



INTRODUCING: **CESifo** FORUM – A NEW QUARTERLY

This is the first issue of *CESifo Forum*, a new economic journal of the Ifo Institute. *CESifo Forum* will replace *ifo Digest*, the Institute's English-speaking quarterly founded in 1978. With the new journal our emphasis is shifting from in-house to external authors and from German to international topics, reflecting the fact that international, especially European issues will assume an ever more prominent role in the Institute's future research and service activities. CESifo, a joint initiative of the Center for Economic Studies (CES) at the University of Munich and the Ifo Institute for Economic Research, will be the vehicle for all our international activities.

CESifo Forum is a non-partisan journal with a truly European perspective. A common currency and open borders are signs of the increasing speed of integration in Europe. The mutual interest in national problems and the common interest in European problems require an international approach, and this is *CESifo Forum's* aim. The journal will reflect the scope of activities of CES and Ifo, from scholarly research to the analysis of the latest business data, in a style accessible to an educated general public. *CESifo Forum* will contain short, lucid and incisive articles on economic problems, written by academics and policy makers from various countries.

In the section "Focus" we invite a number of authors to address a common topic. This issue focuses on the European unemployment problem. In the section "Pro and Contra" we present two experts' opposing views on a particular issue, such as minimum wages. The sections "Spotlights" and "DICE Reports" will highlight topical economic developments with short statements built around graphical illustrations. DICE is Ifo's new Database of Institutional Comparison in Europe. Finally, in

the section "Trends" we supply time series on economic developments in Europe, including the well-known Ifo Business Climate Index and the latest results of Ifo's quarterly Economic Survey International (ESI), a poll of transnational as well as national organisations conducted in about 80 countries.

CESifo Forum is edited by Heidemarie Sherman, supported by Willi Leibfritz, Gernot Nerb, and Wolfgang Ochel from the Ifo Institute. I wish this team much success in its endeavour to put life into the new journal and to make it a heavily frequented market place of economic ideas in Europe.

Hans-Werner Sinn

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THE EUROPEAN UNEMPLOYMENT PROBLEM

The following contributions are short versions of papers presented at the first CESifo Symposium held in conjunction with the Ifo Institute's 1999 Annual Meeting and 50th anniversary celebration. The full papers will be published in *ifo Studien*, Vol. 46 No. 1/2000.

UNEMPLOYMENT IN THE UNITED STATES AND IN EUROPE

A CONTRAST AND THE REASONS

ROBERT SOLOW*

I hope it will be understood from the beginning that I am not one of those Americans who think that the Celestial Economist smiles with special favor on the U.S.A., or that American businessmen are more entrepreneurial, American workers more ingenious, and American policies more appropriate than their European counterparts. Not at all. Nevertheless, the remarks which follow are implicitly critical of European thinking about macroeconomics, and also about the policies that follow from that thinking. I ask you, please to keep it in mind that I am really trying to make a few general remarks about macroeconomic principles and macroeconomic policies.

The basic facts we have to understand are easy to describe and well known to most of us. In 1970 the unemployment rate in the U.S. was 5%, that in (West) Germany was 1%, and in the rest of the European Union the unemployment rate stood at 3%. In those days, American economists, myself included, used to wonder what the U.S. would have to do in order to reproduce the European experience. In 1997 the unemployment rate was still 5% in the U.S. (4.9% to be exact) and in 1998 it was a full half-point lower. Meanwhile the (Unified) German unemployment rate was at 10% and the

rest of the European Union was between 11 and 12%.

The contrast is certainly striking. Europe used to have consistently lower unemployment than the U.S.; now it has higher. Since 1970, there has been no trend in U.S. unemployment; it is actually a bit lower than it was then. But there have been marked business-cycle fluctuations, with the unemployment rate peaking in 1975, 1982 and 1992, and reaching low points before and after the peaks. Today we have the lowest unemployment rate in 30 years. When you look at the European experience, the clear impression is that there has been a strong upward trend that dominates the business cycle.

That contrast poses an inevitable question: What explains the difference between the current levels of unemployment in Europe and the U.S.? There is a tendency in matters like this to assume that there must be one single answer to this question, one secret ingredient that explains why the U.S. has kept its unemployment rate moderately low while Europe has seen its rate rise to high levels and get stuck there. That would make for drama; but economic life is not necessarily like a detective story. It is more likely that the difference between American and European unemployment arises from the cumulation of several differences in institutions and policies.

Furthermore, the talk of "Europe" is not always appropriate. There are big differences within Europe; for instance, Austria, Norway and, more recently, the Netherlands and Denmark have avoided the high unemployment that has continued to characterise France and Germany. The most I can hope to do is to pick out a few useful lessons that bear on the main issue.

The conventional understanding of this contrast, especially among Europeans, seems to rest entirely



Labour market rigidities are the major explanation in Europe

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on *labour-market rigidities*. As evidence I can cite the title of a recent and exhaustive article by Horst Siebert, “Labour Market Rigidities: At the Root of Unemployment in Europe”. Beyond doubt there are plenty of labour-market rigidities to rest an argument on. The main ones to attract attention seem to have been: (a) the relatively low replacement rate embodied in the U.S. unemployment insurance system compared with most European countries, as well as the relatively short duration of benefits allowed in the U.S., the natural consequence being more active search by unemployed workers and more willing acceptance of inferior job offers; (b) the broad scope of legal restrictions on discharging workers in Europe which, though perhaps working against unemployment in the short run, has the long-run effect of discouraging job creation and strengthening the power of incumbent workers to protect wages at the expense of outsiders seeking employment; (c) the relatively low minimum wage in the U.S., which allows higher employment of low-productivity workers at the expense of greater wage inequality; (d) Siebert points out that the U.S. labour market generally allows greater wage differentiation between classes of workers than in Europe, but I think this may be a more complicated matter than just a difference in labour-market institutions; (e) the greater density and power of trade unions in Europe; (f) the wider wedge of payroll taxes and social charges in Europe that surely pushes some low-wage workers below the margin of employability; even if the long-run incidence of such charges is generally on workers’ wages, this tax-shifting may not be possible at or near the minimum wage.

That is an impressive array of labour-market rigidities. So perhaps it is understandable that this is the *only* explanation of high unemployment that is ever discussed seriously by civil servants and central bankers in much of Europe, especially Germany. Consequently the only potential cure for high and persistent unemployment that is ever seriously discussed is labour-market reform and wage moderation, though that process is inevitably slow and sure to be socially divisive.

I do not think one can deny the significance of labour-market rigidities in Europe, and the likelihood that greater flexibility in the U.S. contributes to its much more favourable performance in terms of employment. But I believe that the almost exclusive focus on this aspect of the problem is a major mistake. It hides

other, very important, lines of causality, and steers Europe away from possible policy strategies that could have substantial results in much less time, and with a fairer distribution of the burden.

There are good empirical reasons for rejecting this convenient belief that the labour market *by itself* provides an adequate account of the sad story of European unemployment. At the crudest level, the timing is wrong. One of the two big increases in unemployment took place in the early 1980s, although there was no change in labour-market regulation to account for it.

The argument was sometimes made that European wage determination (unlike the U.S.) exhibited “real-wage resistance” or effective indexing of the nominal wage. This stickiness of the real wage could certainly be a source of unemployment in principle and in fact. But real-wage resistance must eventually have worn off. The profit share has risen to very high levels in Europe, meaning that real wages have not kept pace with productivity. But unemployment did not wither away, so this story is inadequate. And the further rise in unemployment after 1990 came during a period when labour markets were being deregulated in the major nations of Europe. Some other forces must have been at work.

The second empirical reason for rejecting an exclusive focus on the labour market is less obvious and more indirect. A useful summary indicator of many kinds of labour-market rigidity is the position of the so-called *Beveridge curve*, named after Sir William Beveridge’s famous wartime report *Full Employment in a Free Society*. Beveridge chose to define “full employment” as a situation in which there are as many unfilled jobs as there are unemployed workers. The definition was not generally acceptable, but it suggested studying the relation between the number of unemployed workers and the number of unfilled jobs, both expressed as a fraction of the labour force.

In any country at any moment, the Beveridge curve is a downward-sloping relation between the vacancy rate and the unemployment rate. It has a negative slope for the common-sense reason that jobs are easier to fill, and the vacancy rate therefore is lower, the more unemployed workers there are for employers to choose among. A perfectly flexible or efficient labour market would interpose no obsta-

Two empirical reasons for rejecting the exclusive focus on labour market rigidities

cle to the frictionless matching of an unfilled job and an unemployed worker with the appropriate skills. Flexible wages would adjust so that every part of the labour market had, within reason, adequate employment opportunities. In that case, vacant jobs and unemployed workers could not coexist. The Beveridge curve would coincide with the axes of the diagram: there could be vacancies with no unemployment or there could be unemployment with no vacancies. One would expect pressure on wages in either case.

Of course no real-world labour market could be perfectly flexible in that sense. Labour-market rigidities (including skill mismatches as a special form of rigidity) are precisely what allows vacancies and unemployment to coexist, and the more rigidities there are, the more the Beveridge curve diverges from the hypothetical limiting case, the further from the zero-zero point it is located. In the U.S., for instance, there appears to be a well-defined Beveridge curve for 1958–71 that shifted adversely in the early 1970s and then returned to its initial position in 1987–88, and has stayed there since.

It is more interesting and relevant to look at France and Germany, where the story is quite different. The main message transmitted by the Beveridge curves for France and Germany goes squarely against the cliché that high and persistent unemployment is entirely or mainly a matter of worsening functioning of the labour market. It is precisely in France and Germany that there is no sign of a major unfavourable shift of the Beveridge curve during the period of rising unemployment.

To the extent that the location of the Beveridge curve is a reasonable summary of the degree of labour-market rigidity, the large continental economies do not seem to have suffered from noticeably more rigid labour markets during the high-unemployment 1980s than they did in the low-unemployment 1970s. In fact, what stands out from the data for France and Germany is precisely the depressed level of the vacancy variable, i.e., the weakness of the demand for labour.

Careful studies in the U.S. have demonstrated the importance of analysing net changes in employment and unemployment as the resultant of *gross flows* of job creation and job destruction. As I hinted earlier, much of the European failure to reduce

unemployment arises from low exit rates from unemployment during limited business-cycle upswings. This in turn suggests that an important part of the problem is an inadequate rate of job creation. Here may be the source of the shocking difference between Europe and the U.S. in the incidence of long-term unemployment. In the U.S. in 1997, 8.7% of all the unemployed had been out of work for more than 12 months. The corresponding figure for Germany (1996) was 47.8%, for France 41.2%, for the U.K. 38.6%, and for the E.U. as a whole 50.2%. This contrast would still be apparent if we used U.S. figures for periods of relatively high unemployment. It is even possible that the tolerant character of the European unemployment insurance system is as much a response to as it is a cause of the low exit probability from unemployment.

A weakness in job creation could have several sources; one of them might be those legal restrictions on firing workers. But I suggest that product-market deregulation (of opening hours, land use, banking practices) and increased competition might help to reduce unemployment by improving employment prospects. Finally, I suggest that American fiscal and monetary policy has been more successful than Europe has been in supporting aggregate demand, and above all more aggressive in taking advantage of opportunities to expand whenever inflationary pressure has been weak, whatever the cause of that weakness. This could be important for two reasons. The first reason is the direct effect of excessively tight fiscal and monetary policy on an economy with limited wage and price flexibility. The second reason why demand-side policy could be very important has to do with its interaction with the supply side. Any gain in labour-market flexibility or in product-market deregulation will be both more effective and more easily accepted if it occurs at a time when aggregate demand is strong and market prospects are favourable. There is likely to be considerable payoff to coordination of supply-side and demand-side policies within the large European countries and among members of the European Union.

More flexibility in labour markets is a good idea, but it is not the only good idea.

An important part of the problem is an inadequate rate of job creation



EUROPE'S UNEMPLOYMENT: NO POLICY ISSUE, A POLICY ISSUE FOR EUROPE OR FOR MEMBER STATES OR FOR BOTH?

ALFRED STEINHERR*

During the 1990s, unemployment in Europe has been high, increasing and very unequal across member states and their regions. In 1998, the average unemployment rate in the European Union was 10%, compared to around 8% in 1990. In 1998, six member states had an unemployment rate below 6% (UK, Denmark, Portugal, Austria, Netherlands and Luxembourg) and four member states had an unemployment rate at or above the EU average of 10% (Spain 18%, Italy 12%, France 12%, Finland 11.5%, Germany 10%). All the large EMU member countries are at the top of the unemployment league. Nevertheless, as demonstrated by the list of countries with low unemployment rates, EMU membership does not automatically entail high unemployment, nor does backwardness (Portugal), or the fact that a country is large (UK).

The structure of unemployment in the EU

In most countries of the EU youth unemployment is much higher than average unemployment. This has been a permanent feature for decades, but it has been increasing over time. In the EU, on average, some 17% of young people are unemployed. And in some countries like Spain, with Italy a close runner-up, the youth unemployment rate (defined by the age group between 15 and 24) is 40% and that is truly shocking. It is also troublesome because one can easily see the social and political

problems that can arise out of such a situation. But high youth unemployment is not a problem in all countries. In Germany, the age group most affected by unemployment is people over 50.

In terms of policy, it is quite obvious that major efforts are required at the national level with investments in education and training programs. The much better youth unemployment record in Germany is, to a large extent, due to youth training (apprenticeships) that also generates a lasting social benefit in terms of a highly skilled labour force.

Unemployment can increase for two totally different reasons. One is that there are fewer jobs available. Another is that more people are looking for a job, that is, the labour force is increasing. The labour force changes due to population growth (natural growth or through immigration), or for a constant population, due to an increase in the participation rate. Across Europe the average labour force has remained roughly constant during the last 20 years (a roughly constant population paired with a constant participation rate at 65% of the population between 15 and 64 years of age). In the United States, by contrast, the labour force increased dramatically: the participation rate increased from 67% in 1975 to 77% in 1995.

Thus, it is not the participation rate or population growth that can explain the increase in Europe's unemployment. Compared to Europe, the U.S. job creation record is all the more remarkable as the U.S. was able at the same time to accommodate an increasing population and a higher participation rate and nevertheless reduce unemployment. One extreme case is Sweden with a very high participation rate, and a policy response to unemployment consisting of measures to discourage participation. The other extreme case is Spain with a very low, but rising participation rate. Countries like Spain and Sweden have such differences in the structure of unemployment that they appear as countries from different planets, rather than

Neither the participation rate nor population growth can explain Europe's unemployment

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from the European Union, an integrated economic space.

One way of responding to unemployment is to introduce more flexibility in work time and to make it easier to work part-time. The EU has over the years increasingly replaced full-time with part-time employment. In 1984 about 12% of the labour employed worked part-time compared to 14% in 1996. This is not a big change, but in some countries policy has induced big changes. The extreme example is the Netherlands. Whilst part-time jobs accounted for 16% in 1980, they represented 35% in 1997. That policy is a major reason for the low unemployment rate of the Netherlands. The country where part-time employment is least developed in Europe is Italy with only 6.5% of total employment, followed by Spain, and much higher overall unemployment. Whilst part-time work should not be imposed, it should not be discouraged by fiscal or contractual measures. In most EU countries much remains to be done.

I conclude this illustration of how different the structure and extent of unemployment across Europe are by noting the differences in labour costs in industry. Portugal has a total labour cost per hour, including social security charges, of about EUR 5.5 compared to Germany's EUR 27.5. Many people think that if productivity is high enough in Germany, it only stands to reason to pay corresponding high wages. That may be true when economies are at full employment, but not otherwise. Suppose there is a wage shock. Firms will try to substitute capital for labour to reduce costs, jobs will get lost and productivity (that is, output per worker) will go up. Because productivity has gone up, still higher wages appear now justified and the result is even fewer jobs. The problem is that productivity itself is an endogenous variable that responds to relative costs. In the high-wage countries of the EU it would be difficult to argue that high unemployment has nothing to do with wage costs. Germany's labour costs are extreme, followed by those of the other members of the EU core: a centre of gravity plagued by high unemployment.

