EMU Challenges European Labor Markets

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Abstract

This paper discusses the challenges that European Monetary Union (EMU) poses for European labor markets, emphasizing in particular the regional dimension of the European unemployment problem. The authors argue that the inability of labor markets to adjust to shocks is largely a regional problem within EMU member countries, requiring structural reforms to enhance labor market flexibility but also a decentralization of competencies and greater diversity of labor market outcomes. Any attempt to successfully reform European labor markets and “make them fit for EMU” has to take into account the regional--and even a more decentralized firm--perspective.

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Contents

I. Introduction ......................................................................................................................... 3
II. The Optimum Currency Area Criteria ................................................................. 4
   A. Exchange Rates and Asymmetric Shocks ............................................................... 4
   B. The Flexibility of National Labor Markets ......................................................... 8
   C. A Status Quo Assessment of EMU and European Labor Markets .............. 9
III. The Regional Perspective .......................................................................................... 10
   A. Some Stylized Facts .............................................................................................. 11
   B. A Recipe for Failure: Region-Specific Shocks and Regional Non-Adjustment 12
   C. Europe’s Most Prominent Problem Regions ....................................................... 14
   D. From Regions to Enterprises .............................................................................. 16
IV. Enlarging Institutional and Regional Diversity .................................................... 16
   A. Will EMU Give Momentum to Labor Market Reform? ...................................... 17
   B. Is There a Blueprint for Reform? ........................................................................ 19
   C. The Need for More Regional and Institutional Diversity ............................. 20
   D. More Freedom of Contract at the Firm Level .................................................... 21
V. Conclusion ...................................................................................................................... 23

References ......................................................................................................................... 25

Boxes
1. Exchange Rates as Shock Absorbers—The Cases of Italy and Finland ................. 33
2. Euroland’s Most Prominent Problem Regions ......................................................... 35
3. Trends in Business Organization .............................................................................. 37

Tables
1. Coefficients of Specialization Manufacture, EU-Countries 1980–93 .................... 40
2. Total and Structural Unemployment in EU Member Countries, 1997 .......... 41
3. Monetary Union and Labor Market Risks for EU Countries ................................ 42
4. The EU Regions with the Highest/Lowest Unemployment Rates (April 1997) .... 43
5. The EU Regions with the Highest/Lowest Youth Unemployment Rates in April 1997 44
8. The Mezzogiorno and East Germany Compared, 1995 ........................................ 47
9. Labor Costs and Labor Productivity Relative to the Rest of the Country .......... 48

Figures
1. Integration, Specialization and Asymmetric Shocks ............................................. 49
2. Determination of Labor Market Flexibility ......................................................... 50
I. INTRODUCTION

On 'E-day', January 1st, 1999, phase 3 of the European monetary union—EMU for short—has become reality. The euro area comprises all EU member states except for Greece, which did not meet the Maastricht criteria, and Sweden, Denmark and the U.K., which voluntarily abstained.

In the run-up to the formation of monetary union, questions of fiscal convergence, the adequacy of the conversion exchange rates, and the stability of the euro have been predominant in the currency union debate. By contrast, relatively little attention has been paid to the labor market implications of EMU. This is all the more striking since labor market performance in the euro area is crucial for the long-run success or failure of the monetary union: with the introduction of the euro, the exchange rate and monetary policies will no longer be available at the country level as tools for macroeconomic adjustment. Furthermore, fiscal policy has been constrained by the Pact on Stability and Growth. The only way to avoid (or at least reduce) undesirable quantity adjustments to shocks is to make markets more flexible. The formation of EMU thus adds urgency to the need for structural reform.

A currency area as large and heterogeneous as the euro area requires a high degree of flexibility to successfully exploit the potential efficiency effects of the monetary union. That market flexibility has been seriously deficient in the past, though, is apparent in the high level and regional concentration of unemployment in most EU member countries. In our paper, we focus on the regional problems of EMU, with "regions" referring not only to member states but, importantly, also to the sub-national regions, and discuss ways of coping with the adjustment requirements in the various regions of the euro area.

We will start our analysis by reviewing the status quo in the euro area from the perspective of optimum currency area (OCA) theory. This facilitates identifying those countries that may run into difficulties under the regime of EMU (Chapter II). We will then describe that European unemployment is to a large extent a regional problem within countries. This aspect has as yet not been given much attention in the debate on monetary union. We will argue that any attempt to successfully reform European labor markets and "make them fit for EMU" has to take the regional perspective and even a more decentralized, firm perspective into account (Chapter III). Therefore, structural labor market reform may also have to bring about a greater institutional diversity to deal with the growing need for choice in employment relationships and to allow greater scope for the exploitation of mutually profitable contracts between labor and firms (Chapter IV). Chapter V concludes.

* Throughout this paper we use the abbreviation EMU for the European Monetary Union, following its widespread use in the literature (see e.g. Alsopp and Vines, 1998; Calmfors, 1998; Eichengreen, 1998; OECD, 1999; Mauro, Prasad, and Spilimbergo, 1999).
II. The Optimum Currency Area Criteria

A. Exchange Rates and Asymmetric Shocks

We can be brief on the often described upside of the prospects for employment: A single currency reduces the transaction costs between agents in different EMU countries, and hence raises the static efficiency of the economy. It eliminates the exchange rate risk as well as the costs of currency exchange and hedging, which is just another way of saying that the real resources employed in foreign-exchange trading can be shifted to other productive uses (Kenen, 1997, p. 212). Furthermore, transparency increases and this increases the intensity of competition in goods and factor markets, raising also the dynamic efficiency of the economy. This in turn stimulates innovation, investment, trade, and growth, thereby improving employment prospects.

On the downside, monetary union heightens labor market risks. The theory of optimal currency areas establishes that exchange rates are a useful tool for macroeconomic adjustment in the case of asymmetric shocks. Exogenous demand and supply shocks that hit countries asymmetrically require a response of real exchange rates between these countries in order to adjust relative real wages between these countries. This could be accomplished either by adjusting nominal exchange rates or else by adjusting nominal goods and factor prices in one country relative to the other country—otherwise such asymmetric shocks might result in an increase in unemployment. Nominal exchange rates can therefore be seen as “a device whereby depreciation can take the place of unemployment when the external balance is in deficit, and appreciation can replace inflation when it is in surplus.” (Mundell, 1961, p. 657). A member of a currency union loses this device for a spontaneous (in the case of flexible exchange rates) or discretionary (in the case of fixed exchange rates) macroeconomic response to shocks. Hence, asymmetric shocks in a currency union exert increased pressure on national labor markets and entail a substantial risk of rising unemployment.\(^3\) A rise in unemployment due to the loss of exchange rate flexibility can only be excluded if (at least) one of the following three conditions holds:

1. the exchange rate mechanism between EMU countries does not work in the shock absorbing way predicted by theory, so that nothing would be lost by giving up this device, or
2. there is little probability that members of EMU are hit by asymmetric shocks, or

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\(^3\) Shocks can be temporary or permanent, on the demand or supply side, and sector, region or country specific. Permanent shocks are typically supply side related, whereas temporary shocks are typically demand side or policy induced (OECD, 1999, p.91). Thus, when speaking about shocks in the monetary union, we usually have supply side shocks in mind. Nevertheless, one should be aware that even temporary (region-specific) shocks may have long-run effects on output if hysteresis effects are evident (OECD, 1999, p. 113; Mauro, Prasad, and Spilimbergo, 1999, pp. 5-11).
(3) labor markets are flexible enough to adjust to asymmetric shocks without a rise in unemployment.

With respect to the first condition, there is a controversy in the literature over whether nominal exchange rates really do act as shock absorbers in the way predicted by OCA theory. An immediate response of the nominal exchange rates to a shock can not be taken for granted, it is argued, because apart from trade flows a great number of other factors influence nominal exchange rates making their movements look like a “random walk”. Moreover, since the depreciation of a currency leads to an import-price induced rise in inflation, domestic workers might try to raise their nominal wages in order to compensate for the real wage loss, thereby offsetting the shock absorbing effects of the depreciation.

There is evidence that exchange rates between EU member states in the past have in various instances played an important role as shock absorbers (with the experiences of Italy and Finland in the early 1990s as conspicuous cases in point, see Box 1). This empirical evidence is in line with mainstream economic reasoning, which holds that exchange rates provide a useful tool for macroeconomic adjustment if

(1) the change in the nominal exchange rate leads to the required change in the real exchange rate, or
(2) such adjustments do not happen too often (since they require a certain degree of exchange rate illusion), or
(3) the exchange rate adjustment is accompanied by a credible policy change addressing the root causes of the problems which necessitate the need for adjustment.

Hence, we conclude that the exchange rate mechanism did work as an effective ‘absorber’ for asymmetric shocks on several occasions in the past.

However, will there still be much need for shock-absorbing mechanisms in the euro area? Sometimes it is argued that the problem of asymmetric shocks will no longer be of much relevance because the major sources of asymmetric shocks have been eliminated (Emerson and others, 1990): there will be no more country-specific shocks from inconsistent national monetary policies or from speculative attacks on national exchange rates; moreover, the scope for destabilizing national fiscal policy is constrained. However, even a common monetary policy in the euro area may be a source of asymmetric shocks to member countries (and their regions). In the case of the U.S., for example, the federal monetary policy has been found to create...

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asymmetric shocks to U.S. regions because of structural differences of their economies (Carlino and DeFina, 1998 and 1999; Ramaswamy and Sloek, 1997).  

Numerous empirical studies have dealt with the probability of asymmetric shocks in EMU, analyzing the variability of output fluctuations as well as real exchange rate variability in the past. In these studies, the experiences of EU member states have been compared to those of existing single currency areas such as the U.S. and Canada or to those of European regions, taking pre-euro individual EU countries as currency unions.  

