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Geographic Mobility in the European Union: Optimising its Economic and Social Benefits

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EXECUTIVE SUMMARY

This summary presents the overall results from a study conducted by the Institute for the Study of Labor (IZA), NIRAS Consultants and the Swedish National Labour Market Board for the European Commission during 2007 and 2008. The study corresponds to the contract VT/2006/042.

The study has a dual goal. The first objective is to present both a comprehensive and at the same time concise picture of the extent of geographic mobility in the European Union, its evolution over time and of the characteristics of individuals affected by mobility. The second objective is to investigate how geographic mobility in the European Union can be optimised.

The study adopts a wide definition of geographic mobility. It considers not only changes of residency within countries and across borders, but also various other mobility contracts, such as cross-border and regional commuting.

Background and Policy Context

One of the founding principles of the European Union is the freedom of movement of workers (Article 39 of the Treaty establishing the European Community). The free movement of workers is essential for the creation of an area without internal frontiers, and for the strengthening of economic and social cohesion as well as active European citizenship.

Despite these obvious returns geographic mobility rates are still relatively low in the European Union, both *within* and *between* countries. For instance, on average between 2000 and 2005, workers' mobility within EU Member States (regional mobility) amounted to only one per cent each year. This is much lower than mobility rates across Australian territories and US states, which exceed two and three per cent, respectively.

In this context, it is not surprising that a key paradox persists within the European Union: skills shortages and bottlenecks coexist with areas of persistent high unemployment. Differing levels of economic growth and employment create simultaneous shortages and excesses of labour across Europe, which is due in part to heavily regulated labour markets and low labour market mobility.

For this reason mobilising the potential of labour mobility is one of the key issues in the Lisbon process and the European Employment Strategy. The Integrated Guidelines for Growth and Employment (2005-2008) calls upon Member States to "*improve matching of labour market needs through the modernisation and strengthening of labour market institutions, … removing obstacles to mobility for workers across Europe within the framework of the EU treaties…*".

The adoption of the Commission's Job Mobility Action Plan in December 2007 represents the latest step in a long line of initiatives to promote worker mobility.

This study is carried out simultaneously with the Action Plan and brings about further background knowledge on the current state of geographic mobility, discussions on the optimum level of mobility, as well as additional policy recommendations.

Current State of Geographical Mobility in the EU

Measuring geographic mobility is difficult because changes of location are relatively rare. Therefore, large sample data sets such as the European Labour Force Survey (ELFS) are useful for measuring mobility in terms of the stocks and flows, despite several shortcomings. In addition, information from the Eurobarometer is used to cover three important dimensions of geographic mobility, namely, a retrospective lifetime approach, the circumstances of the last move and the expectations regarding mobility in the intermediate future.

Stocks of migrant populations

In terms of stocks, for the EU-15 countries (France, Belgium, the Netherlands, Germany, Luxembourg, Austria, Italy, Greece, Portugal, Spain, Denmark, Sweden, Finland, Ireland and the United Kingdom) the share of active working-age foreign born with origin from an EU-27 (i.e. EU-15 plus Poland, Lithuania, Latvia, Estonia, the Czech Republic, Slovakia, Slovenia, Hungary, Cyprus, Malta, Bulgaria and Romania) or a non EU-27 country increased during the last decade. The largest increase is observed for Spain, followed by Greece, Denmark, Portugal, Sweden, Ireland, the UK, and Austria. For the new Member States those with the highest initial share of foreign born (Latvia and Estonia) exhibit a decline over time, except Cyprus, while the other countries which show a low share of foreign born remained relatively stable.

Focusing on the shares of foreign nationals, the observed pattern for the EU-27 countries is similar to the one for the foreign born. However, the share of foreign born is much higher in most cases, since in many countries they may obtain citizenship and become nationals. Distinguishing foreign nationals by origin reveals very interesting patterns.

First, in most EU-15 countries foreign nationals from another EU-15 country comprise only a small share of the total population of foreign nationals. The largest part of the total population of foreign nationals consists of nationals from a non EU-27 country as the share of EU-12

foreign nationals is relatively low. Second, the share of foreign nationals exhibits a significant increase during the last decade especially among the EU-15 countries, with Spain, Greece, Portugal, Denmark and the UK as the most notable cases. Third, what really explains the observed increase in the overall share of foreign nationals in the EU-15 countries is the change in the share of foreign nationals from non EU-15 countries and, in particular, from non EU-27. The share of foreign nationals from EU-15 countries is fairly stable across time, and the available information for the EU-12 countries shows lower shares of foreign nationals from EU-12 compared to non EU-27.

Mobile EU-27 citizens by origin

Another interesting dimension is to consider the share of citizens living in another EU-27 country relative to the population of country of citizenship. This type of analysis shows that among the EU-15 countries Luxembourg, Ireland and Portugal exhibit the highest share of citizens living in another EU-27 country. Among the EU-12 new Member States, the highest share of EU-27 mobile citizens are found for Cyprus, Malta and Romania, followed by Bulgaria and Slovakia.

Socio-demographic characteristics of EU movers

Focusing on the socio-economic characteristics of the movers, the data show that the profile of movers from the EU-12 countries to the EU-15 is mainly related to low-skilled employment especially among the young. In contrast, movers from another EU-15 country are on average older and more educated. The movers to the EU-12 countries differ in many respects from the movers to the EU-15, especially citizens from another EU-15 country. They tend to be older, mostly males and more likely to be inactive. In contrast, EU-12 movers in another EU-12 country are younger (50% between 25-34 years old), with higher employment rates but also higher unemployment compared to the EU-15 citizens.

Geographic mobility rates

Although the analysis based on stocks provides an overview of the current state of (past) geographic mobility, it has the disadvantage that the development of migrant stocks over time captures the impact of net rather than gross mobility flows and that stock data conceal the vintage of migrant entry cohorts. Geographic mobility flows provide a more direct picture of current mobility patterns in Europe.

The average cross-border mobility rate within EU-15 countries is annually around 0.2% (0.1% if Luxembourg is not taken into account). The average cross- border mobility rate from the new Member States to the EU-15 countries is about 0.2 per cent. For the new Member States, mobility rates from EU-15 countries are increasing in contrast to the mobility rates within EU-15 countries, which are relatively stable over time.

While cross-border mobility rates in the EU have been relatively small, mobility between regions within countries is much more pronounced. The average regional mobility rate of the total population in the EU-15 countries based on NUTS 2 level was one per cent in 2006. Yet there are significant cross-country differences with lower mobility in the Southern European countries (about 0.5 per cent) and higher regional mobility in countries such as France, Ireland, the Netherlands, Sweden and the UK (about two per cent). For the new Member States the limited information available shows mobility rates of the order that can be observed in Southern European countries.

Comparing average regional mobility rates within EU countries (one per cent) with interstate mobility rates in the US, the US exhibits mobility rates that are on average twice the EU rates.

Finally, commuting is also considered as a substitute to geographic mobility by travelling longer distances to the work place on a regular basis. There are two types of commuting: cross-border, which involves working in one country while residing in another, and regional commuting, which occurs when an individual is working in a region different from the place of residence within the same country.

The average cross-border commuting rate from one EU-15 country to another is 0.6 per cent, with Belgium showing the highest rate. The average cross-border mobility rates for the New Member States to an EU-15 country are of similar magnitude. The cross-border commuting rates to a non EU-15 country are much lower for all countries with EU-15 and EU-12 averages about 0.2 per cent. Finally, the average regional commuting rate for the EU-15 countries in 2006 based on the NUTS 2 level was 7.3 per cent, while it was much lower (4.0 per cent) for the EU-12 countries.

Lifetime mobility

A useful indicator for the extent of geographic mobility in Europe is the individual lifetime mobility rate, i.e. the share of the population who has experienced a move over their life cycle. We observe that while for any type of move the average for the EU-25 is about 67 per cent, when we focus on moves within the country - excluding local moves - the corresponding EU-25 average is about 16 per cent, dropping to about 4 per cent for moves inside the EU and to about 3 per cent for moves outside the EU. The data confirms that job and geographic mobility are positively correlated. More frequent job changes are associated with more frequent geographic moves, and vice versa.

Mobility intentions

To obtain a picture of current mobility patterns, we analyse mobility intentions, i.e. whether an individual believes that he or she is likely to move within the next five years. A few countries rank low no matter which type of geographic mobility is considered. Among this group are Austria, the Czech Republic, Germany and Portugal. On the other hand, five countries

clearly stand out as high mobility countries: Sweden, the United Kingdom (including Northern Ireland), Estonia, Finland, and France.

Optimum Level of Geographical Mobility: Weighing Positive and Negative Externalities

While it is clear that too little mobility may mean reduced adaptability, untapped employment opportunities and competitiveness, too much mobility may distort national labour markets and generate considerable social costs. Therefore the study complements the empirical evidence presented above with the more analytical exercise of identifying an optimum level of geographical mobility. This optimum level is not evident but nevertheless important in terms of policy intervention.

Studying the issue of optimum mobility requires both an *economic* and a *social* perspective. For mobility to deliver its potential benefits over the long term, a balance must be struck between its economic and social affects, between mobility and stability.

Economic perspective – positive and negative externalities

To the extent that mobility of capital and goods do not achieve convergence of employment and real wages in open or integrated economies, mobility of labour may help balance labour market outcomes. Thus, from an economic perspective, geographic mobility serves as an equilibrating factor between regional labour markets. In general, geographic mobility carries in a major positive effect of bringing about economic growth in countries with labour deficits and prosperity in countries with a labour surplus.

Current imbalances in *unemployment rates* across EU-27 are large. For instance, Poland experiences an unemployment rate more than three times larger than the Netherlands. We also observe large imbalances between neighbouring Member States. High unemployment rates are at least partly explained by an insufficient availability of jobs. Hence, geographic labour mobility might lead to a more balanced allocation of jobs and workers in the EU. Differences in *real wages* across Member States are also enormous. Especially between new Member States and the EU-15 states we observe differences as high as 738 percent.

Besides these balancing effects, enlarging the relevant labour market for individuals through geographic mobility may result in better skill matches. As a consequence, returns to human capital formation may increase, which changes the incentives to invest in human capital. Improved skill matches and accelerated human capital formation may foster economic growth across the continent.

Turning to the potential negative externalities, a frequent argument in the debate about migration is that it increases competition in national labour markets, puts downward pressure on wages, and hence reduces well-being of the incumbent population. Another fear is that

immigration could be a burden to the welfare state either because the labour market does not absorb the migrant workers, or because of an increase in unemployment rates among the incumbent population. Finally, while these negative externalities may arise in the receiving countries, sending countries may fear a "brain drain" hampering long-term income growth. This occurs in case of permanent out-migration of highly productive and well educated persons. The danger of a brain drain appears especially relevant in situations of large income differentials between destination and origin. In the EU context, brain drain may affect some of the Eastern European new Member States.

From a supra-national perspective, however, it can be argued that positive externalities from mobility clearly outweigh the negative externalities. Geographic mobility may indeed be a win-win situation in economic terms for both the sending and the receiving country. Positive externalities mainly stem from positive growth effects associated with free movement of human capital reducing labour market imbalances, improved skill matches in an integrated market, higher investment into education, and a higher level of innovation and entrepreneurship. Negative externalities are primarily pecuniary or fiscal, and these negative effects in the destination country are at least partially offset by corresponding positive effects in the sending region. The efficiency gains, however, are unambiguously beneficial for Europe.

Demographic and social perspective – positive and negative externalities

From a demographic and social perspective, geographical mobility also brings about both positive and negative externalities. However, the picture seems somewhat blurred.

Regarding demographics, in the concrete context, there is limited scope for geographic mobility within the EU alleviating the impact of ageing and population decline since almost all of Europe faces similar problems. Hence, trying to compensate for the low fertility rates by replacement migration would probably at best be a zero sum externality at the European level due to the rapid ageing process in all the European countries. Solutions to these problems lie more in the area of immigration from non-EU countries and the strengthening of incentives to work longer, i.e. not to exit the labour market via early retirement and other social benefits.

Regarding the social consequences of geographic mobility, the empirical knowledge is still rather unsatisfactory. Nevertheless, there is some evidence for increased mobility fostering socio-cultural integration in the European Union, and strengthening European identity and intercultural networks. Positive externalities from migration are related to gains from cultural and ethnical diversity, urban growth and development, depending on successful integration of newcomers.

The downsides of socio-cultural integration are the decline of more local cultures and social frictions. At present, several European metropolitan regions are experiencing tensions between ethnic minorities and indigenous groups. Whether these tensions prove to be similar to the transitional growing pains experienced by other attractive migration destinations in the

past is an issue that remains to be seen. Altogether, it seems as if there is a potential for positive externalities of geographic mobility in the form of social-cultural integration, but to capitalise on this effect it is paramount that the challenges to the social cohesion be dealt with.

Conclusion: Geographic mobility in Europe is too low

Weighing the positive and negative economic and social externalities, geographic mobility in Europe is too low. While it is practically impossible to determine what would be the optimum level, it appears that the current situation is sub-optimal. In view of the still substantial imbalances, there seem to be unexploited, mostly economic gains of geographic mobility as a balancing factor in an integrated labour market.

Thus, as the economic effects are clearly positive, the demographic effects are nil and the social effects are mixed, it seems reasonable to assume that increased intra-European mobility would increase the welfare of the vast majority of Europeans.

At the same time, most social costs associated with increased intra-EU migration are probably not too large considering the low level of current geographic mobility rates in Europe. From a long-term demographic perspective, as the population share of the age groups most inclined to migration (the young) will decline, pro-active geographic mobility raising individual propensities to migrate could serve to counteract falling mobility rates within an ageing Europe.

Mobility Drivers and Barriers

In order to understand how mobility might be increased, the study investigates key mobility drivers as well as key mobility barriers. Thus, the focus of analysis turns to the individual level where the mobility decision is also related to both benefits and costs. In general, a person will decide to migrate if the expected utility of moving is higher than the expected utility of staying, net of migration costs.

Individuals' assessment of the benefits and costs of migration will depend on socio-demographic characteristics, such as human capital endowment and transferability of skills to the destination, but also on personal preferences and expectations. Therefore, the human capital framework shows that migration between countries is not only a function of aggregate measures, such as differences in GDP per capita, unemployment rates or relative remuneration of skills. On the contrary, heterogeneity between individuals is an important factor. Different individuals in the same sending country exhibit different propensities to migrate and, moreover, prefer different receiving countries depending on transferability of human capital and tastes.

Key mobility drivers

Survey evidence suggests that migrants have a variety of motivations for moving. Employment-related factors, such as higher income and better working conditions, play a key role. But also family and network related factors, as well as housing and local environment conditions often seem to affect migration decisions. Survey results do *not* support sentiments that migration is primarily triggered by access to welfare payments or better public services.

Work and income related motivations are especially strong in the New Member States. Almost 60 per cent of past movers in the New Member States did change location because of job related reasons, whereas only about 40 per cent of movers in the EU-15 mention this factor. More than four in five respondents in the New Member States claim that work and income related factors could encourage them to move in the future. This answer is given only by one in two EU-15 citizens.

This result implies that mobility rates may fall in the process of convergence of European economies. In particular the strong mobility intentions in the New Member States would level out as these economies catch up to EU-15 countries.

Empirical evidence shows that some people are more inclined towards mobility than others. Age, gender, household structure, education, employment situation, and past mobility experiences are the key microeconomic determinants: young people are more mobile than older people, men are more mobile than women, unmarried people without children are more mobile than families, high-skilled people are more mobile than the low-skilled, the unemployed are more mobile than the employed, and, finally, people who have moved in the past tend to be more mobile than others.

Besides the microeconomic determinants, we also find some significant "country effects." This result indicates that much of the variation in geographic mobility rates across EU Member States, but also a significant part of the variation in the attitudes toward migration is not easily explained by structural differences in the observable mobility-influencing factors listed above. This observation rather emphasises the importance of national tastes and preferences, which are not easy for policymakers to address. These factors are highly relevant drivers of mobility rates. It also demonstrates that there is ample scope for raising mobility rates at the EU level. Among the EU, the Scandinavian countries clearly stand out as the area of high mobility. It thus seems worth studying the association between their policy model – flexicurity – and geographic mobility.

Key mobility hurdles

Overall, our study underpins that *language* and *cultural* barriers are extremely important when explaining the limited level of geographic mobility in Europe. While the capacity of acculturation, a process of re-socialisation involving changes in attitudes, values and identification, is a rather difficult target for government intervention, the empirical evidence suggests two viable policy options. First, the promotion of language capacity could foster geographic mobility. The effect of language is direct as well as indirect. Directly, it reduces the language barrier, which is negatively associated with cross-border mobility propensities. Indirectly, it appears to reduce the cultural barriers preventing migration. Second, promotion of education abroad could foster geographic mobility. The effect could work through reducing both language and cultural barriers.

A third key mobility impediment besides language and culture perceived by Europeans is related to *worries about finding a (suitable) job*. This observation points toward the necessity to support information and transparency of international job opportunities in order to establish an environment creating opportunities for mobility. Put into a more general context, it establishes a need for flexible labour markets. An environment facilitating the reallocation of labour creates better opportunities for outsiders, including those coming from a distant labour market.

Also the persistence of national forms of labour market and housing market organisation, welfare state and fiscal systems could constrain intra-EU mobility. Although our empirical evidence suggests that EU citizens do not generally perceive these as the most essential mobility barriers, harmonisation and coordination are certainly relevant in designing effective mobility policies. Legal, recognition, portability and access barriers in these areas yield mobility costs for the individual, which, in turn, reduces migration propensities.

Policy Recommendations

Our discussion of optimum geographic mobility has shown that, all things considered, the current level of mobility in the EU is too low considering the net benefits of migration for the economy and the society. Thus there seems to be scope for government intervention aimed at raising the currently low level of geographic mobility.

There is a twofold role of geographic mobility policies aimed at increased mobility rates: (i) enlarging the expected utility gains, and (ii) reducing mobility costs for the individual.

As worries about finding a suitable job are perceived as one of the key hurdles to geographic mobility, this establishes a need for adaptive and transparent labour markets. An environment facilitating reallocation of labour, which exchanges job security for employment security, generally creates better opportunities for outsiders, including those coming from a distant labour market. In this context, combining flexibility and security according to the concept of

flexicurity can be a viable solution. Indeed a flexicurity scheme adapted to the specific needs to cushion spatial flexibility – geographic mobility within countries and across borders – serves as a broad orientation for the formulation of our policy recommendations.

This study points at the crucial importance of the following policies to minimise labour market frictions at the national and the trans-national levels:

Policy Recommendations

Strengthening the institutional preconditions of mobility on the labour market

- Member States should develop mobility-supporting active labour market policy schemes.
- In accordance with the flexicurity principle, Member States should assess the role of their labour market institutions in determining geographic mobility.
- Financial compensation to mobile job seekers should be considered.
- The European Commission should assess the role of housing, child care infrastructure and other public or enterprise policies influencing the costs of mobility.

Developing mobility-friendly educational policies

- Member States should put strong emphasis on creating foreign language learning capacities at all levels.
- Existing European exchange programs such as Erasmus, Leonardo, Grundtvig etc. should be further promoted and participation encouraged.
- Member States should develop and implement lifelong learning strategies with a direct focus also on geographic mobility.

Creating effective information and social networks

- Extend and improve the EURES network and Europass.
- Raise mobility awareness at all levels.
- The European Commission should identify roles and delegate responsibilities for all relevant social partners in relation to the promotion of mobility.
- Ensure social integration of migrant workers and their families.
- Good practice examples on successful integration strategies should be developed and shared.
- Extend the knowledge base related to impacts of information activities.

Easing mobility barriers stemming from the diversity of national social protection and qualification systems

- Despite the progress already made, the European Commission should continue to address remaining obstacles in the field of coordination of national social security regimes. This should take account of new forms of geographic mobility.
- Progress is to be made regarding the issue of pension portability in the realm of preserving supplementary pension rights.
- Improve transparency of qualifications.
- Remove persisting barriers to mobile professionals.

Extending the knowledge base and evaluating mobility-related policies

- The European Commission should enhance the collection of valid data on geographic mobility and regional patterns of labour supply and demand.
- The European Commission should also stimulate the collection of valid data on the efficiency, fairness and impact of various mobility promoting initiatives, such as campaigns.

1. INTRODUCTION

One of the founding principles of the European Union is the freedom of movement of workers (Article 39 of the Treaty establishing the European Community). The free movement of workers is essential for the creation of an area without internal frontiers, and for the strengthening of economic and social cohesion and active citizenship.

Taking an economic perspective, geographic mobility can have major positive effects by bringing about economic growth in countries with labour deficits and prosperity in countries with labour surplus. Hence, the diffusion of skills through occupational and geographic mobility is a central factor to enhance the productive capacity of firms and put regions or national economies on a higher growth path. Taking a social perspective, geographical mobility has the potential of fostering social-cultural integration in the European Union, and strengthening European identity and inter-cultural networks.

Despite these obvious returns geographic mobility rates are low in the European Union, *within* as well as *between* countries. For instance, between 2000 and 2005, the internal borders of the EU were crossed on average by only 0,1 to 0,3% of the working-age population each year. Geographical mobility within EU Member States (regional mobility) is higher though at about 1%. This is similar to the rate across Canadian provinces but much lover than mobility rates across Australian territories and US states, which exceed 2% and 3% respectively.[1]

Thus, a key paradox in the European Union today is the fact that skills shortages and bottlenecks coexist with areas of persistent high unemployment. Differing levels of economic growth and employment create simultaneous shortages and excesses of labour across Europe. It seems clear that rigid labour markets and low labour market mobility is a plausible explanation for this.

For this reason the problem of mobility is one of the key issues in the Lisbon process and the European Employment Strategy. The Integrated Guidelines for Growth and Employment (2005-2008) calls upon Member States to: "*improve matching of labour market needs through the modernisation and strengthening of labour market institutions, … removing obstacles to mobility for workers across Europe within the framework of the EU treaties…*"

[1] OECD (2007b).

In these strategies it is underpinned that in a single market geographic mobility is a key equilibrating and integrating factor. This is true both for the old and new EU Member States. It is also clear however, that while too little mobility may mean reduced adaptability and competitiveness, too much mobility may distort national labour markets and generate considerable social costs. Thus, although the focus is on geographic mobility on economic grounds, we do not ignore the individual and social dimension of the decision to migrate.

In general, there is a need – not only to increase geographic mobility rates – but also to get closer to what could be considered an optimum level of mobility, weighing the potential economic and social benefits associated with geographic mobility against the potential economic and social costs. Following, there is a need to assess current policies and to propose new ones in order to reach this optimum.

This report presents the results of a study conducted by IZA, NIRAS Consultants and the Swedish National Labour Market Board for the European Commission during the course of 2007. The study has *geographic mobility* as its key objective, while issues related to *occupational mobility* are targeted within a parallel study carried out simultaneously by the Danish Technological Institute.

Since clear links between these two forms of mobility are obvious, this study also takes occupational mobility into account. For instance, the importance of flexicurity (the combination of flexible labour markets, social security, and active labour market policies) will be a recurrent theme throughout the report.

The study has two key objectives. The first objective is to present both a comprehensive and at the same time concise picture of the extent of geographic mobility in the European Union, its evolution over time and of the characteristics of individuals affected by mobility. The second objective is to investigate how geographic mobility in the European Union can be optimised.

Against this background, this report:

- gives an empirical account and interpretation of current trends in geographic mobility patterns in Europe
- discusses the issue of optimum geographic mobility by balancing the potential positive and negative impacts of geographic mobility seen from the societal perspective
- analyzes the micro and macro economic factors that *drive* and *constrain* individual migration decisions
- surveys current policies at the EU and national level that may help optimising, i.e. in the European context raising, mobility rates and judges whether these policies are relevant, efficient and fair,
- recommends policies adequate to improve geographic mobility in Europe

The study adopts a broad definition of geographic mobility. We consider not only changes of residency within countries and across borders, but also cross-border and regional commuting.

Since most available mobility data relate to long term mobility (lasting at least a year) much of the analysis presented in this report naturally has this scope. However, it seems clear that a high share of actual mobility experiences are short term ones lasting less than a year. This kind of mobility does not necessarily entail a residential move but seem nevertheless important if we see mobility as an equilibrating mechanism for the labour market. Throughout the report these forms of mobility are also discussed and assessed.

2. CURRENT STATE OF GEOGRAPHIC MOBILITY IN EUROPE

2.1 Introduction and Data Overview

In order to establish an empirical basis for examining geographic mobility in the EU, this chapter first presents an up-to-date, concise picture of geographic mobility patterns and trends on the basis of the European Labour Force Survey (EU-LFS). The EU-LFS will allow a harmonized quantitative documentation of mobility in terms of flows and stocks, for EU-27. The cross sectional surveys of the Eurobarometer will provide complementary information.

The EU-LFS, administrated by Eurostat, is a quarterly sample covering private households in the EU, EFTA and Candidate Countries. It provides quarterly figures on labour force participation of people aged 15 and over and persons outside the labour force. The sample size is approximately 1.7 million individuals, with sampling rates between 0.2% and 3.3% across countries.

Despite certain limitations (highlighted in the adjacent box), the EU-LFS has the fundamental advantage that it allows accurate cross-country comparisons covering all EU Member States. It can do this because it follows harmonized concepts and definitions for different countries. Moreover, being a repeated survey allows studying a relatively long time-series, making it possible to discover possible time-trends. We will provide such dynamic aspects of mobility rates for the years 1995-2006.

As the EU-LFS data records the country of residence one year before the survey, it provides information on cross-border mobility. The data also contain information on nationality, years of residence and country of birth. Hence it is possible to infer stocks of immigrants in the population, assuming the sample to be representative. We can obtain the share of foreign nationals by country and year and distinguish between EU-15/EU-12 and non EU nationals. Furthermore, the LFS contains variables on the region/country of work and residence and on the region/country of residence in the year before the survey. These variables can be used to compute regional mobility flows and commuting.

Shortcomings of the European Labour Force Survey

Measuring geographic mobility is difficult because changes of location are relatively rare. Therefore, large samples data sets such as the LFS are required. However, even with the LFS there exist several shortcomings. First, available information on year-to-year transitions is not available for all the EU-27 countries. Therefore, the reported average mobility rates need to be seen as an approximation based on the available information. This is very much the case in particular for the new Member States. Second, the LFS tends to under-report people who have only recently taken up residence in another country. This is due to difficulties in including the newly arrived people in the sampling frame and due to a high non-response rate among migrants.

There are additional problems related to the socio-economic characteristics of migrants and the factors impacting geographic mobility. Although the LFS contains a wide range of information on demographics and socio-economic characteristics, the small number of annual cross-border moves makes it problematic to use them for showing detailed and statistically reliable breakdowns by country. Therefore, any such analysis can be only performed at aggregate levels for the EU-15 and EU-12 countries.

In addition, the overall picture of geographic mobility may not be captured accurately by the existing annual stocks and flows because the available information does not take into account short-term mobility, which refers to workers moving abroad for seasonal jobs or being sent on temporary assignment by their companies.

An informative micro data base is the Eurobarometer survey of EU citizens aged 15 and over. Recently, it had special focus on European citizens' geographic mobility patterns. The waves 67.1 and 61.1, carried out in spring 2007 and 2005, respectively, contain a wealth of information suited to qualitative description of mobility patterns in Europe.[2]

The data highlight mobility in the past, as well as future mobility intentions. The data include answers to a battery of questions clarifying the nature and frequency of moves, the reasons for moving, as well as the perceived benefits and costs of geographic mobility. In this context, factors impeding individual mobility have also been portrayed.

Despite certain limitations – see the box below – the Eurobarometer has clear advantages: The data is up-to-date and covers EU-25 and EU-27, respectively. Sample sizes are sufficient to bring out cross-country differences. Furthermore, the data covers geographic mobility in three important dimensions. First, it adopts a retrospective, lifetime approach. Second, it collects detailed information on the circumstances of the last move. Third, it gathers data on expected geographic mobility in the intermediate future.

Due to these advantages, we will employ the Eurobarometer through much of the empirical analysis. We refrain from using supplementary data from national registers. These are generally not comparable across EU countries, because of diverse measurement and reporting procedures.

[2] See Recchi et al. (2006), Bukodi and Robért (2006), Fouarge and Ester (2006) and Coppin and Vandenbrande (2006) for an overview of the 2005 Eurobarometer wave 61.1. Wave 67.1 is described in European Commission (2007)

Shortcomings of the Eurobarometer Surveys

Though it is possible to observe the country of residence of an individual as well as the nationality in the Eurobarometer, sample sizes are not sufficiently large for reliable measurement of the population share of foreign nationals by country. In fact, immigrants appear to be systematically underrepresented in the national samples, since interviews are always conducted in the respective national language.

For empirical analysis of individual decision making, the cross sectional nature of the Eurobarometer surveys is a clear disadvantage. It is impossible to control for unobservable individual characteristics. Another disadvantage is that the two waves with a special focus on geographic mobility did not contain the same set of questions. In particular, the 2007 wave omits many variables impacting strongly on geographic mobility propensities at the individual level. Thus, it is not useful to pool observations from the two waves. For this reason our econometric analysis will draw only on the richer data from the 2005 wave. For the descriptive statistics, however, in order to provide an up-to-date, complete picture for EU-27, will rely on the 2007 wave, too.

Finally, a limitation of the Eurobarometer is that it contains somewhat idiosyncratic information on key individual or household characteristics. For example, education is captured only by a variable for age at first exit from full-time schooling. Current labour market class is only available for those who were employed at the time of interview, not for the unemployed.

2.2 Stocks of Migrant Populations

One may measure the size and structure of geographic mobility within and between regions and countries in terms of stocks and flows. Stock data of residents not originating from the current region of residents are summary statistics of past migration flows. When using micro data, considering that migration flows occur at low frequency, it is generally easier to estimate the correspondent stocks.

In interpreting stock data on migrants, one has to be aware of the following issues:

- The development of migrant stocks over time captures the impact of net rather than gross mobility flows. In survey data, year-to-year changes may also be the outcome of sampling variation and measurement error.

- Stock data conceal the vintage of migrant entry cohorts. Areas with an identical share of migrants may have different migration histories.

In the context of international mobility, one must distinguish between the population who is foreign born and the population of foreign nationals who may include the offspring of actual migrants. If shares of foreigners are computed on the basis of nationality rather than actual migration experience, country differences will capture differences in naturalization practice.

Stocks of Foreign Born Residents in EU-15 and EU-12

For most of the EU-15 countries the stock of foreign born residents with origin from another EU-15 country is larger compared to the stock of foreign born residents with an origin from an EU-12 country (Table A1, see appendix). The top origin countries are mainly other EU-15 countries: Germans in Austria, French in Belgium, Germans and Swedish in Denmark, Swedish in Finland, Portuguese in France, French and Germans in Italy, Germans and Belgians in the Netherlands, French in Portugal and Spain, Finish in Sweden and Germans and Irish in the UK.

Countries such as Austria, Spain, Greece and Italy are an exception as the stock of EU-12 foreign born residents exceeds that of EU-15. Austria has attracted mainly foreign born from neighbouring countries (Czech Rep., Hungary) but also from Romania and Poland. Romania is the top origin country for the stock of foreign born for both Italy and Spain, while Bulgaria is for Greece. Finally, Poland is the top origin among the EU-12 for the UK.

In the new Member States the stocks of foreign born residents from the EU-15 are much smaller and in many cases the figures are below statistical reliability limits (Table A2). Large stocks of foreign born are observed for the Greeks and British in Cyprus and Germans in Czech Republic, Hungary and Poland. Between the new Members States, Cyprus has large stocks of foreign born from Bulgaria and Romania; the Czech Republic from Slovakia; Hungary from Romania; Slovakia from the Czech Republic.

Share of Foreign Born Residents in the EU-27

To obtain a comparable measure across countries, it is important to consider the share of foreign born with respect to the total population of the country of residence. Moreover, the evolution of the share over time reveals the dynamics of immigration flows that took place in the last decade.

For the EU-15 countries the share of active working age foreign born with origin from an EU-27 or a non EU-27 country increased from 10.6% in 1995 to 12.9% in 2006 (Table A3). The corresponding share for the EU-12 new Member States for the most recent years, which provide more reliable figures, is about 6%.

As for individual countries, Luxembourg, Austria, Sweden show the highest share of foreign born (about 40%, 15%, 15% for year 2006, respectively) with respect to the total active working population in the country of residence, followed by Spain, Belgium, the Netherlands, UK and France with shares above 10%. For Greece, Italy and Portugal the share is about 8%. As for the overall increase in the share of foreign born in the total population for the EU-15 countries, the largest increase is observed for Spain, followed by Greece, Denmark, Portugal, Sweden, Ireland, the UK, and Austria.

For the new Member States, Cyprus and Estonia stand out as the countries with highest share of foreign born individuals in the total population, followed by Latvia. For Cyprus the trend is increasing from 10.3% in 1999 to 17.3% in 2006, while for Estonia the trend is decreasing from 20.1% in 1997 to 14.3% in 2006 and for Latvia from 12.3% in 2004 to 10.6% in 2006. For the other countries the share of foreign born is much lower, about 4% for Lithuania and Malta, around 2% for the Czech Republic and Hungary, while Slovakia and Poland show shares lower than 1%. Overall, the new Member States with the highest initial share of foreign born exhibit a decline since the start of the observation period, except Cyprus, while the countries with the lowest share remain relatively stable.

In comparison to the international experience, the share of the foreign born population in the EU-27 is somewhat smaller than that in countries which have traditionally defined themselves as immigration countries. In Canada, about 18 percent of the population is foreign born (and the trend is slightly rising), whereas in Australia, the share is even around 23 percent (with no clear trend).[3] These levels are reached only by few Member States. But there are several countries in Europe where the share of the foreign born population is much larger than in the United States. In 2006, about 12.5 percent of the US population was foreign born. It was only 9.3 percent in 1995.

When comparing these figures, however, one should be aware that also the composition of the foreign born is very different. The five largest populations of foreign born in the US are from developing countries (Mexico, Philippines, India, China and Vietnam). The share of foreign born from such areas is also considerable in Canada and Australia. In Europe, in contrast, large non EU-27 immigrant groups are from Turkey and Northern Africa. Thus, we expect very different integration issues to be present in these immigration countries and in Europe.

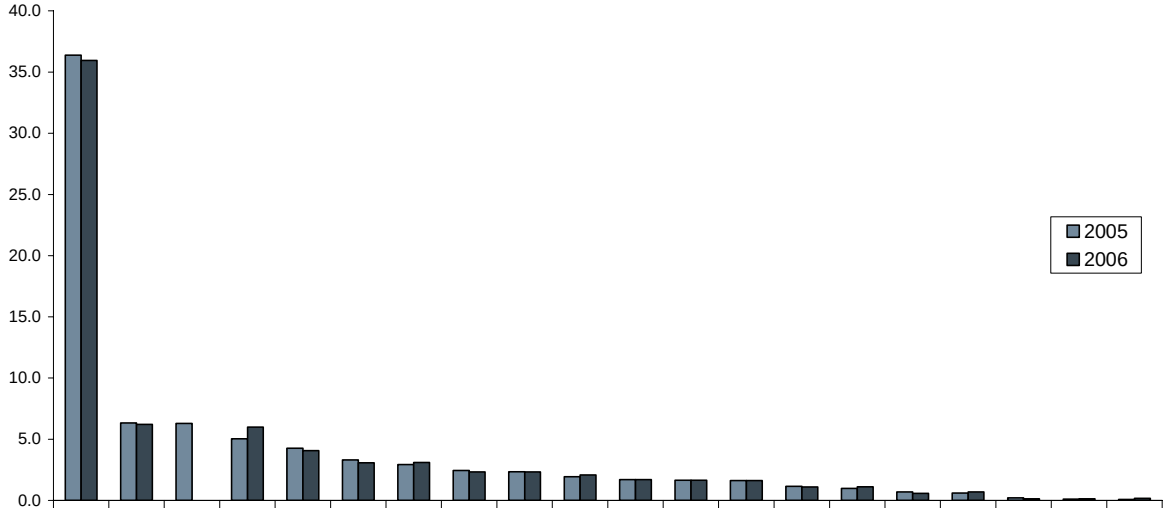
Share of Foreign Born Residents in the EU-27 by Origin

Based on the LFS data for the more recent years (2005 and 2006) we are able to distinguish the foreign born residents in the EU-27 between those with origin from another EU-15 country and those from another EU-12 or a non EU-27 country.

Figure 1 shows that the share of active working age EU-15 foreign born resident in another EU-27 country relative to the total active working age population of the country of residence in year 2006 is highest in Luxembourg (36%), followed by Ireland (6.3% in 2005), Belgium (6.2%), Sweden (4.1%) and Cyprus (6%). For the rest of the EU-27 countries, the share of EU-15 foreign born ranges from about 1% to 3%.

[3] Data taken from International Migration Outlook: SOPEMI – 2006 Edition (via sourceOECD).

Figure 1: Share of Active Working Age EU-15 Foreign-born Resident in another EU-27 Country Relative to the Total Active Working Age Population of Country of Residence, 2005 and 2006 (percentage)

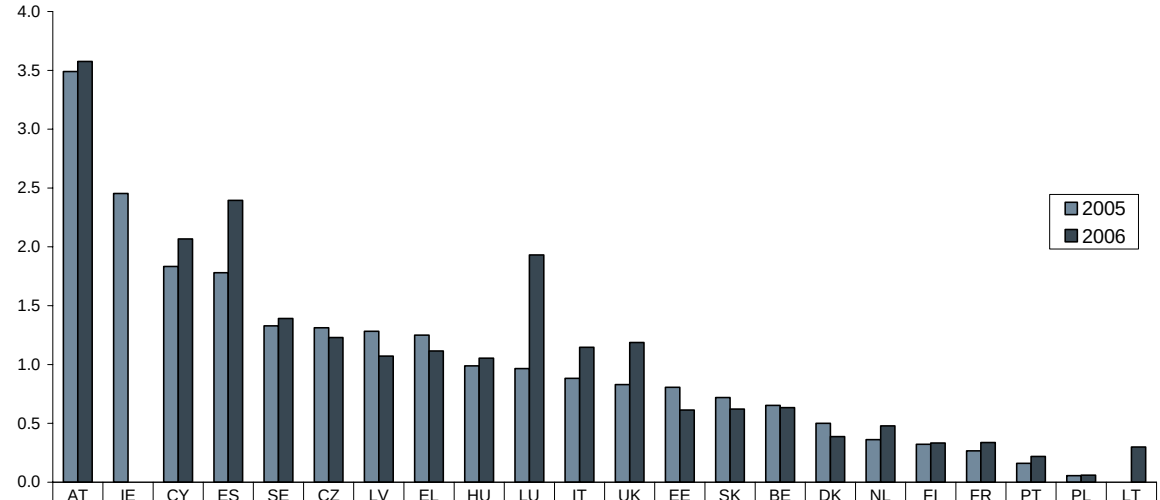


	LU	BE	IE	CY	SE	FR	AT	NL	UK	ES	MT	PT	DK	IT	FI	EL	SI	PL	CZ	HU
2005	36.4	6.3	6.3	5.0	4.3	3.3	2.9	2.5	2.3	1.9	1.7	1.7	1.6	1.2	1.0	0.7	(0.6)	0.2	0.1	0.1
2006	36.0	6.2	:	6.0	4.1	3.1	3.1	2.3	2.3	2.1	1.7	1.6	1.6	1.1	1.1	0.6	(0.7)	0.1	0.1	0.2

Source: Eurostat, LFS, spring data for available countries. Note: Data in brackets lack reliability due to small sample size.

Compared to the share of foreign born from the EU-15, the share of foreign born from the EU-12 in year 2006 is lower in all countries except for Austria, Greece, Spain, Czech Republic, and Hungary (Figure 2).

Figure 2: Share of EU-12 Foreign-born Resident in another EU-27 Country Relative to the Total Population of Country of Residence, 2005 and 2006 (percentage)

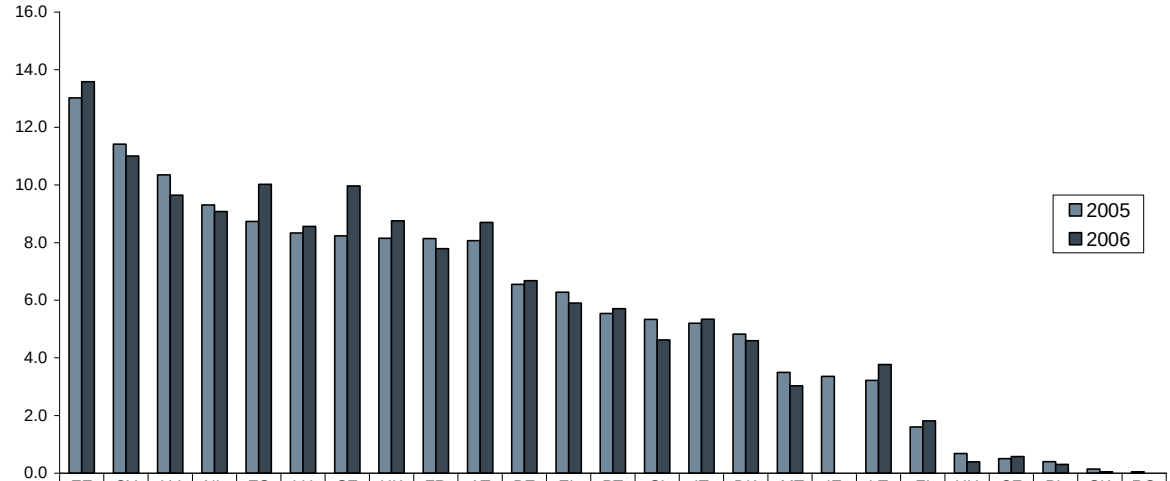


	AT	IE	CY	ES	SE	CZ	LV	EL	HU	LU	IT	UK	EE	SK	BE	DK	NL	FI	FR	PT	PL	LT
2005	3.5	2.5	1.8	1.8	1.3	1.3	1.3	1.2	1.0	1.0	0.9	0.8	0.8	0.7	0.7	0.5	0.4	0.3	0.3	0.2	0.1	:
2006	3.6	:	2.1	2.4	1.4	1.2	1.1	1.1	1.1	1.9	1.1	1.2	0.6	0.6	0.6	0.4	0.5	0.3	0.3	0.2	0.1	(0.3)

Source: Eurostat, LFS, spring data for available countries. Note: Data in brackets lack reliability due to small sample size.

