effects of labour taxation on unemployment but only minor effects in the long term, while long-term GDP growth does not seem to be affected at all. By contrast, Daveri and Tabellini (2000), using a longer time series, find that the average increase of 14 p.p. in labour taxation in EU countries over the 1965-1995 period explains a rise of the unemployment rate by 4 p.p. and a reduction of GDP growth by 0.4 p.p. per annum.

All in all, this suggests that the improvement in European labour markets that has taken place over the last few years has been largely cyclical in nature. If one takes a longer time horizon (e.g. comparing 1990 to 1999), little fundamental improvement is apparent. The small improvement that one can observe over this longer period seems to be driven essentially by changes in the structure of the European economy, in the sense that the sectors for which one would expect labour market regulations to be the most binding and where collective wage agreements are the most relevant, e.g. industry, are in a secular decline. This seems to lead to wage moderation, which is more apparent than real in the sense that in many sectors the wage-share actually increases.

The same general trend has also led to an increase in employment rates as the level of education has increased and people with more education typically have higher employment rates. Most employment legislation is designed to protect the typical factory worker, not a professional with a university degree. As the importance of the latter is increasing all the time, labour market liberalisation is thus occurring by stealth. This process is slow; furthermore, additional improvements will be limited, as it is not possible for the entire population to acquire a university degree or to work outside

factories. Liberalising atypical contracts might have also had an effect at the margin, but a dual labour market is unlikely to deliver superior results in the long term.

The few attempts at structural reform that have been made have often been simultaneously accompanied by compensations for some groups in the economy. For instance, Bertola and Boeri (2001) report that reforms which reduce the generosity of social welfare payments are often bundled together with compensation for some groups, and that some measures that are introduced in one year are taken back the next year. This only increases the institutional complexity of social welfare in Europe.

The fact that there has been little structural reform does matter. It not only hampers the return to full employment, but there is also little dispute now that excessive regulation – whether on goods or labour markets – hampers growth. The stark difference between the US and the EU as documented in the previous sections of this paper suggests, however, a slightly different question: can excessive regulation also be seen as the reason why most EU countries have not experienced the acceleration of productivity growth that has taken place in the US? One should expect that the administrative barriers to change would become even more important as the speed of technological change increases. This is indeed what seems to have happened. Figure 13 shows the relationship between administrative regulation and the acceleration of growth during the 1990s (compared with the 1980s). There is a clear negative association between the index of administrative burden used here and the acceleration in growth.¹⁶

The reason for the relationship between the restrictiveness of the administrative burden and the acceleration of growth is clear: at a time of rapid technological change it becomes even more important for enterprises to be free to reorganise themselves for the introduction of productivity-enhancing innovation.

27

-

¹⁶ The UK seems to represent a special case, with a combination of the lowest administrative burden and the largest deceleration. The explanation may simply be that the UK introduced its reforms much earlier, so that the productivity boom came earlier and the deceleration during the second half of the 1990s merely represented a return to normality.

1.0 0.0 -0.5 -1.5 Q1-1993 Q3-1995 Q1-1996 Q1-1997 Q1-2000 Q3-1993 1994 Q1-1994 03-1 03-1 ģ 9 03-1 03-1 င် -Wage inflation (manufacturing sector) U n e m p lo y m e n t

Figure 13. EU average unemployment rate and wage inflation (annual changes) in the EU-11, 1992-2000

Note: AR is a summary indicator of administrative regulation (see Nicoletti et al., 1999).

Will incentives to liberalise European labour markets increase?

So far, the evidence shows that there has not been much liberalisation that could affect the structural problems in European labour markets. Nevertheless, this need not be the case in the future. Once agents realise that the adjustment-valve monetary policy is lost for good at the national level, they may accordingly change their behaviour towards more flexibility. As shown, this has not happened so far, but what should be anticipated in the coming years?

Unfortunately, theoretical work suggests that much more reform will not be forthcoming. Calmfors (1998) and Sibert and Sutherland (2000) have argued that the incentives to deregulate may even be lowered with the advent of a monetary union. If governments could either use monetary policy or a deregulation of the labour market as instruments to fight unemployment (at least temporarily) they would optimally choose some combination of both if they are adverse to both inflation and, for political reasons, to deregulation. With the introduction of the common currency and the transfer of monetary responsibility to the ECB, it is clear that national unemployment will not provoke an inflationary response as strong as it would do in the national case alone. In other words, the introduction of the euro will automatically lower the connection between national unemployment and inflation. A deregulation-adverse government could thus reduce structural reforms without having to fear an increase in inflation. If

this has a chance of winning votes, governments are thus tempted to actually roll back reforms under a monetary union.¹⁷

A similar result is derived by Hughes-Hallett and Viegi (2000), who analyse an asymmetric monetary union in the sense that there are some countries with flexible labour markets and some with more tightly regulated ones. In the monetary union, more adjustment pressure is put on the flexible countries than on the other ones, because it is easier for them to adjust. This pressure, of course, makes a monetary union less attractive for those with liberal labour markets. These results may be one explanation as to why the UK has decided to stay out of the union. In any case, the logic of this argument suggests that there are fewer incentives to liberalise once a country is a member of the monetary union.

This logic also has implications for the enlargement of the EMU. If one assumes that the inflationary pressures in the candidate countries are higher than in the current member states, because of a higher employment aim or because of fiscal problems, this should induce them to be relatively aggressive in terms of deregulation, in order to take some inflationary pressure off their central banks. Those countries with lower distortions also have fewer incentives to deregulate their labour markets. Upon enlargement, however, this situation will change. The new central bank (at least for the new members) will take labour market problems less into account, so that the danger of an inflationary response is lowered. Consequently, the incentives to deregulate fall. But this is different for those countries where such distortions and inflationary pressures have been low. They will be confronted with a monetary policy that reacts, even if only a little, to the higher distortions in the new members. This implies a higher danger of inflation. To counter this, they have an incentive to deregulate their labour markets in order to neutralise the higher inflationary pressure (Hefeker, 2002a).

Thus, the conclusion is that the older members will actually be induced to deregulate their labour markets more upon the arrival of the larger monetary union than they did before. Nevertheless, for the candidate countries, the prospects are not so beneficial.

3. European monetary policy with asymmetric labour markets

Monetary policy works asymmetrically

One aspect that the Optimum Currency Area theory has overlooked is that even if shocks are symmetric, monetary union need not be unproblematic. The reason is that the response of national economies to monetary policy may differ, given that labour markets are differently structured and that they adjust differently to changes in monetary policy. For instance, wage indexation in a country implies that increases in the rate of inflation have a different effect on real wages than if a country has nominal fixed-wages

Analysing the incentives for labour unions, Hefeker (2001) shows that their incentive to allow reforms is not affected by a change in the monetary regime. This conclusion would thus be more optimistic than that which focuses on government behaviour.

This truth is underlined by their desire to join the EMU. Once inside the EMU, however, this incentive will be reduced (see Beetsma and Jensen, 2002).

that are not indexed. Accordingly, even if both countries are subject to the same shock, the need for and the ability of monetary policy will be different. In other words, a common monetary policy can work asymmetrically even if it responds to the same event.