In a nutshell, the result of these studies is:

- variations of output are more synchronized among EU member states than among regions within individual member states, and
- variations of real exchange rates are smaller among EU member states than among regions within individual member states.

This evidence suggests that several EU member states have been hit by various asymmetric shocks in the past and did adjust to them by a price response (particularly by a change of the nominal exchange rate) rather than by a quantity (output) response. In a core group of countries—Germany, France, the Benelux countries, Austria, and Denmark—asymmetric shocks have been relatively rare as variations of output and of real exchange rates were quite similar; by contrast, the incidence of asymmetric shocks has been rather high for Portugal, Greece, Spain, Italy, the U.K., Ireland, Sweden, and Finland.  

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5It has also been argued that fixing the entry exchange rate at too high a level may represent a shock with long enduring effects that are difficult to overcome (Barrell and Pain, 1998). The decision of Britain in the mid-1920s to return to her pre-war gold standard parity may come to mind in this context as well as e.g. the case of east Germany in the process of reunification (see below in Chapter III, Box 2). Recently, Wolf (1999) has argued along these lines that Germany, by picking roughly the EMS-exchange rate, was locked into an overvaluation that reduced the competitiveness of the economy, given the wide gap in unit labor costs compared to major euro-area countries. However, the German-Ecu exchange rate has prevailed for quite a long time without markets betting on an imminent German devaluation during the EMS period.


7These empirical results are in line with standard open-economy macroeconomic reasoning which predicts that the small, open economies in the EU are subject to asymmetric shocks to a greater extent than the larger economies. The reason is twofold. Small economies are typically less diversified than large economies, so that industry- or sector-specific shocks affect a small economy more strongly than a large economy. Moreover, the small economies at the periphery of the EU are more exposed to shocks from outside the EU than the economies at the centre, e.g. Germany or France (see Hagen and Hammond, 1998, p. 337).
However, these historic patterns of susceptibility to shocks may not persist in the euro area. The future probability of asymmetric shocks will depend upon the underlying economic structures of the countries participating in the currency union. The critical question is how EMU will affect this structure and what the impact will be on the synchronization of their respective cycles. Two alternative tendencies are discussed in the literature:

Frankel and Rose (1998) argue that an increasing synchronization of business cycles within EMU may be expected, because trade linkages between European regions are likely to increase further. Any shock that will hit a certain region or country will thus be passed on quickly to all other regions and countries by way of trade linkages. Moreover, it is reasoned that the tighter international trade linkages between the participating countries will make their economic structures and their business cycles more similar and asymmetric shocks less likely. Such an outcome is considered to be most relevant if demand shocks (or other common shocks) predominate or if intra-industry trade accounts for most of trade.

An opposite line of reasoning has been developed by Krugman (1993) who argues that the enhanced integration triggered by the monetary union (and even before by the Single Market) will entail an increasing specialization of countries (and their regions) which will, in turn, increase the likelihood that a given shock will have asymmetric effects on different regions because of differences in their production structure. The Krugman argument focuses on new opportunities for the exploitation of scale economies (e.g. localized knowledge spillovers) that foster the spatial concentration of industries. In this case, EMU will increase sectoral and regional specialization in Europe, such that the probability of asymmetric shocks will not necessarily decrease, but may even increase as a result of EMU (see Figure 1 for a stylized description of the two lines of reasoning).

On theoretical grounds both hypotheses seem equally plausible, and the empirical evidence is inconclusive so far. Frankel and Rose (1998) present econometric evidence on synchronization of business cycles using data for twenty industrialized countries covering a thirty-year period. Krugman (1991) presents empirical evidence that the currency union in the U.S. entailed more regional divergence rather than more homogeneity. For Europe, evidence is scarce and does not provide clear-cut results. Our estimates suggest that in the early 1980s regional specialization increased in most EU countries, whereas particularly in the early 1990s it decreased in most countries (Table 1). Amiti (1997) and Brülhart (1998), too, find evidence of an increase in regional specialization within Europe in the period of 1980–1990.

8DeGrauwe and Vanhaverbeke (1991) argue along similar lines.

9 Jaffee et al. (1993) present empirical evidence on localized knowledge spillovers.

10Frankel and Rose (1998) found increasing synchronization in a sample of twenty countries including the U.S., Canada, and Japan. However, they did not go as far as to suggest a currency union for all countries in their sample.
In models of the "new economic geography" (cf. Krugman and Venables, 1995) it is even argued that in the long run the relationship between integration and regional concentration may be non-linear and possibly reversing. Moreover, one may have to take into consideration that the very formation of EMU represents a major structural break, which may change the relationship between integration and specialization that was effective in the past. Given these uncertainties, the proposition that EMU through its realization will secure its own success has to be taken with a grain of salt. Policy should therefore take a cautious stance and prepare for potential shocks.

B. The Flexibility of National Labor Markets

Without the nominal exchange rate as a shock absorber, the effects of asymmetric shocks as well as failures in pursuing an employment-enhancing wage policy (e.g., real wages rising faster than productivity in the face of persistent unemployment) will hit the labor markets more heavily than before; hence, labor market flexibility is crucial. Flexibility in labor markets may be attained by a broad array of different instruments which to a certain degree are substitutes: (aggregate and relative) wage flexibility, working time flexibility, and spatial and job mobility etc. (see Figure 2).

Although there is empirical evidence that real wages do react to changes in unemployment (Layard and others, 1994; Tyrväinen, 1995) there is hardly disagreement that aggregate wage flexibility in most EU member countries is too low. Furthermore, the experiences of various European countries (e.g., Sweden and Italy) suggest that even where aggregate wage flexibility is relatively high it is not sufficient to restore and maintain labor market equilibrium in the era of increasing globalization and intensified world-wide competition. Aggregate wage flexibility must be accompanied by a high degree of relative wage flexibility, regionally, sectorally and according to worker qualifications. However, in Europe relative wage flexibility is too low to help bring unemployment down to acceptable levels. High levels of unemployment compensation tend to act as disincentive to work; minimum wages and high marginal taxes on labor reduce the demand for labor, especially for low-income workers. Also, existing wage formation systems in Europe are not designed to cope with the increasing heterogeneity of firms (Bickenbach and Soltwedel, 1998).

Working-time flexibility—within a certain range—may substitute for insufficient wage flexibility. Increased working-time flexibility can help raise productivity and thus to improve competitiveness. Working-time flexibility is relatively high in the U.K., Ireland, Portugal, the Netherlands, and France, and relatively low in Germany, Greece, and Belgium (Dohse and Krieger-Boden, 1998, pp. 58–60).

However, it is not sure whether increased labor market flexibility is capable of replacing the buffer function of flexible exchange rates for unsynchronized cyclical fluctuation within the euro zone. In fact, casual empiricism seems to suggest that cyclical fluctuations seem to be larger in flexible (e.g. the US) than in inflexible (e.g. France) labor markets.
Also, geographical and job mobility (i.e., the willingness of workers to change employer, occupation and/or place of residence, if necessary) may ease the strain on wages after a shock and may help maintain a higher level of employment at a given wage level (OECD, 1994, p. 64). By contrast, institutional constraints on mobility, like high costs of hiring and firing, may strengthen insider positions in the wage bargaining process and thus contribute to reducing not only job mobility but also wage flexibility. In Europe, such constraints are widespread and as a result the mobility of labor is extremely limited not only among European countries, but also within them.

Although some institutional changes have been made in several EU member states (e.g., by reductions in the stringency of collective wage agreements and by increasing working time flexibility), attempts to reform labor market institutions thoroughly have been half-hearted. Only the U.K., the Netherlands, and, to some extent, Denmark have implemented a broad and relatively consistent mix of reforms to raise flexibility. In all other member states of the EU, current labor market flexibility is still far too low. Indeed, several countries are moving in the wrong direction; e.g., France and Italy by seeking to introduce a compulsory 35-hour working week. This bleak assessment of labor market flexibility in the euro area suggests that in most European countries many modes of labor market adjustment are not functioning well.

The poor flexibility of labor markets in most EU member countries underlies the predominantly structural character of the European unemployment problems (see e.g., Bean, 1994; OECD, 1994 and 1999; IMF, 1999). According to the OECD’s estimates of the non-accelerating–wages rate of unemployment (NAWRU) more than 80 percent of unemployment in the EU must be considered to be of a structural rather than cyclical nature (Table 2). As long as underlying labor market rigidities impede adjustment processes, shocks are likely to add to this structural unemployment. With the exchange rate no longer available as a ‘shock absorber’, structural reform of European labor markets, certainly warranted on its own right, has been made more urgent by the implementation of EMU.

C. A Status Quo Assessment of EMU and European Labor Markets

If the EMU countries’ susceptibility to asymmetric shocks and the structure of European labor markets will not change fundamentally with the introduction of the euro, the countries on the northern and southern peripheries of the EU (Finland, Italy, and Spain) face a high risk of increasing unemployment, since the probability that these countries will be hit by asymmetric shocks is high, whereas labor market flexibility is low (Table 3). Germany, France, and Belgium

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12 This is especially true for supply shocks although demand shocks may also have long-run impacts on output and employment (see also fn. 3)

13 For an in–depth analysis of the labor market flexibility of the euro–area countries see Dohse and Krieger Boden (1998, chapter 4) and OECD (1999, chapter 4.)
face a lower probability that they will be hit by asymmetric shocks.\textsuperscript{14} However, if such shocks do occur there is a high risk of a permanent increase in unemployment due to the low degree of labor market flexibility in these countries as well.