It turns out that the largest share of foreign born in the EU-27 countries have an origin from a non EU-27 country (Figure 3). For the EU-15 countries the highest shares – between 7.8% and 10% – are found (by decreasing order) in Spain, Sweden, the Netherlands, UK, Austria, Luxembourg and France. For the other EU-15 countries the share of non EU-27 foreign born varies from 1.8% in Finland to 3.4% in Ireland, 4.6% in Denmark, 5.3% in Italy, 5.7% in Portugal and 5.9% in Greece. For the EU-12 countries, Estonia, Cyprus and Latvia show the highest shares of foreign born from a non EU-27 country (13.6%, 11% and 9.6% in 2006, respectively).

Figure 3: Share of Non-EU-27 Foreign-born Resident in another EU-27 Country Relative to the Total Population of Country of Residence, 2005 and 2006 (percentage)



	EE	CY	LV	NL	ES	LU	SE	UK	FR	AT	BE	EL	PT	SI	IT	DK	MT	IE	LT	FI	HU	CZ	PL	SK	RO
2005	13.0	11.4	10.3	9.3	8.7	8.3	8.2	8.2	8.1	8.1	6.5	6.3	5.5	5.3	5.2	4.8	3.5	3.4	3.2	1.6	0.7	0.5	0.4	0.1	(0.1)
2006	13.6	11.0	9.6	9.1	10.0	8.6	10.0	8.8	7.8	8.7	6.7	5.9	5.7	4.6	5.3	4.6	3.0	:	3.8	1.8	0.4	0.6	0.3	(0.1)	:

Source: Eurostat, LFS, spring data for available countries. Note: Data in brackets lack reliability due to small sample size.

Share of Foreign Nationals in the EU-27

We next turn to the population shares of foreign nationals for the EU-27 countries. There are two important dimensions in the analysis of the stock of foreign nationals. The first one is the evolution over time and the second is the distinction between different origins. Looking at the total share of foreign nationals for the EU-15 countries in Table A4 (see appendix), we observe a pattern similar to the one for the foreign born. However, the share of foreign born is much higher in most cases, since in many countries the foreign born may obtain citizenship and become nationals.

Table A4 shows that among the EU-15 countries in year 1995 (excluding Luxembourg), the countries with the highest share of foreign nationals are Austria, Belgium and Germany, with a share of about 9% of the total population. France follows with a share of 6.7%, and the Netherlands, Sweden and UK with 4-6%. Lower shares of foreign nationals are found in

Denmark (2.4%) and Ireland (3.2%) in 1998. The South European countries – Greece, Portugal, and Spain – exhibit shares around 1.5% in the years before 1999.

Time trends are quite diverse across countries. Ireland, Greece, Spain, and Portugal, show a substantial increase in the share of foreign nationals from 1997 onwards. The most striking increase is observed in Spain. From a rate of foreign nationals of about 1% in 1995 it reached the level of 11.5% in 2006. For Ireland, the share of foreign nationals between 1995 and 2006 increased from 3.2% to 9.4%, for Greece from 1.5% to 6%, and for Portugal from 1.3% to 3.4%. Less substantial increases, in percentage terms, are observed in Denmark from 2.4% to 3.9%, and for the UK from 4% to 6.8%.

For the countries that initially had the highest share of foreign nationals (Austria, Belgium, and Germany), by 2006 there was either a slight increase, like in Austria (from 9.1% to 11%), or the share remained relatively stable. Stable shares of foreign nationals over time are also observed for the Netherlands and Sweden.

For the new Member States, the share of foreign nationals in Table A4 is below 1% in most countries. Countries with higher shares of foreign nationals in year 2006 are Cyprus (13.5%), Estonia (17.1%) and Malta (2.9%). The trend follows the same pattern as for the foreign born, which is increasing for Cyprus but decreasing for Estonia. Worth mentioning differences between the share of foreign born in Table A3 and the share of foreign nationals in Table A4 are observed for Lithuania and Latvia with a large share of foreign born being nationals.

Share of Foreign Nationals in the EU-27 by Origin

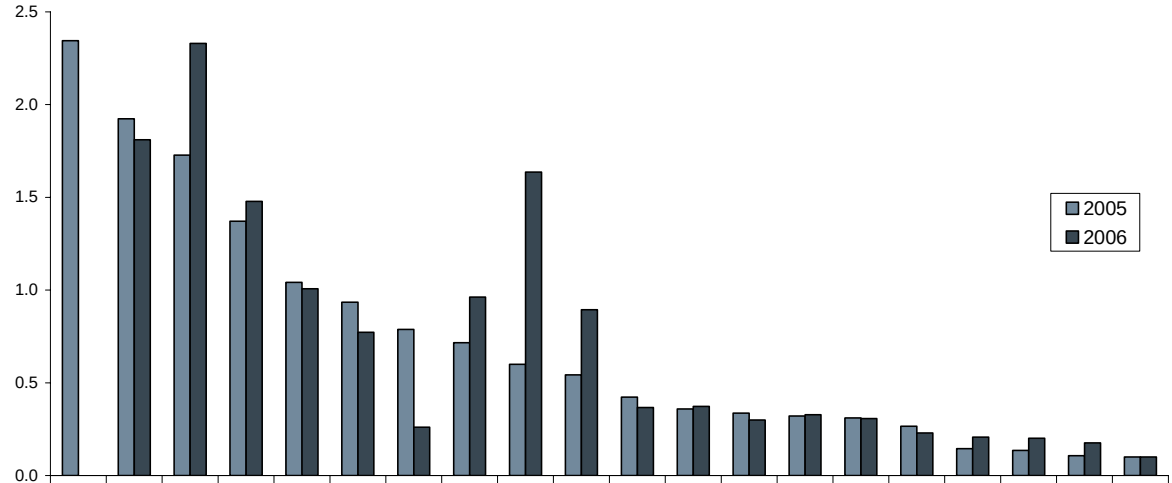
The distinction between EU-15 and non EU-15 nationals in Tables A5 and A6 reveals very interesting patterns. First, in most EU-15 countries foreign nationals from another EU-15 country comprise only a small share of the total population of foreign nationals (Table A5). In this respect, Belgium and Luxembourg are an exception. Second, the share of foreign nationals from EU-15 countries is very stable across time, although a slight increase is observed since year 2000. This suggests that what really explains the observed increase in the overall share of foreign nationals in some countries is the change in the share of foreign nationals from non EU-15 countries (Table A6). For instance, in Spain the share of foreign nationals from non EU-15 increased from 0.5% in 1995 to 9.9% in 2006, in Greece from 1.2% to 5.3% and in Ireland from 0.5% in 1998 to 2.8% in 2005.

For the new Member States, the share of foreign nationals in Cyprus and Malta is evenly distributed between EU-15 and non EU-15, while for Estonia is dominated by nationals from non EU-15 countries. The observed increase in Cyprus of the share of foreign nationals over time is mainly due to an increase of the non EU-15 nationals.

For the most recent years (2005 and 2006) we are able to distinguish further the non EU-15 nationals between those from EU-12 and non EU-27. Figure 4 shows that the share of EU-12

foreign nationals is relatively low. It ranges from 1.5% to 2.3% (by descending order) in Spain, Ireland, Austria and Cyprus, around 1% in Germany, Greece, Italy and the UK, and below 1% in the rest of the countries.

Figure 4: Share of Active Working Age EU-12 Nationals Resident in another EU-27 Country Relative to the Total Population of Country of Residence, 2005 and 2006 (percentage)

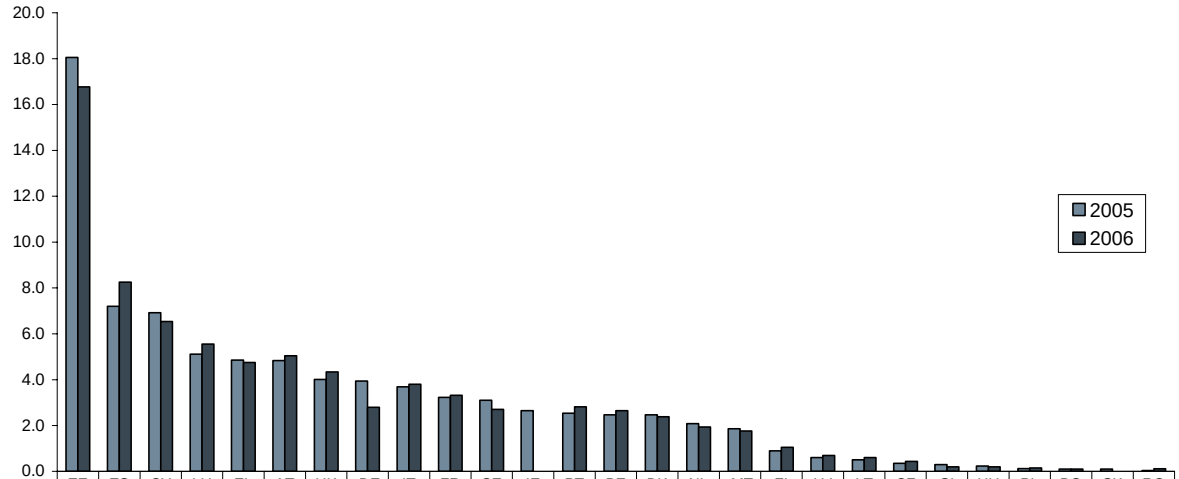


	IE	AT	ES	CY	EL	DE	EE	IT	LU	UK	BE	HU	SE	CZ	FI	DK	PT	NL	FR	SK
2005	2.3	1.9	1.7	1.4	1.0	0.9	0.8	0.7	(0.6)	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.1	0.1	0.1	(0.1)
2006	:	1.8	2.3	1.5	1.0	0.8	0.3	1.0	1.6	0.9	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	(0.1)

Source: Eurostat, LFS, spring data for available countries. Note: Data in brackets lack reliability due to small sample size.

In contrast, the share of foreign nationals from non EU-27 countries is much higher for most of the countries (Figure 5). In particular, the highest share is observed in year 2006 among the EU-15 countries in Spain (8.3%) followed by Luxembourg (5.6%), Austria (5%), Greece (4.8%), UK (4.3%), Italy (3.8%) and France (3.3%). Another group of countries exhibit shares between 2% and 3% (Belgium, Germany, Denmark, Ireland, Portugal, Sweden and the Netherlands), with Finland showing the lowest share (1%). Among the EU-12 countries, Cyprus and Estonia are found with the highest shares of non EU-27 foreign nationals (6.5% and 16.8%, respectively).

Figure 5: Share of Active Working Age Non-EU-27 Nationals Resident in an EU-27 Country Relative to the Total Population of Country of Residence, 2005 and 2006 (percentage)



	EE	ES	CY	LU	EL	AT	UK	DE	IT	FR	SE	IE	PT	BE	DK	NL	MT	FI	LV	LT	CZ	SI	HU	PL	BG	SK	RO
2005	18.0	7.2	6.9	5.1	4.9	4.8	4.0	3.9	3.7	3.2	3.1	2.6	2.5	2.5	2.5	2.1	1.9	0.9	0.6	(0.5)	0.4	(0.3)	0.2	0.1	(0.10)	(0.1)	(0.04)
2006	16.8	8.3	6.5	5.6	4.8	5.0	4.3	2.8	3.8	3.3	2.7	0.0	2.8	2.6	2.4	1.9	1.8	1.0	0.7	(0.6)	0.4	(0.2)	0.2	0.1	(0.10)	:	0.1

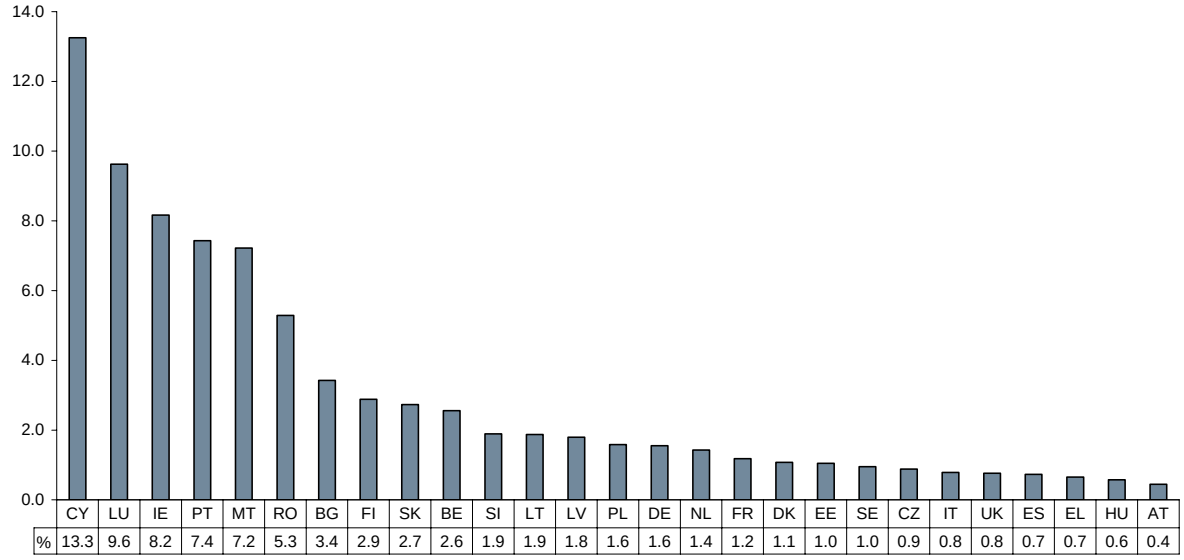
Source: Eurostat, LFS, spring data for available countries. Note: Data in brackets lack reliability due to small sample size.

To summarize, there are a number of facts worth emphasizing. First, in most EU-15 countries foreign nationals from another EU-15 country comprise only a small share of the total population of foreign nationals. The largest part of the total population of foreign nationals consists of nationals from a non EU-27 country, as the share of EU-12 foreign nationals is relatively low. Second, the share of foreign nationals exhibits a significant increase during the last decade especially among the EU-15 countries, with notable cases Spain, Greece, Portugal, Denmark and the UK. Third, what really explains the observed increase in the overall share of foreign nationals in the EU-15 countries is the change in the share of foreign nationals from non EU-15 countries and, in particular, from non-EU-27. The share of foreign nationals from EU-15 countries is fairly stable across time and the available information for the EU-12 countries shows lower shares of foreign nationals from EU-12 compared to non EU-27.

Mobile EU-27 Citizens by Origin

The discussion on the current state of mobility in the EU-27 so far is presented in relation to the population of the receiving country. Another interesting dimension, however, is to consider the share of citizens living in another EU-27 country relative to the population of country of citizenship. This type of analysis is performed for the stock of foreign nationals. Figure 6 shows that Luxembourg, Ireland and Portugal among the EU-15 countries exhibit the highest share of citizens living in another EU-27 country (9.6%, 8.2%, 7.4%, respectively). Among the EU-12 new Member States, the highest share of EU-27 mobile citizens are found for Cyprus (13.3%), Malta (7.2%) and Romania (5.3%) followed by Bulgaria (3.4%) and Slovakia (2.7%).

Figure 6: Mobile EU-27 Citizens by Origin Country, 2006
(Share of Citizens Living in another Country Relative to the Population of the Country of Citizenship)



	CY	LU	IE	PT	MT	RO	BG	FI	SK	BE	SI	LT	LV	PL	DE	NL	FR	DK	EE	SE	CZ	IT	UK	ES	EL	HU	AT
%	13.3	9.6	8.2	7.4	7.2	5.3	3.4	2.9	2.7	2.6	1.9	1.9	1.8	1.6	1.6	1.4	1.2	1.1	1.0	1.0	0.9	0.8	0.8	0.7	0.7	0.6	0.4

Source: Eurostat, LFS, spring data for available countries.

Socio-demographic Characteristics of EU Movers

Table 1 gives an overview of the social-demographic composition of the recently arrived mobile individuals for the EU-27 by origin. The movers are defined as active working age citizens who have moved from the country of citizenship to the current country of residence less than five years ago. Due to the small number of movers the analysis is performed pooling the EU-15 and EU-12 countries together.

For the mobile population to the EU-15 countries, those who have moved within the last five years from another EU-12 country are more likely to be young, females and are less likely to have completed higher education compared to their counterparts from the EU-15 countries. It is interesting to note that less than 10% of the movers from EU-12 countries to EU-15 countries are above 45 years old. In terms of their employment status, they are more likely to be employed and less likely to be inactive with a very small difference in unemployment rates. This suggests that the profile of movers from the EU-12 countries to the EU-15 is mainly relatively low educated and young.

The movers to the EU-12 countries differ in many respects compared to the movers to the EU-15, especially for citizens from another EU-15 country. The first main difference is related to the age distribution. About 35% of movers from an EU-15 country to an EU-12 are above 45 years old. The corresponding figure for EU-15 movers to another EU-15 country is about 20%. Moreover, 68% of EU-15 movers in EU-12 are males with a 45% of movers being inactive. In contrast, EU-12 movers in another EU-12 country are younger (50% between

25-34 years old), with higher employment rates but also higher unemployment compared to the EU-15 citizens.

Table 1: Selected Characteristics of recently arrived immigrants from other EU15/EU12 Member States in the EU-15, EU-12, EU-27 – 2006 (in percent)

	EU15		EU12		EU27	
	Country of Origin		Country of Origin		Country of Origin	
Selected Characteristics	EU-15[1]	EU-12[2]	EU-15[3]	EU-12[4]	EU-15[5]	EU-12[6]
Age Group						
15-24	21.2	27.9	14.5	21.7	21.0	27.7
25-34	35.4	50.1	26.7	51.7	35.1	50.1
35-44	23.1	13.9	22.7	14.3	23.1	13.9
45-54	13.1	6.9	15.8	8.7	13.2	7.0
55-64	7.2	1.2	20.3	3.6	7.6	1.3
Sex						
Male	52.5	45.9	68.4	46.5	53.1	45.9
Female	47.5	54.1	31.6	53.5	46.9	54.1
Education						
Low	22.5	26.0	18.8	24.7	22.4	26.0
Medium	40.3	57.8	45.8	56.4	40.5	57.7
High	37.1	16.2	35.4	18.9	37.1	16.3
Labour Market Status						
Employed	62.8	72.8	52.5	68.6	62.4	72.7
Unemployed	7.8	8.0	2.3	4.4	7.6	7.9
Inactive	29.4	19.2	45.2	27.0	30.0	19.4

Source: Eurostat, LFS, spring results.
1) EU-15 citizens resident for less than 5 years in another EU-15 country aged 15 to 64.
2) EU-12 citizens resident for less than 5 years in another EU-15 country aged 15 to 64.
3) EU-15 citizens resident for less than 5 years in another EU-12 country aged 15 to 64.
4) EU-12 citizens resident for less than 5 years in another EU-12 country aged 15 to 64.
5) EU-15 citizens resident for less than 5 years in another EU-27 country aged 15 to 64.
6) EU-12 citizens resident for less than 5 years in another EU-27 country aged 15 to 64.

2.3 Geographic Mobility Rates

The figures presented above provide an overall description of the current state of geographic mobility with respect to the stocks of citizens who are living in another EU-27 country, which illustrates the trend in past migration between EU Member States. However, the analysis based on stocks has the disadvantage that the development of migrant stocks over time captures the impact of net rather than gross mobility flows and that stock data conceal the vintage

of migrant entry cohorts. Therefore, in order to address these issues one needs to examine changes of residence from one period to another.

Geographic mobility flows provide a more direct picture of current mobility patterns in Europe. For cross-border mobility the definition that will be used is based on the number of individuals in a destination who changed location over a given time period relative to the resident population of the receiving country.

In this section, cross-border and regional commuting will be also considered as a special form of geographic mobility. Commuting is a situation in which individuals do not change residence. Rather, the country or region of residence is not the same as the one of work. In other words, commuters substitute the geographic move by travelling longer distances to their work place on a regular basis.

Annual Cross-Border Mobility from EU-15 to EU-27

Using the information from the LFS on the country of stay during the previous year, we construct cross-border mobility rates by obtaining the share of the resident population who has immigrated within two years relative to the population in the current country of residence. In particular, we observe the share of those who are living in the country today and were living in a different country the year before. It is worth mentioning that for a low frequency event such as cross-border mobility this measure is not reported for a number of countries due to reliability issues. This is especially the case for the New Member States.

The average cross-border mobility rate within EU-15 countries is annually around 0.2% (0.1% if Luxembourg is not taken into account) (Table A7). The average inflow from EU-15 countries to the new Member States is about 0.3% focusing on year 2006, which provides data for most of the countries. Excluding Cyprus, which shows the highest inflow rates from EU-15 countries, the average cross-border mobility rate from EU-15 to EU-12 is between 0.1% and 0.2%. For the new Member States, mobility rates from EU-15 countries are increasing in contrast to the mobility rates within EU-15 countries, which are relatively stable over time.

Annual Cross-Border Mobility from non EU-15 to EU-27

The average annual cross-border mobility from the new Member States to the EU-15 is 0.2% (Table A8). This is similar to the within EU-15 average cross-border mobility rate in Table A7. However, it exhibits substantial variation across individual countries. In particular, Spain shows the highest inflows relative to its population. In year 2006, the flow rate from non EU-15 countries was 0.5%, starting from 0.1% in year 2000. A similar picture emerges for France in which the cross-border mobility rate from non-EU-15 countries is the second highest (0.3%) with an increase since year 2000.

For the new Member States data availability is limited for most of the countries. For Cyprus, similar to the cross-border mobility from EU-15 countries, we found a high annual inflow also from non-EU-15 countries.

Regional Mobility

While cross-border mobility rates in the EU have been relatively small, mobility between regions within countries is much more pronounced. Regional mobility rates are constructed using the information on the region of residence in the previous year from the LFS for NUTS 2 regions.[4] Therefore, a mover is defined as someone who has moved residence within the country from one region to another since the year before.

The average regional mobility rate of the total population in the EU-15 countries is 1% in year 2006 (Table A9). Yet there are significant cross-country differences. In particular, the annual regional mobility rates are on average around 0.5% in the South European countries (Italy, Greece, Spain, and Portugal) and between 1.0 to 1.5% for Belgium, Germany, and Finland. For France, Ireland, the Netherlands, Sweden and the UK regional mobility rates are around 2%. Substantial differences over time are observed for Spain with an increase from 0.2% in 1995 to 1.0% in 2006.

For the new Member States the required regional information is available only for Bulgaria, Hungary, Poland and Slovakia. Overall, the regional mobility rates are of the order that we observe in South European countries. Nevertheless, there is still some cross-country variation with Hungary showing the highest mobility rate (0.4%).

Cross-Border Commuting in the EU-27

Cross-border commuting, which involves working in one country while residing in another, is analysed combining the LFS information on the countries in which an individual is living and working. That is, a commuter is defined as one who is working in a country different from the country of residence. We distinguish two types of commuters, those who commute to another EU-15 country and those to a non EU-15 country.

The average cross-border commuting rate from one EU-15 country to another is 0.6% (Table A10). Focusing on the year 2006, Belgium shows the highest rate of cross-border commuting (2.2%) followed by Luxembourg (0.8%), France (0.7%), Austria (0.6%), Sweden (0.5%) and the Netherlands (0.4%). For Denmark, Spain, Italy, Greece and the UK, the cross-border commuting rates are between 0.1% and 0.2%.

[4] "NUTS" stands for the "Nomenclature of Statistical Territorial Units" and is the common classification system for dividing the European Union's territory in order to produce regional statistics for the Community. NUTS subdivides Member States into regions (NUTS 1 level) and each of these is then subdivided into regions at NUTS level 2 and these in turn into regions at NUTS level 3.

The average cross-border mobility rates for the New Member States to an EU-15 country are of similar magnitude (about 0.6%). Estonia, Lithuania, Latvia and Slovakia exhibit cross-border commuting rates in the last available year of around 1.4%, which is higher compared to all of the EU-15 countries, expect Belgium.

The cross-border commuting rates to a non EU-15 country in Table A11 are much lower for all countries with EU-15 and EU-12 averages about 0.2%. A notable exception is Italy in which the mobility rate to a non EU-15 country is 0.3% compared to 0.1% for commuting to an EU-15 country.

We have no comparable international data on cross-border commuting rates. Given that the EU constitutes a labour market with (in principle) free movement of workers, cross-border commuting rates between US federal states might be a useful point of reference. These are fairly constant around 3.7 percent of the population. Measured by this yardstick, geographic mobility in Europe again appears to be low.

Regional Commuting

Regional commuting occurs when an individual is working in a different region from the one which is currently residing. The average regional commuting rate for the EU-15 countries in 2006 based on the NUTS 2 level was 7.3%, while it was much lower (4.0%) for the EU-12 countries (Table A12). Substantial differences exist across countries. Belgium shows for the year 2006 the highest regional commuting rate (21.7%) followed by the Netherlands (13.3%), Germany (11.9%) and Austria (11.1%). For the EU-12 the highest regional commuting rates are observed for Slovakia (10.1%), Czech Republic (5.2%) and Hungary (4.4%).

Comparing Geographic Mobility in the EU to the US

Putting geographic mobility in the EU in an international perspective is difficult. The level of mobility measured depends crucially on the definition of a region. For the US, regional mobility information refers to mobility between federal states. Annual interstate mobility in the US is in the range of 2% to 2.5% in the 2005 and 2006 (Table 2). Comparing interstate moves in the US with cross-border moves in the EU (of only about 0.1%) suggests that mobility in the EU is very low. However, such a comparison is problematic because of a number of differences between the EU and the US, such as language, culture, and labour legislation, the fact that the US is a federal state and that in the EU free movement is only a recent phenomenon.[5]

[5] It is hard to find relevant figures for Canada and Australia, but we have some evidence that regional mobility rates are in a range comparable to the US.

Table 2: Geographic Mobility in the United States 2005-2006 (in Percent of Working Age Population)

Year	Different state, same Census Division	Different Census Division, same Census Region	Different Census region	Different State
	1	2	3	4=1+2+3
2005	1.2	0.3	1.0	2.5
2006	0.6	0.4	0.9	1.9

Source: US Census Bureau, Current Population Survey
http://www.census.gov/population/www/socdemo/migrate.html

To provide a better comparison for answering whether mobility rates in the EU are low it may be more appropriate to compare internal mobility rates in the US to regional mobility rates in the EU, that is, mobility from one region to another within EU States, which are around 1% (based on the NUTS 2 region from Table A9). Such comparison narrows the mobility gap suggesting that a large part of the difference between the US and the EU with respect to geographic mobility can be explained by the differences in language, culture and institutions. However, there still exists a considerable difference between interstate mobility in the US and regional mobility in the EU, which suggests there may be a potential for higher geographic mobility in the EU.

Brief Summary of Current State of Geographic Mobility

We wish to stress a number of points gleaned from this statistical analysis. First, in most EU-15 countries foreign nationals from another EU-15 country comprise only a small share of the total population of foreign nationals. The largest part of the total population of foreign nationals consists of nationals from a non EU-27 country, as the share of EU-12 foreign nationals is relatively low. Second, the share of foreign nationals exhibits a significant increase during the last decade especially among the EU-15 countries, with notable cases Spain, Greece, Portugal, Denmark and the UK. Third, what really explains the observed increase in the overall share of foreign nationals in the EU-15 countries is the change in the share of foreign nationals from non EU-15 countries and, in particular, from non-EU-27. Fourth, cross-border mobility rates in the EU-27 are low. Fifth, regional mobility within EU-27 countries is much more pronounced but still below the comparable interstate mobility rates in the US. Finally, although cross-border commuting exhibits some increase over the years it is clearly less important than regional commuting, which seems to be relevant for a number of EU-15 and EU-12 countries.

2.4 Cross-Border Mobility over the Past Decade

The Eurobarometer wave 67.1 of 2007 contains information on the population share of citizens who moved to another country in the last ten years. This information mixes two types of movers: Individuals who moved into a location from a foreign country, and nationals who moved abroad temporarily and have returned.

Table 3: Mobility to Another Country Over Past Ten Years – Frequency and Duration

		thereof:			
	Movers	Short Term	Medium Term	Long Term	Still in Country
EU 27	9.1	20.1	31.6	17.3	30.9
Region					
EU 15	10.2	18.2	30.3	18.0	33.5
NMS 12	5.4	37.0	43.1	12.0	8.0
Gender					
Women	8.6	21.0	31.7	16.5	30.8
Men	9.7	19.3	31.6	18.1	31.0
Age					
15-29	10.8	26.4	28.7	13.8	31.1
30-39	12.3	16.5	30.8	15.5	37.2
40-49	8.4	21.8	40.5	14.4	23.3
50-59	7.4	14.4	35.7	18.1	31.8
59+	6.9	16.7	26.0	30.8	26.5
Years of Education					
15-	7.5	19.3	22.7	20.5	37.6
16-19	7.9	21.1	31.7	17.8	29.4
20+	11.7	19.6	37.5	15.6	27.3
In Education	11.5	20.1	29.6	15.5	34.8

Notes: Weighted averages. Source: Eurobarometer 67.1, own calculations. Column 'Movers' reports population share of individuals who have lived in another country at least once during the past 10 years. Duration of moves refers to last move. Short term moves refer to periods of living in another country of less than one year, medium term moves to periods of 1-5 years, long term moves to periods of 5-10 years.

Table 3 provides some summary statistics. On average slightly less than one in ten citizens of EU-27 has moved temporarily or permanently to live in another country. There is a clear regional pattern. Residents of EU-15 are substantially more inclined to have made a cross-border mover than residents of the twelve New Member States. The quota of movers (10.2 percent) is almost twice as high in the former. As the pre-enlargement period falls into the ten year observation window, one explanation is that individuals from the New Member States did not have the possibility to move before their countries joined the EU.[6]

[6] A related argument is that recent movers are perhaps systematically underrepresented in the survey, which is conducted in the local language. Thus attrition bias may arise considering that mobility from the New Member States to EU-15 is a recent, post-enlargement phenomenon.

Notable exceptions among the New Member States are Lithuania and Cyprus, with population shares of individuals with recent cross-country mobility experience above the European average. The citizens most inclined to migration, live in Ireland where about 16 percent of the population have a recent migration experience.

From a socio-demographic perspective we observe that age, education and gender determine mobility behaviour. Overall, the population share of citizens with recent geographic mobility experience decreases with age. This pattern is consistent with the individual propensity of moving declining over the life cycle. It seems logical that the population share of recent movers is rather low among the youngest respondents– some of them are too young to have had the full ten years available in which they could make independent mobility decisions.

Another pattern is observed with regard to education: the better educated the citizens the more likely they are to have made a move over the past decade. The education effect appears especially strong among university graduates. 12 percent of European citizens with more than 20 years of education, but only 8 percent of citizens with less than 20 years of education have made a move during the last decade. The figure is almost as high for those currently in education (11.5 percent), which suggests that it is increasingly common to take (parts of) education abroad. Finally, we observe that among the recent movers, women are underrepresented.

Some movers have crossed borders more than once. About 6.4 percent moved twice, and about 1.4 percent even moved three times. Thus the population share of high frequency movers appears very small.

The Eurobarometer 2007 survey on mobility over the past decade also records the duration of stay in another country. We can distinguish between short-term, medium-term and long-term movers who lived in another country for less than one year, one to five years, and five to ten years.[7] There is no censoring problem, as those who are still living in a country other than they are originally from are separately recorded.

Throughout the EU, about one in five citizens who moved to live in another country over the past decade was a short-term mover. About 30 percent stayed for one to five years, and slightly less than one in five stayed for six to ten years. About one third of the citizens who have moved to another country are still living there.[8]

Concerning the duration of stay of different populations, we observe some noteworthy patterns: (i) Citizens in the New Member States more often are short-term movers than citizens in the EU-15. Again, this probably reflects the short post-enlargement phase, rather than a specific aversion against longer term mobility in these countries. (ii) Overall, the age profile is

[7] Among the multiple movers, the survey only records the length of the most recent move.

[8] This figure is somewhat difficult to interpret, since we do not observe when an individual in this category has moved. The category mixes individuals who have resettled permanently, but also temporary movers who have arrived in a foreign location just recently.

not especially clear. Among the youngest respondents, stays abroad of less than a year appear to be especially frequent. Besides, there could be an inverted U-shape pattern regarding medium-term mobility, probably due to job-related moves. Consequently its share is strongest for individuals in prime working age (40-49). (iii) There appears to be a systematic influence of education. The importance of medium-term mobility grows with years of education, whereas the share of long-term mobility (which may turn into permanent mobility) falls with education. Thus the higher incidence of geographic mobility among the high-skilled seems to go along with shorter duration of stay at a location.

2.5 Lifetime Mobility

A useful indicator for the extent of geographic mobility in Europe is the individual lifetime mobility rate, i.e. the number of moves citizens make over the course of their life cycle. Compared to the geographic mobility indicators above, this measure has certain advantages:

- It shifts focus to the individual level: the level at which geographic mobility decisions are taken. Among others, this perspective allows detecting country-specific attitudes toward geographic mobility.

- By aggregating geographic moves over a longer time horizon, it is possible to draw a distinction between the frequency of moving and the intensity of moving. This requires separating high- and low- frequency movers.

- A life-cycle perspective is also useful, as the reasons and the propensity of moving will systematically vary with age.

Despite these advantages, the lifetime mobility perspective has not been frequently adopted in the literature so far. The main reason is lack of adequate panel data. However, the cross-sectional Eurobarometer with special focus on geographic and occupation mobility contains suitable retrospective information on respondents' mobility experience. Though the data does not contain full biographical information, like the timing and duration of each move, it is at least possible to observe how many times individuals moved after they first left the parental home to live on their own.

If an individual has moved at least once afterward, also the distance of each move is recorded. One can identify whether individuals experienced a short-distance local move, i.e. moved but stayed in the same town or region, moved to another region in the same country, moved to a country in the European Union, or moved to a country outside the European Union. Multiple answers are feasible, so that the data may record different types of geographic mobility for a single individual.

Table 4: Share of Population by Type of Geographic Mobility

	Local Move	Move in Country	Move Inside EU	Move out of EU	Any Move
AT	54.1	9.4	3.4	1.0	64.2
BE	59.6	13.0	4.5	2.5	74.7
CY	47.8	17.2	8.1	2.9	61.4
CZ	41.9	8.2	1.6	0.3	50.4
DE	59.4	18.1	4.9	3.7	77.2
DK	62.6	36.2	7.5	5.4	89.9
EE	50.5	23.4	1.1	1.7	68.2
EL	34.7	16.4	4.4	1.5	47.8
ES	46.6	9.9	4.5	3.0	57.9
FI	64.5	34.7	5.1	3.0	87.4
FR	58.2	28.8	2.6	3.3	81.8
HU	47.5	9.9	0.7	0.7	56.4
IE	44.5	18.8	14.5	4.8	63.8
IT	43.8	7.9	1.6	0.1	52.8
LT	57.4	7.4	0.7	1.2	66.4
LU	53.8	19.4	13.2	2.8	74.1
LV	44.2	22.5	2.0	2.4	66.1
MT	27.6	6.2	2.7	2.4	37.8
NL	55.0	21.6	4.4	2.7	80.0
PL	40.6	7.1	1.0	0.1	47.1
PT	41.7	8.6	4.2	2.0	52.9
SE	65.9	41.8	7.1	4.6	85.0
SI	38.2	9.6	1.6	1.4	49.6
SK	34.2	5.8	1.4	0.1	40.5
UK	52.3	23.7	6.6	5.7	79.1
EU25	**51.0**	**16.8**	**3.8**	**2.7**	**67.3**

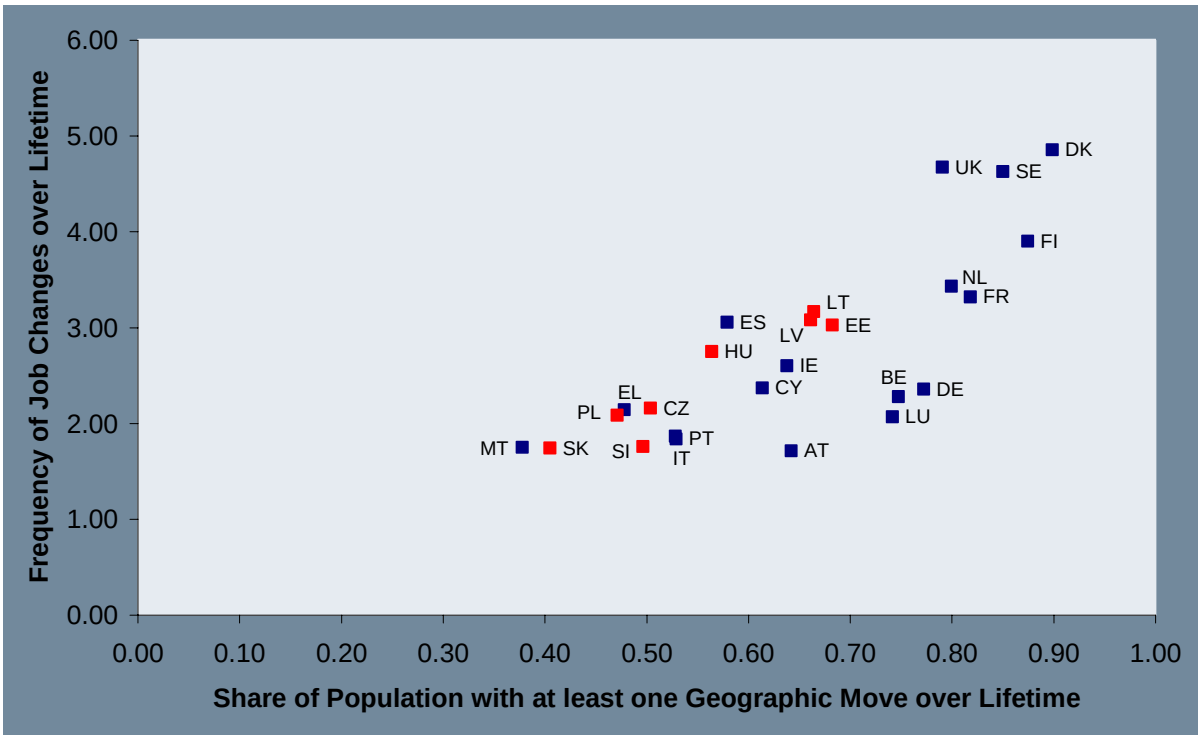
Notes: UKD including Northern Ireland. Weighted averages. Multiple answers allowed. Therefore final column does not represent the sum of columns2-5. Source: Eurobarometer 64.1, own calculations.

Table 4 reveals substantial variation in lifetime mobility rates across Europe. The share of the population who has moved at least once ranges from around 40-90 per cent. The data suggest a regional pattern: over the life course, the propensity of geographic mobility is especially high in the North of Europe (Denmark, Finland and Sweden). These countries are followed by a group of western European countries (Netherlands, United Kingdom, Germany, Belgium) where mobility rates are lower, but still in the range of 70-80 percent.

The lowest mobility rates (less than 60 percent) are observed in the Eastern European countries, excepting Latvia and Lithuania. These low rates are probably a heritage of the communist past, associated with little job reallocation, dysfunctional housing markets and restrictions on mobility. Naturally Eastern Europeans also had fewer opportunities to move abroad than Western Europeans.

Next to Eastern Europe, Greece, Portugal, Italy and Spain show below-average lifetime mobility rates. Low levels of job mobility (long job tenure) are also common in the Mediterranean countries.

Figure 7: Correlation Between Job and Geographic Mobility



Weighted country averages. Source: Eurobarometer 64.1, own calculations.

The strong association between job and geographic mobility is confirmed by Figure 7, which plots the propensity of completed mobility against the average number of voluntary and involuntary job changes experienced over the life course after the first job. Each dot represents the country average of the two variables in the Eurobarometer. The observations from Eastern Europe are highlighted in red. By and large, these countries are located at the lower end regarding both dimensions of mobility. Clearly, job and geographic mobility are positively correlated. More frequent job changes are associated with more frequent geographic moves, and vice versa.

Concerning the nature of geographic mobility, the survey of country results in Table 4 allows the following conclusions. More distant geographic moves occur at a much lower rate than less distant moves. This pattern holds almost without exception.

