

# Who's Afraid of the Big Enlargement?

Economic and Social Implications of the European Union's Prospective Eastern Expansion

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# Foreword

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The Laeken summit of 2001 set the date of 2004 for enlargement of the European Union (EU) to take in most accession countries. Appropriately designed policies need to be implemented in time to make enlargement a success. Most candidate countries have large agricultural sectors and low *per capita* incomes. The integration of economies at vastly different stages of development presents a huge challenge for Europe. The citizens of the EU fear mass immigration and social disruption; the governments of EU members are wary of the budgetary consequences that accompany enlargement.

This report argues that enlargement offers the opportunity to push through unavoidable reforms of structural policies, agricultural policies and the wider budget. The current proposals to cap the transfer of structural funds to new members would backfire by slowing income convergence to the EU average. Accession countries should be encouraged to raise social welfare standards. And by beginning to gradually open their labour markets, current EU members can smooth the adjustment process over a pre-defined period of transition, until more knowledge is available of likely migration numbers. The establishment of mobility-friendly labour market institutions in combination with more unemployment insurance of short duration would also ease pressure on welfare systems. Such measures are essential to dispel the anxieties surrounding the accession process and accomplish the goal of a single market of 500 million people.





# Executive Summary

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We analyse the economic and social implications of the prospective enlargement of the European Union (EU) to take in the Central and East European countries (CEECs). The initial enthusiasm for their 'return to Europe' has turned to anxiety about the potential consequences. Many studies have shown the economic benefits for incumbent members, as well as for the new entrants. But many citizens of the current EU-15 are concerned that the accession of countries with much lower incomes per head will affect them adversely. There are fears of mass migration, pressures on welfare systems, industrial relocation to the new EU members in response to lower labour costs and job losses for unskilled natives, displaced by more skilled migrants from the East. Some politicians relentlessly exploit these fears, with highly dangerous consequences.

We maintain that potential undesirable effects of enlargement, in particular for labour markets and social conditions, can be met by appropriately designed policies, which are so far not in place or planned. Rather than legitimizing the fears, politicians and policy-makers must dispel them by leading the EU and its members to adopt these measures.

EU governments are wary of the budgetary consequences of enlargement. Since most candidate countries have big agricultural sectors and low incomes per head, the extension of current agricultural and structural policies to new entrants would imply large positive budget balances with the EU, which would have to be financed by the current EU-15. Since the Laeken summit set a firm date (2004) for enlargement to take in most of the candidates, the pressure is now to establish long transition periods before new members achieve full access to regional and agricultural programmes. The capping of structural fund transfers to new members at 4% of their GDP is likely to be extended beyond 2006.

We argue that treating the new EU citizens differently would backfire. Structural funds are aimed at promoting faster growth; without such policies, income convergence would take too long. Investment in the public capital of the accession countries and support for the reform of their education systems and public administrations can help accelerate income convergence. Postponing full access to structural funds will not in practice buy time until these countries get economically closer to the EU.

More broadly, enlargement offers the EU a window of opportunity to accelerate the unavoidable reforms of structural policies, agricultural policies and, indeed, the wider budget. National governments could play a greater role in the allocation of funds to the regions, in order to exploit better economies of agglomeration and to concentrate resources on meaningful infrastructure projects. The financing of regional policies should change to a system in which each country pays or receives proportionally to its

distance from the average EU income per head. Agricultural policies should move further away from price supports towards explicit transfers to agricultural workers.

We consider arguments for a delay before lifting all restrictions on migration from East to West. We draw on the latest estimates of the potential flows of people, as well as the US experience in tackling illegal immigration. Although we find that some estimates of the likely volume of migration are substantially exaggerated, there is a significant range of uncertainty, so we conclude that there is indeed an option value to waiting. The waiting time should be used to smooth the adjustment process and to gain more knowledge about the possible actual migration numbers. The current EU members should therefore begin to open their labour markets to migration from the CEECs instead of maintaining their restrictive policies during the transitional period.

The accession of the CEECs will have a significant impact on labour markets in the current EU member countries, with changes in the demand for labour, industrial location and migration patterns. We consider how to promote adjustment to these shocks by adapting the typical West European institutions of wage determination, employment protection and unemployment benefit. We draw on the experience of the United States and Canada since the early 1990s, when they went into a free-trade agreement (NAFTA) with Mexico, their populous and much poorer southern neighbour. The simple lesson is that integration of economies at vastly different levels of development calls for significant inter-industry and geographical labour mobility.

We therefore make the following recommendations:

1. More mobility-friendly labour market institutions among the current EU members; that is, more unemployment insurance of short duration (because associated with measures to encourage the unemployed into work); less employment protection legislation.
2. Encouragement of candidate members to raise social welfare standards, both by making them a condition of accession and by offering financial assistance in their design and start-up; accession countries should have minimum guaranteed-income schemes similar to those in place in most current EU members.
3. EU coordination of the level of these minimum guaranteed income schemes, adjusted to take account of differences in the cost of living across countries and regions; the long-term plan should be to build up a pan-European social safety net as one of the pillar institutions of the EU.
4. A transitional period before migration restrictions on new members are lifted, provided the period is clearly defined from the outset, restrictions are flexibly coordinated at the EU level and existing restrictions on labour mobility within the current EU (notably those preventing the cross-country portability of social security rights) are dismantled.
5. Adoption of EU-wide migration policies, encompassing not only enforcement of border controls, but also on-site controls of illegal employment of migrants;
6. Maintenance of structural funds at current levels, allocating regional funds to national governments and making the funding schemes more transparent without violating the resources ceiling for the EU budget set at 1.27% of GNP.

Such measures are essential to integrate the new members successfully into the EU. The prize is great: a Europe that fits its historical and cultural boundaries and exploits the tremendous economic benefits of a single market for 500 million people. The risks are also great, and we must begin immediately to minimize them. The consequences of failure are only too clear.



# 1. Introduction

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What are the economic and social implications of the prospective enlargement of the EU to take in the CEECs? The initial enthusiasm at the 'return to Europe' of these former members of the Soviet bloc has turned to anxiety about the potential consequences. Many citizens of the current EU members – the EU-15 – are concerned that the accession of countries with much lower *per capita* income levels than the current members – the CEEC-10 (Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia) plus two or three other candidates – will have a range of adverse effects.

There are fears of mass migration, pressures on welfare systems, industrial relocation to the new EU members in response to lower labour costs, and job losses for unskilled natives, displaced by more skilled migrants from the East. According to the Eurobarometer survey (an opinion poll conducted on behalf of the European Commission at least twice a year among all EU members), roughly 40% of the population of the EU-15 would currently vote an overwhelming 'no' to the Eastern enlargement. At present, it seems that they are prepared to allow in only one country, Switzerland, which is richer than all the current members except Luxembourg.

While the fears of EU citizens are primarily focused on migration, EU governments are concerned about the budgetary implications of enlargement. Since most candidates for membership have large agricultural sectors and low incomes per head, the extension of current agricultural and structural policies to new entrants would imply large positive budget balances with the EU, which would have to be financed by current members. This prospect is creating pressures to delay accession, to establish long transitional periods for full access to certain programmes, notably the structural funds and the Common Agricultural Policy, and to curtail or reform these programmes. There is a fair amount of haggling and horse-trading among the EU-15 on how the relevant costs should be shared among them.

But Europe cannot renege on its commitment to integrate the East. And it cannot postpone the process for too long: expectations have been raised of a fast and smooth accession. Disappointing the citizens of the East may backfire, for example, by encouraging waves of illegal migrants to come in from these countries. After the tragic events of 11 September 2001, the Eastern enlargement has also acquired a new symbolic value: it is proof that it is possible to join the 'rich man's club' even starting from low levels of income per head. The door so far left open by the EU to Turkey is also a door opened to the Muslim world.

A number of studies demonstrate convincingly that the benefits from enlargement in terms of further trade integration and migration are substantial and will largely

outweigh the costs of accession at the EU aggregate level and at the level of individual EU members (for example, Baldwin *et al.*, 1997; Lejour *et al.*, 2001; Keuschnigg and Kohler, 1999, 2001; Breuss, 2001). Yet the concerns of citizens and governments suggest that there is no alternative to trying to ensure that the benefits of enlargement will largely outweigh its costs not only in aggregate, but also at the level of regions and local communities, minimizing the losses from the CEECs accession.

This requires four broad sets of policies:

1. Implementing structural reforms at home that will allow domestic labour markets to absorb more effectively the shock associated with the entry of countries with much lower levels of income per head.
2. Making accession by the CEECs conditional on reforms to their systems of social welfare provision that will mitigate the undesirable distributional effects of enlargement.
3. Allowing for a gradual dismantling of the remaining barriers to migration from the candidates for accession.
4. Reforming EU-wide redistribution policies so as to make them more transparent and to encompass the new members.

This report looks at these four issues in turn. Section 2 examines what reforms to the typical West European institutions of wage determination, employment protection and unemployment benefit might be necessary to adjust to the shock of enlargement more effectively. It draws on the experience of the United States and Canada since the early 1990s, when they extended their free-trade agreement to incorporate Mexico, their populous and much poorer southern neighbour.

Section 3 explores the potential for convergence of income levels between the current EU members and the candidates for accession, and some of the policy trade-offs that the CEECs face. In particular, it examines how the EU can encourage its aspiring members to establish better standards of social welfare, both by making them a condition of accession and by offering financial assistance in their design and start-up.

Section 4 considers the reasons for a transitional period following the CEECs' accession before lifting all restrictions on migration from the East to the West. It draws on the latest estimates of the potential flows of people as well as North America's experience in tackling illegal immigration.

Finally, Section 5 addresses reform of the EU's structural funds: their potential impact on convergence, how the limited budget should be allocated and how the costs of redistribution should be shared. It draws on the experience of the Southern enlargement in 1986, when Spain and Portugal became EU members.

## 2. Labour markets: what reforms are needed in the West to absorb the shock of enlargement more effectively?

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The accession of the CEECs will have a significant impact on labour markets in the current EU members, potentially leading to changes in the demand for labour, in industrial location and in migration patterns. This section examines what reforms to the typical West European institutions of wage determination, employment protection and unemployment benefit might be necessary in order to adjust to the shock of such developments more effectively.

The section draws on the experience of the United States and Canada since the early 1990s, when they extended their free-trade agreement to incorporate Mexico, their populous and much poorer southern neighbour. The simple lesson is that integration of economies at vastly different levels of development calls for significant inter-industry and geographical labour mobility, which labour market institutions in the EU should facilitate, not hinder.

### 2.1 NAFTA as a preview of the adjustments involved in enlargement

Important lessons on what types of reform of employment, wage-setting and social policy institutions could promote smoother labour market adjustment in an enlarged Europe can be drawn from the North American Free Trade Agreement (NAFTA) of 1993, which extended the US-Canada Free Trade Agreement of 1989 to include Mexico. Differences in initial conditions, between North America and Mexico, on the one hand, and the EU-15 and the CEEC-10, on the other, are comparable. Just like Mexico in relation to the United States and Canada, the candidates for EU accession are not only geographically close to the existing trading bloc, but they also have low incomes and large populations (Figures 1 and 2)<sup>1</sup>.

Of course, the two experiments in integration are very different in other respects. Mexico began unilateral market liberalization a decade or so before petitioning to join the larger free-trade area, and the CEECs have enjoyed essentially free bilateral access to many key EU markets during the process of post-communist transition. NAFTA is strictly focused on free trade among its members, and the EU encompasses a common external trade policy, free movement of labour and regulatory harmonization.

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1. In nominal terms, Mexico's income per head in 1993 was 12% of the US level, and the CEEC-10s is 12% of the EU-15 level. The working-age population of the aggregate US-Canadian economy was about 3.7 times larger than Mexico's in 1993, and on the same basis the EU-15's is 3.4 times larger than the CEEC-10.

Figure 1: National income *per capita* at PPP in USD – EU-15 + Eastern Enlargement (1999)

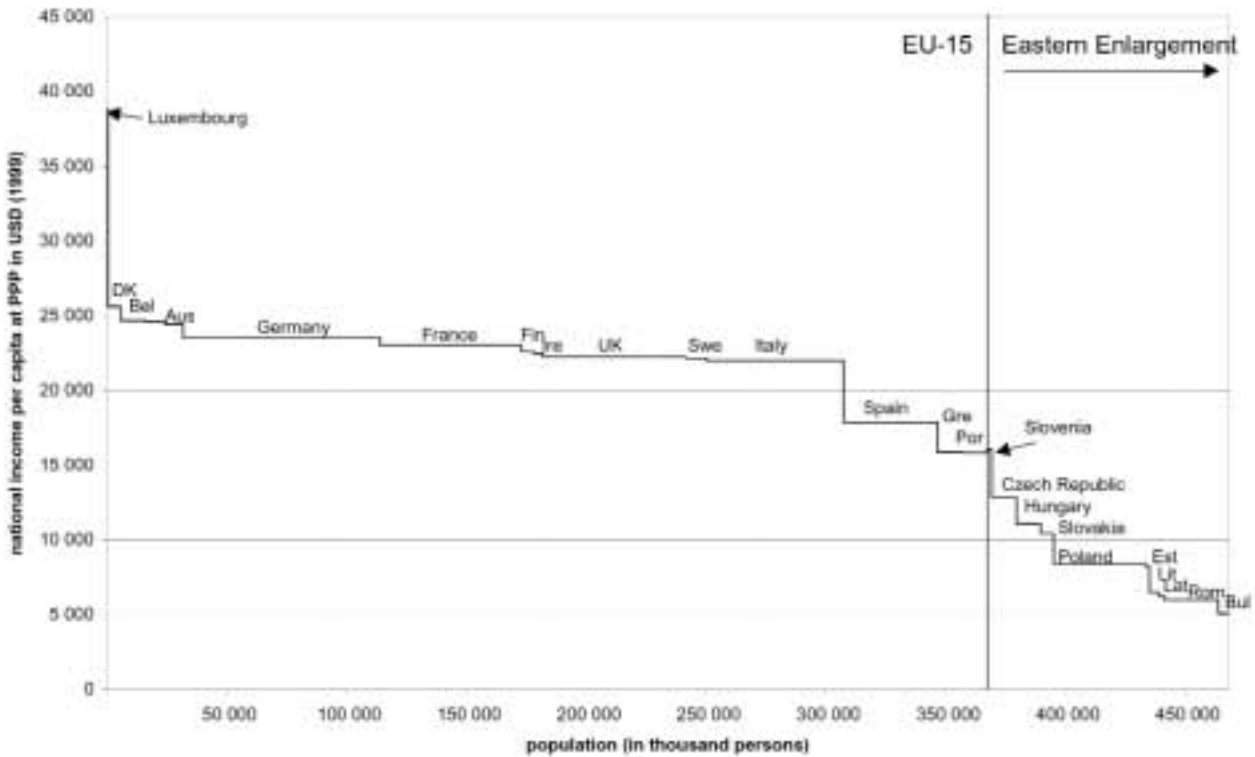
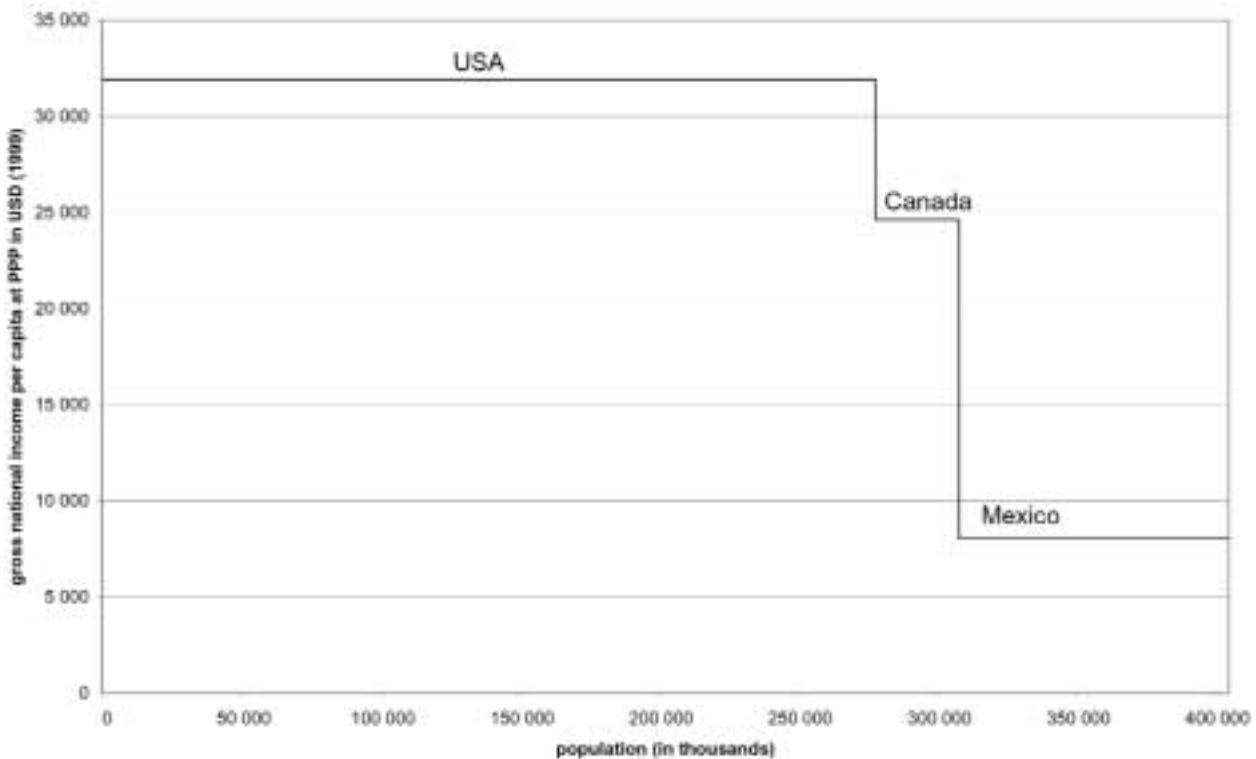


Figure 2: Gross national income *per capita* at PPP in USD – North America (1999)





Even more importantly, the structure of internal policies is quite different in the two blocs: in particular, the labour market institutions typical of EU members impose much more stringent regulations on employment and wage-setting than is the case in North America<sup>2</sup>. Nevertheless, with these qualifications, the NAFTA experience offers a useful preview of the possible effects of enlarging the EU to include the CEECs.