Ireland\textsuperscript{15} and Portugal are not subject to a very high risk of increasing unemployment as a result of EMU: although the probability that these countries will be hit by asymmetric shocks is high, the relatively high degree of labor market flexibility is an effective insurance against higher unemployment.

The countries that are, from a labor market point of view, best prepared for EMU are the Netherlands and Austria, since there is only a low probability that they will be hit by asymmetric shocks, and labor market flexibility is high compared with the EU average. Therefore, our analysis suggests that EMU will affect its member countries quite differently.

\textbf{III. The Regional Perspective}

We now focus on an important feature of the European unemployment problem that is widely neglected\textsuperscript{16} in the debate on monetary union but that, in our assessment, may be crucial for a successful reform of the sticky labor markets in the Euro area. Europe's unemployment problem is to a large extent a \textit{regional} problem within countries and the labor market risks of EMU result— to a substantive part—from the high probability of region-specific (asymmetric) shocks in combination with the lack of functioning adjustment mechanisms at the regional level:

- The countries participating in EMU comprise very heterogeneous regions. Therefore, the monetary union may have very different effects on the regions of a country: The 'Rhineland' region with its spatial proximity to the Netherlands, Belgium, and France will arguably profit more from the benefits of the currency union than the Oberlausitz, which is adjacent to Poland. Furthermore, the sectoral structure of the west German economy is closer to the EU average than the structure of the east German economy, which implies a higher susceptibility of east Germany to asymmetric shocks. The same type of argument holds for the Mezzogiorno in comparison to the north and central regions of Italy.

\textsuperscript{14} Of course, we have primarily permanent shocks in mind here; (however, see also footnote 3).

\textsuperscript{15} Although the Irish wage bargaining system is highly centralized, labor market regulation, wage increases and non-wage labor costs are moderate compared to continental European standards, thus creating a favourable environment for economic growth and foreign direct investment (FDI). Since the severe crisis in the mid-1980's when the unemployment rate climbed up to 17 percent, the Irish economy has developed much more dynamically than the European average with respect to growth in employment and output, living standards and the decrease in unemployment.

\textsuperscript{16} One of the recent exection is Mauro, Prasad, and Spühmergo (1999).
The major threat of EMU for the labor market is the combination of regional (especially the problem regions') susceptibility to asymmetric shocks and the lack of regional adjustment instruments. In addition—and not to be underestimated—there are substantial moral hazard effects implied in massive regional transfers.

EMU seems to benefit problem regions least, as they are typically peripheral regions (i.e., they do relatively little trade with the other monetary union countries, profit less from the elimination of the national currency and are more prone to asymmetric shocks), and labor market stickiness is very pronounced in these regions.

Since regional disparities in unemployment and income are large and a further widening seems unacceptable for political reasons, the regional problem may become a major threat to the long-run sustainability of EMU.

This implies that any attempt to reform European labor markets successfully and 'make them fit for monetary union' has to take the regional dimension of the problem into account.

A. Some Stylized Facts

Unemployment rates among EU member states vary significantly, the Spanish rate being almost five times higher than the rates in low-unemployment countries such as Austria or the Netherlands (Table 2). While these national differences are important, the Union's unemployment problem is most acute at the regional and local level. Unemployment rates in some problem regions of the community are more than ten times higher than unemployment rates in the best performing regions (Table 4).

The problem regions are concentrated at the periphery of the Union: Southern Italy, Spain, Ireland, Finland, and east Germany. Regional disparities are especially large with respect to youth unemployment, which is a severe problem in southern Europe (Italy and Spain), but less so in northern and central Europe, as can be seen from Table 5.

The European regional problem—measured in terms of unemployment disparities—has become more acute over time. The dispersion of regional unemployment rates across the EU in 1995 was three times higher than in the late 1970s (Martin, 1998, p. 20). Regional disparities vary significantly among EU member states: France, the Netherlands, the U.K., Sweden, and Austria show a relatively high degree of homogeneity in their regional unemployment rates, whereas Finland, Germany, and especially Italy are characterized by large regional disparities (see Table 6).

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17It is noteworthy, however, that—at a more local level—high unemployment rates also exist in some of Europe's capitals, e.g., London, Berlin, and Brussels (Martin, 1998, p. 18).
The regional problem in Germany is aggravated by the fact that structural adjustment in east Germany is not really making progress, and labor market performance in some of the east German problem regions has been worse than in any other European region. Another striking fact is the rapid decline in regional unemployment disparities in the U.K. since 1990. It was especially during the recession of 1989-93 that unemployment differentials declined to an unprecedented degree.\(^{18}\)

A characteristic feature distinguishing Europe from the U.S. is the high degree of persistence in the regional unemployment discrepancies over time. Within the four largest EU member states the ranking of regions by unemployment rates in any given year is highly correlated with the ranking in previous years (Table 7).\(^{19}\) In this respect, regional unemployment in most EU countries behaves quite differently from that in the U.S., where one period's high unemployment region can become the next year's low unemployment region (Bertola and Ichino, 1996). The rank-order correlation coefficient for Europe as a whole reflects the decline of unemployment rates in the Netherlands, Denmark and the United Kingdom: the coefficient did decline from 0.96 for 1985-90 to 0.78 for 1985-97, which nevertheless remains markedly above the U.S. coefficients of about 0.50.

### B. A Recipe for Failure: Region-Specific Shocks and Regional Non-Adjustment

There is broad agreement in the literature that asymmetric shocks are much more pronounced at the regional than at the national level in the EU, which may be traced to a high degree of specialization of regions within a single currency area compared to countries with different currencies. Growth rates of output usually vary almost twice as much in the case of regions within a country as among EU countries.\(^{20}\) Similar results are obtained by looking at

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\(^{18}\) It is tempting to interprete this entirely as a consequence of reforms intended to increase labor market flexibility. However, evidence from disaggregated data gives a more differentiated picture (McCormick, 1997): in the non-manufacturing sectors there is indeed a high degree of geographical mobility contributing to the convergence of regional unemployment rates, whereas the manufacturing sector is still characterized by low geographical mobility. Instead of migration or significant variations in relative wages there has been a tendency for manufacturing labor force participation rates to decline in contracting regions, which—together with migration by non-manuals—explains the leveling of regional unemployment rates in the U.K.

\(^{19}\) Martin (1998) finds similar results for NUTS1-level-regions (NUTS is the nomenclature of territorial units for statistics compiled by EUROSTAT. Level 1 (NUTS1) is the largest, NUTS2 the medium and NUTS3 the smallest level of regional disaggregation).

\(^{20}\) See De Grauwe and Vanhaverbeke (1991); Decressin and Fatás (1995); De Nardis and others (1996); Viñals and Jimeno (1996); Fatás (1997). It is tempting to argue that this higher degree of specialization is a statistical artefact being mainly due to the fact that regions are smaller entities (continued...)
employment changes (Fatás 1997). Real exchange rates, however, exhibit less variability at a regional than at the national level, which—to a considerable extent—seems to be due to the absence of nominal exchange rates at the regional level. Moreover, several studies that analyze the composition of regional output or employment changes reveal a considerable relevance of the region-specific component (Viñals and Jimeno, 1996; Decressin and Fatás, 1995).

A permanent increase in regional unemployment due to adverse region-specific shocks can only be avoided in well-functioning regional labor markets. In the U.S., labor migration plays an important role as an adjustment mechanism, evidenced by interstate flows of workers, both trend flows and flows in response to shocks (Blanchard and Katz, 1992). By contrast, interregional labor mobility is rather limited in the EU. This leaves regional wage flexibility as the main adjustment mechanism within EU member states. Empirical studies show, however, that in Europe region-specific increases in unemployment do not lead to a strong differentiation in regional labor income growth (Abraham, 1996; Decressin and Fatás, 1995). This may be explained by the fact that wage policy is not region-specific, i.e., there are spillovers from wage setting in prosperous regions to problem regions. These spillovers may prove especially harmful for the problem regions if productivity growth in these regions is slower than in the rest of the economy. Productivity growth in the prosperous and dynamic regions creates opportunities for wage increases, which are copied by less successful regions, aggravating the employment problems of the lagging and peripheral regions (Abraham, 1996, p. 72).

If there is neither labor mobility nor wage flexibility, two alternatives remain: increased subsidies, or an increase in unemployment in those regions hit by adverse shocks. Obstfeld and

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21 Even temporary regional shocks may add to permanent unemployment due to mismatch and hysteresis effects, see footnote 3.


23 This does not assume that all unemployment is due to excess real wages. The argument is rather that—once unemployment has surfaced—wage flexibility is required to entice new (profitable)employment opportunities for those workers who have been made redundant (e.g. by demand shifting to higher value added products and corcomitant higher skill requirements for labor). Moreover, if a region is hit asymmetrically by a common policy shock (such as a change in the common monetary policy—see, e.g., Carlino and DeFina 1998 and 1999) wage flexibility is crucial, in particular in EMU where fiscal policy is severely constrained.

24 See Giersch (1969); Giersch and others (1992); Abraham (1996).
Peri (1998), Blanchard (1998) and Eichengreen (1998) have argued that long-run transfers are in fact not an adjustment mechanism but a practice that prevents adjustment and structural change. Therefore, the European unemployment problem—stripped down to its core—appears to be a problem of regional non-adjustment to region-specific shocks and/or persistent (structural) regional differences.

C. Europe’s Most Prominent Problem Regions

To gain further insights into the causes—and possible cures—of regional labor market rigidities in Europe, we take a closer look at two particularly conspicuous examples of regional unemployment in the EU, namely east Germany and Italy’s Mezzogiorno. Both regions have in common that GDP per head is far below the respective national averages, and the unemployment rate far above average (Table 8). Important structural features of these problem regions are summarized in Box 2.