The presumption and general result that even symmetric shocks can have asymmetric effects is supported by the findings of Barrell and Dury (2000). They are able to clearly distinguish a core group of countries (Austria, Germany, Belgium, Finland and the Netherlands) that show a faster adjustment in labour markets to the steady state than the other group (France, Spain, Portugal and Italy). Thus, even if the member countries are hit by the same external shock, say an oil-price increase, some of them need a more active monetary policy than others. This again documents that asymmetric shocks are not necessarily the main problem of the EMU, in as much as the asymmetric responses in the labour markets

Barrell and Dury (2000) also show that inflation expectations are formed quite differently among the core and the periphery countries. Although the former group (the old DM bloc plus Finland) shows no inflationary expectations, this is different in the so-called 'Club Med' countries. This difference leads to another problem of monetary policy, wherein the common monetary policy will work differently in the two groups, because they react differently to changes in the monetary environment. Pentecost and Sessions (2000) support this idea by presenting evidence that the sacrifice ratio is different among EMU members.

Another important aspect is the evidence presented by Mayes and Viren (2000). Testing Phillips-curves and Okun-curves for European countries, they show that monetary policy does not work symmetrically. For instance, a negative output gap puts little downward pressure on the rate of inflation, while a positive output gap has a significant impact on inflation.¹⁹ A symmetric monetary policy is thus likely to have a tendency to be overly inflationary. This tendency, like the asymmetric transmission presented above, would be an argument for the ECB to pursue a careful and less active monetary policy.

Inflation rates differ

The final nail in the coffin for the assumption that the EMU is a homogenous area is provided by the evidence that even a common monetary policy has not been able to produce a common rate of inflation, as Figure 14 shows. The figure plots inflation rates versus the rate of unemployment because these two are usually assumed to be the focus of the central bank.

The Okun-curves are also asymmetric in that unemployment takes more time to fall than it takes to rise.

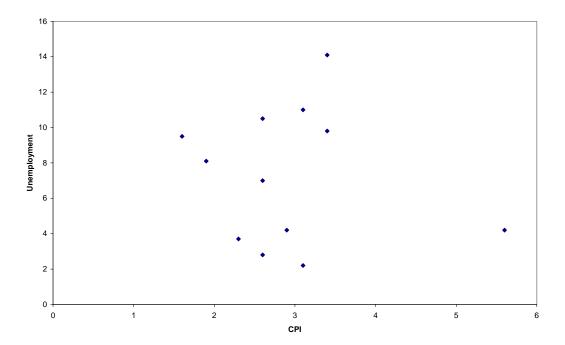


Figure 14. CPI-Inflation and unemployment for the EU-12 (2000).

Although it is clear that unemployment rates vary, it may be a bit more mysterious how a common monetary policy can lead to different outcomes in terms of price increases. Given the main theme of this paper, it is not surprising that asymmetries in the economies, and in particular in the labour markets, are again behind this evidence.

One reason why the composite rate of inflation among countries may differ is the so-called 'Balassa-Samuelson' effect. It is based on the difference between price increases in the tradables and non-tradables sectors in an economy. If productivity in the tradables sector is increasing faster than in the non-tradables sector, which is typically the case in fast-growing economies because the non-tradables sector often comprises labour-intensive activities, prices in the tradables sector will be lower. In addition, higher productivity implies higher wages. If these higher wages, because of competition for labour, spill over into the non-tradables sector, production costs and prices there will increase faster than in the tradables sector. The strength of this effect obviously depends on the degree of competition in the labour market.

The problem will be less severe if labour markets are decentralised and wages can differ, depending on whether they are paid in the tradables or non-tradables sector. If labour unions are very powerful, however, it is likely that the degree of wage convergence between the two sectors is higher than competition would allow.

But differences in the rate of inflation among countries can also be because of different growth processes, which lead to different relative prices in the economies. The prices of tradable goods are more or less tied together because of international competition, but prices in the non-tradables sectors can diverge. Similar effects on relative prices in

member states can follow from different degrees of regulation or different degrees of competition in the non-tradables sector. Unofficial trade barriers and regulation may also drive the prices for tradable goods apart from those in other member states. Thus, not only does the degree of labour market competition and regulation play a role but competition and regulation also play a role more generally.

This non-exhaustive list of reasons of why inflation rates differ – even with the same monetary policy – poses another challenge to the design and implementation of monetary policy in Euroland, because these also imply that the monetary policy will have quite a different impact on employment and output in the different member states. Again, the importance of such differences is likely to increase the moment at which the EMU is enlarged. Given the different structures that remain in the candidate economies, the common monetary area will become an even less homogeneous area than it is today.

Differences in the transmission of monetary policy

How important are differences in the transmission mechanism? The literature on this point is difficult to interpret. Some maintain that the differences in the transmission mechanism are so large that these will make the operation of the EMU difficult (Cecchetti, 1999). Others argue that these differences are due to differences in financial structures, which will diminish over time as countries share a common monetary policy (Dornbusch, Favero and Giavazzi, 1998). Most empirical studies concur, however, that at present there are still large differences in the transmission mechanism, although they are difficult to estimate precisely (see e.g. Borio, 1995, Gerlach and Smets, 1995, Eijffinger and de Haan, 2000, and Toolsema, Sturm and de Haan, 2001).²⁰

Table 7. Transmission of monetary policy

Country	Impact on output of a 1% increase in interest rates (absolute changes)
EMU members	
Belgium	0.72
France	1.30
Germany	1.21
Ireland	0.76
Italy	0.64
Portugal	0.39
Spain	0.46
EMU non-members	
Denmark	0.48
Sweden	0.56
United Kingdom	0.53

Source: Cecchetti, 1999.

20

See, however, Clausen and Hayo (2002) who argue that transmission might be relatively similar among the large members. In addition, they do not find a statistical break since the introduction of the EMU.

Table 7 reports the estimates from Cecchetti (1999), which suggest that the differences in the output multiplier are considerable. The highest coefficient is over three times larger than the lowest. There is thus some evidence that differences in the transmission mechanisms are large. These findings are compounded by Mayes and Viren (2000), who show that transmission is also different across sectors in a given country.

Bringing this together with the remaining large divergence in European rates of unemployment, the following Figure 15 shows a severe problem for the ECB.

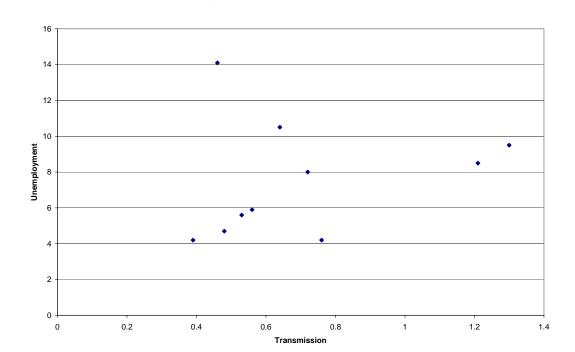


Figure 15. Unemployment and transmission

What should the ECB do?

How should the ECB react to the significant differences in unemployment and in inflation? Should it react at all to these divergences? The standard answer is no, since the ECB is held responsible only for the average performance of the entire eurozone. Nevertheless, as the performance in some countries starts to diverge considerably from the average, this answer is not satisfactory. It is not satisfactory because it does not take into account that the EU was created to serve the interests of its member states, which remain the basic political units in Europe. This distinguishes the euro area from nation states, even very federally organised ones, in which the main political unit coincides with the monetary union. Countries whose performance diverges a lot from the average are not served appropriately by a 'one-size-fits-all' policy if the welfare loss is a quadratic function of the output gap and inflation. The average welfare loss of member states increases as the standard deviations of output and inflation increase.

