ECONSTOR
Make Your Publications Visible.

A Service of

ZBW Leibniz-Informationszentrum Wirtschaft
Leibniz Information Centre for Economics

Münz, Rainer; Straubhaar, Thomas; Vadean, Florin P.; Vadean, Nadia

Research Report

What are the migrants' contributions to employment and growth? A European approach

HWWI Policy Paper, No. 3-3

Provided in Cooperation with:
Hamburg Institute of International Economics (HWWI)

Suggested Citation: Münz, Rainer; Straubhaar, Thomas; Vadean, Florin P.; Vadean, Nadia (2007) : What are the migrants' contributions to employment and growth? A European approach, HWWI Policy Paper, No. 3-3, Hamburgisches WeltWirtschaftsInstitut (HWWI), Hamburg

This Version is available at:
http://hdl.handle.net/10419/47706

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

WWW.ECONSTOR.EU

Mitglied der Leibniz-Gemeinschaft

Hamburgisches
WeltWirtschafts
Institut

What are the migrants' contributions to employment and growth? A European approach

Rainer Münz, Thomas Straubhaar, Florin Vadean, Nadia Vadean

HWWI Policy
Paper 3-3
by the
HWWI Research Programme
Migration Research Group

Hamburg Institute of International Economics (HWWI) | 2007
ISSN 1862-4960

Rainer Münz
Hamburg Institute of International Economics (HWWI)
Neuer Jungfernstieg 21 | 20354 Hamburg | Germany
Phone +49 (0)40 34 05 76 - 59 | Fax +49 (0)40 34 05 76 - 76
muenz@hwwi.org | www.hwwi.org

Erste Bank
Werdertorgasse 5 | 1010 Vienna | Austria
Phone +43 (0)5 0100 17200 | Fax +43 (0)5 0100 9 - 17200
rainer.muenz@erstebank.at

Thomas Straubhaar
Hamburg Institute of International Economics (HWWI)
Neuer Jungfernstieg 21 | 20354 Hamburg | Germany
Phone +49 (0)40 34 05 76 - 10 | Fax +49 (0)40 34 05 76 - 76
straubhaar@hwwi.org | www.hwwi.org

Florin Vadean
Hamburg Institute of International Economics (HWWI)
Neuer Jungfernstieg 21 | 20354 Hamburg | Germany
Phone +49 (0)40 34 05 76 - 56 | Fax +49 (0)40 34 05 76 - 76
vadean@hwwi.org | www.hwwi.org

Nadia Vadean
Hamburg Institute of International Economics (HWWI)
Neuer Jungfernstieg 21 | 20354 Hamburg | Germany
Phone +49 (0)40 34 05 76 - 56 | Fax +49 (0)40 34 05 76 - 76
nadiavadean@web.de | www.hwwi.org

HWWI Policy Paper
Hamburg Institute of International Economics (HWWI)
Neuer Jungfernstieg 21 | 20354 Hamburg | Germany
Phone +49 (0)40 34 05 76 - 0 | Fax +49 (0)40 34 05 76 - 76
info@hwwi.org | www.hwwi.org
ISSN 1862-4960

Editorial Board:
Thomas Straubhaar (Chair)
Tanja El-Cherkeh

© Hamburg Institute of International Economics (HWWI) | March 2007
All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means (electronic, mechanical, photocopying, recording or otherwise) without the prior written permission of the publisher.

Table of contents

1. **Overview: Why does the EU need more rather than less legal migration?** 2
2. **EU-27 demographic and immigration trends** 4
3. **Migrants' contribution to employment in Europe** 5
   - 3.1 Immigration and labour market efficiency 7
   - 3.2 Labour market performance of immigrants: an unused potential 9
   - 3.3 The importance of integration programmes 11
4. **Migrants' contribution to economic growth** 12
   - 4.1 Skills and productivity 13
   - 4.2 International students: future high skilled and integrated immigrants 16
5. **Recommendations** 16
6. **Conclusions** 18

References 20

Annex 23

This paper was commissioned for the "Gaining from Migration" project coordinated by the OECD Development Centre, in co-operation with the OECD Directorate for Employment, Labour and Social Affairs (DELSA), the European Commission, and the Athens Migration Policy Initiative (AMPI), with financial support from the European Commission. The paper was presented in March 2007 in Brussels and is copyright OECD. The views expressed herein can in no way be taken to reflect the official opinion of the European Union, the Organisation for Economic Co-operation and Development, AMPI, Erste Bank, or the Hamburg Institute of International Economics (HWWI).

1. Overview: Why does the EU need more rather than less legal migration?

In the early 21st century the European Union is confronted with an ageing population, stagnating or even declining native populations, high unemployment and modest economic growth. Between 2001 and 2005, in the EU-27 GDP per capita grew on average by 1.4% per year (EU-15: +1.1% p.a.; EU-12: +4.9% p.a.).[1] At the same time, unemployment rates remained at high levels: 9% on average in the EU-27 (EU-15: 8%; EU-12: 13%) compared to 4-5% in the US.

However, in order to respond effectively to the challenges and opportunities of globalisation, European policy makers recognise that the EU has to become a more innovative and competitive economic player.[2] One important tool for achieving this goal is immigration. Carefully managed immigration could lead to younger, more dynamic European societies by enhancing the exchange of people and ideas. This could stimulate risk-taking, foster the modernisation of European economies and communities, help to overcome rigid structures, and lead to higher economic growth.

Europe's demographic prospects might imply unsought socio-economic consequences because of stagnating or even declining native populations. Between 2000 and 2006 today's 27 EU Member States altogether still recorded a small excess of births over deaths and considerable net gains from international migration. Over the last decade, however, Europe's old age dependency ratio[3] grew on average by 1.3% per year in the EU-25, reaching 25% in 2005.[4] This means that in the EU-27 there are 25 persons of age over 65 per 100 persons at working age (15-64).