Italy has been facing a north-south dualism since its monetary unification in 1862, whereas the regional economic problem in Germany is relatively new (encountered since monetary union in 1990). Nevertheless, the root causes of labor market stickiness in both east Germany and the Mezzogiorno seem to be similar: a nationwide sectoral wage bargaining system that leaves little room to adapt to region-specific conditions, a relatively strict regulation of working time, high costs of hiring and firing that strengthen the position of insiders and weaken the position of outsiders, interregional transfers and welfare benefits that are—because of their moral hazard implications—inefficient in the sense that they discourage job search and (interregional) labor mobility. Rent controls and heavy taxation of housing transactions add to impeding interregional mobility.25

Both east Germany and the Mezzogiorno show productivity gaps in manufacturing vis-à-vis the rest of the respective countries that is not reflected in a wage gap of comparable size. The relatively high unit labor costs make it difficult for these regions26 to attract mobile resources for developing a strong industrial base, which still seems to be a necessary condition for the concomitant evolution of a modern service sector specializing in high value-added activities. The malfunctioning of the wage bargaining system is even more pronounced in east Germany than in the Mezzogiorno: Here it is not only in the manufacturing sector but also in the service sector that unit labor costs are higher than in the more prosperous parts of the country (Table 9).

25OECD, Economic Surveys, var. issues; Boltho and others (1997); DIW, IfW and IWH, var. issues; Faini and others (1997).

26These regions are handicapped anyway by their economic backwardness, including a deficient infrastructures, and, in particular in the Mezzogiorno, a tradition of poor work ethics and morale, doubts about the transparency and credibility of government administration and a bad reputation with respect to the enforcement of law. Wage differentials should, at least to some extent, also compensate for these disadvantages.
While southern Italy has failed to reach any significant real convergence with the north in the long history of its monetary union, Boltho and others (1997) argue that prospects for east Germany looks better. However, their argument that the existence of a flourishing market economy in east Germany before World War II and the tradition of manufacturing, prevailing even in the socialist era, may prove an important advantage in the convergence process (Boltho and others, 1997, p. 257) seems to underestimate the legacy of socialism in affecting work ethics and morale. The huge amount of transfers, equivalent to about 5 percent of German GDP throughout most of the 1990s, (of which most was and still is earmarked for social policy objectives and not for the upgrading and extension of the infrastructure) prevents adjustment to the needs of a modern society that is subject to the enhanced competitive pressures of globalization and European integration. These substantial transfers from the more prosperous parts of the economy ensure, however, that consumption standards are relatively even across all of Germany. By their very nature, though, these transfers contribute to, and may even perpetuate, a model of regional dependence (Boltho and others, 1997, p. 242), eventually ending up in a “Samaritan dilemma” (Giersch).

A glimmer of hope for east Germany can be seen in the fact that east German firms have increasingly opted out of the bilateral monopoly in collective bargaining. In fact, there has been a marked “run” to get out of compulsory branch wage agreements (Flächtentarifvertrag). This instrument has lost its specific (and legally endorsed) property of creating “orderly conditions” in the respective labor markets, and its binding character is eroding. Having been pushed close to bankruptcy by the collective wage agreements that followed the idea of a swift wage equalization between east and west Germany, a considerable and increasing number of firms that did belong to the employers’ associations simply ceased to comply with their legal obligation of following suit and paying the wage increase. In particular, small and medium-sized companies are detaching themselves from the collective bargaining process. About 47 percent (40 percent) of firms in manufacturing with less than 20 employees did pay less than the collective agreement required in early 1998 (1995). These developments in east German labor markets indicate that there is a strong tendency to contest the power of the bilateral cartel on the labor market and for a wage formation process that takes more account of relative scarcities and firms’ requirements in east

\footnote{In the 20–100 employees bracket this share amounted to roughly 40 percent in 1998 (about one third in 1995), and to 35 percent for the 100 to 200 employees firms (20 percent). Even about 13 percent of the firms with more than 500 employees did pay less than the collective contract wage in 1998, up from zero in 1995. Only one fifth of the enterprises were affiliated with an employers’ association in 1997 (about 27 percent in 1994/5). The percentage is lower with respect to the number of employees, though: Approximately 45 percent of the employees were paid according to the Flächtentarifvertrag. For the data see DIW and others (1995, 1998, 1999). See also Kohaut and Schnabel (1998).}
Germany.\textsuperscript{28} Nevertheless, it is very likely that east Germany—as well as the Mezzogiorno and many other problem regions in Europe—will lose from EMU because of being peripheral regions with production structures quite different from the euro area’s average. Thus, EMU puts an additional strain on Europe’s problem regions.

D. From Regions to Enterprises

To sum up, the euro area is characterized by substantial regional unemployment, with problem areas concentrated at the peripheries. The disparities in regional unemployment rates have not declined but widened in recent years, which may prove a severe handicap for EMU. It is therefore necessary that policymakers pay more attention to the regional dimension of the European unemployment problem.

However, we hold that many problems observable at the regional level have their root in the fact that labor market regulations and institutional frameworks for bargaining have not been adequately adjusted to the fundamental changes going on in many enterprises as a result of progressive globalization and European integration (Box 3). Hence, policy must also consider the firm perspective in adjusting the institutional framework of the labor market to the changing requirements in the environment of a Europe that is integrating at an increasing speed and that has to face a more competitive global environment.

IV. Enlarging Institutional and Regional Diversity

So far, our analysis has substantiated (i) that there are considerable differences between the euro area countries with respect to their exposure to asymmetric shocks and/or the degree of labor market flexibility; (ii) that the euro area has a substantial regional unemployment problem with problem areas concentrated at the peripheries; and, (iii) that the existing wage formation systems in most of Europe are not structured to cope with the increasing heterogeneity of firms.

These conclusions lead to a broad array of policy considerations. First, we have to acknowledge that there is near unanimity among scholars that monetary union adds to the urgency of implementing structural policy measures, in particular: a comprehensive reform of labor market institutions that is warranted in its own right anyway (see e.g., Artis, 1998; IMF, 1997).\textsuperscript{29} Given

\textsuperscript{28}In east Germany this process of opting out of the cartel has been endorsed even by the current insiders because they did correctly assess the alternative—immediate bankruptcy of many firms—if not doing so. This is different from the situation in west Germany, where the insiders will (correctly) see this as an indirect attack, which threatens to gradually erode their privileged positions, and are thus (still) likely to oppose such a move (see Saint Paul, 1997).

\textsuperscript{29}Indeed, the flexibility of markets in general should be increased. There can hardly be any doubt that malfunctioning due to rigidities in product markets and labor markets mutually reinforce each other (see Buti and others, 1999, p.27; Nickell, 1999). However, the implementation of the (continued...)
this broad consensus we first have to ask: Will monetary union give momentum to comprehensive labor market reforms, thus bringing flexibility to Europe’s sticky labor markets? Second: Is there a model, a promising blueprint for the reform? Third, as we end on a skeptical tone for the latter question: Is there sufficient regional and institutional diversity within member countries of the monetary union? And, finally, in giving credit to the increasing needs for an institutional environment that takes the changing trends in business organization into account we ask: How to raise the flexibility of adjustment at the level of the firm?

A. Will EMU Give Momentum to Labor Market Reform?

It seems very likely that European labor markets will change as EMU proceeds. It is sometimes even argued that this will happen in a sort of There-Is-No-Alternative (TINA) reasoning (Allsopp and Vines, 1998, pp. 2 and 6).\(^{30}\) Up to now, in preparing for the monetary union, and in response to increasing adjustment pressure, steps in opposing directions have been taken by member states. On the one hand, some efforts, particularly at the European level, tend to stifle competition and might easily lead to a ‘vicious circle’. The completion of the Single Market, the globalization of markets and the introduction of EMU, it is often argued by politicians, unions and interest groups, require a ‘social dimension’ for the EU to protect European workers against ‘unfair’ competition and ‘wage dumping’. In this vein the EU opted for the introduction of European minimum standards for working conditions\(^{31}\), e.g., the initiatives based on the Social Charter and its accompanying Action Program (Addison and Siebert, 1997).\(^ {32}\) Our assessment is that these standards reduce the flexibility of labor markets. Moreover, they are costly, particularly for those member countries in which standards are comparatively low. As differences in common market has substantially spurred market forces in those areas of the economy that, in most of the EU member states, were sheltered from competition. Although subsidization and other protectionist devices are still important in the EU member countries and impair efficiency on product markets, it is labor market rigidities that pose the biggest challenge to policymakers.

\(^{30}\)For a somewhat diverging view on the TINA strategy see Calmfors (1998, p. 142).

\(^{31}\)There is a broad consensus in democratic societies that there are unalienable human rights (such as the prohibition of slavery) and other basic rights (such as union formation). Furthermore, there are some areas where the existence of negative externalities may warrant national, or even supranational, minimum standards (such as job safety provisions). However, it has to be taken into account that the quantitative valuation of these externalities as well as the definition of specific rights (such as the prohibition of child labor) may have to take country specific idiosyncrasies into account in order not to entail a substantial net burden for the respective countries.

\(^{32}\)Seemingly, the European Commission acts as an “agent” of the social partners. Although unions and employers’ associations have been given ‘voice’ in the Maastricht treaty, no European wage bargaining and no European collective agreements on common standards are to be expected in the foreseeable future.
productivity are likely to persist for some time to come, more uniform minimum standards may lead to increased unemployment in low-productivity countries (Paqué, 1997; Soltwedel, 1997b). High and increasing regional unemployment might then raise demands for more EU regional assistance and financing these subsidies is likely to restrain the economic dynamics of the remaining areas (Kronberger Kreis, 1996).