Mexico's integration into the North American economy began not with NAFTA but with the country's unilateral trade and investment reforms in the 1980s. Since then, there has been a dramatic increase in regional trade in manufactured goods, most of which has been a result of production sharing between US and Mexican firms (Hanson, 1998). In industries such as apparel, auto parts, machinery and electronics, which in 1998 accounted for 58% of total trade between the two countries, the United States produces components and exports them to Mexico, where they are assembled into finished goods and then exported back to the United States. Under this arrangement, US firms specialize in research and development, the production of skill- or capital-intensive inputs, and marketing and distribution, and Mexican firms specialize in the narrow task of product assembly.

Mexican export assembly plants, known as *maquiladoras*, now account for 15-20% of manufacturing employment in Mexico and have been the country's fastest growing industrial sector for two decades (Vargas, 2000). Some *maquiladoras* are created by US direct investments in Mexico, but many are owned by Mexican nationals. Production sharing between Mexican and US firms has entailed three types of labour market adjustment in the two countries:

1. changes in the composition of demand for industrial workers.
2. changes in industrial location.
3. potential changes in migration patterns.

### **Demand for labour**

The demand for labour has changed significantly in both countries. As US firms have moved labour-intensive production activities to Mexico, they have shed production labour and other workers with low education levels. The majority of these workers appear to have left manufacturing and now work in the service sector, often at much lower wages (Kletzer, 2001).

A high degree of inter-sectoral mobility of labour within the United States has helped facilitate this transition. Similarly, in Mexico, the expansion of export assembly has increased the demand for younger, more educated workers, particularly females. Rapid growth of the supply of labour, including increased female labour force participation, has helped to sustain the expansion of *maquiladoras*.

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2. See Bertola (1999) for a review of theoretical and empirical comparative work in this area.

## Industrial relocation

The pattern of industrial location has changed too. As US-Mexican trade has increased, US firms have shifted input production from traditional manufacturing sites in the midwest and northeast to sites in California, Texas and elsewhere in the southwest (Hanson, 2001). They have also expanded the provision of transport, distribution and other trading services in the US-Mexican border region.

The regional shift in labour demand, which has many other contributing factors (Blanchard and Katz, 1992), has been accommodated by migration within the United States towards the western and southwestern states (and by the creation of new housing supplies). In Mexico, the expansion of production by *maquilladoras* has contributed to a massive relocation of industrial activity from the centre of the country to cities near the US-Mexican border. In both countries, expanded US-Mexican trade has contributed to a relocation of economic activity towards the border.

## Immigration

The third type of labour market adjustment relates to immigration, a key feature of US-Mexican economic integration. Though not covered by NAFTA, which does not envisage any liberalization of cross-border labour flows, US policies that favour family reunification allow 75,000-100,000 legal immigrants from Mexico to enter the country each year. Another 100,000-150,000 immigrants enter illegally by crossing the border.

The majority of the nearly 8 million Mexican immigrants living in the United States are clustered in the main border states: California with 44% of the total, Texas with 22% and Arizona with 5% (no other state has more than 3% of the total, apart from Illinois with nearly 6%). Immigrant labour has been absorbed in agriculture, apparel and food processing, as well as non-traded activities like construction, household services, and restaurants and lodging (Smith and Edmonston, 1997). The fact that Mexican immigrants continue to flow to the United States is a clear indication that expanded US-Mexican trade has not yet closed sufficiently the large wage differentials between the two countries nor has absorbed the large Mexican unemployment pool.

## 2.2 Institutions that accommodated the adjustment to NAFTA and lessons for the EU

Mexican immigrants in the United States are predominantly in low-paid jobs, which typically offer minimal non-wage benefits such as health care or training (Borjas, 1999). Particularly in agriculture and construction, the hiring of labour often occurs in spot markets, in which immigrants obtain jobs on a daily or weekly basis. The flexibility and fluidity of labour markets for very low-wage workers in the United States appear to be important in how the country absorbs the roughly 300,000 new immigrants with less than a high-school education who enter the country each year (US Immigration and Naturalization Service, 2000). With Eastern enlargement of the EU, migration flows, notably of unskilled workers, are likely to be smaller than NAFTA's (see Section 4 of this

report) but not insignificant.

Mexican migration to the United States has been fuelled by other reforms in Mexico apart from the liberalization of trade and investment that culminated with NAFTA. Over the course of the last decade, Mexico has dismantled communal landholding in agriculture and a system of subsidies and price controls that supported rural producers. This has further contributed to the flow of labour from rural areas to Mexican cities and to the United States. Unlike the CEECs, Mexico has no social safety net that could reduce migration pressures.

In common with other Anglo-Saxon countries, the United States and Canada allow their labour markets to adjust flexibly within an institutional framework of decentralized wage bargaining, low minimum wages and temporary unemployment insurance. In contrast, continental European countries tend to regulate their labour markets by interfering more heavily in the processes of wage and employment determination: wage-setting is centralized (and/or bound by stringent minimum wage legislation) and job creation and destruction are subject to considerable administrative constraints.

The CEECs' pattern of comparative advantage and the NAFTA experience in the aftermath of integration suggest that the Eastern enlargement will call for significantly faster rates of inter-industry labour reallocation in current EU members. Past evidence indicates that it would be hard for their labour markets' institutional configurations to accommodate this. In Germany, for example, apprenticeship-based training and industry-level wage bargaining have historically resulted not only in high productivity at the industry level, but also in remarkably low rates of worker mobility across employers and especially across industries and occupations (OECD, 1997). Indeed, Europeans generally tend not to change jobs frequently: Labour Force Survey data show that on average in 2000 only 16.4% of the working population had been with their employers less than one year. Comparable analysis suggests a figure of around 30% for the United States (OECD, 1996).

Many EU labour markets also appear ill suited to coping with the other dimension of post-NAFTA adjustment, namely the geographical relocation of existing industries. Of course, regional labour mobility is much lower in Europe than in the United States. According to the European Community Household Panel (which surveys a large sample of households representative of each EU member, asking the same questions about education, jobs, families, incomes, etc.), 1 out of 200 EU citizens (0.5%) change residence every year. In contrast, in the United States, around 6.7 million people (2.5%) move across state boundaries every year. Although it is of course true that US states are more numerous and, on average, smaller than EU members, the difference in mobility rates is striking.

This is not solely a reflection of cultural and language differences: after all, in the 1950s and 1960s, workers did move more around Europe, both within countries towards cities and industrial areas, and across borders. Rather, the relative immobility of Europeans reflects the same institutions that underlie slow inter-industry mobility. Continental European systems of industrial relations and social policy tend to subsidize non-

employment in declining areas, and fail to reward mobility with the wage differentials and easy job-finding opportunities that motivate Americans to migrate towards booming regions.

Other institutions discourage mobility across EU members. Linguistic differences are certainly a major obstacle to cross-country labour flows: there are currently 11 different languages within the EU and, and following a full Eastern enlargement, there would be 21. But there are also important barriers to mobility arising from a lack of institutional coordination across EU members, which puts a *de facto* tax on labour flows. For example, different national regulations on supplementary pensions and the absence of harmonized taxation rules for retirement savings can significantly reduce the pension wealth of workers moving between EU members. Health-care systems also vary widely among countries and extra costs may be incurred in joining a new system.

The growing proportion of non-EU citizens resident in the EU seems to be more mobile than the rest of the workforce. According to the European Community Household Panel, a pan-European survey tracking individuals even when they change dwelling, about 6 out of 100 non-EU citizens of working age change residence inside the EU every year compared with 1 out of 200 EU natives. The presence of more immigrants will help the EU to have a more mobile labour force. Immigrants 'grease the wheels' of European labour markets, an effect that is often ignored in debates about migration.

With the likelihood of continuing labour demand shocks over the course of individuals' working lives, labour market rigidities can have the beneficial effects that originally motivated their introduction<sup>3</sup>. But they also tend to prevent accommodation of one-time adjustment pressures like those that are likely to emerge as a result of Eastern enlargement, judging by the NAFTA experience. By removing the incentives for labour to be reallocated, regulation undoubtedly reduces productive efficiency and the returns to capital. This is particularly undesirable when economic integration calls for one-time adjustment at the same time as it removes obstacles to the mobility of both labour and capital.

## 2.3 Towards more mobility-friendly institutions in the EU

The simple lesson of the NAFTA experience is that integration of economies at vastly different levels of development calls for significant inter-industry and geographical labour mobility. EU governments should not restrict this mobility through excessive regulations on employment protection (which raise the cost to firms of dismissing workers) or by maintaining the current obstacles to intra-EU migration. In order to take advantage of the opportunities for efficiency-enhancing trade and migration arising from the Eastern enlargement, we believe that labour market institutions in the EU

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3. For example, insulating employment relationships from market pressure and shocks can provide insurance benefits to workers (Bertola, 2001) and foster accumulation of specific human capital (Acemoglu and Pischke, 1998). These second-best arguments for employment protection apply particularly in the presence of capital-market imperfections that make it difficult for individuals to finance education and training.

should be reformed in the direction of the mobility-friendly configuration of North American countries.

In order to shelter workers from labour market shocks when competitive pressures are strong and significant structural adjustment essential, it is preferable to rely mainly on unemployment insurance and in-work benefits than on employment protection legislation. In so far as enlargement has similar effects to closer European integration and monetary union in increasing the elasticity of labour demand, the adverse effects of rigid institutions on employment and growth are exacerbated (Boeri and Bertola, 2001). Although protecting workers against labour market risk inevitably reduces efficiency, unemployment insurance can cover a larger segment of the labour force (not only those who already have a permanent contract) than employment protection, while involving fewer efficiency losses.

Of course, prospective Eastern enlargement need not be the main rationale for such reforms. Rather, deeper integration with relatively poor economies adds to existing pressures for reform from increasingly intense competition within and across countries (Bertola *et al.*, 2001). Reforms of this kind have been advocated – and sometimes already implemented – so as to cope with competition coming from less developed countries, and indeed from deregulation within the EU.

Mobility-oriented labour market reforms are likely to result in higher employment rates, but they recommend themselves particularly for the purpose of taking advantage of new productive opportunities generated by integration. Removal of trade and mobility barriers unavoidably generates losses as well as gains. To ensure that gains more than offset losses, institutions must be designed so as to facilitate rather than prevent change. Preventing losses may seem to be the more politically attractive option, but it can also eliminate all gains.

Reforms need not take the form of simple deregulation. Systems of temporary unemployment insurance can to some extent reconcile worker protection and mobility by providing financial incentives to find work, especially when job search effort is appropriately monitored. Similarly, search assistance, as well as a framework of subsidized training (or lifelong learning), can make it possible to cope with reallocation demands without burdening workers with an unfair share of the cost of transition.

Labour market reforms should, in fact, proceed in step with appropriate deregulation of product and capital markets. Evidence reported in Boeri *et al.* (2000) indicates that product and labour markets are both highly regulated in continental European countries, and improving workers access to financial and insurance markets is essential in order to make labour market deregulation politically acceptable. But wage flexibility and benefit reduction are vital for the more dynamic labour market configuration that may properly support the transition to the full integration of an enlarged EU.

Some of these mobility-friendly reforms will require concerted action at the EU level. In particular, it is important that supranational authorities remove remaining legal, administrative and fiscal barriers to the portability of supplementary pension rights

across EU members and that the employment principle in the provision of social security to immigrants is properly enforced. This principle means that individuals can have access to the social security system of the country to which they relocate as long as they have had a job, with entitlement to social security defined on the basis of the length of their contribution records.

### 3. Social welfare: what reforms are needed in the East and how can the EU ensure that they are implemented?

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The differences in income levels between the current EU members and the candidates for accession are substantial. The gap raises important questions about the likely speed at which the East can catch up with the West and the policies that might accelerate such convergence, such as higher-quality institutions and improved infrastructure, both physical and social. But some policies, such as attracting higher flows of foreign capital and encouraging the emigration of unskilled labour, may be less than attractive to citizens of the EU-15.

This section explores the potential for income convergence and some of the policy trade-offs that the CEECs face. In particular, it examines how the EU can encourage its aspiring members to establish better standards of social welfare, both by making them a condition of accession and by offering financial assistance in their design and start-up. We argue that the CEECs should have minimum guaranteed-income schemes similar to those in place in most current EU members and, if necessary, they should be co-funded by the EU.

#### 3.1 Can income convergence be accelerated?

NAFTA did not involve free labour mobility, but the Eastern enlargement of the EU implies – albeit not necessarily immediately – the liberalization of labour movements originating from the new members. Episodes of economic integration that involve the liberalization of labour movements between countries at very different levels of income per head have historically been accompanied by explicit or implicit subsidy of unemployment in the low-income countries and regions<sup>4</sup>.

Even in North America, subsidies from rich to poor regions have been used to limit the migration of labour. For example, the United States sent generous income transfers to Puerto Rico, totalling an annual average of 17% of the territory's GDP, over the period 1971–91, in part to slow migration from the island to the US mainland.

German unification is a similar case: public transfers from western Germany have been as high as 80% of eastern Germany's GDP, allowing for fast wage convergence. Large subsidies to poor integrating regions were in this case the other side of the coin of the

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4. For a model and a review of simple evidence from the United States and Puerto Rico, eastern and western Germany, Spain and the EU, and Italian regions, see Spilimbergo (1999).

adoption of a single regulatory framework. As shown by the experience of the Italian *Mezzogiorno* over a long period, and so far confirmed by the experience of eastern Germany after unification, this type of integration results in slow growth, long-term unemployment and inactivity in the poor regions.

This is a problem common to large countries with institutions that compress wage-setting and inhibit regional labour mobility. Employment performance is worse in the larger, more heterogeneous countries of continental Europe than in smaller countries like Austria, Ireland, the Netherlands and Portugal, where labour market policies do not interfere with the adjustments entailed by the coexistence of differently developed regions within a single regulatory framework.

In the context of Eastern enlargement, it is difficult to envisage transfers being used to boost incomes and limit migration, at least on the scale involved in German unification. But the CEECs are substantially poorer than the EU average (at most 35% of the EU's PPP-adjusted GDP per head, and 12% in nominal terms), and in 41 of the 53 regions of the CEECs, income per head is significantly below the EU average. In addition to the average low level, the dispersion of income per head in different regions of the CEECs is striking. In 1998 income levels per head in Prague were 115% of the EU average, while the income per head of most regions in Bulgaria and Romania was less than 30% of the EU average. Moreover, even in some regions of Poland, GDP per head was 26% of the EU average in 1998.

Since the starting point of the CEECs' incomes per head is much lower than in the EU-15, a key issue is how long it will take for these countries to close this income gap. Econometric analysis of post-war income convergence in Western Europe suggests that if the CEECs adopt the policies of the EU-15, they will converge slowly: it will take more than three decades to halve the income gap with the current EU members.

For example, analysis using traditional growth regressions to extrapolate the CEECs' prospects (as in Barro and Sala-i-Martin, 1991; Levine and Renelt, 1992) leads to projected annual growth rates of around 5%, implying a rather slow process of convergence not only with the average income of the EU as a whole, but even with that of low-income members like Greece, Portugal and Spain (Fischer *et al.*, 1998). These estimates are broadly consistent with the rate of conditional convergence of 2% found by Barro and Sala-i-Martin (1991, 1995). Conditional convergence is the rate of convergence towards the steady-state level of income of the benchmark countries, taking account of the effects of a set of variables that influence economic growth<sup>5</sup>.

Among the key factors fostering growth in the CEECs is the level of human capital endowments, although there are questions about the quality of secondary and notably vocational education in these countries (Boeri, 2000). Less favourable for growth, according to Barro and Sala-i-Martin (1991), is the high government consumption, though fiscal discipline induced by EU accession would imply a reduction in

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5. Studies taking account of the role of terms-of-trade effects have found a slower rate of convergence of around 1.3% (Acemoglu and Ventura, 2001).



government consumption and a consequent improvement in growth prospects. For example, Fischer *et al.* (1998) assume a reduction to 10% in the ratio of government consumption to GDP.

EU accession could also have a strong impact on institutional development. To evaluate the effects of institutional change on growth, traditional growth regressions need to be amended (as discussed in Rodrik, 2000; Romer, 2000) to include variables that account for institutional development, adding the positive effects through improved institutions on the traditional channels of growth-generating effects of economic integration (via trade creation). But using Knack and Keefer's (1993) specification, which adds to the Levine and Renelt analysis a proxy for institutional development (obtained from data gathered by the International Country Risk Guide on the effectiveness of the legal system and the level of corruption), growth prospects would be significantly reduced (EBRD, 1997).

Such a conclusion is reached by comparing findings on future growth in transition countries (from Levine-Renelt specifications) with those from an alternative specification that includes an index of institutional development<sup>6</sup>. The latter implies a downward revision of the estimated long-run growth trend: even for those CEECs with high-quality institutions (and for which institutional data are available), the absence of further institutional change would, according to these calculations, lower long-term growth rates by about 1.5% a year. Needless to say, this would slow down convergence significantly.

Institutions affect growth not only through public investment in infrastructure, but also through social infrastructure, the systems of health care, education and welfare provision. Moreover, a broad notion of institutions includes redistributive policies intended to compensate losers (as discussed in Section 5 of this report) that may be co-funded by the EU, for example via the structural funds. These factors are crucial though difficult to quantify. But it is likely that faster institutional convergence would significantly improve the prospects for economic convergence.