Comparing the country results for each of the different types of geographic mobility, the regional pattern found for the overall propensity to move reappears in the propensity to move locally and the propensity to move within the same country. Again, the Northern European countries exhibit the highest mobility rates, while the Mediterranean and Eastern European countries tend to occupy positions at the bottom end. Thus in general the propensities to move a shorter and to move a longer distance in the same country appear to be positively correlated, although there are some distinct exceptions from this rule (note, e.g., the case of Germany).

There is no apparent correlation between the size of countries in terms of area and the propensity of in-country moves.

In relative terms, the range of international mobility experience is quite large. As expected, the countries from Eastern Europe are located at the bottom end of the international mobility rates, as expected considering the long-existing legal barriers to out-migration. In the recent Member States, the share of the population who moved to another EU country is not consistently larger than the share of the population who moved to a non-EU country.[9] This may change in the future as access to other EU countries increases.

For the remaining countries, the EU country mobility rate is usually about twice as high as the non-EU country mobility rate. There are some clear outliers though. On the one hand, the rate reported from Italy and Austria is rather low. On the other hand, Luxembourg and Ireland report extremely high rates. Luxembourg's outlier status clearly reflects its special sectoral and occupational structure.[10] Ireland's status probably reflects the high level of inter-change between English speaking Ireland and the United Kingdom. To a certain degree, it may also reflect the truly exceptional recent influx of international migrants from the East of Europe.

So far, we have analysed whether individuals moved and the types of geographic mobility which were experienced. We now turn to the intensity of individual geographic mobility, measured by the total number of moves made after leaving the parental home.[11] Table 5 records the population share of movers who made no additional move, one additional move, two to four additional moves, more than four additional moves or are still residing at home. The numbers in Table 5 represent population shares.

[9] Exceptions to this rule are the Baltic States and can be explained by the proximity to the Russian Federation. Other border countries also tend to have elevated extra-EU rates compared to intra-EU rates, but just not as severe.

[10] In Luxemburg the European Union is the single largest employer, which makes it EU Member State with the highest proportion (about 30 percent) of residents from other EU Member States.

[11] The Eurobarometer does not allow combining the dimensions of mobility frequency and type of move. Hence we do not know, e.g., the share of local moves in total moves.

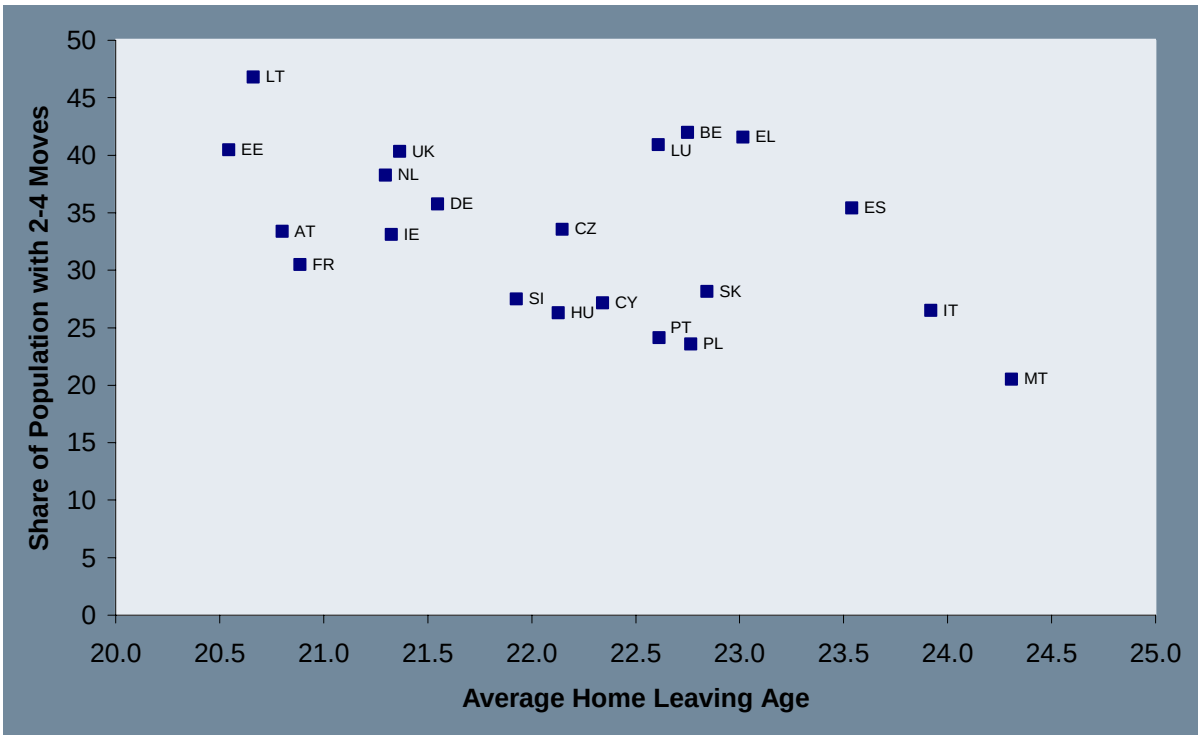
Table 5: Frequency of Geographic Mobility

	Still at Home	No Move	One Move	2-4 Moves	> 4 Moves
AT	16.0	19.1	24.1	33.4	7.2
BE	13.2	11.8	18.9	42.0	14.1
CY	20.9	17.7	16.8	33.6	11.0
CZ	23.8	25.6	19.1	27.2	4.2
DE	14.0	8.6	12.3	47.3	17.7
DK	4.9	4.8	7.3	35.4	47.3
EE	18.1	12.8	16.9	40.5	11.2
EL	26.2	26.0	16.0	22.3	9.4
ES	22.3	17.5	20.1	30.5	7.7
FI	8.1	3.5	9.2	35.7	42.9
FR	9.7	8.2	11.3	41.6	29.2
HU	18.6	24.6	18.1	26.3	12.2
IE	22.2	12.0	15.2	33.1	15.6
IT	23.7	21.7	20.6	26.5	5.8
LT	19.5	12.8	12.5	40.1	14.0
LU	16.9	9.0	17.1	46.8	10.3
LV	23.8	9.4	15.7	40.9	9.7
MT	29.3	32.8	15.8	20.5	1.4
NL	10.4	9.1	10.5	38.3	31.4
PL	30.7	21.6	17.6	23.6	6.1
PT	23.0	21.6	24.6	24.1	4.7
SE	11.8	3.0	3.3	28.2	53.5
SI	33.5	16.4	15.6	27.5	6.8
SK	32.4	26.4	21.1	18.2	1.3
UK	10.2	9.8	8.6	40.3	30.3
EU25	**17.5**	**14.3**	**14.9**	**35.1**	**17.5**

Notes: UKD including Northern Ireland. Weighted averages. Source: Eurobarometer 64.1, own calculations.

Throughout Europe, the typical situation is that individuals made 2-4 moves in the course of their lifetime; in 16 out of 25 countries, this category has the highest population share. The countries where this is not the case fall into two categories: countries where mobility is generally lower and countries where mobility is generally higher. The first group includes Slovakia, Malta and Poland, which have large shares of people who still live at home or have made no moves since moving out from their parents' house. The highly mobile countries include Sweden, Finland and Denmark, where few people still live at home and many have made more than four moves since moving out. From this observation, it appears that the share of the population still living at home is a good predictor for the overall intensity of geographic mobility in a country. To some extent, the demographic composition determines this share: In a population with a higher share of young individuals, we would expect a higher share of individuals to be living with their parents. Across Europe, however, the differences in the demographic structure are too small to explain the huge range in the fraction of individuals still at home (4.9-33.5 percent).

Figure 8: Correlation Between Home Leaving Age and Frequency of Moving



Weighted country averages. Source: Eurobarometer 64.1, own calculations.

The measured shares reflect differences in the average home leaving age. In Figure 8 we show this negative relationship, which could be driven by varying propensity to migrate, or varying opportunities to migrate. In principle, it is possible to achieve a higher level of geographic mobility through shifting two different margins: an increase in the share of the population making at least one geographic move (the extensive margin) or an increase in the frequency of moves among the population already moving geographically (the intensive margin). From an empirical perspective, however, it appears that these two margins are strongly interrelated.

Figure 9 reveals that in countries where the share of the population moving at all is larger, the share of the population who moves at a high frequency is also larger. Because the second group includes the first, a positive correlation is virtually guaranteed, however it could be enhanced by movers becoming more adept at or less afraid of moving.

Figure 9: Correlation between Propensity of Moving and Intensity of Moving

Weighted country averages. Source: Eurobarometer 64.1, own calculations.

Furthermore, if the population share of high frequency movers is large, it appears more likely that at least one of the moves not only occurs within country, but across border. At least, from the Eurobarometer data we obtain a statistically significant correlation between the population share of high-frequency movers and the population share of movers to or from another EU country.

To summarize, one may develop the following chain of arguments: A lower home leaving age could lead to a higher share of the population moving at all. A larger share of the population moving at all could raise the share of the population making a larger number of moves. A larger number of moves could induce a higher share of individuals to move to another EU country.

Overall, the variation in geographic mobility rates across Europe is quite striking. In the following, we will rely on econometric techniques (explained in the adjacent box) to estimate country effects. The idea is to show what part of the variance of aggregate mobility rates cannot be explained by differences in individual level characteristics.

Empirical Estimation of Country Effects

Conceptually, one may separate any cross-country difference in mobility rates into two components. The first is differences in characteristics of residents. For example, if age is positively correlated with completed lifetime geographic mobility, and if individuals in country A are on average younger than in country B, geographic mobility rates in country A should be systematically smaller. The second factor is general country effects reflecting, for example, specific tastes and/or the impact of policies and institutions specific to a country. Due to country effects, it is possible that the geographic mobility rate in country A is different from that in country B, even if characteristics and the correlation between characteristics and outputs is the same in both countries.

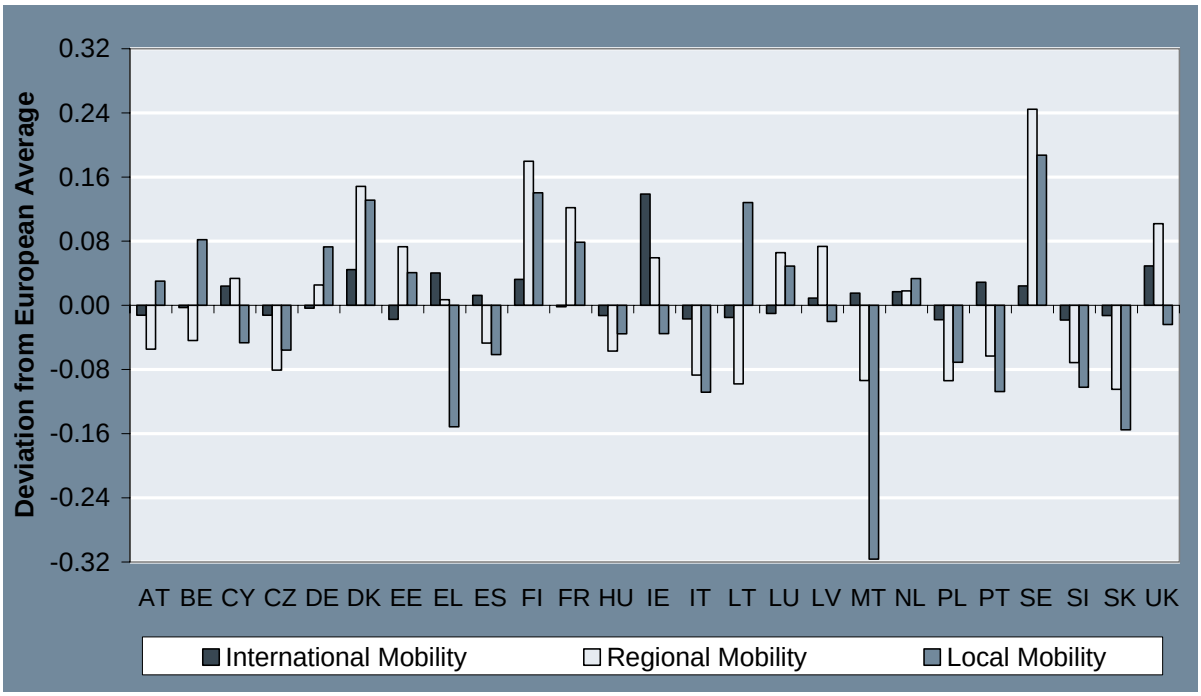
We proceed in two steps. First, we estimate linear probability models explaining the outcome of interest through a set of personal characteristics, and a full set of country dummies. Second, we use the estimated correlations to predict the average European mobility rate supposed (i) all individual characteristics were identical and equal to the average characteristics in the sample, and (ii) the general country effect estimated for a particular country impacted on all Europeans. By making the first assumption, we control for demographic differences between countries affecting raw outcomes. The results obtained by making the second assumption indicate the level change in the average European mobility rate, if the specific forces in a country (preferences, institutions, tastes) were at work in the whole of Europe.

An interpretation of the estimated country-specific effects is that they represent the expected migration outcome, if we place an average European into a particular country. Suppose the predicted country effect is above the European average, even after controlling for demographic differences explaining variation in mobility outcomes, conditions in that particular country are more favourable for mobility than in the European average. These results also reveal how much of the variation in macro economic mobility rates across Europe is actually unexplained by individual determinants of mobility.

Figure 10 summarizes the estimated country effects impacting on the propensity of completed moves at the local level (city or region), in-country, and across border.[12]

[12] In estimating the linear probability model required at the first stage, we have only employed explanatory variables which do not vary over the lifetime, in order to avoid endogeneity problems. International mobility to EU and to non-EU countries is analysed together to maintain satisfactory sample sizes.

Figure 10: Country Effects Impacting Propensity of Completed Mobility



Notes: Country effects evaluated at the mean of observable characteristics impacting on the propensity to migrate. Controls include age, age squared, gender, education level, home leaving age, migration background as indicated by parents born abroad and parts of education taken abroad, and a full set of occupation and sector effects based on the occupation in the first job. Source: Eurobarometer 64.1, own calculations.

Looking at local mobility rates first, we estimate that supposed all EU citizens had the characteristics of an average European, 56.4 percent of the population would be observed with at least one move at the city or region level. Regarding completed in-country mobility, the predicted average amounts to 16.3 percent.

In both dimensions of within-country mobility, the European average would be much higher, if individuals adapted behaviour prevalent in Scandinavia. For example, if the estimated specific effects for Sweden impacted throughout Europe, the average local mobility rate would be 18.7 percentage points higher, and the average regional mobility rate would be 24.5 percentage points larger. This suggests that there is indeed substantial scope for raising European mobility rates, provided that the Swedish (or Scandinavian) mobility attitudes and institutions could be transferred to other countries.

While the favourable ranking of the Scandinavian countries does not change whether analysing raw mobility rates or country effects, a remarkable difference arises regarding the remaining countries. Concerning completed local mobility rates, the Mediterranean countries tend to look worse than the Eastern European countries if judged by the country effects instead of the raw data. This implies that the observable characteristics impacting completed mobility are altogether less favourably distributed in the Eastern European than in the Mediterranean countries.

This effect, however, is not present for regional mobility rates. In other words, very little of the variation in in-country mobility rates across Europe appears to be attributable to systematic variation in the observables.

Looking at international mobility, Ireland stands out. If the entire population in the EU were as strongly attached to international migration as the Irish, our prediction suggests that 16.4 percent of the population, instead of 2.6 percent, would have made at least one international move in the course of their lifetime. The high share of international movers in the Irish population is poorly explained by a peculiar distribution of individual characteristics favourable to international mobility. It rather seems to reflect the very strong international migration history of the population in Ireland.

At the bottom end, we find the countries from Eastern Europe, as in the raw data. This indicates that the low international mobility rates are indeed not an effect of unfavourable socio-demographic characteristics but of suppressed mobility in the communist era. Among non-Eastern countries, Italy is the country least inclined to international mobility. If all Europeans had the behaviour of Italians, the international mobility rate at the European level would be as low as 0.9 percent. The country effect for Italy also appears peculiar if compared to those measured for the other Mediterranean countries, which are all positive. The estimated country effects probably pick up the fact that these countries have been regions sending guest workers to the north during the 1960s.

A final result worth highlighting is the slightly negative country effect for Luxembourg, although the country takes the top 2 position considering the raw international mobility rate. This confirms that the high level of international mobility is caused by the very special sector and employment structure in comparison to the rest of Europe.

For a summary, Table 6 shows the country ranking in terms of specific propensities of completed moves. In many cases, the country ranking is very similar comparing within-country and cross-border moves, most notably in Italy, Poland, Denmark and Finland. Overall, however, the ranking positions are more strongly correlated for local and within-country mobility, than the ranking positions for within-country and international mobility.

Table 6: Ranking of Country Effects by Type of Completed Geographic Mobility

	Local Mobility	In Country Mobility	International Mobility
AT	11	16	17
BE	5	14	14
CY	16	10	8
CZ	17	20	18
DE	7	11	15
DK	3	3	3
EE	9	7	23
EL	23	13	4
ES	18	15	11
FI	2	2	5
FR	6	4	13
HU	15	17	20
IE	14	9	1
IT	22	21	22
LT	4	24	21
LU	8	8	16
LV	12	6	12
MT	25	22	10
NL	10	12	9
PL	19	23	24
PT	21	18	6
SE	1	1	7
SI	20	19	25
SK	24	25	19
UK	13	5	2

Notes: Countries ranked according to country effects shown in Figures 10 to 12. UKD including Northern Ireland. Source: Eurobarometer 64.1, own calculations.

2.6 Mobility Intentions

The retrospective viewpoint adopted in the previous section smoothes short term fluctuations in mobility rates. However, it hides secular trend developments as well as level shifts due to permanent shocks. Clearly, neither the change in out-migration patterns in the Mediterranean countries since the 1960s, nor the rising opportunities for all types of mobility in Eastern Europe after communism are directly visible in the figures presented above.

To obtain a picture of current mobility patterns, we now turn to mobility intentions. On the basis of the Eurobarometer wave 64.1, we analyze whether an individual believes that he or she is likely to move within the next five years. Although reported mobility intentions do not necessarily translate into actual mobility, they contain valuable information on prospective mobility, given a correlation between intended and completed mobility does exist and that it is sufficiently homogenous across Europe.

Table 7: Share of Population with Intention to Move by Type of Geographic Mobility

	Local Move	Move in Country	Move inside EU	Move out of EU	Any Move
AT	12.7	2.5	2.3	0.9	16.9
BE	19.6	4.5	3.2	0.8	26.7
CY	16.2	3.3	4.1	0.1	22.8
CZ	12.1	2.6	1.6	0.3	16.5
DE	16.2	6.0	2.1	1.2	22.8
DK	26.0	11.1	5.7	3.6	36.7
EE	19.0	11.1	7.9	1.6	32.4
EL	12.4	8.4	3.0	1.2	23.0
ES	16.6	4.4	1.8	0.7	21.9
FI	27.7	10.9	4.4	1.7	39.3
FR	25.0	18.6	4.6	2.7	42.7
HU	17.4	3.1	2.5	0.1	22.4
IE	18.9	7.9	4.8	4.3	32.6
IT	15.9	5.6	1.8	1.2	23.3
LT	20.4	4.0	9.1	2.4	32.7
LU	12.6	5.6	5.0	0.6	22.5
LV	21.4	8.1	7.7	2.0	35.7
MT	16.4	2.6	5.3	2.5	24.4
NL	25.5	7.3	3.1	2.4	35.9
PL	16.7	4.8	7.6	1.7	27.2
PT	9.4	3.5	1.7	2.6	16.2
SE	29.7	13.1	4.5	4.1	40.6
SI	16.4	8.1	2.3	1.7	23.6
SK	9.8	3.5	3.7	1.5	17.6
UK	26.8	9.2	3.6	3.7	39.9
EU25	**19.3**	**7.7**	**3.3**	**1.9**	**28.8**

Notes: UKD including Northern Ireland. Weighted averages. Source: Eurobarometer 64.1, own calculations.

Table 7 contains the raw country averages of reported mobility intentions, measured by the respective share of the population expecting to move. As individuals are allowed to mention more than one type of the expected move, the registered propensity to move at all is systematically smaller than the sum of the propensities over the four types of moves considered.

A number of patterns are evident: First, individuals more frequently expect to move over shorter distances than to move over longer distances. This expectation appears realistic given the role of geographic distance observed when looking at completed mobility. Second, the level of expected mobility to another region in the same country appears relatively low, in particular considering that this type of geographic mobility, according to the retrospective mobility measures, has had a relatively high share in completed mobility so far.

Third, in-country mobility intentions appear positively correlated with the recent inter-regional mobility rates recovered from the EU-LFS. Finally, a relatively large share of individuals expects to move across a national border, whether to an EU or to a non-EU country. In a large number of countries, the share of the population claiming that they expect to move

abroad is larger than the share of the population who made such a move in the past. This observation hints at a cohort effect facilitating cross border moves.[13]

Mobility Intentions in the Eurobarometer Survey 2007

The waves 64.1 and 67.1 of the Eurobarometer survey respondents' mobility intentions in the next five years. Also the expected type of move (local, within country, across borders) is recorded. Unfortunately, the questions asked are not exactly identical, which makes it impossible to create a consistent time series.

It appears that the survey structure of the Eurobarometer 2007 leads to weaker reported moving intentions. This could be expected given that the newer survey strictly asks "Do you move at all…?", whereas the earlier survey allows for a certain element of chance, asking "Do you think that … you are likely to move…?" The inconsistency appears to bias especially the responses with regard to within-country mobility intentions. The share of the population reporting the intention to move locally (within the country but not locally) drops from 19.3 (7.7) percent to 7.6 (2.9) percent. It appears unlikely that such massive swing could be attributed to a change in the economic environment, or even a time trend.

Similar measurement problems may be present regarding the statements about intended cross-border mobility. Still, the development in the Eurobarometer data seems more plausible. The share of the population reporting the intention to move within the EU (to a non-EU country) is fairly stable, changing from 3.3 (1.9) percent to 3.0 (1.8) percent between the two waves.

Looking at individual countries, we observe that, consistent with the expectations, moving intentions have declined mostly in the East European New Member States, especially in the Baltic States. Still they remain above the European average. Cross-border moving intentions are strongest in the two New Member States not covered by the 2000 Eurobarometer survey. In Bulgaria (Romania), 7.9 (7.4) percent of the respondents report that they intend to move to another EU country. 2.3 (2.0) percent intend to leave to a non-EU country. The economic disadvantage of these countries probably fosters mobility intentions. Judged by the evidence for the other East European Member States, these intentions may quickly level out after accession, however.

International moving intentions are strong in Eastern Europe. This is especially true for the Baltic States and Poland where about ten percent of the population expect to move abroad soon. In these countries, the expectation to move outside the country is even stronger than the expectation to move in-country (outside the local region). In the other East European countries, the share of the population expecting to move abroad in the future is much weaker. This result seems to be a reflection of below-average intentions to move at all. Even in these countries, however, the expectation to move abroad is high relative to the expectation to make a long-distance move in one's own country. This suggests that those East Europeans considering moving do not expect to find satisfactory opportunities in their own country, and therefore expect to move abroad.

In view of the ongoing catching up process in the East European New Member States, we expect that mobility intentions would fall over time. In fact, there is some evidence from the

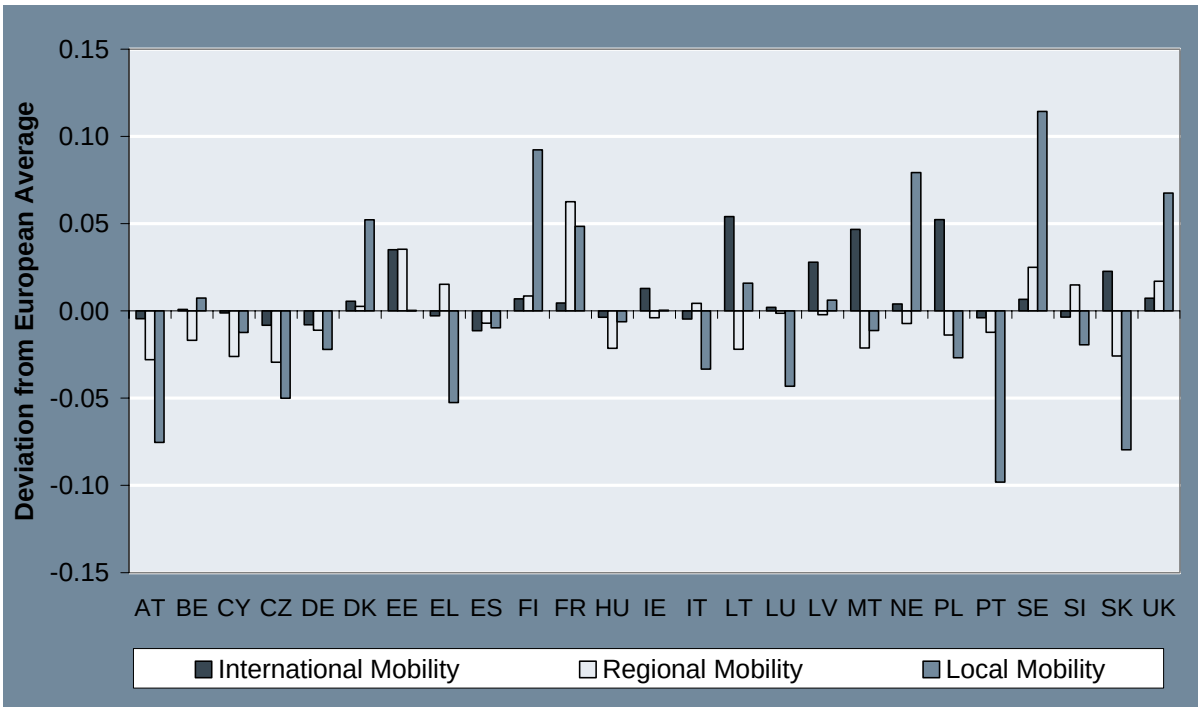
[13] It could also indicate that it is less costly to intend to move than it is to actually move.

Eurobarometer 67.1 wave of 2007 suggesting that overall, intentions to move to another country rates are lower now than two years before. However, as explained in the box above, the data do not allow constructing an exact time series and therefore require cautious interpretation.

The three non-Eastern countries with the highest expectations about future international mobility are Denmark, Sweden and Ireland. In Ireland, as in Eastern Europe, moving abroad is more frequently reported as a mobility option than moving within the country. For Sweden and Denmark, in contrast, the high rate of international mobility intentions mostly appears to be associated with a high propensity to move at all.

Proceeding as above and estimating the role of country-specific factors explaining differences in moving intentions has little effect on the country ranking. This suggests that much of the observed variation in mobility intentions across Europe is not due to variation in socio-demographic structure due to but instead arises from specific attitudes related to tastes and/or institutions. Figure 11 summarizes the unexplained country-specific mobility intentions for the Member States, regarding all three types of mobility – local, within country and international (within EU or out of EU).

Figure 11: Country Effects Explaining Intentions to Move



Notes: Country effects estimated on the basis of linear probability model that explains intention whether to move or not by a set of socio-demographic characteristics. Controls include age, gender, marriage status, education level, employment status, job tenure and a full set of occupation and sector effects for those currently employed, frequency and distance of past moves, home ownership status, current location (city). UKD including Northern Ireland. Weighted averages. Source: Eurobarometer 64.1, own calculations.

Judged by intentions to move locally, Ireland and Latvia represent the European average. Portugal currently appears as the least mobile Member State. If all Europeans were endowed with the average observable characteristics of Europeans but behaved like the Portuguese, the predicted average mobility intentions rate would be 6 percent, whereas the prediction on the basis of the European average is 15.8 percent. In contrast, if entire Europe behaved like the Swedish, the propensity of future regional moves would be 11.4 percentage points higher.

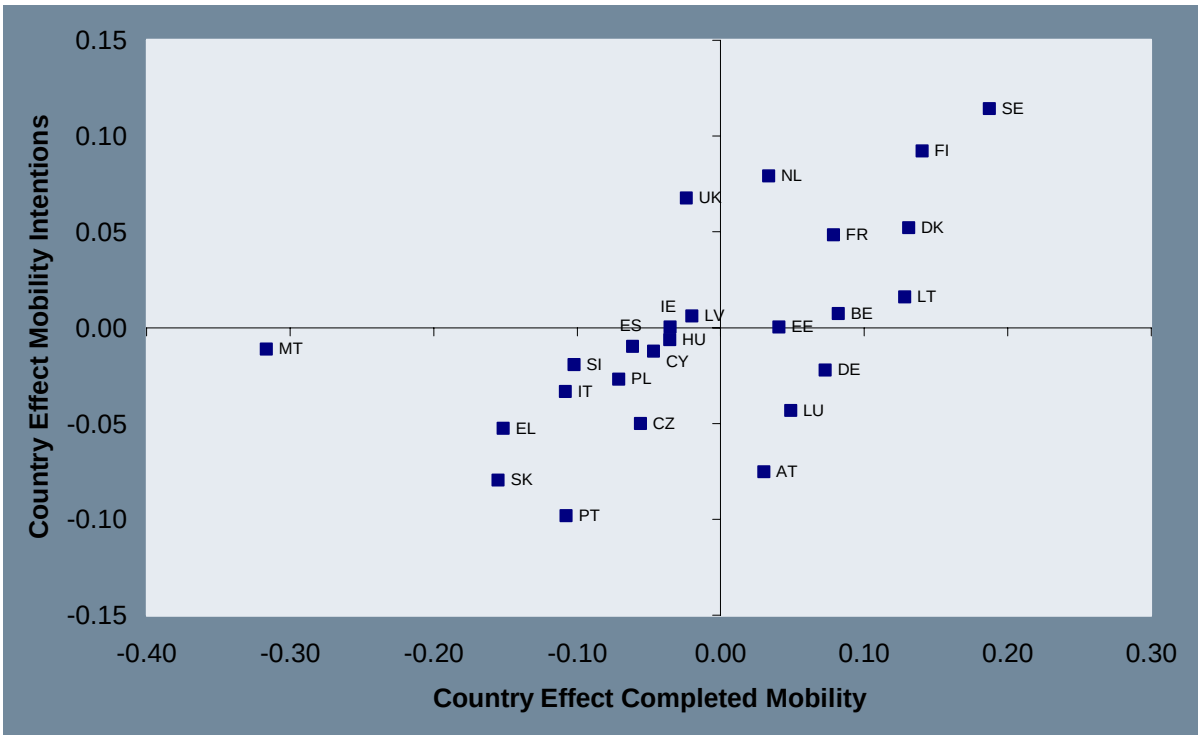
With the exception of the Scandinavian countries located at the top, it is hard to find a clear-cut country pattern. While the Eastern European and Mediterranean countries generally exhibit negative country effects, the regional clustering is not as prominent as with actual migration experience. In particular, we observe some countries from central Europe (Austria, Germany and Luxembourg) among the group of countries less inclined towards local mobility.

The country currently most inclined to within-country mobility is France. If all Europeans behaved like the French, the average European mobility rate would be 10.3 percent instead of 4 percent. Two East European countries, Estonia and Slovenia, are among the countries where individuals have higher within-country mobility expectations than the European average. Finally, somewhat surprisingly considering the rather low level of reported moving intentions, Italy precedes even Denmark if judged by the country effect. Thus the distribution of observables impacting within-country mobility appears to be worse in Italy than in Denmark.

At the bottom end, we observe once more most of the East European countries, but also Austria. If the Czech (Austrian) behaviour were the norm throughout Europe, the rate of intended mobility evaluated at the average characteristics of the Europeans would be as small as 1.1 (1.3) percent.

It appears that a country tradition of mobility has a certain role in predetermining expectations about future mobility. Figure 12 shows a strong positive correlation between country-specifics effects for completed migration in the past, and the country specifics regarding future mobility intentions, for geographic mobility at the *local level*. A similar strong positive correlation (not shown) is found between the specific country effects driving completed and intended mobility also in the domain of in-country mobility. This correlation may reflect learning effects or cultural norms, and supports the hypothesis that an established mobility tradition may encourage future mobility. Put differently, the development of mobility rates, at least to some extent, appears path-dependent. An established pattern is unlikely to change quickly.

Figure 12: Country Effects Regarding Completed and Intended Mobility – Local Mobility

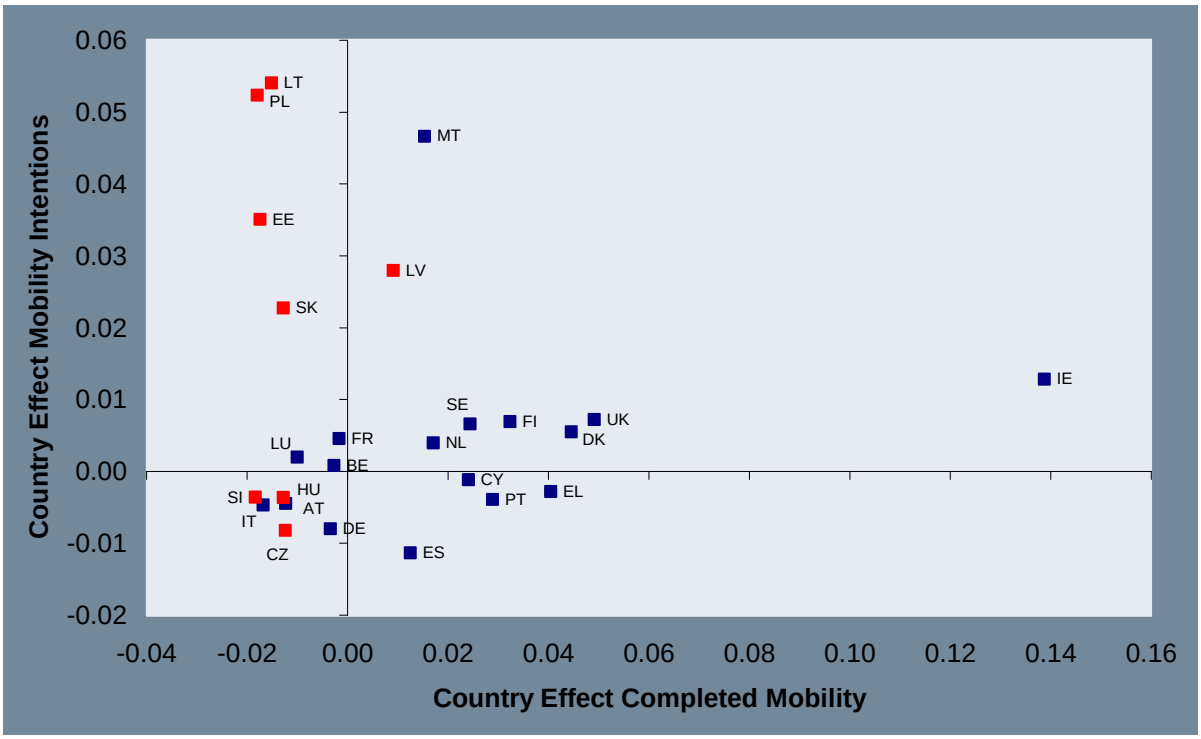


Country effects evaluated at the mean of observable characteristics impacting on the propensity to migrate. Controls include age, gender, marriage status, education level, employment status, job tenure and a full set of occupation and sector effects for those currently employed, frequency and distance of past moves, home ownership status, current location (city). Source: Eurobarometer 64.1, own calculations.

In the domain of international mobility intentions, patterns are very different. First, there is a huge gap between the six countries currently most inclined to migrate internationally – the Baltic States, Poland, Slovenia, and Malta – and the rest of Europe. If all Europeans' intentions to move were as strong as in these countries, the European rate of international mobility intentions evaluated at average sample characteristics would be more than twice as high. Clearly, the high positive country effects reflect the additional opportunities for moving into other EU countries opening up by entering into the European Union. This effect does not appear to be present in Hungary and the Czech Republic.

Among the countries least inclined to international mobility over the near future, we observe three large countries in terms of population: Spain, Germany and Italy. Just improving the readiness to move in these countries to the European average would increase the share of the European population with an intention to move by roughly one percentage point.

Figure 13: Country Effects Regarding Completed and Intended Mobility – International Mobility



8 East European Countries (CHK, EST, HUN, LAT, LIT, POL, SLK, SLN) highlighted in red. Country effects evaluated at the mean of observable characteristics impacting on the propensity to migrate. Controls include age, gender, marriage status, skill level, education abroad, current employment status, occupation and sector dummies for current occupation, home ownership, current location (city), migration history. Source: Eurobarometer 64.1, own calculations.

Figure 13 displays no clear-cut empirical correlation between countries' rate of past international mobility and reported expectations of future international mobility. This is true not only for the countries in Eastern Europe affected by economic transformation and accession to the European Union, highlighted in red, but also when considering only the rest of Europe where these peculiar effects are not present.

Given that within-country shocks tend to be less dispersed than cross-country shocks, one explanation for the looser relationship between past and future international mobility levels is that cross border movements are more strongly affected by country-specific economic shocks. A good example in support of this hypothesis is the case of Ireland, a country experiencing by far the highest levels of international mobility in the past, but where the country effect explaining expectations to move abroad is much closer to the norm. It appears that the estimated country effect reflects international migration intentions falling due to the country's enormous macro economic boom creating better opportunities at home.

In summary, when looking at mobility intentions a few countries rank low no matter which type of geographic mobility is considered. Among this group are Austria, the Czech Republic, Germany and Portugal. On the other hand, five countries clearly stand out as high mobility

countries: Sweden, the United Kingdom (including Northern Ireland), Estonia, Finland, and France, due to the top position in terms of in-country mobility intentions.

2.7 Concluding Remarks

This section has given an empirical picture of various dimensions of the current state of geographic mobility in the EU. We have measured geographic mobility in a number of dimensions: stocks and flows; mobility at the local, regional, in-country and international level; as well as completed and intended mobility.

The overall impression is, first, that the level of geographic mobility is fairly low in Europe. Second, mobility outside the residential area is even lower. Third, high mobility countries (e.g. Denmark, the Netherlands, Sweden), and low mobility countries (e.g. Italy, Spain) co-exist. This suggests that there might be some scope for increasing the average geographic mobility rate in the EU. However, at least with regard to within-country geographic mobility, behaviour appears to be relatively stable, which would make it harder to achieve quick success with policy interventions to promote geographic mobility.

In the following section, we attempt at clarifying whether raising the EU mobility rate from the current low level to a higher low level is indeed an appropriate policy target. We characterize the optimal mobility rate, and discuss the potential benefits and costs associated with increased geographic mobility.

In addition, we will aim at a better understanding of the factors driving the international differences in geographic mobility behaviour. This is necessary to develop a basis for determining policy interventions suited to enhance mobility. Relevant and efficient policies would concentrate on those changeable factors that, empirically, are strongly associated with mobility behaviour, i.e. contribute to explaining the differences in mobility patters between countries and individuals apparent in the data.

3. OPTIMUM MOBILITY

3.1 Introduction

Studying the issue of optimum mobility requires both an *economic* and *social* perspective. For mobility to deliver its potential benefits over the long term, a balance must be struck between its economic and social affects, between mobility and stability. Though it is practically impossible to determine an exact optimum level of mobility, we can consider the effects of mobility by weighing the potential benefits against the potential costs. These costs and benefits will have external affects – or externalities – on people besides those making the mobility decisions (actual and potential migrants).

Because of these externalities, individual decision making may not yield the socially optimal level of geographic mobility, and government intervention may be appropriate. Two factors could prevent optimal outcomes. First, social externalities beyond the individual net benefits of migration may render the mobility rates too high or too low from a social planner's perspective.[14] Second, inefficient market or policy regulations may impose barriers to mobility so that individual net benefits from geographic mobility are not realised.

We structure the discussion of the issue of optimum geographic mobility by giving answers to the following questions:

- *Why **should** people migrate?* This adopts the perspective of a social planner (section 3.2).
- *Why **do** people migrate?* This adopts the perspective of the individual who weighs benefits and costs associated with geographic mobility (section 3.3).
- *Why **do** Europeans **not** migrate?* Here we elaborate on the barriers to geographic mobility as perceived by EU citizens (section 3.4).

[14] The social planner is not personified in a single individual, but is understood as the combined political goals and efforts of a society. We assume that the social planner is benevolent and strives to maximize the net gains from geographic mobility for the society, by weighing benefits and costs. The planner calculating net gains does not only regard *economic* output, but also *social* aspects. The aim is not only to maximize output, but also to achieve a balanced distribution of welfare. We will not specify, however, any exact social welfare function.

A main result from our discussion will be that the net benefits for society from geographic mobility tend to be positive and larger than individual benefits. This is an important conclusion, because implies that a benevolent social planner would want to introduce policies to foster migration.

3.2 Social Benefits and Costs of Migration

3.2.1 *The Role of Externalities*

A social planner optimising geographic mobility needs to consider potential positive and negative externalities of geographic mobility. In our context, a supra-national perspective is necessary. The optimum level of geographic mobility has to be found for the entire EU, i.e. potential net gains in one region must be weighed against potential net losses in another.

Both positive and negative externalities from geographic mobility increase with the level of mobility. However, one may expect that the positive externalities exhibit decreasing returns to scale: higher levels of mobility bring smaller additional social benefits. On the other hand, the negative impact of additional mobility is expected to increase with the level of geographic mobility, for example due to growing social tensions.

In theory, the optimum level of geographic mobility is to be found, where the net benefits are at the maximum, i.e. at the level of geographic mobility maximising the distance between the level of total benefits (the sum of private benefits and positive social externalities) and the level of total costs (the sum of private costs and negative externalities).