But in a monetary union it is impossible to have a nationally differentiated monetary policy. One is tempted to conclude that although the ECB may be moan national divergences within the euro area, there is nothing it could or should do about them. This conclusion is, however, rash if one admits that monetary policy involves (at least in the short term), a trade off between inflation and output. Referring to the current problems, the question arises as to whether the inflation rate of, for example, Ireland, should be considered just one element in the calculation of the average area-wide inflation rate or whether one should consider the high welfare losses it causes in Ireland separately. The situation in that particular country would presumably affect decisions taken by the ECB much more under the latter approach.

What should the ECB do? Should it base its decisions on the area-wide averages of inflation and growth or should it attempt to minimise the (weighted) average of national welfare losses resulting from national inflation and growth rates? In our previous research (Gros and Hefeker, 2002), we provided a first step towards an answer by showing the extent to which these two choices would lead to different policies, even in a world where the preferences regarding inflation and unemployment are identical, but where there are differences in the monetary transition mechanism. We developed a simple model, based on the standard Barro-Gordon model for monetary policy in which the monetary authority aims to minimise unemployment and inflation. To this, standard model we added the possibility that the transmission of monetary policy differs among member countries.

In order to focus on the issue, we considered the ECB as a homogeneous body where all members of the governing body have the same objective. This is in contrast to recent work that focussed on the impact that nationally oriented policy-makers within the ECB board have on the common monetary policy in the euro area (Aksoy, de Grauwe and Dewachter, 2002; Berger and de Haan, 2002). Nevertheless, we considered two different objective functions: namely the minimisation of a simple euro-area wide objective function and the minimisation of a weighted sum of national welfare losses (see also de Grauwe, 2000). It turns out that the transmission mechanism of monetary policy plays an important role in the difference between the two possible ways of aggregating member states' preferences over monetary policy. Thus, the kind of decision-making mechanism in which monetary policy in the ECB is based makes a fundamental difference for the member countries.

Notice that a policy directed at national developments and taking transmission differences into account would be a less active policy than one oriented at average values. Because the variance of the transmission is taken into account as well, and not only the average value, the policy would be less active. Therefore, monetary policy should be less active in a monetary union where transmission is asymmetric.²¹ The reason is that, if the ECB adopted a European-wide perspective only, by considering average values of unemployment in all members' countries (even if this is a weighted

There is, however, an inflation-increasing effect stemming from a stronger time-consistency problem. This is the case if there is a positive correlation across countries between the transmission mechanism of monetary policy and output gaps. See Gros and Hefeker (2002) for details.

average), it would imply that those countries whose transmission of monetary policy is far away from the average would suffer. If monetary policy in these areas is much more effective than on average, even a little bit of expansive monetary policy would have strong effects, implying that they experience a higher volatility of inflation and employment. Countries that have a monetary policy that is much less effective than average would have the same problem, because for them the monetary policy would be too inactive. These countries would benefit more if monetary policy would not only be looking at the average rates of unemployment but take the welfare losses of the country more into account. If, as can be assumed, countries welfare losses are more than proportionally higher if they are further away from full employment (they have convex loss functions), these outliers are not adequately treated by simply averaging the values of employment for Europe and addressing these averages with monetary policy. Thus, monetary policy would be less active than in the alternative scenario.

The normative implication is that in this case, the outliers should be given more weight in the considerations of the ECB. In other words, the ECB should base its policy on the weighted sum of the welfare losses that member countries experience, instead of formulating a European-wide objective function for monetary policy. This would take better care of the concerns of the outliers than simply averaging. (Of course, the outliers would be weighted according to their relative importance in terms of population or GDP.) This mechanism would adequately take into account that countries which exhibit a widely divergent transmission of monetary policy could not be well served with a 'one-size-fits-all' monetary policy, based on the average transmission. The upshot of the analysis is that such an alternative mechanism could increase the average (expected) welfare of all member countries in Euroland.

Restructuring the ECB?

This positive result and its normative implication being stated, the interesting question it poses (where more research is certainly needed), is how this should be done. Could one think of institutional structures for the ECB that would make it more likely for the ECB to follow the approach suggested by our analysis?

At the moment, the ECB board consists of executive members (six) and national representatives (which are currently 12 governors). All are required by the statutes of the ECB to act with a truly European perspective, but the general impression is that only the six Executive Board members have such a perspective. The majority of the other 12 members are expected to follow national interests or at least take them into account when forming their opinions. (Meade and Sheets, 2002, seem to be the only ones who actually provide some evidence for this widely held view).

Therefore, especially with a view towards enlargement, it has been argued that the ECB's decision-making body must be reformed. The prospect of there being not 12 but maybe 25 member countries, and thus a Governing Council with over 30 members, is considered as unworkable (see Berger, 2002). A group of more than 30 will have difficulties in reaching decisions in the extremely short time spans required by fast-

moving global financial markets.²² Simple efficiency considerations suggest that a different governing structure should be found for the ECB.

Consider the present situation of 18 members, comprised of six board members and 12 national governors. Assume that the president proposes an interest-rate change that is then voted upon. This requires that there are nine members in favour of this decision (the president having two votes in case of a tie). If one assumes that all the members of the Executive Board have the same position, they need to find only three national representatives who share their opinion, i.e. only 25% of the governors to reach a decision. This situation will change dramatically with enlargement. If the EMU is enlarged by only five members, the board must find six governors to share their view to reach a decision (35.3% of the total); with 12 new members they will need the support of nine governors (37.5%); and if 15 countries join the EMU (thus including the current opt-outs) the Executive Board needs 11 governors (40.7%) on its side (see Baldwin et al., 2000). In addition, it would take much more time to decide. Imagine that 27 governors and the president each make an opening statement of only ten minutes. In this case nearly five hours will have passed before any discussion, let alone before voting can even begin.

Recognising that a Governing Council of over 30 members would be unwieldy, the European Council of Nice agreed on a simplified procedure to make some changes in the membership of the ECB governing bodies. It also asked the ECB to make a concrete proposal on how to change one paragraph of its statutes. This seems to have set in motion an acrimonious discussion within the Eurosystem, about which very little is known outside central banking circles. At the very last minute, i.e. in late 2002, the ECB came up with a proposal that had been elaborated in strict secrecy.

The essence of the official proposal is to divide all euro-area member countries into three groups measured by economic size, which in turn, is measured by a new composite indicator: 5/6 GDP and 1/6 'aggregate balance of the monetary and financial institutions'. Each group would have only a limited number of votes, which would in practise mean that countries would have to rotate as follows:

Group 1: four votes (five members, so the voting frequency is 80%);

Group 2: eight votes (the number of members varies, so the voting frequency falls as the euro area expands – the maximum is 8/11 or 72.27%); and

Group 3: three votes (the voting frequency falls as the euro area expands – the maximum is 50%).

²² Currently, the monetary policy-setting organisation, the Council of the European Central Bank (ECB) is composed of 18 persons. There are six members of the Executive Board and 12 national representatives (the governors of the national central banks of the EMU members). The Board is selected jointly by the Council of Ministers, while the 12 national representatives are chosen by their respective governments. Assuming that the current non-members of the EMU and all the new members will ultimately join, the Council will be enlarged to 33 members: six board members and 27 national representatives. This implies that 33 members would have to decide on monetary policy for the euro-area, with each member having one vote.

