



EUROPEAN CENTRAL BANK

**OCCASIONAL PAPER SERIES**

**NO. 52 / OCTOBER 2006**

BCE ECB EZB EKT EKP

**CROSS-BORDER  
LABOUR MOBILITY  
WITHIN AN  
ENLARGED EU**

by Frigyes Ferdinand Heinz  
and Melanie Ward-Warmedinger



EUROPEAN CENTRAL BANK



## OCCASIONAL PAPER SERIES

NO. 52 / OCTOBER 2006

# CROSS-BORDER LABOUR MOBILITY WITHIN AN ENLARGED EU

by Frigyes Ferdinand Heinz  
and Melanie Ward-Warmedinger

In 2006 all ECB  
publications  
feature  
a motif taken  
from the  
€5 banknote.

This paper can be downloaded without charge from  
<http://www.ecb.int> or from the Social Science Research Network  
electronic library at [http://ssrn.com/abstract\\_id=923371](http://ssrn.com/abstract_id=923371).

© European Central Bank, 2006

**Address**

Kaiserstrasse 29  
60311 Frankfurt am Main  
Germany

**Postal address**

Postfach 16 03 19  
60066 Frankfurt am Main  
Germany

**Telephone**

+49 69 1344 0

**Website**

<http://www.ecb.int>

**Fax**

+49 69 1344 6000

**Telex**

411 144 ecb d

*All rights reserved. Any reproduction, publication or reprint in the form of a different publication, whether printed or produced electronically, in whole or in part, is permitted only with the explicit written authorisation of the ECB or the author(s).*

*The views expressed in this paper do not necessarily reflect those of the European Central Bank.*

ISSN 1607-1484 (print)  
ISSN 1725-6534 (online)

# CONTENTS

CONTENTS

<b>ABSTRACT</b>	<b>4</b>
<b>EXECUTIVE SUMMARY</b>	<b>5</b>
<b>1 INTRODUCTION</b>	<b>7</b>
<b>2 THE EFFECTS OF PREVIOUS EU ENLARGEMENTS AND GERMAN REUNIFICATION ON GEOGRAPHICAL LABOUR MOBILITY</b>	<b>8</b>
<b>3 ESTIMATES OF MIGRATION FLOWS FOLLOWING EXPANSION OF THE EU TO 25 MEMBER STATES</b>	<b>10</b>
<b>4 BARRIERS TO GEOGRAPHICAL LABOUR MOBILITY WITHIN THE EU</b>	<b>12</b>
<b>5 THE KEY ECONOMIC DETERMINANTS OF MIGRATION</b>	<b>15</b>
5.1 Wage and income differentials between the EU-8 and the EU-15	<b>16</b>
5.2 Wages relative to the costs of labour migration	<b>18</b>
5.3 The probability of finding a job and access to social security benefits	<b>20</b>
<b>6 RECENT NUMBERS ON INTERNATIONAL LABOUR MOBILITY FOLLOWING EU ENLARGEMENT</b>	<b>21</b>
<b>7 THE ECONOMIC CONSEQUENCES OF LABOUR MIGRATION</b>	<b>25</b>
7.1 Economic costs and benefits: For the host countries (EU-15)	<b>25</b>
7.2 Economic costs and benefits: For the home countries (EU-8)	<b>28</b>
7.3 Economic costs and benefits: For the EU-25 as a whole	<b>29</b>
<b>8 CONCLUDING REMARKS</b>	<b>30</b>
<b>EUROPEAN CENTRAL BANK OCCASIONAL PAPER SERIES</b>	<b>33</b>

## ABSTRACT

This paper examines the potential for increased cross-border labour mobility within the EU-25 and considers the costs and benefits of any increase in labour mobility to both sending and receiving countries in the medium to long run. Evidence from previous EU enlargement experiences, academic studies, the existence of barriers to mobility within the EU and the economic determinants of migration all indicate a moderate potential for increased migrant flows. The magnitude of cross-border labour flow in the medium to long run will most likely be largely a function of the demand for migrants and the speed at which the EU-8 catches up economically with the EU-15. If broad-based economic growth and social development continues in the EU-8, labour migration will most likely decrease. In addition, faster population ageing in the EU-8 tends towards dampening migration flow from the new Member States in the medium term.

In terms of costs and benefits, for the EU-8 countries labour migration, especially in the short run, may present a number of challenges. Emigration may tend to weigh disproportionately on the pool of young and educated workers, aggravating labour market bottlenecks in a number of EU-8 countries. For the EU-25 as a whole, cross-border labour mobility is likely to offer a number of advantages, by allowing a more efficient matching of workers' skills with job vacancies and facilitating the general upskilling of European workforces. The current restrictions on labour mobility from the EU-8 countries to the other EU member countries stand in contrast with one of the central principles of the EU – the free movement of labour. Furthermore, these restrictions may decrease the efficient use of labour resources in the face of demographic change and globalisation and hamper an important adjustment mechanism within EMU. Delaying the removal of these barriers may be costly for the EU-25 at a time when leaders are concerned about Europe's international competitiveness and may increase illegal work in a number of countries. Finally,

it would not be beneficial for Europe to lose a significant part of the most agile and talented individuals from the new Member States to more traditional migration centres such as the US and Canada.



## EXECUTIVE SUMMARY

This Occasional Paper considers the potential for increased cross-border labour mobility within an enlarged EU in the medium to long run and the costs and benefits of any increase in labour mobility to both sending and receiving countries.

The first part of the Paper assesses the potential for an increase in international labour mobility within the EU following the 2004 EU enlargement. On balance, this analysis suggests that the large-scale migration of workers will be an unlikely outcome of a full liberalisation of labour flows between the EU-15 and EU-8<sup>1</sup>, particularly in the medium to long run. Nevertheless, an increase in cross-border labour flows is to be expected and should be welcomed to the extent that it promotes a more efficient allocation of workers in the EU's single market and within the euro area. A situation where the labour force of any new euro area Member State faces constraints on its mobility to other euro area Member States would not be optimal.

Separate sections of the Paper consider: (1) Labour flows following the earlier EU accessions of Greece, Spain and Portugal, which suggest that the increase in geographical labour mobility following these enlargements was limited. (2) Previous studies of the potential migrant flow from East to West Europe, which indicate a moderate potential flow of between 1-4% of the total population of the EU-10 – i.e. between 1 and 3 million people within one to two decades after the EU-wide freedom of movement is granted to citizens of all EU-10 countries (for comparison, total net migration to the EU-15 from the rest of the world was estimated at around 1.75 million people in 2003 alone<sup>2</sup>). (3) The frequently cited barriers to labour mobility within the EU-15<sup>3</sup>, which are unlikely to be any lower between the EU-10 and the EU-15 Member States, and also suggest that a large increase in international labour mobility is unlikely. Furthermore, transitional legal restrictions on geographical labour mobility between the EU-8 (Malta and Cyprus are

excluded from these restrictions) and the EU-15 have been agreed under the 2003 accession arrangements. (4) The economic determinants of migration. This analysis shows that wage and income differentials between the EU-10 and EU-15 exist and that the size of these differentials relative to the costs of migration may be an important determinant promoting labour flows in the short run. Experiences may not be uniform across EU countries, with some countries more likely to host immigrant workers (e.g. due to network effects and geographical location) and other countries more likely to be the source countries of migrant workers (e.g. due to high youth unemployment rates). In the medium to long term, the extent of cross-border labour flow will depend on the demand for migrants and the speed at which the EU-8 catch up with the EU-15, the expectations of the EU-8 citizens about economic and social developments within their own countries, the movement of capital, and the extent of trade in goods and services. If broad-based economic growth and social development continues in the EU-8, labour migration pressures should diminish even without a full convergence of wages. In addition, faster population ageing in the EU-8 than in the EU-15 is also likely to curb the migration of workers from the new EU Member States in the medium run. Moreover, against the background of strong growth and adverse demographic developments, most EU-8 countries are likely to become net migration-receiving countries themselves in the medium run.

- 1 The following definitions apply: The EU-15 refers to Belgium, Denmark, Germany, Greece, Spain, France, Ireland, Italy, Luxembourg, the Netherlands, Austria, Portugal, Finland, Sweden and the United Kingdom. EU-10 includes the Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Slovenia and Slovakia. EU-8 refers to the EU-10, excluding Malta and Cyprus.
- 2 European Commission (2006), "Labour migration patterns in Europe: recent trends, future challenges".
- 3 Including legal and administrative barriers; the lack of familiarity with other European languages and cultures; the monetary costs of moving; inefficient housing markets; the limited portability of pension rights; the lack of clarity in the international recognition of professional qualifications; and non-formal learning and the lack of transparency of job openings.

The Paper then moves on to present evidence since the 2004 EU enlargement. This section shows that the early experiences since enlargement are generally positive. Preliminary evidence from the European Commission shows that since enlargement, the increase in the stock of EU-10 workers in the EU-15 Member States has been low. Labour immigration from non-EU countries is generally a much more significant phenomenon than intra-EU labour mobility, both within the EU-15 and the EU-25. Most migration of workers is found to be of a temporary nature, with a significant percentage of work permits being granted for short-term or seasonal workers. Furthermore, both the sector and the skill composition of the EU-10 citizens resident in EU-15 countries suggest that migrants from the EU-10 tend to play a complementary role in EU-15 labour markets. Fears concerning the overuse of social security systems by migrants have not been realised. Generally, migrants from EU-10 countries are found to have employment rates which are comparable or higher than EU-15 country nationals and that the employment rate of EU-10 nationals has actually increased since the 2004 enlargement in several countries (e.g. Spain, France, the Netherlands, Austria and the United Kingdom). Data from the national statistical offices of individual EU countries also generally show a moderate increase in labour migration from the EU-10. The countries that removed restrictions on the mobility of EU-10 workers first, in 2004 (i.e. the United Kingdom, Ireland and Sweden), have in general favourable experiences about the labour market impact of migration from these countries.

The final section of this Paper considers the economic costs and benefits of increased cross-border labour mobility to both sending and receiving countries. The public's resistance to labour migration in a number of countries is based on concerns that migrants may drive down wages, take away jobs from the native population and place a strain on the social security systems of these countries. Our survey of the empirical literature finds limited evidence in support of these concerns and suggests that,

on balance, for the host countries (the EU-15), the economic impacts of increased cross-border labour mobility are likely to be positive, although potentially unequally distributed across countries. Countries closest to the EU-8, and those with a significant migrant population from the EU-8, are likely to benefit disproportionately from East-West labour mobility following the opening of their labour markets. However, this does not exclude the possibility of localised difficulties (e.g. in border regions with intensive commuting).

For the EU-8 countries, labour migration, especially in the short run, may present a number of challenges as well as benefits. While labour migration flows from the EU-8 are likely to be minor compared to the population of the EU-15, they can weigh far heavier on the pool of young and educated workers in the EU-8. Labour shortages (e.g. in medical personal) are already causing concerns in a number of EU-8 countries. The balance of positive and negative effects of increased cross-border mobility mainly depends on whether labour migration is primarily temporary or permanent. Returning migrants may give a boost to economic growth by bringing in capital, skills and new ideas acquired abroad, which may offset the initial losses caused by brain drain. Increased labour migration is also most likely beneficial for the migrants themselves who may enjoy higher incomes.

For the EU as a whole, cross-border labour mobility is likely to offer a number of advantages by allowing a more efficient matching of worker skills with job vacancies and facilitating the general up-skilling of European workforces. It may also offer an important adjustment mechanism within EMU, where in the absence of country-specific monetary and exchange rate policies, labour market mobility would be beneficial in promoting the ability of national labour markets to adjust in the face of economic fluctuations and asymmetric shocks. The euro area will enlarge on 1 January 2007 with the entry of Slovenia. In order to fully reap the advantages of the euro and to allow adjustment

mechanisms to operate efficiently within the enlarged currency area, it will be necessary to fully integrate Slovenia into Economic and Monetary Union, which calls for all remaining barriers to labour mobility to be removed<sup>4</sup>.

The restrictions on labour mobility from the EU-8 countries will be temporary, as they will have to be removed by 2011 at the latest. However the delay may be costly for the EU-25, limiting the most productive use of labour resources at a time when EU populations are ageing and leaders are concerned about Europe's international competitiveness. Furthermore, the temporary restrictions on cross-border mobility stand in contrast with one of the central principles of the EU – the free movement of labour. Today's East-West labour migration flows include a large number of temporary workers, some of whom work illegally. Such employment relationships deprive immigrants from the protection of employment laws and prevent the host country from collecting tax revenues. Finally, it would not be desirable for the EU-25 if a significant part of the most agile and talented individuals from the new Member States are diverted to traditional migration centres (e.g. United States, Canada) instead of taking on employment in other EU Member States.