Demographic ageing combined with slow growth in the numbers of gainfully employed people (on average +0.9% per year between 2001 and 2005), as well as high unemployment rates, welled to a situation where the employed work force and taxpayers in general have to bear growing welfare and social expenditure. Future projections estimate that the situation will worsen further in the coming decades when the "baby boomers" born in the 1950's and 1960's will reach retirement age.

In recent years, Europe's population increase (EU-27: +1.5 to +2.0 million per year) was mainly driven by immigration. On the world map of international migration the EU has become one of the main destinations. From a historical perspective, this is a relatively new phenomenon. The EU-27 is home or host to some 40.6 million legally established international migrants, representing about 8.3% of its total population (see Table 2). Of them some 27.3 million (5.6% of total population) have come from third countries while 13.2 million (2.7%; Table 2) have moved from one of today's 27 EU Member States to another EU country.

In contrast to demographic realities, many Europeans still do not see their homelands as prime destinations for international migrants, nor do they assume that immigration could turn into a permanent and possibly even necessary process. Today, this contra-factual perception of demographic realities has become a major obstacle

[1] Source: EUROSTAT; own calculations.
[2] Council of the European Union (2006).
[3] Population aged 65+ divided by population aged 15 to 64.
[4] Source: EUROSTAT; own calculations.

for the management of migration and the implementation of proactive migration regimes.

In many EU Member States economic immigration has traditionally been characterised by guest worker schemes implemented during economic boom periods or sectoral labour market shortages. This orientation is partly due to the concern that immigration may lead to a burden for the treasury and worries that immigrants might put a downward pressure on wages and native employment. As a result, in many Western European countries the humanitarian[5] reasons were more important for admission of long-term migrants than the economic ones.

In recent debates on immigration, we can identify a paradigmatic shift. While in the past immigration was perceived rather as a fiscal burden or even as a threat to national identity and social cohesion, today, many deplore a lack of integration of immigrants resulting from their different ethnic and religious background. Due to perceived integration difficulties in particular of Muslim migrant communities and in the aftermath of the terrorist attacks in New York, Madrid and London, scepticism about immigration – in particular from Islamic countries – has been expressed.

At the same time the pro-active recruitment of migrants is now seen by many experts and several politicians as a possible solution to Europe's demographic challenges. These voices expect possible relief from the strains of demographic ageing on the national labour markets and welfare systems. Some even consider enhanced mobility within Europe and the inflow of qualified labour as a means for boosting economic development.

Immigration can have, however, negative effects too. When immigrants have qualifications similar to those of natives, they might displace the latter on the labour markets and therefore indirectly contribute to unemployment. This is particularly true in the case of rigid labour markets, which are common in the EU. Further, if newly arriving immigrants pay less taxes than the equivalent of public goods they consume (i.e. infrastructure, education, etc.), the additional costs in the budgets have to be borne by natives and long-term immigrants. Moreover, in the case of generous welfare systems, immigrants might be attracted by the social benefits they could receive in the host country (so called "social tourism"). Therefore, immigration from third countries should not be deregulated completely. Pro-active recruitment of future migrants has to be a well managed process, assuring the best possible benefits for the receiving countries, the sending countries and the migrants.

Since the European Union acquired competence in the area of migration under the Treaty of Amsterdam, immigration became a major issue on the European agenda. The Tampere European Council (1999) stressed the need "*to develop common policies on asylum and immigration*". The Thessaloniki European Council (2003) further pointed-out to "*the need to explore legal means for third country nationals to migrate to the Union, taking into account the reception capacities of the Member States [...]*". And finally the Hague Programme, approved by the European Council in November 2004, stressed the importance of economic immigration for the implementation of the Lisbon strategy for "more and better jobs and sustainable growth" and appealed for an open debate at the EU level as a basis for "*a policy plan on legal migration including*

[5] Admission of co-ethnic resettlers, family reunion, admission of asylum seekers and refugees.

admission procedures capable of responding promptly to fluctuating demands for migrant labour in the labour market". The Commission's response on this request was the *Policy Plan on Legal Migration* [6] from December 2005.

The eventual coming into force of a new European constitution would further clarify the aim of a common EU immigration policy. The Treaty establishing a Constitution for Europe's states: "*The Union shall develop a common immigration policy aimed at ensuring, at all stages the efficient management of migration flows [...]*".[7]

The scope of this policy paper is to identify how the EU and its Member States could use availability and skills of today's and future immigrant populations in order to address economic and demographic challenges. To this end, it provides an analysis of the status quo and suggestions regarding future migration policies at both the Member States' level and at the EU level.

2. EU-27 demographic and immigration trends

The overall demographic situation in the EU is characterized by low fertility (1.5 children per woman[8]) and increasing life expectancy (75.1 years for men and 81.2 years for women[9]). In 2005, due to a still favourable age structure, today's 27 EU Member States as a whole still had more births than deaths. The small surplus was of about 300,000 persons (or 0.6‰ of the total population). Germany, Italy and all new EU Member States in Central and South-Eastern Europe (with the exception of Slovakia), however, reported more deaths than births.

In 2005, the total population growth in the EU-27 exceeded 1.9 million people (3.9‰ of the total population). This, however, was mainly the result of a net gain from migration in the order of about +1.6 million people (or +3.3‰ of the total population; Table 1). Twenty of today's 27 EU countries had a positive migration balance. The only exceptions were the Baltic States, Bulgaria, the Netherlands, Poland and Romania. Net migration gains were highest in Cyprus (+27.2‰ of the total population), Spain (+15.0‰) and Ireland (+11.4‰). In countries like the Czech Republic, Italy and Slovenia net migration turned an excess of deaths over births into a positive total population change.

In early 2006, the total population of today's 27 EU Member States was 491 million. The number of third country nationals living in the EU-27 is estimated to be 14.4 million people, or 3.0% of its total population. At the same time some 8.5 million EU citizens (1.7%) were residing in another EU Member State. Because of high naturalization rates the total number of international migrants is significantly higher. The number of EU residents born in a country outside the EU-27 amounts to 27.3 million people (5.6% of total population; Table 2).[10] 13.2 million EU residents (2.7%) were born in another EU country.