Which countries would be in each group? Table 8 below gives a possible distribution for three different hypotheses about the membership of the euro area.

Table 8. Distribution of countries into groups

		Euro-28	Euro-25 (Euro-28 without BG, RO and TUR)	Euro-22 (Euro-25 without UK, SW and DK)
Group 1	4 Votes	Germany United Kingdom France Italy Spain	Germany United Kingdom France Italy Spain	Germany France Italy Spain The Netherlands
Group 2	8 Votes	The Netherlands Belgium Sweden Austria Denmark Ireland Poland Portugal Turkey Greece Luxembourg Finland Czech Republic Hungary	Netherlands Belgium Sweden Austria Denmark Ireland Poland Portugal Greece Luxembourg Finland Czech Republic Hungary	Belgium Austria Ireland Poland Portugal Greece Luxembourg Finland Czech Republic Hungary Slovak Republic
Group 3	3 Votes	Romania Slovak Republic Slovenia Bulgaria Lithuania Cyprus Latvia Estonia Malta	Slovak Republic Slovenia Lithuania Cyprus Latvia Estonia Malta	Slovenia Lithuania Cyprus Latvia Estonia Malta

Notes: Based on 2002 data. Due to the limited availability of the data on the aggregate balance sheets of the monetary and financial institutions in the candidate countries, the ordering shown is only approximate.

Source: Own calculations.

One of the reasons why it was felt that enlargement requires a change in the composition of the decision-making body of the ECB was that it is widely assumed that enlargement will increase the discrepancies between the economic and political weights within the Governing Council of the ECB. Most of the present candidates are relatively small in economic terms, but their representatives (the governors of the NCBs are often perceived that way) would have the same weight as that of Germany, whose economy is larger in order of magnitude.

Can this perception be quantified and verified? Economic weights could be defined as GDP shares and the political weights could be defined as being equal for all countries to 1/n, with the number of countries in the EMU. Using this definition, it is not evident that the discrepancies that exist at present will be worse in a larger EMU. Indeed, if one takes the sum of the squared differences between the economic and political weights as a measure of discrepancies, one arrives at the opposite result: the discrepancies between the economic and political weights are lower in a larger euro area than in the current euro-12 club. Table 9 below provides the results of some illustrative calculations. It is apparent that all the larger euro area compositions considered here actually lead to a lower discrepancy between economic and political weights than the current euro-12 grouping. (See the Annex 3 to Gros et al., 2002, for further details and additional calculations that take into account the Executive Board.)

Table 9. Mismatch between economic and political weights

	Three alternative economic weights		
	GDP	Population	ECB shares
Euro-12	9,5	10,3	8,9
Euro-15	7,4	7,8	7,1
Euro-25	7,0	9,2	5,4
Euro-27	7,2	9,4	5,7
Euro-25-UK	8,0	10,8	6,1

Source: Own calculations. Each entry represents the sum of the squared differences (times 100) between the political weights (defined as 1/n) and one of the different economic weights used here: GDP, population and ECB shares (the average of GDP and population weights).

An alternative

The problem regarding the size of the Governing Council of the ECB is real. How should it be solved? The approach proposed here (see also Gros et al., 2002 and Euromonitor, 2001) is quite simple: do not change the composition of the Governing Council, but ensure that it meets less often and thus re-define the division of labour between the Executive Board and the Governing Council. The tasks of the Governing Council should be to set the direction for monetary policy, decide on proposals from the Executive Board, constitute a platform for the exchange of views on the eurozone economy and monitor the work of the Executive Board. These tasks can be performed efficiently even by a rather large body and the representation of all member countries in the Governing Council provides the appropriate legitimacy for such a controlling function. The Executive Board should develop into a decision-making body in its own right, but so far its actions have been tightly controlled by the Governing Council.

The Governing Council can be regarded as the 'sovereign institution' in European monetary policy. It derives its sovereignty from the fact that it represents all the member

states and pools expert knowledge from the national central banks. All powers within the ECB can eventually be traced back to the Governing Council. This also applies to the Executive Board, all of whose powers at present are directly delegated by the Governing Council.

This proposal does not affect the primacy of the Governing Council – all powers would continue to emanate from it. It does, however, reduce the right of the Governing Council to control every single act of the Executive Board. Thus the Executive Board could come to enjoy a certain degree of discretion, which is justified by the fact that it represents not just the aggregation of individual state interests but rather a 'general European monetary interest'.

The division of labour proposed here is based on one key difference between NCB presidents and members of the Executive Board, which is an objective one: i.e. their respective information bases. Board members concentrate on area-wide aggregates in their daily work and are likely to be in closer contact with global financial markets than the NCB presidents. The latter perform a wide variety of functions at the national level: they supervise the national banking system; they are influential participants in national debates about almost all economic policy issues, etc. By contrast, the members of the Executive Board can concentrate almost exclusively on issues related to the formulation of the common monetary policy stance.

This information advantage of the Executive Board members is likely to be most pronounced in the area of financial market developments. Area-wide data on real economic variables, such as output, result essentially from the summation of national data that becomes available at different points in time and most of which contain small national idiosyncrasies. Financial markets are much more integrated than the markets for goods and services, so that an observer at the centre does not need to have detailed local knowledge. Some national idiosyncrasies persist in financial markets at the retail level, but the movement towards a unified market is stronger for financial services than for goods or most other services.

By contrast, the markets for most goods and services, in particular labour, retain a lot of distinctive national characteristics as documented here. For example, the average areawide inflation rate may be influenced by a change in indirect taxes or a re-basing in one member country. At times such a change can produce an effect that may not even be known outside the country and whose importance is difficult to judge unless one knows the local situation in some detail. A major labour market reform could increase the registered unemployment in an important member country. The NCB governor is the person best qualified to inform the ECB about the implications of the event and whether it could bias the euro area average.

This view implies that there may well be a natural division of labour between the NCB presidents and the Executive Board members: the latter can contribute their knowledge about the state of financial markets whereas the former can contribute local knowledge about the real economy, including prospects for output and labour markets. This division of labour has one immediate consequence – financial markets move much more quickly than the markets for goods and services, which in the final analysis determine output and employment. Interest rates and stock markets can collapse or soar in a matter of weeks, if not days, but a fall in consumer demand usually takes months to develop

(and to be recognised as such). Supply-side shocks, such as an acceleration of productivity, take place over an even longer time horizon.

The different comparative advantages of NCB presidents and members of the Executive Board suggest a simple approach to the reform of the ECB in view of enlargement. As the number of euro-area member countries increases, the Governing Council, which would continue to comprise all the NCB presidents, should meet less often and concentrate on strategic decisions. To be concrete, the Governing Council could meet only once every quarter. These meetings could involve a longer exchange of views on the state of the economy. That would in turn allow the Governing Council to formulate general, strategic guidelines for monetary policy, leaving the day-to-day execution to the Executive Board in Frankfurt.