## I INTRODUCTION

In a flexible labour market, a high degree of labour mobility is desirable to help employment adjust favourably to changing demand conditions. An inefficient allocation of labour resources may negatively affect the longer-term level and growth rate of potential output and, in the short run, limits the pace at which an economy can grow. Therefore, the free movement of labour constitutes one of the central principles of the EU and is an important component of the completion of the single market.

Detailed and comparable data on the cross-border flow of labour is generally difficult to

obtain for the EU Member States. Available evidence for the EU-15<sup>5</sup> suggests that, overall, cross-border labour mobility is low. In 2000, only 0.1% of the total EU-15 population (or 225,000 people) changed official residence between two member countries (European Commission 2002<sup>6</sup>). Furthermore, at 0.4% of the EU-15 population, only a small proportion of individuals are known to commute across borders to work and half of this amount is to a non EU-15 country. In contrast, in the United States, geographical labour mobility is considered to be far higher. Evidence suggests that around 5.9% of the total US population changed residence between US counties in 1999 (European Commission 2002).

The low level of cross-border labour mobility across the EU-15 exists despite the legal provision for the free movement of labour. Reasons cited for this include the existence of legal and administrative barriers, the lack of familiarity with other European languages, moving costs, inefficient housing markets, the limited portability of pension rights, problems with the international recognition of professional qualifications and the lack of transparency of job openings. Nevertheless, policy-makers have generally recognised the benefits of increased cross-border labour mobility within Europe, both to individuals (in the form of offering new opportunities and perhaps better career prospects) and to regions and countries (through its benefits for promoting sustainable growth and developing less advantaged areas). International labour migration may allow worker skills to be matched more effectively with job vacancies, and may facilitate the general up-skilling of European workforces. It may also offer an important adjustment mechanism within EMU, where, in the absence of country-specific monetary and exchange rate policies, labour market mobility would be

4 See Introductory Statement of Mr. Trichet following the Governing Council meeting of 3 August, 2006.

5 The EU-15 refers to Belgium, Denmark, Germany, Greece, Spain, France, Ireland, Italy, Luxembourg, the Netherlands, Austria, Portugal, Finland, Sweden and the United Kingdom.

6 See European Commission (2002) "Action plan for skills and mobility".



beneficial in promoting the ability of national labour markets to adjust in the face of economic fluctuations and asymmetric shocks.

Despite the background of a generally low level of labour mobility within the EU-15, and the recognition of the possible benefits of increasing labour mobility, the expansion of the EU to 25 Member States in May 2004 was accompanied by concerns over the possibility of a wave of migration – particularly of the low-skilled – from the ten new Member States to the EU-15. The major concerns for receiving countries included a potentially negative impact on wages and employment of the native population and the increased use of social security systems, particularly by migrants. In response, most EU-15 Member States (with the exception of the United Kingdom, Ireland and Sweden) took the decision to maintain restrictions on the cross-border mobility of labour from the EU-8 (Malta and Cyprus were excluded from these restrictions), which delayed the migrant flow between the EU-8 and EU-15 Member States for up to seven years. This led some European institutions, such as the European Commission, to argue that following a possible initial, but temporary, increase in cross-border labour mobility between the EU-15 and the EU-10, labour mobility across Europe would most likely fall back to a low level (European Commission 2003<sup>7</sup>). From 1 May 2006, Greece, Portugal, Finland, Spain and from July 2006 also Italy decided to lift restrictions, while Belgium, Denmark, France, the Netherlands and Luxembourg decided to alleviate them. The restrictions remain unchanged in Austria and Germany.

The objective of this Occasional Paper is to consider the potential for increased cross-border labour mobility within an enlarged EU in the medium to long run and the economic costs and benefits of increased labour migration to both sending and receiving countries. For the purposes of this Paper, cross-border labour mobility refers to the migration of *workers*<sup>8</sup> *between countries* and includes commuting

where data permit. Section 2 starts with a review of the experiences of previous EU enlargements and the extent to which cross-border labour mobility was affected. Section 3 considers studies which have attempted to estimate the potential for East to West EU labour migration following the May 2004 EU enlargement. Section 4 summarises the barriers to international labour mobility that exist within the EU-15 and may influence the level of labour migration from the EU-10 to the EU-15. Section 5 turns to an analysis of the key economic determinants of migration within the EU based on the academic literature. Section 6 presents numbers on the early labour market experiences of cross-border labour mobility following the 2004 EU enlargement. Section 7 considers the potential economic costs and benefits of labour migration, both for host and home countries. Finally, Section 8 concludes.

## 2 THE EFFECTS OF PREVIOUS EU ENLARGEMENTS AND GERMAN REUNIFICATION ON GEOGRAPHICAL LABOUR MOBILITY

Evidence from earlier EU enlargements may be helpful in estimating the extent to which geographical labour mobility may increase in the medium to long term following the expansion of the EU to 25 members on 1 May 2004. Prior to this, there had been four other waves of enlargement since the European Community (EC) was created in 1967: (i) in January 1973, the United Kingdom, Denmark and Ireland joined; (ii) in January 1981, Greece joined; (iii) in January 1986, Spain and Portugal joined and then (iv) in January 1995, Austria, Finland and Sweden joined the newly created European Union. The accession of Greece, Spain and Portugal is often taken as the most comparable to the 2004

7 European Commission (2003) “Impact of Economic and Social Integration on Employment in the Context of Enlargement” Final report.

8 Here we refer to the cross-border mobility of workers, not including the self-employed.

enlargement. This is primarily because high income and unemployment rate differentials existed between these three countries and the existing EU members at that time. Furthermore, Greece, Spain and Portugal were geographically close to, and had previous labour migration experiences towards, the EU they had joined. These waves of enlargement were similarly accompanied by strong concerns over the possibility of a wave of migration from new to old Member States<sup>9</sup> – particularly of low-skilled workers – and, as a result, restrictions on labour mobility from the new to the old Member States were imposed for up to seven years.

Unique components of the 2004 enlargement include the fact that never before had so many countries joined the EU at the same time, although the total population of the EU-10 was about the same as the Southern enlargement (Greece, Spain and Portugal) as a percentage of the EU population that they were joining (at around 20%). Never before had the new countries such limited historical experience of free migration.<sup>10</sup> Furthermore, as presented later, income gaps for the EU-10 were greater relative to the EU than those of Spain, Greece and Portugal. The Southern European countries had reached about two-thirds of the average EU per capita income at the point of their accession to the EU – whereas in some of the EU-10 this level was below one half (at PPP exchange rates). Geographical proximity is also a more important factor for the EU-10 in the 2004 enlargement. Greece and Portugal had no common border with the EU when they joined and the shared border region between Spain and France experienced relatively high income levels. In contrast, half of the EU-10 share borders with Austria, Germany or Italy, some with large income differentials to the EU-15 and some with high population densities.

However, labour migration flows following the accession of Greece, Spain and Portugal suggest that the increase in labour market mobility following enlargement was limited. Dustmann et al. (2003)<sup>11</sup> find that about 10,000 Greek citizens per year emigrated to the rest of the EU

in the ten years following the end of restrictions on outward labour migration (a total increase of 102,000).<sup>12</sup> For Spain, net labour movement was towards the south as the number of Spanish immigrants decreased from around 495,000 in 1986 to 474,000 in 1991 and 470,000 in 1997. From Portugal, about 5,000 Portuguese citizens emigrated to the rest of the EU in each of the six years following accession (the stock increasing from 825,000 in 1986 to 855,000 in 1991). Therefore, in total, emigration from the Southern Member States was found to equate to around 79,000 migrants by the end of their regulated transition period. This was much lower than the estimated 1.5 to 1.6 million. This study finds no clear relationship between economic variables and migrant flows. Furthermore, it speculates that labour migration flows would not have been higher even in the absence of controlled transition periods. Thus, previous EU enlargements suggest that the mobility of labour within the EU may increase, at least in the short to medium run, but that this increase may not persist into the medium to long run. An important consideration for the impact of EU enlargement on long-term labour migration includes potential migrants' expectations of future economic prospects. In Spain, for example, the reversed direction of migration was most likely a result of substantial improvement of living standards and job prospects in Spain, partly as a result of EU accession.

A further historical episode in Europe is considered relevant for an understanding of the potential impact of EU enlargement on geographical labour mobility in Europe, namely

9 Between 1.5 and 1.6 million migrants from Spain and Portugal were predicted to emigrate to the EU following the end of their regulated transition period (Straubhaar 1984).

10 Whilst the legal obstacles preventing outward migration from the East were abolished following the fall of communism, most restrictions on immigration in the main EU destination countries were kept in place. It is therefore difficult to estimate the migration pressures from the EU-10 that were accumulated during the years of the iron curtain.

11 C. Dustmann, M. Casanova, M. Fertig, I. Preston and C. Schmidt (2003), "The impact of EU enlargement on migration flows", Home Office report 25/03.

12 See also Salt, J., Clarke, J. and S. Schmidt (2000); "Patterns and Trends in International Migration in Western Europe", Eurostat.

the reunification of Germany in 1990. The primary motivation for this comparison is the high income differentials that existed between East and West Germany, and the experiences of a region with a communist past joining together with a market economy (see, for example, Sinn 1999<sup>13</sup>). However, it is important to note that this episode also included a number of unique factors which are not applicable to the most recent expansion of the EU. For example, from the 1990s to the present day, the EU-10 have undertaken a process of social, political and economic transformation following the fall of communism and prior to enlargement; whereas, for German enlargement, much of this process had to occur following unification. Furthermore, East and West Germany had existed as one country less than 50 years prior to re-unification – the potential migrants spoke the same language, had strong family connections and cultural and regional proximity. This episode might therefore, at most, be an interesting reference in terms of some “upper bound” estimate of the degree to which labour mobility may increase following enlargement.

The increase in labour mobility following German unification was significant – 1.2 million East Germans had entered the West by 1998 and 1.1 million Germans moved from West to East Germany over this period (Burda 2000<sup>14</sup>). In the two years immediately following unification, the flow of migration from East to West Germany was significantly larger than that in the opposite direction. From 1992 onwards, however, the numbers levelled out, and in the medium term net migration was to the West, at an average rate of about 14,000 people per year (or a total of 70,000) since 2000. German unification was also important with regard to the immigration experiences of workers from further east. Immigration from the EU-10 into the EU-15 stood at a peak of around 300,000 people in 1990, immediately following the fall of the Berlin wall. Net immigration then declined sharply following the German recession of 1993 and was estimated to be below 50,000 people per year in the second half of the 1990s and early 2000s (Brücker et al 2003<sup>15</sup>).

### 3 ESTIMATES OF MIGRATION FLOWS FOLLOWING EXPANSION OF THE EU TO 25 MEMBER STATES

A number of studies have attempted to estimate the impact of the 2004 EU enlargement on migration flows from the EU-10 to the EU-15. The methodologies used to derive these estimates of East-West migration differ widely – varying from the application of econometric models, such as migration supply functions to the analysis of survey evidence, for example through the collection of individual intentions through questionnaires. A critical review of this body of literature is presented in Dustmann et al. (2003). This Paper argues that an implicit assumption in most econometric models is that migration is permanent, although many modern migrations in Europe have been found to be temporary (Dustmann 1996<sup>16</sup>), which may lead to an upward bias on many estimates of future migration. Second, econometric frameworks often assume that migration responds solely to economic considerations. However, labour migration in Europe in the post-war period has been heavily regulated and most large migration experiences were connected with historical events (e.g. the end of the Second World War, and the Hungarian revolution in 1956). This affects the ability of models to predict future labour migration potential. Third, the available data on migration has a number of shortcomings, often relating to its absence, or imprecise measurement. Drawbacks from survey evidence are argued to be related to the fact that they rely on individual intentions which are imperfectly realised.

With these caveats in mind, Box 1 summarises the conclusions of a number of the key studies

- 13 Sinn, H.-W. (1999) “EU enlargement, migration and lessons from German Unification”, CEPR Discussion Paper No. 2171.
- 14 Burda, M. (2005), “What kind of shock was it? Regional integration of Eastern Germany after unifications”, Paper presented at the AEA meetings January 2006, Boston.
- 15 Brücker, B., Alvarez-Plata, P., and B. Siliverstovs (2003), “Potential Migration from Central and Eastern Europe to the EU-15 – An Update”, Report for the European Commission, DG Employment and Social Affairs.
- 16 C. Dustmann, (1996); “Return migration: The European Experience”, *Economic Policy*, Vol. 22, pp. 215-50.