In practice, this optimum level of geographic mobility is impossible to determine. This would require exact quantification of the various possible externalities (as well as private benefits and costs), but the empirical evidence on the short- and long-term impact of geographic mobility on the economy and the society is rather limited and difficult to generalise.[15]

Matters are complicated by the often dual nature of externalities: A positive externality in the receiving region may be associated with a negative externality in the sending region. In order to establish a need for mobility in a union of regions, as the European Union, it is necessary that the positive externality in the one region is larger than the simultaneous negative externality in the other.

Further, the same factor that makes a positive externality under particular circumstances may result in a negative externality under different circumstances, depending on the socio-economic and cultural circumstances in the sending and receiving regions.[16] Also the individ-

[15] See for example Saxenian (2002).

[16] See for example Adams (2003); Kaba (2004); Mora and Taylor (2007); IMF (2005); Mattoo et al. (2005). One example is that migrants from different source country regions perform differently when moving into different

ual socio-demographic characteristics of the migrants, affected by legislation and institutions, play a role.[17]

Under these circumstances, the task in assessing optimum geographic mobility is to describe the nature of the potential positive and negative externalities associated with mobility. Rather than to estimate the optimal level, this approach attempts to identify whether additional mobility is likely to increase or decrease total welfare across Europe. In the following, to facilitate the presentation, we will separate economic, demographic and social factors though it is obvious that these are in fact closely interrelated.

3.2.2 *Economic Factors*

Some of the key arguments for increased geographic mobility are economic in nature. A useful starting point is that of geographic mobility serves as an equilibrating factor between regional labour markets. To the extent that mobility of capital and goods do not achieve convergence of employment and real wages in open or integrated economies, mobility of labour may help balancing labour market outcomes. Furthermore, enlarging the relevant labour market for individuals may result in better skill matches. As a consequence, returns to human capital formation may increase, which changes the incentives to invest in human capital. Improved skill matches and accelerated human capital formation may foster economic growth across the continent.

The reduction in labour market imbalances is probably the most frequently mentioned economic rationale for increased geographic mobility in Europe. The need for geographic mobility as a balancing factor is evident when analysing differences in unemployment rates and purchasing power adjusted wages.[18]

Table 8 displays a matrix of unemployment rate differences in percentage points between Member States. In order to highlight imbalances between neighbouring states, the matrix is roughly sorted by geographic location. Thus numbers very different from zero adjacent to the matrix diagonal indicate strong imbalances in geographically close regions.

Western countries, and the differences in performance cannot be explained by differences in migrants' personal characteristics.

[17] See for example Ho (2004); Bloom and Grant (2001); VTU (2005); Mora and Taylor (2007).

[18] The subsequent figures are based on harmonized Eurostat statistics.

Table 8: Unemployment Rate Differences in Percentage Points - 2006

	Cyprus	Greece	Italy	Malta	Portugal	Spain	France	Belgium	Netherlands	Luxembourg	Germany	Austria	Denmark	Untd. Kingd.	Ireland	Sweden	Finland	Estonia	Latvia	Lithuania	Poland	Czech Rep.	Slovakia	Slovenia	Hungary	Romania	Bulgaria
Cyprus	0.0	-4.3	-2.2	-2.7	-3.1	-3.9	-4.9	-3.6	0.7	-0.1	-3.8	-0.1	0.7	-0.7	0.2	-2.5	-3.1	-1.3	-2.2	-1.0	-9.2	-2.5	-8.8	-1.4	-2.9	-2.7	-4.4
Greece		0.0	2.1	1.6	1.2	0.4	-0.6	0.7	5.0	4.2	0.5	4.2	5.0	3.6	4.5	1.8	1.2	3.0	2.1	3.3	-4.9	1.8	-4.5	2.9	1.4	1.6	-0.1
Italy			0.0	-0.5	-0.9	-1.7	-2.7	-1.4	2.9	2.1	-1.6	2.1	2.9	1.5	2.4	-0.3	-0.9	0.9	0.0	1.2	-7.0	-0.3	-6.6	0.8	-0.7	-0.5	-2.2
Malta				0.0	-0.4	-1.2	-2.2	-0.9	3.4	2.6	-1.1	2.6	3.4	2.0	2.9	0.2	-0.4	1.4	0.5	1.7	-6.5	0.2	-6.1	1.3	-0.2	0.0	-1.7
Portugal					0.0	-0.8	-1.8	-0.5	3.8	3.0	-0.7	3.0	3.8	2.4	3.3	0.6	0.0	1.8	0.9	2.1	-6.1	0.6	-5.7	1.7	0.2	0.4	-1.3
Spain						0.0	-1.0	0.3	4.6	3.8	0.1	3.8	4.6	3.2	4.1	1.4	0.8	2.6	1.7	2.9	-5.3	1.4	-4.9	2.5	1.0	1.2	-0.5
France							0.0	1.3	5.6	4.8	1.1	4.8	5.6	4.2	5.1	2.4	1.8	3.6	2.7	3.9	-4.3	2.4	-3.9	3.5	2.0	2.2	0.5
Belgium								0.0	4.3	3.5	-0.2	3.5	4.3	2.9	3.8	1.1	0.5	2.3	1.4	2.6	-5.6	1.1	-5.2	2.2	0.7	0.9	-0.8
Netherlands									0.0	-0.8	-4.5	-0.8	0.0	-1.4	-0.5	-3.2	-3.8	-2.0	-2.9	-1.7	-9.9	-3.2	-9.5	-2.1	-3.6	-3.4	-5.1
Luxembourg										0.0	-3.7	0.0	0.8	-0.6	0.3	-2.4	-3.0	-1.2	-2.1	-0.9	-9.1	-2.4	-8.7	-1.3	-2.8	-2.6	-4.3
Germany											0.0	3.7	4.5	3.1	4.0	1.3	0.7	2.5	1.6	2.8	-5.4	1.3	-5.0	2.4	0.9	1.1	-0.6
Austria												0.0	0.8	-0.6	0.3	-2.4	-3.0	-1.2	-2.1	-0.9	-9.1	-2.4	-8.7	-1.3	-2.8	-2.6	-4.3
Denmark													0.0	-1.4	-0.5	-3.2	-3.8	-2.0	-2.9	-1.7	-9.9	-3.2	-9.5	-2.1	-3.6	-3.4	-5.1
Untd. Kingd.														0.0	0.9	-1.8	-2.4	-0.6	-1.5	-0.3	-8.5	-1.8	-8.1	-0.7	-2.2	-2.0	-3.7
Ireland															0.0	-2.7	-3.3	-1.5	-2.4	-1.2	-9.4	-2.7	-9.0	-1.6	-3.1	-2.9	-4.6
Sweden																0.0	-0.6	1.2	0.3	1.5	-6.7	0.0	-6.3	1.1	-0.4	-0.2	-1.9
Finland																	0.0	1.8	0.9	2.1	-6.1	0.6	-5.7	1.7	0.2	0.4	-1.3
Estonia																		0.0	-0.9	0.3	-7.9	-1.2	-7.5	-0.1	-1.6	-1.4	-3.1
Latvia																			0.0	1.2	-7.0	-0.3	-6.6	0.8	-0.7	-0.5	-2.2
Lithuania																				0.0	-8.2	-1.5	-7.8	-0.4	-1.9	-1.7	-3.4
Poland																					0.0	6.7	0.4	7.8	6.3	6.5	4.8
Czech Rep.																						0.0	-6.3	1.1	-0.4	-0.2	-1.9
Slovakia																							0.0	7.4	5.9	6.1	4.4
Slovenia																								0.0	-1.5	-1.3	-3.0
Hungary																									0.0	0.2	-1.5
Romania																										0.0	-1.7
Bulgaria																											0.0

Source: Eurostat, own calculations. Table is left to right. Example: the unemployment rate in Cyprus is 4.3 percentage points lower than in Greece.

Current imbalances in unemployment rates across EU-27 are large, with Poland experiencing an unemployment rate more than three times larger than the member state with the lowest unemployment rate, the Netherlands. We also observe large imbalances between neighbouring Member States. Especially striking imbalances, showing up as cluster of darker tinted cells around the matrix diagonal, can be found between Germany, the Benelux and surrounding states (with Germany having an unemployment rate about 4.5 percentage points higher than the Netherlands or Denmark), and between the new Member States of Poland and Slovakia compared to surrounding states, with the unemployment rate in Poland being 8.2 percentage points higher than in Lithuania. A similar picture emerges when studying employment rates [19]

[19] The maximum difference in employment rates is 22.9 percentage points, between Poland (employment rate 54.5%) and Denmark. Imbalances tend to increase with geographical distance of Member States, but strong imbalances also still exist in geographic close regions. For example, the employment rate in the Netherlands is 13.3 percentage points higher than in Belgium. The difference between the Czech Republic and Poland amounts to 10.8 percentage points.

Table 9: Purchasing Power Adjusted Wage Percentage Differences - 2002

	Cyprus	Greece	Italy	Malta	Portugal	Spain	France	Belgium	Netherlands	Luxembourg	Germany	Austria	Denmark	Untd. Kingd.	Ireland	Sweden	Finland	Estonia	Latvia	Lithuania	Poland	Czech Rep.	Slovakia	Slovenia	Hungary	Romania	Bulgaria
Cyprus	0	-5	-22	-2	20	-18	-39	-38	-41	-46	-42	-27	-43	-48	-45	-33	-25	142	215	148	45	61	86	12	96	226	332
Greece		0	-18	3	27	-14	-36	-35	-38	-44	-39	-23	-40	-46	-42	-29	-21	155	231	161	52	70	96	18	107	243	355
Italy			0	25	54	5	-22	-21	-25	-32	-26	-7	-27	-34	-30	-14	-4	209	302	216	84	106	138	43	150	316	451
Malta				0	23	-16	-37	-37	-40	-45	-41	-25	-42	-47	-44	-31	-23	148	222	154	48	65	91	14	101	234	342
Portugal					0	-32	-49	-49	-51	-55	-52	-40	-53	-57	-54	-44	-38	101	162	106	20	34	55	-7	63	171	259
Spain						0	-26	-25	-29	-35	-29	-11	-31	-37	-33	-18	-9	195	283	202	76	96	127	36	139	297	426
France							0	1	-4	-12	-5	19	-7	-16	-10	10	22	296	415	305	136	163	204	83	221	433	606
Belgium								0	-5	-13	-6	18	-8	-17	-11	9	21	292	409	301	134	161	201	81	217	427	599
Netherlands									0	-8	-1	24	-3	-12	-6	14	28	313	437	323	147	175	218	91	235	456	637
Luxembourg										0	8	36	6	-4	2	25	40	352	487	362	170	201	247	109	266	508	706
Germany											0	25	-2	-11	-5	16	29	318	443	327	149	178	221	93	238	462	645
Austria												0	-22	-29	-25	-8	3	233	333	241	99	121	156	54	170	348	494
Denmark													0	-10	-4	18	31	325	452	335	154	183	227	96	244	472	658
Untd. Kingd.														0	6	30	45	370	510	381	180	212	261	117	280	532	738
Ireland															0	22	36	341	473	351	163	193	239	104	257	494	687
Sweden																0	12	261	369	270	115	140	178	67	192	386	544
Finland																	0	223	320	231	93	115	149	49	162	335	477
Estonia																		0	30	2	-40	-33	-23	-54	-19	35	78
Latvia																			0	-21	-54	-49	-41	-64	-38	4	37
Lithuania																				0	-42	-35	-25	-55	-21	32	74
Poland																					0	11	29	-23	36	126	199
Czech Rep.																						0	16	-31	22	102	168
Slovakia																							0	-40	5	75	132
Slovenia																								0	75	192	286
Hungary																									0	66	120
Romania																										0	33
Bulgaria																											0

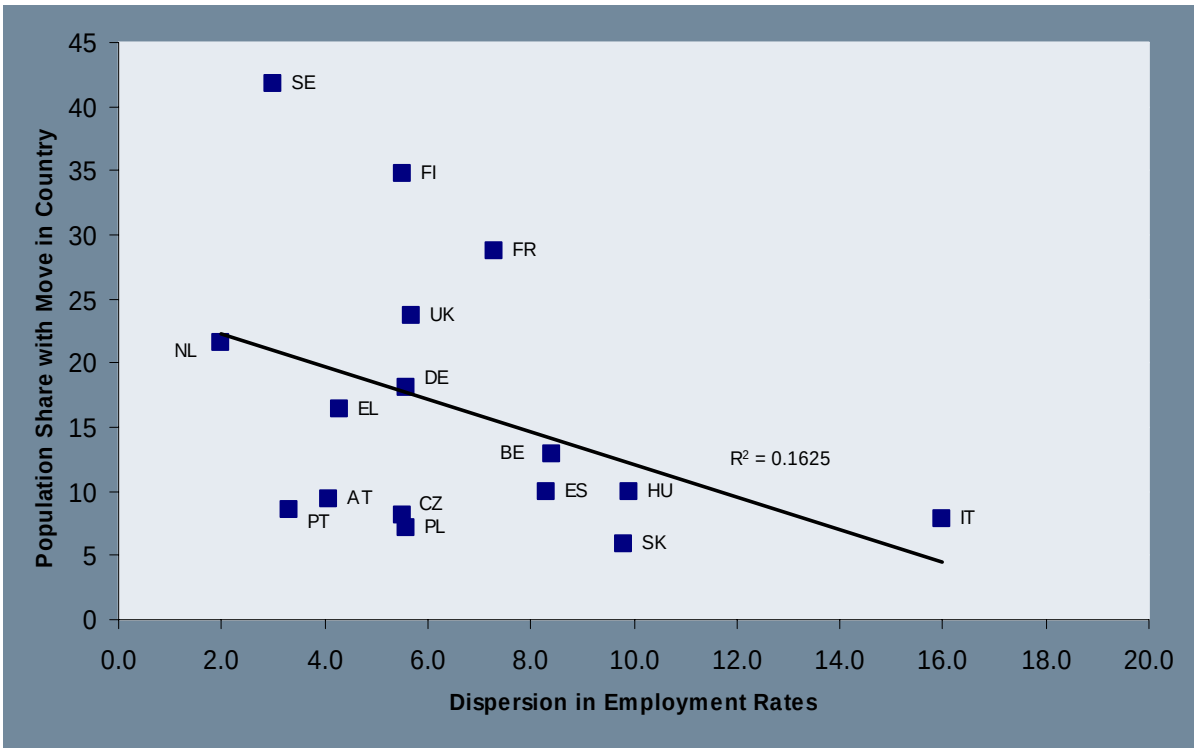
Source: Eurostat, own calculations. Table is left to right. Example: the purchasing power adjusted wage in Cyprus is 5 percentage points lower than in Greece.

Taken alone, differences in employment and unemployment rates across Member States are no conclusive argument for fostering labour mobility within the EU. Differences in employment rates across Member States might not reflect inefficiencies in the labour market, but different preferences regarding the trade-off between work and leisure. Differences in unemployment rates might be generated by generous unemployment benefits in some countries that impel individuals to claim looking for a job in order to claim benefits. Such differences would not be affected by increased geographic mobility. However, as unemployment rates are strongly negatively correlated to employment rates, we are confident that high unemployment rates in some Member States are at least partly explained by an insufficient amount of jobs, and labour mobility might lead to a more balanced allocation of jobs and workers in the EU.

Support to the existence of large imbalances on the European labour market is added by cross-country differences in purchasing power adjusted wages across Member States. Table 9 shows that the percentage differences in average pre-tax PPP (purchasing power parity)

wages[20] are large even within EU-15, with wages in the UK being over twice those in Portugal. Differences in PPP wages between directly neighbouring states of the EU-15 tend to be much smaller, especially between the middle and north European countries. These differences rarely exceed 20 percent. A different picture emerges among the new Member States, with differences in PPP wages up to 286 percent and differences up to 75 percent between neighbouring states. Differences in PPP wages between new member and EU-15 states are as high as 738 percent.

Figure 14: Employment Rates and Population Share with Move across EU



Source: Eurostat, Eurobarometer, own calculations. Dispersion in regional employment rates for population of age 15-65.

There is also scope for increased geographic mobility *within countries* as an equilibrating factor. Figure 14 shows the relation between regional labour market imbalances and internal mobility rates across the EU. Clearly, those countries with a low internal mobility rate experience larger regional imbalance in their employment rates (or unemployment rates).

Although the labour market imbalances across the EU suggest that geographic mobility could play a role as an equilibrating factor, a frequent argument in the debate about migration is that it increases competition in national labour markets, puts downward pressure on

[20] To compute pre-tax PPP wages, we combine Eurostat statistics on mean hourly nominal wages with comparative price levels across the European Union. In view of the magnitude of differences between Member States, we can neglect the influence of differences in taxation.

wages, and hence reduces well-being of the incumbent population. Another fear is that immigration could be a burden to the welfare state either because the labour market does not absorb the migrant workers, or because of an increase in unemployment rates in the incumbent population. These arguments, however, are only concerned with the necessities of the destination labour market. If they are valid, there should be opposite effects in the sending labour market. From a supra-national perspective, one must demonstrate that the losses in the destination are smaller than the gains in the origin for these arguments to imply a negative net effect of mobility

At a conceptual level, it is far from clear that such welfare losses in the destination would indeed arise. The positive or negative impact of migrants on the labour market outcomes of the incumbents depends on the degree to which the arrivals are economic competitors of the incumbents.

The simplest model is that of a closed economy with perfect competition, homogeneous labour and capital-labour complementarity.[21] In this economy, if immigrants supply capital that makes labour more productive, or if they raise demand for manufactured products as consumers, native wages may grow. However, the effect diminishes, as soon as the migrants also supply labour, because the labour market can only absorb the higher supply of workers if the price of the production factor falls. In this case, overall income in the economy increases: migrant workers and capital owners experience an income gain, whereas native workers may face an income loss. If labour supply is elastic and native workers respond to the wage decline by withdrawing from the labour market, this negative income effect becomes stronger.

The analysis gets more complex in a scenario with a rigid labour market, yielding involuntary unemployment, which means that the current wage exceeds the market-clearing wage and is downwardly rigid. In this labour market, unemployment may rise by exactly the change in labour supply associated with migration. Whether this leads to income losses of native workers depends on whether immigrants actually replace them in production. In the extreme case, none of the immigrants finds employment and, therefore, the income of the native workforce would not change. If immigrant workers substitute for natives, however, natives necessarily experience an income loss. Their total wage bill declines by exactly the amount of wages earned by immigrants.

However, in this setting, an immigrant inflow may also yield more favourable outcomes, as immigration may put pressure on seemingly rigid wages. In this case, the impact on the income of native workers is ambiguous. On the one hand, insiders in the labour market before immigration took place are worse off due to the lower wage. On the other hand, those native workers who are no longer unemployed as a result of the wage decline benefit from immigration.

[21] See, for example, Zimmermann et al. (2007).

These models can be extended to incorporate different types of labour, in order to analyse the particular impact of high- and low-skilled immigration. The results of these models can be summarised as: (i) An increase of the workforce as a result of immigration generally increases national income. (ii) The national income gain will be the smaller, the more rigid the labour market. (iii) Those native workers who are most dissimilar to the immigrant workers obtain the highest income gain. Those native workers who are most similar to the immigrants lose the most. (iv) Capital owners generally gain independently of the degree of complementarity or substitutability between native and migrant workers.

While these aspects are conceptually relevant, a key question is whether they are quantitatively important. Many studies have directly estimated the impact of migration shocks on the wages and employment of natives. These studies suggest that there is generally little relationship between the immigrant share and wages or employment of natives. If there is indeed a negative causal effect, as substantiated by few studies, it appears to be small.[22] The largest adverse effect is found in a study by Borjas (2003) for the United States. His results suggests that an increase in the immigrant share in a labour market, defined by education and labour market experience, by one percentage point could reduce native wages by 0.4 percent.[23] However, a replication study by Bonin (2005) suggests that this strong result does not transfer to the European situation.

Another overall positive externality of geographic mobility, when speaking of labour market effects, concerns the possibility of better skill matches through an expanded labour market.[24] In general, imperfections in the information available in the labour market entail the simultaneous presence of unemployed persons and vacant jobs. This is the origin of frictional unemployment. These imperfections are even more important when vacant jobs are located in different regions or countries. To the extent that the skills required by the vacant jobs differ from the skills available in the local labour market, skills mismatch might arise. This skills mismatch will be persistent if neither workers nor jobs are fully mobile.

Therefore, enhancing geographic mobility will lead to regional labour markets adjustment and to a better match between the demand and supply of skills. If geographic mobility enhances the quality of job matches, individuals can make a higher return on their human capital. This increases incentives to invest in education.

On the other hand, for a worker, the search for a job that fits his or her requirements and skills is a process that takes time. Likewise, when a firm wants to recruit new workers, it often chooses to devote substantial resources to the selection of suitable individuals. Therefore, mobility entails costs which in most cases are irreversible. This implies that excessive mobil-

[22] See Altonji/Card (1991), Hunt (1992), Card (2001), Card/Lewis (2005) and Dustmann et al. (2005) for examples.
[23] It bears emphasis that these effects were limited to the workers directly competing with the migrants. Generally, the effects on the wages on other workers are either insignificant or *positive*.
[24] See Helsley and Strange (1990) and World Bank (2006).

ity could increase the cost of vacancy posting on the side of the firms, or search costs on the side of the workers.[25] However, most of these additional costs are borne voluntarily by individual workers and firms. There have been no empirical studies which have been able to document external aspects of these costs.

From an empirical perspective, it appears that better skill matches do work for most migrants. Ho (2004) observes a drift to lower skilled jobs among Australian immigrants, which is especially pronounced among women. An interpretation is that mobility of high-skilled couples may result in better matches for men, but worse ones for females.[26]

Overall, it appears that the direct economic gains made by free circulation of human capital are quite large. This impression emerges from different American, Canadian and European simulation studies,[27] and from the literature seeking to predict the potential migration and welfare gains (or losses) associated with the EU enlargement.[28] Factors which make mobility more economically beneficial are complementarities on the labour market, improved skill matching, and externalities through educational choices or human capital formation. The fiscal effects of immigration in the long run are generally believed to be positive, although in the shorter run much depends on the nature of the migration (see attached box).

Free geographic mobility furthermore helps allocating the innovation and entrepreneurial potential incorporated in individuals to the environment where they can achieve the highest return. The impact of educated immigrants on technological and scientific progress is likely to affect future growth rates of income per capita, as innovation increases total factor productivity. This dynamic effect of a "brain gain" on the rate of scientific and technological innovation of a country has indeed been captured by several empirical studies.[29] Updating the previous work in this field measuring patented innovation, Wasmer et al. (2007) even conclude that "…ultimately and in the long run this may very well be the most important effect of the foreign-born on the US economy."

[25] Such aspects are covered, e.g., by Straubhaar et al. (2000), and especially in a volume edited by Padoa-Schioppa (1991).
[26] Mincer (1978) argues that, when talking about migration in a family context, women can be characterised as "tied movers". Consult also Bevelander (2007) who discusses the phenomenon of "double disadvantage" in relation to female migration.
[27] See for example Bloom and Grant (2001); European Foundation for the Improvement of Living and Working Conditions (2006); Saxenian (2002); Sekretariatet for ministerudvalget for Danmark i den Globale Økonomi (2005); Kaba (2004).
[28] See, for example, Alvarez-Plate et al. (2003).
[29] See Branstetter (2001) and Peri (2005) for examples.

Geographic Mobility and Public Finances

An economic externality associated with cross border geographic mobility is growth effects through migrants' contribution to public finances. A positive (negative) contribution in effects leads to a lower (higher) tax rate compared with the situation of no mobility. If taxation distorts economic decision making, this goes along with efficiency gains (losses).

The literature distinguishes three different fiscal contributions of migrants: (i) the current fiscal contribution, as the age distribution and labour market attachments of immigrants and residents generally differs, (ii) the lifetime contribution, considering the individual aging process, and (iii) the share in the burden due to a long-term adjustment of tax rates required in order to maintain sustainable finances in a changing demographic environment.

Whether fiscal externalities are positive or negative is an empirical question. The answer depends on circumstances specific to the country: positive externalities tend to rise with (i) with education level and labour market integration of immigrants; (ii) the more severe the demographic aging problem; (iii) the more fiscal policy leans to redistribution from younger to older generations, for example through pay-as-you-go pension schemes, and (iv) the less social transfers are related to earnings.

Fiscal externalities from geographic mobility arising in the destination country of immigrants must be weighed against the simultaneous externalities arising in the source country. The balance is a priori indefinite. On the one hand, when immigrants move from a poorer country to a richer one, the overall fiscal net gain tends to be positive. That is, combined tax revenue in the two countries will tend to increase more than total transfer payments. This implies that there is scope for the receiving country to compensate the sending country. On the other hand, if geographic mobility occurs from a country with little income redistribution to a country with high income redistribution the total fiscal net gain tends to be negative.

Even if the total economic gain from geographic mobility is positive, the effects are probably not equally distributed between destination and origin of migrants. Clearly the back side of the direct income gains in the area with a growing labour force due to immigration is direct income losses in the area with a shrinking labour force due to emigration. The gain of innovative brains in the receiving region means a brain drain in the sending region, which could generate a permanent reduction of per capita income growth there.[30]

From a conceptual perspective, in order to make a case for geographic mobility, it is sufficient that a supra-national social planner could compensate the losses of the one region with the income gains of the other. Because free mobility of labour will tend to draw people to where they can be happier (*e.g.* earn more), it is likely that such compensation is at least *theoretically* possible. As it is *practically* difficult to implement such compensation, the distributive consequences of geographic policy cannot be ignored.

In this context, it is important to note that geographic mobility may also yield a range of positive economic externalities in the emigration region.

[30] See, for example, IMF (2005) and Kaba (2004).

First, migrants often remit part of their income to their family in the home region. There is empirical evidence, surveyed by the World Bank (2006), that remittances are a substantial source of income in the sending country, and that there is a direct link between remittances and factors driving economic growth, such as investment in education and start up of capital-intensive businesses. The positive impact of remittances probably increases with the income differential between destination and origin areas. Thus, remittances are less important in the context of intra-EU-15 mobility, yet may play a positive role in the economic development of the New Member States.

Second, an important dimension of geographic mobility, especially in the intra-EU context, is brain and youth circulation. Many younger migrants do not move permanently but temporarily (*e.g.* to study). After returning home, they bring along extra skills including language and cultural skills, which allow them to handle more internationally-oriented jobs.[31] Secondly, they frequently bring home a migrant partner, also well educated. Thirdly, positive spin-offs through remittances, as explained before, may result in better child schooling. Thus brain and youth circulation may result in a threefold brain gain in the long run.[32]

Third, migrants who choose not to return home may serve as middlemen linking businesses in the destination and origin.[33] Navigating between both regions, they often function as major catalysts for expanding knowledge, businesses and venture initiatives, and as a consequence enhancing the cross-border knowledge transaction and trade in general and possibly increasing FDI in the origin country.[34]

In summary, geographic mobility may indeed be a win-win situation in economic terms for the sending and receiving country. Positive externalities mainly stem from positive growth effects associated with free movement of human capital reducing labour market imbalances, improved skill matches in an integrated market, higher investment into education, and a higher level of innovation and entrepreneurship. Negative externalities are primarily pecuniary or fiscal, and these negative effects in the destination country are at least partially off-set by corresponding positive effects in the sending region. The efficiency gains, however, are an unambiguous gain for Europe.

Still, the issue of redistributing (parts of) the economic gains from the receiving to the sending region may arise, especially if the context of brain drain (*i.e.* not brain circulation). Permanent out-migration of highly productive and well educated persons may hamper long-term income growth in the origin. The danger of a brain drain appears especially relevant in situations of

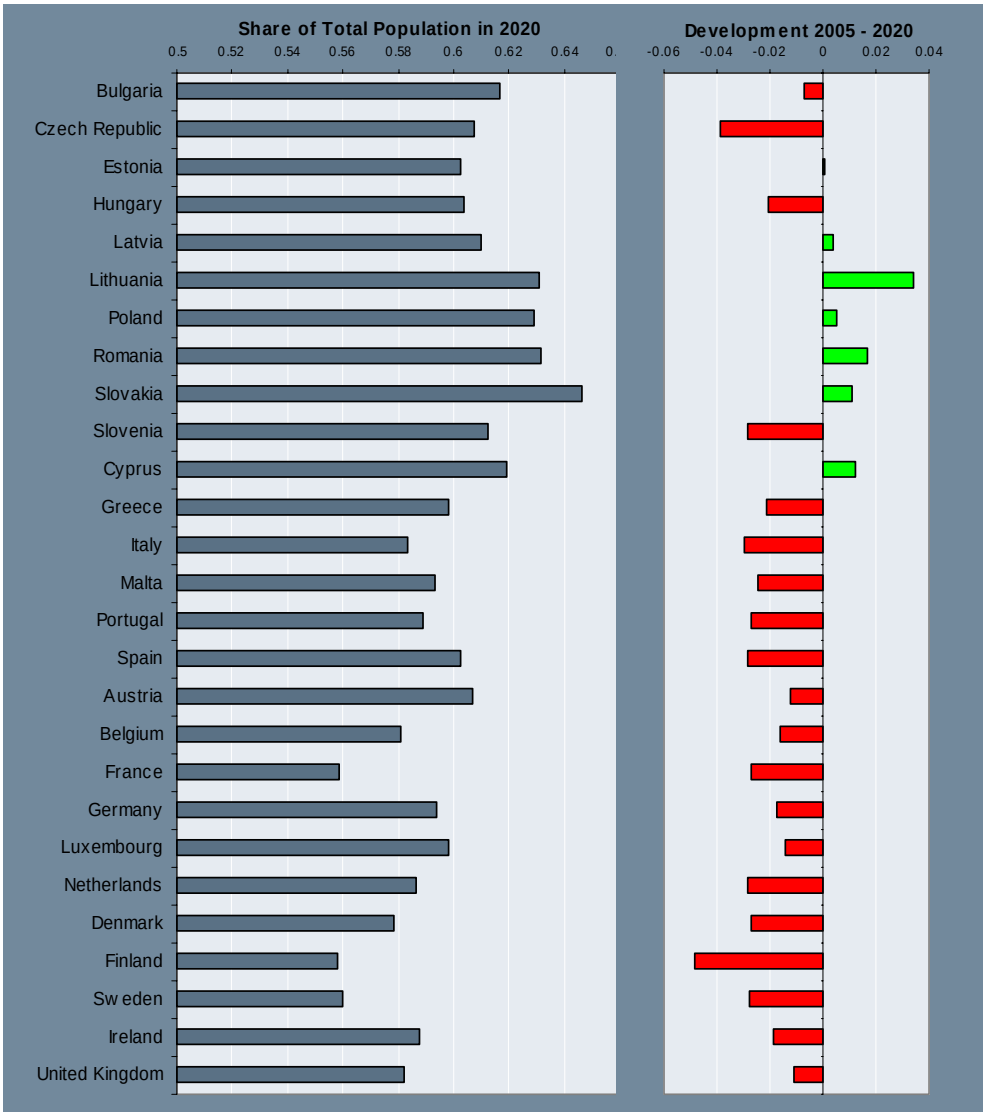
[31] There is some evidence that experiences of homecoming students get wasted due to recognition failure. This would constitute a target for rethinking existing systems of skill recognition.
[32] See Dabelsteen (2007); Wiers-Jenssen (2007); World Bank (2006)
[33] See Saxenian (2002)
[34] See Teferra (2004); Kaba (2004); Sekretariatet for ministerudvalget for Danmark i den globale økonomi (2005)

large income differentials between destination and origin. In the EU context, brain drain may affect some of the Eastern European new Member States.

3.2.3 *Demographic Factors*

A second rationale for increased geographic mobility frequently mentioned is the demographic development in Europe. Two demographic trends are especially salient: population decline and population ageing. Over the longer term, replacement migration of young people could be seen as a way to counteract the negative consequences of these trends.

Figure 15: Population Share Aged 20-64 – Projection 2005/2020

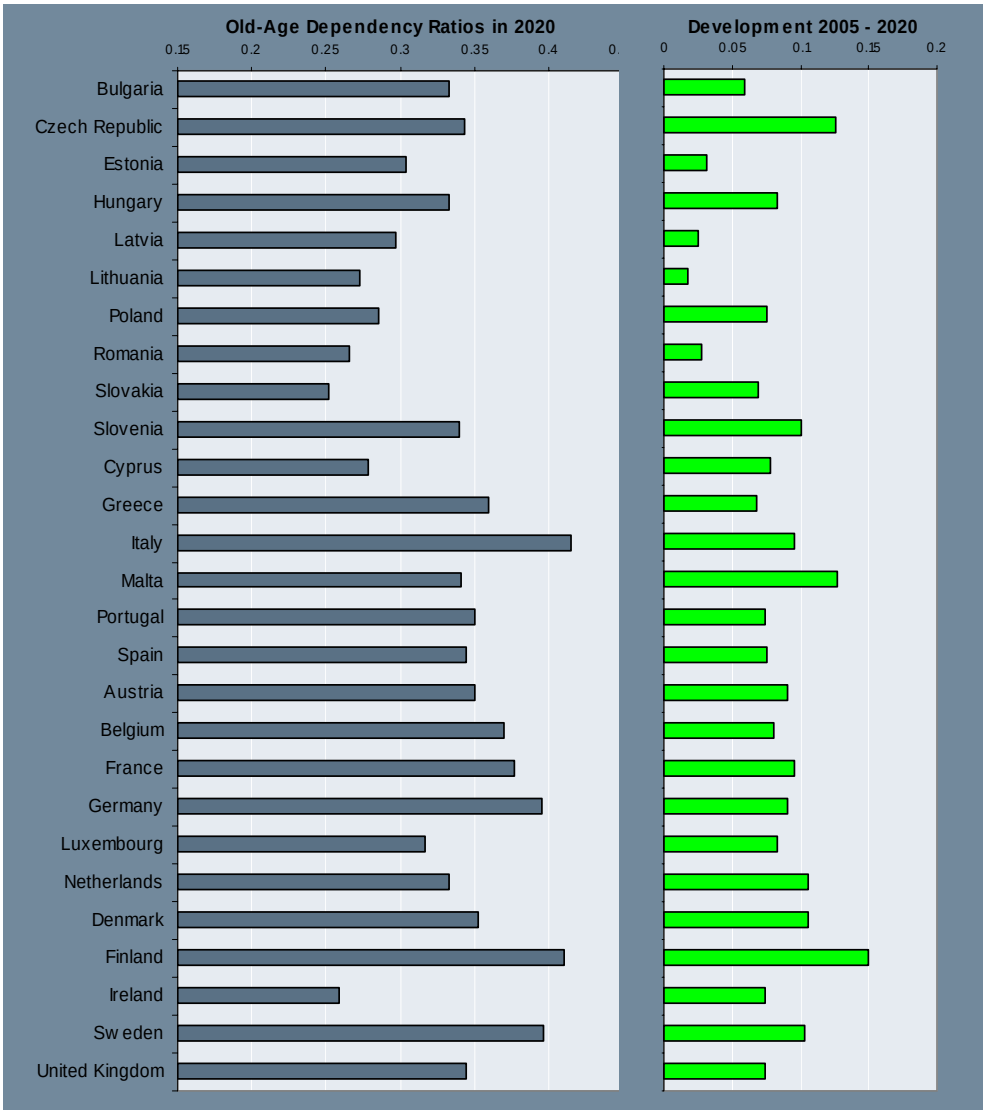


Source: Eurostat, EuroPOP2004 (No migration variant), own calculations.

Since all the EU-27 countries have fertility rates well below the replacement fertility rate, the scope of intra-EU migration in cushioning demographic ageing appears limited. Still, one may argue that intra-EU migration could serve as an equilibrating factor in face of diverging rates

of population decline and ageing. A closer look at Eurostat population forecasts reveals that the demographic prospects within EU-27 are not entirely uniform.[35] Figure 15 shows a comparison of the population share aged 20-64 (as an approximation of the labour force) in 2020, and the development of the share between 2005 and 2020 for EU-27.

Figure 16: Old-Age Dependency Ratios – Projection 2005/2020



Source: Eurostat, EuroPOP2004 (No migration variant), own calculations.

While imbalances in the level of the labour force share among Member States might not be large in 2020, the direction and magnitude of the development in Member States varies considerably. Demand for replacement migration may increase especially in EU-15. At least in

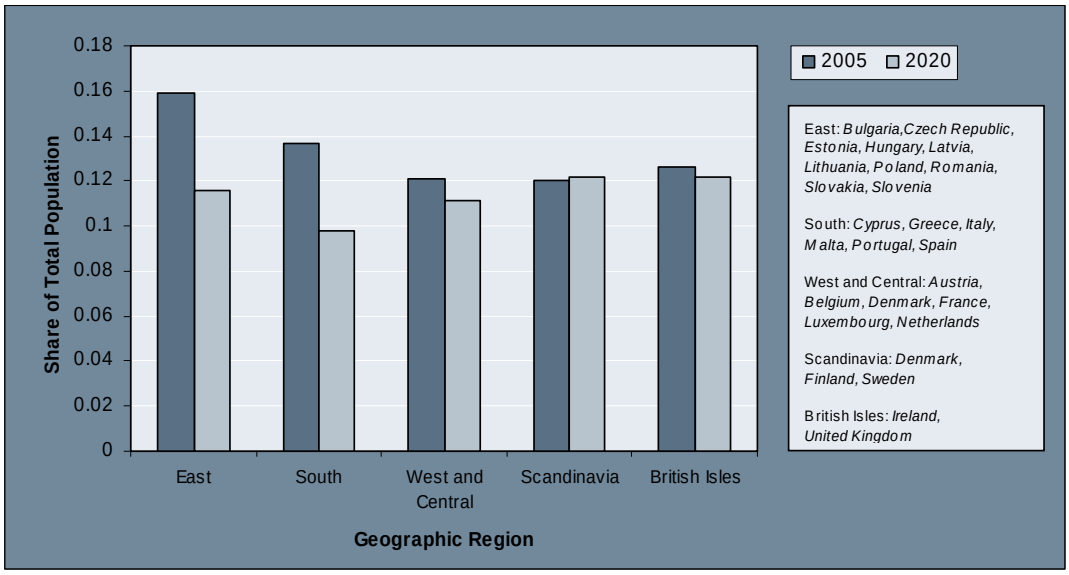
[35] In this section we analyse the Eurostat EuroPOP2004 population projection for the year 2020. In particular, we use the 'zero-migration' variant scenario, in which the projection is calculated under the assumption that no (equilibrating) migration takes place between Member States.

some new Member States, the development is more favourable, with even a growing working age population share.

Larger imbalances are observed when comparing projected old-age dependency ratios in 2020 (Figure 16), the ratio between the population aged 65+ and the population aged 20-64. While the dependency ratio will increase in all Member States, the magnitude of the increase varies considerably. Additionally, the resulting level of the dependency ratio in 2020 varies much more among Member States than the level of the population share aged 20-64.

At the same time as demographic development might lead to large imbalances across European Union Member States in 2020, the potential supply for equilibrating labour mobility will decrease, as the share of young, mobile workers in the total population will decrease through 2020. In a scenario without external migration into the European Union, the share of the population aged 20-29 on the total population will decrease from 13.3 to 11.1 percentage points, a decrease of almost 20 percent. Figure 17 shows that the share in European regions will mostly decrease and converge. Thus within-EU mobility probably can only play a modest role in reducing demographic imbalances across Europe.

Figure 17: Population Share Aged 20-29 – Projection 2005/2020



Source: Eurostat, EuroPOP2004 (No migration variant), own calculations.

The share of the strongly mobile population aged 20-29 from East Europe will decrease the most. The development reflects current fertility patterns: birth rates are lowest in the former Eastern European countries and the Southern European countries and highest in the Northern European countries. In effect, if the high economic growth of the Northern European countries continues to exert high demand on labour, and thus attracts migrant workers from the South and East of Europe, the positive effects of the replacement migration into these coun-

tries might easily be out weighed by the accelerated population decline in the countries that at the present time have a labour surplus.

This trend appears already to be a reality in many of the Eastern European countries. If East Europeans realised their strong intentions to move abroad (compare section 2.5), geographic mobility would enhance the demographic problems caused by trends in fertility and mortality parameters. However, even if rates of outward migration from the high mobility new Member States remain relatively high, there is no need to dramatize the demographic impact. It is generally true that realistic levels of cross-country mobility cannot substantially change the age structure in a population, since flows are relatively small in relation to stocks. The main impact then is on population size, and population decline does not necessarily imply welfare losses in per capita terms.

Notwithstanding the need not to dramatise labour outflow from the new EU Member States, to counter the demographic problems in the high mobility new Member States, an intensified focus on how to integrate older people into the labour market as, reflected in the Lisbon and Stockholm employment targets, can be helpful. Hence, this kind of integration appears to be relatively unsatisfactory in the new Member States due in part to various myths regarding older workers. At first, this requires a deeper awareness among employers about the need to apply existing models or develop new practices of age management in order to extend working lives and postpone people's exit from the labour market. Secondly, to support the awareness and integration, more research on the situation and requirements of older people in the labour market is necessary.[36]

Indirect demographic consequences of increased mobility could arise if it fosters postponing family formation. Moving is associated with economic and social instability for the individual, and hence may reduce the propensity of marriage. Whether later family formation or moving have lasting negative effects on fertility, and thereby constitutes a negative demographic externality, depends on whether these factors result in either childlessness or a lower family size. Some evidence indicates that young and "globalised" Europeans do intend to have smaller, not just later, families (Hantrais et. al., 2006).

