How will EMU affect Cohesion?[1]

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Abstract

The new policy environment of EMU affects economic, political, and social cohesion in different ways: the policy mix and menu will be reconfigured; it will provide for more macroeconomic stability in cohesion countries; economic competition will intensify and change patterns of specialisation; and comparison of living standards will become easier which puts pressure on policymakers to reduce inequalities. This article assesses the significance of these effects and their likely consequences in the short, medium and long run. Then the salient cohesion issues regarding Eastern enlargement are discussed. Finally, policy conclusions are drawn, mindful of the considerable uncertainties that warrant further research.

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Introduction

Economic and monetary union (EMU) is of potentially fundamental importance to cohesion. On the one hand, the adoption of the single currency and of the new macroeconomic policy regime affects the socio-economic performance of euro area member states, their regions and peoples. On the other, EMU is likely to affect the perception of cohesion, not only by making cross border comparisons easier, but also by influencing expectations of what inequalities are acceptable.

The EU has directly and indirectly acquired considerable responsibility for economic policy in EMU, and the continued political support for this arrangement will be dependent upon their success. Our approach is to treat political support for, and wider social impacts of EMU, largely as repercussions from the evolution of socio-economic cohesion, and to review only research on the latter in any detail. This focus seems to be justified given that EMU was designed as an economic means to a political end.

The effects of EMU on cohesion will be analysed over varying time horizons.

- Short-term acclimatisation requires member states to adopt the new policy framework and cope with a new pattern of asymmetric shocks. This process of acclimatisation has been ongoing since the Maastricht Treaty stipulated nominal convergence as a prerequisite for entry into EMU. Thus, we can draw on evidence of the effects of the convergence process for the Cohesion countries (Greece, Ireland, Portugal and Spain) over the 1990s.
- Medium-term adjustment is characterised by the impact of greater macroeconomic stability and more openness on growth. The analysis will in particular look at the evolving synchronisation of business cycles and the adjustment capacity of commodity and labour markets.
- Long-term restructuring will imply a re-location of industries and potential effects on innovation and technologies used in Cohesion countries. Obviously, here research mostly does not deal with EMU and cohesion directly, so that our inferences are somewhat speculative.

The article starts with a consideration of the concept and empirics of cohesion in the EU. Then the ways in which cohesion may be affected by EMU in the short, medium and long run will be analysed. The challenges for cohesion of EMU enlargement will be examined next. Finally, what we see as robust policy conclusions are discussed and the most urgent research questions identified.

The concept and empirics of cohesion

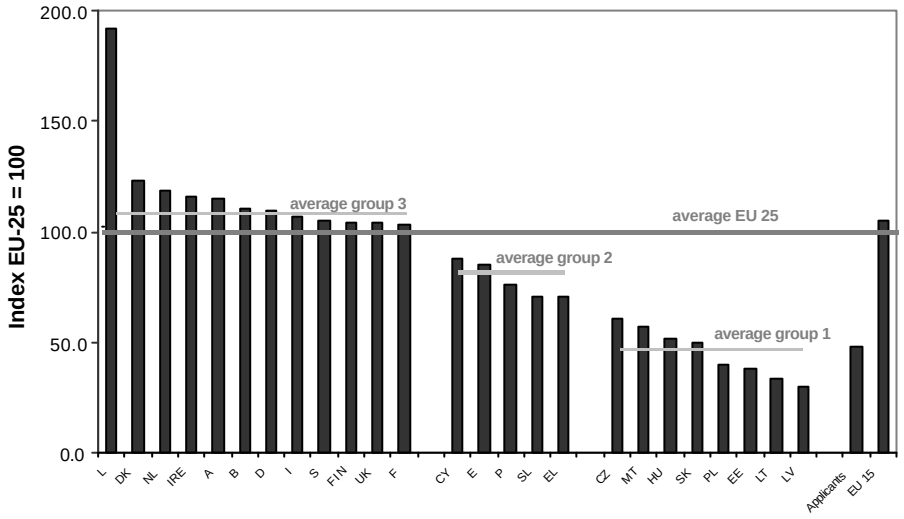
Cohesion in the EU is a counterpart to the setting of long-term priorities that go together with participation in the internal market and EMU. Article 158 views cohesion as an issue of development: "In particular, the Community shall aim at reducing disparities between the levels of development of the various regions and the backwardness of the least favoured regions or islands, including rural areas."[2] Since poorer regions are concentrated in poorer countries, this also implies a concern with national disparities. However, cohesion does not refer to personal disparities, which are the concern of inclusion policies.

[2] European Union: Consolidated Versions of the Treaty on European Union and the Treaty Establishing the European Community, Luxembourg 1997, OOPEC.

Over time the concept of cohesion has widened to embrace inequalities more generally for example in employment and in the environment, as well as in income and living standards. In common with developments in welfare policy, it is opportunities as well as outcomes that are regarded as crucial. Cohesion is also dynamic thus progressive reductions in inequalities over time are more important than absolute differences at a point in time. This article will focus on differences in GDP/ income levels and employment/ unemployment in different nations and regions. This is where the effect of EMU will be most directly felt and where public attention will be concentrated.

Economic cohesion is generally measured by real GDP per capita because this provides an assessment of the level of productivity of the region and of income levels, which are related to other aspects of inequality. GDP rather than GNP is used because statistics for the latter are not available at the regional level. GDP does, however, have the disadvantage that it excludes net property income from abroad and outside of the region.[3] As regards the national disparities in GDP, the prospective EU 25 can be divided into three groups (Figure 1)[4]:

Figure 1
GDP per capita (PPS) 1999



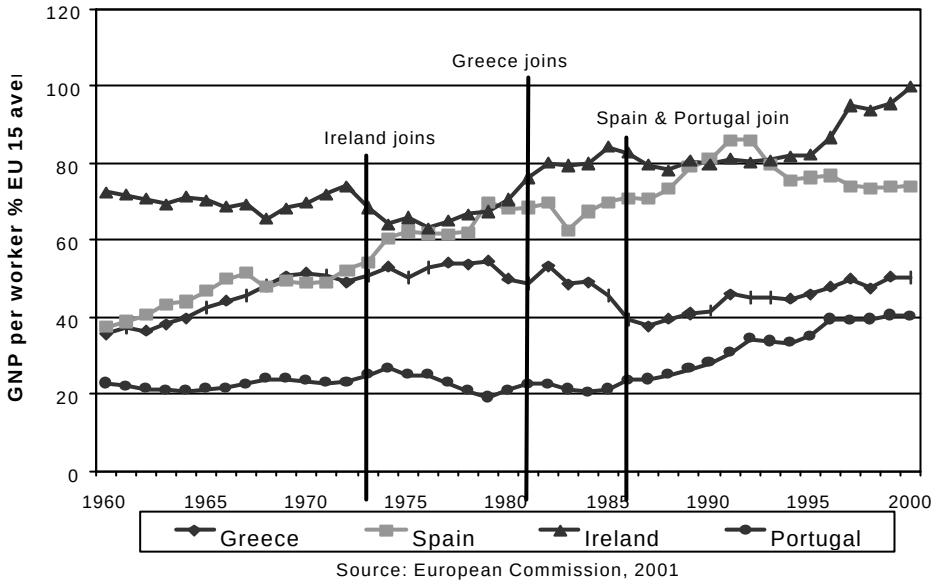
Source: European Commission, 2002

1. The low income group contains 8 accession countries which accounts for 16% of the population of an enlarged EU and has an average GDP per capita (PPS) of 48% of the average.
2. The moderate income group is made up 5 countries, namely Spain, Greece and Portugal plus Cyprus and Slovenia, which accounts for 13% of the population of an enlarged EU and has an average GDP per capita (PPS) of 81% of the average.
3. The higher income group comprises 13 of the current EU Member States which accounts for 71% of the population of an enlarged EU and has an average GDP per capita (PPS) of 108% of the average.

[3] In 2000, Ireland's GNP was 18.7% smaller than its GDP because of the repatriated profits and interest from the extensive foreign multinational operations in Ireland (www.cso.ie).
[4] European Commission: First Progress Report on Economic and Social Cohesion, Brussels 2002, DG Regional Policy.

There are clear signs of convergence of GNP at the national level between 1960 and 2000. GNP per worker of each cohesion country improved relative to the EU average (Fig.2)[5]. The processes of national convergence are, however, dissimilar as regards performance after EU entry and in the run-up to EMU. We will come back to the latter observation in the next section.