Most significantly, it seems clear that postponing the accession or reducing the scope of integration would reduce the pace of income convergence. Empirical work indicates that monetary union may have a large potential impact on trade creation and growth: Frankel and Rose (2000), in particular, calculate that monetary union raises trade among members by a factor of 2-3, and this in turn raises growth. These estimates are probably over-optimistic, but they are surely evidence of a significant positive effect that would imply an increase in the rate of convergence. Delaying the Eastern enlargement may retard this process, and uncertainty on entry dates is likely to slow down investment, both foreign and domestic, in the candidates for accession, with adverse effects on output growth.

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6. This is a composite index encompassing 'expropriation risk', 'rule of law', 'risk of contract repudiation by the government', 'corruption', and 'quality of the bureaucracy' (EBRD, 1997). The enlarged Levine-Renelt specification includes enrolment rates in primary school, changes in international prices and growth of labour force (instead of population).

## 3.2 Policy trade-offs

One key factor in increasing the rate at which incomes per head in the CEECs converge on those in the EU-15 is foreign direct investment (FDI). But policies designed to attract foreign capital to the CEECs may not be entirely agreeable to current EU members, who may believe that it is being diverted or 'exported' from the West. Similarly, sizeable 'exports' of unskilled labour from the CEECs to the EU-15, which would also promote income convergence, are unlikely to be palatable to citizens of the latter countries. Such 'exports' could be encouraged by maintaining social welfare at a low level: while on paper the CEECs have a wide range of social policy instruments, they actually achieve a low coverage of the working-age population, as there is a sizeable informal sector.

### Attracting foreign direct investment

Attracting foreign capital to the CEECs, by allowing them to offer tax breaks and other favourable conditions for multinational firms, may generate FDI inflows immediately after accession that are more than twice as large as current inflows. The experience of the EU's Southern enlargement in 1986 suggests that there could be higher FDI inflows even in the absence of tax breaks: flows to Spain and Portugal went from less than 1% of their combined GDP in the period 1975-85 to around 3% in the second half of the 1980s, after they joined the EU.

Admittedly, this increase in FDI inflows occurred during a period of increasing global capital movements. What is more, the increase was transitory, with inflows falling back to around 1% of GDP in the 1990s<sup>7</sup>. Nevertheless, using projections for trade potential together with the fact that trade and current account deficits are matched by capital movements, Boeri *et al.* (2001) estimate that capital flows to the CEECs may double in the wake of accession, even in the absence of tax breaks for foreign capital.

### Exporting unskilled labour

The estimates of migration from the CEECs to the EU-15 discussed in Section 4 of this report suggest annual flows of around 300,000 people a year (of whom two-thirds would go to Germany), falling to 150,000 within a decade of accession (Boeri *et al.*, 2001). In the long-run, the foreign population from the CEECs residing in the EU is estimated to increase from 850,000 to 2.9-4.5 million. At 0.8% and 1.2% of the EU's population and labour force respectively, these proportions are not huge. Yet they are substantially more than was experienced as a consequence of the EU's Southern enlargement.

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7. The contrast between the Iberian experience and Greece is interesting: FDI inflows to Greece remained at 1.0-1.5% in the period 1975-95, and the Greek accession to the EU in 1981 did not produce any significant rise. The timing of the Greek accession (before the global expansion of FDI), the political instability at the time and the poor macroeconomic performance of the Greek economy during the 1980s are undoubtedly relevant factors in explaining why FDI inflows to Greece did not increase at the same rate as in Spain and Portugal (Alogoskoufis, 1995).

Net migration flows from Spain and Portugal to the EU were close to zero during the second half of 1980s, with no significant trend in Spain and even a decreasing one in Portugal. Admittedly, this was a period when both countries enjoyed a strong cyclical boom with employment rising very fast. Furthermore, despite EU accession, there were restrictions on migration for a transitional period of seven years. Yet even when the restrictions were lifted, coinciding with the recession of the early 1990s and a time of intense job destruction, there was barely any rise in migration flows from either country: net flows remained more or less constant in Spain throughout the 1990s at the same level of the 1980s, while increasing only marginally in Portugal.

This weak response can partly be ascribed to income differentials that were much smaller and travel distances that were considerably larger than is the case with some of the CEECs. In addition, the increasing generosity of benefits for those who are not employed (in Spain since the early 1980s and in Portugal since the early 1990s) as well as flows of public capital to develop basic infrastructure (education, health, transport, etc.) in the poorest regions of these countries have contributed significantly to reduced labour mobility.

How likely is it that immigrants from the CEECs will be unskilled? In contrast to the main source countries of South-North migration (Greece, Morocco, Portugal, Spain, Turkey and Yugoslavia), the formal education levels of the workforce in the CEECs are high. Labour Force Survey data suggest that the formal education levels of migrant workers from the CEECs are on average equal to or higher than those of EU natives. But these figures require some qualifications:

First, the Labour Force Survey data overestimate education levels since temporary migrants are under-reported.

Second, migrant workers from the East tend to work in the same sectors as other foreigners, concentrated in industries with high shares of manual and less skilled work, such as construction, cleaning services and manufacturing.

Microeconomic evidence suggests that the returns to human capital are low for immigrants from the CEECs (Kreyenfeld, 1999; Konitzka and Kreyenfeld, 2001). So although the formal education of migrants from the CEECs is substantially higher than that of other foreigners, at present they compete with other foreigners for less skilled jobs. This is not unusual, since it is well-known that assimilation into labour markets takes time. It is also worth noting that non-EU migrants depend less on welfare than natives in Germany (Riphahn, 1998; McCormick *et al.*, 2002).

But the human capital characteristics of migrants from the CEECs may change during the course of Eastern enlargement. Basic migration theory suggests that, *ceteris paribus*, the composition of migrant populations is determined by the distribution of income in the sending countries relative to the receiving countries (Borjas, 1987; Roy, 1951). At the beginning of the transition process, incomes were distributed more equally in the CEECs than in the market economies of Western Europe, but subsequently the distribution of income has approached West European levels. As a

consequence, the incentives of highly skilled workers to migrate should have lessened relative to those of low-skilled workers during the transition process.

### The likely EU response

While for current EU members importing unskilled labour and exporting capital will improve economic efficiency, such outcomes are unlikely to be palatable to their citizens. Capital mobility is already being resisted by workers in the West, as evidenced by the struggle against globalization. And immigration is already thought to be at a critical level in many countries. According to the Eurobarometer survey (see McCormick *et al.*, 2002), a majority of Europeans are in favour of zero immigration. Moreover, in a special Eurobarometer survey carried out in 1997, almost one-third of respondents openly described themselves as 'quite racist' or 'very racist'.

Furthermore, there is some evidence that those immigrants most likely to be dependent on the welfare state select recipient countries with more generous benefits. McCormick *et al.* (2002) report that in Austria, Belgium, Denmark, Finland, France and the Netherlands and, non-EU citizens are over-represented in the pool of unemployment benefit recipients, even after controlling for personal characteristics (for example, when comparisons are made with reference to low-skilled workers with the same number of dependent children).

It is, therefore, not ludicrous to conjecture that a perception by the public that the candidates for accession may adopt a strategy of exporting unskilled labour could generate political support against the Eastern enlargement, especially in the more generous countries. Indeed, in the 1997 Eurobarometer survey, the EU members with the largest proportion of respondents expressing concern about the possibility of migrants abusing the welfare state were those with the most generous social welfare systems.

The 2001 Eurobarometer survey indicates further that opposition to Eastern enlargement is concentrated among the unemployed, those with lower levels of education and the elderly, while ideological factors play a much less important role. In particular, having only a primary or low level of education, being unemployed and living in a rural area increases the probability of opposing enlargement by almost 20%, while being a supporter of right-wing parties increases the probability of opposing enlargement only by 4% (see Figure 3).

At present, no provision in supranational EU regulation guarantees that this strategy is impossible. The European Social Charter only states that 'everybody has the right to benefit from social welfare services', without imposing any quantitative floor. And capital taxation is already quite low in countries such as Ireland. What is more, to the extent that social provisions are a luxury public good, it makes perfect sense for poorer countries to have few of them. Historically, strong growth in the most advanced countries has been associated with business-friendly policies and poor living conditions for workers. Only after some time could society afford to have generous welfare standards.

The implication is that the EU-15 cannot allow the CEECs to implement beggar-my-neighbour policies. But at the same time, they cannot impose high welfare standards on them and demand that they bear all the costs. This would slow their convergence to the EU average and reduce their economic efficiency at a time when productivity growth is vital.

The imposition of high taxes to pay for a more generous social safety net may also backfire by simply expanding the already large informal sectors in the CEECs. Indeed, as Figure 4 suggests, these countries already levy social security contributions on the top of wage bills that are high by EU standards. At the same time, they spend less on social welfare as a proportion of GDP than their EU counterparts. This is due to relatively low wage shares but also to sizeable informal sectors, which increase the gap between statutory and effective contribution rates.

### 3.3 Is there a role for EU conditionality?

One way of discouraging the CEECs from using beggar-my-neighbour policies is to use the process of Eastern enlargement to ensure that on joining the EU, they have an appropriate level of social protection<sup>8</sup>. Under this approach, the role of current EU members would be to make accession conditional on the existence of a decent social safety net, while at the same time contributing to the costs of establishing such a safety net via structural funds.

At present, EU institutions have limited power over EU members: they lack a politically accountable executive; they are bound by the need for unanimity; and there is no EU-specific enforcement entity. If a decision by the European Court is not implemented by an EU member, there is no supranational coercive power to enforce it. Instead, enforcement relies on the goodwill of EU members. But before Eastern enlargement, incumbent EU members have some leverage over the future initial conditions that will prevail in the CEECs on the day they become full EU members.

It may be argued that because these initial conditions have been imposed by other EU members, the CEECs' governments would try to reverse them after accession. But to the extent that large and powerful social groups benefit from them, attempted reversals may prove politically costly. In other words, established institutions generate their own constituency and for this reason are not easy to overturn<sup>9</sup>.

Most of the conditionality that has been imposed on candidates in the course of the accession process is concerned with the *acquis communautaire* of product quality

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8. As Boeri (2000) suggests, some of the CEECs (though not all) have to some extent opted for a Western-style welfare state, with all the qualifications associated with much lower living standards. But naturally, such institutions are far less established than in the West, and they are typically thought to be inefficient. The evidence suggests that such systems are in fact rather inefficient in accomplishing their redistributive functions, often contributing to increased rather than reduced inequalities. And the transition process itself is putting the welfare state under strain, as it is typically associated with budgetary problems.

9. See Fernandez and Rodrik (1989), and Saint-Paul (2000) for an analysis of this phenomenon.

standards and health and safety regulations. This is legitimate since such legislation is essential for the single market to operate effectively. But ensuring appropriate welfare standards in the CEECs is equally important. Accession can be made conditional on progress in this dimension too by appropriate interpretation of the Social Charter<sup>10</sup>.

While the timing of accession can be used to reward those countries that fulfil the welfare conditions before accession, the availability of structural funds and loans from institutions such as the European Investment Bank can be used thereafter. But following accession newcomers cannot be treated differently from other members.

### 3.4 Can financial contributions from the EU-15 make the CEECs fulfil these conditions?

Many commentators argue that given the size of the EU budget, the structural funds are too small to fund a decent system of social transfers. We believe that this case is overstated. The EU budget is small but transfers to the candidates for accession would still be substantial relative to their GDP, and the welfare system in the East does not have to be as lavish as it is in the West. A large proportion of transfers in the West consists of pensions that are quite generous in terms of their duration and replacement ratio. New EU members do not have to adopt these standards immediately. Some of them have recently reformed their pension systems and can instead focus on unemployment benefits and social assistance. Improvements in design are also likely to reduce costs.

As an example, in Germany 28% of GDP is devoted to social programmes, of which about half goes on pensions; the rest therefore represents 14% of GDP. In Ireland, structural funds from the rest of the EU amounted to 7% of GDP in 1991, when the country's GDP per head was around 66% of the EU average. As income levels in the CEECs are further from the EU average than Ireland's at the time of its accession, they are likely to receive more money. The EU-15 can therefore have substantial leverage on newcomers by targeting the use of these funds. With the Southern enlargement, for example, structural funds boosted the level of physical public infrastructure in Greece, Portugal and Spain. In the new wave of accessions, part of the structural funds can be targeted at building an appropriate level of social infrastructure.

This does not mean that richer countries should casually pay for benefits in recipient

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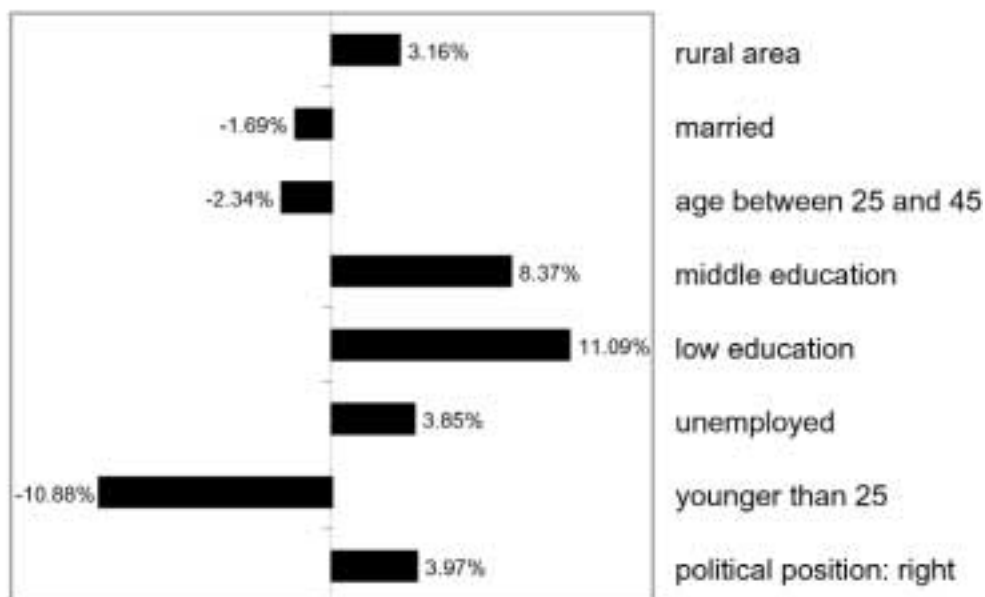
10. Unfortunately, in the country memoranda prepared by the European Commission in the context of accession, it is difficult to find recommendations aimed at improving the efficiency of the welfare system by applying stringent work tests and better targeting benefits. Rather, the set of recommendations developed in the social policy field is often fairly prescriptive in areas where it would be better not to exert EU conditionality. For example, some recommendations have to do with the establishment of so-called 'social dialogue' institutions at the national level, which essentially means tripartite commissions in the corporatist tradition. Such structures are rather marginal in the institutional landscape of the CEECs, whose institutions of collective bargaining remain highly decentralized. Given the large regional imbalances prevailing in these countries there is no reason – not even from the EU standpoint since the deterioration of some local labour market conditions may increase migration flows – why centralized collective bargaining institutions should be preferred to plant-level bargaining.

countries. This would generate a strong lobby in favour of maintaining such redistribution forever, rather like the farm lobby in Western Europe. And given that taxpayers in recipient countries bear only a fraction of the costs, it would generate incentives to abuse the system even greater than in the West. Rather, EU funds should help finance the transitory deficits associated with the start-up costs of the system, with the goal of ending with a fully self-financed system. For example, such costs as offices for the unemployment benefit administration, online vacancy registers and training of personnel could be funded by the current EU members. Good administration of these programmes is essential so as to minimize abuse and support the transition from welfare to work.

An important in-kind contribution that current EU members can provide to the CEECs relates to the design of the welfare system. West European systems are poorly designed: they impose distortions on the economy and may be headed for financial crisis. The CEECs cannot afford such a scenario, so it is important to avoid directly copying the West's set-up. Instead, their systems should be designed so as to preserve work incentives and to deter abuse.

Because of the large-scale reform process associated with the transition from communism to capitalism and subsequent EU accession, the CEECs have a unique opportunity to design their systems the right way. For example, unemployment benefits should be made conditional on recipients actively seeking work. As Boeri and Burda (1996) note, part of the Czech Republic's success in maintaining unemployment at a

**Figure 3: Personal characteristics and attitudes towards EU enlargement (% variation in the probability of being against)**



Dprobit estimates on data from Eurobarometer 55.1, March-April 2001. Number of observations: 12,987

low level in the early 1990s lay in a strict benefit administration, combined with active labour market policies.