3.2.4 *Social Factors*

Besides economic and demographic aspects, a number of social aspects are strongly connected to mobility. At the macro level, it is related to European integration; at the meso-level, it is related to network effects.

A frequent argument for the case of increased inter-EU mobility is that it will bring about stronger integration of Europe. The European integration process is premised on the free movement of capitals, goods, services and persons. Since the Treaty of Rome of 1957, a higher mobility of individuals among Member States has been seen as the catalyst of this process. As a

[36] See OECD (2007b) and Mandl et. al (2006).

by–product of migration and everyday interactions, it is supposed that a more mixed European society will emerge, wiping out the image of fellow Europeans as 'foreigners'.[37]

If mobility fosters socio-cultural integration EU internal movers should feel more "European" than non-movers. Ethnographic studies based on slices of the moving population have found high levels of Europeanisation and Euro-enthusiasm among them.[38] However, studies are typically limited either in geographical scope or in occupational variation, dealing for example with large companies and international organisations, Erasmus students, cross–border commuters, and ethnic businessmen.

Some indirect evidence on the correlation between intra-EU migration and European integration comes from the 2005 Eurobarometer data, which has the advantage of being representative. Table 10 shows the marginal effects obtained from of a regression explaining the propensity of individuals thinking that moving across regions and countries within the European Union is "a good thing for European integration" on a full set of individual characteristics including indicators of past migration experience.

Table 10: Factors Impacting Positive EU Integration Attitudes

	Marginal Effect
Age	**-0.001**
Female*	-0.015
Married*	**-0.041**
Low education*	**-0.181**
Iintermediate education*	**-0.099**
Lives in city*	**0.023**
Has moved in EU*	**0.053**
Has moved outside EU*	**0.072**
Has studied in another EU country*	0.027

Notes: Results from probit regression including full set of country, sector and occupation dummies. Sample weights applied. Variables statistically significant at least at the ten percent level highlighted in blue. * attached to a variable name indicates an indicator variable. For these variables the estimated coefficient represents the percentage point change in the outcome for the discrete change in the variable from 0 to 1. in Source: Eurobarometer 64.1, own calculations.

The results indicate that besides socio-demographic characteristics, notably education, own experiences with moving abroad substantially affect the view on geographic mobility as a factor fostering European Integration. In fact, individuals who moved at least once in their

[37] Thus, for example, the 'Action Plan for Mobility' states that '*the mobility of citizens* […] *encourages the sharing of cultures and promotes the concept of European citizenship as well as that of a political Europe'*. See the resolution of the Council and of the representatives of the Governments of the Member States, meeting within the Council of 14 December 2000 concerning an action plan for mobility', Official Journal C 371, 23/12/2000.

[38] See Tarrius (1992), King and Ruiz–Gelices (2003).

lifetime within the EU are 5.3 percent more likely to answer that mobility is good for integration, than comparable individuals without such a move. If movers have indeed become more internationalised, this experience may shape their answers to this question.[39] The data also show that any cross-border move, whether within-EU or outside EU, has this positive effect. Having taken part in education in another EU country has no additional effect over and above the effect of moving.

A range of potential positive or negative externalities of geographic mobility are related to networks. According to Massey (1993), migration networks are sets of interpersonal ties that connect migrants, former migrants and non-migrants in origin and destination areas. They work through kinship, friendship and shared community origin. Positive social externalities of migration networks exist if the utility of newly arrived immigrants and previous immigrants grows in response to an increase in the number of newcomers. One example of positive community network effects is access to and supply of ethnic capital. Chiswick (2006) estimates the value of this factor by estimating the compensating wage differentials arising when members of an ethnic group move from communities with a stronger ethnic network to communities with a weaker ethnic network. The results point to a positive value of the ethnic network.

Carrington et al. (1996) distinguish two types of network effects: (i) *community effects* which increase the utility of a community, and (ii) *family effects*, which only increase the utility of friends and relatives. Pedersen et al. (2004) analysing gross migration flows in 27 OECD countries provide empirical evidence that both effects indeed exist. The first effect is the more relevant from a social planner's perspective. Individuals deciding about whether to migrate or not would probably take into account the possible outcomes on friends and relatives. Thus the individual mobility optimum incorporates family effects.

There may also be negative externalities stemming from a higher concentration of non-nationals, notably due to reduced social cohesion of migrants and natives. According to Recchi and Nebe (2003), conflict between natives and newcomers is quite common. Among immigrants, the retention of ethnic culture and traditions in the face of the dominant culture's habits and values allows them to reassert communal bonds, sustain their own status and maintain their identity. Among natives, the presence of aliens stirs once latent ethnic pride. Immigrants can thus be stigmatised as a threat to national homogeneity and integrity. Some indigenous populations exhibit xenophobia. Right-wing movements may gain in strength capitalising on and encouraging the ethnic suspicions.

Prejudice rather than facts may drive the negative response of the majority population. Dustmann und Preston (2006) present empirical evidence based on European data about attitudes toward migrants suggesting that irrespective of the economic circumstances and potential la-

[39] The data do not allow ruling out reverse causality. Perhaps individuals move within the EU because, among other things, they think that this is good for European integration.

bour market effects of immigration, the majority population is more hostile towards immigrants if the share of immigrants in the population is larger.

Geographic mobility could also affect social cohesion through its impact on family structures. Viewing families as groups related by kinship or close emotional attachments, the relationship to the family members staying behind the movers necessarily changes character: the close emotional attachments transform into more distant kinds of relationships. On the other hand, the migrants settling down in new areas have the possibility of creating new relationships and families, while maintaining some connection to the origin, thus widening social networks.

Another negative externality could arise from tensions between those who are mobile and those who are not. Bauman (1998) argues that individuals' different relations with space would represent an increasingly important aspect of social stratification. This stratification is likely to enhance the 'parochial–cosmopolitan' divide by increasing divergences of interests, lifestyles and orientations among Europeanised and non–Europeanised EU citizens within Europe.

Social externalities of geographic mobility also have a spatial dimension.[40] As immigrants tend to cluster in certain regions, especially the cities, geographic mobility is frequently regarded as an urban issue. The rise of minority groups is believed by some to endanger cohesion, and to challenge economic and social stability.[41] Reactions like xenophobia or social disintegration naturally threaten the process of urban development, a process that potentially can lead to a weakening of the urban system and to the sustainability of a multi-cultural Europe. Thus it is in the cities – and usually a small number of major cities – that the integration work of individuals, social groups and institutions needs to be undertaken.

Such doomsday scenarios are improbable since, historically, the dynamics of urban growth and development are closely associated with the dynamics of migration into cities. These areas serve as growth engines through the concentration of new labour resources, and through the benefits of increased cultural diversity. Some thinkers, such as Gasper (2003) see the development of the European urban system unfolding through migration, especially in the dominant cities. They see this system as the fundamental building block of the European edifice and the primary source of the concept of "the European."

3.2.5 *Conclusions*

While the theoretical prediction that the optimal level of geographic mobility occurs when net social benefits are maximised is quite precise, the task of identifying this level is practically impossible. Nevertheless, in this concluding section, we attempt to weigh the potential positive externalities against the potential negative externalities of mobility, and thereby evaluate the net benefit to society of increased mobility.

[40] See for instance Ray (2003).
[41] See World Bank (2007)

Geographic mobility carries in it a major positive effect of bringing about economic growth in countries with labour deficits and prosperity in countries with labour surpluses. Thus, the flow of workers (like the flow of capital, goods and services) is beneficial for both the receiving and the sending country.

In a world with market imperfections, one can not rule out that mobility away from countries with a present excess of labour supply could have a depress productivity growth, and thereby trap countries in a downward economic spiral (brain drain). From the perspective of a supra-national social planner, the key question then is whether the positive growth effect in the winning country is sufficiently large as to allow compensation – in theory, at least – of the negative spill-over.

A more mobile labour force and expanded labour market have the potential of sustaining economic growth by promoting human capital's access to physical capital. As the labour market functions through search and matching, openness to geographic mobility will improve skill matches in the European labour market. Employers can choose from a larger pool of applicants, and workers can screen a larger number of job offers. If it is possible to fill vacancies at a higher rate, or if the average quality of job matches improves, employers may in fact post more jobs, thereby reducing frictional unemployment.

The positive effects of the broader labour market are dampened somewhat y increasing search costs, but the net effect will be positive since firms and workers still have the option of conducting more local searches. Lack of recognition of formal credentials and informal skills acquired in foreign countries may prevent the labour market from reaching optimal matching efficiency.

Geographic mobility has the potential to stimulate entrepreneurship and thereby increase productivity, in both the sending and receiving countries. These effects stem partly from the short term educational based mobility (brain circulation), and partly from the potential of bringing about new Europe-wide interpersonal ties, thereby creating networks which sustain entrepreneurship. Another benefit for the receiving country is additional income through remittances, which if used for investment, may further enhance economic growth.

The direct growth effects of geographic mobility may be enhanced through better fiscal situations, yielding less deadweight loss associated with distortionary taxation and wasteful spending.

In sum, from an economics perspective, we see positive effects of geographic mobility in the sense that a higher level raises combined income of the sending and receiving country due to efficiency gains. The distribution of these gains both within and across countries is an important facto in the political feasibility of continued efforts to increase intra-European mobility. Changes create winners and losers, and losers will seek to prevent or reverse change. An omniscient social planner will be able to use the efficiency gains to compensate losers so that

changes benefit everyone. In our more limited capacities we must attempt to see the classes who are vulnerable (low skilled natives) and try to make sure that they are provided the resources to come through the changes no worse off than before.

The externalities stemming from demographic and social aspects of mobility are somewhat blurred. Regarding demographics, in the concrete context, there is limited scope for geographic mobility within-EU alleviating the impact of aging and population decline since almost all Europe faces similar problems. Compensating the low fertility rates by replacement migration would probably at best be a zero sum externality at the European level due to the rapid ageing process in all the European countries. Solutions to these problems lay more in the ken of immigration from without Europe and the rationalisation of retirement and other social benefits.

Regarding the social consequences of geographic mobility, the empirical knowledge is still rather unsatisfactory. Nevertheless there is some evidence for increased mobility fostering socio-cultural integration in the European Union, and strengthening European identity and inter-cultural networks. Positive externalities from migration are related to gains from cultural and ethnical diversity, urban growth and development, depending on successful integration of newcomers.

The downsides of socio-cultural integration are the decline of more local cultures and social frictions. At present several European metropolitan regions are experiencing tensions between ethnic minorities and indigenous groups. Whether these tensions prove to be similar to the transitional growing pains experienced by other attractive migration destinations in the past, is an issue that remains to be seen. Altogether, it seems as if there is a potential for positive externalities of geographic mobility in the form of social-cultural integration, but to capitalise on this effect it is paramount that the challenges to the social cohesion be dealt with.

Thus, it is not possible to give a definite answer at this point that the positive externalities of geographic mobility in general outweigh the negative externalities. However, as the economic effects are clearly positive, the demographic effects are nil and the social effects are mixed (with the negative effects primarily arising out of people's basest instincts), it seems reasonable to suspect – indeed, one might be quite confident – that increased intra-European mobility would increase the welfare of the vast majority of Europeans. As mobility within Europe is starting out at such low levels, our confidence in this suspicion is increased.

In order to understand how mobility might be increased, we seek a detailed answer to the question of who is mobile in the following section. Understanding the driving forces of geographic mobility is relevant for designing geographic mobility policy suited to reap the benefits of increased mobility. In analysing the factors impacting geographic mobility, we switch from the social planner's perspective on geographic mobility to the individual perspective. We first look at the *key drivers* of mobility (section 3.3), and then turn to *key barriers* to mobility (section 3.4).

3.3 Determinants of Mobility

3.3.1 *The Migration Choice*

An undisputed finding of the socioeconomic literature on migration is the existence of systematic differences between migrants and non-migrants. Migration literature specifies several factors that are likely to affect the decision to move. These can be classified as determinants at the individual and aggregate level.

On a conceptual level, the simplest way to conceptualise the migration decision as an investment decision.[42] Individuals compare the discounted value of expected utility in the origin to that in a possible destination. They decide to migrate if the expected utility of moving is higher than the expected utility of staying, net of migration costs.

In formal terms, this interpretation of geographic mobility decisions means that an individual will migrate from region A to region B if:

$$U_{iA}\,(E_{iA}, D_{iA}, S_{iA}, M_A) < U_{iB}\,(E_{iB}, D_{iB}, S_{iB}, M_B) - C_{iA\rightarrow B}(f, d_i, c_i)$$

where U_i represents expected utility of individual i living in A or B. Utility depends on several aspects: socio-economic aspects (E_i) such as the labour market status or education; demographic aspects (D_i) such as the household composition and ethnicity; social and cultural aspects (S_i) such as social ties or language; and how these are valued in the two regions A and B..

A final factor is specific to countries, not persons: the macro-economic and societal aspects M, such as the general labour market and economic situation.

C represents the costs to migration for individual i. These consist of monetary expenses or out of pocket costs f equal to all individuals, costs related to the distance of the move d_i, and psycho-cultural costs c_i. The latter two are specific to each individual and comprise psychological costs caused by separation from the origin.

All things equal, the propensity to migrate increases with the expected utility level elsewhere and decreases with the expected utility level in the origin, and the level of migration costs. Individuals' assessment of the benefits and costs of migration will depend on socio-demographic characteristics, such as human capital endowment and transferability of skills to the destination, but also on personal preferences and expectations. Therefore, the human capital framework shows that migration between countries is not only a function of aggregate measures, such as differences in GDP per capita, unemployment rates or relative remuneration of skills. On the contrary, heterogeneity between individuals is an important factor. Dif-

[42] Models of the migration decision and relevant empirical studies are reviewed in Stark (1991), Greenwood (1985), Massey (1993), Molho (1986), Shields/Shields (1989) and Bauer/Zimmermann (1998). Bauer and Zimmermann (2003) collect essential theoretical and empirical studies of the migration decision and immigration policy.

ferent individuals in the same sending country exhibit different propensities to migrate and, moreover, prefer different receiving countries depending on transferability of human capital and tastes. From the perspective of the receiving countries, this means that each country faces a specifically structured group of potential immigrants.

The analytical framework presented above is expressed in terms of expected utility rather than expected income so that it takes account of more than just narrowly "economic" factors like income. This is desirable because survey evidence suggests that migrants have a variety of motivations for moving. This is illustrated by Table 11, which summarises the reasons for the last move and the factors that could encourage a future geographic move stated by respondents in the 2007 Eurobarometer wave 67.1.

Table 11: Factors Influencing Decision to Move

	EU15	NMS12	EU27
	Reasons for Past Move		
Job-Related	40.5	58.6	42.3
Education-Related	14.7	12.2	14.5
Family-Related	32.2	16.6	30.6
Other	12.6	12.6	12.6
	Factors Encouraging Future Move		
Work and Income	47.9	84.7	58.7
Social Network	52.8	37.3	48.3
Housing and Local Environment	71.2	57.0	67.1
Public Facilities	17.2	18.2	17.5

Notes: Percentage of respondents mentioning a certain factor. Regarding the reasons of the last move, job-related reasons comprise "found a new job", "did not have a job but looked for a new one", "were transferred by employer"; education-related reasons comprise "went to study, train, or learn a new language abroad"; family related reasons comprise "accompanying partner or family", "went to be with family already living in new country" and "change in relationship/marital status." Regarding factors encouraging future mobility, work and income related factors comprise "to have a higher household income", "to have better working conditions", "to have shorter commuting time"; social network related factors comprise "to be closer to family and friends", "to meet new people" and "receive better support from family and friends"; environment related factors comprise "better local environment and amenities", "better housing conditions", "discover a new environment" and "better weather"; public facilities related factors comprise "better health care", "access to better schools", "better public transport". Respondents are allowed more than one answer. Source: Eurobarometer 67.1, own calculations.

Employment related factors play an important role.[43] Nevertheless family and network related factors, but also housing and local environment conditions often seem to affect migration decision. In contrast, education and public facilities related factors are mentioned rather little. An explanation for this result is that these factors matter strongly only for a limited part of the surveyed population, notably the younger age groups at the start of their working life.

We note that work and income related motivations are especially strong in the New Member States. Almost 60 percent of past movers in the New Member States did change location be-

[43] See also Karppinen et al. (2006).

cause of job related reasons, whereas only about 40 percent of movers in the EU-15 mention this factor. More than four in five respondents in the New Member States claim that work and income related factors could encourage them to move in the future. This answer is given only by one in two EU-15 citizens.

The next section focuses on the economic aspects of the geographic mobility decision. We discuss a number of push and pull factors and distinguish between macro economic and micro economic aspects of geographic mobility. In the discussion, we incorporate an empirical analysis of the key drivers of mobility in Europe, as identified in the special Eurobarometer 2005 Survey.

3.3.2 *Macroeconomic Determinants*

This section deals with the macro economic (or nation level) factors entering into the individual migration decision. As the mobility decision rule sketched above involves a comparison of two monetary streams, the starting point is cross-country differences in levels of expected net income corrected for differences in purchasing power. As individuals account for income, not only wage earnings, i.e. the product of wage levels and employment or unemployment propensities, play a role, but also other determinants of income, notably public transfers and taxes.

Empirical studies carried out by Pedersen et al (2004) tend to confirm that a gross income advantage of the receiving country over the sending country (measured by the GDP per capita differential) is a pull factor. In the same way, it has been demonstrated that higher unemployment in destination countries has a dampening impact on migration rates. Further, a higher level of per capita growth in the destination country is likely to yield higher immigration rates because potential immigrants expect to experience better income opportunities.

In contrast, it is generally difficult to establish an empirical link between the generosity of the welfare state in the destination country (measured for example by the share of transfer spending in GDP) and migration flows.[44] Also the results of the Eurobarometer shown in Table 11 do not support sentiments that migration is primarily motivated by access to welfare payments or better public services. The motivation to achieve a higher income and better working conditions appear to matter much more.

Unsurprisingly, economic push factors in the source countries closely mirror those derived from the analysis of pull factors. At the macro level, a higher income has a dampening effect on emigration rates.

The effect of GDP per capita growth in the source country may be more mixed. Studies have found a “hump”-shaped relationship between source-country GDP and emigration, see Hatton and Williamson (2002). At very low levels of GDP, emigration is low because people are too

[44] See Zavodny (1997) and Pedersen et al. (2004).

poor to pay the migration costs. At higher income levels, migration increases, and when GDP levels increase further, migration may again decrease because the economic incentives to migrate to other countries decline.

The correlation between the unemployment rate and emigration is more difficult to establish empirically. Higher unemployment is expected to push people to other regions, but this relationship is borne out neither for intra- no inter-national moves. In an international context, this result may reflect mobility barriers set up by destination countries. Low out-migration rates might also be *causing* high unemployment in origin areas. Finally, unemployed workers may not have the financial means to pay for the costs of moving to another destination.

This last possibility suggests a more sophisticated economic interpretation of low mobility flows across countries: capital market imperfections, which are highlighted by Bertola et al. (2006).

In a world in which financial markets are perfect and individuals can borrow without constraints, mobility is optimal whenever it increases the expected present value of labour income net of mobility costs. However, with capital market imperfections the incurred mobility costs translate directly into lower consumption. Hence, consumption will be lower when the worker decides to move. Because current consumption is more valued than future consumption, the worker will move less than with perfect capital markets.

An illuminating approach to the mobility choice interprets the forward-looking decision to forsake current consumption in exchange for a higher expected future wages and consumption stream as akin to purchasing a risky asset. The wage gain that makes such an investment attractive is an increasing function of the worker's risk aversion. Intuitively, larger wage gains are required to trigger forward-looking mobility decisions by poor workers who finance mobility out of current consumption rather than out of accumulated assets.

The predictions derived from these arguments is that emigration rates from countries with less developed financial markets should be lower, and that immigration rates into countries with more developed financial markets should be higher.

Above, we have explained that there is no clear positive empirical correlation between the generosity of welfare schemes and immigration rates. The discussion of "welfare magnet" effects, however, has a second dimension, namely whether generous welfare programmes affect the composition of migrants.

The standard economic model to describe selection among (potential) international migrants is the Roy model adapted by Borjas (1987, 1991, 1994). This model may explain positive as well as negative self-selection of immigrants with regard to observable and/or non-observable characteristics. The specific outcome depends on the return to these characteristics in the receiving country relative to that in the sending country. In particular, if observable skills ob-

tained at home are more highly rewarded in the destination country than in the country of origin (which implies that human capital must be transferable between countries) the Roy model predicts that potential immigrants will be positively self-selected in the sense that their average skill level will be higher than the average skill level in the population of the sending country. Likewise, potential immigrants will be negatively self-selected if observable skills in the destination country pay relatively less than in the sending country.

The same line of reasoning also applies to selection on the basis of unobservable characteristics, like commitment to work or willingness to take risks. Provided that these characteristics receive a relatively higher remuneration in the destination country, they will be more prevalent in the pool of potential immigrants than in the population of the sending country as a whole. A common indicator for the returns to unobservable characteristics in the labour market is the variance of earnings. If the income distribution is more dispersed, this may be interpreted as unobservable characteristics obtaining a higher reward. As a consequence, if the earnings distribution is wider in the receiving country than in the sending country, the pool of potential immigrants will be positively self-selected. In particular, the receiving country will attract individuals who are more risk-loving or motivated than the average agent in their home country. In contrast, if the receiving country exhibits a relatively egalitarian earnings distribution, for example due to a redistributive tax and transfer system reflecting social preferences, potential immigrants will be negatively self-selected. The receiving country will attract relatively risk-averse or unmotivated individuals, since in case of poor economic performance it offers enhanced income security compared to the country of origin.

As the generosity of welfare schemes, the degree of redistribution through public policies, and pre-tax income inequality vary across the Member States, self-selection issues may indeed be an issue considering within-EU geographic mobility. The empirical evidence for self-selection at work in the composition of migrants is somewhat mixed, however. Estimation results obtained by Borjas (1999) indicate that selection mechanisms may be relevant for location choice of immigrants to the United States. In the European context, Boeri et al. (2002) examine, whether the welfare dependency is larger in countries with more generous benefit systems. Their findings are consistent with the view that welfare benefits distort the composition of immigrants, both in terms of observable and unobservable characteristics. They argue that although the effects are quantitatively moderate, some of the most generous countries seem to act as welfare magnets.[45]

However, the selection argument has been criticised. On theoretical grounds, Chiswick (2000) argues that migration costs constitute huge barriers to migration especially for low-skilled people from poor countries characterised by an unequal income distribution. Therefore, there could very well be a positive selection from countries with an unequal income distribution. In favour of this argument, Urrutia (2001) observes that the relative costs of migration present

[45] See also to Hatton and Williamson (2002) for studies on the UK and Fertig and Schmidt (2001) for studies on Germany.

the main explanation of migration patterns. Countries with relatively low fixed costs, e.g. due to geographical distance, are more likely to send immigrants from the bottom of the distribution of abilities – and vice versa.

At the macro level, in addition to economic factors, social and cultural factors could determine individual migration choices. In particular, social networks of migrants (*ie*. the total or relative number of individuals from one's own ethnic group in the country of destination) create a strong pull for potential migrants. "Network effects" could consist of a number of possible mechanisms: as proxies for family reunification, or as indicators of faster access to the labour market in the new country.

The presence of network effects in international migration flows has been empirically documented in many studies. They seem to be somewhat stronger for immigrants stemming from low-income groups compared to immigrants from high-income groups.[46]

Another pull factor for potential immigrants is cultural similarities between the sending and the receiving country. Linguistic distance and past colonial ties to the destination country are consistently found to have a positive impact on migration flows. These factors help provide better information and knowledge of a potential destination country and thus lower migration costs.[47] Similarly, trade patterns between countries may help establish links facilitating exchange of information and create business links that reduce the mobility costs and therefore raise migration flows. Note however, that in principle exchange of goods is an economic equilibrating factor and thus rivals exchange of workers as an equilibrating factor. Nevertheless empirical studies at the macro level, like Pedersen et al (2004), confirm the positive correlation between trade volume and migration flows.

Finally, in international empirical migration studies, the extent of political pressure in the source country also often turns out as a relevant push factor to influence mobility rates. In the within-EU context, however, we can obviously rule out that this is a relevant factor in explaining geographic mobility patterns.

3.3.3 *Microeconomic Determinants*

Individual and household characteristics are by far the most important determinant of mobility. This is documented by a vast empirical literature. In the following we will discuss the most relevant individual or household characteristics established in the literature by referring to our own econometric regression based on Eurobarometer data. We explain the propensity of the reported expectation of moving within the same village/city or region, i.e. local mobility, of moving outside the own region but in the same country, and of moving to another country within or outside the European Union, i.e. international mobility.

[46] See again Pedersen et al. (2004), Zavodny (1997) and Hatton and Williamson (2002)
[47] See Antecol (2000) for a further discussion on the effect of "cultural" characteristics.

Clearly, the intention to move is not a perfect predictor of actual mobility, especially where long-distance moves are concerned, but Böheim and Taylor (2002) and Gordon and Molho (1995) show that the intentions to move have a strong predictive value for future behaviour. Many migration studies[48] make use of mobility intention measures. Using migration intention data has several advantages. Firstly, migration models often deal with migration incentives, not migration itself. Secondly, intentions are observed for those who do move and those who do not, which limits self-selection effects. Thirdly, migration intentions, and the factors influencing these intentions, are highly and directly relevant from a policy perspective.

The estimated marginal impacts of the most relevant explanatory individual and household characteristics are summarised in Table 12. They results are generally in line with the theoretical expectations and confirm previous empirical findings in the literature. Note that the analysis does not make strong claims on causality. In other words, some "impacting factors" may indeed be endogenous to individuals' propensity of expecting future geographic mobility.[49]

Age is an obvious factor to explain geographic mobility patterns. The theoretical expectation to be drawn from the above investment model of migration is an inverse relationship between age and mobility rates. This is because older movers have a shorter time horizon to reap the economic returns to mobility. Our empirical estimates are in line with this expected relationship. Propensities of expected mobility decline in age for all three types of migration and the negative marginal impact of age is statistically significant at conventional levels.[50]

[48] For recent examples see Chiquiar and Hanson (2002) and Burda et al (1998).

[49] A more structural approach would incorporate the income change due to migration. This would be useful to separate the factors impacting on geographic mobility through expected returns and from the factors working through changes in the cost of mobility. However, as we deal with moving intentions, the net gains from immigration are not observed in our data.

[50] To obtain a better fit, the regression includes a polynomial in age. The age parameters are jointly significant in all three cases.

Table 12: Factors Impacting Moving Intentions

	Local Mobility	In-country Mobility	International Mobility
age	-0.004	**-0.009**	0.002
age squared/100	-0.008	**0.017**	-0.005
age cubic/10000	0.010	**-0.011**	0.003
female*	0.009	**-0.008**	**-0.007**
married*	**-0.054**	**-0.017**	**-0.013**
number of children younger 10	-0.009	**-0.014**	**-0.010**
number of children age 10-14	**-0.027**	**-0.010**	**-0.008**
number of household members older 14	**0.010**	0.000	0.000
in education*	-0.038	**0.080**	**0.035**
low skilled*	**-0.030**	**-0.017**	0.002
intermediate skills*	-0.017	-0.001	-0.001
retired*	0.015	-0.010	0.000
unemployed*	**0.040**	0.017	**0.014**
permanent work contract*	-0.005	-0.008	**-0.009**
commuting distance	0.011	**0.016**	0.003
home owner - no mortgage*	**-0.089**	**-0.018**	0.000
home owner - mortgage*	**-0.097**	**-0.026**	0.004
resident of city*	**0.022**	**-0.018**	**0.011**
age left home	-0.001	0.000	0.000
number of past moves	**0.019**	**0.009**	0.001
distance of past moves	**-0.021**	**0.012**	**0.008**
migration background*	0.002	-0.011	**0.010**
part of education abroad*	**0.054**	0.007	**0.017**
Occupation Dummies	Yes	Yes	Yes
Sector Dummies	Yes	Yes	Yes
Country Dummies	Yes	Yes	Yes

Notes: Results from probit regressions. Sample weights applied. Variables statistically significant at least at the ten percent level highlighted in blue. * attached to a variable name indicates an indicator variable. For these variables the estimated coefficient represents the percentage point change in the outcome for the discrete change in the variable from 0 to 1. in Source: Eurobarometer 64.1, own calculations.

If younger cohorts are more mobile than older cohorts were at their age, we will also observe an inverse relation between age and mobility rates– even if the younger cohorts continue to remain more mobile in the future. Taking a closer look at completed mobility data (see section 2.5), we observe that the 25-34-year olds have already made as many moves in their relatively short lives as older cohorts have in their comparatively long ones. This indicates that there may be a general, EU-wide increase in mobility taking place. However, the life cycle interpretation that economically induced mobility mostly occurs earlier in life still pertains. Though starting at a higher level, mobility rates are expected to decrease over the life course of the current younger cohorts even if they will not fall to the level observed for current older generations. Since the age distribution in Europe is becoming more elderly, the age factor implies that the average mobility rate in Europe could decline even though the younger cohorts are more mobile than their predecessors.

Gender effects also help explain mobility. Women have a 0.8 percentage point smaller propensity to move within their country, and a 0.7 percentage point smaller propensity to move internationally, than otherwise comparable men. This could be because expected income

gains from geographic mobility may be smaller for women than for men. As women in most European countries are less attached to the labour force than men, this interpretation seems plausible. This implies that the trend of rising labour force participation of women in Europe may bring about a higher average rate of geographic mobility.

Turning to household structure, we see that being married decreases the propensity to migrate. Married individuals are between 1.3 and 5.4 percentage points less likely to report a moving intention than observationally identical, unmarried individuals. This is probably the case because couples face higher moving costs. Either the moving partner has to set up a second household, or, if the entire household moves, there is a necessity to obtain a suitable job for the partner. There is a risk of the second earner experiencing an income loss, which just another form of moving cost.

Moving costs are also the key factor in explaining why the presence of children in the household lowers the propensity to migrate. Physical moving costs tend to be larger when size of the household is larger. More importantly, however, the social costs of moving increase, as child care relies on functioning special networks, which are different from the occupational networks perhaps relevant in determining the income gain from migration. Furthermore there are adaptation costs, for example, due to exposure to a different schooling system.

Regarding the impact of education on mobility, in theory, we expect a positive correlation for two reasons: education may raise gross returns to mobility; and it may reduce the costs to mobility. The first effect is rather obvious: education has an effect on earnings. Suppose workers receive job offers in a wage distribution where workers with a higher level of education have access to proportionally better paid jobs than uneducated workers. Some of these job offers imply a geographical move. If mobility costs are independent of education, educated workers will therefore be more likely to move.

The second mechanism is usually disregarded, but it is perhaps equally important. Higher education is associated with general skills, adaptability of individuals and, in the case of higher education, some experience of studying in another city or region. Many studies report that, conditional on many observable characteristics, the migration probability increases with previous mobility experience (e.g., Axelsson and Westerlund, 1998). Individuals with higher education are more likely to have studied elsewhere, they were confronted with classmates from other sub-regions or areas, raising the ability to exchange and communicate. Overall, higher education may reduce psychological costs to mobility.

Our regression results appear somewhat in contrast to these predictions, and to the standard empirical finding that the better educated have higher mobility rates. In fact, this empirical association is also present in our data. It does not show up strongly in the estimated parameters because we include a full set of sector and occupation dummies for those individuals in

employment, which wipes away most of the variation associated with education.[51] Still, even after controlling for occupation and sector, the least-educated are significantly less likely, between 1.7 and 3.0 percentage points, to move within-country than the reference group of high-skilled individuals.

Turning to employment status and job characteristics, our regression results are somewhat mixed, but altogether in line with the expectations. First, we confirm the theoretical expectation (and empirical regularity) that unemployment of an individual raises the willingness to move. This is clear given that the expected earnings gains from mobility should be systematically larger for the unemployed. The effect appears stronger for local mobility (4 percentage points) than for longer-distance mobility (1.5 percentage points).

We can also conclude that individuals in more stable employment relationships tend to move less. Individuals working on a permanent contract less frequently report intentions to move than individuals without such a contract (individuals in fixed-term work relationships).[52] This result is fairly intuitive since people with strong preferences against moving will seek out such long-term contracts, and the uncertainty associated with searching for a new position in a new location will be especially unattractive for those workers who already have secure employment. Current commuting costs appear to have a positive impact on the propensity to move. This is probably because individuals with long commutes seek to move to reduce the costs of commuting.

The correlation of home ownership status and geographic mobility works through moving costs. To move, homeowners need to sell their home in the current location and acquire a new one in the new location. This involves transaction, search, and psychological costs as well as uncertainty. Furthermore, systematic housing price differentials may play an important role. Housing prices in regions offering good employment and income opportunities tend to be higher than housing prices in regions with weaker economies. In our reduced form approach, these aspects are difficult to capture. Furthermore the established correlations are likely to be affected by reverse causality. Individuals who know that they are mobile will not buy homes because they are aware of the costs that will arise when they are moving. This effect probably explains why we do not find any correlation between home ownership and international mobility rates. Regarding within-country mobility, the effect is negative and significant, as expected. The negative association between home ownership rates and the propensity to migrate appears particularly strong for shorter-distance moves. Home owners are almost ten percentage points less likely to move than renters.

Finally, we study the association between previous mobility experience and mobility intentions. In the human capital framework, mobility experience may positively affect relative re-

[51] In regressions not controlling for occupation and sector, the positive association between skill level and mobility is always present and statistically significant.

[52] The type of contract effect wipes out most of the variation associated with job tenure. Thus this variable has been excluded from the specification.

turns to moving. Having learned how to integrate into a new environment may speed up the integration process after future moves, helping to become fully productive in shorter time. Previously mobile persons also may have acquired skills (notably language) or networks directly relevant for production. Besides, past mobility experience is likely to reduce the psychological costs of mobility. Finally, as there is a lot of circular migration in Europe, having moved away from home may increase the chances someone is considering an international move *back to their origin*.

In line with previous empirical results (Vandenbrande et al. 2006), we obtain evidence that past mobility experiences indeed have an overall positive impact on geographic mobility. We can look at different dimensions of past mobility, and all seem to play a role. (i) Individuals who have already made a larger number of moves during their lifetime are significantly more likely to expect to move again, at least within their country. (ii) Individuals who have moved over longer distances in the past are more likely to plan a longer distance move in the future. (iii) Individuals who have a migration background (were born abroad or have at least one parent born abroad) are more likely to have an *international* moving intention. (iv) Individuals who have taken part of their education abroad show stronger propensities to migrate.

This section has considered a wide range of macro and micro factors that are relevant to explain why individuals might decide to move from one region to another. In the following section, we reverse the question and will ask, which factors can explain why mobility in Europe is so low. Thus, we will focus on the hurdles to geographic mobility.

3.4 Key Mobility Hurdles

While individuals deciding to migrate will seek to maximise their own well-being, the returns and costs on which their decision is based do not only reflect personal benefits and costs, but also institutional hurdles. That is, legal and administrative barriers can decrease the individual benefits and increase the individual costs of migrating.

According to the High Level Task Force (2001), these hurdles include administrative delay and variation in the level of payments of social security benefits, incomplete transferability of (supplementary) pensions, legal and administrative problems through the interaction between the taxation systems of the Member States, wide variation in health care systems between countries, and limited cooperation between education systems and recognition of qualifications.

The purpose of this section is to study the role of such hurdles relative to other barriers to mobility at the individual level. To the extent that frictions of this nature are empirically relevant, there is scope for European harmonisation measures fostering geographic mobility, although such interventions would not directly be in the realm of geographic mobility policies.

To tackle the issue, we provide empirical evidence about the potential weight of such frictions compared to individual-based factors impeding migration. We rely on perceived migration

hurdles in the context of international migration, as reported in the Eurobarometer 2005 on geographic mobility. The survey asks about the most important difficulties that respondents believe they would face in case of moving to another European Union country.

In the following, we argue that the perceived hurdles are at least a monotonic function of actual hurdles. In any case, according to the theory of reasoned action by Fishbein and Ajzen (1975), beliefs about the consequences of moving should directly impact the intentions to move. We can thus learn from the correlation between the propensity to migrate and the reported hurdles which factors importantly impede migration. The individual propensity to migrate is approximated by the reported intention to move to another country in the European Union within the next five years.

For the analysis, we consider eight different types of hurdles: Lack of language skills (language), finding a job for oneself or for the partner (job), access to child care, education, health care or other social benefits (access to facilities), problems of having educational and professional skills recognised, problems of transferring pension rights, problems of finding suitable housing, problems of obtaining a residence or work permit, and problems of adapting to a different culture.

Table 13: Perceived Difficulties Impacting on Expected Future Mobility

	Marginal Effect
Language	**-0.012**
Job	**-0.009**
Access to Facilities	0.001
Recognition of Qualification	-0.004
Transferability of Pension Benefits	-0.001
Finding Suitable Housing	0.001
Residence/Work Permit	0.003
Cultural Adaptation	**-0.008**

Results from probit regression including controls for age, gender, family status, education level, migration background and mobility history, as well as a full set of country, sector and occupation dummies. Sample weights applied. Variables statistically significant at least at the ten percent full set of country, sector and occupation dummies. Sample weights applied. Variables statistically significant at least at the ten percent level highlighted in blue. * attached to a variable name indicates an indicator variable. For these variables the estimated coefficient represents the percentage point change in the outcome for the discrete change in the variable from 0 to 1. in Source: Eurobarometer 64.1, own calculations.

Table 13 shows the estimated partial correlation between reported moving hurdles and the propensities to migrate conditional on a full set of personal characteristics and a full set of country, sector and occupation dummies. The result indicates that only three of the potential hurdles have significant independent power in explaining expected future mobility: language, culture and job hurdles. The impact of the remaining factors is statistically not different from zero, if one controls for the relevant socio-demographic and household characteristics affecting the migration decision.

Individuals reporting potential problems with language have a 1.2 percentage point lower probability of having a moving intention, compared to individuals who do not. Perception of job- and cultural-adaptation-related hurdles reduce the propensity to migrate by 0.9 and 0.8 percentage points, respectively. The magnitudes of these significant effects are all at least twice the magnitude of the effects of the other hurdles.

These results suggest that the primarily barriers to international mobility in Europe lie in the domain of the individual (employment, language, culture), rather than institutional or market-related frictions. On average neither housing market problems, nor transferability issues (qualification, pension rights), nor legal issues (work/residence permits), nor access problems (health, education, social institutions) appear to prevent individuals from planning to move.

The empirically relevant factor related to market imperfections is worries about finding a suitable job in the area of destination. This could point to imperfect information about opportunities, uncertainties about the appropriate job searching strategies, or an increased risk of unemployment in an alien environment due to lack of job-related networks. However, the variable might also pick up an actual problem with transferability of human capital and occupational skills from one labour market to another. Note that imperfect transferability is not a market imperfection, unless it is due to recognition failure.

In the following, we identify how much the three perceptions of the three primary mobility hurdles are related to observable differences in individual characteristics, and to what extent they are country specific. As in previous sections of this report, we derive country-specific effects regarding perceptions of mobility hurdles on the basis of the estimated linear probability models.

Table 14 shows the obtained marginal effects of possible impacting factors on the mobility hurdles. They generally show the expected sign and are statistically significant. We observe a significant age pattern implying that older individuals are more likely to perceive the hurdle. In our single cross-section it is not possible to separate age effects from cohort effects. However, regarding job hurdles it is plausible to assume that the age effect is due to increasing difficulties of obtaining a suitable job over the life cycle. At least, we expect that older individuals have acquired more location- and firm-specific advantages, which are difficult to transfer to another labour market, so that the job hurdle becomes indeed higher in the course of the working life.

Table 14: Individual Characteristics Impacting on Perceived Key Mobility Hurdles

	Language Hurdle	Job Hurdle	Cultural Adaptation Hurdle
age	**-0.019**	**0.019**	**-0.013**
age squared/100	**0.048**	**-0.034**	**0.028**
age cubic/10000	**-0.037**	0.006	**-0.018**
female*	**-0.027**	**0.036**	0.011
married*	**0.030**	**0.035**	0.011
in education*	**-0.086**	**0.070**	0.008
low skilled*	**0.124**	0.019	-0.020
intermediate skills*	**0.102**	-0.001	-0.008
unemployed*		**0.100**	
permanent work contract*		**0.040**	
commuting distance		**0.020**	
resident of city*	-0.007	0.018	-0.010
number of past moves	-0.007	**0.015**	0.007
distance of past moves	**-0.022**	0.005	**-0.014**
migration background*	**-0.055**	**0.051**	**-0.034**
part of education abroad*	**-0.133**	0.013	**-0.032**

Results from probit regression including a full set of country, sector and occupation dummies. Sample weights applied. Variables statistically significant at least at the ten percent full set of country, sector and occupation dummies. Sample weights applied. Variables statistically significant at least at the ten percent level highlighted in blue. * attached to a variable name indicates an indicator variable. For these variables the estimated coefficient represents the percentage point change in the outcome for the discrete change in the variable from 0 to 1. in Source: Eurobarometer 64.1, own calculations.

Regarding the language and cultural hurdles, in contrast, the age profile is probably more due to a "cohort effect" rather than a true ageing affect. We would expect that language or cultural capital, once acquired, does not depreciate at too high a rate over the life cycle, or, at least, that the capital could be re-acquired at relatively low cost if necessary.