Figure 2
GNP per worker Cohesion Countries



Source: European Commission, 2001

Disparities in regional GDP per capita are inevitably much wider than disparities in national GDP. In 1999, the top 10% of regions had income levels 57% above the EU average and the bottom 10% nearly 40% below the average. In other words, the richest regions had incomes per head 2.6 times larger than the poorest regions. There is also a very wide gap between the top and bottom 25% of regions. In contrast to the national level there is little evidence of recent regional convergence in the EU. There is a slight fall in the dispersion of income levels among all regions if the new Länder are excluded. What little convergence there is at the regional level is probably associated with the convergence of the Cohesion countries at the national level.[6]

The poorer regions of the EU 15 can roughly be divided into three categories:[7]

1. Those in poorer countries: 12 of the 19 NUTS 1 regions in the EU with GDP p.c. (current exchange rates) in 1998 below 75% of the EU average were located in the three poorest Member States, Spain, Greece and Portugal.
2. Large lower income regions within more prosperous countries: of the seven other regions in the sub 75% GDP category five are in the Mezzogiorno, one is in East Germany and one is the French Overseas Territories.
3. Localised problem sub-regions within more prosperous regions: e.g. Cornwall in the UK. Recent economic development in the EU has been characterised by the

[5] GNP per worker is used to approximate productivity. The source for fig. 2 is European Commission: The EU Economy in 2001 Review, European Economy, No.73, 2001, Statistical Appendix.
[6] A.Cappelen, J.Fagerberg, and B.Verspagen: Lack of regional convergence, in: J.Fagerberger, P.Guerrieri, and B.Verspagen (eds.), *The Economic Challenge for Europe: Adapting to Innovation Based Growth*, Cheltenham 1999, Edward Elgar.
[7] Eurostat: Regions: Statistical Yearbook 2001, Luxembourg 2001, OOPEC.

emergence of such localised problem sub-regions.

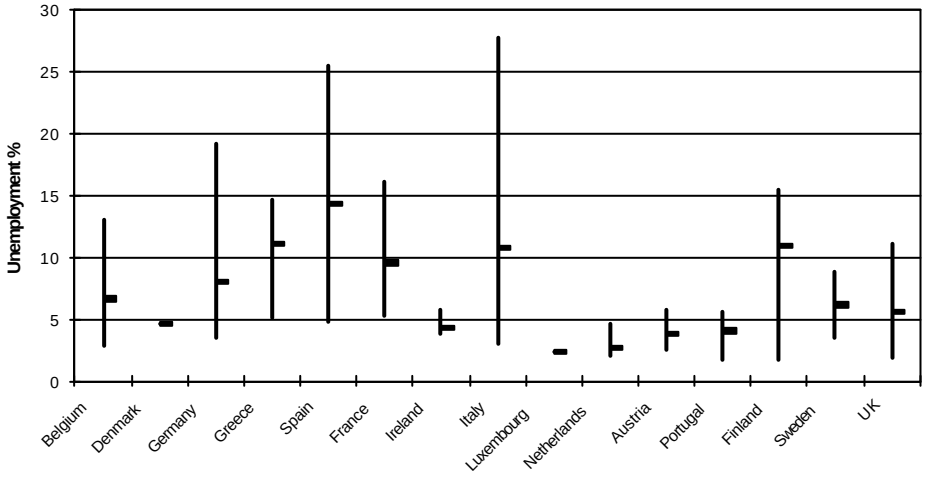
Social cohesion can be measured, first of all, by disparities in employment and unemployment. Interestingly, there is no clear distinction between the Cohesion countries and other EU 15 states. Spain has unemployment above and male employment below the EU averages. Greece has high unemployment but average male employment, whereas Portugal has low unemployment and the highest male employment rate in the EU, Ireland has low unemployment and high employment rates in every category (Table 1).[8]

Table 1: Unemployment and Employment Rates in the EU

	Unemployment rate (%)				Employment rate (% of pop. aged 15-64), 2000	
	Total 1990	Total 2000	Long-term 2000 (% of total)	Young, 2000	Total	Male
Portugal	4.1	4.1	39.9	9.0	72.2	81.0
Denmark	7.8	4.7	18.9	7.4	76.6	80.9
UK	7.0	5.6	27.9	12.1	72.2	79.1
Netherlands	7.3	2.8	26.5	5.1	68.5	77.9
Ireland	13.1	4.4	:	6.6	65.2	77.0
Luxembourg	1.6	2.4	21.4	7.0	62.9	75.2
Germany	4.9	8.1	48.9	8.9	66.0	73.6
Greece	6.3	11.1	56.4	29.5	57.4	73.6
EU15	**7.7**	**8.4**	**44.8**	**16.1**	**63.8**	**73.4**
Sweden	1.4	6.2	26.7	14.2	70.8	73.2
Finland	3.7	11.0	25.1	29.6	68.4	71.5
Belgium	6.3	6.7	55.0	16.0	61.3	70.3
Spain	16.4	14.4	41.0	26.4	55.2	70.2
France	8.7	9.6	42.6	18.8	61.9	69.1
Italy	9.0	10.8	61.1	31.5	54.2	68.8

Source: European Commission, 2001

Figure 3
Regional Unemployment Range 2000



Source: European Commission, 2002

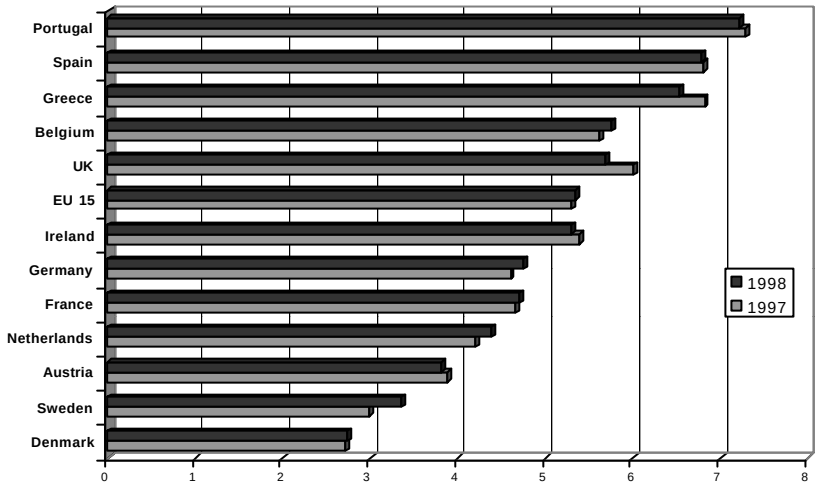
Between regions, differences in unemployment are larger, but again there is no clear

[8] The source for Table 1 is European Commission: Employment in Europe 2001, Brussels 2001, DG Employment and Social Affairs: Statistical Appendix.

distinction between Cohesion and non-Cohesion countries (Figure 3).[9] Italy, Spain, Germany and Finland all have large regional differentials in unemployment. There does not appear to have been any reduction in regional disparities in unemployment for most of the 1990s. In Italy, and to some extent Spain, differences in regional employment rates seem to have even widened. Employment fell in most Greek regions in the 1990s.

Other aspects of social cohesion are income inequalities and poverty levels. One simple measure of inequality is the S80/S20 ratio, the share of total income received by the top 20% of income earners compared with that received by the bottom 20%. It is clear from Figure 4[10] that the Southern Cohesion countries are characterised by a wider inequality of income than other countries in the EU.

Figure 4
Distribution of Income 1997 & 1998

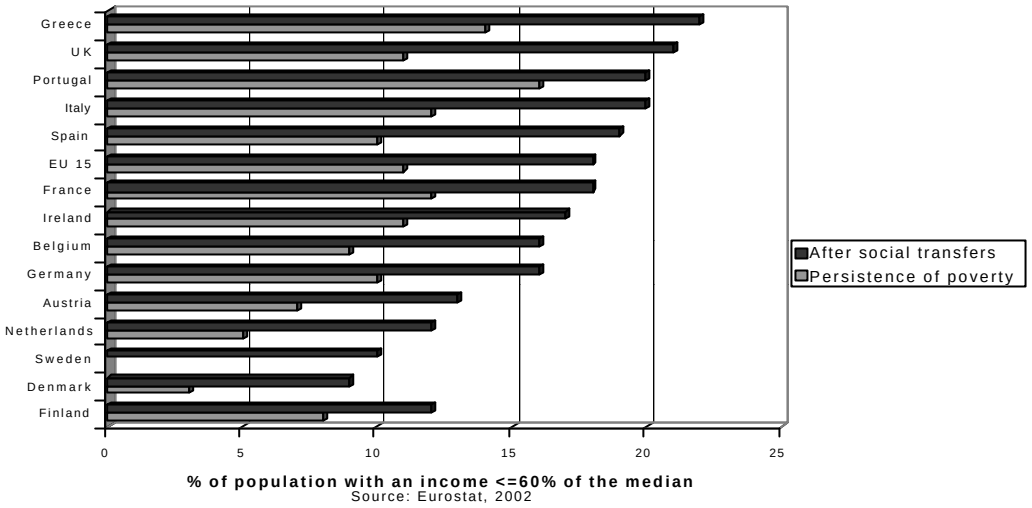


Source: Eurostat, 2002

Poverty is now generally regarded as a problem of exclusion, i.e. having insufficient income to participate fully in society, and is consequently measured in relative terms. The Eurostat definition of susceptibility to poverty is an income of 60% or less of the median income of the country of residence. With the high degree of inequality in the Cohesion countries, poverty is also likely to be high in these countries. This proves to be the case after transfers are taken into account. Before social transfers, the percentage of the population with incomes 60% or less than the median is near to the average in Greece, Portugal and Spain. It is the UK and Ireland who have around one third of their populations at risk from poverty. After social transfers, Greece, Portugal and Spain together with the UK and Italy have one fifth or more of their population experiencing poverty level incomes. These are also the countries where the persistence of poverty is greatest, i.e. poverty in the current year and at least two of the previous three years.[11]