Box 1

ESTIMATES OF EAST-WEST MIGRATION FOLLOWING EU ENLARGEMENT

Layard et al. (1994) <sup>1</sup>	Extrapolation analysis based on previous South-North migration in Europe between 1950 and 1970	Migration potential of Central and Eastern European countries: 3% of total population emigrating within 15 years – or around 2.1 million people.
Franzmeyer and Brücker (1997) <sup>2</sup>	Regression analysis	Annual East-West migration from Poland, Slovakia, Slovenia, the Czech Republic and Hungary: between 340,000 and 680,000 people.
Walterskirchen and Dietz (1998) <sup>3</sup>	Extrapolation analysis based on income differentials	Annual East-West migration from Poland, Slovakia, Slovenia, the Czech Republic, Hungary: around 220,000 people.
Bauer and Zimmermann (1999) <sup>4</sup>	Regression analysis	Ultimately at least 3% of the population of EU-10 – or around 2.1 million people.
European Commission (2000) <sup>5</sup>	Regression analysis	335,000 people a year could move from the ten accession states in the first ten years following enlargement.
Sinn et al. (2000) <sup>6</sup>	Macro model-based calculation and regression analysis	Long run immigration of 6-10% of the total population of origin countries (around 4-5 million people over 15 years following enlargement).
Brücker et al. (2000) <sup>7</sup>	Regression analysis	Annual East-West migration from ten Central and Eastern European States would start at the level of around 336,000 people and decline to 2,400 over 30 years.
European Commission (2003) <sup>8</sup>	Regression analysis	This above figure was revised downwards to 286,000 immigrants in the first year, resulting in between 3.2 million and 4.5 million immigrants by 2030. This is equivalent to an increase in the population of the EU-15 of between 0.7% and 1.2%.
Dustmann et al. (2003) <sup>9</sup>	Survey analysis	2.22 million temporary migrants, with up to 1.11 million of these possibly migrating permanently, from Central and Eastern European Countries – no time period suggested.

Source: Fassmann, H. and R. Munz (eds), "Ost-West Wanderung in Europa", Bochlau-Verlag, Vienna-Cologne-Weimar, extended by the authors.

- 1 Layard, R., Blanchard, O., Dornbusch, R., and Krugman, P. (1994), "East-West Migration, The Alternatives", MIT, Boston.
- 2 Franzmeyer, F. and Brücker, H. (1997), "Europäische Union: Osterweiterung und Arbeitskräftemigration", DIW-Berlin Wochenberichte 5.
- 3 Walterskirchen, E. and Dietz, R. (1998), "Auswirkungen der EU-Osterweiterung auf den Österreichischen Arbeitsmarkt", WIFO, Vienna.
- 4 Bauer T. and Zimmermann K. (1999), "Assessment of Possible Migration Pressure and its Labour Market Impact following EU Enlargement to Central and Eastern Europe", A study for the department for education and employment (United Kingdom), Bonn.
- 5 European Commission (2000), "The impact of Eastern Enlargement on Employment and Labour Markets in the EU Member States", Report by the European Integration Consortium on behalf of the Employment and Social Affairs Directorate General of the European Commission, Berlin.
- 6 Sinn, H.-W., Flaig, G., Werding, M., Munz, S., Duell, N., and Hofmann, H., (2000), "EU-Erweiterung und Arbeitskräftemigration: Wege zu einer schrittweisen Annäherung der Arbeitsmärkte", Federal Ministry of Labour and Social Affairs, Berlin.
- 7 Brücker, H., Berlitz, H., Bornhorst, F., Edin, P., Mertig, M., Fredriksson, H., Hofer, H., Hoenekopp, P., Huber, P., Kreyenfeld, M., Lundborg, P., Moebius, U., Roulstone, D., Schrettel, W., Schraepfer, J., Schumacher, D., and Truebswetter, P. (2000), "Studie über die Auswirkung der EU-Erweiterung auf die Beschäftigung und die Arbeitsmärkte in den Mitgliedstaaten" Final report: Part 1: Analysis, Brussels.
- 8 European Commission (2003), "Impact of Economic and Social Integration on Employment in the Context of Enlargement" Final report.
- 9 Dustmann, C., Casanova, M., Fertig, M., Preston, I., and C. Schmidt (2003), "The impact of EU enlargement on migration flows", Home Office report 25/03.

estimating migration flow – using both econometric and survey methodology. The majority of these studies indicate a potential migration flow of between 1-4% of the total population of the EU-10, i.e. between 1 and 3 million people within one to two decades after EU-wide freedom of movement is granted to citizens of all EU-10 countries. Taking into account the possibility of migrants returning home, estimated net migration lies at about 1.5 million over the same horizon (for comparison, total net migration from the rest of the world to the EU-15 was estimated at around 1.75 million people in 2003 alone<sup>17</sup>). This net migration flow represents about 0.4% of the total EU-15 population. Furthermore, set against the background of demographic change and the decline in and ageing of the EU-25 populations, this expected increase in migration potential seems moderate. It should be noted, however, that a few studies, focusing on a shorter time horizon, estimate a significantly larger migration potential. Most of the migration flow in these studies is expected to be temporary, rather than permanent.<sup>18</sup>

#### 4 BARRIERS TO GEOGRAPHICAL LABOUR MOBILITY WITHIN THE EU

The experiences of previous waves of EU enlargement suggest that the increase in cross-border labour mobility following enlargement was moderate – particularly in the medium to long run. Furthermore, most economic studies estimating the potential increase in labour flow following the 2004 enlargement suggest a moderate potential migrant worker flow from the EU-10 to the EU-15. These experiences and predictions are in line with the generally low level of geographical labour mobility within the EU. The European Commission (2001)<sup>19</sup> finds that EU citizens “have about half the mobility rate of US citizens. In the last ten years, 38% of EU citizens changed residence ... 68% moved within the same town or village, 36% moved to another town in the same region ... 21% moved to another region in the same Member State and only 4.4% moved to another Member State.” Commuting is found to be the most frequent

form of EU cross-border geographic labour mobility. A number of reasons have been suggested for the generally low level of international labour mobility in Europe, which may also limit increased labour mobility within an enlarged EU. This section turns to a brief consideration of these issues.

In the economics literature, frequently cited reasons for barriers to international geographical labour mobility within the EU-15 include: the existence of legal and administrative barriers<sup>20</sup>; the lack of familiarity with other European languages<sup>21</sup> and cultures; the monetary costs of moving<sup>22</sup>; inefficient housing markets<sup>23</sup>, the limited portability of pension rights; the lack of clarity in the international recognition of professional qualifications; and non-formal learning and the lack of transparency of job openings. It is difficult to think of reasons for why many, if not all, of these barriers would be any lower between the EU-10 and the EU-15 Member States than between Member States of the EU-15 itself. Indeed, some barriers, such as the recognition of qualifications, may be far higher for nationals of the EU-10 in the early post-enlargement period, although they may decrease over time. Such barriers are therefore likely to also limit the cross-border mobility of labour from the EU-10 to the EU-15.

17 European Commission (2006), “Labour Migration patterns in Europe, recent trends, future challenges”.

18 For example, earlier generations of migrants from the East tended to settle permanently in the West. However, today’s East-West migrant flows include large numbers of temporary migrants who work on seasonal contracts or student visas.

19 European Commission (2001) “High level task force on Skills and Mobility: Final Report”, Directorate-General for Employment and Social Affairs, Unit EMPL/A.3., December.

20 Such barriers include for example, rules which restrict the creation of a company in another Member State or restrictions on the reallocation of staff and the use of temporary and employment agency staff (European Commission 2002b). The interaction between tax systems of different countries may also create legal and administrative problems.

21 The European Commission (2001): Only half the EU population speaks any other EU language than their own. According to this study, both the lack of language skills and the slowness of their distribution put a further constraint on mobility.

22 Including costs of moving residence related to high property prices and fixed costs including taxes to buying and selling a property.

23 See also ECB (2003), “Structural factors in the EU Housing Markets”.



Table I Policies towards migrants from the EU-8 for the period 1 May 2004 to 30 April 2006

<b>BE</b>	Belgium imposed restrictions on labour migration from the EU-8, applying its system of work permits.
<b>DK</b>	Denmark imposed restrictions on labour migration from the EU-8. Immigrants could enter the country to seek work, however they had no automatic access to benefits during this period. On finding a job, immigrants from the EU-8 had to apply for a special work and residence permit, which was only granted for full-time positions on terms corresponding to those normally applying on the Danish labour market (for example, at the normal Danish wage for that position). If unable to find a job, or on losing their employment, immigrants lost the right to a resident permit and had to leave Denmark.
<b>DE</b>	Germany imposed restrictions on labour migration from the EU-8. It maintained its existing system of work permits. Existing deals with EU-8 members, such as with Polish seasonal workers, continued to apply. Quotas continued for temporary workers in construction and agriculture.
<b>GR</b>	Greece imposed restrictions on labour migration from the EU-8, applying its system of work permits.
<b>ES</b>	Spain imposed restrictions on labour migration from the EU-8, applying its system of work permits.
<b>FR</b>	France imposed restrictions on labour migration from the EU-8. It maintained its existing work permit system where permits are issued on the basis of a number of criteria, including the job offer, salary offer and qualifications of the applicant. Immigrants from the EU-8 managing to obtain a work permit had the same access to social security as French citizens and could bring their family with them, who had full access to the labour market. Different rules applied for seasonal workers, students, au pairs and researchers.
<b>IE</b>	Ireland opened its door to immigrants from the EU-8, but restrictions on the receipt of welfare benefits applied. This change in legal status and labour market access applied to both post 1 May 2004 arrivals and to EU-8 nationals who had previously been working or resident in Ireland before 1 May 2004, either legally or illegally. Immigrants from the EU-8, and all other EU countries with the exception of the United Kingdom, were not eligible for welfare benefits in Ireland for the first two years of employment. Unlike in the United Kingdom, nationals of the EU-8 did not require special certificates after taking up employment in Ireland.
<b>IT</b>	Italy imposed restrictions on labour migration from the EU-8. An immigration quota was in place which limited the number of migrants from the EU-8 to a maximum of 20,000 per year.
<b>LU</b>	Luxembourg imposed restrictions on labour migration from the EU-8.
<b>NL</b>	The Netherlands imposed restrictions on labour migration from the EU-8. For EU-8 nationals, access to the labour market through the issue of a work permit was granted only when Dutch nationals were unavailable to fill a position.
<b>AT</b>	Austria imposed restrictions on labour migration from the EU-8 by applying its system of work permits.
<b>PT</b>	Portugal imposed restrictions on labour migration from the EU-8. Migrants were required to apply for a work permit, however the annual number of work permits issued to foreign workers was limited to 6,500 per annum. Any new work permits issued to EU-8 nationals therefore had to fall within this quota.
<b>FI</b>	Finland imposed restrictions on labour migration from the EU-8. In normal circumstances, migrants had to apply for a work permit and were able to fill a position without a work permit only in the case that no local labour was available. Summer fruit pickers were exempt.
<b>SE</b>	Sweden opened its door to immigrant labour from the EU-8. Some measures were introduced to allow the greater control of subcontractors in building projects, the monitoring of false self-employment and to allow trade unions to check that collective agreements were being observed in workplaces where they have no representatives. A commission was set up to look at ways to limit the right to social welfare of citizens of other EU states looking for work in Sweden.
<b>UK</b>	The United Kingdom opened its door to immigrants from the EU-8, but restrictions on the receipt of welfare benefits applied. EU-8 nationals had to register under a Workers Registration Scheme if they wished to work and only received unemployment and income support benefits following continuous employment for one year. Other benefits were available immediately for those in work. Workers could bring their family with them, who then had full access to the labour market.

Sources: EIRO (2004), "Controversy over rules for workers from the new EU Member States", [www.eiro.eurofound.ie](http://www.eiro.eurofound.ie); EIRO (2004), "Parliament rejects transitional rules for workers from new EU Member States", [www.eiro.eurofound.ie](http://www.eiro.eurofound.ie); Euractiv.com; Financial Times; Home Office (2004) Immigration and Nationality Directive; Ruhs, M., (2004), "Ireland, A Crash Course in Immigration Policy", Centre on Migration, Policy and Society, Oxford University; [www.workpermit.com](http://www.workpermit.com).

Note: There is no common immigration policy across the EU. The most wide-ranging policy is a consequence of the Treaty of Amsterdam, which came into force in May 1999. This Treaty secured an overarching legislative framework and the coordination of EU Member States' actions with regard to immigration and asylum policy for the EU-15. However, three EU-15 Member States (United Kingdom, Ireland and Denmark) do not fully participate in this treaty, together with the EU-10, and the directive governing the establishment of common definitions, procedures and criteria for the entry and residence of immigrant workers has yet to be concluded. Immigration policy is instead regulated by national or regional policy, which in turn creates a broad range of entry requirements and immigration procedures, the specifics of which vary by country.