On the other hand, there are indications of a possible ‘virtuous circle’, as several EU member states have, though at rather different speeds and with variations in scope, implemented measures to decentralize and deregulate their economies and to increase the flexibility of their labor markets. Other countries may imitate the examples of the United Kingdom and the Netherlands who have gone farthest down that road and, subsequently, experienced a marked decline in unemployment. Moreover, in most member states (with the exception of Ireland55) there has been a tendency toward decentralizing the process of collective bargaining.

It is difficult to assess which of these two divergent tendencies will dominate in the long run. In support of the virtuous circle hypothesis, one may argue that by joining EMU the member countries did submit themselves to an external pressure shaping adjustment needs that one country on its own cannot resist. This may help remove the roadblocks to political action for comprehensive labor market reform. That external pressure may be conducive to this end became apparent in the process of liberalization in the run up to the completion of the Single Market. By pointing to the commitment of the respective governments to the higher ranking objectives of “European Integration” and the “Single Market”, politicians had an opportunity to resist the influence of well organized and powerful interest groups and to make successful inroads into their privileges and exemptions from competition, e.g., in the areas of transportation and telecommunications. Likewise, the convergence of inflation rates through the 1990s may be read as a result of the political commitment to EMU which allowed national central banks to resist pressure groups urging a permissive monetary policy (SVR, 1996, Par. 434; Mussa, 1997). Thus, member governments might use the implementation of the monetary union as the basis for an (implicit) agreement to cut back on the exuberant welfare state and to bring the incentive structures more into line with economic sustainability in order to foster market dynamics (McKinnon, 1997, p. 228; Salvatore, 1997, p. 225). Thus, the introduction of EMU could facilitate a reduction in the high costs of regulation and of social protection. However, there is no room for complacency that the circle will automatically be virtuous. Policy has to take the initiative and cannot rely upon the monetary union automatically triggering a process of fundamental reform.

55 See above footnote. 15.
B. Is There a Blueprint for Reform?

There can hardly be any doubt that the OECD Jobs Strategy currently provides the most scholarly, comprehensive and consistent labor market reform program, and, as a matter of fact, all OECD member countries did commit themselves to it, albeit without really taking swift action (see IMF, 1999, p. 75). We do not want to go into the details of the Jobs Strategy in this paper. Instead, alluding to the argument that the various elements of labor market flexibility, i.e., wage flexibility, working-time flexibility and geographical mobility (see Figure 2), are (to a certain degree) substitutes, we would like to stress that there is no need for all countries to follow the same reform model to attain higher overall labor market flexibility. Country-specific preferences may lead to different mixes of flexibility characteristics with broadly similar efficiency properties. Nevertheless, we have to take into consideration the “all or nothing” warning issued by Coe and Snower (1997). They argue that piecemeal labor market reforms may have had so little success in reducing unemployment in the past because complementarities that operate when a broad range of policies is implemented are lost sight of. Hence, what is needed is a fundamental labor market reform that is both broad and deep.

National governments, the EU, and, above all, employers and employees have to be committed to institutional reform for major progress in reducing unemployment to be achieved (Siebert, 1998). Hence, there is urgent need for an appropriate assignment of responsibilities.

The main responsibility for establishing the rules of the game is with national governments. Government has to provide an efficient institutional and legal framework within which labor market agents can act. This framework has to make it uncompromisingly clear to employers and employees that they have to take account of market conditions in their negotiating and contracting in the broad area of working conditions and pay. Furthermore, legal statutes that drive up the costs of employment have to be scrutinized, made more flexible, or even eliminated. National governments have to be alert that the EU level is not grasping more competencies than is proper under the subsidiarity principle.

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34 For a provocative essay on the „War of the Models“ see Freeman (1998).

35 This assignment can, but need not, be accomplished by a consensus between the major relevant groups (as was obviously the case e.g. in the Netherlands), however, a determined government can by itself and rather abruptly change the institutional environment so that the interest groups have to adjust and take on their responsibility as was the case e.g. in New Zealand. Note, however, that in the case of New Zealand’s reform process there also was a broad (implicit) consensus among the political parties and social groups not to initially change the basic institutional framework of the labor market. It was only after the failure of the sweeping reform process to reduce unemployment and enhance employment prospects that the Employment Contracts Act was implemented in 1991 against the opposition of the unions (Kasper, 1995).
C. The Need for More Regional and Institutional Diversity

Against the background of widely divergent economic (and social) conditions between countries as well as within countries it seems appropriate not only that reform packages be country-specific but that a country-specific package pays tribute to the importance of the regional (i.e., intra-national) dimension. The importance of the regional perspective has, to our knowledge, hardly ever been given attention in the discussion of labor market reform (even the OECD Jobs Strategy does not explicitly tackle the regional perspective) or in the discussion of the consequences of EMU.

There is a pervasive lack of institutional variety within national employment systems that does not allow for the appropriate dynamic reaction to idiosyncratic shocks. Institutions such as welfare and unemployment benefit systems, minimum wages (where they apply), dismissal protection laws, even working-hours regulations, are mostly shaped at the national level and are usually uniform within a given country. Critical cases in point are housing market regulations and the taxation of housing transactions, which form important obstacles to interregional mobility. There are also a lot of regulations outside labor markets (e.g., shopping hours) that often apply nationwide and, void of any economic justification, hardly allow any regional differentiation.

The high degree of institutional homogeneity, prevailing in most EMU countries, may entail a mismatch between institutions and the economic conditions that prevail in the problem regions. The greater differentiation that exists across European regions than within any individual country strengthens our concern that pressures toward greater uniformity of labor market institutions or wage equalization following monetary union would raise the risk of increasing institutional mismatch and hence jeopardize the efficiency gains expected from the implementation of the monetary union (see also Buti and others, 1998; Mauro, Prasad, and Spilimbergo, 1999, p. 43). To achieve a broader regional diversity it should be considered whether opt-out clauses could be amended to nationwide regulations that restrain regional adjustment capabilities in the case of asymmetric shocks.

More interregional variety is also a precondition for more effective interregional competition. We view interregional competition as a competition among regions struggling to design the most favorable institutional and legal environment for employment and growth. Such a competition may help find innovative institutional arrangements facilitating rather than hindering adaptation to modern production processes, to break up “bureaucratic sclerosis”, to re-shape the regional production system and to contest the cartel of the “distributive coalitions” (Olson 1982). In that sense, interregional competition can be looked at from the perspective of “competition as a discovery procedure” (Hayek, 1968, 1978).

Furthermore, the policy objective that became known under the heading of “Europe of the Regions” (and that has been given more prominence and clout in the Maastricht Treaty) does reflect that more institutional variety is an indispensable instrument for regions to sharpen their own profiles in a competitive environment where national boundaries lose importance because of
the completion of the Common Market and of EMU, and because of the increasing pace of the international integration of markets.

However, on the rather pessimistic assumption that regional non-adjustment will persist or that there will at least be substantial inertia in effectively tackling the paramount regional problems, a discussion is evolving about alternative, non-market mechanisms to protect the regions against adverse consequences of asymmetric shocks. Several proposals have been made to set up an insurance mechanism, designed to channel income from countries (or regions) in a boom relative to the EU average to countries (or regions) in a relative trough. It has been shown, however, that the proposed insurance mechanisms do not meet basic efficiency requirements (Hagen and Hammond, 1998). So, there is no easy escape from the need for structural labor market reform in order to improve the regions’ adjustment capabilities in the case of asymmetric shocks.

D. More Freedom of Contract at the Firm Level

To keep wages in line with productivity at high levels of employment and to agree on labor market conditions that are conducive to full employment should be the main responsibility of employers’ associations and trade unions in most EU member states given their corporatist institutional environment. The academic discussion about the appropriate model for the institutions of wage policy has long been dominated by the Calmfors-Driffill hypothesis (1988), according to which labor markets work best in those countries with either very decentralized or very centralized wage formation systems. However, the C-D hypothesis seems at odds with recent experiences: countries with decentralized wage negotiations have proved more successful than others with respect to labor market performance in the last decade (Berthold and Fehn, 1996; Dohse 1999).

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36 See Belke and Gros (1998) for a recent proposal and Hagen and Hammond (1998) for a critical evaluation of different insurance approaches.

37 Basic efficiency requirements imply that there is significant insurance against asymmetric shocks, no permanent transfers are generated and that there are no lasting ex ante distributional consequences.

38 In a totally decentralized institutional environment where firms are free to manage, wages will always be “in line” with productivity. To stimulate job creation, wage flexibility will bring the aspiration wage of the unemployed “in line” with profitable employment. Once full employment is reached employment growth is required only if the labor force is growing, which need not be the case in Europe in the medium run.

39 The Calmfors-Driffill hypothesis as well as the positions mentioned above reflect average relationships to which some exceptions stand out such as Ireland and the Netherlands. Note that Ireland was not included in the initial Calmfors-Driffill paper and, therefore, not in Dohse (1999). The case of the Netherlands gives a flavor of the difficulties to rank countries along the (continued...)
Collective bargaining may be even more difficult in the more transparent environment of a monetary union. German political and economic unification provides an intriguing example for a 'wage and welfare benefit unification'. The implementation of the west German collective bargaining system with its tight and cozy corporatism aiming at swift wage equalization turned out to be harmful for east German employment: wage policy was decoupled from productivity developments and turned east Germany into a high-cost location with unit labor costs considerably exceeding those in west Germany throughout most of the 1990s. In recent years, more and more east German firms are trying—quite successfully—to get out of the cost-enhancing collective bargaining system (see above), fostering a fundamental shake-up of the system also in west Germany towards a more appropriate decentralized wage-setting mechanism.