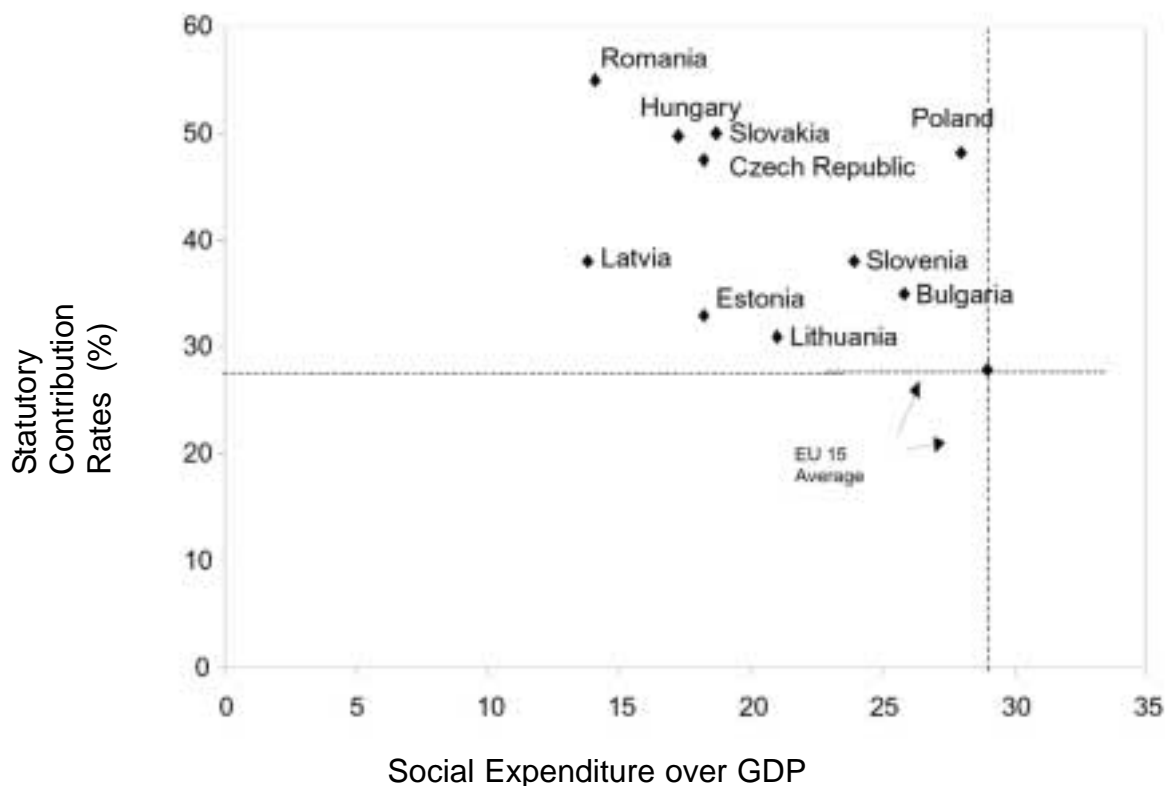
This approach could be a blueprint for other CEECs. Wage distributions in the CEECs are now much less compressed than in the early stages of transition. This makes it possible to introduce in-work benefits for low-paid jobs with fairly well contained fiscal costs. Such features as linking benefits to job search are absent from many West European countries, and introducing them requires painful political compromises. But the candidates for accession should be encouraged to adopt them. Financial support from the EU-15 should be made conditional on the welfare system being properly designed.

### 3.5 Towards a pan-European social safety net?

There is another, far more ambitious approach to the reform of social security, but at present, it is not even on the distant horizon of European policy discussion. It consists of establishing a pan-European safety net such that adherence to this system is an ingredient of EU membership, that is, a European minimum guaranteed-income scheme. This social safety net would be one of the pillar institutions of the EU, in the same fashion as the single market and the Common Agricultural Policy.

The proposals for systems of social transfers described above are intended to achieve

Figure 4: Statutory contribution rates by social expenditure over GDP





appropriate initial conditions after a single episode, namely the Eastern enlargement. But the problems are deeper, arising from the structural interaction between transnational labour and capital markets and nationally set welfare standards.

In the single market, a country that lowers its welfare standards exerts an externality on other countries by exporting its potential welfare recipients. Similarly, a country that reduces taxes on mobile factors of production exerts an externality on other countries by poaching their tax base. The greater the mobility of factors across borders, the more severe these effects.

One radical way to reduce the effects would be to deprive individual countries of their autonomy in setting tax rates and benefits, determining them instead at the supranational level. But this is clearly politically unrealistic. It is also costly since it ignores differences in national preferences about the size of transfers and government's involvement in society. In other words, taking account of externalities should not mean a one-size-fits-all pan-European social welfare system.

A preferable option would be to have explicit minimal standards set at the European level with individual EU members free to improve on them. It is not obvious how to set such minimal standards, but in theory they could correspond to what the least generous countries would be willing to offer if they were forced to take account of the externalities. Alternatively, the minimal standards could be determined on ethical grounds, by setting them equal to the market value (at local prices) of a basket of goods considered necessary for basic human dignity. This would not prevent benefits from being too low relative to the optimum, but at least it would prevent any race to the bottom from going too far.

From a financial perspective, the EU budget is sufficient to fund minimum social welfare programmes harmonized across the EU (Atkinson, 1998; Bean *et al.*, 1998). And the unavoidable inter-jurisdictional redistribution involved in providing a pan-European safety net in the presence of sizeable income differences could be co-financed at the EU level. The size of the relevant budget line would be significantly smaller than existing programmes like the structural funds and the Common Agricultural Policy. Moreover, no institutional reform would be required to run such a programme: even EU institutions with few supranational powers could be in charge of running schemes of 'income support of the last resort' (Bertola *et al.*, 2001).

Above the minimum level, there would be competition among national systems. The rights accumulated in the various countries would be fully portable and workers would have access *pro rata* to the welfare system of the country to which they move. This would allow EU citizens to choose the system they prefer. For example, if one country is less generous than another, those individuals who want more protection could move from the former to the latter, contributing more but getting more in exchange.

But if countries differ in the degree of redistribution of their welfare system, then this could be problematic. Rich households would opt out of countries that redistribute more than the European system, thus putting pressure on the financing of their national

welfare states, while poor households would be the ones to join the more redistributive countries. This problem should not be overlooked, although the current low mobility of the European workforce suggests that it may become relevant only over a long period. Having a two-tier system, with the most redistributive part coordinated at the pan-European level and countries deciding above this minimum, could be a good way to cope with the problem.

## 4. East-West migration: should free movement of labour be introduced immediately or only after a transitional period?

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The latest negotiations between the European Commission and the CEECs on the issue of migration suggest that the Eastern enlargement will involve the free movement of labour only after a transitional period lasting between five and seven years. Hence, if the first candidates join in 2005, citizens of the new members will be free to move and work in the current EU only in 2010 or 2012.

This section asks why there should be such a delay before lifting all restrictions on migration from the East to the West. For evidence, we draw on the latest estimates of the potential flows of people as well as North America's experience in tackling illegal immigration. We conclude that there is an option value to waiting provided that the transitional period is clearly defined from the outset, restrictions are flexible and coordinated at the EU level, and current measures that limit mobility within the EU are phased out. The transition period could also be used to make the borders of an EU comprising as many as 27 members less porous to immigrants, by coordinating the enforcement of EU-wide migration policies, including worksite enforcement.

### 4.1 Does waiting have an option value?

The idea of a transitional period is dictated by politics. The European Commission has to take account of the concerns of many EU citizens who believe that enlargement will lead to mass migration from the East, creating labour market tensions, problems of social cohesion and associated high rates of crime. 2002 is an election year for several EU members, including some of those most affected by the CEECs' potential accession, notably Germany. And the most recent waves of the Eurobarometer survey suggest that support for Eastern enlargement is declining, notably in the EU members bordering the CEECs.

If properly used, the transitional period could turn out to be useful. There is an option value to waiting before making an irreversible decision such as allowing free movement of labour. This arises from the possibility of gathering more information on migration pressures and the effects of migration policies. It is extremely difficult to make accurate predictions of the migration potential of the Eastern enlargement. The number of foreign residents from the CEEC-10 may increase immediately after free movement is introduced, by 220,000 in Germany and by another 40,000 in Austria. Yet these estimates rest on experience from past migration episodes that may not hold true

of the CEECs.

The main economic rationale for waiting before liberalizing labour movements is therefore to improve our knowledge of migration pressures and, in light of this, make better decisions.

Migration associated with past episodes of economic integration has frequently been overestimated. After the fall of the Berlin Wall, many observers predicted a mass migration wave from the East to the West. But East-West migration has been moderate during the last decade: roughly 850,000 nationals from the CEEC-10 reside in the EU-15, and the cumulative net migration from the CEEC-10 to the EU-15 is estimated at around 650,000 people between 1989 and 2000.

Around 300,000 nationals from the CEEC-10 work in the EU-15. This figure includes around 12,000 border commuters in Austria and Germany, and the annual full-time equivalent of seasonal workers and other temporary migrants (Boeri *et al.*, 2001). The number of residents and workers from the CEEC-10 in the EU-15 corresponds to a share of 0.2% of the workforce and population in the EU-15 (0.8% of the workforce and population of the CEEC-10).

But migration from the CEECs is concentrated in the neighbouring countries and regions: around two-thirds of migrants from the CEECs reside in Germany and 14% in Austria, and the proportions of the workforce that they constitute are, respectively, 0.5% and 1.1%. In some regions, for example, at Austria's borders with Hungary and Slovakia and the Bavarian border with the Czech Republic, the proportions of foreign nationals from the CEECs are substantially higher. Yet the concentration of migrants in these regions has not, or not yet, significantly affected wages and employment in these regions (see, for example, Boeri *et al.*, 2001; Hofer and Huber, 1999; Trabold and Trübswetter, 2001; Winter-Ebmer and Zimmermann, 1999).

Needless to say, these rather small figures reflect tight restrictions on migration into the EU-15. With the exception of the right to self-establishment, the regulation of the immigration of nationals from the CEEC-10 remains in the domain of the individual members. Since the 1993 recession in continental Europe, labour migration from the CEECs has been restricted to a small number of temporary migrants by the neighbouring EU members. Thus, it is difficult to predict what could happen after the removal of barriers to migration. The uncertainty is even greater given the difficulties of predicting the speed of economic convergence, discussed in Section 3 of this report.

Since 1990, several studies have tried to assess the migration potential associated with the Eastern enlargement. Different methodologies have been used: opinion polls; extrapolations from South-North migration; and multivariate analysis of past migration episodes in econometric models. Surprisingly enough, most studies converge in predicting the long-term migration potential at about 3% of the current population of the CEEC-10, that is, about 3 million individuals. But it is important to note that the studies rely on *ad hoc* assumptions and to be aware of the limitations of the methodology on which they are based. Box 1 offers a survey of this literature.

The literature on the migration potential of Eastern enlargement suggests some important qualitative and quantitative conclusions.

First, income differentials and employment variables turn out to be significant in almost all regressions. The convergence of levels of GDP per head and employment rates in both the receiving and the sending regions are key variables that affect the size of the migration potential.

Second, migration tends to zero if income convergence is attained.

Third, it takes a rather long time (15-20 years) before migration stocks adjust to their long-run equilibrium levels.

Fourth, the size of long-run migration stocks or cumulative net migration over longer periods of time depends heavily on the assumptions underlying the different models.

Under reasonable assumptions, our best estimate is that cumulative net migration or long-run migration stocks (attained 15-20 years after free movement of labour has been introduced) in the EU-15 will amount to 2-3% of the population from the CEEC-10 in Germany and 3-5% of the population from the CEEC-10. Note that this figure is obtained from the extrapolation of South-North migration by Layard *et al.* (1992), the estimates from static gravity models as long as they rely on international migration data (Hille and Straubhaar, 2001; Orlowski and Zienkowski, 1999), the dynamic

### Box 1: Estimating the migration potential of Eastern enlargement

Representative surveys of public opinion suggest that 10-30% of the population in the CEECs have a general preference to migrate to the EU (see, for example, Fassmann and Hintermann, 1997; Wallace, 1998; Hospodárské Noviny, 2001). But only a small fraction of these people will actually move. By assessing the 'seriousness' of the answers, Fassmann and Hintermann estimate that the 'actual migration potential' will be around 2% of the population of the CEECs. This figure does not sound unreasonable in the light of evidence from the German Socio-Economic Panel, which shows that only 5% of East Germans who said they planned to migrate to western Germany in 1991 had actually moved there two years later (Büchel and Schwarze, 1994).

In general, opinion polls face three basic problems, which make it difficult to draw any quantitative conclusions as to the actual migration potential:

- They only provide information on the supply side, the propensity of workers to migrate, not the demand side, the capacity of labour markets to absorb additional workers.
- Little is known about whether somebody who indicates a general propensity to migrate in an opinion poll has serious intentions to move.
- Migration from the East is largely a temporary phenomenon. This means that the proportion of the population that will move to another country and perhaps return within a certain period of time is much higher than the proportion that will live in a foreign country at a given point in time<sup>1</sup>.

Because of these problems, the author of one of the most comprehensive surveys concludes that opinion polls are reliable in relative terms, but cannot be used to estimate migration levels (Wallace, 1998). Nevertheless, it is possible to draw interesting conclusions on the human capital characteristics of migrants from these surveys, since the socio-economic characteristics of actual migrants and those who reveal a preference to ...

1. As an example, for the last five years around 200,000 temporary workers from the CEECs have been employed each year in Germany with an average duration of stay of three months. Under the (unrealistic) assumption that

...migrate seem to be similar (Büchel and Schwarze, 1994).

Another way of estimating the migration potential is through extrapolation exercises, which take as reference the migration flows from southern Europe to the West and North European countries in the 1950s and 1960s, and the migration of Mexicans to the United States in the 1970s and 1980s (Layard *et al.*, 1992; Lundborg, 1998; Bauer and Zimmermann, 1999). These studies conclude that less than 3% of the population in the CEECs will migrate to the West within 15 years. That corresponds to an annual immigration of around 200,000 people from all CEECs (including the former Soviet Union), or 130,000 people from the Czech Republic, Hungary, Poland and Slovakia (Quaisser *et al.*, 2000). Note that these figures refer to gross inflows, implying that net migration and migration stocks will be substantially lower.

Interestingly enough, the income differentials between the main sending and receiving countries of South-North migration in the 1960s are similar to the income differentials between Eastern and Western Europe today<sup>2</sup>. Moreover, although the free movement of workers was granted to only a few European countries in the 1960s and 1970s, the barriers to labour immigration were *de facto* removed in the main receiving countries during the period of guest-worker recruitment in the 1960s and early 1970s.

But there are also important differences in the conditions of South-North and East-West migration.

First, labour markets were characterized by full employment and shortages of manual workers in the main receiving countries (Belgium, France, Germany and Switzerland) until the first oil price shock in 1973. Today, unemployment rates are still high in the main receiving countries of East-West migration in the EU.

Second, the demographic structure of the population has changed: the share of young, mobile cohorts in the population of the CEECs will decline at the beginning of the next decade.

Third, the labour force in the CEECs is well educated relative to traditional sending countries.

Fourth, the transition process is not yet complete, so rates of structural change and job turnover are higher in the CEECs than in traditional sending countries.

These differences may bias the results of extrapolation exercises in both directions. But the exercises may do give a hint as to the magnitude of the migration potential.

In order to overcome the shortcomings of simple back-of-the-envelope calculations, a number of econometric studies have tried to exploit the information from post-war migration episodes in Western Europe to assess potential migration after the free movement of labour has been introduced. Most of these analyses derive from the traditional Harris-Todaro (1970) model, and explain migration flows or stocks by differences in incomes per head and employment rates in the respective locations. Moreover, some models include dummy variables in an effort to capture different institutional conditions for migration, such as free movement in the EU or guest-worker recruitment in the 1960s and early 1970s. These studies have produced a wide variety of results and many suffer from several methodological problems.

There are basically four types of models in the literature:

1. Static models, which rely on the assumption that there is a constant relationship between migration rates or migration stocks and a set of explanatory variables such as income differentials and unemployment rates.
2. Dynamic models that take account of the adjustment of migration rates or stocks, but assume that constant differences across countries do not affect migration...

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each worker from the CEECs has been employed in Germany only once, this figure corresponds to total migration of 1 million workers in five years. Yet on average, only 40,000 temporary workers from the CEECs have been employed in Germany at each point in time during this period.

2. PPP-adjusted GDP per head levels of the main sending countries varied between 20% (Turkey) and 55% (Spain) of the main receiving countries of South-North migration in Europe (for example, Belgium, France, Germany and Switzerland) in 1965 (Maddison, 1995), while PPP-adjusted GDP per head levels of the CEECs are today between 20% (Bulgaria) and 55% (Slovenia) of the main receiving countries in the EU (Austria and Germany).

...3. Dynamic models that consider that constant differences between countries, such as geography, language and culture, affect migration behaviour.

4. Error-components models, which 'explain' migration by a set of country-specific and time-specific error components.

### ***Static models***

The starting point for the first strand of the literature is a study by Barro and Sala-i-Martin (1995), which regresses the migration balance against levels of GDP per head across regions in Europe, Japan and the United States. Using the coefficients for Germany from the Barro and Sala-i-Martin study, Franzmeyer and Brücker (1997) estimate the annual net inflow from the CEEC-5 (the Czech Republic, Hungary, Poland, Slovakia and Slovenia) into the EU-15 at 340,000-580,000 people for the *per capita* GDP levels of 1996. Similar exercises have been undertaken for Austria by Hofer (1998) and Walterskirchen and Dietz (1998)<sup>3</sup>. This simple approach suffers from three shortcomings, as follows:

- Variables other than the income differential are omitted.
- The coefficients from the cross-sectional regressions neglect the adjustment of migration to income differentials.
- The migration balance of regions comprises both national and international migration. Since the elasticity of national migration is higher than the elasticity of international migration, using the coefficients from the Barro and Sala-i-Martin (1995) study tends to exaggerate the estimates of the migration potential significantly (see Straubhaar, 1998, and Alecke *et al.*, 2000, for a discussion).

Building on the static approach, other studies have estimated so-called gravity models, that is, migration stocks or net migration rates have been regressed against a set of explanatory variables, such as levels of GDP per head, (un-)employment rates, population size and distance, for a cross-section of sending and receiving countries. On the basis of such a model, Hille and Straubhaar (2001) estimate that for the present income differential, around 340,000 people a year will migrate from the CEEC-10 to the EU-15, which corresponds to a cumulative figure of around 4 million people within 15 years under reasonable assumptions about the convergence of the levels of income per head.

Note that these figures refer to gross rates, so that net migration rates will be substantially lower. Orlowski and Zienkowski (1999) estimate that 1.2-3.8% of the Polish population will migrate to the EU within 15 years, depending on different assumptions about the convergence of the levels of GDP per head. The difference of the Hille and Straubhaar (2001) and Orlowski and Zienkowski (1999) projections from the estimates based on the Barro and Sala-i-Martin (1995) study can be traced back to the use of another database: international migration figures instead of regional migration balances have been used.