In addition to these barriers, temporary legal restrictions on geographical labour mobility were imposed on most of the EU-10 Member States by most of the old EU-15 Member States following the practices of past rounds of EU accession. Although the free movement of persons is one of the fundamental rights guaranteed to EU citizens, and includes the right to work and live in another Member State, in both the 1981 Greek accession and the 1986 Spanish/Portuguese accession, a seven-year transition period was imposed before workers from the new member countries could work throughout the EU. The rationale for the transition period was to ensure that labour migration from one country did not have a sudden and adverse impact on another country's economy.

Under the 2003 accession arrangements, the introduction of the part of Community law on the free movement of workers across the enlarged EU can be deferred for a period of up to seven years, broken down into three sub-periods in a 2+3+2 system. The first two-year period commenced on 1 May 2004 and finished on 30 April 2006. During this period, a number of EU-15 countries (the exceptions being the United Kingdom, Sweden and Ireland) decided to apply their national immigration policy to labour from the EU-8 (Malta and Cyprus are excluded from these restrictions).

Table 1 summarises the broad policies on migrant workers in place in the EU-15 during this period.<sup>24</sup> Although the United Kingdom, Ireland and Sweden opted out of imposing limits on the migration of labour, Ireland and the United Kingdom tightened the conditions of access to their social security benefit systems. Furthermore, in the EU-10 countries, Malta issued work permits to immigrants from the EU for monitoring purposes and Poland, Slovenia and Hungary applied reciprocal restrictions on labour from those EU-15 Member States imposing restrictions on the EU-10. All EU-10 Member States opened their labour markets up to workers from other EU-10 countries.

In February 2006, in accordance with Paragraph 3(2) of the transitional arrangements on the freedom of movement for persons annexed to the 2003 Treaty of Accession, the European Commission produced a report assessing the labour market experiences of the EU-15 following enlargement. On the basis of this report, the EU-15 Member States had to decide whether to continue, stop, or introduce temporary restrictions on labour migration from the EU-10. They had to notify the European Commission of their intentions for the second three-year phase by the end of April 2006. In the absence of any notification, Community law on the free movement of labour applied from 1 May 2006. Member States that decided to lift their restrictions on 1 May 2006 included Greece, Portugal, Finland and Spain and from July 2006 also Italy, while Belgium, Denmark, France, the Netherlands and Luxembourg decided to alleviate them. The restrictions remain unchanged in Austria and Germany. Slovenia decided to no longer apply reciprocal restrictions. Countries lifting restrictions will have the possibility to reintroduce them throughout the remainder of the transitional period. At the end of the fifth year following enlargement, all transitional arrangements should come to an end, but may be extended for a further two years in the case of serious labour market imbalances. At the end of the seven-year period – on 30 April 2011 – all EU Member States must open up their labour market to the EU-8 in all circumstances.

Thus, temporary regulations have effectively restricted the migrant flow between the EU-8 and the EU-15 since 1 May 2004 for up to seven years. The restrictions may lead to an increase in illegal undeclared work, bogus claims of self-employment, contract work and service provision.<sup>25</sup> Thus, although mobility flows will ultimately be driven by the demand and supply

24 For the details by country of origin and country of intended work, see [www.europa.eu.int/eures/home.jsp?lang=en](http://www.europa.eu.int/eures/home.jsp?lang=en).

25 See European Commission (2006), "Report on the functioning of the transitional Agreements set out in the 2003 Accession Treaty".

factors, these temporary regulations may delay and possibly distort labour market adjustments. By 20 April 2011 at the latest, such legal barriers to labour mobility across the enlarged EU will cease to exist. The other remaining barriers to labour mobility posed, for example, by the limited portability of pension rights, the lack of transparency of job openings and the international recognition of qualifications, are areas to be targeted by employment policy within Lisbon agenda for jobs and growth.

## 5 THE KEY ECONOMIC DETERMINANTS OF MIGRATION

This section turns to what the economics literature tells us about the determinants of labour migration, with a focus on the factors likely to be most important for East-West labour migration potential following the 2004 EU enlargement. The central elements of the economic determinants of migration are summarised in Box 2. On balance, this analysis also suggests a moderate aggregate labour

### Box 2

#### THE DETERMINANTS OF MIGRATION

(i) *Neo-classical approach: Considers the migration decision as an individual's decision. The most important determinants of migration under this school of thought are:*

- The costs of migration including transport costs, income losses during migration and psychological costs. This suggests that migration can be interpreted as an investment, since the present costs have to be paid off in the future. Costs are therefore negatively related to the probability of migrating.
- The expected income from work, which is a function of wage and the probability of getting a job. Therefore, even if the probability of getting a job is small, an individual may migrate if the wage differential is sufficiently high.
- The existence of social security systems, which means that unemployment does not necessarily equate to no income.
- Information/search costs: this may be a function of the distance from the receiving country and “network” effects, i.e. connections between individuals in a host country and friends and relatives left at home.
- The age of the individual: the probability of migration has been found to decrease with age.
- Skill levels: strong demand for particular skill groups may encourage migration.
- Expected developments in home and receiving country: it may be disadvantageous to migrate if the development in the home country is positive or negative in the target country.

(ii) *“New economics of migration” considers the household as the core decision-maker.*

- Individual family members migrate, because the dependence on the labour market situation is reduced. However, singles still make up a higher proportion of immigrants than family members.
- Individual's relative income position within a society is important. Migration is influenced by income inequality in the home country. There is a higher incentive to emigrate if one is poor among the rich, rather than poor among the poor.

Source: Fertig, M. and C. Schmidt (2002) „Mobility within Europe – What do we (still not) know?“, IZA discussion paper No. 447, compiled by the authors.

migration potential, particularly in the medium to long run. However, it also highlights that labour migration experiences may not be uniform across the EU, with some countries more likely to host immigrant workers (e.g. due to network effects and geographical location) and other countries more likely to be the source countries (e.g. due to high youth unemployment rates).

### 5.1 WAGE AND INCOME DIFFERENTIALS BETWEEN THE EU-8 AND THE EU-15

One of the main arguments for cross-border labour migration in the economics literature is related to wage differentials between the host and sending country. It is argued that the probability of migration is positively related to the size of any wage or income differential. However, the strength of this effect is not obvious. A UN survey,<sup>26</sup> for instance, concludes that the responsiveness of aggregate migration to international income and wage differences is fairly low. It is also not obvious which measure of wages is most relevant to potential migrants in their labour migration decision. Generally, wage levels converted at PPP (purchasing power parity) may be most appropriate for a consideration of labour migration flow, since this measure accounts for differences in price

levels in the home and host countries. For commuting, wage differentials at market exchange rates are more important, because commuters are likely to spend most of their income in their home country.

Table 2 shows that the absolute gap in wage levels between the EU-8 and the EU-15 is generally high (looking at wage differences compared to Germany suggests a wage gap of a similar magnitude). In 2004, wage levels converted at market exchange rates ranged between 54% of the EU-15 average in Slovenia to only around 17% in Latvia and Lithuania. At PPP exchange rates, the degree of wage convergence is larger, but the difference is still substantial. Both measures therefore suggest a large labour migration potential.

This finding is also supported when considering the absolute gap in per capita income levels in 2005 (see Table 3). This measure serves as a rough proxy for both the convergence already achieved and the remaining gap in productivity levels and living standards between the countries of EU-8 and the EU-15 average. Per capita income levels in PPP range from 44% of the EU-15 average in Latvia to 74% in Slovenia.

<sup>26</sup> UN (1997), World Population Monitoring, New York.

**Table 2 Gross monthly wage levels in % of the EU-15 wage level (2004)**

	in % of EU-15 wage level		in % of German wage level	
	At current exchange rates	At PPP exchange rates	At current exchange rates	At PPP exchange rates
CZ	28	52	27	51
EE	23	40	23	39
LV	17	34	16	33
LT	17	35	16	34
HU	30	52	29	51
PL	25	50	24	48
SI	54	71	52	69
SK	18	37	18	36
<b>weighted average</b>	25	49	25	47

Sources: Dresdner Bank (2004) and ECB calculations.

For comparison, when Greece acceded in 1981, PPP-GDP levels were at 65% of the EU-15 average, and when Spain and Portugal acceded in 1986, PPP-GDP levels were at 66% and 70% of the EU-15 average respectively.<sup>27</sup> Thus, for some EU-8 countries, such as the Baltic States, the absolute gap in per capita income levels to the EU-15 is still well above the levels of previous enlargements which would suggest a large labour migration potential from these countries. For other countries, however, particularly Slovenia and the Czech Republic, income levels relative to the EU-15 are comparable with previous enlargement experiences – suggesting a possibly smaller pool of potential migrants.

A third measure – the expected growth rate of real GDP per capita – is also relevant, since it reveals information about the expected path of income over time<sup>28</sup>, and about real convergence in the standard of living between the EU-15 and the EU-8. Table 3 presents two scenarios regarding the possible rate of convergence in per capita income (at PPP). The results of this simple exercise vary somewhat depending on the assumptions made, but generally suggest that after 15 years of EU membership, considerable progress with convergence in per capita income is likely to have been achieved for a number of EU-8 countries, although real

convergence will not have been sufficient to close the income gap.

Any labour flow from the EU-8 is therefore likely to decrease in the medium term as the EU-8 catch up to the EU-15 average, making labour migration less attractive relative to the costs that migration entails. Empirical evidence demonstrates that the pace of economic growth appears to be a very important factor influencing labour migration.<sup>29</sup> When a catching up economy

27 H. Brücker et al., (2003), “Potential Migration from Central and Eastern Europe into EU-15”, DIW, Berlin.

28 Consistent with the theory, this assumes that individuals will consider the discounted present value of their expected lifetime consumption in their decision whether or not to migrate.

29 Empirical evidence from a number of countries suggests that the relationship between economic development and migration is not a linear one, but it is more likely to follow an inverse U-curve type pattern. According to this view migration is very limited at a low level of economic development when a large share of the population is missing the financial means and sufficient information for seeking better life opportunities by migration to another country. Migration tends to peak at an intermediate level of development and after reaching its peak decrease with any further increase of per capita. Most European countries have already reached their peak long time ago. In Portugal for instance the peak was reached in around the end of 1960s (see more on this in P. A. Fischer, R. Martin, T. Straubhaar (1997), “Interdependencies between Development and Migration” in *International Migration, Immobility and Development*, edited by T. Hammar, G. Brochmann, K. Thomas, T. Faist). The EU-8 are certainly not in an early stage of economic development, and although it is difficult to tell their exact position in their inverse U-curve it seems likely that most of them already passed or close to the peak. Further income convergence of these countries should therefore lead to less migration.

**Table 3 Projected convergence in per capita income levels<sup>1)</sup> as a percentage of the EU-15 average, 15 years following EU accession**

	In 2005	In 2019	
		4-2 scenario	10 year average scenario
CZ	67	87	66
EE	52	66	86
LV	44	57	76
LT	49	62	75
HU	56	72	69
PL	46	60	55
SI	74	96	89
SK	50	65	61

Sources: European Commission, ECB calculations.

Notes: The “4-2 scenario” assumes 4% average annual real GDP growth in the EU-8, and 2% average annual growth in the EU-15. The “10 years average scenario” assumes an average annual real GDP growth rate in each country, calculated as the average growth rate of the last ten years. Population growth is assumed to be zero in both scenarios, given the very small prospective change of the populations of the countries in question over the next 15 years, based on the UN demographic projections.

1) At PPP.



is successful in creating conditions for broad based economic growth and job creation, labour migration pressure is likely to taper off, even when large wage differentials persist.<sup>30</sup> *Expectations* of the EU-8 citizens towards developments within their own countries may therefore also be a very important determinant of the labour migration flow from new to old Member States, particularly in the medium to long run.

The movement of capital and trade in goods and services will also affect the extent and speed with which income and wage levels converge, and therefore the potential flow of migrants. It has been argued, for example, that “to an important degree, trade has replaced the economic demand for migration in the EU”.<sup>31</sup> Substantially increased international trade should accelerate the real convergence of the EU-8 to the EU-15 and may therefore also dampen the labour migration effect. A potentially more important factor is foreign direct investment (FDI) and the relocation of some part of production from the EU-15 to the EU-8. FDI should help economic growth and wage convergence in the EU-8. In the medium run this should decrease labour migration pressure and contribute to welfare both in the EU-8 and the EU-15.