In Germany this argument is particularly debated, and the conviction that high productivity justifies high wages is not easily assailed. But it is important to realise that the skill differences in Europe are small and that productivity is mostly driven by cap-

ital deepening. As German car producers have found out, productivity at their new plants in Spain or Portugal is just as high as in Germany – even though wages are much lower. As a result German industry is investing increasingly abroad. In 1998, net foreign direct investment reached nearly US\$ 67 billion or 3% of GDP.

The policy conclusions for the core countries of EMU are clear: real wage moderation, reduction of wage taxes, greater flexibility in employment contracts.

The demand side

Countries participating in the EMS have faced the same demand curve: efforts to meet the Maastricht criteria resulted in stable exchange rates, converging inflation and interest rates and hence converging real interest rates. Here we have a common factor – aggregate demand – which affected all countries participating in the fixed exchange rate mechanism of the EMS, and then in EMU.

Since the early 1970s unemployment has been more or less on a continuous upward trend in the EU, except for the period 1986-1990. During that period EMS exchange rates were stable, despite strong fiscal and monetary expansions in some member countries leading to real overshooting and the explosion of the EMS in 1992. For the remainder of this period of 25 years and independently of whether times were good or bad, unemployment went up. It seems that there is a lot of hysteresis in the data. That is, with some unemployment already existing, even during an upswing of the economy there is no correction. For the U.S. the picture is drastically different. During good times unemployment went down, during bad times unemployment went up, with a modest downward trend.

Certainly, different supply features account for the greater cyclical behaviour of U.S. unemployment; but not for the difference in trend. In the United States, monetary policy was strongly counter-cyclical. When growth went down, monetary policy stimulated demand. In Europe, exactly the opposite happened. The growth decline after 1988 occurred on both continents, but interest rates in Europe were increased to reach their highest level for these 25 years in 1992. In that year, growth was already approaching zero, and became negative in

Greater working time flexibility and wage moderation to reduce unemployment in the EU core

1993. On that basis it is very hard not to argue that monetary policy had something to do with the increase in unemployment in Europe. Because of strong hysteresis, Euroland still suffered in the late 1990s from the restrictive monetary policy of 1989–93.

The fiscal story confirms the restrictiveness of EU demand policy. In 1992, the structural fiscal deficits were the same in the EU and the United States. Since then the unemployment rate has increased from 8% to 11% in Europe and the structural fiscal deficit has been lowered from about 4% to 1.5%. In the United States, the reduction in the structural fiscal deficit was even more pronounced but fully consistent with a decline in the unemployment rate from over 6% to 4%. The conclusion is clear: fiscal policy was overly restrictive in the EU and together with monetary policy squeezed aggregate demand during a period when relief measures would have been justified.

The monetary policy of the European Central Bank during most of 1999 was precisely what Europe needed: low interest rates and a weak euro. Unfortunately, low short-term rates did not translate into low long-term rates.

As for fiscal policy, the current desperate efforts to respect the Stability Pact are not in tune with employment needs. Here the problem is that the Stability Pact is framed in terms of actual budget deficits rather than structural deficits. This shortcoming needs to be tackled to make the Stability Pact meet standard economic logic.

Demand meets supply

That brings me to focus on a key component of overall demand, namely investment. Investment is, of course, not only a component of aggregate demand. Investment also improves the supply capacity and hence productivity. It is striking that since the early 1970s (the last time the EU had full employment) investment in the EU, as a share of overall GDP, has declined dramatically, from 25% to 18%. In a way, this comparison understates the problem, because the EU is no longer at full employment. In 1998, the share of actual investment in full employment GDP was only 15–16%. And this is, of course, the right reference because not only is GDP a function of the

level of investment, but the latter is also a function of current and expected future GDP.

Hence, actual investment is far too low for Europe's aspirations to a high and rising standard of living and full employment. Answering the question of why investment is so low is beyond the scope of this paper. But I have already implicitly touched upon one argument: during the 1990s public sector investment was halved throughout Europe from 4% to 2% of GDP as a result of EMU-driven fiscal consolidation. There is also a shortage of private investment, as European corporations invest increasing shares of their overall investment programmes outside the EU, and non-EU corporations have also shifted investment to other parts of the world.

The best way to make Europe invest more at home is to make Europe a more attractive investment location through a radical overhaul of the supply-side spectrum.

During the 1990s employment in Europe declined slightly. On average, investment has replaced old equipment and has failed to create additional employment. What this experience illustrates is that the employment creation problem should not be cast as a demand or supply side problem. Key is the interaction between the two. Improved supply may fail to create jobs if there is no increase in demand. Therefore, policies on both demand and supply sides are necessary to maximise job creation.

Tight monetary and fiscal policies in Europe and too little investment in the 1990s

LABOUR MARKETS IN THE EUROPEAN UNION

GIUSEPPE BERTOLA*

A large portion of Europe is well on its way to becoming an economic entity comparable to the United States in terms of size, industry structure, and income levels. The employment performance of European economies compares unfavourably to recent U.S. experience, however, and their labour markets are much more heavily regulated than American ones.

The character of labour market regulation

Regulation aims at protecting workers from “unfair” labour market developments by means of two interrelated instruments. Employment-protection legislation (EPL) makes it costly or difficult for employers to terminate jobs without cause, i.e., for reasons related to the firm’s overall business conditions rather than to the specific worker’s performance and effort. Both theory and evidence indicate that more stringent EPL tends to smooth out employment fluctuations in the short and medium run and, for given wage behaviour, does not have important effects on average long-term employment.¹ Institutional features of rigid European labour markets, however, also limit the extent to which wages may fluctuate over time and differ across workers performing similar duties. Like employment protection, wage-compressing institutions take a variety of forms. Obviously, minimum-wage provisions tend to limit the range of wage rates; a little less obviously, unemployment

benefits and other welfare payments also tend to truncate the lower end of wage distributions, since generous non-employment income flows reduce incentives for workers to accept low wage offers when searching for jobs. Most importantly, the terms of employment contracts are often negotiated between nationwide unions and employer confederations, and firm- and individual-level negotiations have a much less important role in Continental Europe than in the United States. Centralised bargaining of labour contracts quite naturally tends to compress wages.² Limits to the flexibility of employment levels and of wages reinforce each others’ effects in “protecting” workers from labour market pressure, and overall wage inequality is typically lower in the same countries that tend to impose tighter restrictions to firms’ freedom to reduce employment at will.³

Regional aspects of labour market rigidity

The geographical configuration of labour markets within European nations and within the U.S. are most directly relevant to the possible consequences of fixed exchange rates and progressive erasure of national borders by economic integration.⁴ European evidence on institutionally compressed regional wage differentials and limited labour mobility contrasts sharply with American labour markets dynamics. While the typical interregional pattern of labour market conditions has no persistence over a typical American business cycle, regional unemployment rankings are extremely persistent within the large Continental European nations. And earnings are more sharply dispersed in the U.S. than in



Limited flexibility of employment levels and of wages protect workers

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¹ See Bertola (1999), “Microeconomic Perspectives on Aggregate Labor Markets,” O. Ashenfelter and D. Card (eds.), *Handbook of Labor Economics* Vol. 3, North-Holland, forthcoming; OECD (1999), “Employment Protection and Labour Market Performance,” *Employment Outlook*, Paris: OECD, and references therein.

² See OECD (1997), “Economic Performance and the Structure of Collective Bargaining,” *Employment Outlook*, Paris: OECD.

³ Giuseppe Bertola and Richard Rogerson (1997), “Institutions and Labour Reallocation,” *European Economic Review* 41:6, 1147–1171.

⁴ Relevant references include: Olivier Blanchard and Lawrence F. Katz (1992), “Regional Evolutions” *Brooking Papers on Economic Activity* 1992:1, 1–74; Jorg Decressin and Antonio Fatas (1995), “Regional Labor Markets in Europe”, *European Economic Review* 39, 1627–1655; Giuseppe Bertola and Andrea Ichino (1995), “Wage Inequality and Unemployment: U.S. vs. Europe”, in: B. Bernanke, E.J. Rotemberg (eds.), *NBER Macroeconomics Annual 1995*, pp. 13–54; Maurice Obstfeld and Giovanni Peri (1998), “Regional Non-adjustment and Fiscal Policy”, *Economic Policy* 26, 207–247; Juan F. Jimeno and Samuel Bentolila (1998), “Regional Unemployment Persistence (Spain, 1976–1994)” *Labour Economics* 5, 25–51.

European countries, where institutional wage compression has prevented earnings from becoming more dispersed over the 1980s and 1990s.

To interpret this evidence, consider the possible sources of geographic wage differentials in *laissez-faire* labour markets. On the labour demand side, workers may be compensated differently across regions because their productivity is heterogeneous. On the labour supply side, migration towards high-wage areas should proceed until earnings differentials compensate workers' mobility costs. Hence, wage differentiation and costly labour mobility are perhaps socially unpleasant, but certainly efficient features of an unregulated labour market. From this dynamic perspective, it is far from surprising that in Europe compressed wage distributions are associated with highly persistent unemployment differentials across regions. In an unregulated labour market, a negative shock to local labour productivity should result in lower equilibrium wages, a reduction of local labour supply via migration, and possibly some frictional unemployment. This is indeed what typically happens in the United States, where adjustment falls in roughly equal portions on wages and on unemployment (Blanchard and Katz, 1992). In European regions, conversely, wages respond very little to local labour market conditions, migration rates are extremely low, and all shocks are absorbed by labour-force participation and unemployment changes (Decressin and Fatas, 1995; Jimeno and Bentolila, 1998). European institutions prevent wages from adjusting to local labour market idiosyncrasies and subsidize low-employment equilibria in relatively depressed regions. European workers may have no incentives to move away from high-unemployment areas. Compressed wage differentials are too small to compensate migrants for mobility costs and cost-of-living differentials. Labour market rigidity further implies low job-finding rates (relative to the U.S.) in the low-unemployment regions, where firms' propensity to hire is reduced by forward-looking concerns as to the possibility of reducing employment in the future. In the resulting, quite stable politico-economic equilibrium, workers of better-developed regions are protected not only from wage compe-

tion by residents of poorer regions, but also from immigration.⁵

The aftermath of EMU

How will the institutionally rigid labour markets of Europe cope with Economic and Monetary Union? The economic size of the Northeastern, Midwestern, Western, and Southern groups of states within the U.S. is comparable to that of the large European Union nations. Hence, wage and employment dynamics across American macro regions offer a rough and necessarily vague picture of what a fully integrated European Union's labour markets might look like if they adopted U.S.-style institutions.

Historically, as Figure 1 illustrates, the dynamics of relative unemployment rates *across* the larger European countries have been quite volatile, in contrast to the very stable pattern of relative regional unemployment rates across regions *within* each of them.⁶ And while regional wage inequality is remarkably stable or even decreasing within each European nation, European relative wages have been historically quite volatile across coun-

In European regions, wages respond very little to local labour market conditions

⁵ For simple formal models of similar mechanisms see Antonio Spilimbergo (1999), "Labour Market Integration, Unemployment and Transfers," *Review of International Economics* (forthcoming).

⁶ The line labeled "US macroregions" reports rank correlation statistics across four groups of US States, averaged across 11-year periods starting in 1980, 1981, 1982, 1983. The data and the regional classification of States are taken from the Bureau of Labor Statistics Web pages, at <http://stats.bls.gov/blshome.htm>. The line labeled "EU Nations" similarly reports rank correlation statistics across Germany, France, Italy, and the United Kingdom, averaged across 10-year periods starting in 1983, 1984, 1985. The data are OECD standardized unemployment rates; the series for Germany refers to West Germany through 1991, then to United Germany. The qualitative message of the data is similar for other sub-periods within the available data set.

Fig. 1

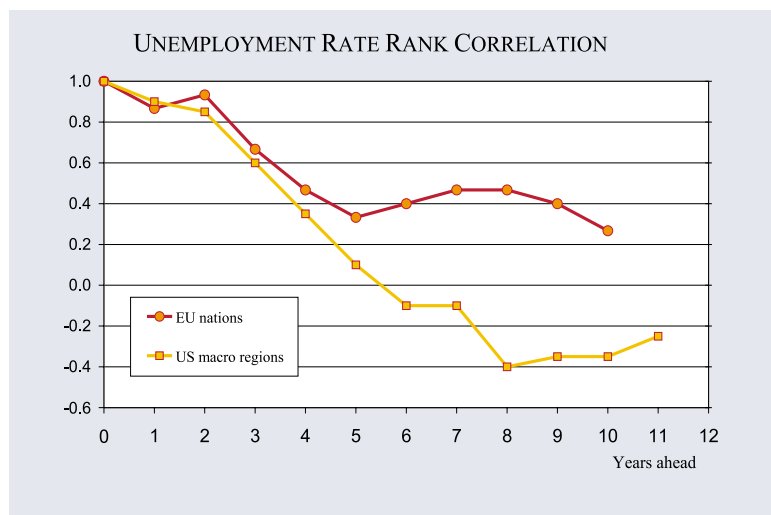
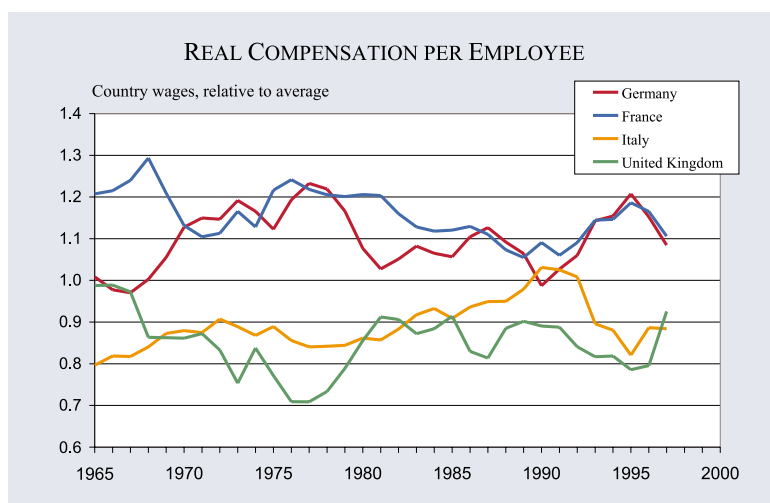


Fig. 2



tries, as Figure 2 illustrates: a convergent pattern of decreasing inequality in compensation per employee is broken by sharp divergent episodes in the late 1970s and the early 1990s.⁷

The mechanisms behind the broad similarity of European and American labour market outcomes are, however, quite different. In the U.S., adjustment is achieved by interregional labour mobility and explicit variation of nominal and real wages. Across European countries, conversely, inflation differentials and infrequent exchange rate realignments used to generate relative-wage and unemployment patterns. Absorption of exogenous shocks by such monetary instruments generates smaller within-country redistributive tensions than explicit wage differentiation would. As a single monetary policy and irrevocably fixed exchange rate parities remove both sources of past wage flexibility, it is natural to wonder whether labour market outcomes in an integrated European Union will more closely resemble the past experience of the United States or that of each European nation.

As the extent of economic integration approaches that of the United States, labour market institutions and labour market outcomes may also begin to resemble their American counterparts. In general, “protective” institutions become more cumbersome when market pressure increases: competition among national labour market institutions tends to

⁷ The Figure's data are drawn from the harmonised OECD database, and measures of dispersion are not weighted by the size of the four nations. The overall picture is very similar, however, if weighted data or data from the Eurostat database are used over the more limited period where either or both are available.