[9] The source for Figure 3 is European Commission: First Progress Report on Economic and Social Cohesion, Brussels 2002, DG Regional Policy.
[10] Eurostat: Structural Indicators: Social Cohesion, Web document at URL, 2002, http://europa.eu.int/comm/eurostat/.
[11] Eurostat, 2002 (see previous footnote).

Figure 5
Poverty in the EU 1998



% of population with an income <=60% of the median
Source: Eurostat, 2002

The EU seeks to achieve cohesion in three ways: first, by raising productivity through the operation of existing common policies, such as the internal market and competition policy; second, through the adaptation of these common policies, so that they more directly facilitate cohesion; third through structural and cohesion funding. This is in contrast to the personal and regional redistribution undertaken by nation states because the EU recognises the limited role it should and can play in the face of the very large social, cultural, governmental and economic differences between Member States. Measures to promote cohesion are not meant to provide transitory transfers to smooth economic fluctuations in EMU, the practicability of which is in doubt not least given the logistical and political difficulties.[12] The Structural Funds, the main instrument of cohesion policy, seek to encourage the long-term growth potential of regions, to render employment creation sustainable, and to avoid situations of high unemployment and dependence on continuous fiscal transfers.

Acclimatisation to EMU and cohesion

In our conceptual framework, acclimatisation to EMU is defined as the adaptation to the new policy regime and to a changing pattern of country or region specific shocks. The reconfiguration of the policy menu has involved the unification of monetary policy, subjected fiscal policy both to the constraints of the SGP and to controls on state aid and to the soft coordination of employment and social policies to stimulate reform. This new environment changes the incidence and response to asymmetric shocks. One classical source of asymmetric shocks, namely changes in exchange rates, has been removed between EMU members. However, interest rate policies can no longer be differentiated and a uniform interest rate policy could even become a source of asymmetric shocks, e.g. if regional economies depend to a different extent on long-term credit.[13]

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[12] E.Jones, J.Frieden, F.Torres (eds.): *Joining Europe's Monetary Club: The Challenges for Smaller Member States*, New York 1998, St. Martin's Press.

[13] Readers familiar with the traditional theory of optimum currency areas will notice that we have adopted another approach. We do not see the exchange rate as a reliable instrument of adjustment to, but rather as a source of asymmetric shocks. And the pattern of asymmetric shocks is endogenous to monetary integration, not given and to be evaluated before integration.

It is important to keep in mind that this acclimatisation phase preceded the official beginning of EMU in 1999, so analysis of the effects of acclimatisation can draw on data from this period. Monetary policies became de facto coordinated by the Bundesbank in the early 1990s, the Maastricht criteria imposed fiscal constraints that were prolonged in the Stability and Growth Pact (SGP), and soft coordination of employment policies began with the Luxembourg Job Summit in 1997. The convergence process involved the stabilisation of exchange rates, the consolidation of public finances, reducing the rate of inflation and the consequent reduction in nominal interest rates. In particular the latter interest rate effect amounted to a positive asymmetric shock on Cohesion countries. For instance and to take the latest example, Greek short-term interest rates fell from 7.7% in 2000 to 4.3% in 2001, following entry to the euro area.

Acclimatisation to this fillip to economic activity provided by euro area membership was possible by expanding output where resources were unemployed and via the public finances. So output and employment expanded and unemployment fell in Spain, Greece and Ireland but to a lesser extent in Portugal. Demand in the economy was constrained by reductions in the government deficits in Spain and Greece and the expansion of the surplus in Ireland. Portuguese economic policy failed to respond appropriately and the deficit for 2001 is now estimated to have been 4.1% of GDP.[14]

Inflation and the balance of payments provided the other outlets for higher demand in EMU. Thus initially inflation accelerated in Ireland, Spain and Portugal, although as growth slowed in 2002 inflationary pressures abated. This inflation may be regarded as part of the normal adjustment process in EMU. Fast growing competitive countries will have their performance dampened by relative price inflation and slower growing less competitive countries will have their performance enhanced by relative price deflation.[15] This seems to be what happened in the case of Ireland, but there are doubts about the competitiveness of Greece, Spain and especially Portugal.

This shows up most clearly in the balance of payments. While poorer faster growing countries might be expected to run persistent current account deficits offset by capital inflows, the size of deficits is a cause for concern. Thus the 2001 deficits are estimated to be 0.6% of GDP for Ireland, 3.0% for Spain, 4.2% for Greece and 9.6% for Portugal.[16] Whether this is a problem is a matter of argument, the deficit was associated with investment but this was mainly in housing. Although it was financed by short-term inflows, not FDI, this will obviously not be a problem in EMU. The threat of a current account crisis has been banned and transformed into competitive pressures for local firms.

Success or failure of short-term acclimatisation translates into lasting effects on cohesion if there are persistence mechanisms at work. Research has concentrated on

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For a more detailed account cf. W.Schelkle: "The Optimum Currency Area Approach to European Monetary Integration: Framework of Debate or Dead End?", London 2001, South Bank European Papers 2/2001.

[14] According to the July 2002 report of the independent commission set up by the new Government to evaluate the 2001 deficit. The 2001 deficit is well in excess of the 3% upper limit imposed by the Stability and Growth Pact.

[15] A.Alesina, O.Blanchard, J.Galí, F.Giavazzi, H.Uhlig: *Defining a Macroeconomic Framework for the Euro Area*, Monitoring the European Central Bank No. 3, London 2001, CEPR.

[16] European Commission, Economic forecasts: Spring 2002, European Economy, No.2, 2002.

persistence of national or regional unemployment.[17] In general, these studies find that unemployment is more persistent in the EU than in the US although real wages are not less flexible across the board. Obstacles to job creation and rapid devaluation of human capital seem to be responsible for comparatively high levels of long-term unemployment and a lower plateau of employment in the EU. While little is known about the region-specific working of these persistence mechanisms, it seems to be safe to say that even short-term effects of EMU must not be dismissed as neutral as regards cohesion.

Against this background, one would obviously like to know how the new policy regime affects the most important adjustment mechanism to fluctuations of economic activity, namely fiscal stabilisation and capital mobility. Fiscal policy will remain a competence of national governments, albeit constrained by the Stability and Growth Pact (SGP). Research on the effectiveness of fiscal stabilisation in a decentralised set-up has used the U.S. federation as a yardstick.[18] The smoothing of regional income happens mainly via cross regional ownership of assets, which compensates for 40% of fluctuations on average. Interregional transfers and tax payments contribute to smoothing around 13% of income fluctuations even in a lean fiscal federation like the US. For wage-dependent households, the federal tax and transfer system is the main insurance against income fluctuations. 20-25% of regional income fluctuations remain uncompensated.

If these findings carry over to stabilisation in EMU, national fiscal policies should be an important source of national stabilisation, but their effectiveness is crucially dependent upon achieving the medium term position of close to balance for the public finances. When this is the case, automatic stabilisers will be able to operate freely to smooth fluctuations at the EMU level.[19] In addition, the sheer size of national budgets seems to have an effect, i.e. the larger it is the more effectively it can respond to national asymmetric shocks.[20] The operation of these mechanisms can compensate for the absence, for the moment, of nationally diversified asset holdings and savings of households and firms, and of cross border credit. Similarly, the lack of a common tax

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[17] R.Balakrishnan, C.Michelacci: "Unemployment Dynamics across OECD Countries", *European-Economic-Review*; 45(1) , 2001: 135-65; O.Blanchard: Revisiting European Unemployment: Unemployment, Capital Accumulation and Factor Prices, Boston 1998, NBER Working Paper, No. 6566; O.Blanchard, J.Woolfers: "The role of shocks and institutions in the rise of European unemployment: The aggregate evidence", in: *Economic Journal*, 110 (462), 2000: 1-33; M.Obstfeld , G.Peri: "Asymmetric shocks: Regional non-adjustment and fiscal policy", in: *Economic Policy*, 28, 1998: 206-259; M.Karanassou, H.Sala , D.Snower: "Unemployment in the European Union: A Dynamic Reappraisal", Bonn 2002, IZA Discussion Paper No. 531, www.iza.org.