This approach has the advantage that it maintains the representation of all the member countries in the highest decision-making body of the ECB. There is a strong political demand for full representation that should not be dismissed. It also has a rational background: as argued above, local information is essential to fully understand the economic situation even at the area-wide level. This same perception is also shared by the wider public. Tough decisions by the ECB are thus more likely to be accepted as necessary and legitimate if all the countries are represented in the governing body of the ECB that makes strategic decisions. In this context, by 'strategic' we mean those decisions that have a long term and more profound impact on the economy.

During normal times, the general public is unlikely to even notice the week-to-week or even month-to-month changes in monetary policy interest rates. Monetary policy becomes an issue only when tough decisions have to be made. This is most likely to happen when output falls and unemployment goes up but inflation remains high (as at present). In such a situation, the choice takes on great political importance. Should monetary policy become accommodating in order to sustain employment or restrictive to achieve price stability? These are the issues that concern the general public rather questions such as whether the appropriate neutral stance implies an interest rate half a percentage point higher or whether rates should be cut in a month instead of today. This type of decision can be left to a smaller group even if it is not perceived to be currently representative of all countries.

All rotation schemes face the same dilemma – while they may be fair on average, this fact is irrelevant at any given moment in time. If a country that is hit by a crisis does not have a representative on the ECB Governing Council, the public is unlikely to magnanimously accept its bad luck. Unpopular decisions of the ECB could then quickly be perceived as illegitimate, because the ECB 'does not know what our problems are'. An asymmetric rotation scheme that differentiates, for example, between larger and smaller countries would reduce the likelihood that this would happen for a large country; but it would raise the general suspicion that ECB policy is being determined by the interest of the restricted group of countries that happens to be represented at any one time in the Governing Council.²³

²³ The example of the US Federal Reserve Board, where there is an asymmetry in the sense that the Governor of the New York Federal Reserve District is the only member to have a permanent seat in the

There are several reasons why this obvious solution is not a likely outcome. First, one could argue that the dispersion of the power to vote on monetary policy protects the independence of the board to some degree. Presumably, pressures from member states, interest groups or the public at large can be less easily rejected by a small group. If voting power and responsibility are more diluted, it is more difficult to exert pressure on the Council. Secondly, it is unlikely that member states will formally renounce their right to co-determine monetary policy by sending governors into the Council. Thirdly, as in the case of assigning voting weights to member countries, this solution would violate the 'one country, one vote' principle.

From the labour market perspective, there is the additional problem that this would be an issue if the Executive Board members adopt a perspective that does not take into account the national developments. Such a solution would increase efficiency but may risk that the asymmetric effects of monetary policy on national entities is neglected. Therefore, apart from political reasons, there is also an economic argument to preserve national influences on the common monetary policy.

What other solutions are there to preserve the efficiency of monetary policy-making? Reform proposals that are currently discussed come under two headings: representation and rotation (see Eichengreen and Ghironi, 2001 and Berger, 2002). Representation is the system operated by the International Monetary Fund (IMF). Under this system, countries would be grouped into four or five groups, and have one vote together. The chair would represent the position of the group. If countries in one group should diverge in terms of inflation, growth, income level etc., the problem of finding a solution would be transferred from the Council to the group. If the 'one country, one vote' principle is kept, this would imply that the chair's position is bound by what the majority of his/her constituencies voted. Although intriguing in principle, there are several problems with this solution. How would the groups be formed? How would the chair be determined

Open Market Committee, does not constitute a counter-argument. This asymmetry is due to the importance of New York as a financial centre, not because the New York (NY) District is in a different league in terms of population or GDP. This implies also that the NY Federal Governor is more likely to represent the interests of the US financial sector (witness the rescue of Long-Term Capital Management [LTCM]) rather than the interests of the Federal Reserve District of NY, which encompasses a number of quite different states. In the case of the ECB, the Board, based in Frankfurt, would subsume the role of the NY Federal Governor. Yet the Governors of Federal Reserve Districts do not have the same prominent role in regional politics as do the presidents of NCBs in Europe, partially because their constituencies encompass several states (some Federal District boundaries even cut across states).

The example of the US also does not justify the inclusion of the total aggregate balance sheet of monetary financial institutions in the indicator of size that should be used, according to the ECB proposal, to classify countries in different categories. The importance of a financial centre is not determined by the size of its balance sheets but by the complexity of the operations it undertakes. The huge amounts of savings deposits in Luxembourg banks on their own do not constitute a reason to put this country in a different category. Most of these deposits come from other member countries and are often controlled directly or indirectly by other EU financial institutions. Luxembourg cannot be compared to New York, since it is not the financial centre of the euro area.

In the IMF, the chair is not bound to represent the position of members, i.e. this is not an 'imperative' system.

(would it rotate, would one country always hold it)? How would the members determine their joint position (would they vote or find their position by 'consensus')?

To minimise transaction costs, it would probably make sense to group countries according to their expected economic position, i.e. based on close similarities in business cycles or in economic structure. But a two-step decision-making process need not necessarily be more efficient than one where all members and the Executive Board come together jointly. Decision costs could be just as high.

Moreover, nothing would ensure that economically similar countries are also characterised by similar labour market developments or similar transmission of monetary policy. In general, structuring such groups on the basis of one criterion (even if a sensible one), would potentially entail the risk of neglecting other factors. It would thus be difficult to find a perfect group, especially when taking the usually neglected influences into account.

The alternative solution is one that would follow the system of the Federal Reserve Board in the US. In addition to a group of seven permanent board members (the president, the vice-president and five other persons), there is a group of 12 regional federal reserve bank governors who take turns to fill the other five seats in the Council. New York, as the financial centre, has a permanent seat, and Chicago and Cleveland (historically minor financial centres) take turns to fill one other seat. The remaining nine banks rotate through the remaining three seats.

If one was to follow this example, obvious questions would be raised with regard to whether there should be permanent seats for some economies and which countries that would include? Germany and France would be obvious candidates for permanent seats, but what about Italy and Spain or later the UK and maybe Poland? Should countries be formed into groups that are allocated one seat so that this solution would comprise elements of the alternative discussed above? If not, should countries rotate randomly or according to some mechanism that gives larger members more time in the seats? If care is not taken concerning the relative sizes of the countries, situations could arise in which no large member is holding a seat, returning to the problem of over-representation by small members.

Again, the same argument made about forming groups can be made against rotation. A simple rotation model is clearly less adequate for the eurozone than it is for the US, which exhibits less regional divergence than the enlarged EU certainly will. Rotation does not take into account the possibility that the structure of shocks could be very different. At any point in time, there is the possibility that the affected member is not a member of the Council and therefore its shocks are only imperfectly taken into account (by the Executive Board). This, as previously noted, is particularly a concern for the smaller (and accession) countries. Although this is a general problem, it becomes especially important if those countries with extreme differences in the transmission of monetary policy are not members of the decision-making body of the central bank.

Therefore, although there are currently different proposals on the table none seems to be the ideal solution from the perspective of labour markets. As we have argued, the insufficient flexibility of labour markets in Europe and the asymmetric transmission of monetary policy suggest that a solution should be found where the interests of the outliers are appropriately taken into account. Although on efficiency grounds, a more centralised ECB is advisable, this is less so on the basis of our findings. This may bring some delays and efficiencies into the decision-making process, but our analysis suggests that it at least has the advantage that national characteristics are appropriately taken into account when setting common policy. It should, in fact, be desirable that national interests are taken into account.