[6] European Commission (2005a).
[7] Article III-267.
[8] Total fertility rate.
[9] Average life expectancy at birth in 2004; source: Eurostat.
[10] Source: OECD (2006), UN (2006) and European Labour Force Survey (LFS) ad hoc modules (2005) and national statistics; own calculations (see Table 2).

Relative to the population size, the following EU Member States reported the highest shares of foreign-born residents: Luxembourg (37.4%), Latvia (19.5%), Estonia (15.2%), Austria (15.1%), Ireland (14.1%), Cyprus (13.9%), Sweden (12.4%) and Germany (12.3%). The shares of immigrants born in countries outside the EU-27 were highest in Latvia (17.6%), Estonia (14.4%), Austria (9.1%), Ireland (14.1%), Cyprus (8.6%), and the Netherlands (8.4%; Table 2). Among other Western European countries Liechtenstein (33.9%) and Switzerland (22.9%) had the highest shares of foreign-born residents.[11]

The largest group of immigrants living in the European Union are ethnic Germans who had come mainly from Kazakhstan, Russia, Poland and Romania to Germany. The largest group of third country nationals are Turkish citizens: around 2.4 million in the EU-27, of whom 1.9 million in Germany.[12]

The key gates of entry for third country nationals entering the EU as permanent or temporary migrants are employment, family reunion, asylum and education. In 2001 some 40% of all newly issued residence permits were granted in the EU-15 for employment and another 30% for family reunifications.[13] However, we have to keep in mind that, first of all, these numbers do not account for seasonal and temporary labour migration, which is quite common in countries like Austria, Germany, France, Italy and Spain. And secondly, they do not include irregular immigration.[14]

The main reasons for admission of newly arriving migrants differ notably among the EU Member States. In some countries recent immigration is predominantly linked to family reunification, e.g. in Sweden (50% of all newly issued residence permits), France (40%), Denmark (36%) and Finland (33%). In contrast, employment was the reason for legal entry in 61% of the cases in Italy, 46% in Portugal, and 36% in Spain.[15]

Since the 1990s, irregular immigration has contributed significantly to the increase of the foreign-born population of countries like Greece, Italy, Portugal and Spain. This has become obvious in the course of several regularisation campaigns.

3. Migrants' contribution to employment in Europe

The size of Western and Central Europe's labour force is 227 million. In the absence of immigration and at constant labour force participation rates this labour force would shrink to 201 million in 2025 and to 160 million in 2050. In order to maintain it constant over the analysed period a net inflow of 66 million labour migrants would be necessary.[16] This would mean that on average a net inflow of slightly less than 1.5 million labour migrants per year would be required to keep Europe's economically active population at constant levels. However, since not all newcomers will join the work force, the total net migration would have to be higher.

[11] Liechtenstein is member of the European Economic Area (EEA), Switzerland is associated with the European Union on the basis of bilateral treaties.
[12] European Commission (2004a).
[13] Source: European Commission (2003).
[14] Münz (2007).
[15] See European Commission (2003).
[16] For more details see Münz et al. (2006).

Between 2000 and 2005 the number of people at working age (i.e. 15 to 64) employed in the 15 pre-enlargement Member States (EU-15) increased by about 8.2 million.[17] Of them about 34%[18] were third country nationals and the remaining were citizens of the country of residence or citizens of another EU-15 Member State.[19] The share of third country nationals in the total employment was 4% in 2005.[20]

It is, however, not surprising that third-country nationals contributed disproportionally to total employment growth, when taking into account that in the same period some 80% of the population increase in the EU was due to a positive net migration balance. Furthermore, during the past five years, third country nationals increased their employment rates in the EU-15 compared to natives. Whereas in 2000 they lagged 14.8% points behind EU-nationals (11.1% points for males; 18.5% points for females), the employment gap decreased to 11.4% points in 2005 (7.6% points for males; 15.0% points for females). The employment rates of nationals of a country outside the EU-15 were 50.8% (62.6% for males; 38.9% for females) in 2000 and 55.6% (66.0% for males; 45.4% for females) in 2005 (Figure 1).

The question now is how the increased employment of immigrants affected the employment levels of natives: Was there a displacement effect, with foreign-born crowding out natives from the labour market? Or did it generate an increase in the demand for labour resulting in higher employment levels of natives?

In the neoclassical economic theory, there is no effect on unemployment since perfect price flexibility and full employment of factors are assumed. Under more realistic assumptions, a common sense analysis is often based on the concept of "a lump of jobs", i.e. a fixed number of jobs in the immigrant receiving country. If immigrants are employed then, by definition, some natives must lose their jobs (i.e. substitution effect). However, if productivity increases due to the more efficient allocation of labour, then the demand for resident labour increases. In this case, at aggregate level the total number of jobs created by the presence of immigrants offsets the displacement of natives, if favourable dynamic effects fully unfold.

Still, we must realise that even in the neutral case, there is a so-called "churning effect". This effect arises since native-born workers are displaced for a certain period of time and only the long-run demand effects compensate this initial job displacement. Furthermore, the native workers who lose their jobs, may not be employed later, as some of them have different skill levels than the ones required for the newly created jobs. Thus, the displaced workers will need to be retrained, which in turn generates costs to the treasury or to their household budget and/or additional demand for migrant labour.

Positive effects are attained when natives and immigrants do not compete for job opportunities and are therefore complements on the labour market, not

[17] The analysis of employment growth between 2000 and 2005 refers only to the EU-15, which is home to 97% of all third country nationals residing in the EU-27.
[18] The number could be significantly higher if taking into account that 21% of the LFS respondents did not declare their nationality. We can say that third country nationals contributed during the period of 2000-2005 between 27% and 48% of the creation of jobs. Source: European Labour Force Survey, Eurostat.
[19] Source: European Labour Force Survey, Eurostat; own calculations.
[20] In 2005 the share of third country nationals in EU-25 employment was 4.6%.

substitutes. This occurs, for example, when the immigrant workers provide complementary human (or financial capital) or take up jobs avoided by natives.