[18] P.Asdrubali, B.E.Sørensen, O.Yosha: "Channels of Interstate Risk Sharing: United States 1963-1990", in: *Quarterly Journal of Economics*, 111, 1996: 1081-1110; A.Fatás: "Does EMU Need a Fiscal Federation?", in: *Economic Policy*, 26 (April), 1998: 163-203; B.Sørensen, O.Yosha: "International Risk Sharing and European Monetary Unification", in: *Journal of International Economics*, 45, 1998: 211-238.

[19] The impact of automatic stabilisers over the 1990s is found to be significant, dampening around 25-30% of fluctuations in major EU Member States, namely Germany, Italy and the UK. Cf. M. Buti, A. Sapir: *Economic Policy in EMU. A Study by the European Commission Services*, Oxford 1998, Clarendon Press; P. van den Noord: "The size and role of automatic stabilizers in the 1990s and beyond", Economics Department Working Papers No.230, Paris 2000, OECD.

[20] A.Fatás, I.Mihov: "Government size and automatic stabilizers: international and intranational evidence", in: *Journal of International Economics*, 55.1, 2001: 3-28.

and transfer system is less likely to be a problem with national stabilisation of Member States' income volatility.

But the SGP leaves enough fiscal room for manoeuvre only when countries have reached the steady state of a structural balance. The Cohesion countries are in a mixed situation with regard to their fiscal situation. Irish and Spanish public finances are in better shape than the average of the euro area. Greece has a very high level of debt that will continue to restrain its fiscal room for manoeuvre. Portugal has failed to use recent favourable economic circumstances to reduce its deficit; its cyclically adjusted net lending continues to be the highest in the euro area at 2.5% of GDP and it was not reduced in the upturn.

As just mentioned, the role of private capital markets is crucial in cushioning regional specific shocks in the U.S. However, cross border ownership of assets in the euro area remains low and the scope for cross border borrowing is restricted by the primarily national nature of credit markets. Although these mechanisms may be important in the long-term they are not available to cushion shocks in EMU in the near future. Moreover, from a public policy point of view, it matters that there is a distributional bias in the private insurance of personal income that financial markets provide. It accrues only to households and firms with interregionally – in the case of EMU: internationally - diversified portfolios of assets and liabilities. Low-income and wage-dependent households are much less insured in this way. Thus, enhanced capital mobility in EMU will be relevant for cohesion primarily in the long-run, i.e. through the relocation of industry, which will be considered below.

Medium-term adjustments to EMU and cohesion

In the medium-term, the effect of EMU on cohesion will depend upon the rate of growth achieved in EMU, compared with what would have been achieved independently. There are two major ways in which EMU may affect growth: first, via its effect on macroeconomic stability and, second, as a result of increased openness.

Macroeconomic stability in EMU, economic growth and cohesion

Macroeconomic stability affects growth mainly through its impact on investment. Uncertainty measured in various ways seems to reduce long run fixed capital investment but that effect varies across industries and types of capital goods.[21] One particular form of uncertainty, exchange rate volatility, has been shown to have a negative long run effect on investment, as has sustained exchange rate misalignment.[22] Whether EMU enhances medium-term growth performance by reducing macroeconomic instability depends upon changes in the policy regime, the extent to which member states' business cycles will become synchronised in the euro area, and their ability to dampen asynchronous cycles.

The Cohesion countries were characterised by macroeconomic instability before the

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[21] A.Carruth, A.Dickerson, H.Henley: "What do we know about investment under uncertainty?", in: *Journal of Economic Surveys*, 14, 2000: 119-153; N.Pain: "EMU, Investment and Growth: Some Unresolved Issues", in: *National Institute Economic Review*, 180, 2002: 96-108.

[22] J.Darby, A.Hughes-Hallett, J.Ireland, L.Piscitelli: "The Impact of the Exchange Rate on the Level of Investment", in: *Economic Journal*, 109 (454), 1999: 55-67; J.Byrne, P.Davis: "Uncertainty and Investment in the G7", paper presented at the NIESR macro users group May 2002, mimeo, available from NIESR.

process of convergence began. In the 1970s and in the 1980s the Cohesion countries had very high and unstable inflation rates (Table 2). Similarly, GDP growth was more unstable as indicated by the higher standard deviations (Table 3).[23] So these countries have potentially greater growth gains than other countries, from the enhanced stability which EMU should achieve.

Table 2. Retail Price Inflation 1971-2000

	1971-1980		1981-1990		1991-2000	
	Average	Standard deviation	Average	Standard deviation	Average	Standard deviation
Greece	14.5	7.3	19.1	3.5	9.5	5.4
Spain	15.4	4.8	9.4	3.4	3.9	1.4
Ireland	13.8	4.4	7.9	6.0	2.5	1.2
Portugal	18.7	5.6	17.3	6.5	4.9	2.9
			Other EU			
Highest	14.1	5.3	9.7	4.7	3.7	2.7
Lowest	3.6	1.3	2.5	1.7	2.1	0.4
Unweighted average	8.0	2.9	4.9	2.6	2.6	1.3

Source: European Commission, 2001.

Table 3. Real GDP growth 1971-2000

	1971-1980		1981-1990		1991-2000	
	Average	Standard deviation	Average	Standard deviation	Average	Standard deviation
Greece	4.7	4.6	0.7	2.2	2.3	1.6
Spain	3.6	2.8	2.9	1.8	2.7	1.6
Ireland	4.7	2.0	3.6	2.3	7.3	3.5
Portugal	4.8	4.0	3.3	2.9	2.8	2.0
			Other EU			
Highest	3.7	3.8	4.5	3.6	6.1	4.1
Lowest	2.0	1.5	1.6	1.0	1.6	0.9
Unweighted average	2.9	2.3	2.5	1.7	2.5	1.7

Source: European Commission, 2001.

The change in overall policies will also affect the extent to which business cycles become synchronised over the coming years. Both exchange rate and monetary policy are important in explaining the economic cycle, i.e. "a higher degree of synchronisation of business cycles is indeed associated with a lower volatility of exchange rates".[24] Thus, the process of convergence and the adoption of the euro should lead to increasing correspondence of economic cycles. If business cycles are highly correlated, the potential need for unilateral policies such as interest rate changes or devaluation is reduced.

Structural vector auto regressive models have been used to assess the synchronisation of business cycles. The seminal study of Bayoumi and Eichengreen established that there was a core of European countries with closely related economic cycles, and the

[23] The source for both tables is European Commission: The EU Economy in 2001 Review, European Economy, nº 73, 2001, Statistical Appendix.

[24] M.Artis, W. Zhang: "Further Evidence on the International Business Cycle and the ERM: Is there a European Business Cycle?", in: *Oxford Economic Papers*, 51, 1999: 120-132; Z.Kontolemis, H.Samiei: "The U.K. Business Cycle, Monetary Policy and EMU Entry", IMF Working Paper WP/00/210, Washington D.C. 2000, IMF.

Cohesion countries were not part of this core. These results have largely been confirmed by other studies.[25] That the business cycles of the Cohesion countries did not coincide with that of the EU core is not surprising, economic policy was very different, because except for Ireland ERM membership is comparatively recent, and exchange rate stability even newer. The process of convergence and the adoption of the euro is now likely to further the correspondence of their economic cycles with those of the core countries. This is compatible with the observation that the overall increase in the correlation of business cycles within monetary unions appears to be relatively weak[26]: synchronisation between core countries took place before EMU began and the Cohesion countries count for a relatively small share of the union's GDP.

EMU, trade and competition

Some other changes contingent upon joining a monetary union should further reinforce convergence, such as increasing levels of trade, competition and price transparency. The role that trade intensity plays in fostering cross-country correlations of the business cycle is demonstrated by Frankel and Rose (1997). The increased linkage between national economies will lead to a greater correlation of fluctuations in output, employment and inflation.