### ***Dynamic models***

Dynamic models have the advantage that they make it possible to model the adjustment of migration to changes in the relevant variables. Note that the change of location involves fixed set-up costs, such that economic theory treats migration as an investment in the productive use of human resources (Sjaastad, 1962). So just like other irreversible investments under uncertainty, the decision to exercise the option to migrate must be based on the option value of waiting for further information (Burda, 1995). Uncertainty not only increases the opportunity costs of migration, but also implies a sluggish adjustment of migration to a change in economic and institutional variables. Neglecting these adjustment processes may therefore bias the results. Several dynamic models have been estimated in order to consider the adjustment of migration to a change in the relevant variables<sup>4</sup>. But dynamic models may involve other kinds of restrictions. Migration is affected not only by variables that vary over time, such as income differentials and employment rates, but also by

3. Using the same coefficients as Franzmeyer and Brücker (1997), Hofer (1998) expects net migration of 25,000-40,000 people a year into Austria. Relying on other coefficients, Walterskirchen and Dietz (1998) estimate the annual net migration of workers (including commuters) from the CEEC-5 into Austria at 42,000 people in 2005.

4. Note that time-series data on migration stocks and flows by nationality are reported by only a few EU members. Most dynamic models therefore rely on Germany, where migration stocks and flows have been reported by nationality since 1967.

constant factors such as geographical distance, language and culture, which affect the pecuniary and... non-pecuniary costs of migration. Omitting these variables may seriously bias the results (see Hsiao, 1986 Alecke *et al.*, 2001, Fertig and Schmidt, 2000, and Brücker, 2001, for a discussion on the migration context).

Indeed, the estimation of a stock-adjustment model with constant absolute terms across the sending countries (Sinn *et al.*, 2000; Flaig, 2001) has brought implausibly high coefficients for long-run migration potentials: for the present income differential of the CEECs, steady-state migrant stocks are estimated at 8-11% of the population from the CEECs for Germany alone; and the upper limit of the 95% confidence interval exceeds 50% of the population. But since the constraint of common absolute terms is clearly rejected by all tests, long-term forecasts can hardly be based on these estimates (Brücker, 2001).

### ***Dynamic models with constant national differences***

Starting with Fertig (1999), dynamic models have been estimated that allow for country-specific differences in the constant factors that affect migration: so-called fixed effects. These fixed effects cover all constant terms that affect migration, whether observable or not. Note that the variables are identified in fixed-effects models basically by the time dimension, which may involve a loss of efficiency of the estimates<sup>5</sup>. The fixed effects have turned out to be highly significant and have a considerable impact on the size of the migration volume. They cannot therefore be neglected in the estimation of the migration potential.

For the projection of the migration potential, a two-stage procedure has been proposed by Fertig (1999). In the first stage, the dynamic model is estimated with fixed effects, and in the second stage, the fixed effects are explained by language, geography and other time-invariant variables<sup>6</sup>. Building on Fertig' approach, Boeri *et al.* (2001) estimate an error-correction model, which is based on the assumption that there is a long-run dynamic equilibrium between the migration stocks (that is, the share of foreign residents in the population of the home country) and the income differential and other explanatory variables<sup>7</sup>. This hypothesis has been supported by panel co-integration tests. Based on this model, the long-run stocks of the foreign population as well as the speed of adjustment can be estimated.

Boeri *et al.* (2001) estimate that 1.9-3.0% of the population in the CEEC-10 will migrate to Germany in the long-run, while the initial growth of the foreign population from the CEECs after the introduction of the free movement is estimated at 200,000-300,000 people. An extrapolation of these results to the EU-15 gives a long-run migration potential of 3.5-4.5% of the population in the CEECs, and an initial growth of the foreign population of 300,000-450,000 people in the EU-15 immediately after free movement of labour has been introduced for the CEEC-10. These results have turned out to be robust with regard to changes in the specification of the model and the selection of the sample. Moreover, the dynamic forecast quality of the estimates within the sample is satisfying. Nevertheless, certain caveats still apply:

- The explanation of the fixed effects in a second regression is a rather crude method and a good deal of uncertainty remains over to the impact of country-specific effects on the migration potential from the CEECs.
- The estimation of dynamic models with fixed effects may involve an estimation bias, but one that declines with the number of observations over time (Nickell, 1981). Although more than 30 time-series observations are included in the sample, this bias may still have an impact<sup>8</sup>.
- Differences in migration behaviour across countries may affect not only the fixed effects, but also the slope parameters. As a consequence, the coefficients can be biased and the migration behaviour from the...

5. This involves a loss of efficiency relative to the Ordinary Least Square-estimate with common constant terms. But with more than 30 observations, there is considerable variance over time in the German sample.

6. Note that time-invariant variables cannot be included in the dynamic model with fixed effects, since all time-invariant terms are perfectly co-linear.

7. In contrast to Boeri *et al.* (2001), Fertig (1999) assumes that there is a dynamic equilibrium between the migration rate and the explanatory variables. This hypothesis is derived from a model by Hatton (1995), but is rejected by the panel co-integration tests for the German database. Fertig estimates net migration from the CEEC-10 into Germany at around 70,000 people a year, which is considerably lower than the estimates in Boeri *et al.* (2001).

8. The standard approach to eliminating the bias by instrumented estimation (Anderson and Hsiao, 1981, Arellano and Bond, 1991) has turned out to reduce the forecasting quality within sample, such that the non-corrected model has been used for the forecasts (Brücker, 2001).



...CEECs may deviate from that in the sample on which the estimates are based

### ***Error-components models***

As an alternative to these models, Fertig and Schmidt (2000) estimate an error-components model, which explains migration solely by an overall intercept, a random country-specific component and a time-specific component. Moreover, adjustments have been made for changes in the demographic structure of the population. The estimation is based on net migration rates from 17 European countries into Germany.

Under the assumption that migration from the CEECs will follow the same pattern as the country average, Fertig and Schmidt expect an average net migration of 15,000-18,000 people a year from four CEECs (Estonia, the Czech Republic, Hungary and Poland), a figure which becomes 49,000-63,000 people if they behave as high-immigration countries. The estimates for the high-immigration countries are gained by adding one standard deviation to the coefficients of the country-specific components. In the first case, the cumulative influx numbers 300,000-400,000 people after 20 years; in the second case it numbers 900,000-1.2 million people.

Note that the figures estimated for the high-immigration regions are similar to those in Boeri *et al.* (2001), extrapolating the figures from the four CEECs to the CEEC-10. But the approach of Fertig and Schmidt explicitly rejects considering any institutional and economic variables (beyond the demographic structure of the population), so it barely answers the question of how an institutional change such as introducing free movement to a number of countries with rather low incomes may affect migration.

estimates in Boeri *et al.*, (2001) and an extrapolation of the figures from the error-components model for high migration countries in Fertig and Schmidt (2000). Higher estimates rely either on data that mix international migration and regional migration within countries (the studies based on Barro and Sala-i-Martin, 1995) or on the unrealistic assumption that the migration behaviour of all countries is homogeneous (Sinn *et al.*, 2000; Flaig, 2001). Lower estimates come from applying the figures for the average migration countries in Fertig and Schmidt (2000) and the dynamic panel model of Fertig (1999).

The dynamic models also offer estimates for the initial net migration from the CEEC-10 into Germany at 200,000-300,000 people (Sinn *et al.* 2000; Flaig, 2001; Boeri *et al.*, 2001), which implies a net migration of 300,000-450,000 people into the EU-15. These figures are in line with the estimates derived from static gravity models, as far as they are based on international migration figures. As Figures 5a and 5b indicate, net migration rates are expected to decline substantially in a few years, depending on the individual estimates. Fertig (1999) suggests a substantially lower net migration rate of 70,000 people a year into Germany.

This body of research provides an idea about the magnitude of the migration potential from the CEECs. But a good deal of uncertainty surrounds all the results. Given that the propensity to migrate differs significantly among countries, out-of-sample projections can be necessarily affected by large errors. Moreover, little is known about the confidence intervals of the various estimates.

Figure 5a: Estimated migration flows to Germany

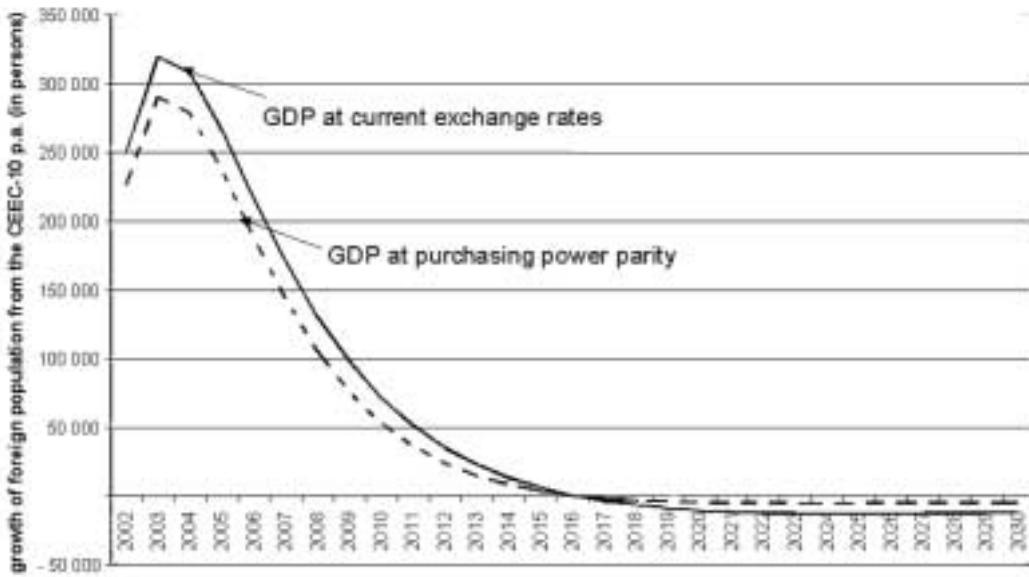
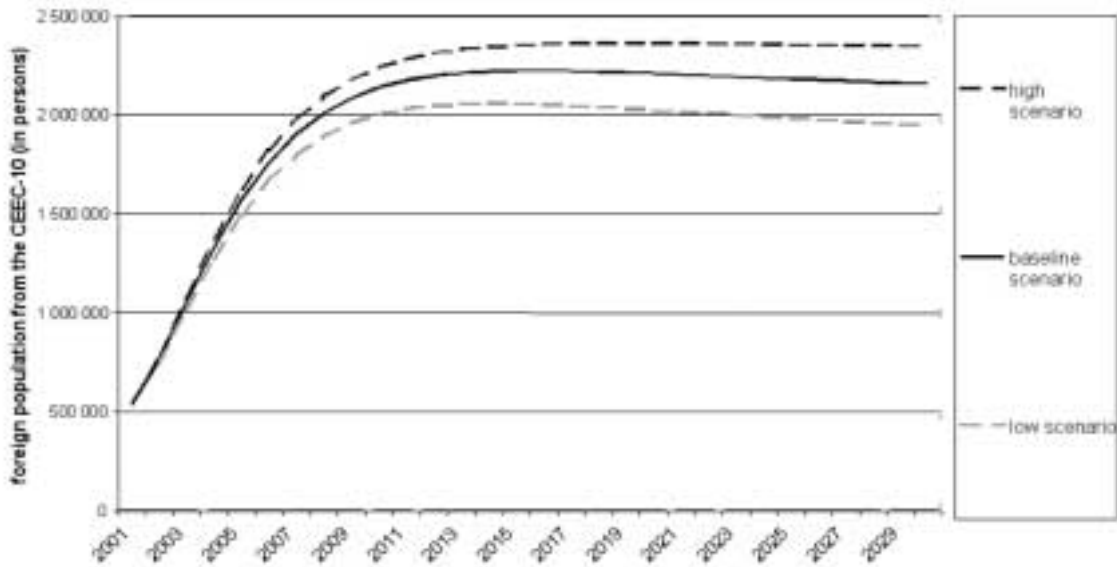


Figure 5b: Estimated migration stocks in Germany



## 4.2 What restrictions on migration during the transitional period?

The option value of waiting will be significant if four conditions are satisfied:

1. The maximum length of the transitional period is defined from the outset to avoid giving the impression that restrictions may remain in place forever.
2. Rather than simply maintaining existing country-specific migration restrictions for another decade, quotas are coordinated and enforced at the EU level.
3. These quotas can be easily adjusted to changing cyclical and labour market conditions. Temporary migration schemes could also be envisaged to cope with skill shortages.
4. In the interim period, remaining restrictions on the mobility of labour within the EU are phased out and no further restrictions introduced.

### The transitional period

Defining the maximum length of the transitional period from the outset would avoid giving the impression that restrictions may stay there forever. Uncertainty about the length of restrictions would increase applications for quotas and temporary work permits, discourage return migration and prevent the adjustment of migration flows to the conditions of local labour markets.

### Quotas

Quotas coordinated and enforced at the EU level are preferable to leaving in place existing country-specific migration restrictions. Such quotas could be easily monitored. If actual migration fails to fill the quotas, they could be lifted early.

Since the Nice summit of December 2000, the EU is far from having an EU-wide migration policy. Yet many regret this outcome, even in countries traditionally inclined to opt out of EU-wide policies. For example, the UK's House of Lords EU Committee issued a report in April 2001 broadly welcoming the adoption of an EU-wide migration policy (House of Lords, 2001). The European Commission's proposal on migration and the Eastern enlargement envisages that the extension for another two years of the transitional period could only be agreed by the Commission. This is a first step towards adopting an EU-wide migration policy.

### Temporary migration

Quotas established at the EU level could be adjusted to changing cyclical and labour market conditions. Temporary migration schemes could also be introduced for workers that the EU most urgently needs, notably those at the opposite ends of the skill spectrum: for high-skilled jobs where there are shortages of the necessary talent; and low-skilled jobs no longer considered palatable by EU citizens.

The main problem with temporary schemes is that it is difficult to ensure that they do not end up allowing permanent migration. But contracts can be devised in such a way as to provide incentives for the worker to leave the country at the end of the period

and for the employer to make sure that this actually happens. In other words, enforcement of the temporary nature of migration should rely as much as possible on the employers. Bonding schemes, whereby the employer provides the employee with a lump sum when he or she leaves the country, have proved successful in Israel, a country where public administration finds it particularly hard to control migration.

### Phasing out

Current restrictions on the mobility of labour within the EU make it particularly hard to predict the impact of immigration, since it becomes concentrated in specific countries and regions. This is because native workers are discouraged from changing residence when labour market conditions for them deteriorate.

As discussed in Section 2 of this report, it is important for EU members to eliminate tax obstacles to the cross-border provision of occupational pensions, and to coordinate regulations on pension funds, ensuring that workers moving from one country to another do not lose their accumulated pension rights. Furthermore, fears that the free movement of labour encourages 'welfare-shopping' in countries with generous welfare states should not translate into the introduction of country-specific restrictions on access to welfare.

The primary condition for intra-EU migration is that migrants be able to finance themselves out of their work or wealth without social assistance. This also holds true for family reunification. But the principle of non-discrimination demands that EU citizens who live for a certain period in another country get the same access as natives to all welfare benefits, including social assistance. Thus, although welfare-shopping is not as easy as is often believed, immigration may involve costs for the welfare state in the medium term.

But demands for changes in EU legislation, particularly the principle of non-discrimination, are short-sighted. Such changes would have adverse effects on labour mobility within the EU and be politically destructive.

## 4.3 Tackling illegal immigration: the US experience

It is difficult to find reliable data on illegal immigration, as most statistics come from administrative sources, which, by definition, cannot capture such movements of labour. Illegal migration is generally underestimated, but this seems to be more the case in Europe than in the United States, where researchers can draw on better statistics on border controls. Available estimates (McCormick *et al.*, 2002) suggest that illegal flows as a proportion of the population are about 25% larger in Europe than in the United States. At the same time, legal flows are about 25% larger in the United States than in Europe.

These differences in legal and illegal flows raise an obvious question: is illegal migration larger in Europe than in the United States simply because restrictions on legal

migration are too tight in Europe? There are many indications of substitution between legal and illegal migration. Restrictions on temporary migration in the United States have been generally associated with a pick-up in illegal migration flows (Hanson *et al.*, 2002).

Substitutability between legal and illegal migration stems from the fact that the latter is fostered by the illegal employment of foreign workers: such people face the high costs of migration but take the risk of being caught because they have a realistic expectation of getting a job and an income. At the same time, illegal employment of foreign workers increases in the presence of restrictions on numbers of work permits. Indeed, border controls tend to be less effective than internal controls in controlling illegal migration. But internal controls face strong opposition from employers and, as a consequence, are poorly enforced.

Illegal immigration in the United States is quite a new phenomenon, originating in the market for temporary agricultural labour. Labour shortages induced by the Second World War led the US government to establish the Bracero Program, granting Mexican workers temporary permits to work in US agriculture. At its peak in 1956, 445,197 workers were granted temporary permits, but by 1965 support had faded and the program was abolished. But temporary agriculture workers kept on coming illegally and in even greater numbers, beginning the period of modern mass illegal immigration.

The US Immigration and Naturalization Service (INS) estimates that there were about 5 million illegal immigrants in 1996, one-third of the country's new immigrants. Illegal immigration is no longer a seasonal agriculture-related phenomenon but has become more urban, stable and diversified. Illegal immigrants have become more diverse in terms of country of origin, sector of employment and demographic profile: around a half of them come from Mexico and a third from other Latin American countries; they work in several unskilled labour-intensive industries, such as apparel, textiles, construction, domestic services and agriculture; they comprise both men and women, and have different levels of education. Illegal immigrants are concentrated in a few states: over 40% live in California, and about 30% in Florida, New York and Texas together.

The US government has experimented with several policy measures to control the flow of illegal immigrants:

1. border enforcement.
2. worksite enforcement.
3. amnesties.
4. collaboration with the sending countries.
5. access to welfare services.