Centralized collective bargaining, guided by politically induced objectives for wage policy, is not only inappropriate in situations of widely differing conditions in regional labor markets—as is the case for EMU member countries—but also inconsistent with the above mentioned trends in business organization (see Box 3). The paradigm shift from the strictly hierarchical toward a holistic organization implies that efficient agreements between employers and employees become more complex and diverse and, thus, increasingly information-intensive. At the same time, implicit contracts gain in importance and require more mutual trust and co-operative industrial relations. Standardized problems and solutions (such as standardized wage structures that cover most of an industry) that can be determined at a centralized level by employers' associations will be increasingly rare.

Collective norms that are defined at the central level impede firms in their efforts to provide effective wage incentives for their employees. Likewise, firms may feel restrained from investing efficiently in the human capital of their staff by an individual mix of formal and informal measures and a regular rotation of activities. Firms need considerable room for maneuver for the adjustment and specification of tasks, remuneration systems, and qualification policies.

However, existing wage formation systems in most of Europe are not structured to cope with the increasing heterogeneity of firms and jobs. Therefore, to help firms adjust to these substantially changed conditions and to provide enough flexibility to cope with potential additional pressures that may arise from shocks hitting the economy more heavily than before, the wage-bargaining system needs to provide sufficient scope and opportunity for agreement on appropriate idiosyncratic employment contracts, covering both wages and working conditions. Shaping pay systems in a more performance-oriented way, organizing working hours more flexibly, forging agreements and contracts on employment and locational security, and adopting centralized–intermediate–decentralized criteria: Although the corporatist tradition, in particular in the mid–1980s, has a strong centralist character, the ease at which firms can strike a deal on a decentralized level in case of difficulties suggests to put the Netherlands into the intermediate category (Hartog and Theeuwes, 1996).
measures for a long-term-oriented manpower policy—all of this can be done most efficiently at the enterprise level.

**V. CONCLUSION**

Without major changes in the institutional framework of labor markets in the majority of member countries, EMU may contribute to aggravating the unemployment problems in the euro area. The appropriate response is structural reforms, such as those proposed in the OECD Jobs Strategy, to enhance the flexibility of labor markets. But in addition, considering that regional non-adjustment is the main reason for EU member countries’ stubborn regional unemployment problems, policies are needed that allow a decentralization of competencies and a broader diversity of labor market outcomes. Such diversity is instrumental to interregional (or locational) competition.

The subsidiarity principle that has gained in importance in EU politics under the Maastricht Treaty gives more prominence to institutional diversity. Furthermore, the Amsterdam Treaty gave labor market policy more prominence at the EU level. From our perspective, there is an upside and a downside to these recent changes in the allocation of competencies.

The *European authorities (Council, Commission, and Parliament)*, being entitled to issue binding guidelines and directives, can and do play an important role in assisting member states to stimulate competition at the national levels and thus in increasing the flexibility of their labor markets. EU member governments should be urged to acknowledge their obligations resulting from endorsement of the OECD *Jobs Strategy*. To this end, the European Commission should make determined use of its competencies acquired in the Amsterdam Treaty to embark on a *peer pressure review procedure* for surveillance of progress with structural reform in labor markets. The Commission could benefit from the experience of the OECD’s *Economic Development Review Committee* (EDRC) and its ongoing review process.

The European Commission could spur institutional reform by setting incentives for a decentralized experimentation in implementing its directives at the national level. This would add substance to the principle of subsidiarity.

There may be a temptation for the European Commission and national governments to absorb increasing adjustment pressure at the European border, or to follow a centralized policy of handing out regional subsidies in order to make the necessary adjustments more ‘socially acceptable’. Trade unions and employers’ associations usually endorse such action. They might feel taken off the hook to meet the challenges of the increased competition engendered by globalization and monetary union. From this perspective, there is a risk that the enlarged competencies for employment policies at the EU level (created by the employment chapter of the Amsterdam treaty) could be used as a protective device. Such a shift of competencies could strengthen the zeal of the European Commission to get additional own funds (in the form of taxing authority or own credit facilities on capital markets). The member states should oppose any
attempt to implement such an “active employment policy” at the European level since this goes in the wrong direction. More centralization implies less regional and institutional diversity which is, as has been argued in this paper, crucial for the regions’ ability to adjust to asymmetric shocks. In this sense, one may argue that it is the further evolution of the institutional framework of European labor markets that will be decisive for the long-run success or the failure of EMU.
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Box 1. Exchange Rates as Shock Absorbers—The Cases of Italy and Finland

Economic Development in Italy 1980–1997

Effective exchange rate
Annual average change (in percent)

Output and employment
Annual average change (in percent)

Trade balance with the rest of the EU
Million Dollars

Economic Development in Finland 1980–1997

Effective exchange rate
Annual average change (in percent)

Output and employment
Annual average change (in percent)

Trade balance with the rest of the EU
Million Dollars


1/ (Real and nominal) effective exchange rate of the lira (finmark) vis-à-vis the currencies of the other EU member states.
Italy was hit hard by the ‘shock’ of German unification and the ensuing boom in economic activity in Germany. To keep inflation at bay, the Bundesbank pursued a tight monetary policy. The resulting strength of the D-mark forced Italy—as well as several other EMS countries—to pursue a tight monetary policy to defend the lira’s external value vis-à-vis the D-mark. However, at the same time, Italy went into a recession: the lira was overvalued and the country’s export performance was poor. The EMS crisis in September 1992 caused a sharp nominal depreciation of the lira and Italy (as well as the U.K.) left the exchange rate mechanism. In contrast to earlier nominal depreciations of the lira, this time the nominal depreciation led to a similarly strong real depreciation. This was achieved by fundamental reforms such as the abandonment of the ‘scala mobile’ in 1992, a wage indexation mechanism that had speeded up the inflationary effects of Italian monetary policy. The depreciation of the lira proved beneficial for Italy: It improved the country’s price competitiveness and led to fast growth of the export sector, a better external trade balance, and stabilization of GDP and employment.

Finland went into a deep crisis in the early 1990s: COMECON vanished as a major trading partner, world recession hit exports and pulp and paper prices fell sharply. A skyrocketing increase in unemployment from a moderate 3.5 percent in 1990 to more than 18 percent in 1994 was accompanied by a massive rise in the budget deficit. After trying to defend the exchange rate vis-à-vis the D-mark, the central bank finally abandoned this strategy and allowed a drastic depreciation of the Finmark. This nominal depreciation translated into a long lasting real depreciation. Although a drastic fall in output and employment could not be averted, the depreciation helped the Finnish economy to become competitive again relatively quickly. Thus, the foreign sector mitigated the extent of the output decline (Dornbusch 1996, p. 31).
Box 2. Euroland’s Most Prominent Problem Regions

Germany’s ‘Neue Länder’

In unifying with west Germany, east Germany’s economy was hit by a conversion shock: wages, rents and pensions were converted at a rate 1:1 from eastern Marks into D-Mark. This politically determined conversion rate translated into wage costs explosion for east German producers exceeding productivity levels by far. (Based on productivity levels, a conversion rate of 4:1 or even 5:1 would have been adequate.) The effect was a strong real appreciation, sharply raising the prices of east Germany’s output and thus jeopardizing the manufacturing sector’s competitiveness. A massive deindustrialization took place to an extent that was unique among the transition countries in central and eastern Europe: Within one year following the economic, social and monetary union in 1990, industrial production dropped to one third of its 1989 volume and GDP dropped by one quarter. In the transition process from a socialist economy to a market economy a large part of the east German capital stock became obsolete.

The problems were aggravated by the fact that—under the impression that mass migration might be flooding west Germany (in 1989 as well as in 1990 east Germany lost about five per cent of it’s population)¹—the east German wage rates were rapidly adapted to western levels, implying that wages in the east rose much faster than productivity. The consequence was a further loss of competitiveness and a subsequent rise in unemployment. In the second quarter of 1990, monthly wages and salaries per employee were, on average, 20 percent higher than in the fourth quarter of 1989 and 26 percent higher that in the third quarter. Furthermore, the west German wage bargaining system, characterized by its cozy corporatism, was extended to east Germany with the Treaty for an Economic, Monetary and Social Union which took effect as of July 1, 1990. The combination of centralized wage bargaining, too high aggregate wage levels and massive income transfers from the west to the east has prevented a market response to the growing labor market disequilibrium and hindered the economic recovery of the German east.

Arguably, it was the combination of conversion, wage explosion and immediate and complete opening of the east German market to western producers which caused the collapse of east German manufacturing. A more gradual process of integration—if possible at all—might have been less costly by allowing a more gradual adjustment similar to the processes in other highly industrialized transition economies.

¹However, after it became clear that “the door would remain open” net-migration decreased markedly and did stabilize at a low level after mid-1991.
Italy’s Mezzogiorno

Italy is used to having substantial regional disparities in employment and income. The northern parts of the country are traditionally more prosperous than the southern regions. It is noteworthy, however, that during the last decade regional unemployment disparities have increased. The observer is confronted with an empirical puzzle, as falling migration goes hand in hand with growing unemployment differentials among Italian regions. What are the reasons for the low and falling labor mobility in Italy? According to Faini and others (1997) it is a combination of high mobility costs, inefficient regional matching and demographic factors. The authors find that the main responsibility for the high mobility costs lies with the housing market which is heavily curtailed by rent controls and high taxation of housing transactions. Furthermore, large welfare payments and interregional transfers reduce the interregional disparities in real income, inducing the unemployed to stay in their home region. The inefficient matching is due to a peculiarity of the Italian labor market: Compared to other countries, Italy’s unemployed tend to rely to a disproportionate extent on family and friends networks in their job search activities. Since these are typically local networks they don’t provide information on job opportunities in other regions. The aging of the society may be a further reason for the observed reduction in mobility.