On the reverse chain of causation, namely from reduced exchange rate volatility to increased trade and growth, we can only report the unsettled state of research. First of all, there is a well documented statistical association between openness and per capita incomes.[27] The correlation of indicators of openness with other determinants of growth, however, makes it difficult to assert causality. The relationship between exchange rate volatility and trade is even less certain. Generally, economists suggest that the effect of volatility on trade is relatively small.[28] These results are questioned in a cross-section study of 186 countries which found that trade between countries that shared a common currency was three times the level expected.[29] This work has, however, been challenged because of the small number of same currency observations, most involving small underdeveloped countries, often colonial/post-colonial monetary unions associated with many other changes affecting trade.[30] Glick and Rose respond to this critique with a

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[25] T. Bayoumi, B.Eichengreen: "Shocking Aspects of European Monetary Unification", in: F.Torres, F.Giavazzi (eds.): *Adjustment and Growth in European Monetary Union*, Cambridge 1993, Cambridge University Press; R.Helg, P.Manasse, T.Monacelli, R.Rovelli: "How much (a)symmetry in Europe? Evidence from industrial sectors", in: *European Economic Review*, 39, 1995: 1017-1041; Artis and Zhang, 1999 (see footnote 24); Kontolemis and Samiei, 2000 (see footnote 24).

[26] J.de Haan, R.Inklaar, O.Sleipen: "Have Business Cycles Become More Synchronised?", in: *Journal of Common Market Studies*, 40 (1), 2002: 23-42.

[27] P.Hoeller, N.Girouard, A.Colecchia: "The European Union's trade policies and their economic effects", OECD Economics Department Working Paper No.194., OECD: Paris 1998; D.Ben-David, H.Nordström, L.A.Winters: *Trade, Income Disparity and Poverty*, Special Studies No.5, Geneva 2000, WTO.

[28] J.Fitz Gerald, P.Honohan: "EMU – reaching a narrow verdict", in: *Irish Banking Review*, Spring 1997; R.Anderton, F.Skudelny: "Exchange rate volatility and Euro Area imports", ECB Working Paper No. 64, Frankfurt a.M. 2001, ECB.

[29] A.Rose: "One money, one market: the effect of common currencies on trade", in: *Economic Policy*, 30: 435-448.

[30] P.Honahan: Discussion on: Persson, T. "Currency unions and trade: how large is the treatment effect?", in: *Economic Policy*, 33, 2001: 435-448. The data used by Rose, 2000 (see

new study extending the time period, increasing the number of currency switching observations and permitting the use of a fixed effects estimator, that provides a better statistical description of the data. The currency effect although reduced, still remains very substantial, suggesting that adopting a common currency doubles the level of trade.[31] While their results may prove robust overall, their applicability to particular countries is thrown into doubt by a recent study of the ending of the link between the Irish punt and Sterling in 1979. This suggests that the ending of the Sterling link, had negligible and statistically insignificant impact, on the level of Anglo-Irish trade.[32]

Further support for the proposition that common currencies support trade is provided by studies of the home bias on trade.[33] There are many institutional and other differences that encourage domestic rather than external trade. But the EU has eliminated many of these differences, and a common currency is one of them, yet trade between regions is still ten times higher than to partner countries. Thus it seems likely, that using the common currency will increase trade but that the effects will not be huge. Rather, EMU will intensify the already high level of trade interdependence between the Cohesion countries and the euro area.

Greater openness also involves intensified competition in commodity and labour markets. For the benefits of EMU on trade, competition and price transparency to appear it is essential that markets are competitive. The Cohesion countries, with the exception of Ireland, tend to have relatively heavily regulated product markets. More specifically, product market regulations are estimated to contribute significantly to Greek unemployment.[34] So the further opening of markets consequent upon EMU should raise the efficiency of both product and labour markets.

Labour market adjustment in EMU and cohesion

Last but not least, greater openness increases pressures on national and regional labour markets to absorb shocks. The labour market in the euro area is segmented and diverse with very different employment/employment performance and great variety in labour market institutions/policies.[35] The differing adjustment potentials of euro area labour markets pose threats to cohesion at both the national and regional level. There may be a general problem of adjusting to asymmetric shocks, with the cohesion states rendered vulnerable by their rather different economic structures. At the regional level, the

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footnote 29) also contains very few examples of currency switching, i.e. adopting or abandoning a common currency.

[31] R.Glick, A.Rose: "Does a currency union affect trade? The time series evidence", in: *European Economic Review*, 46 (6), 2002: 1125-1151.

[32] R.Thom, B.Walsh: "The effect of a currency union on trade: Lessons from the Irish experience", in: *European Economic Review*, 46 (6), 2002: 1111-1123.

[33] V.Nitsch: "National borders and international trade: evidence from the European Union", in: *Canadian Journal of Economics*, 33, 2000: 1091-1105. For a dissenting view, see J. Bush (ed.): "The economic case against the euro", London, 2001, New Europe, www.no-euro.com (1 May, 2002).

[34] G.Nicoletti, A.Bassanini, E.Ernst, S.Jean, P.Santiago, P.Swaim: "Product and labour market interactions in OECD countries", OECD Economics Department Working Paper No. 312.; Paris 2001: OECD: 99.

[35] J.Morgan, A.Mourougane: "What can changes in structural factors tell us about unemployment in Europe?", ECB Working Paper No. 81, Frankfurt a.M. 2001: ECB; S.Nickell, L.Nunziata, W.Ochel, G.Quintini: The Beveridge Curve, "Unemployment and Wages in the OECD from the 1960s to the 1990s", London 2002, Centre for Economic Performance, LSE.

limited flexibility, could mean that some regions are plagued by high unemployment and slow economic growth. This would represent a significant challenge for cohesion in EMU.

The ability of the Cohesion countries' labour markets to absorb shocks can to an extent be gauged by examining their characteristics as regards labour mobility, the responsiveness of wage bargaining systems, employment protection legislation and the tax and benefit system. All these factors influence real wage flexibility but the complexity of these systems and their elaborate interaction make it difficult to establish the exact nature of the relationship.

Labour mobility has been seen as a crucial form of adjustment in monetary unions from the inception of optimal currency area (OCA) theory. Thus, the differential effects of shocks on regions could be countered by the migration of labour. But migration is notoriously low within the EU, despite wide differences in wages and unemployment.[36] This is also indicated by the large differentials in unemployment rates noted above (Fig.3). Yet, this may be less of a drawback than the OCA literature suggests. Migration can be a problematic solution for a monetary union as diverse as EMU. There is concern over its social and cultural effects. Outward migration, biased towards younger and more skilled workers, could undermine the continued competitiveness of the cohesion regions because of a reduction in the quality of the labour force. Moreover, large-scale migration has macroeconomic effects. Thus, migration may not be a suitable adjustment mechanism in the euro area.[37]

Central to the responsiveness of labour markets is the wage bargaining process, which is usually characterised in terms of its degree of centralisation and coordination. Centralisation is the level at which the bargains take place and coordination is the extent to which there is some attempt to constrain wage bargains to overall norms.[38] High levels of centralisation and coordination allow the nominal wage level to act as an anchor to the price level and to support a smoothing of the business cycle. This aggregate rationale, however, comes at the price of reduced microeconomic flexibility between sectors, skills, and regions reducing the incentives to respond to changing economic circumstances. Spain and Portugal (there is no data for Greece) are characterised by intermediate levels of centralisation and co-ordination of their wage bargaining (Table 4).[39] This means that a majority of their workers have their wages determined by collective bargaining, with some account taken of the aggregate employment outcomes of these bargains. This is probably not a very helpful combination, because it means trade unions have bargaining power but no very great

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[36] P.De Grauwe, W.Vanhaverbeke: "Is Europe an Optimum Currency Area? Evidence from Regional Data", Discussion Paper No.555, London 1993, CEPR; P.Braunerhjelm, R.Faini, R.Norman, F.Ruane, P. Seabright: *Integration and the Regions of Europe: How the Right Policies can Prevent Polarization*, Monitoring Integration 10, London 2000, CEPR: 46-49.

[37] OECD: *EMU: Facts, Challenges and Policies*, Paris 1999, OECD: 119-120.

[38] The seminal article on this relationship is L.Calmfors, J.Driffill: "Bargaining structure, corporatism and macroeconomic performance", *Economic Policy*, 6, 1988: 13-61. It has been rightly criticised for not taking the interaction with central bank policy into account which is of course crucial for the functioning of EMU. See P.A.Hall, R.J.Franzese: "Mixed Signals: Central Bank Independence, Coordinated Wage Bargaining, and European Monetary Union", in: *International Organization*, 1998, 52 (3): 505-535; D.Soskice, T.Iversen: "Multiple Wage-Bargaining Systems in the Single European Currency Area", in: *Oxford Review of Economic* Policy, 1998, 14 (3):110-124.