But the overall policy has been ambiguous. Some highly publicized policy measures, such as strict border controls in particular areas, are successful in modifying the distribution of illegal flows along the US-Mexican border, but are of little use in limiting

overall illegal immigration, while more effective measures like worksite enforcement are used sparingly.

### **Border enforcement**

Since 1924, the US border patrol has monitored the country's borders. While for many years, patrolling was little more than formal – a yearly average of 80,000 officer-hours in the 1960s – since 1965, patrolling has become increasingly stringent, using more than 360,000 officer-hours in 1996. The increase in enforcement has translated into more success in apprehending illegal immigrants: the elasticity of apprehensions with respect to enforcement hours is between 0.6-0.8.

But while the increase in border enforcement and apprehensions has been dramatic, there is little evidence of its effectiveness: most illegal immigrants who are caught are simply brought back to the border and can easily try to cross the following day. Yet in spite of this ineffectiveness border enforcement seems to be very attractive politically.

### **Worksite enforcement**

Internal controls, particularly worksite enforcement, are not much used in the United States. In 1990, less than 8% of INS officers were devoted to interior enforcement. This relative insignificance is even more evident looking at the numbers of illegal immigrants apprehended: only 10,000 in the interior out of a total of 1.5 million.

The strong preference for border enforcement over interior enforcement is puzzling from an economic point of view, since efficiency considerations would suggest a more equal distribution. The INS recognizes this, but faces strong political opposition whenever it conducts raids in the interior and moreover, it lacks proper legal instruments. For example, before 1986 it was illegal to harbour illegal immigrants but giving employment was not considered illegal harbouring. Since 1986, there have been penalties for employers of illegal immigrants, but enforcement has been low, with the INS fining a maximum of 20 employers a year for over \$20,000.

### **Amnesties**

The 1986 Immigration Reform and Control Act granted an amnesty to more than 2.2 million workers living in the country illegally. This was supposed to be a one-off measure that would legalize past illegal immigration while giving strong incentives against future illegal immigration. But since illegal immigration has actually increased greatly, the act may be deemed to have failed.

The reason why an amnesty does not stop illegal immigration is that it lowers costs for prospective immigrants: first, it legalizes the ethnic network already operating in the United States; and second, it creates expectations of future amnesties. But amnesties seem to be politically acceptable because they reduce uncertainty for the current employers of illegal immigrants, well-defined group, while being potentially damaging for future possible employers.

## Collaboration

The US and Mexican governments are working together on immigration policy, in particular on a new amnesty. This is a dramatic change given that until recently each country considered immigration policy an internal matter. International agreements on immigration are not common but have some precedents: the United States and Japan signed an agreement in 1906 to limit migration; and Hong Kong and China have signed similar agreements in the past.

## Access to welfare services

There has been considerable debate on the impact of illegal immigrants' use of public services, such as public education and emergency care, on the US fiscal accounts at both the state and national levels. Although the overall impact seems small, some states, such as California, are quite negatively affected. There have been attempts to deny education, health and social services to illegal workers, notably the national welfare reform of 1996. But the provisions discriminating against legal and illegal immigrants have been rolled back as a result of legal challenges and the reluctance of local authorities to implement the tougher measures.

It seems to be politically very costly or legally difficult to discriminate against immigrants in access to basic welfare services. Moreover, any scaling back of these services that is not coordinated nationally seems to suffer from welfare-shopping, immigrants being by definition very mobile, reacting quickly to different welfare treatments.

## 4.4 Making the EU's borders less porous

There seems to be a vicious circle in the European discussion of migration. Negative perceptions of migration induce governments to adopt restrictive policies on legal migration, hence generating more illegal migration. Perceptions then become self-fulfilling in that more illegal migration strengthens the negative perceptions.

What are the key lessons for Europe from the United States' experience with illegal immigration? Can better enforcement of border controls, internal controls or an amnesty break this vicious circle?

### The problem with border controls

It is clear that there are inherent difficulties in border controls. An EU of 27 states (the EU-15 enlarged to encompass the CEEC-10 plus Cyprus and Malta) would have an eastern border of ten countries from Lithuania to Bulgaria. In such a future EU, illegal immigrants would have thousands of kilometres of border to access, and the idea of continuously patrolling such a wide and diverse piece of land would be very difficult, for a number of reasons.

First, border controls would need to be coordinated across EU members, which would inevitably imply the coordination of police activity.

Second, and most importantly, it is quite likely that illegal immigrants would try to enter the EU at its eastern border with the intention of going west. It is likely that illegal immigrants will ultimately want to settle in the rich countries of Western Europe, such as France and Germany.

Will the police in the CEECs have sufficient incentives to stop illegal immigrants from temporarily entering their countries when their final destination will probably be elsewhere? Probably not. This free-rider problem is potentially very serious. Indeed, the United States had a potentially similar problem across states, and accordingly chose to delegate its border controls to a federal authority. But in Europe there is no federal police authority, and there will not be one in the foreseeable future.

So even if Europe chose to use border controls as a way of monitoring illegal immigrants, the free-rider problem would not be easily solved. But the US experience also suggests that border controls are extremely costly and not particularly efficient. As a result, the free-rider problem at the country level, coupled with the inefficiencies inherent in border controls, suggest that Europe should also focus its efforts on other policies.

### **Internal controls and the shadow economy**

The obvious alternative is internal controls, particularly worksite inspections. But does the US reluctance to give interior enforcement proper legal instruments foreshadow similar political difficulties in Europe? The answer is almost certainly yes, judging from the EU's experience with employment in the shadow economy. Modern information technologies and improvements in tax collection make it quite easy to detect and curb hidden economic activity. But this is rarely done and government statements of zero tolerance of the informal sector seem not to be taken too seriously by firms and workers, who continue to go underground.

Indeed, the informal sector in Europe is flourishing. Available estimates of its size range from a low of 10-12% of GDP in the Nordic countries, Switzerland and the UK to peaks of 20-30% in southern Europe and Ireland. According to the estimates in Schneider and Enste (2000), the number of people working in the unofficial economy doubled between 1978 and 98. Data on the Italian economy published by Istat in 1999 suggest that as many as 15% of the country's labour units were employed in the shadow economy; and in southern regions, this shadow rate is as high as 22.6%.

What explains Europe's tolerance of the informal sector? One possible reason is that governments fear that curbing the shadow economy may simply raise unemployment, with undesirable political consequences. In any event, if Europe does not enforce its existing legislation on regular employment, it is difficult to see why such legislation would be implemented in the future.



## An amnesty?

A third instrument for tackling illegal immigration would be an amnesty. A European amnesty would pose an obvious problem of coordination, but it could be useful to regularize the status of the existing stock of illegal immigrants. But amnesties are not a credible way of dealing with illegal immigration since they raise the flow of illegal immigrants anticipating a future amnesty. Thus, an amnesty is conceivable only when there is a very strong change in the policy regime, and we simply do not foresee such a change in Europe.

## The policy dilemma

The size of the future European border, as well as the lack of a European federal policy authority, suggests that border controls (the main instrument used in the United States) are going to be poorly enforced. Furthermore, internal controls, potentially more efficient ways of dealing with illegal immigration, are not going to be politically viable options given the tolerance of employment in Europe's shadow economy. This implies that Europe cannot mimic US policy on illegal immigration and should probably find a European solution to the problem. Supranational authorities should play an important role in strengthening worksite inspection and restricting the illegal employment of foreign workers.

Another way to proceed is to establish close cooperation with the likely countries of origin of future illegal immigration. In an EU of 27 members, these will probably be the traditional North African Arab countries and Albania, plus the lowest-income members of the Commonwealth of Independent States, countries like Azerbaijan, Tajikistan and Ukraine. Unfortunately, the latter group of countries currently has limited ties with the EU, suggesting the need to establish a long-run policy of close cooperation with them. One way or another, it will be necessary to influence the incentives for these countries to increase their border controls and control the flow of illegal immigrants. Such incentives will involve favourable trade agreements as well as specific aid policies, all of which represents a major challenge for European policy-makers.

## 4.5 An EU-wide migration policy?

This challenge can only be addressed by adopting an EU-wide migration policy. Supranational decision-making on migration restrictions would also make it possible to abandon the hypocritical stance of many countries, declaring migration policies that are formally very strict but which actually increase illegal migration, and then using *ex post* amnesties to regularize illegal immigrants.

National governments seem to be taken hostage by voters pressing for strict migration policies. Under these circumstances, there is a strong case for delegating authority to supranational bodies that can pursue longer-term goals and break out of the vicious circle. This is precisely the principle that has been applied to monetary policy: the decision to delegate authority over monetary policy to independent central banks

(and then to the European Central Bank) recognizes that governments are not in the best position to pursue the longer-term goal of containing inflation. Similar considerations apply to migration policies: Ulysses should be tied firmly to the mast to avoid being tempted by the siren songs.

Potential free-riding on border controls also calls for policies coordinated and co-funded at the EU level: border controls are effective only when applied all along the borders; otherwise, they just end up shifting pressure from one country to another. An EU-wide approach to migration policy would also make it easier to reach agreements with sending countries, making quotas conditional on the adoption of policies preventing illegal migration (in terms of both border controls and anti-poverty schemes).

A case for stronger supranational power over migration policy can also be made based on considerations relating to the enforcement of national legislation. After all, how can national differences in migration policies be reconciled with the idea of a single market for labour? The EU could play an important role in strengthening internal enforcement of migration controls, with worksite inspections preventing illegal work by foreign citizens. Some centralization of these inspectorate functions would be useful, as it would reduce pressure exerted by local lobbies that have a strong interest in maintaining illegal labour in place.

There is no doubt that it is difficult to envisage the creation of a pan-European authority aimed at enforcing country-specific labour laws and stopping illegal immigration. Many countries are likely to oppose such an institution since it would aim to implement policies that they deliberately choose not to enforce. Yet we believe that one of the few efficient options for monitoring illegal immigration would be the creation of such an authority, and we urge policy-makers to take such an option seriously.

But if there are many reasons to advocate moving to an EU-wide migration policy, the consensus that could be gathered around such a move is rapidly fading. According to the Eurobarometer survey, support for European migration policies has been declining everywhere in the EU since 1993 (with the exception of the Netherlands) and there are already many countries where less than 50% of the voters are in favour of delegating authority to the EU on these issues.

## 5. Regional policy: should EU-wide redistribution be reformed, and if so, how?

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Reform of the EU's structural funds can play an important role in accelerating income convergence and ensuring that the skill composition of migrants from the East is not biased towards the unskilled in a way that would be regarded unfavourably by citizens of the EU-15. This section examines the potential impact of structural funds on convergence, drawing on the experience of the Southern enlargement. We also make a case for how the limited budget should be allocated and how the costs of redistribution should be shared.

### 5.1 Can structural funds accelerate income convergence?

Over the last two decades, the EU has adopted an active cohesion policy aimed at reducing income disparities by subsidizing various types of investment programmes in the EU's poorest regions through the structural funds. Although the effectiveness of these programmes has often been questioned, available evidence suggests that they have contributed significantly to output growth in at least some of the recipient countries and regions. This has two important implications.

First, similar programmes can help narrow the enormous income gap between current EU members and the candidates for accession, provided they are adequately designed and managed.

Second, the cost of enlargement should not fall only, or even primarily, on the current beneficiaries of structural funds, those regions with incomes substantially below the current EU average. Curtailment of these programmes would probably entail a significant cost in terms of slowing convergence within the EU-15.

The concern for economic cohesion has been a constant feature of the process of European integration. While the single market offered the promise of a significant increase in the output of the EU as a whole, the political viability of the project also required that the distribution of its benefits were perceived to be fair by the constituent countries and regions. This preoccupation led to the gradual development of an active regional policy, to which the EU explicitly committed itself in the Single European Act of 1987<sup>11</sup>. The main instruments for this policy are the structural funds, especially the European Regional Development Fund (ERDF) and the European Social Fund (ESF), aimed at promoting the development of the EU's poorer regions.

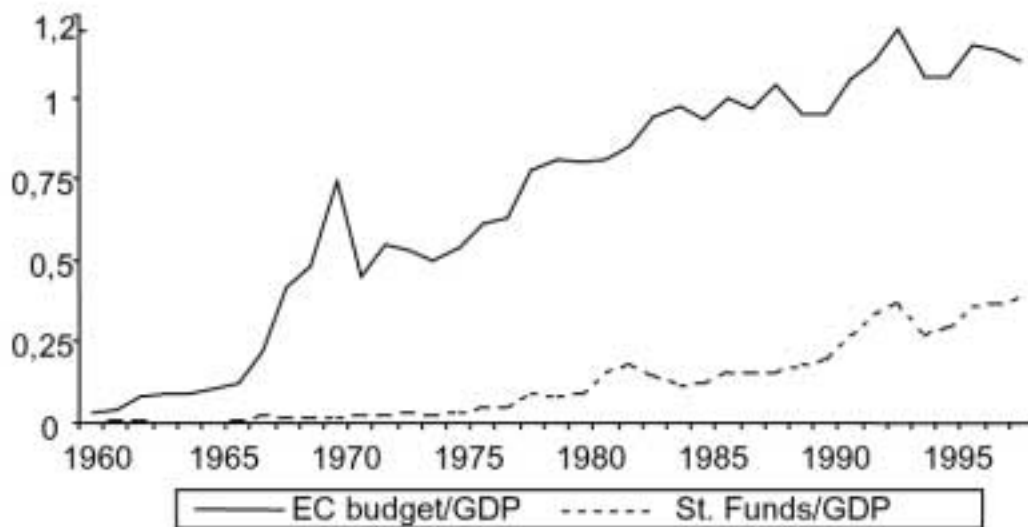
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11. Article 1 of the Single European Act states that the European Community (as it was then known) 'shall aim at reducing disparities between the various regions and mitigating the backwardness of the less-favoured regions'.

Figure 6 summarizes the evolution of structural fund expenditure. Reflecting the increasing importance attributed to cohesion, both the absolute size of the funds and their weight in the overall EU budget have increased steadily over time. Structural fund expenditure accounted for 34.7% of the EU budget and 0.39% of the EU's GDP in 1998, compared with only 10% and 0.09% respectively in 1980.

But in spite of their rapid growth, the structural fund programmes are still too small to have a significant macroeconomic effect on the receiving economies, even though their expenditures are highly concentrated on the regions with lower incomes per head. For example, in the last five years, annual structural fund grants have ranged from 1% to at most 3.5% of GDP in the cohesion countries. And they currently amount to only two-thirds of the cost of the agricultural price-support programmes that absorb

**Figure 6: Evolution of structural fund allocations**



Source: Vademecum Budgetaire de la Communauté, 1999

the lion's share of the budget and tend to favour rich agricultural regions at the heart of the EU.

Figure 7 shows the allocation of the funds across the four cohesion countries – Greece, Ireland, Portugal and Spain – over the last two planning periods, 1989-93 and 1994-9. In the first planning period, Ireland received a much higher allocation per head than the other cohesion countries. In the second period, Ireland still received more per head than Greece or Portugal, but the difference was small. The allocation to Spain was in both cases lower because a significant number of Spanish regions are not classified as having Objective 1 status. Regions with Objective 1 status are the poorest and therefore most favoured parts of the EU in terms of structural funds.

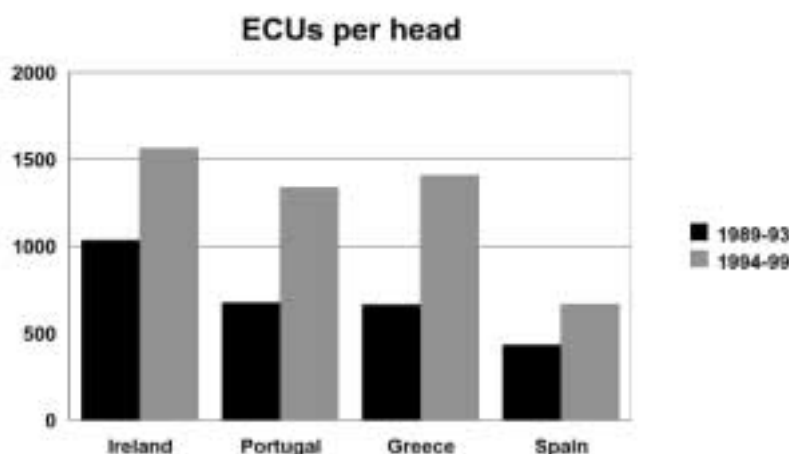
The allocation of structural funds among different expenditure categories reveals the

view of the European Commission that the structural weaknesses affecting the poorer regions are mostly a matter of insufficient endowments of some crucial productive factors<sup>12</sup>. The focus is clearly on supply-side policies, with a heavy emphasis on infrastructure and training. Transport infrastructure has absorbed most ERDF resources, particularly in the poorer countries, and most ESF disbursements have financed vocational training. In recent years, however, more resources are being devoted to investment in environmental services, the provision of incentives to private investment, and the development of supporting business services and technical assistance.

Figure 8 shows how the four cohesion countries used their allocation of structural funds in the period 1994-9. In the case of Ireland, over one-third was allocated to investment in human capital, whereas in Greece, Portugal and Spain, greater priority was given to investment in transport and environmental infrastructure. The Irish decision to concentrate more heavily on human capital reflected the research evidence available to the government that the rates of return in this area were potentially high. For Portugal, the higher allocation to physical infrastructure also reflected its government's priorities, rather than being a condition imposed by the EU.

There is considerable disagreement among both academics and policy-makers about the effectiveness of the structural funds (and of regional policy in general) as instruments for reducing income disparities. Many critics of these programmes argue that they cannot be very effective on the grounds that vast expenditures over two decades have not translated into clear progress in terms of regional convergence. One academic exposition of this view is by Boldrin and Canova (2001), who examine the evolution of the distribution of income across the EU regions over the last two

Figure 7: EU structural funds allocated to cohesion countries



12. For a discussion of the European Commission's diagnosis of the sources of regional disparities, see, for example, Commission of the European Communities (1992) and Emerson *et al.* (1990).