States, unfettered competition among subsidiary social policies could well result in race-to-the-bottom dynamics and make it impossible for government intervention to correct market failures.⁸

Fiscal aspects

Explicit coordination of the reform process, while preferable on theoretical grounds, may dangerously tend to reproduce current nation-level rigidity on a continent-wide scale. Alongside the labour-market regulation aspects emphasised above, however, fiscal instruments also play an important role within each European nation. Subsidisation of low-productivity labour markets is an important element of national European experiences. Budgetary constraints and Europe-wide competition make it increasingly costly to subsidise high-unemployment equilibria in each nation's less developed regions, and should lead to lower labour market rigidity. As to international labour mobility, the key ingredient of labour market configurations within the larger European nations is absent in the wider continental context, where international transfers are strictly limited. Thus, the very same lack of fiscal integration that makes American deregulation unfeasible in Europe also makes it impossible to subsidise high-unemployment outcomes across the borders of European nations. As long as the overall European Union budget is limited to 1.26% of GDP, it is safe to predict that the labour markets of the European Union will not resemble their own past selves or their American counterparts as closely as may be feared or advocated.

⁸ Hans-Werner Sinn (1998), “European Integration and the Future of the Welfare State,” CEPR D.P. 1871.

With EMU, the sources of past wage flexibility have been removed



REAL AND MONETARY CHALLENGES TO WAGE POLICY IN GERMANY AT THE TURN OF THE MILLENNIUM: TECHNICAL PROGRESS, GLOBALISATION AND EUROPEAN MONETARY UNION

WOLFGANG FRANZ*

Wage policy in Germany, at the turn of the millennium, has to face old and new challenges. Old challenges include wage moderation and a more flexible wage structure in order to contribute to a successful fight against persistently high levels of unemployment. Three new challenges are frequently discussed in the public and in the literature, namely skilled-biased technical progress, increasing international integration of labour, product and financial markets (“globalisation”), and the consequences of the monetary integration within the European Monetary Union (EMU). To what extent do these aspects indeed represent causes of the observed labour market problems in Germany and what should be the appropriate reaction of wage policy?

While the share of high-skilled workers doubled, their relative wages did not decline

Upgrading of skills and the wage structure

By any measure, the German workforce has become more skilled. Since labour force participation rates as well as the composition of employment with respect to gender, nationality, and number of working hours has changed dramatically during the time period under consideration, the group of high-skilled represents the more homogeneous population compared to the others. By and

large, the share of unskilled workers nearly halved, whereas the corresponding figure for high-skilled labour is now twice as high as 20 years ago.

What are the consequences of this skill-upgrading for the wage structure? At first glance the answer seems to be clear. In the conventional labour demand and supply framework, the aforementioned substantial increase of skilled labour is expected to reduce wages for high-skilled workers relative to other qualifications. The reverse is expected for wages of low-skilled workers. But this is not what we observe. Wage growth for low *and* high skilled workers was higher compared to that of medium-skilled workers. Put differently, during the past 20 years we observe a U-shaped pattern across skill groups, i.e., wage dispersion increased between medium and high-skilled workers and decreased between unskilled and medium skilled workers. This holds for both manufacturing and non-manufacturing sectors. However, focusing exclusively on low-skilled workers, we observe that wage dispersion within this group remains fairly unchanged over time. In contrast, for medium and high-skilled workers one observes increasing wage inequality within these groups. Taken together, while wage inequality for full-time working males increases in the time period under consideration, this rise in inequality differs within and between skill groups.

The trends for full-time working females are somewhat different. Wage dispersion across skill groups and also within skill groups in the lower part of the wage distribution decreased sharply from 1975 to 1990. On the other hand, wage dispersion for medium-skilled females above the median tends to increase substantially.

Summing up, the notion of the German wage structure as being fairly compressed and even tending to become more compressed over time is only partly correct. It obscures important differences between skill groups, wage groups, and male and female workers. The more important conclusion is, however, that despite an increased supply of high-

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Skill Composition of the Labour Force in West Germany 1975 and 1995
Percentages^{a)}

Year	Unskilled	Medium-skilled	High-skilled
Labour force			
1975	37.4	49.2	7.0
1995	19.0	59.0	13.7
Total employment			
1975	36.7	49.9	7.1
1995	16.6	60.2	14.4
Full-time working German males aged 18 to 65			
1975	20.2	66.3	4.6
1995	12.3	68.3	10.2

^{a)} Some individual skill-groups were omitted and some imprecision is due to rounding, hence figures do not add to 100%.
 Unskilled: no or unknown vocational training;
 Medium-skilled: apprenticeship training completed;
 High-skilled: university degree and degree of advanced college for higher education (Fachhochschule).

Sources: – Labour force and total employment: Bundesministerium für Bildung, Wissenschaft, Forschung und Technologie (1997), Grund- und Strukturdaten 1997/98, Bonn; calculations by the author.
 – Full-time workers: J. Möller (1999), “Die Entwicklung der qualifikatorischen Lohn- und Beschäftigungsstruktur in Deutschland – Eine empirische Bestandsaufnahme”, *Jahrbücher für Nationalökonomie und Statistik* 219 (forthcoming).

skilled workers their relative wages did not decline. an increased supply of high-skilled workers, their relative wages did not decline. Hence, demand shifts in favour of high-skilled workers must have occurred (and must be still at work). Globalisation and skill-biased technical progress suggest themselves as candidates for an explanation of these demand shifts.

International trade

Conventional wisdom suggests that the expansion of trade – due to, say, reduced trade barriers – will tend to change the wage structure across skill groups. Skilled-labour-abundant developed economies expand their production and exports of commodities that use skilled labour intensively and their import demand for goods requiring low-skilled labour. The opposite holds for emerging low-skilled-labour-abundant countries. Hence, wages of high-skilled labour will rise in developed countries. In principle, wages of low-skilled labour should decline unless wage policy tries to stem the tide and pushes up low wages, with severe unemployment consequences for low-skilled workers, as may be observed in Germany. It goes without saying that the relevant question is not whether international trade affects the wage structure at all. Obviously, when Germany imports trainers produced by low-skilled and low-paid Chinese labour, workers in a German factory producing shoes at

wages ten times those of the Chinese workers will soon find themselves on the dole. The more interesting question is the extent to which “your wages are set in Beijing” (R. Freeman).

The answer is: to some extent, but not fully. The more jobs for unskilled labour are available in the non-traded goods sector, i.e. the service sector, the more are the wages at the bottom determined by domestic forces. Moreover, in developing countries, wage aspirations of workers will also rise, as may be observed in some South-Asian economies. As recent econometric studies

show, there is empirical evidence which supports the view that although international trade via competition from developing countries does affect relative wages and the structure of employment to the detriment of low-skilled workers, this effect can only explain a minor component of the observed changes of the wage structure. To some extent this result is disappointing, if not puzzling, since it is at odds with purely anecdotal evidence. However, trade pressures on wages and employment may become stronger as China, India, and some African economies become integrated into the world economy.

Skill-biased technological change

A second possible explanation is that the increase of the supply of high-skilled workers has been out-paced by shifts in the demand for skilled workers, so that the high-skill wage premium has increased. The other side of the same coin is that this is also a source of the labour market problems of low-skilled workers. They either experience a decline in their relative wage or in the absence of wages flexible enough to square with these developments, their employment opportunities are severely damaged. This is the case in Germany, where low-skilled labour bears the major – yet not the entire – burden of unemployment.

While this view arguably provides a clear explanation of what happened, it is not without its prob-

International trade does have some effect on relative wages and so does skill-biased technological change

lems. It is not sufficient to show that technological change is the driving force behind the rising demand for high-skilled workers. We also must know what type of technological progress accelerated since the early 1970s when labour market problems began to evolve. Most new technologies are supposed to have an adverse impact on the demand for low-skilled workers. History provides a huge body of evidence for industrialisation being synonymous with (low-skilled) labour-saving technological progress. Obvious examples are the diffusion of computers and related technologies and changes in the organisation of work associated with effectively utilising these technologies. But the empirical evidence on the extent to which computers (or pencils, too) have changed the wage structure is anything but unambiguous. Secondly, the impact of new technologies may also go the other way. For example, the introduction of assembly lines may favour low-skilled labour because of the simple routine tasks.

Despite these *caveats*, the empirical evidence tentatively suggests that skill-biased technical progress is at work, indeed, but its impact differs among sectors. Moreover, wage policy, too, shares considerable responsibility for the high unemployment rates of low-skilled workers.

European Monetary Union

Pivotal to the establishment of EMU is the removal of flexible nominal exchange rates and the introduction of a single monetary policy. It has been claimed that wage policy has to serve as a substitute for nominal exchange rate adjustments in the case of divergent economic developments among EMU member countries. Other substitution mechanisms for nominal exchange rate adjustments, besides wage policy, are: labour mobility, capital mobility, relative price changes, and financial transfers between EMU member countries. While all these substitutes may be able to perform the task in theory, in reality they are insufficient or unwarranted or both. But had the adjustable exchange rate in the pre-EMU era really served as a reliable means to smooth divergent economic developments?

First, as has been shown by various recent studies, the variable nominal exchange rate of the Deutsche Mark vis-à-vis major EMU currencies

was, in Germany, hardly an important adjustment tool. Secondly, the nominal exchange rate mechanism does not provide a realistic chance to escape from the necessary domestic measures to overcome adverse economic shocks. The burden of adjustment remains to be borne at home. Third, there is evidence that, on average, the nominal exchange rate volatility resulted in job losses (in Germany) during previous appreciations of the Deutsche Mark, that were not justified by real factors. In EMU, however, this can no longer happen. Seen from these viewpoints, there is no reason for grieving over the loss of the nominal exchange rate adjustability in EMU.

While this is good news, it does not suggest that in the near future the nominal exchange rate mechanism might not have been helpful in buying some time for necessary adjustments. Hence, wage policy as the substitute must be on guard.

Conclusion

What does all of this imply for wage policy in Germany? Both, globalisation and skill-biased technological change, and, to a lesser extent, EMU, constitute challenges for wage policy with respect to greater flexibility. But additional measures are necessary, such as upgrading the skills of the workforce and increasing the international competitiveness of the German economy. Clearly, not everyone may be helped. To provide support to the unskilled will no doubt impose a considerable financial burden on society, including those who, as a majority, are the definite winners of globalisation and skill-biased technical progress.

Adjustable exchange rates in the pre-EMU era did not provide a reliable mechanism for smoothing the effects of adverse shocks

PRODUCT MARKET REGULATION AND LABOUR MARKET OUTCOMES: HOW CAN DEREGULATION CREATE JOBS?

MICHAEL C. BURDA*

Employment in service sectors now represents more than 60% of total employment in most OECD economies, and more than 68% in the United States, where it has accounted for most net employment growth since 1970. As the pace of post-industrialisation quickens, it is natural to expect growth in service employment to continue, as foreseen by Colin Clark, Jean Forastié, Simon Kuznets, and William Baumol, among others. Moreover, it is tempting to attribute the poor unemployment record of Europe over the past two decades to slow growth in tertiary sector employment, at least compared with the United States. The claim is often made that poor growth in services employment might be due to product market regulation, and deregulation is frequently mentioned as one potential remedy for the European unemployment problem.

In a service economy, one individual serves another. Thus even if one accepts that the service economy is the future of capitalism and an important part of any solution to Europe's unemployment problem, an expansion of service employment comes at the cost of increased fragmentation or disconnection of individuals available social free time to spend in leisure with others. This is especially true of consumer services. In the U.S., a quarter of all employment is in the retail and wholesale trade sector alone, a sector involved in *selling* in the strict sense, and one which Americans general-

ly associate with leisure. If one includes restaurants, hotels and personal services more generally, the fraction rises to well above 35%. An expansion of employment in service activities is necessarily associated with an increase in the *disconnectedness* of society, meaning a decrease in the coordination of its members' private activities. Harvard political scientist Robert Putnam has invoked the image of "bowling alone" to describe what he sees as a secular decline in communal and social activities conducted jointly with others.

Seen in this light, the regulation of service-providing sectors could be regarded as an attempt to coordinate leisure and internalise positive externalities which arise from resting or enjoying free time collectively. The external effect might apply to members of an immediate family as well as to a community or nation at large. Not only will the free market tend to undersupply coordination, but will generally provide ample incentives to undermine it: when the majority of the population is resting, the value of labour supplied to the market is likely to be high, and coordination may not be a stable decentralised equilibrium. At the same time, however, synchronisation of society's leisure time can involve large employment costs that must be put in the balance. A store forced to close early suffers from excess capacity, since real capital assets (floor space, inventory, check out counters, cash) are not fully utilised. Regulations of this sort are widely suspected of repressing the development, if not the absolute level, of output and employment in retail trade, banking and other personal service sectors. They may affect the labour force participation of females by restricting the availability of part-time jobs. These efficiency losses must therefore be balanced against the putative advantages of coordinated leisure and other public policy objectives. While desynchronisation of retail hours and production schedules reduces congestion in stores and makes shopping more convenient, it does so at the cost of reduced coordination of leisure.

In the context of European unemployment, one is also concerned with the macroeconomic effects of opening-time regulation on the quantity and the



Expanding service employment increases the *disconnectedness* of society, but synchronisation of leisure time has employment costs

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**Dutch Miracle? Evolution of services employment as percent of total employment
and percent of total resident population, 1985–1995**

	Germany		Netherlands		USA	
	1985	1995	1985	1995	1985	1995
Wholesale and retail trade, restaurants and hotels	15.9 (6.9)	16.9 (7.5)	16.8 (6.0)	19.6 (8.7)	21.8 (10.0)	21.8 (10.5)
Transport, storage and communication	5.8 (2.5)	5.8 (2.6)	6.3 (2.2)	5.9 (2.6)	5.4 (2.4)	5.4 (2.6)
Financing, insurance, real estate and business services	7.1 (3.1)	9.9 (4.4)	10.4 (3.7)	12.9 (5.8)	10.1 (4.6)	10.8 (5.2)
Community, social and personal services	24.6 (10.7)	26.9 (12.0)	32.2 (11.5)	31.1 (13.9)	30.5 (13.9)	34.3 (16.5)
Total	53.3 (23.2)	59.6 (26.5)	65.7 (23.5)	69.6 (31.0)	67.8 (30.9)	72.3 (34.7)

Source: Statistical Compendium of the OECD, 1998, author's calculations.

Shop closing laws may increase welfare, but can suppress employment and value added

quality of employment. The impact of a relaxation of trading restrictions will include its potential for creating part-time, flexible employment for large numbers of people. Casual observers of recent developments have marveled at the precipitous declines in unemployment in the United Kingdom and especially the Netherlands in recent years. Less noticed is the role that services, and the retail sector in particular, have played in this development. Consider that wholesale and retail employment in Holland grew by 63.1% between 1985 and 1995, or 4.6% per annum; over the recent period 1995–1997 this sector's employment grew by another 7%. In Germany, retail employment grew between 1985 and 1995 by 26.3% or 2.1% per annum; over the period 1995–97 it shrank by 1.5%! A similar picture emerges in the banking and financial services sectors. This conspicuous difference cannot be attributed to overall GDP growth in the two countries, which was rather close (2.7% in Holland versus 2.3% in Germany). The table above shows that the Netherlands – which has undertaken a number of product and labour reforms in the past decade, including the deregulation of retail opening hours – is moving more rapidly than Germany towards the leader in service employment, the United States.

These issues may be analysed in terms of a class of model proposed by Burda and Weil (1999). In these models, shop closing regulations affect employment, wages, productivity and the relative price of retailed goods because people are not indifferent about when they take their leisure. In general equilibrium, stricter regulation will tend to reduce hours worked in both goods producing and retailing sectors as well as output in these sectors

and may impose an “anti-retail bias” on employment. Moreover, shop closing laws can affect relative prices and increase retail prices by increasing the capital (inventory) intensity of retailing, and possibly reducing retailed output and increasing its relative price.