Interestingly, in the public debate, there are similar concerns attached to the mobility of capital towards the EU-8 as to the mobility of labour from the EU-8. These concerns are mainly related to the potential job losses resulting from the outsourcing of manufacturing activities. In a recent work, Marin (2004)<sup>32</sup> considers empirical evidence from a survey covering 80% of German and 100% of Austrian FDI in Central and Eastern Europe (not just the EU-8). This study finds that FDI investment to Central and Eastern Europe is likely to cause fairly low job losses, and plays an important role in sustaining the competitiveness of many German and Austrian companies in an increasingly competitive environment<sup>33</sup>. Other empirical studies, such as the paper of Lankes and Venables (1996)<sup>34</sup> which is based on

company surveys, suggest that the main driving force behind the relocation of production to Central and Eastern Europe is not necessarily lower wages but rather to gain access to fast growing markets. These investments imply further growth and more jobs (rather than job losses) in the home country firms. Theoretical work conducted in the area of industrial restructuring suggest a small impact of industry relocation for the EU-15 as a whole.<sup>35</sup>

## 5.2 WAGES RELATIVE TO THE COSTS OF LABOUR MIGRATION

The convergence of real wages does not need to be complete for labour migration pressure to disappear. However, the migration literature argues that any wage gap must be smaller than the costs of migration. A questionnaire by Drinkwater (2002)<sup>36</sup> suggests that the willingness of Central Europeans to move geographically is not significantly higher on average than for Western Europeans. This might be a sign of the fact that the costs of migration,

30 See International Organisation for Migration, (2005), “World Migration 2005: Costs and Benefits of International Migration”.

31 T. Straubhaar (2001), “Migration Policies and EU Enlargement, East-West Migration: Will it be a problem?”, *Intereconomics*, July/August.

32 D. Marin (2004), “A Nation of Poets and Thinkers – less so with Eastern Enlargement? Austria and Germany”, Discussion Paper Series, Centre for Economic Policy Research.

33 Another finding of this paper suggests that not only labour intensive, but increasingly skill intensive activities (e.g. research) were transferred to Central and Eastern Europe. The key reason behind this was a severe skill shortage in Germany and Austria. The study argues that if Germany and Austria find it important to keep high skilled activities at home, the best response would be the liberalisation of their labour markets towards skilled labour from Central and Eastern Europe.

34 H. P. Lankes; A. Venables (1996), “Foreign Direct Investment in Economic Transition: the changing pattern of investments,” *Economics of Transition*, Vol. 4 (2).

35 The study by Forslid, Haaland Knarvik and Maestad (2002) conducted model simulations capturing comparative advantage mechanisms and intra-industry agglomeration forces. While their results suggest relatively small impact of industry relocation for EU-15, they also find that individual sectors (such as the textiles or transport equipment sectors) potentially face strong effects (see also F. Forslid, J. Haaland, K. H. Knarvik, O. Maestad (2002) “Integration and Transition”, *Economics of Transition*, Vol. 10 (1)).

36 S. Drinkwater (2002), “Go West? Assessing the willingness to move from Central and Eastern European Countries”, University of Surrey.

Table 4 Stock of residents from the EU-8 in EU-15 countries

Year	AT 2001	DK 2003	FI 2001	DE 2001	IT 2002	LU 2003	SE 2001	Total	Share of EU-8 immigrants as a percentage of the total population of these 7 EU 15 Member States	Share of EU 8 migrants as a percentage of EU 8 population
CZ	7,313	412	125	38,504	3,468	173	471	50,466	0.49	0.70
EE	54	523	10,839	3,880	205	131	1,662	17,294	1.28	1.88
LV	153	894	227	8,543	467	41	780	11,105	0.47	0.69
LT	208	1,583	204	11,156	322	32	727	14,232	0.41	0.61
HU	12,729	457	654	55,978	3,066	417	2,727	76,028	0.75	1.09
PL	21,841	5,410	694	310,432	29,282	885	15,511	384,055	0.99	1.44
SI	6,893	56	10	19,395	1,583	72	627	28,636	1.44	2.05
SK	7,739	216	51	23,004	6	114	363	31,493	0.58	0.57
Total	56,930	9,551	12,804	470,892	38,399	1,865	22,868	613,309	0.83	1.20

Sources: Brücker et al. (2003), national statistical offices, Eurostat and own calculations.

including non-financial costs often exceed even substantial gains stemming from higher potential income levels. However, there are a number of factors that may decrease the costs of migration. Among these factors, the “network” effect is particularly important. The number of migrants of the same nationality in a host country significantly decreases the psychological costs (e.g. detachment from home culture) to migration and the risk of migration (e.g. through easing the costs associated with finding work and/or accommodation) for potential migrants.

Network factors suggest that Austria and Germany could expect to receive a large share of the immigration from the EU-8 – due to their relatively high populations of foreign nationals from these countries – and that Poland may be the key source of migrants – due to its relatively large population and its high number of citizens living in the EU-15 and, in particular, Germany (see Table 4). Furthermore, costs of migration are a function of distance from the receiving country which again seems to favour Germany and Austria as destination countries.

Table 5 Country of first choice for the potential migrants

(percentages)					
Home country:	Total	Czech Republic	Hungary	Poland	Slovakia
<b>Receiving Country:</b>					
Germany	37.0	42.6	31.4	37.4	36.3
Austria	24.4	22.6	30.5	17.8	25.9
UK	6.4	9.2	3.8	4.5	7.1
France	4.1	2.9	4.3	5.4	4.1
Italy	3.9	5.8	2.3	5.1	2.6
Scandinavia	3.3	2.7	4.9	3.1	2.5
Netherlands	2.8	3.4	2.2	3.5	2.3
CEE	2.8	2.5	-	0.5	6.3
Overseas <sup>1)</sup>	6.4	-	14.9	15.0	-
Total	100.0	100.0	100.0	100.0	100.0

Sources: Fassman, Hintermann (1997), Fassman, Münz (2002).

1) United States, Canada, Australia.

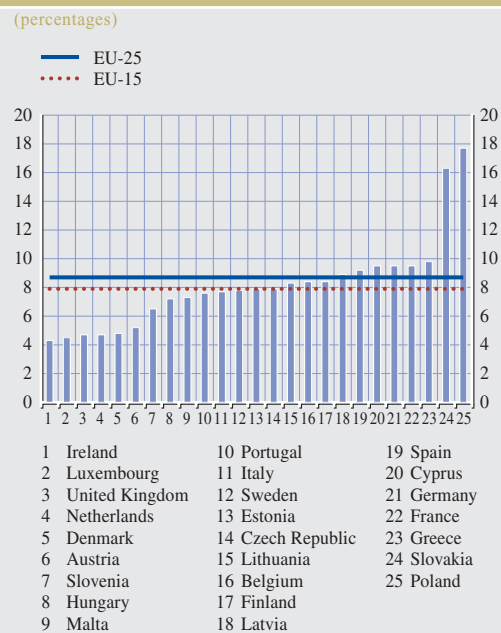
Table 5 presents the results of a survey by Fassman et al. (1997 and 2002)<sup>37</sup> which collected information on immigration intentions for the four largest EU-8 countries. The conclusion from this survey confirmed that more than a third of respondents would choose Germany as their prime destination and about a quarter would choose Austria. Intentions to go to other EU countries were generally much lower. A potential drawback, however, from such survey evidence is related to the fact that it relies on individual intentions, which are often imperfectly realised.

### 5.3 THE PROBABILITY OF FINDING A JOB AND ACCESS TO SOCIAL SECURITY BENEFITS

High levels of unemployment at home relative to a host country is a further factor put forward by the economics literature as likely to increase the incentive to migrate<sup>38</sup>. First, Chart 1 presents the total unemployment rates for countries of the EU-25 in 2005. It suggests higher potential migrant flows from countries such as Poland and Slovakia where average unemployment is significantly higher than in the EU-15.

The economics literature also suggests that young workers are relatively mobile. Brücker et al. (2003)<sup>39</sup> find that around 70% of the workers from the EU-8 living within the EU-15 are in the 25-to-44 age group. Chart 2 therefore presents the unemployment rates for young people (under the age of 25) within the countries of the EU-25. It supports the conclusion of the previous paragraph that potential migrant flows may be particularly high from Poland and Slovakia. However, projections of the size of the young population (aged between 0 and 14 years) by the European Commission suggest that the fall in the size of the young population in the new Member States will be even more severe than in EU-15 (see Table 6). In particular, while in the EU-15 the size of the young population is expected to decline by 4.5% by 2020, the decline is expected to be around 16% in the new Member States. This is likely to significantly decrease migration pressure from the new Member States. Moreover, as a result

Chart 1 Total unemployment rate, 2005



Source: Eurostat.

of their demographic decline, the new Member States will be likely to face a new challenge to attract and integrate a large number of young migrants from third countries.

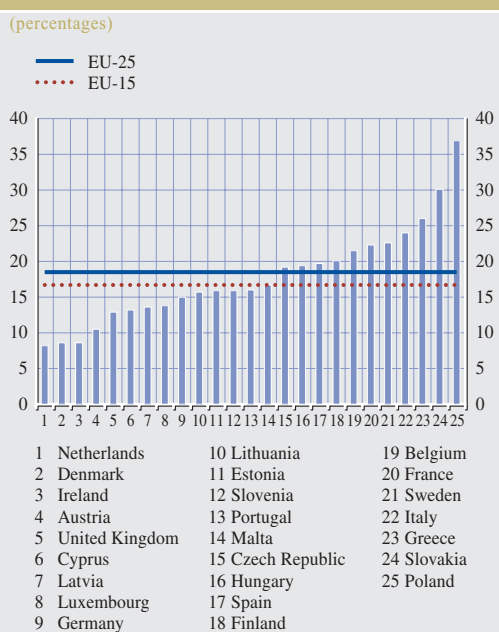
Regional unemployment may also be an important determinant of potential labour migration flow. The average unemployment rate in the Western part of Central Europe is well below the national averages in the individual countries. This factor is likely to contain labour migration flows in the bordering regions of Germany and Austria from these direct neighbours. A possible exception is a region in Poland with very high unemployment which borders Germany, which may result in an

37 Fassmann, H.; Münz, R. (2002), "EU Enlargement and Future East-West Migration", International Organisation for Migration (IOM), New Challenges for Migration Policy in Central and Eastern Europe.

38 This effect is likely to be strongest for low-skilled workers, but may also be the case for skilled workers if there is an excess supply of a particular skill in the home market.

39 Brücker, H. et al. (2003), "Potential Migration from Central and Eastern Europe into EU-15", DIW, Berlin.

Chart 2 Unemployment rate, 15-24 year olds, 2005



Source: Eurostat.

indicated, even the United Kingdom and Ireland have restricted migrants' access to their social security systems.

In summary, analysis of the determinants of migration in this section suggests that wage and income differentials between the EU-10 and EU-15 exist and that the size of these differentials relative to the costs of migration may be an important determinant of labour migration flow in the short run. However, any increase in intra-EU mobility may not be uniformly spread across EU countries, with some countries more likely to host migrant workers (e.g. due to network effects and geographical location) and other countries more likely to be the source countries (e.g. due to high youth unemployment rates). Medium to long-term considerations suggest reduced labour migration incentives to residents of the EU-10, particularly as the EU-10 catch up economically to the EU-15 and as a result of the faster-projected population ageing of the EU-10 populations.

increase in migrants in the form of daily commuters.

Finally, access to social security benefits in a host country may decrease the risks associated with labour migration for potential migrants, since it ensures that an unsuccessful search for employment does not result in zero income. This mechanism, in particular, was discussed prior to the 2004 enlargement of the EU, since there was strong concern in a number of EU-15 countries that providing migrants with automatic access to social security benefits would increase the migrant flows from the EU-8. As Table 1 has

## 6 RECENT NUMBERS ON INTERNATIONAL LABOUR MOBILITY FOLLOWING EU ENLARGEMENT

Although the May 2004 enlargement of the EU is still a recent event, some preliminary information on labour migration flows since this enlargement is available. In February 2006, the European Commission prepared a report for the European Council which evaluates the labour market impact of the 2003 transitional arrangements on the freedom of movement of persons (annexed to the Treaty of Accession of

Table 6 Projection of young population aged 0-14

(in millions)	Total			% change		
	2004	2020	2050	2004-20	2020-50	2004-2050
EU-25	74.8	69.6	60.4	-6.8	-13.3	-19.2
EU-15	62.4	59.6	52.7	-4.5	-11.5	-15.5
EU-10	12.4	10.4	8.6	-16.1	-17.0	-30.4

Source: European Commission (2005), European Economy, Special Report No 4/2005.

2003).<sup>40</sup> Although some information is not fully harmonised across countries, this report provides a valuable source of material on the magnitude and the composition of labour migration flows to date.

The first important conclusion of the Commission report is that although there has been an increase in the stock of EU-10 workers in the EU-15 Member States since the 2004 enlargement, the number of new work permits issued to EU-10 nationals as a proportion of the host country's working age population has been low. Furthermore these numbers generally overstate the increase, since they do not take account of EU-10 workers who consequently return home, and include workers who might have already been resident in a country before enlargement.