During the 1990s empirical studies analysing the effects of labour migration on native employment pointed to small negative employment effects.[21] A statistical analysis of the period 2000-2005, however, illustrates that in the EU-15 the employment rates of natives grew by 1.4% to reach 65%; during the same period the immigrants' share in the total employment increased by over 40%. And we notice that the employment rates of natives showed the highest increase in countries with primarily economic immigration and less regulated labour markets: from 56.0% to 62.5% in Spain, from 56.4% to 59.8% in Greece and from 64.7% to 67.0% in Ireland.

There are several mechanisms through which immigrants contribute to job creation ranging from entrepreneurship, increasing domestic demand for goods and services, to improving the efficiency of labour markets.

3.1 Immigration and labour market efficiency

Many European studies show that immigration plays an important role in improving labour market efficiency. All sectors with jobs avoided by natives, e.g. dirty, difficult and dangerous jobs, low-paid household service jobs, low skilled jobs in the informal sector of the economy, jobs in sectors with strong seasonal fluctuations, e.g. farming, road repairs and construction, hotel, restaurant and other tourism-related services, heavily depend on the labour supply of immigrants. In their absence, these sectors would probably face severe shortages of labour[22] or labour costs would sharply increase.

The need for immigrants to meet shortages in sectors with predominantly low skilled jobs is, however, a controversial and debated issue. The opponents of rather liberal policy approaches are criticising the recruitment of foreign labour in periods of high unemployment (which is nowadays the case in many EU Member States). They argue that the vacant low skilled jobs should be filled in larger numbers by native low skilled unemployed.

For example, due to the high unemployment and rising associated costs, the German government decided to compel long-term unemployed to re-enter the labour market starting with September 2006 by cutting payments if they refuse to accept vacant jobs (even below their skills level). If such programmes are to be successfully implemented it is to be expected that more competition between immigrants and natives for low skilled jobs would occur. Still, resident citizens of other EU countries, third country nationals with a permanent residence status and recognised refugees will be in a comparative advantage due to the "community preference" principle.

At the same time, the demand for the low skilled jobs is predicted to change over the next decades. Manual jobs in manufacturing and farming are expected to decrease. However, demographic ageing in the EU-27 could lead to the rising importance of household and care services. More low skilled service jobs are likely to be

[21] See Angrist and Kugler (2003).
[22] See IOM (2005) and OECD (2003).

created. And this could lead to an additional demand that will not be met by the shrinking native population at working age.[23]

A second type of labour market inefficiency results from qualifications mismatches. Fast growing sectors, e.g. the IT, experience shortages that in the short-term cannot be met by enhancing the efforts of the domestic education systems. Such bottlenecks are expected to increase as the EU economy will become, with the globalisation process, more and more a knowledge based one. On the one hand labour intensive industries (e.g. textile, manufacturing) are relocating production to world regions with lower labour costs, in particular to Asia. On the other hand there is a growing probability that jobs requiring high skills and specific professional competence will be further located in Europe and North America. Thus, the demand for high skilled labour in sectors like IT, engineering, consultancy and financial services is predicted to rise.[24]

The skills required for emerging jobs typically differ quite substantially from those of workers who were made redundant. The extent to which the latter are retrained and redeployed depends considerably on whether other workers are available who already have had such training. Reforms of the education systems of the EU Member States are undoubtedly needed to assure that the next generation will be provided with skills required by future labour markets. However, it will take 5 to 10 years for the first effects to materialise, and desired effects are not guaranteed. Therefore, investing in higher education is not a solution for immediate and pressing shortages. The active recruitment of high skilled workers, however, is a short-term and efficient instrument for easing the qualification mismatch on the labour markets.

Finally, labour shortages arise as a result of low mobility of the domestic labour force, as indicated by considerable differences in wages and unemployment rates. Italy may serve as an example: internal labour mobility is very low, despite the country's large employment and income gaps between the North and the South. This is due to the coexistence of a high income per capita differential and a much lower consumption per capita differential between Southern and Northern Italy and thus leads to high cost of internal mobility. Foreign immigrants however, being income-maximising, move to the areas with high wages and low unemployment, and thus act as complements to the much less mobile natives. Therefore, the immigrants have not been found to negatively influence the transition of natives out of or into unemployment.[25]

Since immigrants are more mobile and more efficient in using employment opportunities, they have a higher potential to meet shortages due to the regional mismatch within and between EU Member States. Two measures could help establishing a better integrated EU labour market that enhance its flexibility and thus the competitiveness of the EU economy: (a) granting free mobility (i.e. labour market access in all EU Member States) to third country nationals who are long-term residents; (b) implementing common measures to admit economic immigrants to the EU.

Empirical evidence from several EU countries shows that in most cases immigrants are complements to the natives in the labour market and thus have no

[23] Boswell and Straubhaar (2005)
[24] Boswell and Straubhaar (2005).
[25] Venturini and Villosio (2004).

negative effects on the natives' job prospects and wages. One exception is the construction sector. In many EU Member States the native work force employed in this sector is highly unionised. Construction workers are, for example, protected against wage competition from immigrants through collective wage agreements and dismissal protection, instruments that have the unintended consequence of attracting more immigrants than it would have been the case in their absence. These amplify, as a result, unemployment and/or wage depression pressures and create incentives for the expansion of irregular employment of both native and foreign-born labour.[26]

3.2 Labour market performance of immigrants: an unused potential

In many EU Member States, employment rates of natives and immigrants born in another EU country have reached levels that cannot easily be increased any further. This is particularly true for medium and high skilled adults in the age groups 20-55 years.[27] As often noted by scholars and the European Commission,[28] there still is, however, an unused employment potential among immigrants from medium and low-income countries.