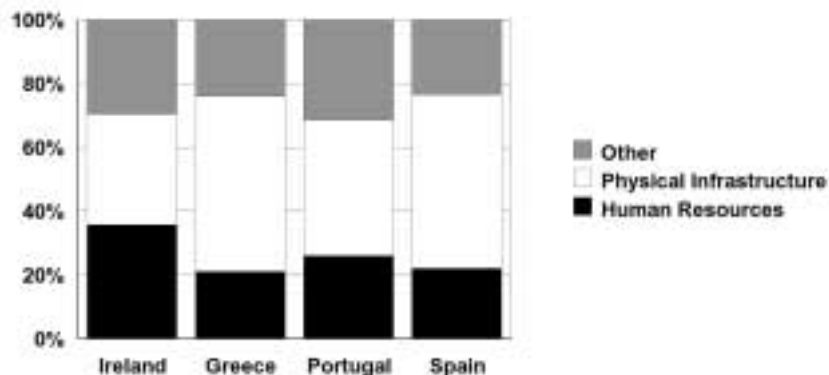
decades and find no evidence that convergence is taking place or that the recipients of EU transfers (with the exception of Ireland) have performed better than other regions.

But Boldrin and Canova's analysis has the serious shortcoming that it fails to control for any factors other than EU aid. Ederveen *et al.* (2001) illustrate why results obtained in this manner can be extremely misleading. They estimate a series of convergence regressions relating growth in the European regions to initial income per head and structural fund transfers. When no additional variables are included in the analysis, the estimated coefficient on the transfers variable is negative and significant. When regional fixed effects are introduced, however, the coefficient of EU transfers becomes positive and significant.

On reflection, these results should not be surprising. Since the recipients of EU aid are by definition poor regions, the volume of aid works as a proxy for the omitted variables that presumably explain why these regions have below-average incomes. The estimated coefficient on the volume of aid is negative because this is the only way the specification allows the assignment to these territories of a low steady-state level of income. But as soon as other factors are controlled for, even by the simple expedient of introducing a set of regional dummies, the positive impact of aid on growth becomes apparent.

A more sophisticated, although indirect, case against regional policies can be found in the regional convergence literature (see Barro and Sala-i-Martin, 1991, and especially Sala-i-Martin, 1996). While these researchers find that the speed of regional convergence is very low in Europe, they are also sceptical about the ability of governments to accelerate the process. The main evidence they offer to support this conclusion is a remarkable empirical regularity: the apparent stability of the rate of convergence, which has been found to be close to 2% a year in a variety of samples.

Figure 8: Allocation of structural funds, 1994-9



According to Sala-i-Martin (1996), the fact that convergence takes place at practically the same speed within groups of territories supposedly characterized by very different levels of redistributive effort implies that such policies cannot be very effective.

But this conclusion seems far too hasty. Governments can certainly influence the rate at which regions accumulate various productive factors, particularly infrastructure and human capital. To the extent that these factors have an effect on productivity and on the location of mobile private factors, there will be room for supply-side policies to influence the dispersion of regional incomes and to promote or accelerate income convergence. From this point of view, the stability of the convergence coefficient across different samples may indicate that the redistributive effort has been too small to have a noticeable effect on the evolution of income disparities, and/or that the policies adopted in the past have not been very effective. But it cannot be taken as evidence that regional policy *per se* is necessarily ineffective.

Since EU regional policy has essentially taken the form of conditional grants for the financing of training and infrastructure projects, discussion about its effectiveness should begin with an analysis of the contribution of these two types of investment to productivity growth. Although the issue is somewhat controversial, we believe that the existing evidence provides reasonable support for the view that expenditure on education can have a considerable effect on productivity growth, and that the same holds true for infrastructure investment, at least in regions where the endowment of this factor is low.

## Education and growth

Academic economists have traditionally been inclined to consider educational expenditure a key component of national investment with a substantial pay-off in terms of output growth, and have often assigned to the accumulation of human capital a central role in formal models, particularly in the recent literature on endogenous growth. This optimism seemed to be confirmed by a first round of cross-country empirical studies of the determinants of growth, where a variety of educational indicators were consistently found to have the expected positive effect.

A second round of such studies (characterized by the use of panel data techniques), however, produced rather disappointing results and even led some researchers to explicitly question the link between education and productivity<sup>13</sup>. But the evidence seems to be accumulating that such negative results were largely due to poor data and various econometric problems. The current state of thinking about this issue is well summarized by Temple (2000), who, after surveying the relevant micro- and macroeconomic evidence, concludes that 'the weight of the evidence points to significant productivity effects' of educational investment.

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13. Positive results are reported, among others, by Mankiw et al. (1992) and Barro and Lee (1994), while Islam (1995), Caselli et al. (1996) and others report the loss of significance of schooling indicators in fixed-effect start specifications. Pritchett (1995) also reports negative results and argues that researchers and policy-makers should start taking them at face value.

## Infrastructure and growth

The degree of consensus on the productivity effects of infrastructure investment is probably much smaller. The issue has been the subject of a debate that continues in the literature. The available empirical evidence is problematic and its interpretation is complicated by econometric problems that have not yet been fully solved. Early work on the subject, notably by Aschauer (1989), concluded that the elasticity of national or regional output with respect to public capital is large and very significant, and that the rate of return on public investment is exceedingly high.

A number of more recent studies, however, have questioned these results on the basis of various econometric problems. Some of these studies find that the significance of public capital disappears when a specification in first differences is used or fixed effects are introduced to control for unobserved national or regional specificities. They conclude that the accumulation of public capital does not appreciably contribute to productivity growth.

Other recent papers, in contrast, confirm the significance of infrastructure, using co-integration or panel data techniques that should in principle take care of some of the main objections to Aschauer's results. Some of them (particularly Fernald, 1999) also provide rather convincing evidence that causation runs from infrastructure investment to productivity growth, and not the other way around. De la Fuente (2000a) surveys the available evidence and concludes that there are sufficient indications that public infrastructure investment contributes significantly to productivity growth, at least in countries or regions where a saturation point has not been reached.

Similar conclusions are reached by Canning and Pedroni (1999), who also point to important differences in the nature of the infrastructure projects being undertaken. The returns to such investment are probably quite high when infrastructure is scarce and basic networks have not been completed, but fall sharply thereafter. Hence, appropriate infrastructure provision is probably a basic ingredient for a successful regional or national development policy, even if it does not hold the key to rapid productivity growth in advanced countries where transport and communications needs are already adequately served.

This conclusion is based in part on a comparison of existing results for the regions of Spain and the states of the United States. Public-capital variables are almost always significant in panel data specifications for the Spanish regions, and often insignificant in similar exercises conducted with US data. One possible explanation for this difference is that, as Fernald (1999) notes, the existing data for the United States start in 1970 – approximately the time when the interstate highway system was completed – whereas the Spanish data refer to a sample where the stock of infrastructure was still clearly insufficient.

In summary, even though the existing evidence is by no means clear-cut, on the whole the relevant literature suggests that investment in education and infrastructure is an important source of productivity growth. It follows that regional policy aimed at



reducing regional disparities by supporting the accumulation of these factors in poor regions can work in principle. Box 2 reviews some studies that have attempted to measure the actual contribution of EU regional programmes to employment and output growth in recipient countries and regions.

## Box 2: The contribution of EU regional programmes to employment and output growth

Most analyses of the impact of the EU's structural funds follow one of two approaches.

1. The most common one is to use conventional macroeconomic models to simulate the effects of structural spending on national economic aggregates.
2. An alternative approach relies on direct estimation with regional data of supply-oriented models inspired, at least loosely, by the recent growth literature.

Each of these methodologies has advantages and drawbacks. Conventional macroeconomic models are well suited for analysing the short- and medium-term effects of EU policies through their impact on aggregate demand. In many cases, however, the direct supply effects of structural expenditure have to be introduced in a somewhat ad hoc fashion, as the production blocks of these models are often not designed to capture the relevant effects. The second approach, in contrast, focuses on direct estimation of the relevant supply effects, but fails to consider their demand and price implications.

Taken together, the two sets of studies give a fair indication of the order of magnitude of the relevant effects. Both types of models, moreover, can be used to isolate the impact of structural fund expenditure controlling for other relevant factors that may affect the performance of the different territories, thus providing a more accurate picture than some of the studies reviewed in the main text of this report, such as Boldrin and Canova (2001).

Bradley *et al.* (1995) summarize a series of studies that analyse the impact of the structural funds on the four cohesion countries following a common approach<sup>1</sup>. These studies make use of a series of macroeconomic models (the so-called HERMIN family of models), which incorporate supply blocks that allow for positive externalities arising from investment in infrastructure and human capital, as well as the demand-side effects that are standard in neo-Keynesian models.

The estimates of the relevant long-run supply-side effects of the 1994-9 Community Support Framework (CSF) are substantial in all cases. After stripping out the demand-side impact, the estimated effect of the 1994-9 CSF amounts to 1.3 percentage points of GDP in Portugal, 6.8 points in Spain, 2.8 points in Ireland and 8 points in Greece. A somewhat lower estimate (of 2 percentage points of GNP) is obtained for Ireland using a specially constructed supply-side model (see Fitzgerald, 1998, for a summary of the relevant work).

Many studies of the supply-side impact of EU regional policies focus on Spain. De la Fuente and Vives (1995) estimate a simple model of regional income determination built on a production function that includes human capital and infrastructure as inputs. They find that differences in the stocks of these factors are responsible for a significant fraction of regional income disparities, and that ERDF-financed infrastructure investment during the second half of the 1980s was rather effective. In spite of the limited size of the programme, ERDF added around 2 percentage points to average regional productivity and reduced the dispersion of regional output per worker by around 5%. This figure represents one-third of the observed decrease in the dispersion of productivity during the 1980s and, from this perspective, is far from negligible.

A more recent study by de la Fuente (2000b) on the impact of the 1994-9 CSF on the Objective 1 regions of Spain reaches similar conclusions. He estimates a production function and an employment equation with panel data for the Spanish regions, and computes social rates of return on various types of structural fund...

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1. See Bradley *et al.* (1995) for Ireland, Modesto and Neves (1995) for Portugal, and Herce and Sosvilla-Rivero (1995) for Spain. Christodoulakis and Kalyvitis (2000) follow a similar approach for Greece.

...expenditure. His results suggest that the contribution of the structural funds to the growth of output and employment in the Objective 1 regions of Spain during the period 1994-9 was quite considerable. In Andalucía, for example, the effect on output has exceeded 1 percentage point a year, the employment effect is around 0.4 points a year and the overall rate of return on CSF-related public expenditure is 30%. The results are similar for other Objective 1 regions and add up to growth and employment contributions of 0.6% and 0.2% a year respectively for the whole of Spain (including the regions not covered by Objective 1).

Bean (1997) analyses the impact of productive public investment in the Spanish regions using a structural Value-at-Risk model that describes the joint evolution of output, private and public capital, employment and unemployment. His results also indicate that the output effects of public investment are important. His estimate of the elasticity of output with respect to the stock of infrastructure (around one-third) is much higher than existing direct estimates of the relevant production function elasticity (around 10%). This finding suggests that feedback effects through increased employment and private investment are of considerable importance.

In the specific case of training programmes, many of the activities funded by the EU in these areas have been subjected to extensive evaluation to assess their rate of return. Denny et al. (2000) evaluate a wide range of educational and labour market interventions in Ireland using a consistent methodology. Their results show that some of the EU-funded programmes had a strong impact on subsequent earnings and others were less successful. This is unsurprising but, as a result of this study and a series of earlier studies, the education and labour market programmes gradually evolved over the 1990s. The more successful programmes have been maintained and some of the least successful ones have been dropped. Although this research does not provide a precise estimate of the overall rate of return on training programmes, it does show policy-makers learning from research and gradually moving to maximize returns from investment.

An important implicit assumption of the existing supply-side studies of the impact of EU regional policies is that all investment financed by the structural funds has exactly the same impact as other projects of the same nature. It is possible, however, that because of the low marginal cost of these resources, both to the national and regional administrations and to the private sector, they may be used to finance projects that would not survive a strict cost-benefit analysis or that these projects may be less efficiently managed than those financed entirely by national budgets.

While there is no hard evidence on this issue (largely because the existing data are not detailed enough to test the hypothesis), there are probably valid reasons for concern about waste and mismanagement. It is likely that a correction for this factor would somewhat reduce estimates of the impact of EU regional policy programmes, but it is highly unlikely that it would drive the relevant rates of return to unacceptably low values.

Even so, there are good reasons to continue to work on the improvement of project selection, control and evaluation procedures in order to increase the returns to structural fund expenditure. These issues are likely to be particularly important in the case of new EU members, which may initially lack the capacity to manage appropriately a large inflow of funds. Experience with the structural funds in the current cohesion countries shows that the process itself can bring benefits. through improved planning and better management practices<sup>14</sup>.

As in these countries, the introduction of an evaluation culture into the CEECs, showing

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14. See Fitzgerald (1998) for an analysis of the Irish case.

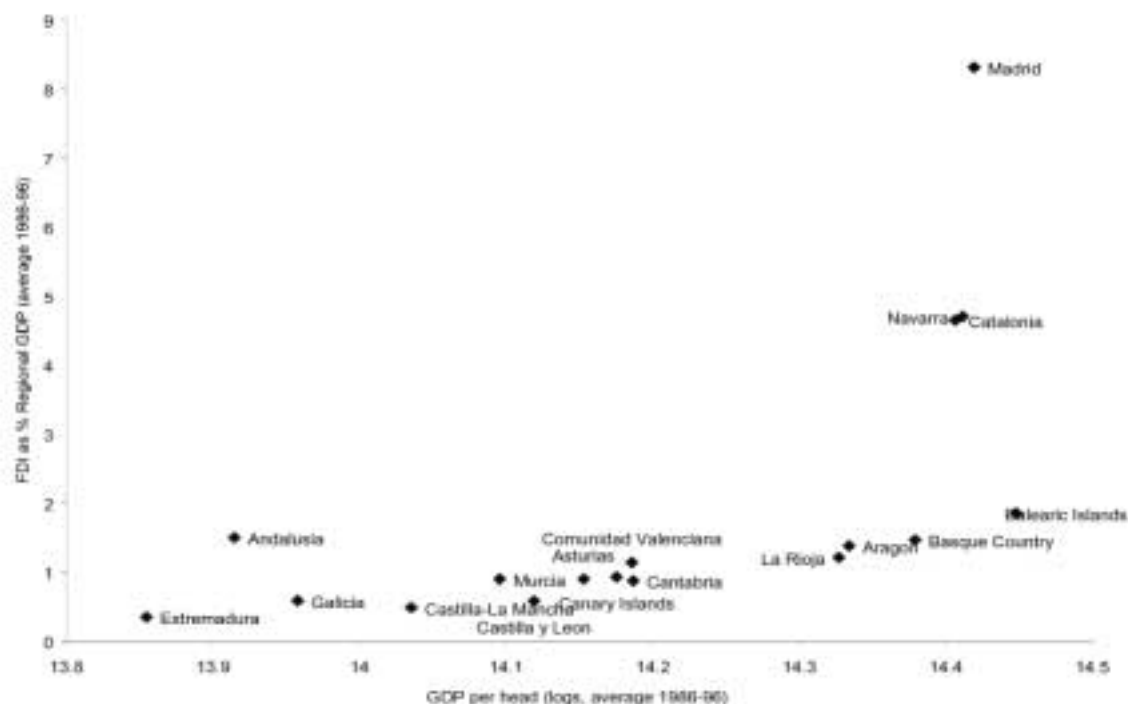
that value for money counts, could have a wider impact. Given the constraints on the public sectors in these countries, the structural funds may well make a difference in promoting needed investment. In addition, given the ill repute that the word 'planning' has attracted in these countries, the provision of a framework within which a programme of infrastructure investment can be developed could prove valuable.

The evidence suggests that supply-oriented regional policies can work and have indeed done so in at least some of EU members and regions within them, thereby mitigating regional disparities or at least helping to stop them from widening. The results surveyed in Box 2 suggest that the current EU programme of structural funds should be extended to new EU members (but probably in a gradual way to ensure that they can absorb the funds). They should also be maintained within reasonable levels for current members that remain less developed, although they may have to be curtailed somewhat to help pay for enlargement.

## 5.2 Lessons from the EU's Southern enlargement

The Southern enlargement of the EU in 1986, to encompass Spain and Portugal, is particularly helpful in understanding the role that structural funds can play in reducing

Figure 9: Regional distribution of FDI inflows (Spain, 1986–96)



Source: Spanish Ministry of Economics.

regional inequalities in the CEEC-10.