Figures in the European Commission (2006) report show that, in the first quarter of 2005, the number of EU-10 workers as a proportion of

the working age population in the EU-15 was small, ranging between 0.1% in France and the Netherlands to 1.4% in Austria and 2% in Ireland. Table 7 presents the change in this share of EU-10 workers over the period 2003 to 2005. Even the largest increases seem to have been moderate, ranging from between 0.1 p.p. per year in the United Kingdom to a 1.4 p.p. increase in Austria in 2005. For the EU-15 as a whole, the increase amounted to only 0.2 p.p. over the two-year period. The Commission notes that immigration from non-EU countries is generally a much more significant phenomenon than intra-EU mobility, both within the EU-15 and the EU-25.

Other conclusions of the Commission (2006) report include no direct link between having temporary restrictions on labour migration from the EU-8 in place and the magnitude of

<sup>40</sup> European Commission (2006), "Report on the functioning of the Transitional Arrangements set out in the 2003 Accession Treaty (period 1 May 2004 to 30 April 2006)", Brussels.

**Table 7 Resident working population by nationality, 2003 to 2005**

(percentage of the total working age population)

	Nationality					
	Foreign nationals from EU-15			Foreign nationals from EU-10		
	2003	2004	2005	2003	2004	2005
Belgium	5.4	5.8	5.8	0.2	0.2	0.2
Denmark	1.0	1.1	1.1	.	.	.
Germany	2.7	2.6	2.8	.	.	0.7
Greece	0.2	0.4	0.3	0.3	0.4	0.4
Spain	1.1	1.2	1.2	0.2	0.2	0.2
France	1.9	2.1	1.9	0.1	0.1	0.1
Ireland	3.4	3.3	3.0	.	.	2.0
Luxembourg	37.2	37.6	37.6	0.3	0.3	0.3
Netherlands	1.5	1.5	1.4	0.1	0.1	0.1
Austria	1.7	1.8	1.9	0.7	0.8	1.4
Portugal	0.3	0.4	0.4	.	.	.
Finland	0.3	0.3	0.4	0.3	0.3	0.3
Sweden	2.2	2.2	2.3	0.2	0.2	0.2
UK	1.8	1.8	1.7	0.2	0.3	0.4
EU-15	2.0	2.1	2.1	0.2	0.2	0.4
EU-10	.	0.2	0.2	.	0.1	0.2
EU-25	1.9	1.7	1.7	0.1	0.1	0.3

Source: European Commission (2006), based on Eurostat Labour Force Survey, Q1 2003-2005, Ireland Q2 2005

Note: Missing data due to unreliable data or small sample sizes. Italy excluded, since it does not disaggregate by nationality. EU-15 aggregate without Germany, Italy and Ireland for foreign nationals from EU-10.



Table 8 Estimated total number of migrants to Ireland by nationality from 2000 to 2005

(thousands)						
	2000	2001	2002	2003*	2004*	2005*
UK	20.8	20.6	19.1	13.5	13	13.8
Rest of EU-15	11.7	10.3	11.3	9.7	12.6	8.9
EU-10	-	-	-	-	-	26.2
US	5.5	6.7	6.6	4.7	4.8	4.3
Rest of the world	14.5	21.5	29.9	22.5	19.7	16.8
<b>Total</b>	<b>52.6</b>	<b>59.0</b>	<b>66.9</b>	<b>50.5</b>	<b>50.1</b>	<b>70</b>

Source: Statistical office of Ireland, \*preliminary, for the years 2000-2004 EU-10 nationals were included in the "Rest of the world" category.

the measured migration flows from these countries. It argues that labour flows are ultimately driven by demand and supply conditions, and that the temporary restrictions on mobility only delay labour market adjustments and distort employment patterns through increasing undeclared work. The report finds that most labour migration is of a temporary nature, with a significant percentage of work permits being granted for short-term or seasonal workers.<sup>41</sup>

In addition to these figures, data from individual EU countries are available, compiled by their national statistical offices. Particularly data from the three countries that have opened up their labour markets to immigrants from the EU-8 first (Ireland, Sweden, United Kingdom) may be the most relevant here.

First, for Ireland, annual data are available from the Central Statistical Office on the total number of migrants to Ireland per year. These data suggest no increase in total migration flows in 2004, but a substantial pick-up in the number of migrants to Ireland in 2005. Data show that in 2005, 38% of all migrants were nationals of the EU-10. However, no separate account for nationals from the EU-10 are available for 2004, making it difficult to assess whether the 2005 increase in migration flow is connected to an increase in migration flows from the new Member States as the result of enlargement, or some other reason.

<sup>41</sup> For example, in Germany 95% of work permits issued were for limited time periods, in Italy and France this percentage was around 70% in 2004.

Table 9 Total number of migrants to Sweden by country (flow)

	2000	2001	2002	2003	2004	2005
Estonia	264	271	290	277	403	383
Latvia	150	157	161	152	206	232
Lithuania	146	213	259	230	438	695
Poland	649	809	1,065	1,017	2,458	3,420
Slovak Republic	61	48	68	47	105	97
Slovenia	11	21	12	16	34	36
Czech Republic	77	80	99	83	88	113
Hungary	146	167	222	159	228	269
EU-8	1,504	1,766	2,176	1,981	3,960	5,245

Source: Statistical office of Sweden.

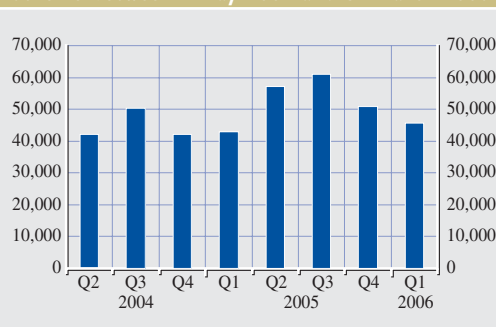
In Sweden, the Statistical Office provides information on the total inflow of immigrants until 2005. These figures (see Table 9) show a strong increase of migrants entering Sweden (more than doubling since 2003) from the new Member States, but from a very low level, reaching a number of only around 5,000 people in 2005. 65% of the total migration flows from EU-8 came from Poland, the largest new Member State.

It is noteworthy that, compared to the size of their population, the share of migration from Lithuania and Estonia appeared to be fairly high making up 13% and 7% respectively of the total migration flows from EU-8 to Sweden in 2005. In both cases, geographical proximity may have played a role in decreasing the costs to migration.

In the United Kingdom, detailed information is available on work applications made by EU-8 nationals living in the United Kingdom since EU enlargement (see Chart 3). Available registers are compiled by the UK Home Office and contain information on the number of applicants to the UK Workers Registration Scheme (WRS) – a scheme to which nationals of the EU-8 who intend to be employed in the United Kingdom are required to register. Details are published in the Accession Monitoring Report (2006).<sup>42</sup> Data on applicants to the WRS is not a fully accurate measure of migration since numbers reflect the gross (cumulative) number of workers applying for the WRS. They do not therefore take account of any individuals leaving the United Kingdom following registration or employment and include EU-10 nationals that were living in the United Kingdom prior to enlargement.

According to the latest Accession Monitoring Report, a total of 392,000 EU-8 citizens applied to the WRS between 1 May 2004 and 31 March 2006. 61% of these applicants were Polish, 12% Lithuanian<sup>43</sup>, 10% Slovak and 5-6% were citizens of the Czech Republic and Latvia. Only a very small number of individuals from Estonia, Hungary and Slovenia applied,

**Chart 3** Gross number of applicants from the EU-8 registering to the UK Workers' Registration Scheme between 1 May 2004 and 31 March 2006



Source: UK Home Office.

accounting for 1%, 3% and less than 0.5% of the total applicants, respectively. The report estimates that a third of these applicants lived in the United Kingdom before EU enlargement.

Regarding the allocation of the applicants by skill level and sector, the 2005 Accession Monitoring Report finds that individuals from the EU-8 have been filling gaps in the United Kingdom labour market, particularly in administration, business and management, hospitality and catering, agriculture, health care and construction. EU-8 nationals were assessed to be contributing positively to the functioning of public services in a number of communities across the United Kingdom. The vast majority of workers were young and single – 82% of the registered workers were between the ages of 18 and 34 and 94% of them had no dependants living in the United Kingdom. The number of EU-8 nationals applying for income-related benefits, such as child benefit, tax credits and housing support, was found to be very low. While 98.4% of the National Insurance numbers to EU-8 citizens were allocated for employment purposes, only 0.7% were for

<sup>42</sup> Accession Monitoring Report, May 2004-March 2006, (May 2006), UK Home Office.

<sup>43</sup> This is a particularly high number, relative to the size of the Lithuanian working age population. Perhaps correspondingly, the youth unemployment rate in Lithuania dropped by about 7.5 p.p. over the same period.

benefits and 0.9% for tax credit purposes. Out of those applicants who applied in the period between May 2004 and March 2006, 49% were in temporary employment and 48% in permanent employment (3% did not provide information). The European Commission (2006) report also concludes that the countries that did not apply restrictions on EU-8 workers over the period May 2004 to 2006 (i.e. United Kingdom, Ireland and Sweden) have had favourable experiences about the labour market impact of migration from these countries since the 2004 enlargement.

## 7 THE ECONOMIC CONSEQUENCES OF LABOUR MIGRATION

Most studies that have analysed migration flows following EU enlargement have focused on estimating the potential size of these flows. However, it is at least as important to look at the potential economic costs *and* benefits of labour migration – for the EU-15, and the EU-8, and for the EU-25 as a whole. Neoclassical economic theory suggests that migration is beneficial for everyone, when assuming a labour shortage in the host countries and excess labour in the sending countries. According to these theories, immigration eliminates the scarcity of labour in the host country, reduces possible inflationary pressure from wage growth in receiving countries and leads to a better use of productive capital. At the same time, the home country also benefits from a removal of unemployment and through the receipt of workers' remittances; and migrants themselves benefit through higher wages.

But is the picture really as positive as suggested by neoclassical economics? Although these theories explain some basic channels of the impact of labour migration well, they may be too simplistic, being limited by a set of fixed assumptions, such as the homogeneity of migrants and perfect competition in labour markets. In real life, these assumptions do not often hold, and besides the benefits of labour migration, emphasised by neoclassical

economists, there are also costs for both the host and home countries. The costs and benefits of labour migration depend on a number of factors, most of which are related to the labour market conditions of the home country and the composition of (the non-homogeneous) migrants by skills, age etc. Moreover, the costs and benefits tend to be distributed unevenly across various groups of society.

### 7.1 ECONOMIC COSTS AND BENEFITS: FOR THE HOST COUNTRIES (EU-15)

The positive view of neoclassical economics on migration seems to be in sharp contrast with the strong public resistance in a number of EU-15 countries to migration from the EU-8. The major concerns of trade unions and the public in the EU-15 can be summarised in the following points:

1. migrants drive down wages;
2. migrants take away jobs from the native population;
3. migrants place a heavy strain on the social security systems of the host countries.

Concerning the wage effect of labour migration in Europe, a recent survey by IOM (2005)<sup>44</sup> argues that, in line with the prediction of neoclassical models, most empirical studies find a small negative effect of increased migration on wages which ranges between 0.3 and 0.8 p.p. Although some recent studies, such as Dustmann et al. (2003)<sup>45</sup> for the UK, find that wages among local workers are not affected by increased immigration.

Concerns over the possible negative employment effects of increased labour migration are found to hinge critically on whether immigrants complement or compete with the labour force

44 International Organisation for Migration, (2005), "World Migration 2005: Costs and Benefits of International Migration".

45 Dustmann, C., F. Fabbri, I. Preston (2003), "The Local Labour Market Effects of Immigration in the UK".

of the host country. In the case of the EU-15, Boeri and Brücker (2001)<sup>46</sup> show that the existence of skill mismatches, characterised by a pool of low-skilled unemployed and relatively high-skilled vacancies, suggest that the immigration of relatively skilled labour from the EU-8 might create employment. Studies conducted on Western European countries, surveyed by Brücker (2002) find the impact of migrants on employment to be weak and ambiguous.<sup>47</sup> Similarly, another survey by Bauer and Zimmermann (1999) finds the overall employment effect of migration in the EU-15 to be positive and small, although unevenly spread across countries. An OECD study by O'Brien and Garson (2002)<sup>48</sup> suggests that under the condition of largely competitive labour markets, labour migration reduces wages and increases employment in the host country, although for an adjustment period, unemployment may rise. If labour markets are less flexible in the host country, the effect on wages and employment is likely to be smaller and the unemployment effect for the adjustment period is likely to be larger and last longer.

The European Commission (2006)<sup>49</sup> concludes that the sector and the skill composition of EU-10 citizens resident in EU-15 countries is such that migrants from these countries tend to play a complementary role in the EU-15 labour markets. For example, EU-10 migrants are made up of a much lower share of low-skilled workers (21%) and a higher share of medium-skilled workers (57%) than EU-15 nationals

(31% and 46% respectively – see Table 10). The Commission argues that medium-level qualifications include upper secondary education and specialised vocational training – which are typically under-represented in several EU-15 Member States, and may characterise a large proportion of workers in the EU-10. The shortage of medium-skilled workers in the EU-15 may therefore create skill bottlenecks in certain sectors of the economy and in turn a high demand for workers with these skills. Countries may have also followed selective recruitment strategies to target appropriately skilled immigrant groups. However, the broad sectoral composition of the national workforce did not show a significant change in 2003, 2004 and 2005.