[39] OECD: *EMU: One Year On*, Paris, 2000, OECD: 98.

incentive to take the macroeconomic effect of wage increases into account. By contrast Ireland has an intermediate level of centralisation of wage bargaining but a high level of co-ordination as a result of its social contract. Thus, the overall level of settlements is supposed to be consistent with the maintenance of a high level of employment. It will be interesting to explore in future research whether the credibly stability-oriented policy of the ECB makes the functioning of intermediate regimes resemble more those of highly coordinated regimes.[40]

Table 4: Wage bargaining institutions in the cohesion countries

	Summary measure of centralisation co-ordination 1998[a]		
	Centralisation	Co-ordination	Centralisation/co-ordination
Spain	2	2	2
Greece			
Ireland	2	3	3
Portugal	2	2	2
Euro area	2	2-3	2-3

a 1 is most decentralised or least co-ordinated, 3 is the most centralised or coordinated
Source: OECD, 2000

Employment protection legislation (EPL), by making it more expensive to dismiss workers, discourages employers from both reducing and increasing employment. It thus tends to reduce labour market flows, increasing the length of unemployment for outsiders. But EPL also creates incentives for insiders to develop (firm-specific) skills. Given this trade-off, it is not surprising that we find EPL being positively correlated with long-term unemployment but no clear association with overall employment[41]: if insiders do not justify high reservation wages by permanently upgrading their skills, they will be undercut by outsiders. Ireland has a relatively low level of EPL but Portugal, Greece, and Spain are estimated to have among the highest levels of employment protection in the EU (Table). EPL indices are based on the content of legislation but its impact depends upon the detail of its interpretation and application. Portugal's measured severity of EPL is much softened by the detail of its implementation.[42] A number of reforms in Spain and Greece have eased EPL and so EPL is less of a barrier to labour market flexibility than the statistics suggest. Table 5 gives an overview of the most important characteristics.[43]

[40] This is suggested by D.Soskice, R.Hancké: "Gently Turning. The Political Economy of EMU", Report for project 2000-203-1, Düsseldorf 2002, Hans-Böckler-Stiftung.
[41] J.Emeskov, J.P.Martin, S.Scarpetta: "Key Lessons for Labour Market Reforms: Evidence from OECD Countries' Experiences", in: *Swedish Economic Policy Review*, 5(2), 1998: 205-252; S.Nickell, R.Layard: "Labour Market Institutions and Economic Performance", Discussion Paper No. 407, London 1998, Centre for Economic Performance, LSE.
[42] O.Bover, P.García-Perea, P.Portugal: "Iberian labour markets: Why Spain and Portugal are OECD outliers", in: *Economic Policy*, 31 (October), 2000: 380-428.
[43] OECD: *EMU: One Year On*, Paris, 2000, OECD: 98.

Table 5: Employment protection legislation

	Employment protection legislation 1998					
	Overall index[a]		Permanent Contract[b]		Temporary Contract[c]	
	Index	Rank	Index	Rank	Index	Rank
Spain	3.2	4	2.8	6	3.7	2
Greece	3.5	2	2.6	9	4.5	1
Portugal	3.7	1	4.3	1	3.2	5
Ireland	1.0	13	1.7	12	0.3	13
Euro area	**2.9**		**2.8**		**3.0**	

Rank out of EU 14, EU 15 excluding Luxembourg.
[a] Average of the indices for permanent and temporary contracts. [b] For permanent contracts, legislation covered relates to regular procedural inconveniences, notice and severance pay and difficulty of dismissal. [c] For temporary workers, the index is a function of the number and tightness of the restrictions on the use of fixed-term contracts (maximum number of successive contracts allowed or of cumulated duration) and temporary work agencies (type of work authorised).
Source: OECD, 2000.

Tax and benefit systems can influence both the supply of and the demand for labour. On the supply side, they may affect incentives to work and to invest in human capital. The duration of unemployment benefits is positively associated with the duration of unemployment, reducing the sensitivity of wages to unemployment (reduced real wage flexibility). But longer benefit periods also allow a worker to search for a job in which he or she intends to stay, and build firm-specific assets, that eventually justify relatively high real wages. Analogously, generous on-the-job benefits, while an entry barrier for outsiders, are an incentive for insiders to upgrade skills in order to keep a job. The overall effect on aggregate employment is thus more complex than textbook labour market models suggest. On the demand side, the tax and benefit systems can affect wage rates, effectively putting a floor to them. Thus high rates of unemployment benefits tend to reduce the employment of low skill labour. Among the Cohesion countries benefit levels and tax rates are low, so these are not important factors limiting labour market performance. The Cohesion countries in particular Spain, have reduced benefit levels, tightened up eligibility requirements and reduced taxation, further enhancing the flexibility of their labour markets.[44]

Trade union agreements in conjunction with minimum wage legislation and high replacement ratios can limit inter-regional wage differences. This will substantially reduce the effectiveness of the economic forces encouraging the dispersion of industry within countries. This seems to be a particular problem for the Cohesion countries and regions, as shown by studies of Spain, Greece, and Southern Italy.[45]

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[44] G.Carone, A.Salomäki: "Reforms in Tax-Benefit Systems in Order to Increase Employment Incentives in the EU", Economic Paper No.160, Brussels 2001, European Commission DG for Economic and Financial Affairs: 71-73.
[45] S.Bentolila: "Sticky Labour in Spanish Regions", in: *European Economic Review*, 41 (3), 1997: 591-598 for Spain; G.Alogoskoufis: "Two faces of Janus: institutions, policy regimes and macroeconomic performance in Greece", in: *Economic Policy*, 20, 1995: 148-192 for Greece; R.Faini, G.Galli, P.Gennari, F.Rossi: "An empirical puzzle: falling migration and growing unemployment differentials among Italian regions", in: *European Economic Review*, 41, 1997: 571-579 for Southern Italy.

Our assessment of labour markets in the Cohesion countries suggests that they are now less dogged by high unemployment and low employment rates than in the past. Portugal has never suffered from these problems. The Irish economic miracle has meant that unemployment rates are now low and employment rates are increasing. The flexibility of the Irish labour market, and its competitiveness, mean that it should be able to adjust to economic shocks in EMU. Spain, although it is still a high unemployment and low employment rate country, has in the 1990s enjoyed a very substantial improvement in its labour market situation. This improvement, together with a process of reform, suggests that the Spanish labour market will be able to cope with the rigours of EMU. The recent performance of Greece is less impressive, but it is far too early to come to even a tentative view of the Greek labour market in EMU. With this caveat the Cohesion countries' labour markets appear reasonably adjustable to shocks.

Long-term restructuring in EMU and cohesion

Industrial location in EMU and cohesion

With EMU further reducing trade costs and eliminating exchange rate uncertainty, location decisions in the euro area can be based on pure efficiency considerations. Both from the point of view of the New Economic Geography (NEG) and from the New Industrial Geography (NIG) perspective, this could present problems for cohesion in the long-term. The NEG suggests that centripetal factors such as: forward and backward linkages, market access, economies of scale and the clustering of research will favour core locations.[46] Core agglomeration is not certain, because centrifugal factors are recognised: increasing factor costs (possibly offset by migration), congestion costs and capital mobility. But there is the suspicion that the centripetal factors will dominate the centrifugal. The NIG stresses the importance of social, institutional, cultural and political characteristics, which are embedded in local and regional economies.[47] Again it is the core that is likely to enjoy these characteristics crucial to development.

A comparison with the USA where the regional concentration of industry is greater again suggests EMU will lead to increased concentration.[48] With the Cohesion countries in peripheral locations, and poor regions in other countries on the EU periphery e.g. the Mezzogiorno and East Germany, there is a concern that industrial relocation associated with EMU could lead to a widening of national and regional disparities.

Since EMU could be viewed as increasing competition by reducing trade costs, its effects will be analogous to the long-term restructuring stemming from the Single Market Programme. The picture that emerges from recent studies of industrial

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[46] P.Krugman, A.J.Venables: "Integration and the competitiveness of peripheral industry", in: C. Bliss, J.Braga de Macedo (eds.): *Unity with diversity in the European Community*, Cambridge 1990, Cambridge University Press; P.Krugman: "Increasing returns and economic geography", *Journal of Political Economy*, Vol. 99, pp. 484-499; H.G.Overman, S.Redding, A.J.Venables: "The Economic Geography of Trade, Production, and Income: A Survey of Empirics", Discussion Paper 508, London 2001: Centre for Economic Performance LSE.