The average employment rate of immigrants from countries outside the EU-27 (across all skill levels) is 4.3% points lower than that of the natives (see Table 3). The largest employment gaps are reported in Poland (23.0% points), Finland (21.2% points), Denmark (20.1% points), Sweden (19.7% points) and Belgium (19.6% points). Labour market performance of non-naturalised immigrants (i.e. third country nationals) residing in the EU-27 is even worse. With an employment rate of 54.4% they lagged 10.5% points behind citizens of the respective country of residence (and 10.6% points behind citizens of other EU-27 countries; Table 4). While employment rates for third country nationals increased during the period 2000-2005, unemployment rates remained stable at about 18%, being twice as high as those of EU-nationals. The largest differences in unemployment rates were registered in Belgium (26.7% points), Finland (20.0% points), Sweden (17.6% points), France (16.3% points) and the Netherlands (14.2% points; Table 6).

One of the main reasons for the low employment and high unemployment rates of third country nationals is the fact that in most EU Member States asylum seekers and legal immigrants entering under the provision of family reunion are not easily granted access to domestic labour markets. This does not only generate additional costs for the public coffer but, from an economic point of view, also creates inefficiencies. First of all, asylum seekers and low skilled legal immigrants could take up jobs in sectors avoided by legal residents and thus fill gaps on the labour market. This would enable them to make their living and make them less dependent on social benefits. Secondly, those with particular qualifications are in danger of losing their acquired skills if remaining outside the formal labour market for a longer time. A possible de-qualification would consequently undermine their future job prospects.

The importance of the access to work for the labour market performance of immigrants becomes apparent when looking at the employment and unemployment rates of third-country nationals in South European countries, Ireland, UK and also some

[26] IOM (2005).
[27] European Commission (2004b).
[28] European Commission (2004a, 2004b and 2003), Münz (2007).

of the new EU Member States. These countries have more open labour markets and mainly economic immigration. Perhaps these were the main reasons why they registered reverse employment gaps (i.e. third-country nationals having higher employment rates than citizens of these host countries): Hungary (-11.1% points), Greece (-9.6% points), Malta (-9.3% points), Cyprus (-7.5% points), Spain (-6.9% points), Czech Republic (-6.2% points), and Portugal (-4.7% points; see Table 4). The above mentioned countries registered the lowest unemployment gaps as well: -0.7% points in the Czech Republic, -2.8% points in Ireland, -3.2% points in Spain, -5.0% points in the United Kingdom and -5.4% points in Portugal. In Cyprus, Greece and Malta, the unemployment rate of third country nationals was even 1.1 to 1.6% points lower than that of natives (see Table 6).

Education plays an equally important role. For instance, in the case of the Netherlands, the immigrants' low employment rates are highly related to their lower educational attainment. Only about 30% of them have higher secondary or tertiary education as compared to over 60% of Dutch natives. On average, educational attainment remains lower also for the younger generation of immigrants and their children (i.e. the so-called second and third generation). More than 60% of third country nationals aged 15-24 were low skilled and only 5% high skilled; compared with 46% and 8.5% respectively for EU-nationals.[29]

Gender as well as the cultural background seem to be important determinants of employment too. Migrant women from middle and low-income countries are more likely than men not to be involved in the labour market and spend most of their time at home. This makes it more difficult for them to acquire language skills and establish social networks necessary to integrate more easily into the receiving society.

Some immigrant women (in particular Muslim women) are reluctant to enter the labour market for cultural or religious reasons. For example in 2005, immigrant women with the citizenship of Turkey or countries of the Middle East and North Africa (MENA) had the lowest employment rates in the EU-25. Their employment rates only reached levels of 30.3% and 22.4% respectively (Figure 2). These rates represent only about half the level of national female employment and only one third of the comparable male employment levels. However, when also taking into account naturalised immigrants, the employment rates of Muslim women are much higher, reaching almost 40% in 2005,[30] thus indicating a potentially positive effect of EU citizenship on integration.

Moreover, labour market discrimination is likely to have an impact as well.[31] Most EU citizens acknowledge that members of immigrant minorities would have less chances of getting a job or traineeship, even with the same level of qualification as other candidates.[32]

A low labour market performance of immigrants proves to be also a burden for the receiving country's budget. Empirical evidence suggests that the immigrants' dependence on welfare payments is strongly correlated with their labour market

[29] European Commission (2004a).
[30] See also European Commission (2004b).
[31] Roodenburg et al. (2003).
[32] European Commission (2004a).

performance. Countries in which immigrants performed better (e.g. Greece, Ireland, Italy, Portugal, Spain and UK) experienced a positive contribution of immigrants to their treasury. However, in countries where immigrants encounter difficulties in accessing work, appropriate schooling and training and face discrimination (e.g. Belgium, Denmark, France, the Netherlands and Sweden), immigrants are more dependent on welfare payments than natives. Germany partly also falls into the latter category because of the large-scale admission of ethnic Germans and their dependent family members who have high unemployment and high take-up rates of state pensions.

3.3 The importance of integration programmes

In the *Integrated Guidelines for Jobs and Growth* the European Commission invited the Member States to take action to increase the employment of immigrants.[33] As stressed in *A Common Agenda for Integration*, efforts undertaken by EU Member States to effectively integrate immigrants into the labour markets will constitute a major contribution to reach the Lisbon targets.[34] Work, education and language skills are generally considered to be the most important avenues of inclusion.

The lack of access to work was identified by the European Commission to be the greatest barrier to integration and thus the most important political priority within national integration policies.[35] In Germany for example, until 2005, only EU citizens and foreigners with an unlimited residence permit – which was generally granted only after at least five years of legal residence in Germany or to recognised refugees – were given unrestricted access to the labour market.[36] All others (about one third of the foreign resident population), including foreign-born spouses of German citizens, had no or only restricted access to the German labour market. And even when granted, it was initially subject to labour market testing and bureaucratic discretion. In practice work permits were issued for a particular job if neither Germans nor other EU citizens or privileged third country nationals were available and if no "negative effects" on the regional labour market could be expected.[37]

Additionally to assuring access to work, integration programmes need to target the improvement of the educational level of immigrants and their descendants[38], give special attention to the social situation and inclusion of migrant women[39] and be also cultural-sensitive.