Early experiences following the 2004 enlargement therefore suggest that migration of workers from the new EU-10 did not crowd out national workers and had a positive impact on the old EU-15 economies by alleviating labour market shortages in certain areas and supporting increased employment.

46 T. Boeri and H. Brücker et al. (2001), "The impact of enlargement on employment and labour markets in the EU Member States", CEPR, find that the migrant population from the new member states holds a higher share of completed secondary and tertiary education than the native population in the host countries of the EU-15.

47 H. Brücker (2002) The Employment impact of immigration a Survey of European Studies.

48 P. O'Brien, J.-P. Garson (2002), "The economic impact of international migration: a framework for EDRC country reviews".

49 European Commission (2006), "Report on the functioning of the Transitional Arrangements set out in the 2003 Accession Treaty (period 1 May 2004 to 30 April 2006)", Brussels.

**Table 10 EU-15 resident working age population, by nationality and education level in 2005**

(percentage share)

Education level	Nationality			
	Home country nationals	Migrants from other EU-15 Member States	Migrants from the EU-10 Member States	Other non-EU migrants
Low	31	36	21	48
Medium	46	39	57	35
High	23	25	22	17
Total	100	100	100	100

Source: European Commission (2006), based on Eurostat Labour Force Survey, Q1 2005, France and Austria Q2 2005.

Note: Educational level: low (lower secondary), medium (upper secondary), high (tertiary).

The studies mentioned above principally examine the overall impact of migration on aggregate employment and do not exclude the possibility of localised difficulties. If migrant workers concentrate in certain industries or geographical areas, they may decrease the job prospects of the local labour force. Such experiences have been seen in the German construction industry, where a large number of foreign workers have put pressure on the local labour market. The European Commission (2006) report finds that, for example, workers from the EU-10 are relatively better represented in the construction sector (15% for EU-10 nationals as opposed to 8% for EU-15 country nationals). However it argues that new jobs are being created, e.g. in construction and domestic and catering services, that might not be filled in some countries, were it not for workers from the EU-10.

A further concern regarding immigration relates to the fear that migrants put a strain on the welfare system by relying more on welfare benefits than their contribution via taxes. These concerns led the United Kingdom and Ireland to limit access to their social security system following the recent EU enlargement. In the empirical economics literature, a critical issue is the extent of the dependence of immigrants on social security benefits. The study of Brücker (2002) suggests a fairly ambiguous picture. Indeed, for some Western European countries (Austria, Belgium, Denmark, France, the Netherlands and Switzerland), the welfare dependence of migrants appears to be higher than for the local population. At the same time, in a number of other Western European states (Germany, Greece, Portugal, Spain, United Kingdom), the migrants welfare dependence appears to be similar or even lower than for the local population. However, the European Commission (2006) report concludes that early experiences following the 2004 enlargement show that fears concerning the overuse of social security systems by migrants have not been realised. Generally, EU-10 nationals are found to have employment rates which are comparable or higher than EU-15 country nationals, and

that the employment rate of EU-10 nationals has actually increased since the 2004 enlargement in several countries (e.g. Spain, France, the Netherlands, Austria and the United Kingdom).<sup>50</sup>

Finally, labour migration may have negative externalities. These externalities are related to the difficulties of the local society to integrate a large number of migrants, especially where migrants have a very different cultural or religious background. However, these concerns are unlikely to be very relevant in the case of migrants from the EU-8.

Turning to the generally perceived potential benefits of labour migrants to the EU-15, these include possible positive effects on output. Most empirical studies (see the literature review of Bauer and Zimmermann, 1999) suggest a small positive impact of migration on real GDP growth, particularly in the case of skilled immigrants. Skilled migrants may also contribute positively to total factor productivity growth, although unlike in the United States, immigration into export-oriented, technology-intensive industries has made up only a small part of the total migration flows in Europe. If the immigrant labour force is mainly complementing the native labour force, immigration can increase the productivity of natives and thereby positively influence their wages. Immigration may also facilitate domestic factor utilisation. For example, labour migration may help to compensate for low regional mobility by the local population.<sup>51</sup> Finally, some hopes are attached to migration helping to counterbalance Europe's demographic decline. A study by the UN<sup>52</sup>, however, concludes that the stabilisation of old age dependency ratios through migration alone is unlikely, due to the huge number of migrants that would be required.

50 This may reflect, for example, the legal employment of previously undeclared workers, benefits of legally sanctioned labour markets, improved social cohesion and changes in employer's attitudes.

51 G. Borjas (2001), "Does migration grease the wheels of the labour market?", Harvard University, mimeo.

52 UN, Human Development Report (2004).

## 7.2 ECONOMIC COSTS AND BENEFITS: FOR THE HOME COUNTRIES (EU-8)

While the migration of young and skilled labour from the EU-8 is likely to bring significant positive effects for the EU-15, for the EU-8 themselves, it may also present a number of risks, especially in the short run. Although the size of realised East-West labour migration seems very small in proportion to the population of the EU-15, this share is much higher when compared to the size of the EU-8 countries' population.

First, the emigration of young and qualified labour can increase labour shortages in some sectors, hampering income convergence. Moreover, if large-scale emigration concentrates in specific industries or areas, it can aggravate labour market bottlenecks, and, at least in the short run, lead to a rise in wages and inflationary pressures. A recent study by Krieger et al.<sup>53</sup> suggests that this will be a relevant danger for the EU-8 that may lose up to 5% of their young adults and 10% of their graduates due to emigration. The loss of a sizable share of young people may aggravate the already negative population growth in the bulk of the EU-8, and may also result in the loss of public funds invested in the education of the young migrants. However, if migrants from the EU-8 return to their home countries with upgraded skills, this may offset the initial losses caused by the brain drain. Returning migrants can also give a boost

to economic growth by using capital, skills and new ideas acquired abroad. The experiences of the Southern European countries suggest this to be a relevant factor.

While the EU-8 are still mostly assumed to be sources of labour emigration, in 2005 the net migration balance of some of the Central European EU-8 (Czech Republic, Hungary, Slovenia and Slovakia) was positive (see Table 11). However, whether the "brain drain" or the "brain gain" effect will dominate in the EU-8 in the future strongly depends on the skills and the length of stay of migrants. An IOM survey<sup>54</sup> revealed that labour migration intentions are highest for very short stays and lowest for permanent migration. While 50% of Slovaks, Poles and Czechs expressed an intention to "emigrate" into the EU-15 for a few weeks, only 7% to 14% intended to settle down permanently.<sup>55</sup>

Emigration also benefits home countries with a high unemployment rate. Having job seekers work abroad may prevent the unemployed from

53 H. Krieger et al. (2004), "Migration Trends in an Enlarged Europe", European Foundation for the Improvement of Living and Working Conditions.

54 Wallace, C. (1998) "Migration Potential in Central and Eastern Europe", IOM – Technical Cooperation Centre for Europe and Central Asia.

55 In practice it is not so easy to differentiate ex ante between different intentions concerning migration, since intentions of short-term stay often turn into permanent migration.

Table 11 Net migration and its impact on total population change in the EU-8 in 2005

	Net population change	Net migration	Total population change
	Per 1000 population		
CZ	-0.5	3.5	2.9
EE	-2.5	-0.1	-2.8
HU	-3.9	1.8	-2.1
LV	-4.9	-0.5	-5.4
LT	-4.0	-3.0	-7.0
PL	-0.3	-0.3	-0.7
SK	0.2	0.8	0.9
SI	-0.5	3.6	3.1

Sources: Eurostat, Chronos database.



losing their skills and decrease the burden on social security in the home countries. Labour migration can also work as a shock absorber in the case of asymmetric shocks. However, the generally low level of labour mobility within the EU-8 suggests that this role for migration has so far been limited. Moreover, a study by Fassmann and Hintermann (1997)<sup>56</sup> argues that pull factors (labour market conditions, wages etc. in the host countries) are much more important in driving migration from East to West Europe than push factors (labour market conditions, wages etc. in the home countries). However, the European Commission (2006) report suggests that unemployment rates have fallen in nearly all EU-10 countries since the 2004 enlargement. This seems to be particularly true of youth unemployment (measured by the unemployment rate of the under 25s), which fell by around 7.5% in Lithuania and 4% in Latvia between 2004 and 2005.

Workers' remittances are also among the potential benefits of emigration to the EU-10. Evidence from a number of countries suggests that remittances played a significant role in the development of home countries (e.g. Italy, Portugal, Greece, Spain and more recently Turkey or Mexico<sup>57</sup>). Remittances can be sources of investment and consumption. In some countries, workers' remittances count as a relevant financing item for the current account deficit and contribute to the foreign exchange reserves of the receiving country. It is also important that remittances tend to be less volatile and pro-cyclical than other sources of current account deficit financing. Unfortunately it is difficult to get a reliable picture about the size of these flows, because at least some part of these flows avoid the official channels of money transfer due to high transaction costs.<sup>58</sup> In general, workers' remittances as a percentage of GDP are larger for lower income countries than for middle-income countries (such as the EU-8).

Finally one should not underestimate the gains of the migrants themselves who can enjoy higher income, and perhaps a better use of their

skills, reaping the highest share of the benefits from labour migration.

### 7.3 ECONOMIC COSTS AND BENEFITS: FOR THE EU-25 AS A WHOLE

The free mobility of labour between East and West may improve economic efficiency by facilitating a more efficient allocation of labour across the single market and by helping the matching of unemployed skills with job vacancies. It may also offer an adjustment mechanism within EMU, where, in the absence of country specific monetary and exchange rate policies, a high degree of labour market flexibility and labour mobility is beneficial in promoting the ability of national labour markets to adjust in the face of economic fluctuations and asymmetric shocks.

Although East-West labour migration within the EU could *improve* economic efficiency, it does not offer a solution to skill shortages and the fall in the share of youth in the EU-25 labour force. Due, among other factors, to the ageing trends in both the EU-15 and the EU-8, migration from the East to the West cannot provide a solution for the EU-25's demographic challenge. Similarly, the East-West migration of skilled labour can only be beneficial for the EU-25 as a whole if skilled workers have larger positive externalities to working in the EU-15 rather than in the EU-8.

Migration would certainly present a loss for the EU-25 as a whole however if the most agile part of the labour force in the EU-8 move to traditional migration centres outside Europe.

56 H. Fassmann and C. Hintermann (1997), "Migrationspotential Ostmitteleuropa. Struktur und Motivation", Akademie der Wissenschaften, Vienna.

57 OECD (2005), Trends in International Migration, Annual Report, 2004 addition.

58 IMF data in World Bank study – R. Holzmann, R. Munz (2002), "Challenges and Opportunities of International Migration for the EU, Its Member States, Neighbouring Countries and Regions: A Policy Note" – indicates an annual remittance flow of USD 39 million for Hungary and USD 35 million for Lithuania. However these figures are only a fraction of the remittances to other countries such as Portugal (USD 3,224 million) or Spain (USD 3,958 million).

Furthermore, it would also be a loss for Europe if the restrictions on labour mobility caused an increase in illegal immigration and work in the black market.

## 8 CONCLUDING REMARKS

The objective of the Paper was to consider the potential for increased cross-border labour mobility<sup>59</sup>, within an enlarged EU in the medium to long run and the costs and benefits of increased labour migration to both sending and receiving countries. A review of the experiences of previous EU enlargements suggests that the increase in geographical labour mobility following enlargement has been limited. Estimates from studies which have attempted to estimate the potential migration flow following the May 2004 EU enlargement indicate a potential migration flow of between 1% and 4% of the total population of the EU-10 within one to two decades. Barriers to international labour mobility may also influence the level of labour migration from the EU-10 to the EU-15. These include the existence of legal and administrative barriers, the limited portability of pension rights and problems with the international recognition of professional qualifications.

An analysis of the key economic determinants of international labour mobility within the EU suggests that the probability of labour migration is positively related to the size of any wage or income differentials. Both the absolute wage gap and the absolute gap in per capita income are found to be high between the EU-8 and the EU-15, which may be an important determinant of labour migration flow in the short run. Furthermore, any increase in intra-EU mobility following enlargement may not be uniformly spread across EU countries, with some countries more likely to host migrant workers (e.g. due to network effects and geographical location) and other countries more likely to be the source countries (e.g. due to high youth unemployment rates). However, medium to long-term considerations suggest reduced labour migration incentives – as the EU-8 catches up economically

to the EU-15. Indeed, when a catching-up economy is successful in creating conditions for broad based economic growth and job creation, labour migration pressure is likely to taper off, even when large wage differentials persist. Furthermore, the faster-projected population ageing of the EU-8 populations also imply a decrease in labour outflows from these countries. Against this background of strong growth and demographic change, most EU-8 countries are likely to become net migration-receiving countries in the medium run and face the challenge of attracting and integrating a large number of young migrants from third countries.