National (sectoral) wage bargaining impedes regional wage flexibility and, furthermore, there exists a large informal sector in Italy, such that part of the labor market adjustment does not occur in the "official" economy but rather outside in the economia somersa.

Sources: OECD, Economic Surveys (var. issues); Boltho and others (1997); DIW, IfW and IWH (var. issues); Faini and others (1997); Gerling and Schmidt (1997); Schatz and Schmidt (1992); Holtwedel (1998a and 1998b).
Box 3. Trends in Business Organization

Fiercer global competition, rapid technological change, and increasingly discriminating customers are fundamentally changing the environment to which firms have to adjust their organizational and management strategies. On contemporary markets speed, flexibility and innovativeness seem to be of increasing importance as compared to the cost-reducing effects of scale economies. The relative efficiency of the hierarchical model with its strict hierarchical organization and the extreme division of labor is obviously giving way towards a „holistic“ organizational model that accentuates flexibility, speed of response, and economies of scope when firms are moving from a Fordist—named after Henry Ford who implemented the assembly line—mass production to modern manufacturing.

The Fordist model represents a successful and consistent adjustment to an environment for which market conditions are transparent and reasonably stable over time. Long product cycles and very specific machinery and equipment allow the ex ante optimization of production (and, hence, the optimal exploitation of scale economies. To adjust to change the (top) management is able to design, implement, and control the appropriate processes top-down with labor activities narrowed down to highly standardized tasks. Basically, the Fordist concept was a successful attempt to optimize production using exchangeable labor and intermediate products (Womack, 1991, p. 35). The economic superiority of the hierarchical model rests on the condition that low costs (due to scale economies and extreme specialization) are more important to the customers than quality and product differentiation.

However, in the challenging competitive environment of world markets these conditions do no longer prevail to give static cost minimization, mass production and extreme specialization a competitive edge. To a large extent, the guiding principles of Fordism are increasingly dysfunctional:

- Consumers’ preferences change quickly, demanding shorter product cycles and more frequent changes. Thus, the system gets more prone to problems and disruptions. Just extending the safety valves of the Fordist firm (such as inventories) would get too expensive, even inadequate since inventories are not the appropriate response to more rapid product cycles; these safety valves became counterproductive for solving the adjustment needs at hand.

- Making frequent changes and the ensuing problems requires swift reaction at the shop floor. The specialization of traditional Fordist workers is too narrow, they lack the expertise and the competence to solve the problems creatively and quickly.
Hierarchical organizations do sharpen conflicts of interest between the top-management and employees, entailing an atmosphere of antagonism. This is not a fertile ground to give incentive to employees to contribute creatively and autonomously to solving problems, thus adding to the problems of satisfying consumers and introducing new technology effectively.

Technological progress, in particular the "revolution" in telematics—information technology and telecommunications—dramatically enlarged the possibility for making swift modifications of production processes at low cost, thus giving additional impetus to adjust business organization to a rapidly changing environment of the firm.

Given the strong complementarities between the different activities within the firm, organizational reforms have to be comprehensive in the way that the communications and decision making structures, the organization of production and the incentive structures have all to be adjusted in a consistent way and roughly at the same time. Choosing an effective organizational strategy consists of two parts, fundamental change and continuous adjustment, i.e., "deciding which hill to climb and then climbing it as efficiently as possible" (Milgrom and Roberts, 1995, p. 232). For this process to succeed it is indispensable to tap on the expertise and creativity of the entire staff. The "brain capital" of staff is increasingly be seen as the cutting competitive edge that has to be mobilized, sustained and enhanced by an appropriate design of the incentive structure with a specific importance of creating an enterprise culture that is conducive to the evolution of credibility and mutual trust between management and employees.

The move from a dominantly Fordist toward a holistic organization paradigm has several important repercussions for labor markets and for labor market institutions. First, the employment opportunities of unskilled labor deteriorate relative to those of skilled workers, thus adding to tilt labor demand toward skilled labor. Second, relative wages will tend to reflect this change in the relative scarcities. Third, the efficiency of centralized bargaining is reduced. We will briefly elaborate upon the last point.

There is no generally applicable blueprint for implementing the comprehensive changes in the organization within the firm. On the contrary, the adjustment processes will be very idiosyncratic and experimental, with strong interaction between management and labor at the plant level. The increasing importance of these idiosyncrasies can hardly be accounted for in centralized collective agreements in the respective branches.

It is not only during the transition from Forcism to the holistic organization that centralized collective bargaining will lose importance. Given the increasing intensity of competition (globalization, common market and common currency) and more dynamic changes in the opportunity set of individual firms, there will be a stronger fragmentation of interests, problems and problem solutions even after the adjustment has been made.
However, the existing wage formation systems in most of Europe are not structured to cope with the increasing heterogeneity of firms, of plants within firms, and of workers within these plants. Therefore, to help firms adjusting to these substantially changed conditions and to provide enough flexibility to cope with potential additional pressures that may arise from shocks hitting the economy more intensely than before, the wage-bargaining system needs to provide sufficient scope and opportunity to agree on appropriate idiosyncratic employment contracts, covering both wages and working conditions, given the increasing heterogeneity of enterprise needs and the diverse preferences of employees.

Sources: Bickenbach and Soltwedel (1998); Milgrom and Roberts (1995).
Table 1. Coefficients of Specialization in Manufacture, EU-Countries 1980–93 1/

<table>
<thead>
<tr>
<th>Country</th>
<th>Coefficient 1993</th>
<th>Change of coefficient</th>
<th>Change of coefficient 1990–93</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>34.9</td>
<td>0.6</td>
<td>1.5</td>
</tr>
<tr>
<td>Finland</td>
<td>46.6</td>
<td>-9.7</td>
<td>3.0</td>
</tr>
<tr>
<td>Denmark</td>
<td>41.2</td>
<td>0.4</td>
<td>2.7</td>
</tr>
<tr>
<td>Germany 2/</td>
<td>18.5</td>
<td>3.5</td>
<td>-2.3</td>
</tr>
<tr>
<td>Austria</td>
<td>32.1</td>
<td>1.0</td>
<td>-1.9</td>
</tr>
<tr>
<td>Netherlands</td>
<td>30.5</td>
<td>4.1</td>
<td>0.8</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>12.1 3/</td>
<td>0.0</td>
<td>3.4</td>
</tr>
<tr>
<td>France</td>
<td>11.2</td>
<td>1.3</td>
<td>1.4</td>
</tr>
<tr>
<td>Italy</td>
<td>27.0</td>
<td>2.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Spain</td>
<td>29.2 3/</td>
<td>1.8</td>
<td>0.9</td>
</tr>
<tr>
<td>Portugal</td>
<td>55.2</td>
<td>9.9</td>
<td>2.3</td>
</tr>
<tr>
<td>Greece</td>
<td>60.4 3/</td>
<td>6.0</td>
<td>-0.2</td>
</tr>
</tbody>
</table>

Source: OECD (1996b); own calculations.

1/ A coefficient of specialization (CS) compares the sectoral structure of a given economy with that of a reference economy, here: with the EU average. Definition: \( CS = \sum |s_g - s_r| \)

where \( s_g \) and \( s_r \) are sectoral shares in total value added of manufacture of the given and the reference economy, respectively. A coefficient of 0 indicates completely identical structures, whereas the structures are the more divergent the higher the coefficient is. Belgium, Luxembourg and Ireland, are not included due to data limitations. The coefficients have been calculated on the basis of the 3-digit ISIC-classification, i.e. on the basis of 20 industrial sectors.

2/ Western Germany.

3/ Data for 1992 and 1990–92, respectively.
<table>
<thead>
<tr>
<th>Country</th>
<th>Total Unemployment 1/</th>
<th>Structural Unemployment 2/</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>4.4</td>
<td>2.1</td>
<td>87.1</td>
</tr>
<tr>
<td>Belgium</td>
<td>9.2</td>
<td>2.5</td>
<td>91.3</td>
</tr>
<tr>
<td>Denmark</td>
<td>6.1</td>
<td>-1.6</td>
<td>113.2</td>
</tr>
<tr>
<td>Finland</td>
<td>14.0</td>
<td>10.6</td>
<td>88.3</td>
</tr>
<tr>
<td>France</td>
<td>12.4</td>
<td>3.4</td>
<td>82.3</td>
</tr>
<tr>
<td>Germany</td>
<td>9.7</td>
<td>2.8</td>
<td>84.2</td>
</tr>
<tr>
<td>Greece</td>
<td>10.4 4/</td>
<td>3.4</td>
<td>94.2</td>
</tr>
<tr>
<td>Ireland</td>
<td>10.2</td>
<td>-3.2</td>
<td>107.8</td>
</tr>
<tr>
<td>Italy</td>
<td>12.0 5/</td>
<td>2.9</td>
<td>86.2</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>3.7</td>
<td>2.0</td>
<td>— 6/</td>
</tr>
<tr>
<td>Netherlands</td>
<td>5.2</td>
<td>-1.0</td>
<td>98.2</td>
</tr>
<tr>
<td>Portugal</td>
<td>6.8</td>
<td>2.2</td>
<td>86.6</td>
</tr>
<tr>
<td>Spain</td>
<td>20.8</td>
<td>4.6</td>
<td>95.7</td>
</tr>
<tr>
<td>Sweden</td>
<td>10.2</td>
<td>8.4</td>
<td>83.8</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>7.1</td>
<td>0.0</td>
<td>104.3</td>
</tr>
</tbody>
</table>