Further, the Global Commission on International Migration (GCIM) underlines that social exclusion and marginalisation of migrants and their children is associated with particular risks and costs. The risk of disadvantaged and segregated migrant communities is that their members may retreat from society and look for other ways of

[33] European Commission (2005f).
[34] European Commission (2005d).
[35] See European Commission (2004a).
[36] On January 1st 2005 a new immigration law entered into force in Germany and removed most of these legal obstacles, e.g. spouses do now immediately obtain the same labour market access as the principal migrant.
[37] Between 1997 and 2000, asylum seekers and so called "non deplorable aliens", i.e. quasi-refugees, could not work in Germany, whatever their length of stay. See OECD (2005f).
[38] "CBP 5: Efforts in education are critical to preparing immigrants, and particularly their descendants, to be more successful and more active participants in society." (European Commission, 2005d)
[39] European Commission (2005d) and GCIM (2005).

expressing their frustration and asserting their identity. The 2005 riots in the peripheries of France's major cities could be interpreted in this direction. Such incidences which represent a threat to public order may further provoke negative attitudes towards migrant communities and, as a consequence, place new obstacles in the way of integration and social cohesion.

In the past years, important steps have been undertaken to improve the integration of third country nationals into the Member States' labour markets and societies. A legal framework was created, prescribing the equality of treatment and granting the rights of access to employment and to education/training.[40] National Contact Points (NCPs) on integration were established with the purpose of monitoring the progress across policy fields and ensuring that efforts at national and EU level are mutually reinforcing. In 2004, the first edition of a *Handbook on Integration*[41] was drafted in close cooperation with the NCPs.

The *Handbook* is addressing policy-makers and practitioners at the local, regional, national and EU level and focuses on three issues: (i) the introduction of programmes for newly arrived immigrants and recognised refugees, (ii) the participation in the civic and political life and (iii) the development of integration indicators. The second edition, to be released in May 2007, will focus on housing and urban issues, access to health and social services as well as the integration in the labour market.[42]

To sum up, the best immigration policies are those aiming at an increased flexibility of labour markets, promoting the integration in the receiving society and encouraging immigrants to participate in education and employment.

4. Migrants' contribution to economic growth

According to neoclassical economic theory (assuming full employment), the amount of domestic income (GDP) generated by immigrant labour outweighs the costs associated with employing immigrants. The difference is called *immigration surplus,* representing the increase of the income of the natives.[43] Moreover, when distinguishing between low skilled and high skilled labour, the immigration surplus is maximised when the immigrant labour is a complement to the native labour (because of the positive effect on productivity) and not a substitute. This would be the case when the skills composition of the immigrants differs from that of the native workers. Finally, when capital is taken into account as a production factor, then skilled immigrant labour generates a larger immigration surplus (as compared to unskilled immigrant labour) because of the production complementarities that exist between skilled labour and capital. This conclusion is reinforced, when considering the possibility that the human capital brought in by the skilled migrant labour increases productivity as well.

In modern economics, however, human capital plays a dominant role in the determination of the long-term growth rate, and immigration is predicted to have

[40] European Commission (2005d).
[41] Niessen and Schibel (2004).
[42] European Commission (2005d).
[43] For details see Münz et al. (2006), pp. 24-26.

either a positive or a negative effect on it. Depending on the ratio of skilled versus unskilled immigrants, the average human capital in the economy could be increased or reduced. If migrants have a higher average skills level than natives, the average human capital in the receiving economy would be increased, the accumulation of human capital improved, and this would cause a positive effect on long-tem growth. In contrast, immigration would have a negative effect on growth, when only low skilled workers enter the labour market of the receiving country.

4.1 Skills and productivity

The skills structure of the EU immigrant population is favourable in terms of high skills, however, less favourable regarding medium skills. While the high skilled ratio of the immigrant population born in a country outside the EU-27 is slightly higher than the one of the natives (25.8% vs. 24.3%), the medium-skilled ratio of the foreign-born is significantly lower (37.9% vs. 47.6%) and the low skilled rate significantly higher (36.3% vs. 28.1%; see Table 7). Immigrants' skills are, however, not evenly distributed between the EU Member States. Some were more successful in attracting high skilled labour; for example Ireland (59.0%), Denmark (37.8%) and Estonia (37.0%). In the same time other countries were destinations of mainly low skilled migrants: Portugal (50.5%), Malta (50.4%), Belgium (48.3%), France (47.6%), Austria (45.6%), Greece (44.4%) and Spain (43.9%).

Still, due to the fact that immigrants represent only a fraction of the EU Member States' labour force, they hardly contributed to a change in the skills structure. The difference in the high skilled ratios of EU-27 natives (i.e. natives of the country of residence plus immigrants born in another EU-27 country) and of the total population (i.e. including immigrants born in a country outside the EU-27) are for all EU Member States between +1% and –1% (see Figure 3). The highest increase in the high skilled share is noted in Ireland (+0.85%) and the highest decrease in the Netherlands (-0.99%). A larger impact occurs in the low- and medium-skilled shares. Nevertheless, the change only exceeds 3% in just one case: Austria (+3.1% in the low skilled share, but only -2.5% in the medium-skilled share and –0.6% in the high skilled share).

In a *knowledge based economy* skilled human capital is the most valuable factor of production. Empirical estimates assume that more than half of the GDP in OECD countries is derived from human capital. Productivity and competitiveness in an increasingly globalised economy are even more dependent on the right knowledge and skills. The importance of technology is obvious in the booming IT sector. Innovation is the driving force for productivity and growth in the highly competitive international markets, characterised by short product cycles. The importance of technology and innovation implies the need not just for a high skilled labour force. The labour force should have the capacity to adjust flexibly to the rapidly changing technology as well.[44]

Both at the EU and the Member States level awareness rose that the accumulation of human capital by means of international recruitment[45] as well as

[44] Boswell and Straubhaar (2005).