Whether this is done, however, by 'true Europeans' or by national representatives does not matter very much. Therefore, a centralised model may be a better compromise between efficiency and appropriate care for the national influences than a rotating scheme or the formation of groups. A strong Executive Board can take national developments into account at least in principle. Selecting some national representatives from a larger group instead runs the risk that these representatives only use their chance to implement their own national interests for as long as they are on the Executive Board. A clear break, with a new defined role for the Executive Board, could be a more workable solution.

It should also be clear that such a solution would have to be reconsidered periodically. In as much as transmissions of monetary policy become more similar across the union, the need for taking asymmetries into account would obviously disappear. Taking these developments into account and reacting appropriately is another argument that supports a centralised solution for the ECB. A technically competent Executive Board is probably better suited for such a task than a handful of national governors.

4. Policy recommendations and conclusions

This paper has sought to document the development of European labour markets over recent years. Although there has been a lot of convergence in a macro sense, i.e. overall wage increase, the labour market outcomes in terms of employment and unemployment rates are far from having converged; in some cases there is even some divergence to report. Experience of the behaviour of labour market participants so far suggests that there is little reason to expect that a significant change will occur because of the introduction of a common currency.

The reason for this is the still considerable difference in the functioning of labour markets at the micro level, i.e. in terms of labour market regulations and social security systems. This difference means that a common monetary policy has, and will continue to have for the foreseeable future, asymmetric outcomes. Confronted with this dilemma, what should the ECB do? We do not have a solution that would somehow resolve the problem. But we argue that one should not ignore this challenge by basing policy only on euro area averages. In our view, extreme outcomes (very high inflation or high growth shortfalls) should have a large weight in the ECB's average. This prescription follows naturally from the fact that the EU is not a political union, so one cannot construct a Union-wide social welfare function. For the time being, the guiding principle of the EU's institutions must be to look after the sum of the national welfare functions. In almost all of our models, these welfare functions are convex, implying that large deviations from the mean count more than small ones. This is the basic reason why it is not just enough to look at the average.

REFERENCES

- Aksoy, Y., P. de Grauwe and H. Dewachter (2002), "Do Asymmetries Matter for European Monetary Policy?", *European Economic Review*, 46, pp. 443-469.
- Alho, K. (2000), "The Finnish EMU Buffers and the Labour Market under Asymmetric Shocks", paper presented at the ENEPRI workshop on EMU and Asymmetries in Labour Markets, Paris, 29-30 September .
- Baldwin, R., E. Berglöf, F. Giavazzi and M. Widgren (2002), *EU Reforms for Tomorrow's Europe*, CEPR Discussion Paper 2623, the Centre for Economic Policy Research, London.
- Barrell, R. and K. Dury (2000), "Asymmetric Labour Markets in a Converging Europe: Do Differences Matter?", paper presented at the ENEPRI workshop on EMU and Asymmetries in Labour Markets, Paris, 29-30 September.
- Bayoumi, T. and B. Eichengreen (1996), *Operationalizing the Theory of Optimum Currency Areas*, CEPR Discussion Paper 1172, the Centre for Economic Policy Research, London.
- Beetsma, R. and H. Jensen (2002), "Structural Convergence under Reversible and Irreversible Monetary Unification", *Journal of International Money and Finance*, 22, pp. 417-439.
- Bentolila, S. and J. J. Dolado (1994), "Labour flexibility and wages: Lessons from Spain", *Economic Policy*, 18, pp. 55-99.
- Bentolila, S. and G. Saint-Paul (2000), *Will EMU Increase Eurosclerosis?*, CEMFI Working Paper 0004, the Centro de Estudios Monetarios y Financieros, Madrid.
- Berger, H. (2002), *The ECB and Euro-Area Enlargement*, IMF Working Paper 02/175, International Monetary Fund, Washington, D.C.
- Berger, H. and J. de Haan (2002), "Are Small Countries too Powerful within the ECB?", *Atlantic Economic Journal*, 30, pp. 1-20.
- Bertola, G. and T. Boeri (2001), "EMU Labour Markets Two Years On: Microeconomic Tensions and Institutional Evolutions", mimeo, Bocconi University, Milan.
- Bertola, G., T. Boeri and G. Nicoletti (2000), Welfare and Employment in a United Europe, Cambridge, MA: The M.I.T. Press.
- Blanchard, O.J. and L.F. Katz (1992), "Regional Evolutions", *Brookings Papers on Economic Activity*, No. 1, pp. 1-75.
- Blanchard, O. and A. Landier (2000), "The perverse effects of partial labour market reform: Fixed duration contracts in France", mimeo, M.I.T, Cambridge, MA.
- Blanchard, O. and J. Wolfers (2000), "Shocks and institutions and the rise of European unemployment: The aggregate evidence", *Economic Journal*, 110(1), pp. 1-33.
- Booth, A., M. Francesconi and J. Frank (2000), "Temporary jobs: Stepping stones or deadends?", mimeo, University of Essex, Colchester.
- Booth, A., M. Burda, L. Calmfors, D. Checchi, R. Naylor and J. Visser (2001), "What do unions do in Europe?", mimeo, Fondazione Rodolfo DeBenedetti, Milan.
- Borghijs, A. (2000), "Does EMU Lead to European Wage-setting?", paper presented at the ENEPRI workshop on EMU and Asymmetries in Labour Markets, Paris, 29-30 September.
- Bound, J. and G. Johnson (1992), "Changes in the Structure of Wages in the 1980s: An Evaluation of Alternative Explanations", *American Economic Review*, June, pp. 371-392.

- Calmfors, L. (1998), "Macroeconomic Policy, Wage-setting and Employment. What difference does EMU make?", *Oxford Review of Economic Policy*, 14, pp. 125-151.
- Cecchetti, S. (1999), "Legal Structure, Financial Structure, and the Monetary Policy Transmission Mechanism", *Economic Policy Review*, Federal Reserve Bank of New York, July.
- Clausen, V. and B. Hayo (2002), *Asymmetric Monetary Policy Effects in EMU*, ZEI Working Paper B-04, Zentrum für Europäische Integrationsforschung (ZEI), Bonn.
- Cukierman, A. and F. Lippi (1999), "Labour Markets and Monetary Union: A Strategic Analysis", mimeo.
- Daveri, F. and G. Tabellini (2000), "Unemployment, growth and taxation in industrial countries", *Economic Policy*, 30.
- Decressin, J. and A. Fatás (1995), "Regional Labor Markets Dynamics in Europe and Implications for EMU", *European Economic Review*, 39, pp. 1627-1656.
- Dolado, J.J., J.F. Jimeno and C. García-Serrano (2001), "Drawing lessons from the boom of temporary employment in Spain", mimeo, Fundación de Estudios de Economía Aplicada (FEDEA), Madrid.
- Dolado, J.J., F. Felgueroso and J.F. Jimeno (2001), "Female Employment and Occupational Changes in the 1990s: How is the EU performing relative to the US?", *European Economic Review*, forthcoming.
- Dornbusch, R., C. Favero and F. Giavazzi (1998), "Immediate Challenges for the European Central Bank", *Economic Policy*, 26, pp. 15-64.
- Eichengreen, B. and F. Ghironi (2001), "EMU and Enlargement", mimeo, University of Berkeley and Boston College.
- Eijffinger, S. and J. de Haan (2000), *European Monetary and Fiscal Policy*, Oxford: Oxford University Press.
- EMU-Monitor (2001), No. 8, 5 December (http://www.zei.de/zei_deutsch/f_first.html).
- Frankel, J.A. and A.K. Rose (1996), *The Endogeneity of the Optimum Currency Area Criteria*, NBER Working Paper 5700, National Bureau of Economic Research, Cambridge, MA.
- Franz, W. and V. Steiner (1999), Wages in the East German Transition Process Facts and Explanations, ZEW Discussion paper, Zentrum für Europäische Wirtschaftsforschung (ZEW), Mannheim
- Gerlach, S. and F. Smets (1995), *The Monetary Transmission Mechanism: Evidence from the G- 7 Countries*, BIS Working Paper 26, Bank for International Settlements, Basel.
- de Grauwe, P. (2000), "Monetary Policies in the Presence of Asymmetries", *Journal of Common Market Studies*, 38, pp. 593-612.
- Gros, D. and C. Hefeker (1999), *Labour Costs and Wage Policy within EMU*, Working Document 111, European Parliament, Directorate General for Research, Luxembourg.
- Gros, D. and C. Hefeker (2002), "One Size Must Fit All. National Divergences in a Monetary Union", *German Economic Review*, 2, pp. 247-262.
- Gros, D., J. Jimeno, C. Monticelli, G. Tabellini and N. Thygesen (2001), *Testing the Speed Limit for Europe*, 3rd Annual Report of the CEPS Macroeconomic Policy Group, CEPS, Brussels