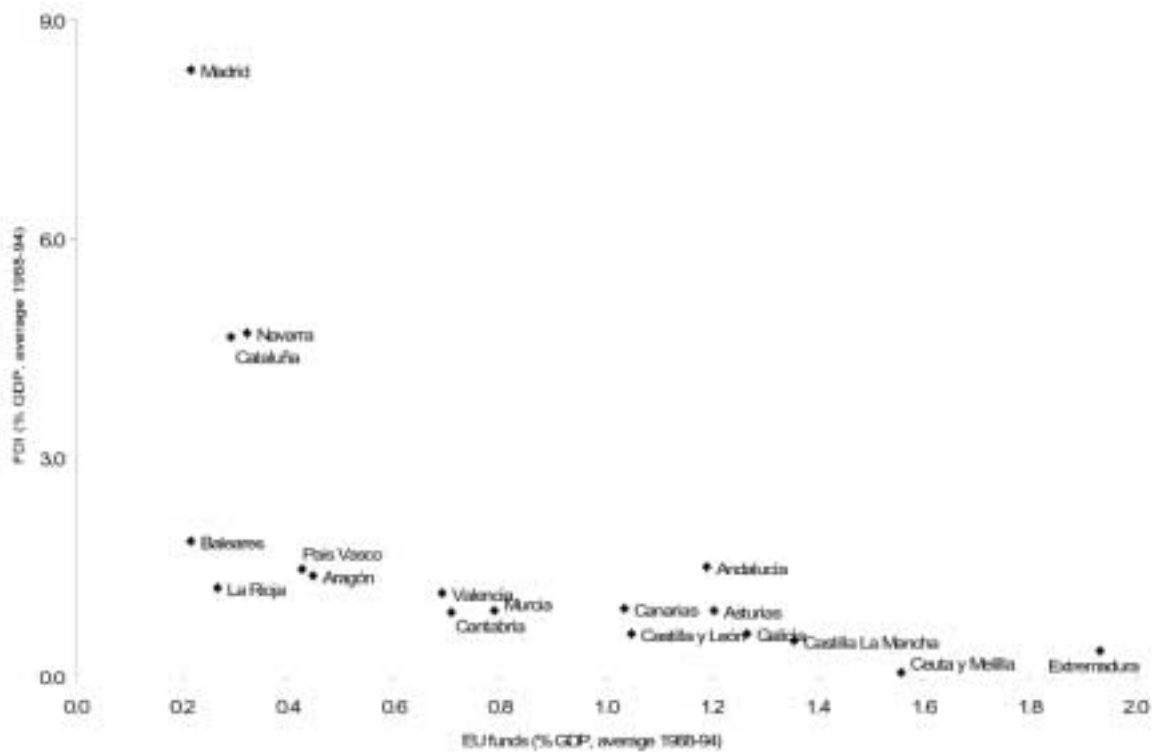
First, structural funds compensate for the likely concentration of FDI flows into the richest regions in the accession countries.

Second, when a large share of EU structural funds is devoted to the construction of transport infrastructure, it also impinges on the prospects for industrialization in the less developed regions.

### Foreign direct investment flows

Figure 9 plots the relationship between the size of the FDI inflows (measured in terms of regional GDP) and GDP per head during the 1986-96 period in Spain, showing that they have tended to be directed towards the richer regions of Catalonia, Madrid and Navarra. The current pattern of FDI inflows into the CEECs (mostly directed towards non-traded sectors and primarily driven by market access) and the regional distribution of economic activities in some of the largest CEECs (notably Poland) provide further reasons to expect increasing inter-regional inequality in Eastern Europe as a consequence of EU membership.

Figure 10: FDI and EU funds in Spanish regions (1988–94)



Source: Spanish Ministry of Economics and Doménech et al (1998)

Despite their overall small size, EU structural funds have played a significant role in stimulating physical and human capital in the lagging regions of the current members. From the standpoint of the recipients, their size and contribution to total investment are far from being negligible. For example, in Spain and Portugal, they amount to approximately 3% and 1% of GDP, respectively. Likewise, almost 10% of total investment in Portugal and almost 5% in Spain is financed with EU funds (Doménech *et al.*, 2000).

But even if EU funds are very intensively concentrated in the poorest regions, they may be insufficient to compensate fully for the concentration of FDI flows into the richest regions. The Spanish case is again illustrative in this regard. Figure 10 plots the regional distribution of FDI inflows and EU funds during the period after accession, 1988-94. It shows that while Catalonia, Madrid and Navarra received FDI inflows amounting to around 5% or more of their GDP, EU funds amounted to less than 2% of the GDPs of the lagging regions – Andalucía, Asturias, Castilla-León and Extremadura.

Another key issue is the potentially different impact of FDI inflows and EU funds on productivity growth and hence on convergence. Although EU funds seem to have contributed significantly to regional convergence in the recipient countries, there is some strong evidence for Spain suggesting that the elasticity of regional labour productivity with respect to FDI inflows is much higher than the elasticity with respect to EU funds (Jimeno *et al.*, 2000). Thus, the positive effects of EU funds on regional labour productivity convergence may be hindered by two facts: their smaller size when compared with FDI inflows into the richest regions; and the lower elasticity of regional production per worker in response to EU funds than to FDI inflows.

Further evidence on the effects of EU structural funds on the convergence of the GDP per head of Spanish regions is provided by Mauro and Spilimbergo's (2001) analysis of capital accumulation in Spanish regions before and after EU accession. They compute the coefficient of variation (standard deviation divided by the mean) of capital/labour ratios across 17 Spanish regions<sup>15</sup>, distinguishing between physical and human capital and whether physical capital is private or public. They find that there was some convergence in physical capital accumulation during the period 1971-86, but the dispersion of educational attainments across regions lacked any significant trend.

They also find that the decreasing trend in the dispersion of private and public physical capital/labour ratios is much less noticeable in the second half of the 1980s and during the 1990s, the period after accession. According to their results, the differences in the stock of private capital per worker across regions, rather than differences in public capital and human capital, account for the main differences in returns to private capital among the Spanish regions. This result is consistent with the finding of a different elasticity of regional labour productivity to private and public investment. Another relevant fact stressed in this study is the lack of negative correlation between returns to private capital and unemployment, as should be expected in regional labour markets where wages and, subsequently, unit labour costs, are not responsive to

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15. This number of regional entities corresponds to Eurostat's NUTS II classification.

unemployment (Jimeno and Bentolila, 1998).

### Transport infrastructure

In terms of the effects of transport infrastructure on the growth prospects of the less developed regions, the 'new economic geography' models (Puga, 2001) show that lower transport costs from improved infrastructure are likely to give firms in the CEECs' regions better access to the inputs and markets of the more developed regions in the EU. But they also make it easier for firms in the richer EU regions to supply the less developed regions at a distance, therefore harming the latter's prospects of industrialization. In this respect, a careful assessment of projects that facilitate trade within a region versus trade between regions, or hub-and-spoke interconnections versus pair-wise multilateral connections (Martin and Rogers, 1995), is bound to be very relevant.

In addition, the development of adequate transport infrastructure is relevant to migration. Measures to promote and regulate inter-regional migration flows within the CEECs can be a substitute for migration to the West. The improvement of transport infrastructure, properly combined with in-work benefits (instead of unemployment benefits) and subsidies to the mobility of firms and workers moving to specific regions, provides an additional adjustment mechanism to enhance the benefits from enlargement.

### 5.3 How to share the costs of redistributive policies across EU members

The rapid integration of the best prepared candidates for EU accession on conditions of full equality with current members is both feasible in budgetary terms and desirable. Rapid integration on an equal footing would be a clear signal of the EU's commitment to supporting the economic and political development of the CEECs and would make an invaluable contribution to the future peace and stability of the continent. The budgetary costs of such a strategy for the EU-15 could be modest, amounting to about 50 per head a year, and would not impose an undue strain on the EU's budget.

Table 1 provides some basic data on the CEECs. Their combined population is nearly 105 million, or 28% of the population of the EU-15. But they all have low incomes per head: measured in purchasing power units, they range from 24% of the EU-15 average in the case of Bulgaria to 72% in Slovenia.

In accordance with the principle of cohesion, the EU budget redistributes resources from rich to poor members. De la Fuente and Doménech (2001) estimate a redistribution coefficient of 5.76% for the 1998 EU budget. This parameter indicates that, for a typical European citizen, the net effect of the EU budget is equivalent to a flat tax of 5.76% levied on the difference between his or her gross income (adjusted for purchasing power differences) and the EU average, or to a subsidy of the same magnitude if his income is below average.

Table 1:

	Population	GDP per head		Inflation	Unemployment	Gross capital formation	Foreign direct investment	
	Million	Current prices	PPS	%	%	% of GDP	Stock per head	Net inflow % of GDP
EU-15	378.4	22,520	22,400	2.1	8.2			
Bulgaria	8.2	1,600	5,400	10.0	16.4	16.2	239	7.1
Czech Republic	10.3	5,400	13,500	3.9	8.8	28.3	2,213	9.0
Estonia	1.4	3,800	8,500	4.0	13.7	23.4	1,980	8.0
Hungary	10.0	5,000	11,700	9.8	6.4	22.9	1,790	2.9
Latvia	2.4	3,300	6,600	2.6	8.0	24.6	934	5.7
Lithuania	3.7	3,300	6,600	1.0	15.4	18.7	683	3.4
Poland	38.6	4,400	8,700	10.1	15.0	25.3	671	5.3
Romania	22.4	1,800	6,000	45.7	10.8	18.5	317	2.8
Slovakia	5.4	3,900	10,800	12.0	18.6	30.0	1,000	10.8
Slovenia	2.0	9,800	16,100	8.9	7.0	27.8	1,348	1.0
Average CEEC						24.5		

	Trade				Share of industry	Share of agriculture	
	Exports to EU (% of total)	Imports from EU (% of total)	Trade balance as % of GDP	Current account deficit (% of GDP)	% of gross value added	% of gross value added	% of employment
EU-15							
Bulgaria	51.2	44.1	-9.9	-5.9	25.1	14.5	N/a
Czech Republic	68.6	61.9	-6.2	-4.8	36.0	3.9	5.1
Estonia	76.5	62.2	-15.8	-6.8	14.6	6.3	7.4
Hungary	75.1	58.4	-4.4	-3.9	26.9	4.8	6.5
Latvia	64.6	52.4	-14.9	-6.8	16.3	4.5	13.5
Lithuania	47.9	43.3	-9.8	-6.0	22.8	7.6	19.6
Poland	69.9	61.2	-7.8	-6.3	29.0	3.3	18.8
Romania	63.8	56.6	-4.6	-3.7	27.6	12.6	42.8
Slovakia	59.1	48.9	-4.7	-3.7	25.8	4.5	6.7
Slovenia	63.8	67.8	-6.2	-3.3	27.7	3.2	9.9
Average CEEC			-7	-5			

Sources: European Commission, EBRD (share of industry)

The budgetary costs of the accession of the first group of candidate countries to the EU (which excludes Bulgaria, Romania and Turkey from the 13 countries currently applying) can be approximated under the assumption that the degree of redistribution implicit in current EU budget practices is maintained and extended to the new entrants. Applying the budget allocation rule implicit in de la Fuente and Doménech's estimate, it is possible to compute the net budget surpluses to which new members would be entitled as a function of the difference between their incomes per head and the average income per head of the enlarged EU, with both variables measured in purchasing power units.

This provides an estimate of the net budgetary costs of enlargement to current EU members, which would have to finance these surpluses if enlargement were to take place right away and without transitional periods. The resulting figure should be an upper bound on the actual costs for two reasons.

First, structural funds are likely to be phased in gradually over a transitional period to make sure that new members have the capacity to absorb and manage these funds appropriately

Second, it can be expected that income differences between new and current EU members will diminish gradually over time, thereby reducing the need for transfers below these estimates by the time accession is completed.

On the other hand, rapid convergence in price levels between the new members and the rest of the EU would significantly increase the cost of the proposed policy.

Table 2 summarizes the required information and the results of the computation. The net budget surpluses per head in PPS units in column [2] are obtained by multiplying the difference between each country's real income per head and the average value of the same variable in an enlarged EU composed of current members and all except Malta of the ten candidate countries expected to join in the first wave. This figure is translated from PPS units to current euros in column [3] by using the price indices shown in Table 1. Multiplying the nominal per head net balances by the population of each country gives the total net balances in column [4] in millions of current euros. The last two columns of the table show the values of these balances as a percentage of each candidate country's own GDP (column [5]) and the GDP of the current EU (column [6]).

If the current degree of redistribution through the EU budget is maintained, most of the new members should receive significant net transfers, ranging from 0.69% of GDP in the case of Cyprus to 13.25% in Latvia. The sum of the required transfers is 19.5 billion, or one-quarter of a percentage point of the EU-15's GDP.

This level of transfers to new entrants can be accommodated by the EU budget without undue strain. The current financial perspectives approved in the Berlin summit of 1999 earmark for accession-related expenditures in 2006 a sum of 14.2 billion (measured in 1999 prices, as our figures) leaving a margin of another 12.8 billion for potential expenditure increases without violating the resources ceiling set at 1.27% of GNP. The



Table 2: Calculation of the net fiscal balances of new entrants under current conditions given the 1998 redistribution coefficient for the EU budget

	Net balance per head		Net budget balance, total			
	[1] GDP per head, PPS	[2] PPS	[3] euros	[4] M euros	[5] % of own GDP	[6] % of EU-15 GDP
Cyprus	17,100	118	88	59	0.69%	0.001%
Czech Republic	12,500	383	148	1,525	3.06%	0.019%
Estonia	7,800	653	279	402	8.38%	0.005%
Hungary	10,700	486	204	2,055	4.55%	0.026%
Latvia	5,800	769	322	782	13.25%	0.010%
Lithuania	6,200	746	325	1,203	12.03%	0.015%
Poland	7,800	653	316	12,231	8.38%	0.153%
Slovakia	10,300	509	170	915	4.95%	0.011%
Slovenia	15,000	239	150	298	1.59%	0.004%
Total candidates	9,150			19,468	6.33%	0.244%
EU-15 + candidates	19,144					

sum of these two figures would be more than enough to finance the full integration of the entire first group of candidate countries by 2006. Since things are likely to proceed at a rather slower pace, the budgeted amount of accession-related expenditure is likely to be sufficient to allow any new entrants immediate and fairly unrestricted access to EU programmes.

How should these costs of enlargement be shared among current EU members? To answer this question, assume that all EU members agree that the current allocation of budget costs and benefits is fair. Under this provisional assumption of an unquestioned *status quo*, it would seem natural to share the costs of enlargement equally, that is, to increase the deficits per head or reduce the surpluses per head of current members by an equal amount in PPS units. This would amount to shifting down uniformly a hypothetical budget allocation rule linking net per head budget balances to income per head to allow for the reduction of average EU income per head as a result of enlargement, while keeping the degree of redistribution constant.

The first three columns of Table 3 show the implications of this benchmark proposal. The annual *per capita* cost to the EU-15 of financing the net transfers to new entrants calculated above would be 52.1 in PPS units, as shown in the first column of Table 3. This figure is then translated into current euros by applying the appropriate price index and multiplying by each country's population to obtain the total contributions shown in the third column. These range from 24 million for Luxembourg to 4.5 billion for Germany, and add up to the required 19.5 billion.

As noted, this benchmark proposal is based on the assumption that the current sharing

of budgetary costs and benefits is considered fair. We would argue, however, that this should not be the case, as EU members with similar income levels often have very different budget balances per head, which should be taken into account when deciding how to share the costs of enlargement.

As an indication of the direction and order of magnitude of the corrections that would be required if enlargement were to take place immediately, the fourth column of Table 3 shows the excess balances of the EU-15 in 1998 as estimated by de la Fuente and Doménech (2001). These excess balances measure the net contribution of each member to the EU budget over and above what would be required on the basis of its income per head and the estimated redistribution coefficient.

As Table 3 shows, some of these figures are quite respectable. Germany, for example, contributes around 3.5 billion more than it should to the EU budget, given its relative income level and the observed average level of redistribution, while France's contribution falls short by over 4.1 billion by the same standard. In these conditions, countries such as Germany that already feel they are contributing too much to the EU budget will be understandably reluctant to commit additional resources to help pay for enlargement.

One likely outcome is that such countries will press for the curtailment of existing

**Table 3: Benchmark allocation of the budget costs of enlargement among the EU-15 and 1998 excess balances of these countries**

	Per capita costs		Total cost M euros	Excess deficit 1998	Difference
	PPS	euros			
Belgium	52.1	50.7	518	-609	1,127
Denmark	52.1	64.0	340	-994	1,334
Germany	52.1	55.4	4,545	3,529	1,016
Greece	52.1	40.9	431	-1,267	1,698
Spain	52.1	42.7	1,682	1,369	313
France	52.1	56.9	3,356	-4,160	7,516
Ireland	52.1	50.6	189	-2,066	2,255
Italy	52.1	47.0	2,705	2,239	466
Luxembourg	52.1	56.8	24	-221	245
Netherlands	52.1	51.2	807	1,254	-447
Austria	52.1	53.6	433	-289	722
Portugal	52.1	34.3	342	-567	909
Finland	52.1	57.3	296	178	118
Sweden	52.1	60.9	539	1,137	-598
UK	52.1	54.9	3,261	467	2,794
EU-15			19,468	0	19,468

programmes (and especially of structural funds to the poorest EU-15 countries) and for the imposition of limits on the amount of transfers to new entrants. It may be preferable to use enlargement as an opportunity to revise current budget practices in a way that ensures greater horizontal equity while maintaining the current degree of redistribution of the system and extending it to new entrants.

## 5.4 How to allocate the funds

To reduce the risk of a gross waste of resources, reform of the structural funds should go beyond the financing method and also envisage ways to allocate the funds that increase the incentives to make better use of them. Two alternative broad principles can be adopted in this context.

The first approach is to leave the allocation mechanism as it is, with the EU co-financing regional spending and a limited involvement of national governments in the process. This approach has led in some cases to excessive inter-regional redistribution and results in an ineffective allocation of funds when local administrations are weak (for example, in the Italian *Mezzogiorno*), as we can expect to be the case in most poor regions of the CEECs.

The second approach is to strengthen the role played by national governments in the allocation of structural funds under the scrutiny of EU authorities and to abandon rigid co-funding requirements. This approach provides better guarantees of an effective use of resources and avoids the duplication of effort. In addition, countries already have in place systems of internal personal redistribution that presumably reflect their preferences. But the approach may lead to too little regional redistribution and potentially undesirable effects in terms of unskilled migration from these countries.

Our preference is for a greater involvement of national governments in the allocation of structural funds, leaving their regional distribution at the discretion of EU members. This will allow an increase in the efficiency of regional policies that should promote – according to economic geography models – the attainment of economies of agglomeration, and hence may go contrary to allocation mechanisms rewarding all the poorest regions in a country. Redistribution to the poorest regions should, after all, also proceed along the lines proposed in Section 3 of this report, that is, by adopting a European social minimum and, if necessary, co-funding it with a special chapter of the EU budget.

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