[45] "In order to tap the world's human capital and mine its wealth of knowledge, the Commission will work towards a common framework for managing economic migration at EU level and proposes accelerated admission procedures for longer term stays of third country researchers and the facilitation of uniform short-stay visas." (European Commission, 2005e)

education[46] is crucial for the achievement of the Lisbon goals of "creating more and better jobs" and "sustainable growth". Thus, immigration policies in many EU countries were reoriented in recent years to give preference to high skilled migrants.

Germany for example started in August 2000 a programme (the so-called *German Green Card*) aiming to give the fast growing IT sector the opportunity to recruit IT professionals internationally, in order to ease the shortages it was facing. A limited work permit up to a period of five years was granted, provided that the foreign expert was offered a position by a German company. The success of the initiative remains disputed. The programme is assumed to have enabled SMEs in the IT sector to significantly improve their competitiveness vis-à-vis the market's leading global players. However, the low numbers of IT Green Cards issued (17,111 in 5 years) could be interpreted as a sign that the programme has not fully met its goals.[47]

Nevertheless, the Green Card programme contributed to the further development of immigration legislation in Germany. In January 2005 a new Immigration Act entered into force which foresees to provide for certain categories of highly qualified immigrants permanent residence permits from the outset. Dependent family members of these high skilled migrants are also entitled to take up employment in Germany.

However, high skilled migrants continue to have North America as main destination. In 2000, almost two thirds of the OECD's tertiary-educated immigrant population lived in North America (mostly in the US). OECD countries in Europe had attracted only about a quarter of all highly skilled migrants residing in high-income countries.[48] A study highlights the selectiveness of emigration from the Middle East and North Africa (MENA): 54% of all MENA migrants with a university degree reside in the US and Canada, while 87% of the low and medium skilled MENA migrants reside in Europe.[49] One reason might be the lower levels of gross domestic expenditure on research and development (R&D) in the EU.[50] Another reason might be that the US' and Canada's permanent immigrants are immediately granted life-long residence permits and the prospect of naturalization within five years. In Europe most migrants from outside the EU-27 only acquire permanent status after five years of residence.

There are several arguments in favour of a selective immigration policy. For the receiving countries not only the recruitment of human capital is essential; highly skilled immigrants also tend to integrate much easier. For the design of a future common EU immigration policy, one could learn from past successful immigration policies in Australia and Canada. These countries select a part of their migrants based on age, skills and language proficiency.[51] The main targets should be to improve human capital accumulation and assure a fast integration of immigrants into the host society.

[46] "Fostering human capital and lifelong learning is indeed one of the most important dimensions of the EU employment and cohesion policy. Therefore, EU programmes, such as the EES, ESF and the Life Long Learning Programme, support ongoing human capital development of this type." (European Commission, 2006)
[47] Kolb (2005).
[48] Katseli et al. (2006).
[49] Fargues (2005).
[50] European Commission (2005e).
[51] Recently such policies were implemented in France and the UK.

As a strategy for attracting the best minds from around the world, the European Commission proposed in its *Policy Plan for Legal Migration* that "a common special procedure to quickly select and admit such immigrants, as well as attractive conditions to encourage them to choose Europe should be devised"[52] and spending in education and R&D increased, including the establishment of a European Institute of Technology.[53]

Another aspect of the failure of EU Member States to draw high skilled immigrants so far is at the level of first stage information provided to prospective migrants. The EU and its Member States, because of their continued efforts to implement restrictive immigration policies, are still perceived as a "fortress with closed gates" and immigration policy changes are still inappropriately disseminated. Better information for the prospective high skilled migrants around the world about the conditions and rights granted in the European labour market will be crucial in the short term for creating a momentum for a *brain inflow* and *circulation* to the European Union.

It is, however, important to note, that not all human capital accumulated in the country of origin can be transferred offhand to a destination country. In Europe it was observed, that highly skilled immigrants are often employed in low skilled jobs, e.g. as taxi drivers or hospital staff. This so called *brain waste* generates resource costs and leaves room for questions about assimilation, integration and the consequences of discrimination for human capital accumulation in the receiving economy.

An OECD study on Belgium remarks a considerable lack of integration. Initially poor labour market characteristics of quite large groups of immigrants and their descendants do not converge over time with the average for Belgian citizens. This appears to be caused by a combination of labour market rigidity, the reciprocal link between a low labour market status and a relatively poor school performance, and to some extent also due to labour market discrimination against non-European immigrants. Discrimination not only hinders the labour market performance of immigrants, but by decreasing returns to human capital lowers their incentive to invest in host-country-specific human capital, which further weakens their labour market performance.[54]

The conditions of work and stay granted to high skilled workers should take into consideration and support potential activities of migrants that have a developmental impact on countries of origin; for example: migrants' remittances, circular migration, trans-national business and Diaspora activities.

Two issues are of a particular importance: first, there is the economic potential of the migrants that, as we discussed in the previous section, is mainly dependent on access to work, recognition of diplomas and the integration in the host society; and second, the possibility to work and act trans-nationally, by moving back and forth between the source and the receiving country. As shown in a recent study on Diaspora activities in Germany, major obstacles therefor are the deficiency in portability of

[52] European Commission (2005a).
[53] European Commission (2005e).
[54] OECD (2005a).

rights, a resident status that limits the period of stay abroad[55] and the lost of the source country's citizenship.[56]

4.2 International students: future high skilled and integrated immigrants

In recent years OECD countries recorded a considerable increase in the number of internationally mobile students enrolled in tertiary education. Between 1998 and 2003 their number grew by about 45%, much of the increase occurring after 2001. Their total number was of 2 million in 2003, with the United States having the lion's share (about 600,000). However, European OECD countries attracted large numbers of students as well: France, in 2003, registered 221,600 foreign students, Germany 240,600 and the United Kingdom 255,200.[57]

Many EU Member States have introduced special provisions allowing foreign students to stay on to work or search for work after the completion of their studies, especially in areas with labour shortages. Germany's new Immigration Act (January 2005) entitles foreign graduates to remain in the country for up to one year after successfully completing their studies for the purpose of seeking employment. With more shortages expected in the coming years, in particular in the science, IT, engineering, and business consultancy sectors, it is likely that these practices will continue and expand.