[47] T.J.Barnes, M.S.Gertler (eds.): *The New Industrial Geography: Regions, Regulation, and Institutions*, London 1999, Routledge

[48] K.Aiginger, W.Leitner: "Regional concentration in Europe and the USA: Who follows whom?", Working Paper, Vienna 2002, Austrian Institute of Economic Research.

concentration of manufacturing industry is a complex one, varying by industry, sector and country.[49] Of particular interest for cohesion is a very rapid decrease in specialisation in the late 1970s in Greece, Spain and Portugal. This corresponded to a shift from an industrial structure planned by the dictatorial regimes ousted in the early 1970s. From the mid-1980s, there was a rapid increase in specialisation in these countries, associated with concentration in peripheral low wage economies of some slow growth and unskilled labour intensive industries. The Single Market does not seem to have led to increased geographical concentration.[50]

Analyses of location tend to concentrate on manufacturing, because this is the most affected sector as it has the most tradable output. Service industry cannot be ignored, because of its increasing importance in the economy, and the growing tradability of its output. Unfortunately, data limitations have restricted statistical analysis of location in the service sector. Generally the service sector is underdeveloped in Cohesion countries and regions, services account for 68.8% of EU 15 employment, but only 58% of employment in Greece and Portugal, and 63.5% in Spain.[51] Regional concentration and specialisation of services seems to be decreasing.[52] There is a question mark over these results, however, because services are statistically much less finely divided than the rest of industry. Thus, as services become more important there is an automatic tendency for structural similarity to increase. Unfortunately, dated statistics mean that it is not yet possible to assess the impact of the Single Market, let alone EMU, on the distribution of service employment and output. Empirical evidence on agglomeration indicates, therefore, that the intensification of integration implied by monetary union is likely to have gradual effects, differentiated between sectors and with only marginal consequences for the Cohesion countries.

EMU may also have a long-term impact on technology and innovation in its widest sense, i.e. not only new scientific developments, but also improvements in management and organisation, leading to new or better products and more efficient production. Core regions enjoy particular advantages in this respect: human capital, institutions, finance, networks, and a local high-income market in which new products can be launched and refined. EMU could lead to the agglomeration of technological advantage in core regions as movement of capital induces a further concentration of financial resources, in addition to allowing the easier penetration of partner markets. Cohesion countries and regions could be particularly vulnerable to this development given their generally weak technological development. Technology and innovation will be important factors in the dynamic performance of the economy. Thus, long-term efforts to assure cohesion

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[49] K.Aiginger, M.Pfaffermayr: "The Single Market and Geographic Concentration in Europe", Presented at EARIE Conference, Lausanne, 11.12.2000; M.Hallett: "Regional Specialisation and Concentration in the EU", Economic Paper 141, Brussels 2000: DG for Economic and Financial Affairs; K.H.Midelfart-Knarvik, H.G.Overman, S.J.Redding, A.J.Venables: "The Location of European Industry", Economic Paper 142, Brussels 2000: DG for Economic and Financial Affairs.

[50] Midelfart-Knarvik et al, 2000 (see footnote 49) find no marked effect. Aiginger and Pfaffermayr, 2000 (see footnote 49) find decreasing geographic concentration in the 1990s.

[51] European Commission: "Second Report on Economic and Social Cohesion", Brussels: 2001, DG Regional Policy.

[52] W.Molle: "The Regional Economic Structure of the European Union: an Analysis of Long-Term Developments", in: K.Peschel (ed.): *Regional growth and regional policy within the framework of European Integration*, Heidelberg 1996, Physica-Verlag; Hallet, 2000 (see footnote 49).

in the EU could be fundamentally influenced by technology and innovation.

Research, technology and cohesion

The EU is characterised by significant heterogeneity in levels of technological development, which may persist because the intensity of corporate R&D is related to population density and levels of economic activity.[53] The position of the Cohesion countries seems relatively weak in relation to technology/innovation. There is a distinct North-South split in the EU with Greece, Spain, Portugal and Italy ranking low in research indicators.[54] Portugal and Greece have a low share of EU production in high tech goods (characterised by technological level, share of non-manual and higher educated workers in the labour force).[55] Greece has the smallest manufacturing sector in the EU. Low skill industries, e.g. food and wearing apparel, are still increasing in size. Spain presents a still more mixed picture, with a medium share of production in high technology industries but low levels of labour force skills. Food and apparel is still significant in Spain, but the motor vehicle industry is increasingly important, and there are successful high-tech clusters in pharmaceutical, audio and video apparatus and medical equipment industries.

There are nevertheless reasons to believe that the barriers to technological and innovative development can be overcome. For example, the success of Ireland shows that it is possible to catch up and to improve a country's innovative and learning capacity.[56] The hectic growth of the mobile phone industry in Finland shows that relatively rapid changes in industrial specialisation are possible. Therefore, what is needed are policies to encourage the development of national and regional technological/innovative capacity, to facilitate the growth of existing and the evolution of new industries. Contrary to expectations the location of high tech industry seems to be becoming more dispersed in the EU although the core countries retain the lion's share of production.[57] The variability of technological/innovative performance across countries and changing relative performance indicate that the Cohesion countries present situation is not immutable, even in the more competitive circumstances of EMU.

Enlargement and cohesion

The next enlargement of the EU will lead to an unprecedented widening of disparities in income levels with potentially profound implications for the EU 15, as well as the accession countries. This is an obvious challenge for cohesion in the Union. However, what are its implications in relation to EMU? There are four areas where the economic effect of enlargement on cohesion could potentially be significant: structural funding, competition, foreign direct investment (FDI), and the enlargement of EMU.

Enlargement will increase competition in the EU as a whole but particularly in industries characterised by labour intensive production. The same countries that are

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[53] M.Caniels: "Regional differences in technology – theory and empirics", MERIT Working Paper, Maastricht 1996: MERIT.
[54] European Commission: European Competitiveness Report 2001, Brussels 2001, http://www.europa.eu.int/comm/enterprise/library/index.htm, 62.
[55] Midelfart-Knarvik et al, 2000 (see footnote 49); European Commission: Employment in Europe 2001, Brussels 2001, DG Employment and Social Affairs.
[56] J.Cogan and J.MacDevitt: "Technological and Economic Convergence: The Irish Case", Paper presented at CONVERGE workshop Strasbourg, 7-8 January, 2000, TSER.
[57] Midelfart-Knarvik et al; 2000 (see footnote 49).

losing structural funding, i.e. the incumbent Cohesion countries, are also likely to feel the increased competition resulting from enlargement most strongly. To a significant extent this competition already exists as a result of the elimination of tariffs on trade between the candidate countries and the EU. In addition, the Central and East European Countries (CEECs) represent a rapidly growing and potentially large additional market for EU products, a market that is already being targeted by EU companies.[58] While the overall impact will be beneficial for all Member States, particular regions or sectors could be adversely affected. Generally the effects are relatively small so even the sectoral/regional adjustment required will be limited.

Another concern is that inward Foreign Direct Investment (FDI) may be diverted away from Spain, Portugal and Greece towards the accession countries. As can be seen from Table 6[60], FDI levels in the CEE 7 are similar to those in Spain, Portugal and Greece. If enlargement was going to have a significant impact on FDI flows, then as the potential date for accession comes closer, FDI would be expected to rise. Although FDI in the CEE 7 has indeed been rising, it has been increasing at a faster rate both into and out of the EU 15. Thus, inward FDI in the CEE 7 represents a diminishing proportion of EU 15 inward FDI. By contrast, there is no clear trend in the share of Spain, Portugal and Greece in EU 15 inward FDI. Outward FDI has increased even more rapidly than inward, so the CEE 7's share has declined substantially. Thus, fears about a substantial diversion of FDI, from Spain, Portugal and Greece to the accessing states, do not seem to be substantiated by the available evidence. The attraction of the CEEC economies for inward FDI is limited by their size. In addition, low labour costs do not appear to be a significant determinant of FDI flows. Hence the current and future effects of CEEC accession on FDI in Spain, Portugal and Greece are likely to remain muted.

Table 6: Inward FDI in CEE 7*

Inward investment	1995	1996	1997	1998	1999	2000
CEE 7 % of Spain, Portugal and Greece	143.4	100.0	87.2	83.9	97.5	47.2
CEE 7 % EU 15	10.0	8.3	7.6	5.6	3.6	3.2
Spain, Portugal and Greece % EU 15	7.0	8.3	8.7	6.7	3.7	6.8
Ireland % EU 15	1.3	2.4	2.1	4.2	3.2	2.6
EU 15 total (millions US $)	113480	109642	127626	261141	467154	617321
Outward investment						
CEE 7 % EU 15	7.1	5.0	4.4	3.2	2.4	2.6

* 10 accession countries excluding Cyprus, Malta and Slovenia for which figures are not available.
Source: UNCTAD (2001, Tables B.1 & B.2)

Thus we conclude that the expected impact of enlargement on the economic performance of incumbent Cohesion states and regions through competition for trade and FDI appears to be marginal. Notwithstanding this probable scenario, particular

[58] "The combined GDP of the AC-8 represents only about 3 per cent of the EU 15 GDP… As a consequence, the derived impact of their own development on the present Union is always likely to be small." European Commission, 2001 (see footnote 54).
[60] UNCTAD: *World Investment Report 2001: Promoting Linkages*, New York and Geneva, 2001, UN.

regions or sectors could be adversely affected. It has been estimated that production of textiles and leather products could be reduced by over 2% by the accession of the CEECs to the single market.[61] There is a perception that the economic and political benefits of enlargement are likely to accrue to the wealthier Member States, which do not seem willing to pay via increased budgetary contributions or by reduced receipts under the CAP. This perception could be problematic for the political support for enlargement and the maintenance of such support for EMU.