- Gros, D., M. Castelli, J. Jimeno, T. Mayer and N. Thygesen (2002), *The Euro at 25*, Special Report of the CEPS Macroeconomic Policy Group, CEPS, Brussels.
- Gros, D. and N. Thygesen (1998), European Monetary Integration, London: Longman.
- Grüner, H.P. and C. Hefeker (1999), "How Will EMU Affect Unemployment and Inflation?", *Scandinavian Journal of Economics*, 101, pp. 33-47.
- Guichard, S. and J.-P. Laffargue (2000), "The Wage Curve: The Lessons of an Estimation over a Panel of Countries", paper presented at the ENEPRI workshop on EMU and Asymmetries in Labour Markets, Paris, 29-30 September.
- Hefeker, C. (2001), "Labor Market Rigidities and EMU", *Journal of Economic Integration*, 16, pp. 229-244.
- Hefeker, C. (2002a), "Structural Reforms and the Enlargement of Monetary Union", mimeo, Hamburg Institute of International Economics (HWWA), Hamburg.
- Hefeker, C. (2002b), "Federal Monetary Policy", Scandinavian Journal of Economics, forthcoming.
- Hochreiter, E. and G. Winckler (1995), "The Advantages of Tying Austria's Hands: The Success of the Hard Currency Strategy", *European Journal of Political Economy*, 11, pp. 83-111.
- Horn, H. and T. Persson (1988), "Exchange Rate Policy, Wage Formation and Credibility", *European Economic Review*, 32, pp. 1621-1636.
- Hughes-Hallett, A. and N. Viegi (2000), "Labour Market Institutions and Monetary Policy in EMU: Do Asymmetries Matter?", paper presented at the ENEPRI workshop on EMU and Asymmetries in Labour Markets, Paris, 29-30 September.
- Ingram, J. (1959), "State and Regional Payments Mechanisms", *Quarterly Journal of Economics*, 73, pp. 619-632.
- Katz, L. and K. Murphy (1992), "Changes in Relative Wages, 1963-1987: Supply and Demand Factors", *Quarterly Journal of Economics*, 107, pp. 35-78.
- Kenen, P.B. (1969), "The Theory of Optimum Currency Areas: An Eclectic View", in Mundell R. and A. Swoboda, eds: *Monetary Problems of the International Economy*, Chicago: University of Chicago Press, pp. 41-60.
- Layard, R., S. Nickell and R. Jackman (1991), *Unemployment*, Oxford: Oxford University Press.
- Mayes, D. and M. Viren (2000), "Asymmetry and the Problem of Aggregation in the Euro-Area", paper presented at the ENEPRI workshop on EMU and Asymmetries in Labour Markets, Paris, 29-30 September.
- Meade, E. and N. Sheets (2002), *Regional Influences on US Monetary Policy: Some Implications for Europe*, International Finance Discussion Paper 721, Board of Governors of the Federal Reserve System, Washington, D.C.
- Mundell, R. (1961), "A Theory of Optimum Currency Areas", *American Economic Review*, 51, pp. 657-665.
- Nahuis, R. and A. Parikh (2000), "Factor Mobility and Regional Disparities: East, West, Home's Best?", paper presented at the ENEPRI workshop on EMU and Asymmetries in Labour Markets, Paris, 29-30 September.

- Nickell, S. and B. Bell (1995), "The Collapse in Demand for the Unskilled and Unemployment across the OECD", Oxford Review of Economic Policy, 11(1), pp. 40-62.
- Obstfeld, M. and G. Peri (1998), "Regional Nonadjustment and Fiscal Policy", *Economic Policy*, 26, pp. 205-259.
- Pentecost, E. and J. Sessions (2000), "Changing Labour Market Flexibility in the European Union", paper presented at the ENEPRI workshop on EMU and Asymmetries in Labour Markets, Paris, 29-30 September.
- Saint-Paul, G. (2001), *The Political Economy of Labour Market Reforms*, Oxford: Oxford University Press.
- Scheremet, W. (2000), "On the Convergence of Wage Policy after EMU", paper presented at the ENEPRI workshop on EMU and Asymmetries in Labour Markets, Paris, 29-30 September.
- de Serres, A., S. Scarpetta and C. de la Maisonneuve (2000), "Falling wage shares in Europe and the United States: How important is aggregation bias?", mimeo, OECD, Paris.
- Sibert, A. and A. Sutherland (2000), "Monetary Regimes and Labour Market Reform", *Journal of International Economics*, 51, pp. 421-435.
- Snower, D. (1999), *Causes of Changing Earnings Inequality*, IZA Working Paper 20, Institute for the Study of Labor (IZA), Bonn.
- Tanguy, S. (2000), "Adjustment in EMU: A Macro-economic Impact Evaluation of the Degree of Coordination between National Trade Unions", paper presented at the ENEPRI workshop on EMU and Asymmetries in Labour Markets, Paris, 29-30 September.
- Toolsema, L., J.-E. Sturm and J. de Haan (2001), *Convergence of Monetary Transmission in EMU. New Evidence*, CESifo Working Paper 465, the Centre for Economic Studies & Ifo Institute for Economic Research, Munich.
- Vinals, J. and J. Jimeno (1997), European Unemployment and Monetary Union, CEPS Paperback, CEPS, Brussels.