The model clearly identifies generalisable “negative” effects of this form of product market regulation: it can suppress employment and value added. If the state is acting optimally in the interests of its citizens, shop closing laws can nevertheless be welfare-increasing. In this sense, the model draws attention to observable implications, which can be useful in clarifying policy discussions. Moreover, while the theoretical model does not always generate unambiguous results, it robustly rejects Stützel's Paradox – that value-added in retail is invariant to shop opening times.

The analysis of this paper suggests that shop closing regulations may be a high price to pay for societal coordination. They have large efficiency costs and may mean fewer jobs as well as an inefficient retail sector; they also force a concentration of purchases over a shorter time interval with the effect of more labour input and less material input per unit of value added produced, even though the result may be less activity in the sector (allocative inefficiency). Deregulation comes at the cost of less leisure coordination but implies more privately efficient levels of staffing and lower wages. One modest contribution of this paper would be to bring these considerations, as well as the modest empirical evidence which is presently available, more clearly to the attention of policymakers.

THE HETEROGENEITY AND CYCLICAL SENSITIVITY OF UNEMPLOYMENT: AN EXPLORATION OF GERMAN LABOUR MARKET FLOWS

CHRISTOPH M. SCHMIDT*

Unemployment does not fall uniformly on workers. Instead, some workers seem to experience a higher risk of losing employment, less success in finding employment once being out of a job, and – on average – a higher unemployment rate than others. In the German labour market, this heterogeneity across workers is quite substantial. We can document, for four three-year sub-periods, 1983–85 to 1992–94, average unemployment rates of male West-German workers in nine demographic cells distinguished by age and formal education level. We find that the dispersion of unemployment rates across demographic groups during any period exceeds by far the fluctuation of the complete structure over time.

The unemployment experience of “problem groups”

Based on relatively coarse aggregate data, observers of the German labour market, economists and the general public alike, have apparently identified several “problem groups” whose labour market prospects seem daunting, women and unskilled workers, and – implicated less frequently – young and old workers, respectively. As a consequence of their difficult position, it is often argued that it might be warranted to target labour market policy directly to these groups of workers. Yet, despite potentially drastic consequences for the appropriate economic policy, little is known about either

the long-term structure of unemployment or its behaviour over the cycle. One principal piece of evidence justifying the particular attention being awarded to these “problem groups” is the comparatively high unemployment rates of women and, even more pronounced, of unskilled workers.

Moreover, in a comparison across OECD countries, Germany typically stands out for its comparatively low youth unemployment rates. This has apparently led many observers to conclude that young German workers are particularly well protected from adverse labour market shocks by the often heralded apprenticeship system. On the other hand, unemployment rates of old German workers are far from negligible. In particular, the apparent notion that old workers who lose their jobs face low prospects of finding re-employment has fuelled intense debates over the apparent benefits of early retirement schemes.

Even a thorough analysis of unemployment rates will not reveal the mechanics underlying their demographic heterogeneity. One has to ask, whether for any given demographic group, its unemployment rate is typically relatively high (or low), because workers in this group tend to lose their jobs more (less) often than other workers, because they have a more (less) difficult time finding re-employment, or because of both? These questions can only be addressed by an investigation of labour market flows, again at the level of detailed demographic cells. As for unemployment rates, it will be difficult to base such an analysis on anything less detailed than individual-level data. In addition, individuals have to be observed over time to allow a description of their movements across labour market states.

Finally, characterising the average demographic structure of unemployment rates and of transition intensities across labour market states hardly provides a complete account of the facts. On the contrary, it might be quite instructive to extend the analysis further to describe the behaviour of the complete structure of rates and flow intensities over the cycle.



There is a large dispersion of unemployment rates across demographic groups

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In order to provide a more informed basis for discussing the issues mentioned above, this paper formally describes the permanent demographic heterogeneity of unemployment rates, using monthly data from the *German Socio-Economic Panel* GSOEP for the period 1983–1994. Moreover, the paper extends the formal analysis to describe the behaviour of the complete structure of unemployment rates over the cycle. In addition, the paper analyses a detailed monthly account of worker flows between three principal labour market states, *employment, unemployment, and out-of-the-labour force*, based on detailed information regarding major demographic characteristics, gender, age, and education. In the course of the analysis, the paper suggests a specific empirical model that parsimoniously characterises the long-term structure of unemployment rates and flow intensities across 18 demographic cells. In addition, the model captures cyclical behaviour by a series of loading factors translating unobserved aggregate shocks to the labour market into observed fluctuations in cell-specific outcomes.

The cyclical sensitivity of unemployment rates

Over the sampling period, male and female unemployment rates in the sample have, on average, been approximately 4% and 5%, respectively. The estimation of the formal empirical model (reported in the Table) reveals that these average figures hide a substantial heterogeneity across demographic cells. First, average female unemployment rates in the core group (medium-aged, medium-skilled) are significantly higher than those of core male workers. Second, there is a distinct demographic structure in male unemployment rates, while the female unemployment structure is considerably more homogenous.

The average intertemporal developments can be summarised by two observations. First, there was a steady improvement in unemployment rates during the first three periods. The average unemployment rate in the first period 1983–85 was higher, that in the third period 1989–91 considerably lower than for the baseline period 1986–88. Second, the strong performance of the third period, feeding on the reunification boom, was not repeated in the fourth period 1992–94. Instead, average unemployment rates almost returned to the level of period 1986–88, although they remained slightly lower. That is, judging on the basis of these estimates, the performance of the West German labour market deteriorated in the early 1990s. But this only seems alarming when compared to the boom period of 1989–91.

The cyclical sensitivity of problem groups is captured in four loading factors displayed in the Table. Women do indeed experience relatively pronounced swings in their unemployment rates over the cycle. Their unemployment rates are raised moderately above average in an economic downswing and lowered moderately more than for the average worker in an economic recovery. By contrast, unskilled workers experi-

The Cyclical Sensitivity of Problem Groups

Unemployment rates			
Regime 1: 1983–85	Regime 2: 1986–88	Regime 3: 1989–91	Regime 4: 1992–94
0.6527 (10.050)	–	– 0.8649 (– 11.394)	– 0.1141 (– 2.310)
Cyclical sensitivity: Loading factors			
Women	Unskilled	Young	Old
0.4183 (3.399)	– 0.2692 (– 2.043)	2.0731 (8.618)	– 1.0578 (– 8.738)
Rates of job loss			
Regime 1: 1983–85	Regime 2: 1986–88	Regime 3: 1989–91	Regime 4: 1992–94
0.1063 (4.270)	–	– 0.1084 (– 4.367)	0.0448 (1.986)
Cyclical sensitivity: Loading factors			
Women	Unskilled	Young	Old
– 0.0266 (– 0.113)	– 0.9253 (– 2.8239)	1.1617 (2.876)	– 0.2740 (– 0.970)
Re-employment rates			
Regime 1: 1983–85	Regime 2: 1986–88	Regime 3: 1989–91	Regime 4: 1992–94
– 0.5047 (– 1.573)	–	0.9230 (1.747)	– 0.5604 (– 1.566)
Cyclical sensitivity: Loading factors			
Women	Unskilled	Young	Old
– 0.3292 (– 0.616)	– 0.7645 (– 1.142)	4.470 (1.591)	– 0.3928 (– 0.619)
The models were estimated via Nonlinear Least Squares. Asymptotic t-values are reported in parentheses. A loading factor of 0 indicates that for the corresponding group of workers cyclical swings are of the same order of magnitude as for the average worker; a loading factor of – 1 implies that the corresponding group of workers is isolated from the economic cycle.			

Relative to the average worker, women experience more pronounced swings over the cycle than unskilled workers

ence somewhat less pronounced swings around their high average value than the average worker.

Compared to these relatively moderate loading factors, those of young and of old workers indicate quite strong, albeit in their implications exactly opposite, deviations from the cyclical experience of the average worker. The estimates imply that young workers experience very pronounced cyclical swings. In boom periods their unemployment rates decline by approximately triple the amount of that for the average worker. In economic downswings, however, their unemployment rate also rises by a threefold magnitude.

This observation moderates the notion of the comparatively successful German youth labour market. While German youth unemployment rates are relatively low in a comparison across OECD countries, according to these estimates young workers (approximately one out of five German workers) are considerably more vulnerable to cyclical swings than the average worker. By contrast, the estimates reported in the Table imply that old workers are completely detached from the economic cycle.

The cyclical sensitivity of transition intensities

We modelled transition rates of male workers from employment to unemployment and vice versa, normalised to the intensities of medium-aged and medium-skilled workers. For female workers, the demographic structure is more homogenous than for males. In the average pair of months in the sampling period, approximately 0.4% of employed male and female workers in the sample went into unemployment. As it was demonstrated to be the case for unemployment rates, the average figures are hiding a substantial heterogeneity across demographic cells. Among men, employment is less stable for unskilled workers, but also for young medium-skilled workers. By contrast, old medium-skilled and high-skilled workers enjoy significantly higher job stability, as do medium-aged high-skilled workers.

On average, during the sampling period more than 9% of all unemployed German men in the sample left unemployment each month to take up employment. Female re-employment rates in the labour force core are considerably lower than those of males. This large difference would be consistent

with less success in generating job offers, but also with higher reservation wages preventing the acceptance of forthcoming job offers.

For male workers, it is the medium-age unskilled and old workers of any skill who display particularly low re-employment rates. In fact, based on these estimates, for old male workers the probability of returning into employment is almost negligible. As for the male-female difference in the demographic core group, it is impossible to infer from these estimates alone whether this low re-employment rate is a purely demand-driven phenomenon. Furthermore, since we do not observe any counterfactual situation, nothing is implied by these estimates regarding the potential effects of early retirement schemes. By contrast to old male workers, young medium-skilled and high-skilled, and medium-aged high-skilled male workers experience relatively high re-employment rates.

Over time, job loss rates change in a manner consistent with the fluctuations in unemployment rates. During the first three sub-periods, job loss rates for the typical worker declined steadily. In the final period 1992–94, much of this decline in job loss rates was reversed. In fact, according to these estimates, the job loss rate in this fourth period was even significantly larger than it had been in the baseline period 1986–88. The estimated loading factors imply that the cyclical swings of job loss rates of women and of old workers are basically in line with that of the average worker.

By contrast, the job loss rates of unskilled workers – who happen to experience high job loss rates on the average – appear not to display any cyclical behaviour whatsoever. Instead, the corresponding coefficient estimate is insignificantly different from – 1, thus completely offsetting positive as well as negative shocks to overall job loss rates. The job loss rates of young workers, however, are very sensitive to the cycle. For young workers cyclical swings are amplified to approximately double the magnitude experienced by the average worker.

Cyclical swings in re-employment rates are statistically less well-established than those for unemployment rates or rates of job loss. Nevertheless, the same general pattern emerges from the estimates. There was a steady improvement in re-employment rates during the first three sub-periods, with the difference between the first and the

Old medium-skilled and high-skilled workers and medium-aged high-skilled workers enjoy the highest job stability

third period being statistically significant. Between the third period 1989–91 and the fourth period 1992–94, one can observe a dramatic (and clearly statistically significant) reversal, with an estimated drop in average re-employment rates of more than one percentage point.

None of the estimated loading factors is statistically significant at conventional values. If anything emerges from these estimates, then it is unskilled workers are disattached from the cycle and that young workers are very sensitive to the cycle.

Finally, the cyclical behaviour of unemployment rates on the one hand and of transition intensities between employment and unemployment on the

other does not quite add up for women and old workers. Over the cycle, female workers display relatively pronounced swings in unemployment rates, yet the fluctuations in their flow intensities are rather modest. This is consistent with an *added-worker* idea implying a counter-cyclical participation behaviour of women. By contrast, old workers display at best only moderately dampened cyclical swings in their flow intensities, yet their unemployment rates seem to be completely disattached from the cycle. This pattern is consistent with a *discouraged worker* argument. These considerations indicate that an ultimate account of cyclical patterns probably has to take into account movements in and out of non-participation.

MINIMUM WAGES

PRO: THE ROLE OF THE MINIMUM WAGE IN THE MODERN WELFARE STATE

JUAN J. DOLADO*

For several decades, economic growth in the OECD countries served to keep poverty at bay by ensuring that individuals were in work. From the beginning of the 1980s, however, it seems that in many countries (most notably in the UK and the USA) the inverse link between growth and poverty began to break down. Rising wage inequality and an increase in the proportion of households headed by low-wage workers (typically single parents or households with a single earner) seem to have brought about this new trend. Hence, low wages are now a key issue in the struggle to alleviate poverty. In this scenario, minimum wages, despite the harsh judgement given by standard economic analysis, have emerged forcefully, both in the academic arena and in policy discussions, as a proper tool to distribute income, with the traditional slogan “make work pay more than welfare” being back in play.

The conventional arguments against the minimum wage are as follows:

- Labour demand will fall if it is set above the competitive wage and, moreover, the adverse employment effects are the larger the more open is the economy; thus, far from helping the poor, a minimum wage is more likely to leave them worse off, and
- it may be ineffective as a redistribution tool since relatively few of the lowest-paid workers are from poor families and furthermore it may lower the amount of specific training provided by firms for the least educated workers since

part of the financing cannot be shifted onto workers due to the minimum wage.

Is that picture accurate? The new revisionist view on the minimum wage claims that, with few exceptions, such might not be the case. So, the burgeoning empirical evidence on the employment effects shows that those effects are bound to be negligible, and even in the more negative cases it turns out that the minimum wage is an effective distributive tool: at worst, it is estimated, a 10% increase in the minimum wage reduces employment by just 2% to 3% and hence increases the share of income received by minimum wage earners by 7% to 8%. However, one may still have to concede that even if a few workers lose their jobs, there may be some undesirable distributive effects, particularly in countries where labour turnover is low and unemployment duration is high, as it happens in Europe. Thus, there is the risk that the minimum wage will divide the low-paid workforce into lucky winners and unlucky losers. Moreover, the effects of the minimum wage in different countries do depend strongly on how it fits in their labour relations systems. For example, if the wage-setting system is such that higher-paid workers restore the differentials that increases in the minimum reduce, then the redistributive purpose of the minimum wage could be subverted. This is particularly the case in countries where minima agreed in collective bargaining are superimposed on statutory minima. Another case where job losses have been found to be sizeable, especially among teenage workers, is where a single national minimum wage is imposed without allowing for lower levels for young people whose equilibrium wage is bound to be lower than that of adult workers.

With regard to training, the evidence is again very inconclusive: It might even be true that a binding minimum wage induces workers to raise their productivity to the level of the minimum by acquiring education which otherwise would not have been taken. As for the characteristics of minimum wage earners, while young workers used to account for a high proportion of the low paid in the past, their



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importance has declined with increases in school enrolment and in female activity rates. So, while youngsters who are not in poor families may be some of the beneficiaries of the minimum wage, an increasing fraction seems to be accounted for by older people, typically women above 20 with some type of temporary contract.

In sum, it seems sensible to conclude that though a minimum wage is not a panacea for poverty, it definitely helps to redistribute income. One should not forget that the long-term well-being of workers depends ultimately on increasing their productivi-

ty, and setting a minimum wage might not help in this respect. However, general policies to raise skills and potential earnings will do little to alleviate poverty in the short run. Thus, if judiciously chosen (setting different rates across ages and possibly sectors), without interfering with the available wage-setting procedures (better in decentralised systems) or with existing in-work benefit systems (it ought to raise participation) or payroll taxes (there might be a case for subsidising the social security payments of minimum wage earners), it can do more good than harm in breaking the lock of the poverty trap.