Concerning the language hurdle, the cohort interpretation of the age effect is backed by the strongly negative parameter obtained for those still in the education system, which can be seen as a reflection of the growing foreign-language literacy of the younger generations in Europe. According to the Eurobarometer 2001, 68% of European people between 15 and 24 are able to keep a conversation in a language different from their native one, while only 57% of people between 25 and 39, and 45% between 40 and 54 can. Thus, if language differences pose a handicap to mobility, the spread of linguistic skills through cohort aging could improve geographic mobility rates in Europe.

Besides age, education level and migration experience are relevant factors shaping the language hurdle. Not surprisingly, high-skilled individuals (the reference group) report about 10 percentage points less often concerns about language. Regarding migration background, having taken education abroad yields a substantial improvement in language capacity. Individuals who studied abroad are 13.3 percentage points less likely to report a language hurdle. Having a migration background or having moved abroad in the past, also significantly reduce the language hurdle.

Regarding the job hurdle, factors characterizing the current employment situation have a peculiar role. Unemployed individuals much more frequently perceive a job hurdle going abroad. An interpretation could be that foreign employers perceive unemployment as a negative signal, which worsens job prospects in the destination country. Such workers may also be more pessimistic about the chances of finding employment *anywhere*.[53] Individuals on a permanent work contract more frequently perceive problems of finding a *suitable* job. This is because it is a bigger sacrifice than giving up temporary employment. There is a risk that an equally favourable employment contract is unavailable abroad.

Interestingly, migration background if anything seems to increase perceptions about job hurdles. This might be a learning effect, as individuals who moved in the past could have experienced problems in finding a job after moving. An alternative explanation would be that migration background captures a specific labour market disadvantage of the affected individuals, probably related to human capital.[54] The disadvantage explanation also seems relevant for women, who perceive job hurdles at a higher rate than men.

Turning to the cultural adaptation hurdle, it appears difficult to explain by observables. The only significant impacting factor besides age appears mobility experience. Individuals with a migration background or having studies abroad are about 3 percentage points less likely to report a cultural adaptation hurdle.

As a final step, we investigate the impact of specific country effects in explaining differences in perceived mobility hurdles across Europe. Figure 18 presents the country-specific differences (controlling for individual characteristics) in the prevalence of these hurdles being perceived.

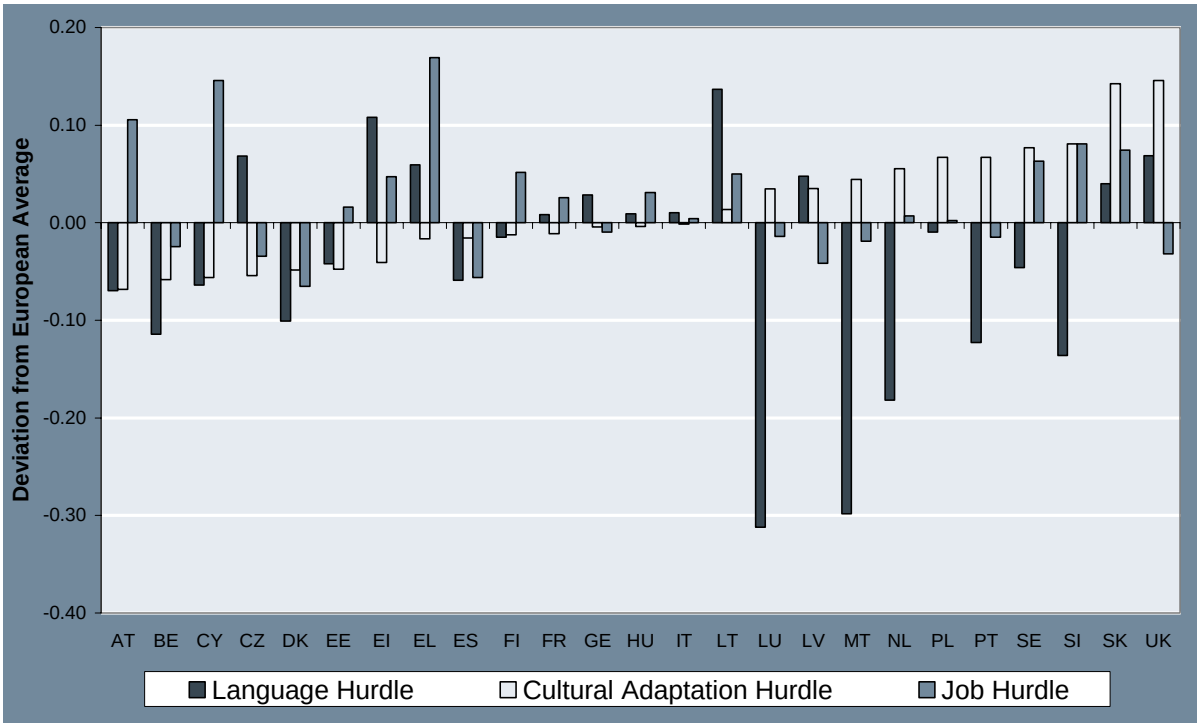
Very substantial variation in perceived mobility hurdles across countries is unexplained by observable individual factors. The variation is most extreme considering the language hurdle. If all Europeans showed the behaviour of individuals from Luxembourg or Malta, the fraction of the population reporting language as a migration hurdle would be about 30 percentage points lower.

These are extreme cases are clearly the result of the specific structure of these countries, but they still indicate that there would be substantial scope for language learning to foster geographic mobility. Quite interestingly, English native speakers do not necessarily perceive the language hurdle less frequently. Rather on the contrary, when considering moving to a European country, the population in Ireland and the UK perceive language problems much more frequently than the European average.

[53] A similar interpretation could pertain to the commute variable.

[54] Skill level is measured by years of education, however, the labour market may value years of education differently depending on the country where they are acquired.

Figure 18: Country Differences Regarding Perceived Mobility Hurdles



Country effects evaluated at the mean of observable characteristics impacting on the propensity to migrate. Controls include age, gender, marriage status, skill level, education abroad, current employment status, occupation and sector dummies for current occupation, current location (city), migration history. Source: Eurobarometer 64.1, own calculations.

Overall, the country ranking with regard to perceived cultural adaptation hurdles is very similar to that concerning language hurdles. Communication capacity is an important prerequisite of cultural adaptation. Country effects with regard to culture are less spread out than with regard to language. The countries ahead of the European average in terms of language tend to be less far ahead in terms of cultural adaptation capacity. At the same time, the countries behind the European average when it comes to language tend to be even further away from the European average when it comes to cultural adaptation. Still, in face of the apparent correlation of country effects, reducing language hurdles could be a key to reducing the cultural hurdles as well.

Looking at job related hurdles, a completely different picture emerges. The individuals who perceive job related hurdles as an obstacle to move abroad more frequently than the European average come from the Mediterranean (Greece, Cyprus) and the New Member States (Slovenia, Slovakia, Lithuania, Hungary), but also include Austria, Sweden, Finland and Ireland. This suggests that the country-specific job hurdle perception actually comprises two effects: (i) a labour market adaptation problem for individuals coming from economically less advanced countries, and (ii) a problem of finding an adequate, i.e. at least as good job, for individuals coming from countries with very good labour market conditions.

3.5 Conclusions

Weighing the possible positive and negative economic and social externalities, from a social planner's perspective, geographic mobility is too low in Europe. While it is practically impossible to determine what would be the optimum level, it appears that the current situation is sub-optimal. In view of the still substantial imbalances, there seem to be unexploited, mostly economic gains of geographic mobility as a balancing factor in an integrated labour market. At the same time, mostly social costs associated with increased intra-EU migration are probably not too large considering the low level of current geographic mobility rates in Europe. From a long-term demographic perspective, as the population share of the age groups most inclined to migration will decline, pro-active geographic mobility raising individual propensities to migrate could serve to counteract falling mobility rates within an ageing Europe.

When deciding to move, individuals optimise over the expected private gains from changing location, net of mobility costs. There is a twofold role of geographic mobility policies aimed at increased mobility rates: (i) enlarging the expected utility gains, and (ii) reducing mobility costs for the individual.

To obtain a handle on promising policy interventions, a sound understanding of the driving forces behind the mobility decisions of European citizens is relevant. Overall, the empirical evidence presented in this chapter suggests that improvement of their economic situation, employment or income, is still the key target of European citizens at least when considering permanent migration decisions. This implies that mobility rates may fall in the process of convergence of European economies. In particular the strong mobility intentions in the New Member States would level out as these economies catch up to EU-15.

At the individual level, education is a key factor to reap the full benefits from migration. Hence education policy is an important mobility policy. Moreover, geographic mobility is in part a chain phenomenon – after the first move, additional moves become more likely. Hence fostering mobility early in life, especially during people's studies, is a candidate for a good mobility policy.

Overall, our analysis of the hurdles to within-EU mobility perceived by citizens underpins the hypothesis that language and cultural barriers are extremely important when explaining the limited level of geographic mobility in Europe. While the capacity of acculturation, a process of re-socialisation involving changes in attitudes, values and identification, is a rather difficult target for government intervention, the empirical evidence suggest two policy targets. First, promotion of language capacity could foster geographic mobility. The effect of language is direct and indirect. Directly, it reduces the language hurdle negatively associated with cross border mobility propensities. Indirectly, it appears to reduce the cultural barriers preventing migration. Second, promotion of education abroad could foster geographic mobility. The effect could work through both reducing language and cultural barriers.

The key mobility hurdle besides language and culture perceived by Europeans is related to worries about finding a (suitable) job. This observation points toward the necessity to support information and transparency of international job opportunities in order to establish an environment creating opportunities for mobility. Put into a more general context, it establishes a need for flexible labour markets. An environment facilitating reallocation of labour creates better opportunities for outsiders, including those coming from a distant labour market.

The persistence of national forms of labour market and housing market organization, welfare state and fiscal systems could constrain intra-EU mobility. Although our empirical evidence suggests that EU citizens do not generally perceive these as the most essential mobility barriers by European citizens, harmonisation is certainly relevant in designing effective mobility policies. Legal, recognition, portability and access barriers in these areas yield mobility costs for the individual, reducing migration propensities.

Finally, empirical analysis of country effects highlights that much of the variation in geographic mobility rates across EU Member States, and that much of the variation in the attitudes toward migration is not easily explained by structural differences regarding the observable factors influencing mobility behaviour. This observation shows that national tastes and preferences, which are not easy for policy to affect, are a very relevant driver of mobility rates. It also demonstrates that there is ample scope for raising mobility rates at the EU level. Among the EU, the Scandinavian countries clearly stand out as the area of high mobility. It thus seems worth studying the association between their policy model – flexicurity – and geographic mobility.

4. ASESSMENT OF GEOGRAPHIC MOBILITY POLICIES

4.1 Introduction

Our discussion of optimum geographic mobility has shown that all things considered, the current level of mobility in the EU is perhaps too low considering the net benefits of migration for the economy and the society. Thus there seems to be scope for government intervention aimed at raising the current low levels of geographic mobility. However, there is also the possibility of government or policy failure. From a conceptual perspective, it is therefore necessary to demonstrate that the situation achieved through government intervention is an improvement upon the laissez faire situation.

A fundamental criterion in assessing government policies is to check whether they are efficient from an economic perspective. In our context, the *efficiency* criterion demands that a policy is indeed capable of raising geographic mobility rates, and that it does so without creating unwanted side-effects in other areas of the economy or the society. But this is only a necessary condition – efficient policies also need to be cost-efficient in the sense that they achieve their effect is in a reasonable relation to resources spent on their implementation.

A pre-requirement for policies to be efficient is that they are relevant. The *relevancy* criterion is that a policy sufficiently targets the factors that prevents from achieving a solution via laissez faire. In our context, thinking of geographic mobility as an investment choice, this means that relevant policies to increase geographic mobility need to raise the expected individual gains from changing location, or reduce the mobility costs for the individual. A somewhat stricter interpretation of this criterion is that relevant policies adequately target the key mobility barriers identified in the previous chapter: labour market, language, and cultural adaptation barriers.

The efficiency criterion assesses government intervention in strictly economic terms. For political decision makers, it is clearly insufficient. Social welfare also depends on the distribution of resources in an economy. It is necessary to judge government policies also by a *fairness* standard. An assessment on the basis of the fairness criterion demands to answer questions like: Is a policy beneficial to all citizens or does it make certain groups in the society made worse off? Do citizens have equal access to a policy measure?

In the following, we will apply these criteria to assessing policies and initiatives that have a potential to affect decisions about geographic mobility at the individual level. To obtain a concise picture, we concentrate the assessment on policies that have been implemented at the EU level. Since our goal is to learn from best practice, we also highlight a number of policies with sufficiently clear mobility target implemented at the national or local level.

Before discussing the specific policies relevant for workers mobility, such as active and passive labour market policies, education and training policies, integration policies, information policies and harmonisation policies, the European Action Plans and overall initiatives to promote mobility are briefly presented.

4.2 Workers Mobility on the EU Policy Agenda

During the last decade(s) workers mobility has been among the key issues at the EU policy agenda.

- The adoption of the Commission's Job Mobility Action Plan in December 2007 represents the latest step in a long line of initiatives to promote workers mobility. Based on a process launched in February 2001 by the Commission's Communication on the New Labour Markets, the conclusions of the Stockholm European Council of March 2001 and the work of the High Level Task Force on Skills and Mobility, the Commission adopted in February 2002 an Action Plan for Skills and Mobility. Among the proposals in the 2002 Action Plan was the designation of 2006 as the European Year of Worker's Mobility.

The Commission's Job Mobility Action Plan following the debates launched during the European Year of Workers' Mobility highlight the impact of remaining obstacles to mobility within the EU and a number of actions to promote mobility are proposed. Actions include:

- Improve existing legislation and administrative practices regarding worker mobility
- Ensure policy support for mobility from authorities at all levels
- Reinforce EURES as the one-stop instrument to facilitate mobility of workers and their families
- Foster awareness of the possibilities and advantages of mobility among the wider public

As it appears, the European Commission has a strong focus on the broad spectre of various initiatives and policies relevant for the promotion of workers mobility. In the following, these policies, along with a number of others, will be presented and discussed in further details.

4.3 Active and Passive Labour Market Policies

Labour market policies play an important role in relation to labour market flexibility in general, and geographic mobility in particular. At least at the national level, active and passive labour market policies appear as core factors in explaining observed occupational and geographic mobility patterns.

Passive labour market policies concentrate on providing income security especially in the case of unemployment or underemployment. By providing more or less income security, income replacement schemes can create weaker or stronger push factors in the decision about geographic mobility. *Active* labour market policies attempt to improve the labour market prospects of participants. By enhancing employment security (rather than job security) they reduce the risk involved in changing occupation and thereby the risk involved in changes of location over longer distances, which in general involve a change in occupation.

4.3.1 *Passive Labour Market Policies*

Important examples of passive labour market policies affecting geographic mobility incentives are wage coordination, employment protection legislation and the unemployment insurance system.

The degree of wage coordination, whether wages are bargained at a centralized or at the local level, may influence geographic mobility rates, since wage bargaining at the national level tends to reduce regional wage differentials. Likewise, strong trade unions in industrial relations or the existence of minimum wage legislation may foster regional wage equalisation. However, the existence of regional wage disparity is a core driver of mobility – it immediately affects the expected income gains associated with a change of location, which are necessary to compensate the migrants for mobility costs and cost-of-living differentials.

Employment protection has an impact on geographic mobility, as it creates labour market rigidities. Higher firing costs, on the one hand, increase the number of individuals staying in their job. Both the number of involuntary and voluntary quits from a firm, prerequisite to most geographic moves, is reduced. On the other hand, rational employers tend to respond to firing costs by hiring less. Thus entering a new job becomes more difficult to outsiders in the labour market in general. This includes the unemployed, but also geographic migrants who leave their local labour market to enter a different one at a new location. In short, employment protection by reducing reemployment probabilities tends to reduce the expected income gains to be made through a geographic move, and thus tends to reduce geographic mobility rates.

Finally, it has been argued that the generosity of the unemployment insurance system can explain the low regional mobility in Europe.[55] It is obvious that the incentives to move to regain employment are weaker, the higher the level of labour income replacement in case of unem-

[55] See for example Hassler et al (2005).

ployment for insured workers. However, unemployment insurance might also create incentives enhancing geographic mobility both at the worker and the firm level.[56]

At the worker level, more generous unemployment insurance may enhance the productivity of the search process by relaxing liquidity constraints. Relaxation of liquidity constraints enhances employment opportunities especially at the national level where search costs are higher than at the local level. Bertola et al. (2006) argue that liquidity constraints can directly affect the mobility choice as the incurred mobility costs translate into lower consumption. Receiving unemployment benefits allows smoothing consumption and finance mobility costs and thus raises the propensity to move.

In fact, Tatsiramos (2007) provides cross-country evidence supporting the hypothesis that receiving benefits while unemployed increases the probability to move. Furthermore, the effect depends on the generosity of the unemployment insurance scheme: Recipients of benefits are significantly more likely to move compared to non-recipients in countries with more generous unemployment insurance systems. However, the exportation of unemployment benefits (i.e. to receive unemployment benefits while residing in another Member State is fairly limited under Regulation 1408/71 (in principle only 3 months) and it is for the individual Member State to decide whether or not to be more flexible in this respect and continue payment for a longer period of time to an unemployed worker who has moved abroad to find a job in another Member State

Unemployment insurance besides providing a search subsidy might also reduce the risk involved in making a move due to the probability of a future layoff. The reduction in risk is equivalent to a reduction in mobility costs, which raises the propensity to migrate.

Focusing on firm behaviour, Acemoglu and Shimer (1999) argue that unemployment insurance with risk-averse agents improves the level of output and the composition of jobs. Receiving unemployment insurance induces workers to search for higher wages. Firms respond by creating high-wage, high-quality jobs. In this regard, unemployment insurance has the role of correcting the distortions introduced by uninsured risks.

Higher productivity jobs may carry with them a higher risk of layoff to the extent that they are located in more volatile, innovative activities, or require workers with more specific skills so carry greater risk of job mismatch. In this context, generous unemployment benefits could allow the unemployed to risk future layoff by taking a higher productivity job (potentially in a different geographic location). Earnings-related benefit systems can also increase the quality of matches as employees know that, if they were laid off in the future, they would be supported by a safety net that reflects prior earnings and does not provide flat-rate benefits only. Firms might therefore be more likely to offer such jobs, increasing the share of high-productivity jobs and the aggregate level of productivity.

[56] See for example the discussion of this issue in OECD (2007b).

Although the beneficial effects of unemployment insurance are well recognised, there is still the risk that high or long-lasting unemployment benefits reduce job reallocation incentives, including geographic mobility incentives. That is, the disincentive effects might dominate over the incentive effects.

4.3.2 *Active Labour Market Policies*

In response, over the past few years strategies to activate the unemployed with the help of high-quality employment services have loomed larger in the policy debate. Such activation programmes, if they are well designed, can help to ensure that benefit recipients have a better chance of obtaining employment. At the same time, they increase the expected gains from geographic mobility provided that chance of obtaining employment is larger searching on the national or national labour market than searching on the local labour market.

The essence of activation strategies, highlighted by the OECD (2007c), is to encourage jobseekers to become more active in their efforts to find work and/or improve their employability. These activation strategies include: (i) early intervention by the Public Employment Services in the unemployment spell and a high contact density between jobseekers and employment counsellors; (ii) regular reporting and monitoring of work availability and job-search actions; (iii) direct referrals of unemployed clients to vacant jobs; and (iv) referral to active labour market programmes prevent loss of motivation, skills and employability as a result of longer-term joblessness. These programmes range from continuing vocational training to public job creation programmes.

Recent evaluation studies have shown that job-search assistance and monitoring can have a sizeable impact on re-employment rates.[57] Job-search obligations coupled with a credible threat of benefit sanctions can partially offset disincentives generated by generous unemployment benefits.[58]

As for the active labour market policies, substantial cross-country differences persist in both the overall level of spending and in their composition. A number of recent cross-country studies suggest that higher spending on these policies speeds up reemployment for benefit recipients and other jobseekers. Micro-econometric studies have identified the relative returns to various types of programmes: surveys by the OECD (2005b, 2006b) suggest that overall public job creation schemes have disappointing effects, whereas job-search assistance and continuous vocational training work quite well.

In sum, there is a clear role for passive labour market policies providing income insurance for mobile workers, and activation policies that manage to improve employability or to encourage job search activities, in raising geographic mobility rates.

[57] See Borland and Tseng (2007); Graversen and van Ours (2006); Van den Berg and van der Klaauw (2006).
[58] See Boone, J et al. (2004).

In the EU active and passive labour market policies are generally designed at the national level. In the realm of active labour market policies, however, some relevant initiatives have been taken at the supra-national level, notably the European Social Fund and the European Globalisation Adjustment Fund.

Celebrating its 50th anniversary in 2007, the *European Social Fund* (ESF) is an important policy tool with the aim of creating more and better employment opportunities in Europe, as well as promoting skills and job chances of (mainly) marginalised groups.

The key objective of the ESF is to even out welfare differences across Europe. If this objective contributes to employability of marginalised social groups and helps to finance mobility in a world of imperfect credit markets the ESF contributes, as a by-product, to geographic mobility. Raising the educational level of the workforce has shown to be a key factor regarding the promotion of geographic mobility. However, to the extent that the ESF indeed successfully reduces inequality of welfare in Europe, it may also reduce geographic mobility, as there is a risk of weakening the push and pull factors of migration. Equalizing the economic differences between the European regions, by upgrading and qualifying the workforce, may result in less incentive for citizens to search for employment elsewhere in the EU, since the economic prosperities and opportunities in the different EU regions have become more alike.

Due to its broad approach and targets, the efficiency of the ESF as an active labour market policy, and as an indirect geographic mobility policy in particular, is difficult to judge. There might be a conflict between promoting geographic mobility while at the same time supporting disadvantaged regions with structural and social funds money. To avoid this possible conflict – and to increase the probability for positive mobility related by-products from the ESF – the European Commission should consider whether geographic mobility (to a higher extent than today) could be included as a specific priority in the ESF. For instance, more funds within the programme could be earmarked for projects having regional and/or international mobility for workers as a specific target.

In direct comparison, The *European Globalisation Adjustment Fund* (EGF) appears to be a more targeted policy also complementing the Lisbon Strategy. The EGF was launched in 2007 and focuses on workers made redundant as a result of changing global trade patterns. The aim is to help these workers to find another job as quickly as possible through active labour market policies. The fund provides means to support, for example:

- Job-search assistance, occupational guidance, tailor-made training and re-training including IT skills and certification of acquired experience, outplacement assistance and entrepreneurship promotion or aid for self-employment;
- Special time-limited measures, such as job-search allowances, mobility allowances or allowances to individuals participating in lifelong learning and training activities;

- Measures to stimulate in particular disadvantaged or older workers, to remain in or return to the labour market.

As it is a recent initiative, no evaluation of the EGF has yet been carried out[59]. Any overall assessment will be practically difficult, given that the fund serves as an umbrella for a wide range of policy measures designed and implemented at the decentralised level. From a conceptual viewpoint, considering that employment opportunities and geographic mobility are complements, it is clear that the EGF could increase the mobility potential inasmuch as it manages to draw resources into the effective types of active labour market policies.

To the extent that the EGF will be used as a means to improve labour market opportunities of workers in general, an enhancement of geographic mobility is a mere by-product. However, the EGF also provides for active labour market measures that directly target factors relevant for the mobility decision, e.g. mobility allowances. These measures to a high extent enhance the impact of the programme as a geographic mobility policy.

The EGF is assessed to be fairly cost-efficient as it creates benefits through an improved functioning of the labour market in general. Positive externalities through improved geographic mobility rates come at little or no additional cost. Of course, the positive efficiency assessment requires that the EGF will indeed support only efficient active labour market policies. This demands correct identification of employment opportunities in the local, national and European labour markets, in order to take the right activation measures.

Turning to national active and passive labour market policies, we observe a range of policy models throughout the EU. One extreme position is taken, broadly speaking, by the South European countries. They rely on a combination of strict employment protection legislation combined with limited unemployment insurance and active labour market measures. The high level of job protection combined with little support for the unemployed suggests itself as a key to explaining the relatively low level of geographic mobility in these countries.

[59] However, the EGF regulation specifies that a mid-term evaluation should be carried out December 2011.

The Danish Labour Market Model

In Denmark, labour market reforms in 1994 lead to re-calibration of the labour market policy as to the weighting of social disciplining (the stick) and social integration (the carrot). On the one hand, the eligibility period for unemployment benefit was reduced, availability and mobility rules and sanctions were tightened, the right to re-qualification for eligibility was abolished and the duty of activation reinforced. On the other hand, there was a massive focus on initiatives for adult vocational training and skills upgrading for the unemployed. Individual action plans and activation courses were introduced much earlier and much more intensively during unemployment spells.

Regarding organisation and steering, the labour market policy was regionalised and the position of the labour market organisations in policy implementation was markedly strengthened.

As the labour market indicators developed favourably after the reforms, the Danish policy model, often labelled as *flexicurity*, has caught a lot of attention abroad.

Early evaluations of the reform, see Larson and Langager (1998), suggest that it improved efficiency in the supply of labour, raised employment following both education and training and public job placement, and increased occupational and geographic mobility. In fact, as many as close to a quarter of workers is affected each year by unemployment and receives unemployment or cash benefits. But the majority of the unemployed manage to find their own way back into a new job, to a considerable degree also in a different region. Thus the Danish combination of labour market flexibility and social protection appears as a prime example of an efficient mix of active and passive labour market policies fostering geographic mobility.

A common feature of the activation policies discussed so far is they approach the goal of geographic mobility only as a by-product. However, there are also examples of national active labour market policies designed to tackle the issue of geographic mobility as an equilibrating factor more directly. These policies typically combine job-search monitoring with mobility requirements, often combined with a mobility allowance to overcome liquidity constraints.

An example is Germany where recent labour market reforms have strengthened mobility requirements of jobseekers so that a move can be required from unmarried jobseekers after four months of unemployment. Otherwise benefits can be cut. At the same time, the German public employment service supports a move that is necessary to take up a new job and end unemployment through an allowance of up to EUR 300 per month. Similar arrangements also exist in France, Austria and other EU Member States.

In principle mobility requirements on the unemployed in combination with mobility allowances appear as effective measures to raise mobility in a system with developed unemployment protection. The obligation to move in order to take up an open position elsewhere counters the disincentive effects of transfer benefits.

Empirical evidence on this issue is extremely limited, however. Westerlund (1998) analyses the effect of direct migration subsidies that are part of the Swedish active labour market pol-

icy model. These subsidies are rather generous, including replacement of travelling costs, furniture transportation, starting assistant grants, free travel to job interviews, and to a limited extent even redemption of private housing in depressed areas. Nevertheless, an empirical evaluation of the programme suggests that a change in the level of subsidies would not lead to a significant change in geographic mobility. If it is possible to generalise this result, the efficiency of this type of policy is in doubt, although it addresses a relevant barrier to mobility. Hence provision of this type of mobility subsidies must be justified purely on equity or fairness grounds.

4.4 Education and Training Policies

The empirical evidence clearly suggests that education and occupational skills are important drivers of geographic mobility. Policies promoting human capital formation and skills upgrading are potentially highly effective: they hit all three of the main barriers to mobility identified in the previous chapter.

Most importantly, educational advancement in general raises the expected net gains from geographic mobility. For individuals with more specialised skills it pays more to invest into search on a wider labour market, as the chances for a better job match improve. Provided that workers can appropriate part of rents associated with the better match, they can expect a higher wage. Thus the expected gain from geographic mobility tends to get larger with the level of education.

Furthermore, the risk associated with finding suitable employment in a new location is lower. The more highly educated individuals are generally more employable, and they generally have more portable skills. The reduced risk in making a move is equivalent to a reduction in mobility costs, which raises the propensity to migrate. In this regard education policies are very closely related to active labour market policies fostering employment security, allowing lower job security.

Supposed that general education contributes to promotion of language learning, it directly targets the important communication barrier. Education in foreign languages (for natives) or the host-nation language (for immigrants) obviously reduces the costs associated with migration into a different language area.

Finally, one may expect that education also reduces the costs associated with adaptation to new cultures. The better educated tend to be more flexible in terms of adjusting to new cultures (especially if they have some familiarity with the new language). For immigrants and their children, educational experiences in the receiving country offer exposure to the host culture, which lowers the costs of acculturation.

The positive impact of human capital formation on geographic mobility rates is expected independent of whether the education process itself involves geographic mobility or not. How-

ever, the empirical evidence suggests that mobility enhancing effects of education are especially strong if it is combined with a move into a different environment. Clearly, having moved already reduces the psychological costs of later moves. Education taken in a different country supposedly reduces language and acculturation barriers in future, job-related moves, by a wide margin.

It appears that individuals who move to a new location for educational purposes frequently remain in that location after graduation. This means an initial temporary move turns into a more permanent, often job-related move. The impact of universities, schools and vocational training centres as focal points for cross-regional or cross-border recruitment of employees through job postings or head hunters on geographic mobility can be large. Westerlund and Lindgren (2007) have shown that in Sweden, vocational training promotes geographic mobility more than any other of the measures used by the employment service.

In summary, from a conceptual perspective, we would expect that policies which are effective in promoting acquisition of human capital and vocational skills are efficient geographic mobility policies. They are especially relevant and effective, if they do not only provide general education, but combine education with measures tackling the language and cultural barriers. In the tendency, educational policies as geographic mobility policies are also cost-efficient. The geographic mobility effect can be interpreted as a positive externality stemming from the induced human capital formation, which is beneficial for economy and society already in its own. Put differently, there is a large return to educational policies in addition to the pure geographic mobility effect, which justifies higher expenses.

Whether educational policies promoting geographic mobility also meet the fairness criterion depends strongly on how they are implemented. Thus we now turn to some concrete examples.

At the EU level, the most important initiatives in the realm of education promotion are the Action Plan on Adult Learning (2007), the Action Plan Promoting Language Learning and Linguistic Diversity (2003) and the umbrella Lifelong Learning Funding Programme. These initiatives are set against the background of the overall Education and Training 2010 strategy.

Education and Training 2010 has a very wide scope, targeting both welfare and educational systems in the Member States. To achieve the ambitious goals of the Lisbon Strategy, it was set up as a 10-year work programme to be implemented through the open method of coordination that seeks to make Europe a world leader in terms of the quality of its education and training systems. Obviously, if the programmes initiated in areas such as education and training of teachers or language learning will help to achieve this ambitious goal, this framework will also help to foster geographic mobility.

Naturally the EU strategy has to be implemented in *national settings* in order to become a fully effective mobility driver. Most Member States indeed strive for education policies in-

creasing the productivity of their labour force. The current direction of these policies, in general terms can be characterised as skill upgrading throughout the entire life. The fact box below presents, as a typical example the nucleus of the Danish life-long learning strategy. Clearly such a strategy, if transformed into efficient national educational policy, indirectly at the same time promotes geographic mobility.

National Life-long Learning Strategies – The Danish Example

In Denmark life long learning strategies are seen to be vital in order to ensure the continual adaptability and employability of workers, particularly the most vulnerable.

The overall aims of initiated educational reforms are that:

1. All children shall have a good start in school.
2. All children shall achieve good academic knowledge and personal skills.
3. 95 per cent of all young people shall complete a general or vocational upper secondary education by 2015.
4. 50 per cent of all young people shall complete higher education by 2015.
5. Everyone shall engage in lifelong learning.

The ambition is that life-long learning is promoted in the many settings in which people acquire new knowledge and gain useful skills. This applies in education, at work, in liberal adult education and in association and leisure activities.

A more specific initiative at the EU level is the Action Plan for the Promotion of Language Learning and Linguistic Diversity,[60] which directly concerns geographic mobility as is attacks the key language barrier. It proposed a series of actions to be taken at the European level in 2004-2006 with the aim of supporting actions taken by local, regional and national authorities to promote language learning and linguistic diversity. Specifically, the Action Plan is designed to take actions regarding (i) the extension of the benefits of life-long language learning to all citizens, (ii) the improvement of language teaching, and (iii) the creation of a more language-friendly environment.

This programme is clearly relevant in the context of enhancing geographic mobility not only due to its general theme – language – but also through the wide range of appropriate specific actions covered. One example is the declared ambition to teach European citizens their mother tongue plus two other languages, and to make an early start in this. Capacity in more than one foreign language would contribute much to improve the opportunities to cross-border mobility. Evidence on skill acquisition suggests that the costs involved in language acquisition are indeed greatly reduced if training occurs early in life.

However, this example also shows that education policies might require quite a long time span to change geographic mobility patterns. Another example is the targeting of adults,

[60] European Commission (2003).

which concerns both language training for those who have not acquired a (second or third) language and maintenance of active language skills acquired during youth. This strategy is designed to unfold a more immediate effect on geographic mobility rates, and may contribute to increase the especially low rates among elderly cohorts. In general, long term initiatives mentioned in the Action Plan should be combined with short focused training, e.g. vocational training, intensive language courses prior to postings etc. Such initiatives, as often seen within multinational companies preparing their staff on expatriation, should be developed further and promoted among a wider audience.

Overall the Action Plan appears as a low key intervention, at least on the European level. The actions proposed only use resources available in existing Community programmes and activities; none of them requires additional budgetary resources to be allocated to the Commission. Therefore the Action Plan is probably a *cost efficient* initiative to promote language skills, and in the longer run levels of geographic mobility. But there is a risk that the impacts turn out to be small, depending on how well authorities in the Member States will deal with their responsibilities for implementation of initiatives under the Action Plan.

At the EU level, the education policy achieving the most direct impact on geographic mobility is the various funding programmes complementing the European Commission's policy work in the field of education and training. These programmes give financial and technical support to organisations, institutions or individuals to run or participate in projects all over the European Union and beyond. An overview is given in the below fact box. In the following, we will focus on the Erasmus programme as a prominent example.

EU Funding of Education and Training Strategies

The Lifelong Learning Program is the flagship European funding program in the field of education and training. It covers the period 2007-2013, and is the successor to the Socrates, Leonardo da Vinci and eLearning programs. Learning opportunities from childhood to old age are covered by a single program. The Lifelong Learning Program has a budget of € 7bn to support projects and activities that foster interchange, cooperation and mobility between education and training systems within the EU, so that they become a world quality reference. It is built on five pillars:

1. The Comenius program (pre-school)
2. The Erasmus program (higher education)
3. The Leonardo da Vinci program (vocational education and training)
4. The Grundtvig program (adult education)
5. The Jean Monnet program (higher education institutions)

Other EU-supported education and learning program include *Erasmus Mundus*, a program promoting the European Union as a centre of excellence in learning around the world, and *Tempus*, an aid scheme for restructuring of higher education systems in central and Eastern Europe.

The Erasmus programme, an important pillar of the EU Lifelong Learning Programme, seeks to enhance the quality and reinforce the European dimension of higher education by encouraging trans-national cooperation between universities, boosting European mobility and improving the transparency and full academic recognition of studies and qualifications throughout the Union. The programme consists of several different activities: student and teacher exchanges, joint development of study programmes (curriculum development), international intensive programmes, thematic networks between departments and faculties across Europe, language courses and the European Credit Transfer System.

The Erasmus programme appears highly effective regarding geographic mobility. According to a recent econometric evaluation study by Parey and Waldinger (2007), it increases the percentage of students who spend some time of their studies abroad.[61] Furthermore students who spend some time at a foreign university have a 15-20 percent higher propensity to work in a country different from their home country later on. As the Erasmus programme serves as a stimulator for studying abroad (in another European country), it is thus clear that it also causes greater mobility of university graduates.

The Erasmus programme not only is an efficient stimulus for geographic mobility, it also seems to perform well if judged by a (narrow) fairness standard. Parey and Waldinger (2007) provide evidence that among the target group, especially students with limit credit possibilities, usually those with less favourable socio-economic background, are positively affected by the programme.

Neither on grounds of a wider fairness standard can the Erasmus programme be criticised seriously. Its target group is individuals in tertiary education who are in a rather privileged economic and social position. However, as illustrated in the previous fact box, a number of other EU funding programmes are directed towards target groups such as pre-schools through to upper secondary schools (The Comenius programme), vocational education and training (The Leonardo da Vinci programme), adult education (The Grundtvig programme), and higher education institutions (The Jean Monnet programme).

An example of a concrete mobility initiative within vocational training is the French Départ project, funded by the European Year of Workers' Mobility.[62] This project aims to promote the value of mobility during an apprenticeship by raising awareness of both the benefits of gaining work experience elsewhere, and the opportunities available. The focus of the project is on information; there is no funding providing income support for mobile apprentices. A programme of this type certainly has a much weaker impact on actual mobility behaviour, compared with the generous Erasmus programme.

[61] The study is based on a German data set containing cohorts from 1988-2001

[62] Départ (Develop Europe through apprenticeships and trans-national networks) is coordinated by Centre Inffo, an information centre for vocational training, and On-isep, which runs an information website for young people.

Finally, also ERA More, a mobility programme for European researchers, should be mentioned. ERA More is a joint initiative of the European Commission and the 33 countries participating in the EU Framework Programme for Research. The purpose of the initiative is to create a more favourable environment for researchers' career development. The assistance to the researchers is provided in two ways; through *The Researcher's Mobility Centres*, who operates by the universities, offers free customised assistance and information to researchers who are planning to pursue research in other countries in Europe. The about 200 Mobility Centres assist researchers in all matters relating to their professional and daily lives. The second support is *The Researcher's Mobility Portal* who provides all the relevant information on research opportunities, grants and fellowships, general and practical information required for the mobility of researchers.

In summary, the EU strategies and programmes contributing to the development of skills in the European labour force also promote geographic mobility. This externality is especially large for policies involving language and cultural human capital. But even successful education policies can raise the skill level of the work force only very gradually. Thus they are less suited than adjustments in active or passive labour market policies fostering labour market flexibility to achieve short-term success in boosting geographic mobility rates.

In this context, it is important to stress the clear success of the Erasmus programme, as it demonstrates two points. First, it is possible to design specific educational policies that immediately impact geographic mobility. It appears that the scope of such policies still has to be fully explored, given that they are currently accessible for only a minority of the population. Second, the success of EU level funding schemes shows that there is scope for successful geographic mobility policies through education exchange programmes beyond the national level. In fact, in view of the well-functioning Erasmus programme, it is plausible to assume that it has crowded out some funding and initiative at the national level.

4.5 Integration Policies

The labour market and education policies discussed so far had a focus on outward mobility. Broadly speaking, the intention was to increase employability, to make job search more intensive and overcome financial constraints. This contributes to improving the possibilities to gain an income in another location. In this section, we shift focus to inward mobility, and look at policies that increase the attractiveness of the new location, from the perspective of potential migrants. In various forms, these policies seek quickening economic and social integration of subsequent to arrival.

Integration policies in the destination receiving migrants might have two different purposes. On the one hand, the intention can be to pull migrants into the country, in order to make some direct welfare gains. On the other hand, facing a certain level of immigration, the purpose can be to avoid some economic or social costs associated with lack of integration.

Conceptually, one might distinguish between passive and active integration policies. Passive policies only set a general frame providing conditions for equal treatment of immigrants and natives and thus promote social inclusion. Active policies take explicit action to bring immigrants, for example in terms of knowledge about the host country, language, education or housing conditions, to the level of natives.

In the realm of passive integration policies, some EU Directives set up a general frame for the integration of mobile workers and their families, both for third country and EU country nationals, by combating discrimination at the work place and in social life in general.[63] Also the designation of 2007 as the European Year of Equal Opportunities has demonstrated that social inclusion, raising awareness of the right to equality and non-discrimination and increased participation in society of groups exposed to discrimination are high priority issues for the European Commission.

The appropriate kind of support provided by active integration policies is highly context dependent. Therefore relevant policies are in general implemented at the local level. Such policies often explicitly include an education element. For many immigrants, taking some kind of general or vocational education in the destination is especially efficient as an integration measure. It does not only help improve portability of human capital from the origin, but also promotes language acquisition and acculturation in general. Through provision of locally-valued job-specific training, information about working rights and attempts to facilitate employee-employer communication education initiatives can also directly help migrants to find suitable jobs.

In general, regions seeking immigrant workers should provide an appropriate social, cultural and physical infrastructure, as well as a welcoming attitude towards newcomers. Attention should also be directed towards the integration of family members of migrant workers.

In Gainsborough, UK, a very recent initiative has been launched to help integrate West Lindsey's growing migrant worker population. A cultural event is being held at the Trinity Arts Centre in Gainsborough including entertainment and food as well as important community and employment information. Information about the availability of conversational English classes will also be available. The event is being publicised through posters and at work places where the migrants are known to be employed and a good attendance is to be expected.

The efficiency of such programmes as drivers of geographic mobility will depend considerably on how they are administered. Integration programmes are designed for workers who have already migrated and they aim to retain migrants in the host country. For such programmes to encourage further mobility, information about them must filter back to sending countries, so that *potential* migrants know about them, and know that they are operating to increase the

expected net gains from geographic mobility. This information flow is most likely achieved through circular migration, and networks, although there is potentially some role for information campaigns in sending countries.