Early labour market experiences following the 2004 enlargement are generally positive. Preliminary evidence from the European Commission shows that the increase in the stock of EU-10 workers in the EU-15 Member States since enlargement has been low. In fact, immigration from non-EU countries is generally a much more significant phenomenon than intra-EU mobility, both within the EU-15 and the EU-25. Most labour migration is found to be of a temporary nature, with a significant percentage of work permits being granted for short-term or seasonal workers. Furthermore, both the sector and the skill composition of the EU-10 citizens resident in EU-15 countries suggest that migrants from the EU-10 tend to play a complementary role in the EU-15 labour markets. Fears concerning the overuse of social security systems by migrants have not been realised. Generally, EU-10 nationals are found to have employment rates which are comparable or higher than EU-15 country nationals and that the employment rate of EU-10 nationals has actually increased since the 2004 enlargement in several countries (e.g. Spain, France, the Netherlands, Austria and the United Kingdom). Data from selected individual EU countries also generally show moderate increases in labour migration from the EU-10. The countries that have not applied restrictions on EU-8

<sup>59</sup> Here we refer to the cross-border mobility of workers, not including the self-employed.

workers since the 2004 enlargement (i.e. United Kingdom, Ireland and Sweden) are upbeat regarding their experiences about the labour market impact of labour migration from these countries.

On the potential economic costs and benefits of migration both for host and home countries, the Public's resistance to labour migration in a number of countries is based on concerns that migrants may drive down wages, take away jobs from the native population and place a strain on the social security systems of these countries. Our survey of the empirical literature finds limited evidence in support of these concerns and suggests that, on balance, for the host countries (the EU-15), the economic impacts of increased cross-border labour mobility are likely to be positive, although potentially unequally distributed across countries and sectors. Countries closest to the EU-8 and those with a significant migrant population from the EU-8, are likely to benefit disproportionately from East-West labour mobility, following the opening of their labour markets. However, this does not exclude the possibility of localised difficulties (e.g. in border regions with intensive commuting).

For the EU-8 countries, an issue largely forgotten in the public debate is that labour migration, especially in the short run, may present a number of challenges as well as benefits. While labour migration flows are likely to be minor compared to the population of the EU-15, they can weigh far heavier on the pool of young and educated workers in the EU-8. Labour shortages (e.g. in medical personal) are already causing concerns in a number of EU-8 countries. The balance of positive and negative effects of increased cross-border mobility mainly depends on whether labour migration is primarily temporary or permanent. Returning migrants may give a boost to economic growth by bringing in capital, skills and new ideas acquired abroad, which may offset the initial losses caused by the brain drain. Increased labour migration is also most

likely to be beneficial for the migrants themselves who may enjoy higher incomes.

For the EU as a whole, cross-border labour mobility is likely to offer a number of advantages through allowing a more efficient matching of worker skills with job vacancies and facilitating the general up-skilling of European workforces. It may also offer an important adjustment mechanism within EMU, where, in the absence of country-specific monetary and exchange rate policies, labour market mobility would be beneficial in promoting the ability of national labour markets to adjust in the face of economic fluctuations and asymmetric shocks.<sup>60</sup> The euro area will enlarge on 1 January 2007 with the entry of Slovenia. In order to fully reap the advantages of the euro and to allow adjustment mechanisms to operate efficiently within the enlarged currency area, it will be necessary to fully integrate Slovenia into Economic and Monetary Union, which calls for all remaining barriers to labour mobility to be removed<sup>61</sup>.

The restrictions on labour mobility from the EU-8 countries will be temporary, as they will have to be removed by 2011 at the latest. However the delay may be costly for the EU-25, limiting the most productive use of labour resources at a time when EU populations are ageing and leaders are concerned about Europe's international competitiveness. Furthermore, the temporary restrictions on cross-border mobility stand in contrast with one of the central principles of the EU – the free movement of labour. Today's East-West labour migration flows include a large number of temporary workers, some of which work illegally. Such employment relationships deprive immigrants from the protection of employment laws and prevent the host country from collecting tax revenues. Furthermore, it will be a certain loss

<sup>60</sup> Geographic mobility in the United States has also been found to offer an important adjustment mechanism (HM Treasury, United Kingdom, 2002) allowing employment to adjust following economic shocks (Blanchard and Katz 1992, Bayoumi and Prasad 1996).

<sup>61</sup> See Introductory Statement of the Mr. Trichet following the Governing Council meeting of 3 August, 2006.

for EU-25 if a significant part of the most agile and talented individuals from the new Member States are diverted to traditional migration centres (e.g. United States, Canada) instead of taking on employment in other EU Member States.

EUROPEAN CENTRAL BANK  
OCCASIONAL PAPER SERIES

- 1 “The impact of the euro on money and bond markets” by J. Santillán, M. Bayle and C. Thygesen, July 2000.
- 2 “The effective exchange rates of the euro” by L. Buldorini, S. Makrydakakis and C. Thimann, February 2002.
- 3 “Estimating the trend of M3 income velocity underlying the reference value for monetary growth” by C. Brand, D. Gerdesmeier and B. Roffia, May 2002.
- 4 “Labour force developments in the euro area since the 1980s” by V. Genre and R. Gómez-Salvador, July 2002.
- 5 “The evolution of clearing and central counterparty services for exchange-traded derivatives in the United States and Europe: a comparison” by D. Russo, T. L. Hart and A. Schönenberger, September 2002.
- 6 “Banking integration in the euro area” by I. Cabral, F. Dierick and J. Vesala, December 2002.
- 7 “Economic relations with regions neighbouring the euro area in the ‘Euro Time Zone’” by F. Mazzaferro, A. Mehl, M. Sturm, C. Thimann and A. Winkler, December 2002.
- 8 “An introduction to the ECB’s survey of professional forecasters” by J. A. Garcia, September 2003.
- 9 “Fiscal adjustment in 1991-2002: stylised facts and policy implications” by M. G. Briotti, February 2004.
- 10 “The acceding countries’ strategies towards ERM II and the adoption of the euro: an analytical review” by a staff team led by P. Backé and C. Thimann and including O. Arratibel, O. Calvo-Gonzalez, A. Mehl and C. Nerlich, February 2004.
- 11 “Official dollarisation/euroisation: motives, features and policy implications of current cases” by A. Winkler, F. Mazzaferro, C. Nerlich and C. Thimann, February 2004.
- 12 “Understanding the impact of the external dimension on the euro area: trade, capital flows and other international macroeconomic linkages” by R. Anderton, F. di Mauro and F. Moneta, March 2004.
- 13 “Fair value accounting and financial stability” by a staff team led by A. Enria and including L. Cappiello, F. Dierick, S. Grittini, A. Maddaloni, P. Molitor, F. Pires and P. Poloni, April 2004.
- 14 “Measuring financial integration in the euro area” by L. Baele, A. Ferrando, P. Hördahl, E. Krylova, C. Monnet, April 2004.

- 15 “Quality adjustment of European price statistics and the role for hedonics” by H. Ahnert and G. Kenny, May 2004.
- 16 “Market dynamics associated with credit ratings: a literature review” by F. Gonzalez, F. Haas, R. Johannes, M. Persson, L. Toledo, R. Violi, M. Wieland and C. Zins, June 2004.
- 17 “Corporate ‘excesses’ and financial market dynamics” by A. Maddaloni and D. Pain, July 2004.
- 18 “The international role of the euro: evidence from bonds issued by non-euro area residents” by A. Geis, A. Mehl and S. Wredenberg, July 2004.
- 19 “Sectoral specialisation in the EU: a macroeconomic perspective” by MPC task force of the ESCB, July 2004.
- 20 “The supervision of mixed financial services groups in Europe” by F. Dierick, August 2004.
- 21 “Governance of securities clearing and settlement systems” by D. Russo, T. Hart, M. C. Malaguti and C. Papathanassiou, October 2004.
- 22 “Assessing potential output growth in the euro area: a growth accounting perspective” by A. Musso and T. Westermann, January 2005.
- 23 “The bank lending survey for the euro area” by J. Berg, A. van Rixtel, A. Ferrando, G. de Bondt and S. Scopel, February 2005.
- 24 “Wage diversity in the euro area: an overview of labour cost differentials across industries” by V. Genre, D. Momferatou and G. Mourre, February 2005.
- 25 “Government debt management in the euro area: recent theoretical developments and changes in practices” by G. Wolswijk and J. de Haan, March 2005.
- 26 “The analysis of banking sector health using macro-prudential indicators” by L. Mörttinen, P. Poloni, P. Sandars and J. Vesala, March 2005.
- 27 “The EU budget – how much scope for institutional reform?” by H. Enderlein, J. Lindner, O. Calvo-Gonzalez, R. Ritter, April 2005.
- 28 “Reforms in selected EU network industries” by R. Martin, M. Roma, I. Vansteenkiste, April 2005.
- 29 “Wealth and asset price effects on economic activity”, by F. Altissimo, E. Georgiou, T. Sastre, M. T. Valderrama, G. Sterne, M. Stocker, M. Weth, K. Whelan, A. Willman, June 2005.
- 30 “Competitiveness and the export performance of the euro area”, by a Task Force of the Monetary Policy Committee of the European System of Central Banks, June 2005.
- 31 “Regional monetary integration in the member states of the Gulf Cooperation Council (GCC)” by M. Sturm and N. Siegfried, June 2005.



- 32 “Managing financial crises in emerging market economies: experience with the involvement of private sector creditors” by an International Relations Committee task force, July 2005.
- 33 “Integration of securities market infrastructures in the euro area” by H. Schmiedel, A. Schönenberger, July 2005.
- 34 “Hedge funds and their implications for financial stability” by T. Garbaravicius and F. Dierick, August 2005.
- 35 “The institutional framework for financial market policy in the USA seen from an EU perspective” by R. Petschnigg, September 2005.
- 36 “Economic and monetary integration of the new Member States: helping to chart the route” by J. Angeloni, M. Flad and F. P. Mongelli, September 2005.
- 37 “Financing conditions in the euro area” by L. Bê Duc, G. de Bondt, A. Calza, D. Marqués Ibáñez, A. van Rixtel and S. Scopel, September 2005.
- 38 “Economic reactions to public finance consolidation: a survey of the literature” by M. G. Briotti, October 2005.
- 39 “Labour productivity in the Nordic EU countries: a comparative overview and explanatory factors – 1998-2004” by A. Annenkov and C. Madaschi, October 2005.
- 40 “What does European institutional integration tell us about trade integration?” by F. P. Mongelli, E. Dorrucci and I. Agur, December 2005.
- 41 “Trends and patterns in working time across euro area countries 1970-2004: causes and consequences” by N. Leiner-Killinger, C. Madaschi and M. Ward-Warmedinger, December 2005.
- 42 “The New Basel Capital Framework and its implementation in the European Union” by F. Dierick, F. Pires, M. Scheicher and K. G. Spitzer, December 2005.
- 43 “The accumulation of foreign reserves” by an International Relations Committee Task Force, February 2006.
- 44 “Competition, productivity and prices in the euro area services sector” by a Task Force of the Monetary Policy Committee of the European System of Central banks, April 2006.
- 45 “Output growth differentials across the euro area countries: Some stylised facts” by N. Benalal, J. L. Diaz del Hoyo, B. Pierluigi and N. Vidalis, May 2006.
- 46 “Inflation persistence and price-setting behaviour in the euro area – a summary of the IPN evidence”, by F. Altissimo, M. Ehrmann and F. Smets, June 2006.
- 47 “The reform and implementation of the stability and growth pact” by R. Morris, H. Ongena and L. Schuknecht, June 2006.

- 48 “Macroeconomic and financial stability challenges for acceding and candidate countries” by the International Relations Committee Task Force on Enlargement, July 2006.
- 49 “Credit risk mitigation in central bank operations and its effects on financial markets: the case of the Eurosystem” by U. Bindseil and F. Papadia, August 2006.
- 50 “Implications for liquidity from innovation and transparency in the European corporate bond market” by M. Laganá, M. Peřina, I. von Köppen-Mertes and A. Persaud, August 2006.
- 51 “Macroeconomic implications of demographic developments in the euro area” by A. Maddaloni, A. Musso, P. Rother, M. Ward-Warmedinger and T. Westermann, August 2006.
- 52 “Cross-border labour mobility within an enlarged EU” by F. F. Heinz and M. Ward-Warmedinger, October 2006.

ISSN 1607148-4



9 771607 148006