TITLES PUBLISHED BY ENEPRI

WORKING PAPER SERIES (€12 in print or available for free downloading from www.enepri.org or www.ceps.be)

- No. 24 Time-Varying Nairu and Real Interest Rates in the Euro Area, Camille Logeay and Silke Tober, October 2003
- No. 23 Back on Track? Savings Puzzles in EU Accession Countries, Mechthild Schrooten and Sabine Stephan, October 2003
- No. 22 Structural Estimates of Equilibrium Unemployment in Six OECD Economies, Albert van der Horst, July 2003
- No. 21 Fiscal Policy in the New Open Economy Macroeconomics and Prospects for Fiscal Policy, Coordination, Leonor Coutinho, June 2003
- No. 20 European Wage Coordination: Nightmare or dream to come true?, Alain Borghijs, Sjef Ederveen and Ruud de Mooij, June 2003
- No. 19 Youth Employment in the OECD: Demographic Shifts, Labour Market Institutions and Macroeconomic Shocks, Juan F. Jimeno and Diego Rodríguez-Palenzuela, March 2003
- No. 18 Convergence in Social Protection across EU Countries, 1970-1999, Simón Sosvilla-Rivero, José A. Herce and Juan-José de Lucio, March 2003
- No. 17 The Impact of the Euro on EMU Trade: The (Early) Effect Is Not so Large, Sergio de Nardis and Claudio Vicarelli, February 2003
- No.16 Mutual Recognition in Goods and Services: An Economic Perspective, Jacques Pelkmans, March 2003
- No. 15 Estimating the Effects of Fiscal Policy in OECD Countries, Roberto Perotti, October 2002
- No. 14 How to Finance Eastern Enlargement of the EU: The Need to Reform EU Policies and the Consequences for the Net Contributor Balance, Christian Weise, October 2002
- No. 13 Mutual Recognition, Unemployment and the Welfare State, Fiorella Kostoris Padoa Schioppa, September 2002
- No. 12 Internal Migration in Regions of Germany: A Panel Data Analysis, Ashok Parikh and Michiel Van Leuvensteijn, September 2002
- No. 11 Interdependent Growth in the EU: The Role of Trade, María Garcia-Vega and José A. Herce, September 2002
- No. 10 Equilibrium Rates and Wages Flexibility in Europe, R.C.M.H. Douven, August 2002
- No. 9 Midlife Caregiving and Employment: An Analysis of Adjustments in Work Hours and Informal Care for Female Employees in Europe, C. Katharina Spiess and Ulrike Schneider, February 2002
- No. 8 Turkey's Performance in Attracting Foreign Direct Investment: Implications of Enlargement/Henry Loewendahl and Ebru Ertugal-Loewendahl/October 2001
- No. 7 Is the ECB sufficiently accountable and transparent? Lorenzo Bini-Smaghi and Daniel Gros/September 2001
- No. 6 Maastricht and the Choice of Exchange Rate Regime in Transition Countries during the Run-Up to EMU, György Szapáry, September 2001

- No. 5 What drove relative wages in France? Structural Decomposition Analysis in a General Equilibrium Framework, 1970-1992, Sébastien Jean and Olivier Bontout, September 2001
- No. 4 Foreign Direct Investment and Corporate Income Taxation in Europe, Agnès Bénassy-Quéré, Lionel Fontagné, and Amina Lahrèche-Révil, April 2001
- No. 3 European Labour Markets and the Euro: How much flexibility do we really need?, Michael Burda, March 2001
- No. 2 Asymmetric Labour Markets in a Converging Europe: Do differences matter? Ray Barrell and Karen Dury (NIESR), January 2001
- No. 1 Fiscal Federalism in Western European and Selected Other Countries: Centralisation or decentralisation? What is better for economic growth?, Ulrich Thiessen, January 2001

OCCASIONAL PAPER SERIES (€12 in print or available for free downloading from www.enepri.org or www.ceps.be)

- No. 4 Population Ageing and International Capital Flows, Eric Canton, Casper van Ewijk and Paul J.G. Tang, October 2003
- No. 3 Funds and Games: The Economics of Eruopean Cohesion Policy, Sjef Ederveen, Joeri Gorter, Ruud de Mooij and Richard Nahuis, October 2003
- No. 2 Welfare Intergenerational Distribution and Households: What does generational accounting tell us?, 3 papers by Reijo Vanne; Nicola Santor, Carlo Assarri, Maria Cozzolina, Carlo Declich, Veronica Polin and Alberto Roveda; and Bernard Seidel, October 2003
- No. 1 Asymmetries in European Labour Markets and Monetary Policy in Euroland, , Daniel Gros and Carsten Hefeker, September 2003

ABOUT ENEPRI

The European Network of Economic Policy Research Institutes (ENEPRI) is composed of leading socioeconomic research institutes in practically all EU member states and candidate countries that are committed to working together to develop and consolidate a European agenda of research. ENEPRI was launched in 2000 by the Brussels-based Centre for European Policy Studies (CEPS), which provides overall coordination for the initiative.

While the European construction has made gigantic steps forward in the recent past, the European dimension of research seems to have been overlooked. The provision of economic analysis at the European level, however, is a fundamental prerequisite to the successful understanding of the achievements and challenges that lie ahead. ENEPRI aims to fill this gap by pooling the research efforts of its different member institutes in their respective areas of specialisation and to encourage an explicit European-wide approach.

ENEPRI is composed of the following member institutes:

CASE Center for Social and Economic Research, Warsaw, Poland

CEBR Centre for Economic and Business Research, Copenhagen, Denmark

CEPII Centre d'Etudes Prospectives et d'Informations Internationales, Paris, France

CEPS Centre for European Policy Studies, Brussels, Belgium

CERGE-EI Centre for Economic Research and Graduate Education, Charles University, Prague,

Czech Republic

CPB Netherlands Bureau for Economic Policy Analysis, The Hague, The Netherlands

DIW Deutsches Institut für Wirtschaftsforschung, Berlin, Germany ESRI Economic and Social Research Institute, Dublin, Ireland ETLA Research Institute of the Finnish Economy, Helsinki, Finland FEDEA Fundacion de Estudios de Economia Aplicada, Madrid, Spain

FPB Belgian Federal Planning Bureau, Brussels, Belgium

IE-BAS Institute of Economics, Bulgarian Acadamy of Sciences, Sofia, Bulgaria IE-LAS Institute of Economics, Latvian Academy of Sciences, Riga, Latvia

IER Institute for Economic Research, Ljubljana, Slovenia IHS Institute for Advanced Studies, Vienna, Austria ISAE Istituto di Studi e Analisi Economica, Rome, Italy

ISCTE Instituto Superior de Ciências do Trabalho e da Empresa, Lisbon, Portugal

ISWE-SAS Institute for Slovak and World Economy, Bratislava, Slovakia

NEI New Economy Institute, Vilnius, Lithuania

NIER National Institute of Economic Research, Stockholm, Sweden NIESR National Institute for Economic and Social Research, London, UK

NOBE Niezalezny Osrodek Bana Ekonomicznych, Lodz, Poland

PRAXIS Center for Policy Studies, Tallinn, Estonia

RCEP Romanian Centre for Economic Policies, Bucharest, Romania

TÁRKI Social Research Centre, Budapest, Hungary

This ENEPRI Occasional Paper series aims at making the research undertaken by the member institutes or in the context of special ENEPRI events known to a wide public. Unless otherwise indicated, the views expressed are attributable only to the author in a personal capacity and not to any institution with which he or she is associated.

ENEPRI publications are partially funded by the European Commission under its Fifth Framework Programme – contract no. HPSE-CT-1999-00004.



c/o Centre for European Policy Studies 1: 32(0) 229.39.11 • Fax: 32(0) 219.41.51

Place du Congrès 1 • 1000 Brussels • Tel: 32(0) 229.39.11 • Fax: 32(0) 219.41.51 Website: http://:www.enepri.org • E-mail: info@enepri.org