Minimum Wage per Hour, end-1997^{a)}
in the 17 OECD countries which have national or statutory minimum wages

Country	In US\$, using PPPs	in % of full- time mean earnings	Country	In US\$, using PPPs	in % of full- time mean earnings
Belgium	6.40	52.6	Mexico	0.59	..
Canada	5.33	..	Netherlands	6.00	51.1
Czech Republic	0.92	..	New Zealand	4.46	41.0
France	5.56	55.3	Poland	1.57	..
Greece	3.06	..	Portugal	2.32	49.6
Hungary	1.05	..	Spain	2.94	28.8
Japan	3.38	34.9	Turkey ^{c)}	1.38	..
Korea	2.15	27.4	United States	5.15	34.9
Luxembourg	6.91	..			

^{a)} In all cases, the minimum wage refers to the basic rate for adults. – ^{b)} For countries where the minimum wage is not usually expressed as an hourly rate, the given rate has been converted to an hourly basis assuming a working time of 8 hours per day, 40 hours per week, 173.3 hours per month. – ^{c)} In thousand of Turkish lira.

Source: OECD, Employment Outlook 1998.

CONTRA: THE STATUTORY MINIMUM WAGE: DANGERS INHERENT IN SUCCESS

JUDITH SHAPIRO*

There has been a welcome sea-change in economic thinking on the minimum wage in the past five years: a shift towards a conditional and qualified defence of such measures which was long overdue. *The danger now is that this triumph could backfire, against the desires of those who achieved this for economics as an empirically-based discipline.*

How might this happen?

- Modest empirical claims made in defence of the minimum wage may easily, in the political process, be converted into unintended exaggerations, and thence into campaigns for undesirable extension of regulatory measures.
- Further policy research on minimum wages may be neglected.
- Focusing attention on minimum wages can crowd out more difficult, expensive, long-term fundamentals, rather than bringing them into the policy eye.

There are strong reasons for the public, and politicians, to latch on to this “unfunded mandate,” as a *substitute* for the spending required by training and education, the more important part of any serious package. The latter measures are more complex, promising long-term gains. Everything in the political arena militates in the direction of myopia. The danger is that we will end up once again with series of short-term measures; the far more costly and

rewarding programmes which can raise productivity will always be just over the time horizon.

With enthusiasm for this virtually free lunch, there is a tendency for modest claims on minimum wages to be distorted by public debate. None of the new findings on minimum wages are intended to go beyond this: “they are not terribly harmful and in fact even have slightly beneficial effects both on low-wage workers and on the overall distribution of income” (Edward M. Gramlich, *Brookings Papers on Economic Activity*, 1976).

This conclusion for the US minimum wage was accepted two decades later as an idea whose time had come, with the remarkable reception of David Card and Alan Krueger’s *Myth and Measurement: The New Economics of the Minimum Wage* (1995). These authors were equally circumspect. Yet popular sentiment quickly ignores what Krueger noted soberly (*LoWER Newsletter*, number 6, March 1999, page 2):

“I think to a first order of approximation the minimum wage has essentially no effect on unemployment ... Now this does not mean that this can go on forever. Even in a dynamic monopsony model at a certain point one would hit the demand curve. So I think that this is a reason for being somewhat cautious about the impact of another minimum wage increase in the U.S.”.

For the European cases (with more reason for caution, given the higher minima as a proportion of the average wage), powerful additional evidence was provided by Dolado et al. (*Economic Policy*, 1996), with the pithy summary observation: “The (good and bad) effects of minimum wages have been exaggerated.”

All these conclusions are closer to faint praise than to ardent advocacy. The evidence says nothing about large increases in the minimum wage, or about long-term results. The difficulties of analysing long-term effects are as daunting as Richard Freeman claimed when he offered to “bet



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the family house” that no such analysis could be robust.

The breakthrough of the “revisionists” should not be sought in policy recipes, but as a corrective to decades of dominance by an extraordinarily primitive story of labour markets. (The lack of subtlety was so evident that George Stigler, the best-known opponent of the minimum wage, suggested in the 1970s that economists’ views on this were threatening to bring the entire profession into disrepute.)

I avoid the temptation to use more space to attack this ossified orthodox view and its conceit that the “laws of supply and demand” – in fact, a particular static partial equilibrium model – has achieved the same predictive success as Newtonian physics. This tale of fundamentalism gone awry does not change a key reality: the economist’s appreciation of the limits set by market forces is much more respectful than the average citizen’s. This concern is not merely speculative. In the growing U.S. municipal

movement for “living wage” ordinances, it is possible to see exactly these dangers.

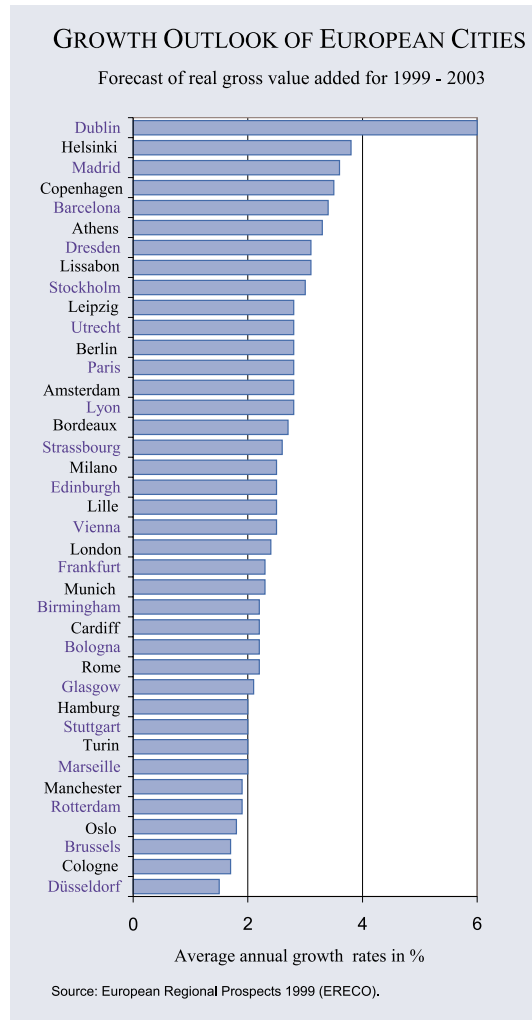
Consider the policy hazard that research will suffer now the exciting “revisionism” has been done. We would not draw the implications of substantial non-compliance on minimum wages in most countries, about choice among alternative minimum wage regimes, or about deeper implications of the research for the understanding of how labour markets actually work. This last item is significant in the evaluation of other key policies, particularly credits for low-paid workers with families.

The rather unpalatable reality is that the key measures needed are much more expensive, complex, untested, and demanding of institutional innovation than minimum wage legislation. The latter may be a decent weapon, but it is a very limited weapon, with a possible boomerang effect. It is time to figure out how to build the necessary consensus for much more far-reaching efforts to improve the situation of the low paid.

THE FASTEST GROWING CITIES IN EUROPE

Most European cities are expected to grow faster than their national economies. The main exceptions are Cologne and Düsseldorf, whose economies are closely linked to that of Bonn which just lost the status of German capital, Marseille, still suffering the effect of restructuring its traditional heavy industries, Rotterdam, overly dependent on the seaport and weak in financial and business services, and Brussels, facing a sharp deterioration of its tax base. In the United Kingdom, Manchester is the only city expected to grow more slowly than the national average, the negative impact of strong sterling on its manufacturing industries not offset by the rapid improvement of the transport infrastructure and the buoyancy of call centers.

Dublin is expected to be the best performer due to the fast growth of Ireland and the booming financial sector. Helsinki will benefit from Finland's GDP growth and its participation in EMU, increasing its attractiveness for foreign investment. Athen's growth will receive a great stimulus from the infrastructure projects connected with the 2004 Olympic Games. Most Spanish cities are expected to grow respectably on the basis of large investment. In the UK, the temporary slowdown of the national economy affected London in late 1998 and early 1999, but London's long-term prospects remain good, as its specialised international financial business services benefit from further European integration. Copenhagen's growth is



expected to exceed the Danish national average because of Oresund link, due to open in 2000, creating a new cross-border region, Oresundregionen, combining Copenhagen with Skane in southern Sweden. R.K.

NO SHOCK FROM THIS OIL PRICE SHOCK

Since OPEC agreed to cut petroleum output last March, the price of crude oil has jumped to above \$27 per barrel in February 2000, up from less than \$10 a year ago. This tripling of prices brings them to their highest level since the Gulf War in 1991, and elicits memories of the 1973 oil price shock when prices quadrupled, and 1979/80, when they almost tripled.

In addition to the production cutbacks already agreed last year, OPEC succeeded in convincing its members last March of the need to cut output further and, in particular, to adhere strictly to the agreed production quotas. Because of the marked supply reduction and a simultaneous demand revival, the following months saw an unusually steep increase in crude oil prices. The International Energy Agency (IEA) estimates that the entire demand for crude oil will be rising by 2.5% in 2000. The IEA also expects a partial loosening of the supply limitations, however¹, recently falling inventories notwithstanding.

Despite these hefty increases in oil prices, the economic consequences are likely to be much less severe than in the 1970s. There are several reasons²:

- First, the recent sharp rise in oil prices follows an equally sharp decline over the previous two years. Prices fell by more than half to their lowest level in real terms since 1973.
- In most countries the cost of crude oil now represents a smaller share of the price

¹ See Hans-Dieter Karl, "AIECE-Prognose: Weltrohstoffpreise 2000/2001" *ifo Schnelldienst* 31/1999, November 9th 1999.

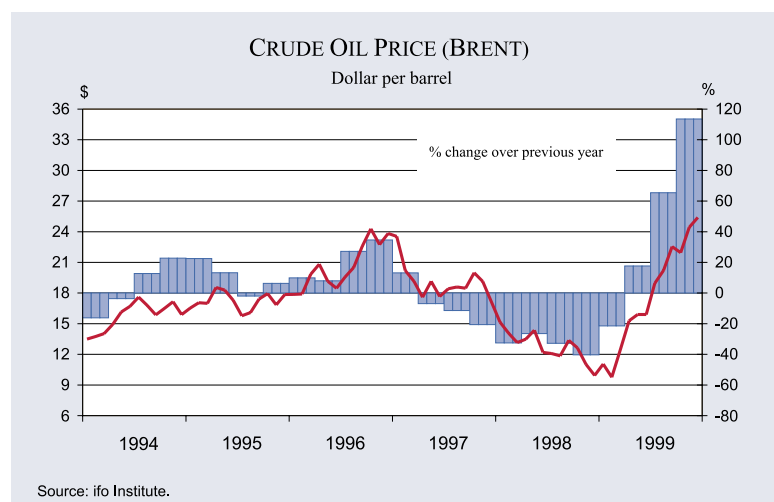
² "Oil's pleasant surprise" *The Economist*, November 27th 1999.

of gasoline than it did in the 1970s. In Europe, taxes now account for up to four-fifths of the price at the pump.

- Rich economies are much less dependent on oil than they were in the 1970s. For each dollar of GDP (in constant prices) they now use nearly 50% less oil than in 1973. Energy conservation, a shift to other fuels and a decline in the importance of heavy, energy-intensive industries have reduced oil demand. The OECD estimates that a \$10 rise in oil prices increases the oil import bill of rich economies by a mere $\frac{1}{4}$ – $\frac{1}{2}$ % of GDP. That is less than one quarter of the income loss in 1973 or 1980. Oil-importing emerging countries, to which heavy industry has shifted, have become more energy-intensive and thus may feel the effect of the oil price rise more acutely.
- Oil producers are much more likely to spend their extra oil revenues on imports from rich countries as most have large current account deficits in contrast to the 1970s when they had current account surpluses and therefore saved most of the windfalls.
- Finally, this time around – unlike in the 1970s – the oil price surge is occurring against the backdrop of low commodity prices, which already fell by 14% in 1998 and another 8% in 1999, will just consolidate in 2000.³

H.C.S.

³ See Hans-Dieter Karl, op.cit.



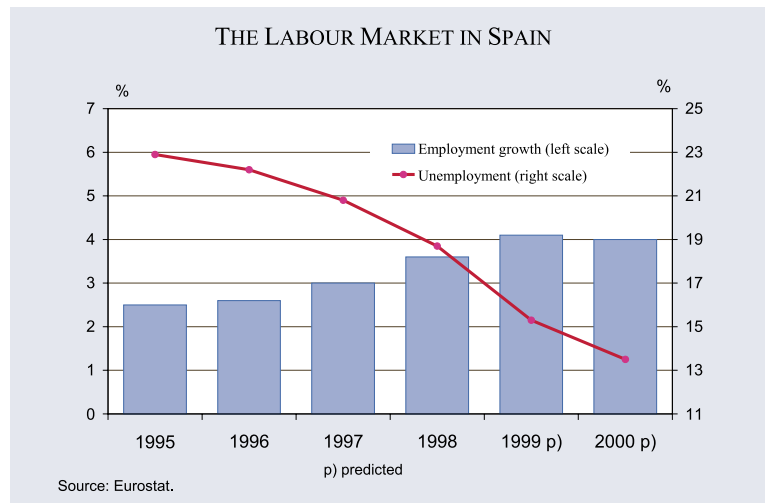
STEEP DROP IN SPAIN'S UNEMPLOYMENT

The European labour market is improving but slowly – with the notable exception of Spain. Since 1995, progress in overcoming employment problems has been greatest here. To be sure, in relative terms Spain had also started from the worst position, and – at 13½% – it is likely to register once again the highest unemployment rate in Western Europe in 2000. Compared to 1995, however, this would mean a decline by 9½ percentage points, a record achievement. The increase in employment may be close to one fifth. Only Ireland will have enjoyed an even greater surge.

The labour market improvement is broad-based. Employment in the manufacturing sector is likely to rise by one fifth between 1995 and 2000 and in the construction sector by close to one third. Job growth in the service sector continues to be rapid. The activity rate of the working-age population has been on the rise since the mid-nineties, almost entirely due to the higher participation of women. The primary reason for the remarkable improvement of the labour market is strong economic growth, persistently above the EU average, as well as moderate wage

claims and cuts in non-wage labour costs. In addition, the 1997 labour market reform has reduced the high level of employment protection legislation, facilitating dismissals. The introduction of a new permanent job contract with reduced severance payments has improved employment prospects for the targeted groups, especially the young. Although the different types of contracts now in existence also promote part-time job creation, fixed-term employment has remained widespread.

Spanish unemployment figures continue to be exaggerated by the official statistics, as seen in the increasing shortage of skilled and even less skilled workers. About half of those registered as unemployed are assumed to be employed in the underground economy. The EU Commission puts the share of the underground economy in Spanish GDP at 10% to 23%. O.E.K.



NO BOOST FROM RESIDENTIAL CONSTRUCTION

At its meeting in Cambridge on 6 and 7 January 2000, EUROCONSTRUCT – the European Study Group on Construction Research and Forecasting – supplied its biannual construction forecast for 15 Western European countries.

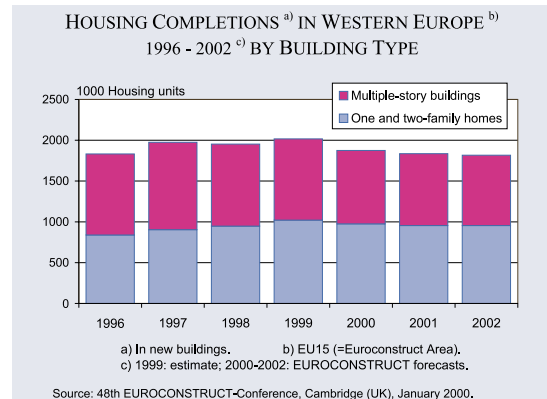
Total construction volume in real terms, which expanded by 3% in 1999, is expected to rise by 2½% in 2000. In the following two years growth will flatten to a rate of about 1½% p.a.