Finally, the new EU Member States represent potential new members of EMU. Governments in accession countries have already stated that they intend to enter EMU as quickly as possible after joining the EU. There are three major channels through which rapid entry into EMU may facilitate catching up of the CEECs and thus indirectly cohesion.

1. A downward convergence of long-term interest rates would make the financing of investment easier. This is particularly important for investments with a long gestation period such as R&D. Lower interest rates would ease the burden of servicing public debts, easing the pressures on public finance, which are likely to be under strain in the transition process. A direct positive impact on income convergence also stems from the fact that a decline in equilibrium interest rates implies a rise in equilibrium real wages, since a lower share of each unit of value added has to go to profit and interest incomes.
2. By eliminating their independent exchange rates, the CEECs would no longer be vulnerable to speculation and currency attacks. In the presence of less than fully flexible prices and real wages, this would avoid major and potentially persistent effects on regional employment. Regional trade imbalances or capital outflows could still create bankruptcies among indebted firms and their financiers, however.
3. Entry into EMU implies the acquisition of an established policy regime geared to ensure price stability. This transfer would substitute for the potentially painful process of gaining credibility for such a regime from scratch. The adoption of the Maastricht policy framework would certainly entail less uncertainty for savers and investors over decisions to create and accumulate productive assets. It would also give the accession countries' governments more leverage against special interests by ostensibly tying their fiscal and monetary hands.[62]

Yet, the Maastricht policy framework, as laid down in the SGP, and the various processes of open policy co-ordination, was not created with the special needs of economies in transition in mind, and its adoption may be a mixed blessing for them. Criticism has been voiced with respect to the transition phase in ERM2 which exposes the accession countries to currency attacks.[63] The Maastricht policy framework may impose too tight a fiscal straitjacket, given that in transition countries there is arguably a case for government investment expenditures to be largely financed by credit and thus also borne by future generations. The Maastricht inflation criterion does not allow for a

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[61] A.M.Lejour, R. A.de Mooij, R.Nahuis: "EU enlargement: Economic implications for countries and industries", Amsterdam 2001: CPB Netherlands Bureau for Economic Policy Analysis.

[62] P.Bofinger: "The political economy of the eastern enlargement of the EU", Discussion Paper No. 1234, London 1995, CEPR.: 8-9.

[63] D.Begg, B.Eichengreen, L.Halpern, J.von Hagen, C.Wyplosz: "Sustainable Regimes of Capital Movements in Accession Countries", London 2001, CEPR.

catching-up of prices, which shows up in a temporarily high rate of measured inflation, and could thus depress growth.[64] These criticisms may lead one to rethink (what some of the authors have done elsewhere) the existing Maastricht entry criteria with a view of what are necessary real and institutional preconditions for future policy coordination in EMU. The performance criteria, i.e. the budget deficit, the interest, exchange and inflation rates, seem to be less essential for that while acceptance of an operationally independent central bank and a sound financial system are indispensable for participation.

Policy challenges and open research questions

The ultimate purpose of this study was to identify what we do know and what we need to know to promote cohesion in the new policy environment of EMU. Our review of research findings on these impacts of EMU on cohesion contains good and bad news for policymakers in EMU. To the obvious question: "Will EMU further cohesion?", the literature repeatedly answers with a resounding "It depends!" But we know now much better on what it depends. Moreover, the catching-up processes seem to be responsive to policies, not only in the negative but also in the positive. Thus, to the other obvious question of policy makers: "What to do?", the literature offers at least some partial answers if not straightforward recipes for success.

The most important policy conclusions in the short, medium and long run seem to be the following:

- Even short-term stabilisation and absorption of shocks will affect cohesion if employment and economic activity is slow to adjust as seems to be the case in the EU. Rigidities that cause slow adjustment and persistence are not all bad, however. To preserve their advantages (like incentives to build human capital) while lowering the cost in terms of persistent unemployment as much as possible, fiscal stabilisation has to work effectively. Other likely candidates, like labour mobility or capital flows, will not do that job in the short run.
- Exchange rate and price stability plus fiscal consolidation provide favourable conditions for catching-up processes as indicated by the spectacular success story of Ireland as well as the less spectacular but still positive experiences of Portugal and Spain. Contrary to what the traditional theory of monetary integration would lead one to expect, we conclude that EMU macroeconomics per se furthers economic cohesion.[65]
- There is no dominant trend in long-term restructuring that works in favour of agglomeration and thus against cohesion. Research has clearly identified centrifugal and centripetal forces. Their existence does at least not preclude the location of economic activity to be responsive to regional policy measures. Moreover, the variability of technological/innovative performance across countries and changing relative performances indicate that the Cohesion countries present situation is not immutable, even in the more competitive circumstances of EMU.

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[64] Begg et al, 2001: 41-47 (see previous footnote); O.Arratibel, D.Rodriguez-Palenzuela, C.Thimann: "Inflation Dynamics and Dual Inflation in Accession Countries: A 'New Keynesian' Perspective", ECB Working Paper No.132, Frankfurt a.M. 2002, ECB: 19.

[65] The difference can be explained by the fact that the foundations for the traditional theory of optimum currency areas were laid before the breakdown of Bretton Woods and before the literature on exchange rate instability and international capital mobility picked up in the 1980s.

These conclusions seem to be relatively robust. Not surprisingly, however, further research is needed in a number of areas, in particular in view of future enlargements. We just mention those we consider to be most crucial:

Given the importance of short-run fiscal stabilisation, it is a pity that the evidence on the precise operation of automatic stabilisers is still in its infancy for the euro area, and, in particular, disaggregated results are completely lacking. Moreover, this research on automatic stabilisers should be linked to research on the effects of recent reforms of welfare systems and labour markets. How do these reforms affect the effectiveness of built-in stabilisation? To what extent do they depend on the size of the government budget and what does this mean for devolution of fiscal competencies?

Labour markets are an obvious concern of EU policy makers. But we actually know too little about the 'flexibility' of labour markets, or better: employment regimes, in different countries. While real wage flexibility seems to be comparatively low, there are other and perhaps more suitable ways to make labour contracts adaptable. In particular, could the Cohesion countries improve their economic performance by using variations of the social agreements employed in the Netherlands and Ireland? Or is the use of such agreements too dependent upon the particularities of the national situation and/or circumstances?

That long-term evolution is inherently uncertain amounts to a tautology. Thus instead of enumerating the many issues policymakers would like to know, perhaps more readily answerable questions could be explored: Are changes in the specialisation of regions or nations and in the geographical concentration of industry of legitimate concern to governments and the EU, independently of their effect on economic performance? What kind of tradeoffs are involved?

Enlargement will intensify a discussion and research on the Maastricht policy framework that is already under way. Given that the credibility of the EMU will suffer, if the regime is reformed each time that a difficult country case comes up, it is important to think now about amendments that take the peculiarities of future members, i.e. the accession countries, into account. Are the convergence criteria appropriate for countries in transition? Is there a case for relaxing some of the Maastricht Treaty's stipulations, e.g. to take the component of structural price level increases into account, when assessing the inflation criterion, or to moderate the precondition of exchange rate stability within ERM2? An arguably more important issue in the long run concerns the accession countries' ability to co-ordinate policies within EMU. In particular, are fiscal systems developed enough to make automatic stabilisers the prime tool of countercyclical macroeconomic policy as stipulated by the SGP?

Finally, there is a set of questions that are of eminent political significance for EMU but, to the best of our knowledge, have not been addressed in the literature. Does monetary union have implications for comparisons of income levels and of standards of living? In particular, will EMU make the inequality of income within the union more transparent? What differences in income levels are compatible with a monetary union? Does a monetary union with a common monetary and coordinated fiscal policy require narrower income differentials for political cohesion than a looser economic union?

All these questions will become even more pressing with enlargement. This singularly ambitious project requires us to think harder about the relationship between macroeconomic policy regimes, regional development and political integration.