Programme efficiency will also depend on what kind of instruction or support is offered. In this case, relevance to the local economic and social context is extremely important. The kind of instruction and support needed by immigrants in large cosmopolitan cities likely differs from the kind of support needed in smaller manufacturing, agricultural or tourist areas. It is also likely to depend on the specific social, demographic and economic characteristics of the immigrant population. The appropriate kind of policy will vary considerably from location to location, and even within locations for various populations and industries.

Flexibility offered by local provision (private or public) of such services is thus highly desirable, and higher level governments should probably limit themselves to the support of these initiatives rather than the direct provision of them.

The fairness of educational policies related to integration is determined to a large extent by availability. A considerable part of this availability depends on matching to the target population (in terms of language and relevancy of training), but there is also a cost component when a price is charged, and a spatial component depending on the location of instruction. In large cities, efforts located in the central areas may be difficult to reach for busy immigrants who are often forced to live in the city's outskirts. To assess whether integration support is being delivered in a fair manner, we would need information not only on what kind of support is offered where, but also information on the spatial distribution of populations and unmet needs for such support, which is even harder to obtain.

Appropriate housing conditions are an often overlooked aspect of integration. The role of public housing policy with regards to promoting geographic mobility is somewhat different than that of education policies. Governments have become increasingly involved in the regulation and provision of housing, but thus far, there is little evidence which suggests that the government is better at providing these services than the private sector. Most evidence suggests that in terms of economic efficiency, straight transfers to needy families or other forms of support would strongly dominate public provision. If information of housing subsidies makes its way back to origin countries, it could increase inward mobility. One way to spread such information is web portals, like the UK *Migrant Gateway*, a website including legal information on workers' rights to housing as well as specific information on mortgages, and how to rent and buy apartments.

Some additional issues come to the fore when we consider housing: location and flexibility. With regard to location, whether housing support encourages integration (and thus mobility)

[63] Council Directive 2000/78/EC of 27 November 2000 establishing a general framework for equal treatment in employment and occupation and Council Directive 2000/43/EC of 29 June 2000 implementing the principle of

will depend on the extent to which immigrant populations tend to cluster in their own communities in European cities. If such ethnic communities are important, they could decrease integration while at the same time easing the costs of assimilating to a new culture through the provision of social networks, and space to "take a break" from the demands of living and working in a foreign environment. Such reduced costs should increase mobility.

Thus, to some extent, there is a tension between assimilation and mobility when it comes to housing policy: should the government provide housing for immigrants in ethnic communities to encourage mobility or integrate such assistance to encourage assimilation?

To the extent that national and local housing regulations make the housing market inflexible, unaffordable or unattractive, such policies may affect mobility. However, regulations making housing less affordable or less attractive should also encourage outward mobility. Housing regulations which reduce the flexibility of housing markets probably decrease mobility. However, since immigrants exist in highly fluid financial and social situations, flexibility is at a premium. To the extent that local housing regulations prevent the market from serving people with the need for such flexibility, it will discourage mobility system-wide.

While the specific regulations vary from place to place, they are invariably quite complex, and are beyond the scope of this report. Suffice it to say that flexible housing markets are an important component of the ability of people to change residences.

In sum, well managed integration policies may serve as valuable social measures complementing the more administrative social security provisions such as unemployment benefits. They provide immigrants with additional income security, but more generally, also with security in terms of living conditions (housing, social stability). An integration perspective reduces risks in the new location and thereby minimises the personal costs of mobility.

4.6 Information Policies

Individuals might miscalculate the expected individual net welfare gains that enter their geographic mobility decision, because of incomplete information. It is possible that they are not fully aware of the actual employment opportunities in the destination, or that they overestimate the costs involved in moving. And even if the information to calculate the expected net gain is in principle available, its acquisition imposes a (psychological or actual) cost on the individual, which must count as a moving cost. Provision of better information or provision of relevant information at a lower cost for the individual, therefore constitutes relevant geographic mobility policies.

Information can be spread through public (or private) organizations. Normally one would expect that the collection of information benefits from certain economies of scale, so that proc-

equal treatment between persons irrespective of racial or ethnic origin are especially relevant in this regard.

ess is more efficient if organised on a larger scale than if organised at the individual level. At least, this is true as far as more general information is concerned. To the extent that the individual requires personalised information, collection at the individual level tends to be more efficient. Still, there might be a role for public information networks facilitating providing personalised services.

Considering that difficulties to find a new job is perceived as a key mobility barrier, information platforms concerning career opportunities and portability of qualifications are especially relevant initiatives in the realm of public information policies. If they function, such portals are efficient in a sense that they can serve as consolidated job-markets reducing job search costs for both employees and employers by a substantial margin. Due to the advances in information technology (e.g. the internet), this service can be provided in a cost-efficient manner. However, this only considers the distribution of information. Gathering of relevant content can still be costly.

Considering the fairness criterion, web portals as information platforms fare quite well in the days of broad and cheap access to the internet. Nevertheless one should be aware that there are still systematic differences in access to web-based information, due to different computer literacy, but also due to language barriers unless portals are available in several languages (increasing their costs).

EURES – The European Job Mobility Portal – is perhaps the most prominent example of a web platform promoting an integrated European labour market. EURES is a co-operation network between the European Commission and the Public Employment Services of the EU countries plus Norway, Iceland, Liechtenstein Switzerland, and other partner organisations.

The EURES network offers services to workers and employers. Registered employers have the opportunity to post vacancies offered to foreigners, and job seekers have the possibility to post CVs to work abroad on a website. This web portal is designed as a platform for job search on the integrated European labour market. It provides a one -stop-shop access to all vacancies available from national public employment services (PES) and updated information on living and working conditions in the EURES network countries. It complements the web portals run by the PES, which generally target their national labour markets. A speciality of the EURES portal is that it is closely linked to the Europass initiative which offers a co-ordinated portfolio of transparent documents that facilitate the transferability of qualifications.[64]

The efficiency of job search-related web portals in improving geographic mobility is difficult to judge. A preliminary evaluation of the EURES network conducted in 2005 concludes that EURES, through the development of particularly the internet services, has improved the

[64] Europass was adopted in December 2004 and launched in February 2005. It operates through a European internet portal and a network of National Europass Centres.

transparency and information exchange as well as the exchange of CVs and vacancies on the European labour market. However, a quantitatively formal assessment of the impact of EURES is lacking and appears as difficult to achieve.[65]

In this study of 2005, the internet services provided by EURES have been judged to be moderately good. This also was mentioned for the quality of the services provided by EURES advisers. In addition, more than 60 per cent of the clients classify the self-service facilities at least as good. These results will be a basis for a coming assessment in 2008-2009. Since 2005, many improvements were achieved as regards the portal and the advisors service network. Participating countries have well implemented most of the EURES Guidelines 2004-2007[66]. They are now working towards the implementation of EURES guidelines 2007-2010.

On the other hand, it appears that the number of jobseekers that actually found a job through EURES portal is not quantifiable since Jobseekers are not identified. At present,[67] the EURES portal reports more than 1.300.000 vacancies accessible from national PES. More than 300,000 CVs of job seekers are posted to express their willingness to find a job abroad and about 15 000 employers are registered. It is a good sign that these numbers are growing constantly. These figures suggest that few employers are aware that EURES services to employers are available to recruit abroad. One of the key problems is achieving the full integration of EURES into the national public employment services vice versa. Still the contribution of the EURES job mobility portal is mitigated by the fact that the higher educated and researchers in particular, as well as their employers, tend not to use public employment services.

One should expect that the effectiveness of the job matching process achieved through portals facilitating mobility like EURES could be improved, if more people were actually involved in the job-seeking process at the EU level. Thus actions aimed at furthering and promoting rather than facilitating mobility are likely to increase the impact. In the area of information policies, initiatives satisfying this target are various information platforms explaining education, working and living conditions in Europe. Some web portals help to solve issues related laws and regulations of countries for the workers and business.

In general, these platforms cater to the special information needs of specific groups in the labour market. Examples are given in the fact box below. The specificity of these platforms implies that they can take less advantage of economies of scale, which could hamper their efficiency. On the other hand, the platforms may be justified when acquisition of specialist information by the individual is (prohibitively) costly.

[65] Evaluation of the EURES programme, ECORYS-Nederland BV, for the European Commission, October 2005. The evaluation included an ex-post assessment of the period 2000-2003 and an ex-ante/interim evaluation of the period 2004-2007. This evaluation does not apply rigid evaluation principles, i.e. does not solve the counterfactual question of how many job matches would have occurred without existence of the EURES portal.
[66] Synthesis note on the evaluation of EURES, published by The European Commission, March 2006.
[67] Date of reference: 07/03/08.

Specific Information Platforms

The **Ploteus portal** offers special information for individuals considering education abroad. It offers special information on national education schemes and opportunities for students, as well as general information on living conditions.

The **European Researcher's Mobility Portal** is a joint initiative of the European Commission and the 34 countries participating in 7th Framework Program. It gives advice to researchers seeking to advance their careers by moving abroad. The portal comprises specific information on training and job opportunities, but also a wealth of practical information on living, working and relaxing in the European countries.

An example of a web portal at the national level is the **Europa-Mobil Portal**. The site aims to go one step further than providing general information (on job opportunities, social security, education etc.) by providing a personalized service thanks to a team of experts who respond to questions posted online.

The **Website for Women's Mobility** has been launched to promote geographic mobility for women, particularly those in the Baltic and Mediterranean regions. The website provides information on mobility policies and related topics such as the reconciliation of work and family life. It aims at raising awareness of the business opportunities in the EU and to prepare women to be an integral part of it.

Beyond web portals, information relevant to foster geographic mobility can be distributed through other channels. In the following, we elaborate on two examples, namely awareness campaigns and cultural exchange.

Awareness campaigns seek to put the opportunities associated with geographic mobility into people's minds. In a sense, this strategy might be interpreted as reducing the psychological costs attached to mobility. To the extent that awareness campaigns provide the opportunity to interact with people from other countries and different cultures, they should also be considered relevant as they target the barrier of cultural adaptation.

Both at the EU and at the national level, numerous awareness activities are taking place. A corner stone in recent times has been the launch of the 2006 European Year of Workers' Mobility by the European Commission. The purpose of this initiative was to raise public awareness and open up the debate on the real benefits and challenges of working abroad or changing job, including the advantages, costs, impacts and rights of working in another country. An example of the campaigns sponsored during this year is given in the fact box below.

A Typical Awareness Campaign

The European Year of Workers' Mobility was used to fund a radio project. Over July and August 2006, Radio Krakow gave a real focus to the issue of mobility, broadcasting 45-minute programs five days a week. The programs presented the stories of mobile workers and encouraged listeners to discuss and participate. Reporters followed the lives of Polish workers abroad in different EU countries and presented the day-to-day reality of new experiences and occasional difficulties. Listeners got a better idea of what it is really like to work abroad in the EU. The program offered the audience the possibility to call in and ask for advice related to issues of geographic mobility.

A related campaign is the European Job Days held in September 2007. During the days employers and employees could meet at more than 500 events in 300 European cities. Many of the events were held together with EURES.

It can be stated that these campaigns have accomplished the aim of raising awareness, based on the numbers of persons who participated in one way or another. It also appears that the goal was achieved in a cost efficient manner considering the fairly limited financial resources involved. However, evidence also suggests that the psychological costs related to the migration decision very much depend on experiences within one's own personal network – leaving the specific impact of such campaigns unclear.

Moreover, the very broad target of such campaigns may hamper their efficiency with regard to increased geographic mobility. Campaigns directed at specific population groups inclined to migrate, such as the young, might have relatively stronger effects, though exclusion of certain population groups always raises fairness concerns. Further, the EU level campaigns require coordination with the diverse policies pursued also at national level.

Another way to provide information relevant for the geographic mobility decision is cultural exchange. The relevancy of cultural exchange initiatives is evident considering the cultural adaptation barriers to mobility. Thus an initiative like the 2008 European Year of Intercultural Dialogue might also have an effect on geographic mobility. The Year aims at encouraging intercultural dialogue involving cultural diversity inside and between Member States. It focuses on the youth, a group more inclined to geographic mobility than the average, which should raise its efficiency.

More long-term oriented, and thereby probably more successful, is the Youth in Action Programme 2007-2013, a key instrument in providing young people with opportunities for non-formal and informal learning with a European dimension. One of the specific aims of the programme is to promote a European citizenship and foster social cohesion among young people in the European Union. Thus, the programme could directly lower the cultural adaptation barriers for the next generation of workers.

In general, while cultural policies promoting intercultural dialogue and fostering a European identity have a significant potential to increase labour mobility, they will develop their posi-

tive impact over the long run. Like integration of migrants, cultural policies are likely to reduce the social costs of mobility by providing a sense of unity and security among citizens across regions and Member States. Nevertheless, given the inertia of cultural institutions, the efficiency of these policies is virtually impossible to measure. One of the difficulties in managing cultural barriers to mobility is the reconciliation of the preferences for cultural diversity with the need for a labour market without major cultural barriers and frictions. Only fair and consistent cultural policies respecting the needs of all social groups can potentially succeed in such reconciliation.

4.7 Harmonisation and Coordination Issues

If one follows the empirical evidence reported in chapter 3, citizens do not perceive issues related to European harmonisation as substantial barriers to geographic mobility. However, this observation made in the context of mobility intentions does not allow us to conclude that harmonisation issues would play no role in the mobility process. As harmonisation touches upon difficult legal problems concerning portability and international recognition of rights, individuals may grasp its importance only when they are actually on the move.

In any case, it is fairly obvious that lack of harmonisation or coordination can lower the geographic mobility potential across countries. One consequence is that the potential expected gains cannot be fully realised without harmonisation or coordination. Another consequence is that non-harmonisation imposes a direct cost on individuals changing location.

In the following, we briefly consider three different areas where immediate issues of European harmonisation and coordination arise – free movement of workers, recognition of qualifications and portability of supplementary pensions and the exportability of social security rights.

4.7.1 *Free Movement of Workers*

Of course, open borders are the fundamental precondition for workers' mobility. And of course, the general principle of free movement of workers is well established within the EU.

The strongest deviation from this principle affecting mobility within EU is the transitional arrangements that restrict labour movements from the new Member States to the other Member States. Restrictions can be imposed on workers from the EU-8 countries (Czech Republic, Estonia, Latvia, Lithuania, Hungary, Poland, Slovenia and Slovakia) as well as on those from Bulgaria and Romania, ensuring that they will not displace local employment. At the same time the new Member States have the possibility to put reciprocal barriers in place[68]. The restrictive measures should in principle be lifted after five years after the entry of new Member

[68] Malta and Cyprus have full free movement of workers in the EU, but Malta has the possibility to invoke a safeguard clause in case it experiences, or foresees, serious disturbances of the labour market. If accepted, it could restrict the access of all EU workers to Malta.

States into the EU but at the latest in May 2011 for EU-8 countries and December 2013 for Bulgaria and Romania.

Among EU-15, ten countries have now completely opened their labour markets.[69] Of the remaining five Member States, four have maintained the work permit requirement, but have simplified procedures or eased restrictions in some sectors and professions in which there are labour shortages, like care services, transport and construction (Denmark, Belgium, France and Germany).
The table below illustrates how most of the EU-15 Member States have now opened their borders to workers from the new Member States, while a few countries still impose restrictions.

Table 15: A Number of EU-15 Countries Still Impose Restrictions on Workers from New Member States

	Entry of EU-8 workers	Entry of EU-8 workers	Entry of workers from Bulgaria and Romania[70]
	May 2004 to April 2006	May 2006 to April 2009	2007-2008
Austria	Restricted	Restricted	Restricted
Belgium	Restricted	Restricted	Restricted
Denmark	Restricted	Restricted	Restricted
Finland	Restricted	Open	Open
France	Restricted	Restricted	Restricted
Germany	Restricted	Restricted	Restricted
Greece	Restricted	Open	Restricted
Ireland	Open	Open	Restricted
Italy	Restricted	Open	Restricted
Luxembourg	Restricted	Open	Restricted
Netherlands	Restricted	Open	Restricted
Portugal	Restricted	Open	Restricted
Spain	Restricted	Open	Restricted
Sweden	Open	Open	Open
United Kingdom	Open	Open	Restricted

Source: OECD (2007b:160 updated version of table 8.3)

After the enlargement on 1 January 2007 ten EU-25 Member States (Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Poland, Slovenia, Slovakia, Finland and Sweden) have liberalised access of Bulgarian and Romanian workers to their labour markets under national law. In Finland, Cyprus and Slovenia, workers from these countries must register for monitoring purposes.

69 United Kingdom, Ireland and Sweden liberalised their access to their labour markets under national law already from the beginning, Spain, Finland, Greece and Portugal opened their labour market on May 1, 2006, and Italy on July 26, 2006. On 1 May 2007 the Netherlands followed and lifted all restrictions, as did Luxembourg on 1 November 2007.
70 Bulgarian and Romanian workers also face restrictions in Hungary and Malta.

The remaining EU-25 Member States have maintained work permit systems, albeit sometimes with modifications and simplified procedures. For instance France and Hungary apply simple procedures for a number of occupations without considering the job situation, or without a labour market review[71] and Denmark issues work permits for work of at least 30 hours/week. This is governed by a collective labour agreement or complies with normal standards for the sector/profession. Where employers have prior approval, workers may start work upon registration of employment with the Immigration Service without first obtaining a work permit.

The heterogeneity of admission schemes to national labour markets clearly prevents from reaching an efficient level of geographic mobility. It reduces the economic gains from cross-border migration both from an individual and from a societal perspective. Possibilities of finding the best match between the skills endowed in workers and the needs of employers on a fully integrated labour market are wasted.

Countries often justify the imposed restrictions on fairness grounds. The argument is that immigration inflows would put pressure on native workers' wages and employment opportunities. As we have seen in the discussion on optimum geographic mobility, however, these arguments have little empirical substance. Moreover, adopting a broader fairness perspective, implementing different rules for different countries and even for different sectors or categories of workers can not be evaluated as just.

4.7.2 *Recognition of Qualifications*

A prerequisite for improved skill matches through geographic mobility on an integrated labour market is transferability of human capital between regions. Lack of recognition of formal and informal skills acquired abroad wastes growth opportunities.

A number of European legal rules are already guaranteeing the mutual recognition of professional qualifications between Member States. These rules are developed in order to help make the labour markets more flexible and overcome obstacles with national regulations which only recognise professional qualifications of a particular jurisdiction.

European legal rules mainly concerns:

- A harmonisation of training requirements which allow for automatic recognition of professional qualifications primarily in the health sector (doctors, nurses, dentists, midwives, veterinary surgeons, pharmacists and architects).
- Mutual recognition which applies to all the professions for which Member States require a qualification, with a few exceptions.
- Automatic recognition of professional experience for professions of craft, commerce and industry sectors.
- Recognition of qualifications concerning activities in the fields of commerce and the distribution of toxic substances.

[71] 150 occupations in case of France. For Hungary it concerns 245 occupations.

- Coordination of the laws of the Member States relating to self-employed commercial agents which harmonises civil law on the relationship between agent and principal.

The EU has recently reformed the system for recognition of professional qualifications, in order to help make labour markets more flexible, further liberalise the provision of services, encourage more automatic recognition of qualifications, and simplify administrative procedures.

A new Directive (2005/36/EC), which has come into effect on 20 October 2007, consolidates and modernizes 15 existing Directives covering all recognition rules, except for those applicable to lawyers, activities in the field of toxic substances and commercial agents. This is the first comprehensive modernisation of the EU system since its introduction over 40 years ago.

Despite the EU legislative framework hurdles remain for mobile professionals. While some professions have their diplomas recognised immediately (architects, doctors, nurses, midwives, pharmacists, veterinaries and lawyers), others face administrative difficulties when applying for a job in another member state as they have to obtain recognition from the host country. Further, they can be asked to exercise their profession under the supervision of a locally qualified professional for a period of up to three years.

Thus, there is certainly still a role for policy intervention concerning the international recognition of formal and informal skills.[72] One way of facilitating the mobility of all professionals would be to extend the regime of immediate recognition of qualifications and diplomas. This would require unanimity among the 27 EU Member States on agreed minimum training conditions for each profession, which however appears to be unlikely for any of the regulated professions.[73]

Taking a broader look most fundamentally, the Bologna process aiming at harmonisation of educational systems, quality assurance, and qualification recognition is a tool to simplify assessment and recognition of skills acquired abroad. Another efficient policy seems to be coordination of vocational training across borders, as can be seen from German-speaking countries' shared vocational standards, which yield increased portability of skills. Standardization processes in academic and vocational training will unfold their impact on geographic mobility only over the longer term. The skill composition of the work force develops only slowly, starting from the bottom of new entrants.

In the meantime, useful initiatives to achieve skills recognition are information platforms such as the Europass initiative described above. Another area of initiative to be taken is abolishing or at least reconsidering formal qualification requirements or licence schemes for certain occupations, in particular those affecting mobile professionals. These are often used to protect

[72] See Bloom and Grant (2001).
[73] See OECD (2007b).

the incumbents against competition, both from within the national labour market (license schemes) and from abroad (qualification requirements).

Such harmonisation effort can be considered cost-efficient. It is expected to produce rather strong positive effects on geographic mobility while producing rather low costs associated with information provision and removal or reduction of excessive qualification standards set by national legislation. Obviously, universal recognition of qualification is also fair, since it treats individuals with equal qualifications acquired in different locations equally.

4.7.3 *Portability of supplementary pensions and the coordination of social security rights*

Another area of concern in the realm of harmonisation and coordination of social protection is the coordination of social security rights and the portability of supplementary pension rights. Community legislation has been put in place mainly aims at coordinating national social protection systems. Such coordination clearly yields benefits in terms of lowered costs of migration, as they make the international transfer of various social rights within the EU easier.

The key areas of social protection include 1) the coordination of social security rights and 2) the portability of supplementary/occupational pensions. Social security rights are subject to coordination rules laid down in Regulation 1408/71, which is based on 42 EC. Supplementary pension rights and other social advantages are subject to the principle of equal treatment of migrant workers in article 39 EC. The key Regulations and Directives are presented in the box below.

EU Policies for the Coordination of Social Security Schemes and the Portability of Occupational Pensions

Social security regulations:

Council regulation 1408/71/EEC serves to coordinate social security schemes for persons moving within the Community. Its object is to ensure that a person who has used the right to move within the EU will not be placed in a worse situation than a person who has always lived in the same Member State. The Regulation has been adapted, improved and broadened several times to allow for the Court's interpretations and other developments at EU level, but also in the light of the frequent changes in the Member States. These numerous changes have made the regulation very complex and difficult to work with.

Council regulation 883/2004/EEC aims at simplifying and modernizing the current regulation and once the draft Implementing Regulation becomes applicable it will replace Regulation 1408/71. Regulation 883/2004 reinforces the cooperation between national administrations on social security and expands the personal and material scope, as it will not only apply to employed and self-employed persons but to all EU nationals who are insured under national law and will also cover pre-retirement benefits.

Portability of occupational pensions:

The Directive of the European Parliament and of the Council on improving the portability of supplementary pension rights. An amended proposal was adopted in October 2007, which aims to guarantee mobile workers improved access and better preservation of their supplementary pension rights. It focuses on the setting of minimum requirements for better access to pension rights, preservation so that mobile workers are not penalized and improved access to useful and timely information.

The Community legislation on social security coordination has a very clear content: mobile workers and their families benefit (with some exceptions) from social security coverage in the country where the person concerned works and must pay corresponding contributions. Since national social security schemes can vary considerably, EU law provides the workers with the .the right to export their social security rights which means that benefits acquired under the legislation of a Member States must be paid without any reduction, modification or suspension even if the person concerned resides in another Member State. The practical implementation of this basic principle requires good co-operation and coordination between Member States.

The Regulation on the co-ordination of social security schemes is very broad in scope. It covers sickness benefits, parenthood and family benefits, invalidity benefits, statutory old age pensions, death grants, survivors' benefits, benefits related to accident at work and occupational diseases, and unemployment benefits.

A missing element in the EU framework on social security concerns occupational pensions. Today, changing job or country often means losing occupational pension benefits in some Member States. The difficulties in transferring these benefits from one country to another create some serious obstacles to labour mobility.

A number of steps have been taken in order to strengthen the portability of occupational pensions. Most recently, an amended Proposal for a Directive on minimum requirements for enhancing worker mobility by improving the acquisition and preservation of supplementary pension rights was adopted (October 2007). The proposed Directive aims to guarantee mobile workers improved access and better preservation of their supplementary pension rights. It focuses on the setting of minimum requirements for better access to pension rights and preservation of rights so that mobile workers are not penalised and on improved access to useful and timely information.

The ongoing Commission work on the 'portability directive' is highly needed and supported. For instance, an independent expert study show that many pension schemes require workers to contribute to the scheme for more than two years before they acquire a right to a pension. The study also shows that a fair amount of pension schemes offer no revaluation of workers' dormant pension benefits when they move jobs. In effect these rights are frozen until retirement. These results clearly demonstrate the need for a directive to introduce minimum standards to improve mobile workers' access to supplementary pension rights, and the need for these rights to be protected in the years between leaving an employer and retiring.[74]

Another recent study, supporting the proposed directive, shows that on average nearly 40% of current workers expect to change employer during the next five years. These people are there-

[74] Quantitative overview on supplementary pension provision. By Hewitt Associates for the European Commission, 2007. See also OECD (2007b).

fore potentially disadvantaged by the operation of long vesting periods found in supplementary pension schemes.[75]

Another important issue relates to the social security of mobile workers opting for some of the new forms of mobility. While the current EU regulations mainly focus on long-term mobility (more than one year) an increasing part of migrant workers, e.g. in the service sector and the construction section often work on short-term contracts and frequently change jobs. The hurdles for short-term mobility may be very different from those experienced by the more classical type of migrant workers that decide to emigrate and work for a longer period in another Member State.

For instance, the (financial) hurdles perceived with regard to social security cover tend to be higher for short-term mobility than for long-term mobility, since migrant workers that change jobs more often are faced with frequent changes in national legislation that applies to them when changing jobs. Likewise, more hurdles could be expected for short-term migrants with regard to the portability of supplementary pension rights. In order to gain valid knowledge of the specific difficulties and hurdles that may arise in relation to various short term mobility contracts further research is needed. It should also be examined whether the regulatory framework (e.g. no 883/2004) and related administrative practices need to be adjusted to take better account of changed mobility patterns.

In summary, the European labour market, from an institutional perspective, despite unquestionably considerable effort at European level, has not yet fully reached the degree of integration characterizing a single national labour market, or, to draw a perhaps fairer comparison, that of the US labour market. Overall, it appears that there is still some scope for improvement fostering geographic mobility across borders. However, within the field of social security, harmonisation is not a feasible solution as there is no legal basis for this in the EC Treaty.

4.8 Conclusion: Geographic Mobility Policies in a Flexicurity Framework

As a way of conclusion, we will place the discussion on appropriate geographic mobility policies into a flexicurity framework.

The concept of flexicurity has attracted massive attention among European policy makers recently.[76] The fundamental idea behind flexicurity schemes is that there are potential economic and societal gains to be made by simultaneously increasing labour market flexibility and labour market security. Well-conceived flexicurity schemes at the national level may encourage geographic mobility, as they reduce the risk involved in making a move. The reduc-

[75] Coppin and Vandenbrande (2007).

[76] The Austrian Presidency of the EU in spring 2006 put flexicurity on the top of its agenda. It has recently been the subject of a Communication from the European Commission (2007).

tion in risk is equivalent to a reduction in mobility costs, which raises the propensity to migrate.

Given the historical role of the European Union as a means to increase mobility of goods, services and labour among the Member States, it is quite remarkable that the European flexicurity discourse has put little, if any, weight on the interplay between the spatial flexibility – or geographic mobility – on the labour market and the various forms of security arrangements. In fact this issue is absent from the Commission's communication and policy documents related to flexicurity.

The pivot of the flexicurity concept is to combine forms of flexibility with various forms of security: (i) job security, i.e. keeping the same job; (ii) employment security, i.e. having a good chance of getting a new job, (iii) income security, i.e. having a smooth stream of income; and (iv) combination security, which refers in particular to the reconciliation of work and family life.[77]

The forms of labour market flexibility normally considered in this context are numerical flexibility, functional flexibility, working-time flexibility and wage flexibility.[78] But this basic conceptual framework is quite open to adding geographic mobility as a separate aspect of flexibility. We hence obtain a special representation of the so-called Wilthagen matrix, which is shown in the table below.

Table 16: Combinations of Spatial Flexibility and Security

Flexibility/security	Job security	Employment security	Income security	Combination security
Geographic mobility within a country	I	III	V	VII
Cross-border geographic mobility	II	IV	VI	VIII

Notes: Own representation inspired by Wilthagen and Tros (2004), p. 171.

The Wilthagen matrix offers a heuristic tool which can serve to identify different flexicurity policies or combinations of flexibility and security for specific schemes, or, as it is also used, to identify stylised trade-offs between flexibility and security in different national labour market regimes. In this understanding, flexicurity is a complex and multi-dimensional concept, which calls for an integrative approach regarding institutions and reforms in different policy fields. Flexicurity arrangements are embedded in broader national contexts such as welfare state models, bargaining systems and national traditions, just as there are many different forms of flexicurity in Europe and in individual Member States.

[77] See Wilthagen and Tros (2004).
[78] See Atkinson (1985); Atkinson and Meager (1986).

A number of flexicurity arrangements of relevance to geographic mobility immediately come to mind, when looking at the eight cells of Table 16 one by one. The list of instruments and policies presented in the following is not meant to be exhaustive.

I. Combining geographic mobility and job security within a country

Here focus is on the capacity of employers to relocate their employees between different locations of a company within a country. This will probably be an issue mainly negotiate between the employer and the relevant trade union, but one can imagine public support from the Public Employment Service for instance in assisting the employer in finding work for family members that intend to follow the employee to the new location.

II. Combining cross-border geographic mobility and job security

This configuration, where employers aim at relocating their staff from one country to another, opens for more considerations concerning relevant public policies. The main task of flexicurity arrangements in this case is of course to facilitate the relocation process by lowering any administrative or other barriers that hinder the relocation of a specific worker by a company. In general these barriers will however be similar to the barriers faced by workers that simultaneously move between countries and get a new employer at the same time, which is represented by cells IV, VI and VIII in the table. They will therefore be discussed in more detail below.

III. Combining geographic mobility and employment security within a country

A number of instruments are relevant here. On the list of instruments of active labour market policy one can mention: 1) a nationwide placement system allowing job-searchers and the PES to monitor job vacancies throughout the country, 2) special mobility instruments like economic subsidies to unemployed persons moving from one region to another and 3) support to the job-search of spouses.

Outside the realm of active labour market policy one can mention housing policy, which can lower the barriers to getting a new home, and transport policy, which can lower the cost of transportation for persons choosing the commute on a daily or weekly basis.

IV. Combining cross-border geographic mobility and employment security

Within active labour market policy a core activity is of course an international placement system (exemplified by EURES) allowing job-searchers and the PES to monitor job vacancies on an international basis. Furthermore one can think of activities that improve cross-border mobility like training in language skills and recruitment campaigns abroad.

Also of relevance, and outside the scope of active labour market policy, are the rules concerning the recognition of foreign exams and skills. So is of course the strictness of the administrative regulation of foreign labour and immigration policies in general. Furthermore a number of the instruments of relevance to promote internal labour migration will also be of relevance for cross-border labour migration.

V. Combining geographic mobility and income security within a country

The core issue here is, of course, how the right to unemployment insurance and social assistance is related to internal mobility within a country. Two aspects are of relevance here. First one can consider, whether voluntary mobility within a country will influence the eligibility for unemployment insurance or social assistance. This is probably rarely the case in a European context. The other issue is, whether the eligibility for especially unemployment insurance is related to obeying some rules concerning geographic mobility, either by having to accept a certain amount of daily commuting or by having to move more permanently to areas with more job vacancies.

VI. Combining cross-border geographic mobility and income security

Here the central question is of course that of the portability of unemployment insurance between countries. Two different issues arise: First one has to consider, what sort of unemployment benefits that are available is available to foreigners, when they become unemployed outside their home country. Will they be eligible for benefits similar to those of the home country or to those of the host country? For permanent migrants the latter will probably mostly be the case, but for persons involved in short-term migration or persons doing cross-border commuting this is of course a core issue for the motivation to become mobile.

The other issue has to do with the options for unemployed persons to look for work abroad, while being unemployed. Can they keep their right to unemployment benefits during job search abroad? In countries with rather generous levels of unemployment insurance, this is of coursed a core factor, when considering the cross-border mobility of those unemployed that are eligible for unemployment insurance.

VII. Combining geographic mobility and combination security within a country

Compared to the other forms of security, “combination security” covers a rather wide range of security arrangements including for instance maternity leave and childcare. Some of the arrangements will normally be under national legislation and therefore not influence geographic mobility within a country. But in cases where there are regional differences in the access to childcare institutions, such differences might have an influence of the willingness of families to move from one region to another.

VIII. Combining cross-border geographic mobility and combination security

Apart from the issues raised with respect to the previous, the access to combination security in the case of cross-border mobility will also be influenced by the legislation that regulates the options for family members to go along with the migrant worker to the host country. Will family members for instance have easy access to social security, health care and education in the host country?

To sum up, a number of mobility-oriented policies exist, which can be said to extend labour market flexibility in a spatial dimension – within-country and cross-border mobility – while at the same time providing various forms of security for workers. Still not all mobility-oriented policies fit nicely into the framework of flexicurity.

Nevertheless, the flexicurity framework provides a useful structure to assess the contribution of individual policies. It will inspire the policy recommendations to which we proceed in the next chapter, concluding this report.

5. POLICY RECOMMENDATIONS

5.1 Introduction

The core finding of this study regarding the extent of actual and optimum mobility from a labour market perspective is that, weighing the possible positive and negative economic and social externalities, geographic mobility is too low in Europe. From a long-term demographic perspective, as the population share of the age groups most inclined to migration will decline, pro-active geographic mobility raising individual propensities to migrate could serve to counteract falling mobility rates within an ageing Europe.

There is a twofold role of geographic mobility policies aimed at increased mobility rates: (i) enlarging the expected utility gains, and (ii) reducing mobility costs for the individual.

As for the assessment of EU and national policies, this study points at the crucial importance of the following policies to minimise labour market frictions at the national and the transnational level:

- Strengthening the institutional preconditions of mobility on the labour market
- Developing mobility-friendly educational policies
- Creating effective information and social networks
- Studying possibilities to adapt the Community legislation and administrative practices in the field of social security coordination to foster mobility
- Evaluating mobility-related policies properly

Worries about finding a suitable job are perceived as one of the key hurdles to geographic mobility. This establishes a need for flexible labour markets. An environment facilitating reallocation of labour, which exchanges job security for employment security, generally creates better opportunities for outsiders, including those coming from a distant labour market. In this context, combining flexibility and security according to the concept of flexicurity can be a viable solution. Indeed a flexicurity scheme adapted to the specific needs to cushion spatial flexibility – geographic mobility within countries and across borders – serves as a broad orientation for the formulation of our policy recommendations.

5.2 Strengthening the Institutional Preconditions for Mobility

As regards the reinforcement on geographic mobility, properly designed activation policies combining appropriate job-search monitoring enforcing mobility requirements and programmes furthering training and mobility might help reduce labour market imbalances. Activation raises mobility in a system with developed unemployment protection, thus countering potential disincentive effects of social benefits.

Hence, based on discussions in section 4.3 the following actions are recommended.

The role of active and passive labour market policies:

- Labour market policies can either inhibit or promote regional mobility. In order to ease labour market frictions between regions of high and low unemployment, Member States should assess the effects of existing policies and implement more mobility-oriented labour market policies. This involves, on the one hand, an evaluation and a potential revision of access to unemployment benefits and related mobility requirements. On the other hand, there is a need to develop mobility-supporting active labour market policy schemes. Unemployment benefits should be designed in a way that allows for and stimulates incentives for mobility but not for prolonged benefit dependency.[79]

- Start-up costs associated with mobility at the individual level could make it reasonable to compensate job-seekers through economic incentives to move within a country or across national borders. To avoid deadweight loss, these measures have to be targeted properly. An alternative could be to give selective financial support, i.e. only when the mobility can help to solve problems of labour shortage in another geographic location. This kind of selective forms for financial support for mobility has not been tried before and there is need for an investigation into this area before taking action.

The role of other labour market institutions:

- National labour market institutions influence the propensity of geographic mobility. Hence, in accordance with the flexicurity principle, EU Member States should assess the role of their labour market institutions in determining geographic mobility. Following the flexicurity approach it will be helpful to remove barriers to mobility.

- Furthermore, the European Commission and national authorities should assess the role of housing, child care infrastructure and other public or enterprise policies influencing the costs of mobility. Effective and targeted policies of this kind help generate combination security in the flexicurity framework.

[79] See also the discussion in OECD (2007b).

- Finally, the European Commission and the Member States should investigate and document the extent of possible negative side effects from mobility, e.g. brain drain issues, and, if such effects can be found, next identify solutions on how to ameliorate these potential negative effects.[80]

5.3 Developing Mobility-friendly Educational Policies

Our analysis of the hurdles to intra-EU mobility perceived by citizens underpins the hypothesis that language and cultural barriers are extremely important when explaining the limited level of geographic mobility in Europe. While the capacity of acculturation, a process of re-socialisation involving changes in attitudes, values and identification, is a rather difficult target for government intervention, this observation suggests two policy targets. First, promotion of language capacity could foster geographic mobility. The effect of language is direct and indirect. Directly, it reduces the language hurdle negatively associated with cross border mobility propensities. Indirectly, it appears to reduce cultural barriers preventing from migration. Second, promotion of education abroad could foster geographic mobility. The effect could work through both reducing language and cultural barriers.

Further, geographic mobility has been recognised to be a chain phenomenon – after the first move has been taken, additional moves become more likely. Thus, fostering mobility early in life, especially if combined with education, is a candidate for a good mobility policy.

Therefore, based on the discussions in section 4.4 the following actions are recommended:

Improve language skills:

- The capability of language learning is a crucial factor to facilitate cross-border mobility. Hence, Member States should put strong emphasis on creating language learning capacities. All pupils should learn at least one foreign language, preferably two, and Member States should also encourage adults to maintain improve their language skills.

- In a mid to long term perspective, upgrading of foreign language teaching at all levels of national education systems would greatly help the cause of mobility in Europe. More short-term action could consist of direct incentives to language improvement for future movers, in the form of EU–sponsored bonuses for language and culture courses (e.g., vouchers for applicants to jobs via the EURES portal).

[80] However, despite some public discussion, there is no evidence of hollowing out effects in particular in the new EU Member States. OECD (2007b) shows that the share of workers living abroad is still much higher in Ireland and Portugal than in any other EU member state including the new accession countries.

Strengthen exchange programmes:

- At the EU level, existing educational exchange programmes such as the Erasmus programme, the Grundtvig programme etc. are very relevant and efficient promoters of geographical mobility, as participation within the programmes tend to increase the probability for further mobility later in the life course of individuals. More young people, but also adults should therefore be encouraged and supported to make use of the existing programmes. This is of particular importance in sectors other than higher education such as schooling, vocational training and adult learning. For instance, initiatives promoting rotation schemes in association with vocational training or during apprenticeship may lay a basis for mobility for a larger share of the population. Hence, the European Commission should consider if the existing programmes could be further promoted.

- The European Commission and national authorities should also consider whether new programmes and funds – or adjustment of existing funds – are needed in order to reach learners at all levels. For instance, geographical mobility could be intensified as a key objective of policies supported by the European Social Fund and the European Globalisation Fund.

Invest in adult and vocational training:

- Member States should develop and implement lifelong learning strategies with a direct focus also on geographic mobility. Apart from language learning, one specific action could be to develop and support international job rotation networks allowing workers at all levels and in all sectors to experience a period of time at a work place in another EU country.

5.4 Creating Effective Information and Social Networks

The key mobility hurdle besides language and culture perceived by Europeans is related to worries about finding a – suitable – job. This observation points toward the necessity to support information and transparency of international job opportunities in order to establish an environment creating opportunities for mobility. The EURES network could play a crucial role in this context, but is characterised by some untapped potential so far. It can however be further developed to include many more of the vacancies announced in the countries in the EU from private employment services. It is difficult to assess the optimal level for a vacancy bank of this kind, but the issue must be investigated further.

But information on conditions and vacancies is not enough for a successful matching of job-seekers and vacancies. The employer must accept the job-seeker and a prerequisite for this is that the employer is given the possibility to assess the qualification of the job-seeker. In addi-

tion to fostering creation of internationally portable human capital, this demands facilitating recognition of skills, like through Europass adopted by the Commission in 2004.

Taking this at our starting point, the following actions are recommended:

Extend and improve the EURES network and Europass:

- EURES should continue improving its services, such as the quantity and quality of information on the portal as well as the numbers and expertise of local advisors. Specific attention should be directed towards potentially marginalised groups such as low skilled workers, long-term unemployed, women, older workers, and young workers.

- The European Commission should also direct specific attention to coordinate and create synergies between EURES activities and other public as well as market-based related services.

- The recent Europass initiative which aims to help workers make their skills and qualifications clearly and easily understood and recognised in the EU is very important. Hence, efforts in order to strengthen and develop this activity further must be recommended.

Raise awareness at all levels:

- The European Commission and national Member States should raise public awareness of the advantages of geographic mobility – not only at large scale (information campaigns, web portals etc.) but also in local communities encouraging and funding 'real people' with positive mobility experience to act as 'mobility ambassadors'.