1/ Standardized definition, expressed as percentage of labor force.
2/ NAWRU rate of unemployment. For definition see OECD (1990). By the NAWRU
   concept, total unemployment is divided into a structural and a cyclical component. As the
cyclical component may be positive or negative, the structural component may attain
more than 100 percent of total unemployment.
3/ Share of total unemployment (commonly used definition).
4/ Commonly used definition.
5/ 1996.
6/ Not available.
Table 3. Monetary Union and Labor Market Risks for EU Countries

<table>
<thead>
<tr>
<th>Probability of asymmetric shocks 1/</th>
<th>Current labor market flexibility 1/</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>Low</td>
<td>Group 1:</td>
</tr>
<tr>
<td></td>
<td>Netherlands, Austria</td>
</tr>
<tr>
<td></td>
<td>Group 3:</td>
</tr>
<tr>
<td></td>
<td>Germany, France, Belgium</td>
</tr>
<tr>
<td></td>
<td>(Denmark) 2/</td>
</tr>
<tr>
<td></td>
<td>Group 4:</td>
</tr>
<tr>
<td></td>
<td>Finland, Italy, Spain</td>
</tr>
<tr>
<td>High</td>
<td>Group 2:</td>
</tr>
<tr>
<td></td>
<td>Ireland, Portugal</td>
</tr>
<tr>
<td></td>
<td>(United Kingdom)2/</td>
</tr>
</tbody>
</table>

1/ Compared to EU average.
2/ Not joining monetary union from the start.
Table 4. The EU Regions with the Highest/Lowest Unemployment Rate (April 1997)

<table>
<thead>
<tr>
<th>Region</th>
<th>Unemployment rate (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luxembourg</td>
<td>2.5</td>
</tr>
<tr>
<td>Oberösterreich</td>
<td>3.0</td>
</tr>
<tr>
<td>Berkshire, Buckinghamshire, Oxfordshire</td>
<td>3.2</td>
</tr>
<tr>
<td>Niederösterreich</td>
<td>3.4</td>
</tr>
<tr>
<td>Centro (P)</td>
<td>3.4</td>
</tr>
<tr>
<td>Trentino—Alto Adige</td>
<td>3.8</td>
</tr>
<tr>
<td>Burgenland</td>
<td>3.8</td>
</tr>
<tr>
<td>Salzburg</td>
<td>3.9</td>
</tr>
<tr>
<td>Sicilia</td>
<td>24.0</td>
</tr>
<tr>
<td>Calabria</td>
<td>24.9</td>
</tr>
<tr>
<td>Campania</td>
<td>26.1</td>
</tr>
<tr>
<td>Ceuta y Melilla</td>
<td>26.4</td>
</tr>
<tr>
<td>Extremadura</td>
<td>29.5</td>
</tr>
<tr>
<td>Andalucia</td>
<td>32.0</td>
</tr>
</tbody>
</table>

Table 5. The EU Regions with the Highest/Lowest Youth Unemployment Rate in April 1997

<table>
<thead>
<tr>
<th>Region</th>
<th>Youth Unemployment Rate (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Niederösterreich</td>
<td>5.0</td>
</tr>
<tr>
<td>Oberösterreich</td>
<td>5.0</td>
</tr>
<tr>
<td>Oberbayern</td>
<td>5.7</td>
</tr>
<tr>
<td>Burgenland</td>
<td>5.7</td>
</tr>
<tr>
<td>Berkshire, Buckinghamshire, Oxfordshire</td>
<td>5.7</td>
</tr>
<tr>
<td>Drenthe</td>
<td>5.9</td>
</tr>
<tr>
<td>Ceuta y Melilla</td>
<td>58.4</td>
</tr>
<tr>
<td>Sicilia</td>
<td>60.4</td>
</tr>
<tr>
<td>Calabria</td>
<td>62.6</td>
</tr>
<tr>
<td>Campania</td>
<td>64.9</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>2.25</td>
<td>2.69</td>
<td>3.22</td>
<td>3.26</td>
<td>3.27</td>
<td>0.19</td>
<td>0.36</td>
<td>0.34</td>
<td>0.32</td>
<td>0.35</td>
</tr>
<tr>
<td>Greece</td>
<td>2.16</td>
<td>2.22</td>
<td>2.45</td>
<td>3.03</td>
<td>2.59</td>
<td>0.37</td>
<td>0.37</td>
<td>0.33</td>
<td>0.38</td>
<td>0.33</td>
</tr>
<tr>
<td>France</td>
<td>1.79</td>
<td>1.72</td>
<td>2.03</td>
<td>2.37</td>
<td>2.55</td>
<td>0.17</td>
<td>0.19</td>
<td>0.18</td>
<td>0.20</td>
<td>0.21</td>
</tr>
<tr>
<td>West Germany</td>
<td>2.26</td>
<td>1.92</td>
<td>1.76</td>
<td>1.84</td>
<td>1.98</td>
<td>0.30</td>
<td>0.36</td>
<td>0.26</td>
<td>0.26</td>
<td>0.25</td>
</tr>
<tr>
<td>Whole Germany</td>
<td>3.50</td>
<td>3.63</td>
<td>4.69</td>
<td></td>
<td></td>
<td>0.42</td>
<td>0.43</td>
<td>0.47</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Italy</td>
<td>3.51</td>
<td>6.50</td>
<td>6.82</td>
<td>7.28</td>
<td>7.31</td>
<td>0.38</td>
<td>0.64</td>
<td>0.55</td>
<td>0.58</td>
<td>0.59</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>2.89</td>
<td>3.48</td>
<td>1.63</td>
<td>1.47</td>
<td>1.41</td>
<td>0.23</td>
<td>0.43</td>
<td>0.18</td>
<td>0.19</td>
<td>0.19</td>
</tr>
<tr>
<td>Spain</td>
<td>4.78</td>
<td>6.11</td>
<td>5.70</td>
<td>5.40</td>
<td>5.54</td>
<td>0.23</td>
<td>0.38</td>
<td>0.26</td>
<td>0.25</td>
<td>0.28</td>
</tr>
<tr>
<td>Netherlands</td>
<td>1.65</td>
<td>1.76</td>
<td>0.98</td>
<td>1.28</td>
<td>1.05</td>
<td>0.16</td>
<td>0.23</td>
<td>0.13</td>
<td>0.20</td>
<td>0.20</td>
</tr>
</tbody>
</table>

Europe 1/

| Region          | 5.03 | 5.13 | 5.94 | 6.01 | 5.68 | 0.47 | 0.59 | 0.55 | 0.55 | 0.54 |

United States 2/

| Region          | 1.92 | 1.10 | 1.26 | 1.23 | 1.21 | 0.27 | 0.21 | 0.24 | 0.24 | 0.25 |

1/ European Countries: regions according to the Eurostat regional classification NUTS level 2.
2/ U.S.: State level.
Table 7. Persistence of Regional Unemployment Differentials: Rank-Order Correlations, 1985–97

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>0.79</td>
<td>0.79</td>
<td>0.84</td>
<td>0.84</td>
</tr>
<tr>
<td>West Germany</td>
<td>0.96</td>
<td>0.79</td>
<td>0.84</td>
<td>0.85</td>
</tr>
<tr>
<td>Italy</td>
<td>0.87</td>
<td>0.89</td>
<td>0.89</td>
<td>0.85</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>0.96</td>
<td>0.90</td>
<td>0.87</td>
<td>0.90</td>
</tr>
<tr>
<td>EU as a whole 1/</td>
<td>0.96</td>
<td>0.91</td>
<td>0.83</td>
<td>0.78</td>
</tr>
<tr>
<td>United States 2/</td>
<td>0.58</td>
<td>0.41</td>
<td>0.49</td>
<td>0.50</td>
</tr>
</tbody>
</table>


1/ Europe’s big four: NUTS2-level regions.
Table 8. The Mezzogiorno and East Germany Compared, 1995

<table>
<thead>
<tr>
<th></th>
<th>Mezzogiorno</th>
<th>East Germany 1/</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of national population</td>
<td>0.34</td>
<td>0.17</td>
</tr>
<tr>
<td>Percentage of total unemployment</td>
<td>0.52</td>
<td>0.33</td>
</tr>
<tr>
<td>Percentage of national GDP</td>
<td>0.22</td>
<td>0.10</td>
</tr>
<tr>
<td>Regional GDP per capita/national GDP per capita</td>
<td>0.67</td>
<td>0.57</td>
</tr>
</tbody>
</table>

*Source*: Eurostat (1998a and 1998b); own calculations.

1/ (East-) Berlin not included.
Table 9. Labor Costs and Labor Productivity Relative to the Rest of the Country

<table>
<thead>
<tr>
<th></th>
<th>Mezzogiorno in percent of Centro-Nord</th>
<th>East Germany in percent of west Germany</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor productivity</td>
<td>81 (81)</td>
<td>77 (80)</td>
</tr>
<tr>
<td>Labor costs</td>
<td>77 (76)</td>
<td>80 (79)</td>
</tr>
<tr>
<td>Unit labor costs(^1)</td>
<td>96 (94)</td>
<td>105 (99)</td>
</tr>
</tbody>
</table>

Sources: SVIMEZ (1998); Boss and others (1998).
\(^1\)Line two divided by line one; identity constraint not always met due to rounding.
Figure 1. Integration, Specialization and Asymmetric Shocks
Figure 2. Determination of Labor Market Flexibility