No boost can be expected from residential construction – accounting for as much as 47% of the total – as new housing will grow more modestly

Figure 1



Figure 2



(6% from 1999 to 2002). The renovation of existing buildings, which had already provided an important stabilising element in recent years, will expand more strongly, however (10.5% from 1999 to 2002). The number of new housing units in one and two-family homes, which increased by nearly 8% in 1999, will stabilise at a lower level of just below one million units a year. This segment's development is slowing the decline in total housing completions (Figure 1). Its share in total new housing units is expected to rise from 50.5% in 1999 to 53% in 2002. Because building costs per housing unit are higher for single family homes than for multiple-story structures, they raise the total volume of new residential construction despite the decline in overall housing completions. The shift in the composition of residential construction is largely a consequence of developments in Germany which accounted for 20% of all new housing units built in Western Europe in 1999. In Germany, the share of owner-occupied homes rose to 57% in 1999, which compares to 80% in the United Kingdom at one extreme and to only 30% in Spain at the other.

Not only the composition, but also the intensity of residential construction (completed housing units per 1000 inhabitants) differs widely among the European countries, with Ireland at the top and Sweden at the bottom (Figure 2). V.R.

DICE REPORTS¹

NEW EMPIRICAL FINDINGS ON THE LABOUR MARKET EFFECTS OF EMPLOYMENT PROTECTION

The links between employment protection (regulations concerning hiring and firing) and the performance of the labour market have occasioned extensive debate. At issue is the question whether excessively strict employment protection is a major contributor to the persistently high unemployment experienced in many European countries since the 1980s. Some argue that employment protection, by raising firms' firing costs, acts as a deterrent against hiring new workers and that, moreover, it constitutes an extra source of bargaining power for the protected employees (insiders), resulting in higher wages. On the other hand there are those who argue that employment protection reduces the inflow into unemployment. They add that it creates stable employment relationships which favour the introduction of new technologies as well as the reorganisation of working practices and enhances investment in training and skill formation. In their view, the rise in productivity compensates for higher firing costs.

New empirical findings

Until recently, empirical research had not provided a clear-cut answer to the question raised above. The major reason is that most of the cross-country research had used data on employment protection at one point in time (that is the late 1980s).² Therefore, institutional changes could not be measured. Moreover, the number of individual indica-

tors for measuring the overall strictness of employment protection was too small. Meanwhile the OECD has gathered new information which it presented in 1999.³ It extends prior research in two ways: First, it presents new data describing employment protection in the late 1990s and makes them comparable to data of the late 1980s. Secondly, it provides a new, much richer data base. It identifies those aspects of employment protection (e.g. procedural requirements, notification periods or severance pay) that are most important for reassessing the relationship between employment protection and labour market performance.

According to the OECD, employment protection refers to both, regulations concerning hiring (e.g. rules favouring disadvantaged groups, conditions for giving temporary or fixed-term contracts, training requirements) and firing (e.g. redundancy procedures, mandated notification periods and severance payments, special requirements for collective dismissals and short-time work schemes). Various institutional arrangements can provide employment protection: the private market, labour legislation, collective bargaining agreements, and court interpretations of legislative and contractual provisions. The OECD has compiled information on 22 indicators for 27 countries. Twelve indicators refer to the strictness of dismissal regulation for regular and permanent workers. Six indicators refer to the regulation of fixed-term contracts and temporary agency work. Four indicators measure the strictness of collective dismissal regulation. These 22 indicators provide the inputs for the construction of cardinal summary indicators of employment protection strictness.

Easing employment protection ...

There is significant variation in employment protection, both with respect to the overall level of strictness and with respect to the relative emphasis placed on different components of regulation. The Southern European countries stand out for having relatively strict employment protection, along with

Does employment protection raise overall unemployment?

¹ DICE = Database of Institutional Comparison in Europe.

² M. Emerson (1988), Regulation or De-regulation of the Labour Market: Policy Regimes for the Recruitment and Dismissal of Employees in Industrialised Countries, *European Economic Review*, April, 775-817; G. Bertola (1990), Job Security, Employment and Wages, *European Economic Review*, June, 851-886; D. Grubb and W. Wells (1993), Employment Regulation and Patterns of Work in EC Countries, *OECD Economic Studies* No. 21, Winter, 7-58; OECD (1994), *The OECD Jobs Study*, Evidence and Explanations, Part II, Paris.

³ OECD (1999), *Employment Outlook 1999*, Chapter 2, Paris.

Strictness of Employment Protection^{a)}

Country	Regular employment		Temporary employment		Collective dismissals	Overall strictness		
	Late 1980s	Late 1990s	Late 1980s	Late 1990s		Version 1 ^{b)}		Version 2 ^{c)}
	(1)	(2)	(3)	(4)	(5)	Late 1980s	Late 1990s	Late 1990s
Austria	2.6	2.6	1.8	1.8	3.3	2.2	2.2	2.3
Belgium	1.5	1.5	4.6	2.8	4.1	3.1	2.1	2.5
Denmark	1.6	1.6	2.6	0.9	3.1	2.1	1.2	1.5
Finland	2.7	2.1	1.9	1.9	2.4	2.3	2.0	2.1
France	2.3	2.3	3.1	3.6	2.1	2.7	3.0	2.8
Germany	2.7	2.8	3.8	2.3	3.1	3.2	2.5	2.6
Greece	2.5	2.4	4.8	4.8	3.3	3.6	3.6	3.5
Ireland	1.6	1.6	0.3	0.3	2.1	0.9	0.9	1.1
Italy	2.8	2.8	5.4	3.8	4.1	4.1	3.3	3.4
Netherlands	3.1	3.1	2.4	1.2	2.8	2.7	2.1	2.2
Portugal	4.8	4.3	3.4	3.0	3.6	4.1	3.7	3.7
Spain	3.9	2.6	3.5	3.5	3.1	3.7	3.1	3.1
Sweden	2.8	2.8	4.1	1.6	4.5	3.5	2.2	2.6
United Kingdom	0.8	0.8	0.3	0.3	2.9	0.5	0.5	0.9
Japan	2.7	2.7	..	2.1	1.5	..	2.4	2.3
Switzerland	1.2	1.2	0.9	0.9	3.9	1.0	1.0	1.5
United States	0.2	0.2	0.3	0.3	2.9	0.2	0.2	0.7
Canada	0.9	0.9	0.3	0.3	3.4	0.6	0.6	1.1
Australia	1.0	1.0	0.9	0.9	2.6	0.9	0.9	1.2
New Zealand	..	1.7	..	0.4	0.4	..	1.0	0.9

.. = Data not available. – ^{a)} The scores can range from 0 to 6, with higher values representing stricter regulation. – ^{b)} Average of indicators for regular contracts and temporary contracts. – ^{c)} Weighted average of indicators for regular contracts, temporary contracts and collective dismissals.

Source: OECD, Employment Outlook 1999.

Deregulation of fixed-term contracts has positive employment effects

France, Germany and Sweden. On the other extreme, regulation is least restrictive in the United States, the United Kingdom, New Zealand, Canada and Ireland (see Table, column 8).

Between the 1980s and the late 1990s, there was some easing of employment protection in nine countries, unchanged strictness in eight countries, and a tightening of restrictions in one country, France (Table, columns 6 and 7). Reduction in the overall strictness of employment protection was – as a rule – not due to an easing in regular contracts. In fact, there was a considerable continuity of employment protection in this area. The only exceptions were Finland, Portugal and Spain which significantly eased employment protection for permanent workers (Table, columns 1 and 2).

... encourages temporary work

In order to enhance workforce flexibility, countries may choose other options. They can reduce employers' termination costs by facilitating the use of fixed-term contracts with a specific termination date and by recourse to workers hired from temporary work agencies. In general, there will not be advance notices or severance pay in these cases, and it will usually be difficult for employees to file an unfair

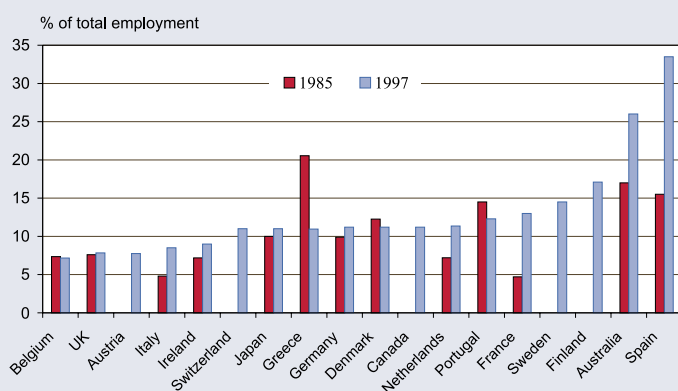
dismissal claim. Many countries eased regulations regarding fixed-term contracts and temporary work agencies. In particular, Italy, Greece, Spain and Sweden have allowed employment of temporary workers provided by temporary work agencies. Restrictions on fixed-term contracts were eased in Germany, Italy, Austria, Belgium, Finland, the Netherlands. Portugal and Sweden, but tightened in France and Spain. Taking both options together, Sweden, Denmark, Italy, Belgium, Germany, and the Netherlands have moved furthest in the direction of easier use of temporary work contracts (Table, columns 3 and 4).

The deregulation regarding fixed-term contracts and temporary work agencies has encouraged the evolution of temporary employment contracts. As a consequence, temporary work has become an important component of employment growth in many OECD countries since the mid 1980s. Yet in most OECD countries less than 15% of employees are in temporary work. Exceptions are Finland, Australia and especially Spain (see Figure).

Employment protection of insiders only

Regarding the effect of employment protection on labour market performance, the OECD draws

TEMPORARY EMPLOYMENT, 1985 - 97



Source: OECD, Economic Outlook, June 1999, p. 146.

some interesting conclusions. A cross-country comparison suggests that employment protection has little or no effect on overall unemployment. It may, however, influence its demographic composition. In countries where employment protection is stricter, unemployment tends to be lower for prime-age men, but higher for younger workers and, perhaps, prime-age women.

lower turnover in the labour market, with both jobs and unemployment spells tending to last longer. Fewer workers experience unemployment in any one year in countries with stricter employment protection, but those becoming unemployed have a greater probability of remaining unemployed for a year or more.

Wolfgang Ochel

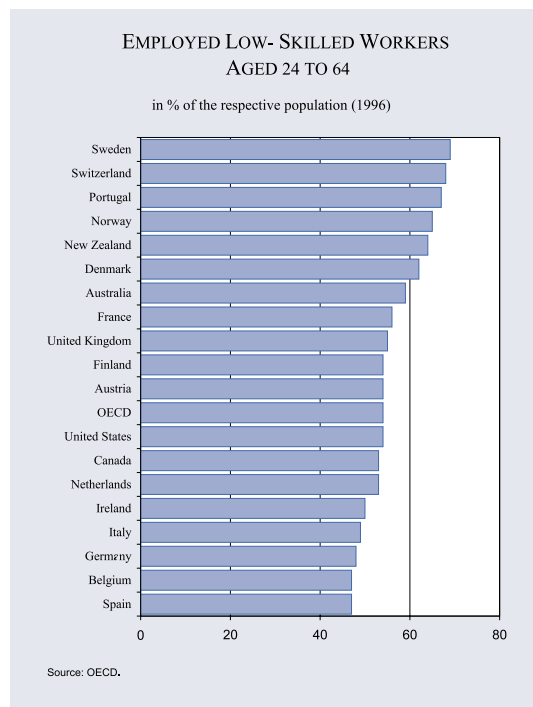
Concerning the employment effects, employment protection strictness tends to reduce the employment-to-population ratio for the working-age population. This negative association holds true for youth and prime-age women, but reverses for prime-age men, consistent with the hypothesis that employment security protects the jobs of “insiders” and reduces the employment chances of “outsiders”. Stricter employment protection is associated with

Strict employment protection helps prime-age men, but hurts women and youths

LOW-SKILLED WORKERS DO BEST IN SWEDEN

People without general or vocational training, so the international definition of the group with the lowest skills, suffer above-average unemployment. In addition, their unemployment rates have risen in most European countries in past decades. This is mainly due to skill shift, i.e. the shift in labour demand in favour of higher-skilled workers. The relative decline of unskilled labour input in the manufacturing sector and increasing competition from low-wage countries have reinforced this trend. Rising unemployment intensifies the competition for existing jobs, triggering a race for ever higher qualifications which further worsens the employment chances of unskilled workers.

In addition, relatively generous social systems in Europe result in adverse incentives to look for a job in the first place. Although the United States is usually the reference country where greater wage differentials help reduce unemployment of the low-skilled, low-wage workers as compared, for example to Germany, it is Sweden where the employment chances of the unskilled are best, followed by Switzerland, Portugal and Norway. The United



States is not better than the OECD average. At the bottom of the list are Germany, Belgium and Spain. At 14%, the unemployment rate of unskilled workers in Germany was a quarter above the OECD average and three to four times the levels of Sweden, Switzerland and Portugal. H.C.S.

EARLY RETIREMENT HAS GONE OUT OF FASHION

Most countries of the EU have early retirement schemes which – with the exception of Finland and Sweden – are however conditional on the number of years worked, on the type of work performed (e.g. heavy physical and/or hazardous occupations), the incidence of unemployment, etc. As a rule, the pension is reduced in the case of early retirement. France, Ireland, the Netherlands and the United States do not permit early retirement, although France grants regular pensions at age 60

which in other countries is the age at which early retirement becomes possible. In the other three countries regular retirement starts at age 65.

In the EU the early retirement of men increased sharply after 1979, but has stagnated since 1995. There are a number of reasons for the rise of early retirement: Higher per capita income permits older people to enjoy more leisure sooner; the increase in unemployment has reduced the chances of older people competing for jobs; many workers leave the labour market early for health reasons; company schemes encourage voluntary early retirement, and the design of public pension schemes has also made early retirement more attractive.

Early Retirement Index^{a)} 1976 to 1998

Country	1979	1983	1990	1995	1998
Austria	57	57
Belgium	...	49	65	64	66
Denmark	...	33	31	32	39
Finland	44	46	53	55	55
France	30	46	54	58	59
Germany	33	37	42	45	44
Greece	...	29	40	39	43
Ireland	22	22	35	36	37
Italy	...	44	48	56	57
Luxembourg	...	62	57	65	65
Netherlands	35	54	54	58	53
Portugal	24	29	34	38	33
Spain	22	28	38	45	42
Sweden	21	23	25	29	29
United Kingdom	...	30	32	38	37
EU	...	37	43	48	48
United States	27	31	32	34	32

^{a)} Early Retirement Index = 100% minus labour force participation rate of men aged 55 to 64.

Source: OECD Employment Outlook 1995, 1997, and 1999.

In the 1990s, many EU countries started to reform their pension systems in order to stem surging budgetary outlays. Partial pension models, increase of the eligibility age, and the reduction of early retirement options made early retirement less attractive and stopped its growth after 1995. In some countries these measures even resulted in a rise of the participation rates of older men, especially in Portugal, the Netherlands, Spain and Germany. W.O.

LOPSIDED DIRECT INVESTMENT BALANCE FOR EUROPE

In 1998, the latest year for which worldwide figures are available, global FDI flows reached a record level despite the financial crises and recessions in Asia and Latin America. FDI inflows and outflows from the industrialised countries soared to new heights – to about \$460 billion and \$595 billion, respectively, led by the United States as the biggest foreign investor by far. Recent estimates for 1999 put foreign direct investment by U.S. manufacturers at a new record, with a 72% increase over 1998.