- In order to promote and mainstream workers mobility within the EU a long list of various authorities and social partners should take responsibility. The European Commission should invest in a solid study and mapping of specific roles and responsibilities for different actors such as PES, national, regional and local authorities, and various other national and European social bodies. Results of this study in terms of specific responsibilities should be communicated to each social actor who should be committed to implement their responsibilities.

Ensure social integration of migrant workers:

- All EU Member States should prepare employers and community organizations to the vital task of social integration of migrant workers in local communities. It is clear that local communities play a key role in integrating migrant workers, but that they are often inadequately prepared to respond to their needs in several key areas.

- Regions seeking immigrant workers should provide an appropriate social, cultural and physical infrastructure, as well as a welcoming attitude towards newcomers. Attention should also be directed towards the integration of family members of migrant workers. As an example, local communities and social partners could organise cultural events for migrant workers and their families. Such events could include entertainment and multi-cultural foods as well as information on important community and employment issues.
- The European Commission should establish an effective mechanism for dialogue and coordination among Member States, NGOs, social partners and the Commission to develop and share good practice on successful integration strategies, such as induction programmes for new migrants.

Extend the knowledge base related to impacts of information activities:

- Information, awareness-raising and integration initiatives at all levels should be organised as pilot projects – allowing for valid documentation of the impact of various means.

5.5 Easing Mobility Barriers due to Diversity of National Systems

The persistence of national forms of labour market and housing market organization, welfare state and fiscal systems could constrain intra-EU mobility. Although our empirical evidence suggests that EU citizens may not generally perceive these as the most essential mobility barriers, harmonisation is certainly relevant in designing effective mobility policies. Legal, recognition, portability and access barriers in these areas yield mobility costs for the individual, reducing migration propensities.

Therefore, based on discussions in section 4.7 the following actions are recommended:

Reduce barriers within the field of social security:

- Despite significant achievements in the past, the European Commission should continue to address possible obstacles in the field of coordination of national social security regimes, particularly in view of new forms of geographic mobility such as short-term mobility, which develop and may cause difficulties when routine instruments, such as the Regulation on coordination of national social security schemes, are applied.

- Some definite progress is to be made regarding the issue of pension portability in the realm of preserving supplementary pension rights. Without proper solution of portability issues, the second employer-based pillar of the pension system could put a financial penalty on mobile workers changing jobs.

Improve transparency of qualifications:

- Deficits regarding the recognition of qualifications acquired in one EU Member State when moving to another EU Member State poses a major barrier to mobility and to suitable employment offers. This also holds for third-country migrants. The European Commission should therefore progress with the endeavour of defining training and education equivalents so that mobility across borders is facilitated.

- National Member States should check whether formal educational requirements constitute barriers to regional or cross-border mobility in some professions.

5.6 Evaluating Mobility-related Policies Properly

Research on regional mobility, but in particular the analysis of cross-border mobility in the EU is hampered by a shortage of appropriate data. It would be of great value to improve this information as prerequisite for promoting geographic mobility, especially in relation to regional or national demand for different professions. In this context it is very important to develop a system to identify matching problems in different regions in Europe. In addition, there is a serious lack of evaluation studies assessing existing mobility-relevant policies.

Hence, the following actions are recommended.

- The European Commission should further enhance the collection of valid data on geographic mobility and regional patterns of labour supply and demand.

- The European Commission should also stimulate the collection of valid data on the efficiency, fairness and impact of various mobility promoting initiatives such as large scale information campaigns, the educational exchange programmes, or the European web portals. At the same time, however, future policy making would benefit from an inventory of national mobility-related policies, in particular if they are evaluated in a proper way.

6. APPENDIX

Table A1: Stocks of Foreign Born by Origin and Destination Country for the EU-27 to EU-15 – 2006 (in thousands)

		EU15													
		Destination Countries													
	Country of Origin	AT	BE	DK	FI	EL	ES	FR	IE	IT	LU	NL	PT	SE	UK
EU 15	Austria	:	(2.40)	:	:	:	4.7	(5.2)	:	11.5	(0.6)	5.8	:	3.8	9.0
	Belgium	:	:	:	:	:	26.2	67.2	:	35.2	14.8	42.3	:	:	19.4
	Germany	107.8	58.7	14.5	(3.5)	20.3	119.2	151.1	10.7	156.7	9.5	85.0	23.3	24.0	199.4
	Denmark	:	:	:	:	:	(3.3)	10.2	:	2.7	(1.4)	(2.0)	:	24.4	15.3
	Spain	:	25.1	(2.1)	:	:	:	140.7	:	19.1	2.0	10.4	6.3	2.4	43.4
	Finland	:	:	(2.4)	:	:	:	(4.6)	:	(1.9)	(0.8)	:	:	123.8	8.7
	France	(4.7)	102.3	:	:	:	148.9	:	7.5	92.2	19.4	13.1	69.3	4.3	85.8
	Greece	(3.3)	9.6	:	:	:	(2.0)	(4.2)	:	13.6	(0.6)	4.6	:	6.1	24.5
	Ireland	:	:	:	:	:	7.2	8.6	:	:	(0.6)	(3.8)	:	:	240.9
	Italy	10.7	81.0	:	:	4.1	36.8	161.0	6.5	:	8.3	13.0	:	5.4	51.5
	Luxembourg	:	5.2	:	:	:	:	10.8	:	6.2	:	:	:	:	:
	Netherlands	(4.90)	72.7	4.0	:	:	28.2	24.4	:	10.4	2.8	:	:	4.2	39.3
	Portugal	:	16.7	:	:	:	57.1	463.1	:	4.4	37.7	11.8	:	:	55.4
	Sweden	:	:	16.0	27.4	:	7.9	(3.9)	:	5.2	(0.8)	(2.2)	:	:	18.7
	UK	6.4	16.4	9.6	:	6.5	114.5	55.5	24.4	39.1	3.4	31.8	4.7	12.7	:
EU 12	Bulgaria	7.4	(3.8)	:	:	26.9	139.6	15.0	:	17.3	:	(2.8)	:	4.5	20.4
	Cyprus	:	:	:	:	10.6	:	:	:	:	:	:	:	:	57.6
	Czech Rep.	25.5	:	:	.	:	:	:	:	8.9	:	(3.8)	:	5.6	21.3
	Estonia	:	:	:	7.4	:	:	:	:	:	:	.	:	:	:
	Hungary	22.3	:	:	:	:	:	:	:	7.1	:	4.1	:	9.4	8.8
	Lithuania	:	:	:	:	:	12.4	.	:	:	:	(1.5)	:	:	39.1
	Latvia	:	:	:	:	:	:	:	:	:	:	.	:	:	12.4
	Malta	:	:	:	:	:	:	:	:	:	:	.	:	:	22.2
	Poland	51.6	20.4	5.1	:	16.0	36.0	47.2	:	69.2	(1.2)	21.7	:	35.6	186.8
	Romania	38.3	10.6	(2.20)	:	17.5	446.3	44.4	:	296.4	:	8.8	11.8	10.4	15.3
	Slovenia	9.4	:	:	:	:	:	:	:	9.1	:	:	:	:	14.1
	Slovakia	13.7	:	:	:	:	4.7	(4.4)	:	3.9	:	:	:	:	22.6
	EU 15 avail.	**146.9**	**397.8**	**54.7**	**38.0**	**38.6**	**557.2**	**1110.4**	**49.1**	**399.2**	**102.6**	**227.9**	**110.2**	**360.3**	**812.4**
	EU 12 avail.	**170.2**	**38.5**	**12.8**	**11.3**	**74.6**	**642.3**	**118.3**	**:**	**414.7**	**3.6**	**45.9**	**14.4**	**71.5**	**423.4**
	EU 27 avail.	**317.1**	**436.4**	**67.6**	**49.3**	**113.2**	**1199.5**	**1228.7**	**49.1**	**813.8**	**106.2**	**273.8**	**124.7**	**431.8**	**1235.8**

Source: Eurostat, LFS, spring data. Note: Data in brackets lack reliability due to small sample size. The symbol ":" is used when data is either not available or extremely unreliable. Information on the stock of foreign born for Germany is not provided in the LFS.

Table A2: Stocks of Foreign Born by Origin and Destination Country from the EU-27 to EU-12 – 2006 (in thousands)

		EU12										
		Destination Countries										
	Country of Origin	BG	CY	CZ	EE	HU	LV	LT	MT	PL	SI	SK
EU 15	Austria	:	:	:	:	:	:	:	:	:	(1.1)	:
	Belgium	:	:	:	:	:	:	:	:	:	.	:
	Germany	0.1	(0.7)	(3.8)	(1.6)	8.0	:	:	:	26.4	7.2	:
	France	:	:	:	:	:	:	:	:	(6.3)	:	:
	Greece	0.3	8.4	:	:	:	:	:	:	:	:	:
	Ireland	:	:	:	:	:	:	:	:	:	:	:
	Italy	:	:	:	:	:	:	:	:	:	(0.9)	:
	Netherlands	0.1	:	:	:	:	:	:	:	:	:	:
	Portugal	0.1	:	:	:	:	:	:	:	:	:	:
	UK	0.3	15.7	:	:	:	:	:	3.5	:	:	:
EU 12	Bulgaria	:	3.3	:	:	:	:	:	:	:	:	:
	Cyprus	0.5	:	:	:	:	:	:	:	:	:	:
	Czech Rep.	0.2	:	:	:	:	:	:	:	:	:	19.3
	Estonia	:	:	:	:	:	2.4	:	:	:	:	:
	Hungary	:	:	:	:	:	:	:	:	:	(2.3)	(2.3)
	Latvia	:	:	:	3.3	:	:	(6.3)	:	:	:	:
	Lithuania	0.1	:	:	:	:	11.9	:	:	10.5	:	:
	Malta	.	:	:	:	:	:	:	:	:	:	:
	Poland	0.1	(1.1)	9.9	:	:	:	:	:	:	:	:
	Romania	0.2	3.6	:	:	61.3	:	:	:	:	:	:
	Slovenia	:	:	:	:	:	:	:	:	:	:	:
	Slovakia	0.1	:	75.0	:	7.1	:	:	:	:	:	:
	EU 15 avail.	**0.9**	**24.9**	**3.8**	**1.6**	**8.0**	**:**	**:**	**3.5**	**32.7**	**9.2**	**:**
	EU 12 avail.	**1.1**	**8.0**	**84.8**	**3.3**	**68.3**	**14.3**	**6.3**	**0.0**	**10.5**	**2.3**	**21.6**
	EU 27 avail.	**2.0**	**32.9**	**88.6**	**4.9**	**76.3**	**14.3**	**6.3**	**3.5**	**43.2**	**11.5**	**21.6**

Source: Eurostat, LFS, spring data. Note: Data in brackets lack reliability due to small sample size. The symbol ":" is used when data is either not available or extremely unreliable.

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Table A3: Share of Active Working Age EU-27 and Non-EU-27 Foreign Born Residents in an EU-27 Country Relative to the Total Active Working Age Population of Country of Residence, 1995-2006 (percentage)

Country	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
EU-15												
AT	11.4	12.2	12.1	13.0	12.2	12.1	13.2	13.2	13.9	13.5	14.5	15.4
BE	10.0	10.4	10.5	10.8	11.2	11.5	12.2	12.4	12.8	12.7	13.7	13.5
DK	3.8	4.9	5.5	5.6	5.5	5.8	5.4	6.6	7.1	7.5	7.1	6.8
EL	4.0	4.2	4.6	5.1	5.6	5.3	5.7	6.4	6.6	7.8	8.0	7.5
ES	2.2	2.6	2.7	2.9	3.3	4.2	5.4	6.8	8.4	9.9	11.8	13.6
FI	:	1.7	1.8	1.8	2.2	0.5	2.2	2.4	2.7	2.8	2.9	3.3
FR	11.9	12.0	12.1	11.9	12.1	12.1	12.3	12.4	11.3	11.6	11.6	11.5
IE	:	:	:	7.0	7.0	7.5	8.0	8.8	10.2	9.0	11.3	:
IT	:	:	:	:	:	:	:	:	:	:	:	7.6
LU	34.2	34.8	35.5	36.2	36.9	38.5	37.8	37.7	39.4	40.8	40.3	40.4
NL	:	:	:	:	10.5	13.2	12.3	13.1	12.6	13.0	13.1	12.8
PT	:	:	:	:	4.7	5.3	5.8	5.8	6.2	6.9	7.2	7.4
SE	:	:	9.0	9.2	11.5	12.5	12.2	12.7	13.1	13.2	13.4	14.9
UK	7.8	7.6	8.5	8.8	8.9	9.1	9.4	9.7	10.2	10.5	11.0	11.8
EU-15 avail.	**10.6**	**10.1**	**10.2**	**10.2**	**10.1**	**10.6**	**10.9**	**11.4**	**11.9**	**12.2**	**12.9**	**12.9**
EU-12												
CY	:	:	:	:	10.3	11.2	12.3	13.1	14.1	15.7	16.8	17.3
CZ	:	:	:	:	:	:	:	2.0	2.3	2.3	1.9	1.9
EE	:	:	:	20.1	19.2	19.7	18.8	17.7	16.4	15.1	13.8	14.3
HU	:	:	:	:	:	:	1.4	1.3	1.7	1.9	1.8	1.7
LT	:	:	:	4.9	6.9	6.0	6.1	5.8	5.1	3.9	3.4	4.1
LV	:	:	:	:	:	:	:	:	:	12.3	11.5	10.6
MT	:	:	:	:	:	:	:	:	:	:	5.1	4.6
PL	:	:	:	:	:	:	:	:	:	0.7	0.7	0.5
RO	:	:	:	:	:	:	:	:	:	0.1	0.1	(0.1)
SI	:	:	:	:	:	:	:	7.3	7.1	7.7	8.1	7.5
SK	:	:	:	:	:	:	:	:	1.0	1.1	0.9	0.7
EU-12 avail.	:	:	:	**12.5**	**12.1**	**12.3**	**9.7**	**7.9**	**6.8**	**6.1**	**5.8**	**5.8**
EU-27 avail.	**10.6**	**10.1**	**10.2**	**11.4**	**11.1**	**11.4**	**10.3**	**9.6**	**9.4**	**9.2**	**9.4**	**9.3**

Source: Eurostat, LFS, spring data. Note: Data in brackets lack reliability due to small sample size. The symbol ":" is used when data is either not available or extremely unreliable.

Table A4: Share of Active Working Age EU-27 and Non-EU-27 Foreign Nationals Resident in Another EU-27 Country Relative to the Total Active Working Age Population of Country of Residence, 1995-2006 (percentage)

Country	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
EU-15												
AT	9.1	9.5	9.6	9.6	9.2	9.4	9.7	8.9	9.9	8.7	10.7	11.0
BE	8.8	9.2	9.0	9.2	10.0	9.3	9.4	9.0	8.8	8.7	9.1	9.0
CZ	:	:	0.4	0.5	0.5	0.5	0.6	1.0	1.7	0.7	0.7	0.9
DE	9.2	9.7	9.7	9.6	9.6	9.7	9.7	9.9	10.0	10.1	10.5	8.3
DK	2.4	2.8	3.3	3.4	3.3	3.5	3.3	3.8	4.0	4.0	4.0	3.9
EL	1.5	1.5	1.9	3.1	3.3	3.2	3.7	4.5	5.1	5.8	6.1	6.0
ES	0.8	1.2	1.3	1.5	1.9	2.6	3.7	5.0	6.6	8.2	9.8	11.5
FI	0.8	0.9	1.2	1.1	1.3	1.4	1.4	1.5	1.7	1.7	1.6	1.8
FR	6.7	6.7	6.7	6.7	6.7	6.6	6.8	6.9	5.7	5.9	5.6	6.1
IE	:	:	:	3.2	3.2	3.7	4.5	5.3	6.7	6.6	7.7	9.4
IT	:	:	:	:	:	:	:	:	:	:	:	5.2
LU	35.7	36.5	37.4	38.3	39.2	40.4	40.5	40.0	41.5	41.7	42.1	42.3
NL	:	:	:	:	4.7	4.8	4.7	4.5	4.5	4.5	4.4	4.3
PT	:	:	:	:	1.3	2.0	2.1	2.3	2.5	2.8	3.2	3.4
SE	:	:	5.6	5.5	5.1	5.8	5.5	5.5	5.4	5.1	5.7	5.2
UK	4.0	:	4.3	4.6	4.6	4.9	5.2	5.4	5.6	6.0	6.3	6.8
EU-15 avail.	**7.9**	**8.7**	**7.5**	**7.4**	**6.9**	**7.2**	**7.4**	**7.6**	**8.0**	**8.0**	**8.5**	**8.4**
EU-12												
BG	:	:	:	:	:	:	0.3	0.2	0.2	0.2	0.2	0.2
CY	:	:	:	:	9.7	10.1	10.0	10.2	11.1	12.5	13.5	13.5
CZ			0.4	0.5	0.5	0.5	0.6	1.0	1.6	0.7	0.7	0.9
EE	:	:	:	33.8	34.4	35.7	20.0	19.8	19.8	20.6	18.7	17.1
HU	:	:	:	:	:	:	0.5	0.5	0.5	0.7	0.7	0.7
LT	:	:	:	1.0	1.0	0.8	0.6	0.8	0.8	0.6	0.6	0.6
LV	:	:	:	:	:	:	:	:	:	0.8	0.7	0.8
MT	:	:	:	:	:	:	:	:	:	:	3.1	2.9
PL	:	:	:	:	:	:	:	:	:	0.1	0.2	0.2
RO	:	:	:	:	:	:	:	:	:	0.1	0.1	0.2
SI	:	:	:	:	:	:	:	0.4	0.3	0.4	0.4	0.4
SK	:	:	:	:	:	:	:	:	0.2	0.2	0.2	0.1
EU-12 avail.	:	:	:	**11.8**	**11.4**	**11.8**	**5.3**	**4.7**	**4.3**	**3.4**	**3.2**	**3.1**
EU-27 avail.	**7.9**	**8.7**	**7.5**	**9.6**	**9.2**	**9.5**	**6.3**	**6.1**	**6.2**	**5.7**	**5.9**	**5.8**

Source: Eurostat, LFS, spring data. Note: Data in brackets lack reliability due to small sample size. The symbol ":" is used when data is either not available or extremely unreliable.

Table A5: Share of Active Working Age EU-15 Foreign Nationals Resident in Another EU-27 Country Relative to the Total Active Working Age Population of Country of Residence, 1995-2006 (percentage)

Country	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
EU-15												
AT	1.2	1.4	1.3	1.4	1.3	1.6	1.6	1.5	2.0	1.8	2.1	2.3
BE	5.4	5.9	5.7	5.7	6.1	6.0	6.0	5.8	5.5	5.9	6.1	6.0
DE	2.8	2.7	2.7	2.7	2.7	2.7	2.8	2.8	2.8	2.7	3.0	2.3
DK	2.7	2.7	2.7	2.6	2.6	2.7	2.7	2.7	2.7	2.6	:	:
EL	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.3	0.3	0.3
ES	0.3	0.5	0.6	0.6	0.7	0.8	0.9	1.0	1.0	1.2	1.3	1.6
FI	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4
FR	2.4	2.3	2.2	2.1	2.2	2.2	2.3	2.3	1.9	2.1	2.0	2.1
IE	:	:	:	2.7	2.8	2.8	3.1	3.2	3.5	3.4	3.1	:
IT	:	:	:	:	:	:	:	:	:	:	0.3	0.3
LU	32.8	32.8	33.7	34.3	34.6	35.5	35.9	:	37.3	37.1	39.9	39.6
NL	:	:	:	:	1.8	1.6	1.6	1.6	1.5	1.5	1.5	1.5
PT	:	:	:	:	0.4	0.4	0.3	0.3	0.3	0.4	0.5	0.4
SE	:	:	2.0	1.9	1.9	2.3	2.3	2.2	2.2	2.3	2.3	2.2
UK	1.7	1.7	1.7	1.8	1.8	1.7	1.8	1.8	1.8	1.9	1.8	1.7
EU-15 avail.	**5.0**	**5.0**	**4.8**	**4.7**	**4.2**	**4.3**	**4.4**	**5.6**	**4.5**	**4.5**	**4.4**	**4.4**
EU-12												
CY	:	:	:	:	5.2	4.7	4.4	4.6	4.9	5.6	6.3	6.6
CZ	:	:	:	(0.02)	(0.02)	(0.04)	(0.02)	(0.05)	0.1	0.08	(0.04)	0.1
EE	:	:	:	1.06	1.09	1.03	:	:	:	:	0.8	0.4
HU	:	:	:	:	:	:	0.07	0.06	0.06	0.07	0.1	0.1
MT	:	:	:	:	:	:	:	:	:	:	1.3	1.2
PL	:	:	:	:	:	:	:	:	:	(0.02)	(0.03)	(0.04)
RO	:	:	:	:	:	:	:	:	:	0.03	:	:
SK	:	:	:	:	:	:	:	:	:	:	(0.07)	0.1
EU-12 avail.	:	:	:	**0.5**	**2.1**	**1.9**	**1.5**	**1.6**	**1.7**	**1.2**	**1.2**	**1.3**
EU-27 avail.	**5.0**	**5.0**	**4.8**	**2.6**	**3.2**	**3.1**	**3.0**	**3.6**	**3.1**	**2.9**	**2.8**	**2.9**

Source: Eurostat, LFS, spring data. Note: Data in brackets lack reliability due to small sample size. The symbol ":" is used when data is either not available or extremely unreliable.

Table A6: Share of Active Working Age Non-EU-15 Foreign Nationals Resident in Another EU-27 Country Relative to the Total Active Working Age Population of Country of Residence, 1995-2006 (percentage)

Country	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
EU-15												
AT	7.9	8.1	8.3	8.2	7.9	7.8	8.1	7.4	7.9	7.0	7.5	7.7
BE	3.5	3.3	3.3	3.5	3.9	3.4	3.4	3.2	3.3	2.8	2.9	3.0
DE	6.5	7.0	7.0	6.9	7.0	7.0	7.0	7.2	7.3	7.5	7.0	5.5
DK	1.5	2.0	2.5	2.7	2.5	2.6	2.4	2.8	3.0	3.1	2.8	2.7
EL	1.2	1.3	1.7	2.9	3.0	3.0	3.4	4.4	4.9	5.6	5.4	5.3
ES	0.5	0.7	0.7	0.9	1.2	1.7	2.7	3.9	5.6	7.0	8.4	9.9
FI	0.6	0.8	1.0	0.9	1.1	1.2	1.1	1.2	1.3	1.3	1.0	1.1
FR	4.3	4.4	4.5	4.5	4.5	4.4	4.5	4.6	3.8	3.8	3.6	3.9
IE	:	:	:	0.5	0.4	0.9	1.4	2.1	3.2	3.3	2.8	:
IT	:	:	:	:	:	:	:	:	:	:	:	4.7
LU	3.0	3.7	3.7	4.0	4.6	4.9	4.6	5.3	4.2	4.5	3.4	3.7
NL	:	:	:	:	2.9	3.2	3.1	3.0	3.0	3.1	2.8	2.6
PT	:	:	:	:	0.9	1.7	1.7	2.0	2.1	2.4	2.7	3.0
SE	:	:	3.6	3.5	3.3	3.5	3.2	3.3	3.1	2.9	3.2	2.8
UK	2.4	2.3	2.6	2.9	2.8	3.2	3.4	3.6	:	4.1	4.1	4.5
EU-15 avail.	**3.1**	**3.4**	**3.5**	**3.4**	**3.3**	**3.5**	**3.6**	**3.9**	**4.1**	**4.2**	**4.1**	**4.3**
EU-12												
BG	:	:	:	:	:	:	0.3	0.2	0.2	0.2	0.1	0.2
CY	:	:	:	:	4.6	5.4	5.6	5.6	6.2	6.8	7.4	7.0
CZ	:	:	0.4	0.5	0.5	0.5	0.5	0.9	1.5	0.6	0.4	0.5
EE	:	:	:	32.8	33.3	34.7	20.0	19.8	19.7	20.5	17.9	16.7
HU	:	:	:	:	:	:	0.4	0.5	0.5	0.6	0.6	0.5
LT	:	:	:	1.0	1.0	0.8	0.6	0.8	0.8	0.6	0.5	0.6
LV	:	:	:	:	:	:	:	:	:	0.8	0.6	0.7
MT	:	:	:	:	:	:	:	:	:	.	1.8	1.7
PL	:	:	:	:	:	:	:	:	:	0.1	0.1	0.2
RO	:	:	:	:	:	:	:	:	:	(0.07)	(0.06)	0.1
SI	:	:	:	:	:	:	:	(0.41)	(0.31)	(0.39)	(0.38)	(0.39)
SK	:	:	:	:	:	:	:	:	:	0.2	(0.1)	:
EU-12 avail.	:	:	**0.4**	**11.4**	**9.8**	**10.3**	**4.6**	**4.0**	**4.2**	**2.8**	**2.9**	**2.6**
EU-27 avail.	**3.1**	**3.4**	**2.0**	**7.4**	**6.6**	**6.9**	**4.1**	**3.9**	**4.1**	**3.5**	**3.5**	**3.5**

Source: Eurostat, LFS, spring data. Note: Data in brackets lack reliability due to small sample size. The symbol ":" is used when data is either not available or extremely unreliable.

Table A7: Migration inflows from the EU-15 to the EU-27
(Share of the population which has moved from another EU-15 country since the year before relative to the total population of the country of residence, 1995-2006, in percent)

Country	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
EU-15												
AT	0.1	0.1	0.2	:	0.3	0.3	0.3	0.3	0.3	:	0.5	0.2
BE	0.1	0.1	0.1	0.1	0.1	:	:	0.1	0.1	0.2	0.2	0.2
DE	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
DK	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.3	0.1
EL	0.1	0.1	(0.1)	0.1	(0.04)	(0.1)	0.1	(0.1)	(0.03)	0.1	0.1	(0.03)
ES	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2
FI	:	:	:	0.1	(0.1)	(0.1)	(0.1)	:	:	:	0.1	:
FR	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	:	:	:	:
IE	:	:	:	:	:	:	:	:	:	:	:	:
IT	0.1	0.1	0.1	0.1	0.1	:	0.1	0.1	0.1	:	:	:
LU	1.1	0.9	0.7	1.2	:	0.7	0.7	0.4	:	(0.3)	(0.4)	0.7
NL	:	:	:	:	0.2	:	:	:	:	:	:	:
PT	:	:	:	:	0.1	(0.1)	(0.1)	0.2	0.1	(0.1)	(0.1)	(0.1)
SE	:	:	:	:	:	:	:	:	:	:	:	:
UK	0.3	:	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
EU-15 avail.	**0.2**	**0.2**	**0.1**	**0.3**	**0.1**	**0.2**	**0.2**	**0.1**	**0.1**	**0.2**	**0.2**	**0.1**
EU-12												
CY	:	:	:	:	0.8	0.9	1.4	0.9	1.7	1.4	1.4	1.3
CZ	:	:	:	:	:	:	:	0.1	0.1	0.1	0.1	0.1
EE	:	:	:	:	:	(0.1)	:	:	:	:	:	0.1
HU	:	:	:	:	:	.	:	:	:	(0.1	:	(0.1
LT	:	:	:	:	:	:	(0.3)	(0.3)	0.5	0.5	0.5	0.5
LV	:	:	:	:	:	:	:	:	:	:	:	(0.2)
MT	:	:	:	:	:	:	:	:	:	:	:	:
PL	:	:	:	:	:	:	:	:	:	(0.1)	(0.1)	(0.1)
RO	:	:	:	:	:	:	:	:	:	:	0.1	0.1
SI	:	:	:	:	:	:	:	:	:	:	:	:
SK	:	:	:	:	:	:	:	:	(0.1)	:	(0.1)	(0.1)
EU-12 avail.	:	:	:	:	**0.5**	**0.5**	**0.6**	**0.3**	**0.5**	**0.4**	**0.3**	**0.3**
EU-27 avail.	**0.2**	**0.2**	**0.1**	**0.3**	**0.3**	**0.3**	**0.4**	**0.2**	**0.3**	**0.3**	**0.3**	**0.2**

Source: Eurostat, LFS, spring data. Note: Data in brackets lack reliability due to small sample size. The symbol ":" is used when data is either not available or extremely unreliable.

Table A8: Migration inflows from Non-EU-15 to the EU-27
(Share of the population which has moved from another non-EU-15 country since the year before relative to the total population of the country of residence, 1995-2006, in percent)

Country	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
EU-15												
AT	0.3	0.1	0.3	0.2	0.3	0.3	0.2	0.3	0.2	0.4	0.2	0.2
BE	(0.1)	(0.1)	(0.1)	(0.1)	:	:	:	0.1	0.1	0.2	0.1	0.1
DE	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2
DK	0.3	0.4	0.2	0.2	0.2	0.3	0.3	0.2	0.1	0.2	0.3	0.3
EL	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	(0.04)
ES	0.03	0.04	0.1	0.1	0.1	0.1	0.4	0.4	0.4	0.4	0.4	0.5
FI	:	:	:	0.2	:	:	:	(0.1)	:	:	:	:
FR	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	:	:	:	:
IE	:	:	:	:	:	:	:	:	:	:	:	:
IT	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1
LU	:	(0.2)	:	(0.2)	:	(0.2)	:	(0.2)	:	:	:	:
NL	:	:	:	:	0.4	:	:	:	:	:	:	(0.1)
PT	:	:	:	:	(0.1)	0.1	0.2	0.4	0.2	0.1	0.2	0.2
SE	:	:	:	:	:	:	:	:	:	:	:	0.1
UK	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
EU-15 avail.	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**
EU-12												
CY	:	:	:	:	1.1	1.7	1.7	1.7	1.7	1.8	1.5	1.7
CZ	:	:	:	:	:	:	:	0.1	0.1	0.1	0.1	0.1
HU	:	:	:	:	:	:	0.1	0.1	(0.1)	0.1	:	(0.1)
LT	:	:	:	:	:	:	(0.2)	:	(0.3)	(0.2)	:	:
PL	:	:	:	:	:	:	:	:	:	(0.04)	(0.03)	(0.02)
RO	:	:	:	:	:	:	:	:	:	:	(0.02)	:
SK	:	:	:	:	:	:	:	:	:	(0.1)	:	:
EU-12 avail.	:	:	:	:	**1.1**	**1.7**	**0.7**	**0.5**	**0.5**	**0.4**	**0.3**	**0.3**
EU-27 avail.	**0.2**	**0.2**	**0.2**	**0.2**	**0.6**	**1.0**	**0.4**	**0.4**	**0.3**	**0.3**	**0.2**	**0.2**

Source: Eurostat, LFS, spring data. Note: Data in brackets lack reliability due to small sample size. The symbol ":" is used when data is either not available or extremely unreliable.

Table A9: Regional Mobility Rates (NUTS 2 regions)
(Percent of population which has moved residence within the country from one NUTS 2 region to another since the year before, 1995-2006)

Country	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
EU15												
AT	:	1.0	:	:	:	:	:	1.1	0.8	1.2	0.6	0.7
BE	0.9	0.9	0.9	0.9	1.4	1.7	:	:	:	:	1.7	1.6
CZ	:	:	:	:	:	:	:	0.5	0.8	0.8	0.7	0.6
DE	1.4	1.2	1.4	1.2	1.3	1.4	1.3	:	1.3	1.2	1.5	1.3
EL	0.5	0.5	0.4	0.6	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2
ES	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.5	0.6	0.7	0.9	1.0
FI	:	:	:	1.3	1.1	1.0	1.0	1.0	0.9	0.9	1.1	1.0
FR	1.8	1.7	1.8	1.9	1.8	2.1	2.0	2.0	:	:	:	1.7
IE	1.8	2.0	2.4	:	:	:	:	:	:	:	:	:
IT	0.4	0.4	0.6	1.2	1.0	:	0.5	0.6	0.4	0.2	0.2	0.2
LU	1.1	:	:	:	:	:	:	:	:	:	:	:
NL	1.6	1.0	1.1	2.0	1.9	:	:	:	:	:	:	:
PT	1.2	1.3	1.2	0.5	0.5	0.5	0.6	0.8	0.6	0.5	0.5	0.5
SE	:	2.0	1.9	1.7	1.7	1.9	2.5	1.9	1.7	1.6	1.6	1.6
UK	1.6	:	:	:	2.2	:	2.1	2.1	2.0	2.0	1.9	1.9
EU-15 avail.	**1.1**	**1.1**	**1.2**	**1.2**	**1.2**	**1.2**	**1.2**	**1.1**	**1.1**	**1.0**	**1.0**	**1.0**
EU-12												
BG	:	:	:	:	:	:	:	:	:	:	:	0.2
HU	:	:	:	:	0.4	0.5	0.4	0.4	0.4	0.5	0.3	0.4
PL	:	:	:	:	:	:	0.4	0.4	0.3	0.3	0.3	0.2
RO	:	:	:	:	:	:	:	:	:	0.2	0.2	0.1
SK	:	:	:	:	:	:	:	:	0.2	0.2	0.2	0.2
EU-12 avail.	:	:	:	:	**0.4**	**0.5**	**0.4**	**0.4**	**0.3**	**0.3**	**0.3**	**0.2**
EU-27 avail.	**1.1**	**1.1**	**1.2**	**1.2**	**0.8**	**0.8**	**0.9**	**0.9**	**0.7**	**0.6**	**0.6**	**0.5**

Source: Eurostat, LFS, spring data. Note: Data in brackets lack reliability due to small sample size. The symbol ":" is used when data is either not available or extremely unreliable.

Table A10: Cross-Border Commuting Rates to EU-15
(Percent of working population which works in a different EU-15 country from the one that resides, 1995-2006)

Country	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
EU-15												
AT	0.7	0.6	0.9	0.7	0.9	0.8	0.7	0.7	0.9	0.6	0.8	0.6
BE	1.6	1.5	1.9	2.0	2.0	1.7	2.2	2.3	2.0	2.1	2.5	2.2
DE	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
DK	0.2	(0.1)	(0.1)	0.1	(0.1)	(0.1)	:	:	:	(0.1)	:	0.1
ES	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1
FI	:	(0.1)	(0.2)	:	(0.1)	(0.1)	(0.1)	:	:	:	:	:
FR	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.7	0.7	0.8	0.6	0.7
IE	:	:	:	:	:	:	:	:	:	:	0.4	:
IT	0.1	0.2	0.2	:	:	0.2	0.2	0.1	0.1	0.1	0.1	0.1
LU	(0.7)	(0.6)	(0.7)	(0.7)	(0.7)	1.0	1.0	(0.7)	(0.6)	0.8	(0.6)	(0.8)
NL	:	:	:	:	0.3	(0.1)	0.2	0.2	0.4	0.3	0.4	0.4
SE	:	:	:	:	:	:	:	:	:	:	0.4	0.5
UK	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
EU-15 avail.	**0.4**	**0.4**	**0.5**	**0.5**	**0.5**	**0.4**	**0.5**	**0.5**	**0.4**	**0.5**	**0.5**	**0.5**
EU-12												
BG	:	:	:	:	:	:	(0.2)	0.2	0.3	0.3	0.3	0.3
CZ	:	:	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.4	0.5
EE	:	:	:	:	:	(0.2)	:	(0.3)	0.5	0.8	0.7	1.4
HU	:	:	:	:	:	:	:	:	0.4	0.4	0.5	0.6
LT	:	:	:	:	:	:	0.7	1.1	1.0	1.3	1.2	1.5
LV	:	:	:	:	:	:	:	:	:	0.8	0.7	1.3
PL	:	:	:	:	:	:	:	:	:	0.2	0.3	0.5
RO	:	:	:	:	:	:	:	:	:	0.3	0.4	0.4
SI	:	:	:	:	:	:	:	0.8	0.7	0.8	0.8	0.8
SK	:	:	:	:	:	:	:	:	1.0	1.3	:	:
EU-12 avail.	:	:	**0.3**	**0.2**	**0.2**	**0.2**	**0.4**	**0.5**	**0.6**	**0.6**	**1.1**	**1.4**
EU-27 avail.	**0.4**	**0.4**	**0.4**	**0.3**	**0.3**	**0.3**	**0.4**	**0.5**	**0.5**	**0.6**	**0.8**	**0.9**

Source: Eurostat, LFS, spring data. Note: Data in brackets lack reliability due to small sample size. The symbol ":" is used when data is either not available or extremely unreliable.

Table A11: Cross-Border Commuting Rates to Non-EU-15 (Percent of working population which works in a different non EU-15 country from the one that resides, 1995-2006)

Country	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
EU-15												
AT	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.2	0.4	0.6	0.5	0.4
BE	0.1	(0.1)	(0.1)	0.1	:	0.1	0.1	:	(0.1)	(0.1)	(0.1)	(0.1)
DE	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
DK	:	(0.1)	:	(0.1)	(0.1)	:	:	:	(0.1)	(0.1)	(0.1)	(0.1)
ES	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
FR	0.7	0.7	0.8	0.7	0.7	0.7	0.8	0.8	0.4	0.4	0.3	0.4
IT	0.3	0.3	0.3	:	:	0.4	0.3	0.3	0.3	0.2	0.3	0.3
NL	:	:	:	:	:	:	(0.1)	:	:	:	:	:
PT	:	:	:	:	:	:	:	:	:	:	:	:
SE	:	:	:	:	:	:	:	:	:	:	0.4	0.4
UK	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2
EU-15 avail.	**0.2**	**0.2**	**0.3**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**
EU-12												
CZ	:	:	0.1	0.2	0.2	0.1	0.1	0.2	0.3	0.1	0.1	0.1
EE	:	:	:	:	:	:	(0.4)	(0.3)	:	(0.3)	:	(0.3)
HU	:	:	:	:	:	:	:	:	:	0.1	(0.1)	:
LT	:	:	:	:	:	:	(0.4)	(0.4)	0.6	:	0.5	(0.3)
PL	:	:	:	:	:	:	:	:	:	(0.1)	:	(0.1)
RO	:	:	:	:	:	:	:	:	:	0.1	0.1	0.1
SI	:	:	:	:	:	:	:	(0.3)	(0.2)	(0.1)	.	(0.1)
SK	:	:	:	:	:	:	:	:	2.0	3.3	:	:
EU-12 avail.	:	:	**0.1**	**0.2**	**0.2**	**0.1**	**0.3**	**0.3**	**0.8**	**0.6**	**0.2**	**0.2**
EU-27 avail.	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.3**	**0.2**	**0.5**	**0.4**	**0.2**	**0.2**

Source: Eurostat, LFS, spring data. Note: Data in brackets lack reliability due to small sample size. The symbol ":" is used when data is either not available or extremely unreliable.

Table A12: Regional Commuting Rates (NUTS 2 regions)
(Percent of working population which works in a different NUTS 2 region from the one that resides)

Country	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
EU15												
AT	20.1	8.3	15.4	15.1	14.7	14.2	15.0	9.0	9.8	15.3	12.0	11.1
BE	18.5	18.7	18.9	21.4	21.2	21.0	21.2	21.8	21.6	20.8	21.6	21.7
DE	:	13.0	13.9	11.2	11.8	23.8	12.5	11.6	12.4	:	12.2	11.9
EL	:	:	:	:	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2
ES	1.0	1.0	1.1	1.3	1.3	1.4	1.4	1.5	1.5	1.5	2.0	2.2
FI	3.0	2.9	3.0	3.1	2.7	2.8	2.8	2.6	2.5	2.7	2.8	2.9
FR	:	:	:	10.4	10.3	10.7	10.9	11.3	6.2	6.4	6.3	7.0
IE	:	:	:	:	:	:	:	3.4	2.1	1.6	2.4	:
IT	5.2	5.1	8.7	:	:	:	:	:	:	:	:	:
LU	:	:	:	:	:	(0.6)	(0.7)	(0.5)	(0.4)	(0.4)	(0.4)	(0.6)
NL	7.7	7.9	8.3	8.4	8.9	:	14.9	12.8	11.5	11.8	12.5	13.3
PT	1.7	1.6	1.9	1.9	2.3	3.0	3.2	3.2	3.0	3.4	3.5	3.5
SE	:	:	:	:	:	:	:	:	:	:	6.6	6.0
EU-15 avail.	**8.2**	**7.3**	**8.9**	**9.1**	**8.1**	**8.6**	**8.3**	**7.1**	**6.5**	**6.4**	**6.9**	**7.3**
EU-12												
BG	:	:	:	:	:	0.7	1.2	1.5	1.8	1.7	1.7	1.6
CZ	:	:	:	:	:	4.4	4.7	4.3	4.8	4.6	4.7	5.2
HU	:	:	:	2.6	2.8	3.1	3.6	3.9	3.8	4.1	4.3	4.4
PL	:	:	:	:	:	:	:	:	:	1.4	1.7	1.7
RO	:	:	:	:	:	:	:	:	:	0.9	0.9	1.0
SK	:	:	:	5.6	5.2	5.5	6.5	6.8	7.1	7.9	8.9	10.1
EU-12 avail.				**4.1**	**4.0**	**3.4**	**4.0**	**4.1**	**4.4**	**3.4**	**3.7**	**4.0**
EU-27 avail.	**8.2**	**7.3**	**8.9**	**6.6**	**6.1**	**6.0**	**6.1**	**5.6**	**5.4**	**4.9**	**5.3**	**5.7**

Source: Eurostat, LFS, spring data. Note: Data in brackets lack reliability due to small sample size. The symbol ":" is used when data is either not available or extremely unreliable.

7. REFERENCES

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