Nonetheless, the United States remains the biggest net importer of foreign capital, in stark contrast to Europe which, according to the European Central Bank, was again a big net exporter of direct invest-

Foreign Direct Investment 1998
(Dollar billions)

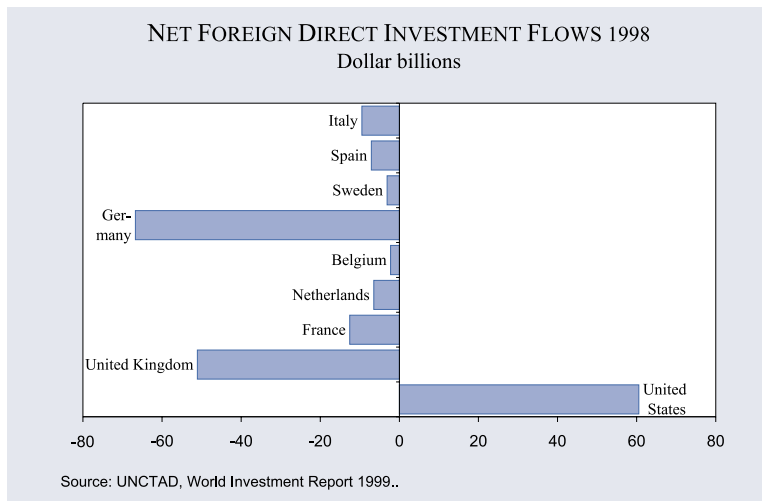
	Inflows	Outflows	Net Inflows (+) Net Outflows (-)
United States	193.375	132.829	+ 60.546
United Kingdom	63.124	114.195	- 51.071
France	28.039	40.587	- 12.548
Netherlands	31.859	38.310	- 6.451
Belgium/Lux.	20.889	23.111	- 2.222
Germany	19.877	86.591	- 66.714
Sweden	19.358	22.465	- 3.107
Spain	11.307	18.387	- 7.080
Italy	2.611	12.076	- 9.465

Source: UNCTAD, World Investment Report 1999.

ment funds in 1999. Among the European countries, Germany and the United Kingdom are responsible for the largest net outflows of FDI (see Table).

Affiliates of foreign direct investors in the United States created 6.3% of GDP and more than 5 million jobs, according to the latest benchmark survey for 1997 of the U.S. Bureau of Economic Analysis. The unemployment problem in Europe could be eased if it were able to attract more foreign capital for the establishment of additional production plants and/or service facilities here rather than sending an ever higher volume of job-creating FDI abroad. Faster economic growth and a more investment-friendly tax environment might correct, if not reverse, the lopsided FDI balance of Europe in the early 2000s.

H.C.S.



TEN YEARS AFTER: GERMAN UNIFICATION REVISITED

Conference organised by Rüdiger Dornbusch, MIT, and Hans-Werner Sinn, CESifo, in co-operation with the German Economic Review.

Exactly ten years after German unification, Rüdiger Dornbusch and Hans-Werner Sinn held their jointly organised conference not far from the Berlin *Reichstag*. The panel of experts, which also included Georg Milbradt, the Saxon state minister of finance, and Karel Dyba, the former Czech minister of economics, discussed the following questions: Would we do it the same way again? Was the transformation of the east German economy a success? What went wrong?

Hans-Werner Sinn opened the discussion by looking at the enormous improvement in the standard of living in east Germany. According to recent estimates, it has risen, in real terms, by a factor of three. Real average income is now 90% of west Germany's, the level of nominal wages is 74%, and pensions are even higher than in the west. Sinn characterised this development as phenomenal, beset only by the problem that this success was and is financed by west Germany to a degree which is simply not sustainable. Every third D-Mark which is spent in east Germany still comes from the west: Whereas annual absorption in east Germany is DM 655 billion, its GDP is only DM436 billion. The difference is financed, on the one hand, by a net transfer of private capital of DM 78 billion, which is appropriate; on the other hand, DM141 billion, or 4.5% of west German GDP, is provided by west German government budgets. Accumulated over the entire period, the public net transfer adds up to DM1,200 billion. Because most of it was financed by borrowing, the public debt rose from DM900 billion to DM2,300 billion. That implies a large burden on future generations, especially in view of the severe demographic problems facing Germany in the longer run.

Hans-Werner Sinn emphasised the need to move to a situation where the east Germans will finance themselves. Such a move is expected to provoke resistance, however. Thus Sinn expects a severe

crisis when the current transfer system expires in 2004 and the west German side refuses to continue the large payments of the past. This is the major remaining problem of German transformation policy.

Would it have been possible to avoid this dramatic development? Of course, considering all political constraints at the time, Hans-Werner Sinn argued, only the things that happened could have happened. But as economists we should critically examine these constraints. Sinn mentioned two main problems which could have been avoided:

- The first is the wage policy pursued in east Germany as a result of which nominal wages rose from 7% of the west German level in 1989 to almost 75% today. For Sinn this is the result of a special situation: The strategy of quickly adjusting east German wages to the western level was negotiated before east German privatisation. This meant that no true representatives of east German trade unions and employers sat at the negotiating table but basically only west Germans. They quickly agreed not to have lower wages in east Germany for any length of time. Of course, the east German people welcomed this policy, which also meant higher unemployment benefits!
- The second is the introduction of the west German welfare system into east Germany at the time of economic union in July 1990 when the transformation process started. Instead of some regional differentiation, social welfare in the east started at the west German level. This worked as a barrier to lower wages. Had east German wages been kept at a lower level for a couple of years, then, combined with the improved infrastructure and the legal framework freshly imported from west Germany, this would have provided the best conditions for private investment in east Germany, higher economic growth, more jobs, and later-on higher wages, too. Hans-Werner Sinn emphasised that the 1:1 currency conversion was appropriate but believed that another wage policy would have

Wage policy and welfare system caused major problems

been possible because at the start of the reunification process *everything* would have been possible!

Rüdiger Dornbusch emphasised different causes of the wage increase. He agreed that the wage increase resulting from the 1:1 conversion rate was unavoidable. Even if it had been possible to start with a more appropriate exchange rate making east Germany a lower-wage country, things would not have developed any better because at a lower conversion rate there simply would have been a faster rate of wage inflation. However, in his opinion, the root of the problems has to be sought in west Germany rather than east Germany. “Unification meant that everybody got not only the benefits of the west German economic institutions but also all the disastrously negative institutions: unions, overpaid unemployment, excessive job security, and pervasive regulation. If west Germany, in the face of unification, had rolled back all these limitations to the free play of markets, creating a competitive business environment, the economic costs would have been far lower. East and west Germany would be closer to full employment.” Thus, for Dornbusch the good news is that unification did take place, the bad news is that east Germany became an even worse economy than the west! For him the lesson is quite clear: West Germany is responsible for the unaffordable costs. Dornbusch also argued that cheap labour is not a sufficient condition for attracting private investment. Otherwise the Czech Republic or other transformation countries would be overrun by foreign investment. If, however, you ask – so Dornbusch – why the transition to a market economy failed in Russia, some experts set great store in the failure to establish institutions before letting market forces take their course. “That surely cannot be the argument in east Germany – institutions came overnight with world class German law, property rights and courts, public administration, banks and capital markets and west German money.” The problem really was that with the good institutions the bad ones came, too.

Despite all the problems, unification will remain, and therefore west Germany must change or pay more and more. Ultimately there may be a hard landing and the money cut off which also would result in rising unemployment in west Germany because the public transfer to the east is connected with demand effects for the west like foreign aid.

In order to achieve a soft landing, Dornbusch recommended phasing out the excessively costly welfare state. In the effort, in east Germany, of whittling down wages in bargaining at the firm level and getting away from industry-wide settlements, he recognised a first helpful sign.

Georg Milbradt presented the views of a west German professor of economics who went to Saxony nine years ago and was able to influence economic developments there as a politician, as minister of finance. For him the quick *political* unification was very successful. “Neither the huge political and administrative problems nor the economic and financial questions could have been solved had east Germany remained a separate state.” In this context, the early introduction of the D-Mark together with the economic union was also a correct decision, although some people blame the exchange rate for the well-known economic difficulties. “There was no acceptable way to maintain a floating east German currency and a separate economic area. You could not keep an economic border within Germany or especially here in Berlin after the wall had come down. And nobody wanted it!” Furthermore, the exchange rate prevented the east German population from experiencing a considerable devaluation of their savings, their main form of wealth. Thus it was “a sort of gift of the west to the eastern compatriots”.

What went wrong nevertheless? According to Milbradt, financing nearly all economic measures by debt in the early years of unification reflects a lack of economic realism and political courage. The economic differences between western and eastern Germany, the necessary transformation period and the financial and economic dimensions of the process were underestimated; the self-healing forces and especially the positive effects of transferring the western system were overestimated.” It was soon evident that basic elements of the west German system were only partially suitable for reconstructing east Germany. But the need to reform the west German system in different aspects – corresponding to Dornbusch’s arguments – was hardly recognised. Thus there was an overemphasis on distribution policy, a preference for a *status quo* policy and a neglect of allocation strategies.

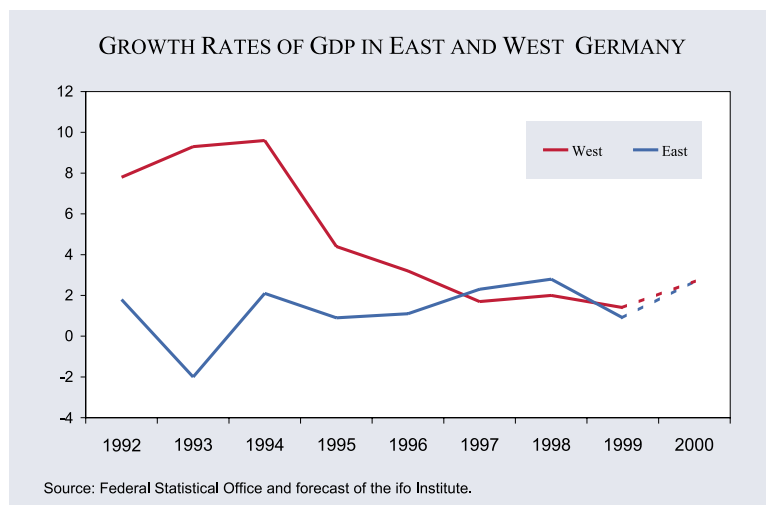
Minister Milbradt also emphasised the role of wage policy. “It was falsely regarded as a suitable instru-

The root of the problems must be sought in west Germany

ment for adjusting living standards. Since wage compensation payments – especially unemployment compensation – were dependent on the level of wages, it was completely rational, from the point of view of east German employees, to press for higher wages. Instead of a productivity-oriented wage policy, a policy of giving extensive public investment assistance was pursued. The result was a rapid, shock-like and expensive restructuring of the entire economy in the direction of the western economic structure with ensuing high unemployment. In the east, legal entitlements were created, based on the western social system that could not be met by the local economy and which of necessity led to consumption-oriented west-east transfers.”

Milbradt therefore advocated a more moderate wage policy, a stronger differentiation of wages between individual firms and regions, a process which has started already as 70% of east German companies are not or no longer members of employers’ associations: a clear reaction of market forces to inappropriate general wage settlements. In addition, financial support to private investment and for improving the infrastructure in many areas will still be necessary in coming years. At present, the share of the “new Länder” in total German tax revenue is only 8% with 19% of the population! “The adjustment process is not a sprint but a marathon.” Positive signs can be observed, although the east German growth rate has declined remarkably since 1997 (see Fig. 1). To a large extent this was due to a normalisation of activity in the construction sector, whereas the growth rate of output in the manufacturing sector has been rising in recent years (see Fig. 2). Finally, if the east German development after ten years is compared with the regional differences in Italy, for example, then a large part of the marathon is

Fig. 1

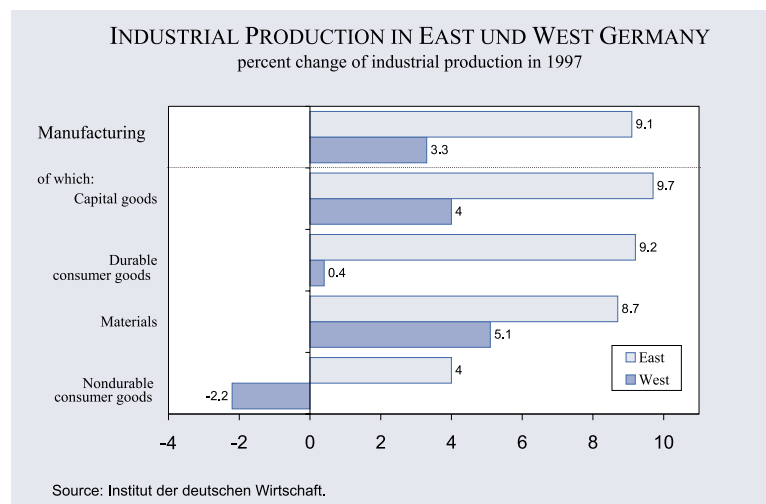


already behind us. Thus Milbradt was more optimistic than Dornbusch with respect to a happy end.

What about the economic situation in the Czech Republic, one of the top candidates for EU enlargement, which is experiencing a cyclical decline with negative growth rates in 1998 and 1999? Unlike some other people, **Karel Dyba** did not explain this by referring to incorrect concepts of transformation and neglect of microeconomic policies and/or institutions. In his view, the current economic recession was caused by excessively tight macroeconomic policies applied to an economy at a stage of unfinished transformation, lacking any recession experience. “Mastering macroeconomic policies in a market economy is a learning-by-doing exercise which cannot be imported.” Referring to the stage of the transformation process, he stated that presently 80% of output is produced by the private sector and

Productivity-oriented wages instead of investment subsidies

Fig. 2



No Wirtschaftswunder but a lot of progress in the Czech Republic

about 70% of foreign trade is with EU countries, more than half of it with Germany. "These results are irreversible." Even though Karel Dyba is slightly disappointed because he had expected a kind of "Wirtschaftswunder" for the Czech Republic, which did not happen, he consoles himself with the fact that he erred together "with some big names in the profession". Nevertheless, a lot has been achieved in the last ten years. "I do not think I would do many things differently."

What should be done in Germany? Concluding the panel session, **Hans-Werner Sinn** formulated a reform decalogue:

1. The infrastructure in east Germany needs further improvement and west Germany should pay for it.
2. The current system of investment subsidies, which is to end in 2004 because of its deficiencies, should not be prolonged.
3. The system of collective wage bargaining must be abandoned in east and west Germany. Wages should be negotiated at the firm level.
4. To make more employment possible one should think about forms of ownership participation which provide incentives for insiders to accept lower wages.
5. There is still too much public housing property in east Germany. Its privatisation could help to moderate wage policy.
6. The system of social welfare should be abandoned in its current form, which is a subsidy for doing nothing, in favour of a system of workfare.
7. The time pattern of unemployment benefits is too generous, inducing people to accept jobs only at high wages in east and west Germany.
8. The social welfare system should be regionalised in order to reflect regional productivity and wage differences .
9. Public sector wages in east Germany should be better adapted to regional productivity.
10. East German pensions should be reduced to those in the west.

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ECONOMIC SURVEY INTERNATIONAL

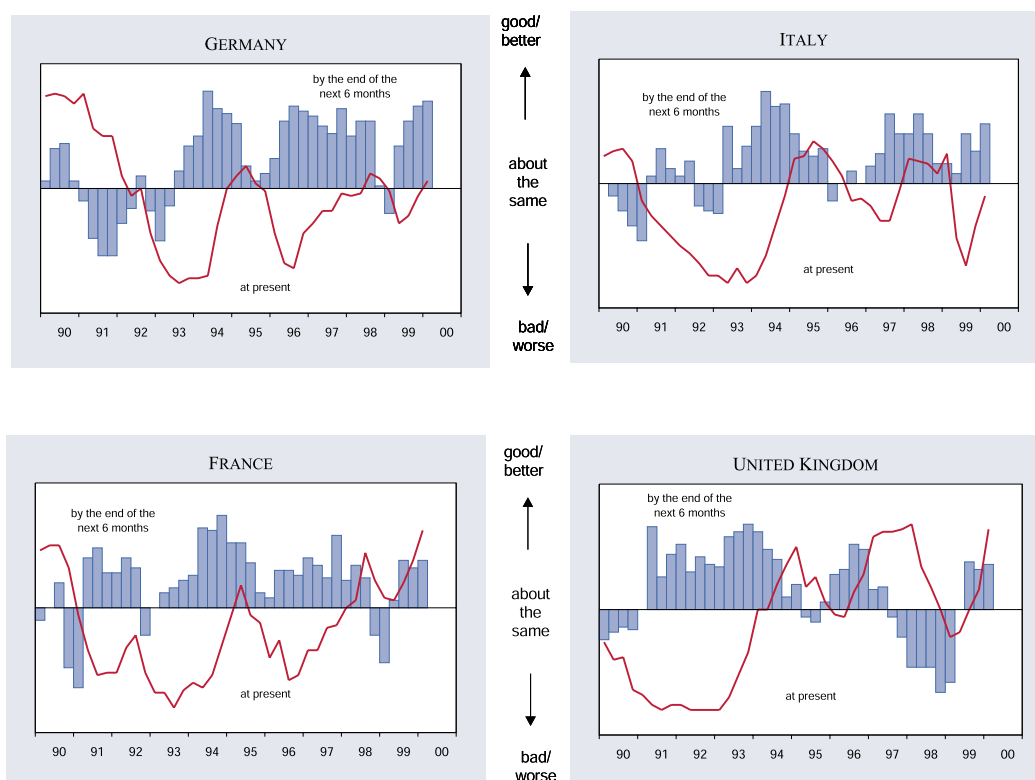
UPSWING IN EUROPEAN “BIG FOUR” IS GAINING MOMENTUM

In January/February 2000, the Ifo Institute conducted its 67th international survey of 608 economic experts at transnational corporations and organisations in 81 countries. Unlike conventional international statistics, the results of this survey are current and allow for international comparisons. The assessments of local experts are of particular importance in countries where official statistics are not on a sound footing.

The global economy is likely to perform much better in 2000 than initially expected. The experts of almost all major regions have upgraded both their assessment of the current situation and the outlook for the next six months.

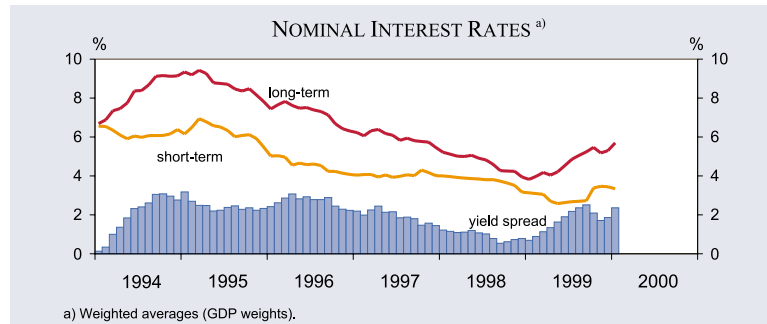
In Europe, economic recovery is accelerating. Even in Italy, where until recently the economic upturn was mainly signaled by improved business expectations rather than stronger economic activity, there are now clear signs of economic recovery. In Germany growth picked up in the second half of 1999, and the economy is expected to gain momentum during the next six months. In France and the United Kingdom the upturn is more advanced; the panel forecasts a further improvement in the overall situation. In all four countries – as in Western Europe as a whole – economic growth will gain strength in the months to come. Price expectations were revised upward for 2000. As anticipated, the European Central Bank raised key interest rates by 25 basis points in a precautionary move on 3 February. This may help to stabilise the weak euro which is, however, expected to appreciate in the course of the year. S.W.

Present and Expected Economic Situation

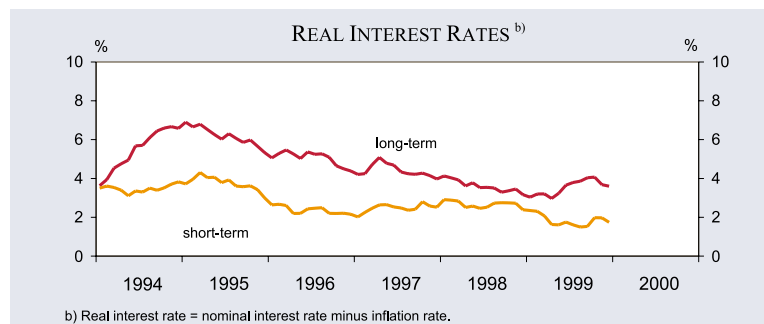


Source: ESI 67, 1/2000.

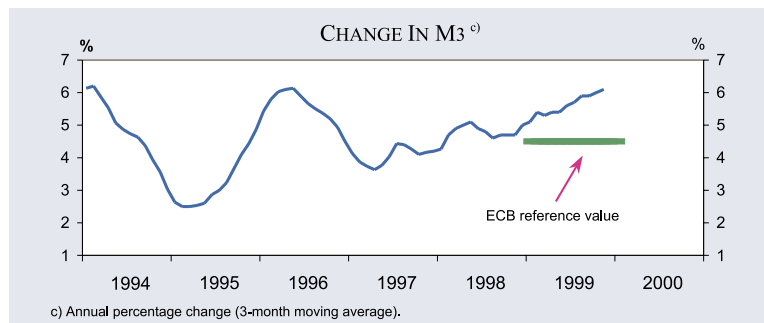
MONETARY CONDITIONS IN THE EURO-REGION



In January, the average of short-term interest rates declined slightly, although rates rose towards the end of the month in anticipation of an increase in ECB interest rates. The ECB did raise its key rates by 25 basis points on 3rd February, in a move to counter rising inflation risks. Long-term bond rates continued to rise, widening the yield spread again.

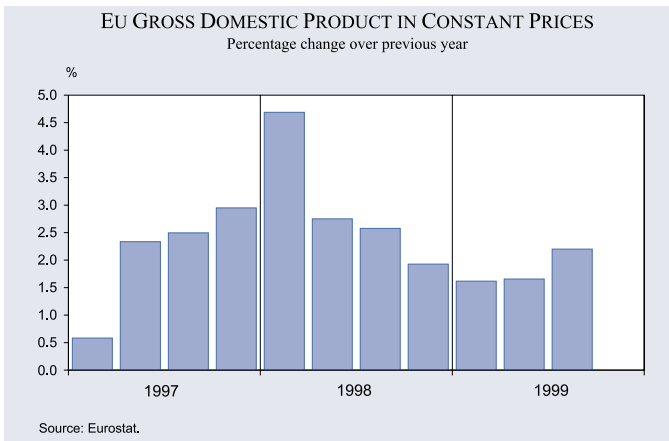


Because of an accelerating rate of inflation, real interest rates declined slightly.

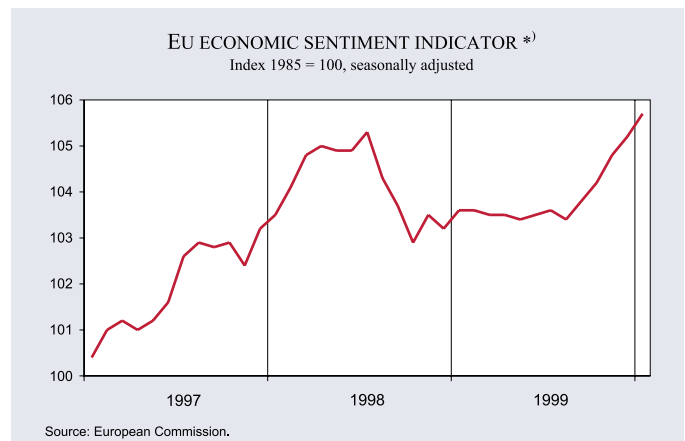


Growth of the money supply M3 has stabilised around 6% since last August, still far above the reference rate of 4½%. The prolonged deviation of M3 growth from the reference value continued to signal generous liquidity conditions and remained an important factor contributing to the upside risks to price stability in the medium term.

EU SURVEY RESULTS

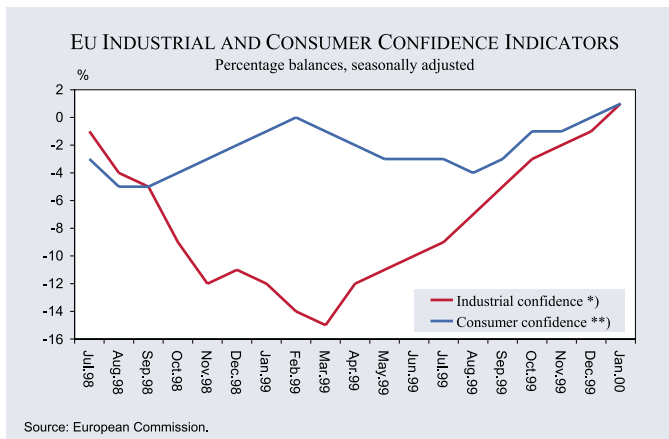


EU gross domestic product advanced by 2.2% year-on-year in the third quarter 1999, a marked rise from the 1.7% in the second quarter.



* The indicator of economic sentiment is a weighted average of the industrial confidence indicator, the construction confidence indicator, the consumer confidence indicator and the share-price index. 1985 = 100.

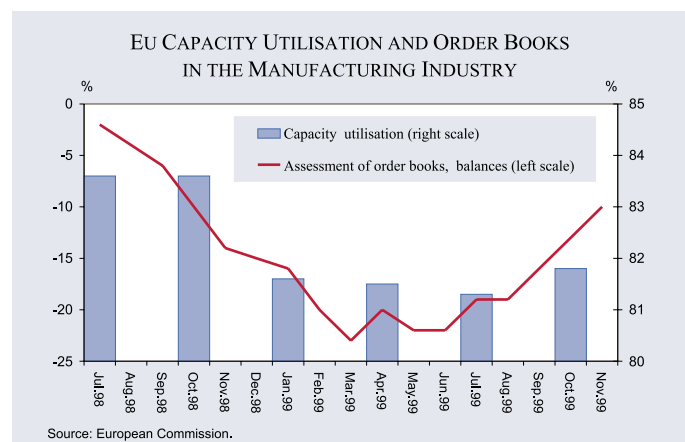
The EU indicator of economic sentiment continued its steep rise, mainly due to markedly better assessments in France, Germany, Austria, Belgium, and Ireland. It is thus predicting higher EU-wide economic growth in 2000.



* The industrial confidence indicator is an average of responses (balances) to the questions on production expectations, order-books and stocks (the latter with inverted sign).

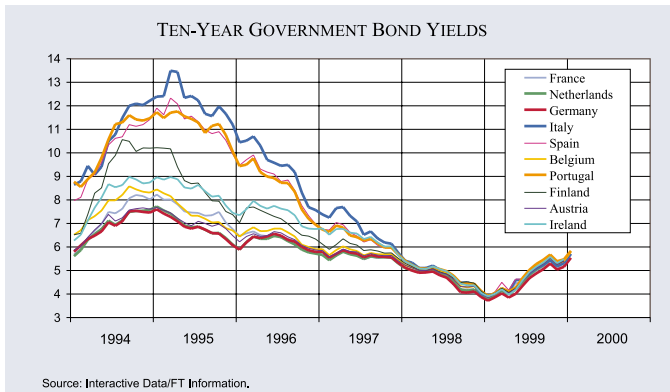
** The consumer confidence indicator is an average of responses to the questions on the financial situation of households and their assessment of the general economic conditions, both in the past and future twelve months, and the question on big-ticket purchases.

Industrial confidence, which had already turned around last April, reached the positive balances area in the latest EU survey, matching consumer confidence whose improvement is much more recent. Both indicators reflect the more optimistic outlook regarding the development of the EU economy.

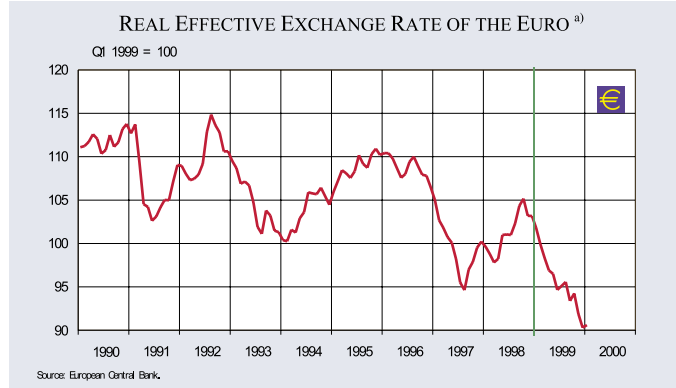


Capacity utilisation rose markedly, according to the latest EU survey, in line with a continued improvement in the assessment of order books.

EU INDICATORS

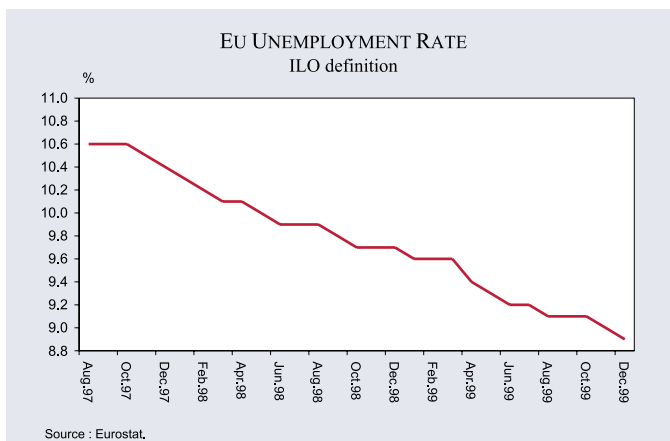


With the advent of the European Monetary Union, there has been a remarkable convergence of euro-zone bond yields. Spreads above the German benchmark have widened slightly since yields began to rise again last November.

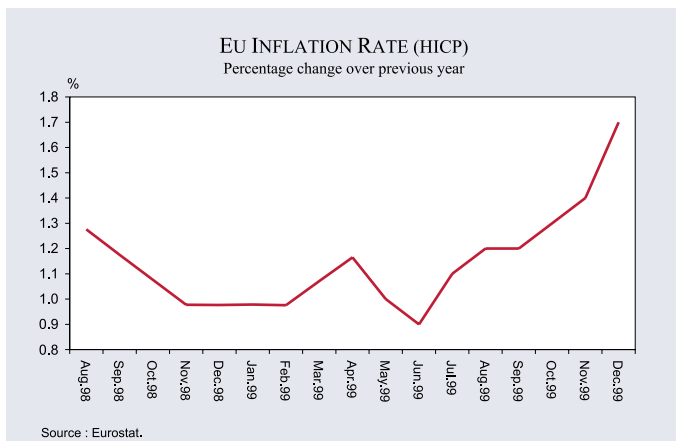


a) BIS calculations; to December 1998, based on weighted averages of the euro area countries' effective exchange rates; from January 1999, based on weighted averages of bilateral euro exchange rates. Weights are based on 1990 manufactured goods trade with the trading partners United States, Japan, Switzerland, United Kingdom, Sweden, Denmark, Greece, Norway, Canada, Australia, Hong Kong, South Korea and Singapore and capture third market effects. Real rates are calculated using national CPIs. Where CPI data are not yet available, estimates are used.

The strong U.S. dollar pushed the euro below the \$1.00 mark in late January. The real effective exchange rate of the euro had bottomed out last December.



Actual GDP growth and a brightening economic outlook are reflected in a sustained reduction of the EU unemployment rate.



The rise in the inflation rate is primarily due to the tripling of oil prices during the past twelve months.