The extended period of residence, and often (part-time) work, combined with studying in the host country, is usually a guarantee for a smooth transition into the labour market, without the problems of non-recognition of qualifications or working experience that some immigrants encounter.[58] Language proficiency and frequent contacts with natives during the years of study significantly enhance the successful integration into the host country's society as well. Therefore, students should be granted more attractive conditions to stay and work in the EU after having successfully completed their education.

5. Recommendations

In recent years the European Union and its Member States took important steps in establishing a legal framework for managing immigration flows. Two Directives were adopted for the admission of researchers[59] and students[60] originating from third countries. The European Commission's *Policy Plan on Legal Migration* published in December 2005 further proposed four Directives for the management of entry and residence of highly skilled workers, seasonal workers, intra-corporate transferees, and remunerated trainees respectively. With the Communication on *A Common Agenda for Integration*, the Commission also puts forward a framework for the integration of third

[55] "The Directive on the status of long-term residents already offers interesting possibilities, such as the possibility for Member States to allow returning migrants to retain this status for longer than the one year period provided for in Art. 9." (European Commission, 2005a)
[56] Bommes et al. (2006).
[57] Source: OECD (2006); these numbers include foreign students originating from other EU-25 countries as well as students from third countries.
[58] OECD (2006).
[59] European Council Directive 2005/71/EC.
[60] European Council Directive 2004/114/EC.

country nationals in the EU. A Directive was adopted as well, concerning the status of third country nationals who are long-term residents.[61]

Finally, the European Commission's Communication on *Migration and Development*[62] highlighted the importance to enhance collaboration with migrant sending countries on economic migration and to develop initiatives offering *win-win-win* opportunities to countries of origin and destination and to labour migrants. Concrete suggestions were given regarding migrants' remittances, collaboration with Diasporas, circular migration, and mitigation of the effect of brain drain.

However, in order to make convincing recommendations for a common EU immigration policy, we have to ask ourselves: Why have earlier attempts to regulate EU immigration flows and integration into labour markets and society failed?

We believe that the main weaknesses of former policies were: too many, too specific and too much top-down regulations. All this had the consequence of creating new bureaucracy, new rigidities and new inflexibilities.

Less politics, with easy, transparent regulations and few selection criteria would thus represent the best policies. The common EU immigration policy should be *flexible* and *adaptive* to the fast changing realities in a globalising world.[63]

Mobility
Three measures could help establishing a better integrated EU labour market that enhances flexibility and competitiveness:

- Improving **mobility of EU citizens**;
- Improving **free mobility and labour market access for third country nationals who are long-term residents** (i.e. have permanent residence or refugee status);
- Implementing **common measures to admit economic immigrants in order to make the EU a more attractive** area of immigration;

Admission

- A **permanent EU residence and work permit from the outset** should be granted **to high skilled immigrants and their family members**;
- **Flexible procedures for admission of low and medium skilled workers**: e.g. "probationary" periods (2 years) during which they might prove their ability to remain attached to the labour market and learn the national language, with the possibility to qualify for permanent residence;[64]

Information

- **Improved information for prospective qualified migrants** about conditions and rights granted in the EU Member States;
- This will be **crucial** in the short term **for creating a momentum for *brain inflow*** to the European Union **and *brain circulation*** within the European Union as well as between EU-27 and sending countries outside the EU-27;

[61] European Council Directive 2003/109/EC.
[62] European Commission (2005c).
[63] See also Papademetriou and Meissner (2006).
[64] Papademetriou and Meissner (2006).

Retention

- **Third country nationals enrolled in tertiary education should be entitled to remain for** up to one year with the prospect of **seeking employment** (on the whole EU labour market);

Inclusion

- **Gender- and cultural-sensitive integration programmes** with special attention to the social situation and inclusion of migrant women;
- Specific efforts to **promote the educational performance of second and third generation immigrants**;

Development of skills in the countries of origin

- European institutes of secondary and higher education should be encouraged and supported to expand **collaborations with institutes in the migrant sending countries** and/or set up **offshore campuses** in these countries;

Reshaping the understanding of the issue

Provision of factual information to the public is needed on:

- **Implications of future demographic change**;
- The ways in which both **high skilled and low skilled immigrant labour contributes to employment and growth;**
- The ways in which immigrant labour helps ease shortages on the labour markets and thus **improves their efficiency**.

6. Conclusions

Shortages on the EU labour markets are projected to occur and increase over the next decades. One set of reasons are preference, qualifications and regional mismatch of labour demand and supply. Other reasons are the prevailing demographic trends in the EU as well as the economic specialisation in the globalisation process. In order to ease such bottlenecks, increased immigration flows of both high- and low skilled workers have to be managed.

Sectors suffering from labour shortages – e.g. household services, farming, road repairs, constructions, hotel, restaurant and tourism-related services, IT, consultancy and financial services – are made competitive, and helped to grow by immigrant labour. Immigration, thus, can contribute substantially to economic growth and job creation.

Still, in Europe the economic potential of immigrant labour is not fully utilized. For example, there is evidence that immigrants are more mobile and flexible in using better employment opportunities and thus, have a higher potential to mitigate inefficiencies due to the regional disparities within the EU-27. However, they are not allowed to freely move between national labour markets of the EU Member States. Granting access to the national labour markets and subsequently also free mobility to third country nationals residing in the EU Member States could help establish a better integrated and more flexible EU labour market and thus increase the competitiveness of the EU economy.

In many EU countries immigrants face impediments with respect to the access to labour. The main are: labour market rigidities, incomplete recognition of acquired degrees and skills by the receiving societies, and last but not least discrimination. This clearly indicates that admission and integration policies are inseparable. Since the EU acquired competence in the area of migration very important steps have been undertaken to establish a legal framework and ambitious programmes for the successful integration of third country nationals. The efforts on the local, regional, national and EU level to translate commitments into action will be decisive for the role immigrants will play in the social and economic development of the European Union.

Immigration contributes to long-term growth by enhancing the human capital of the receiving economy and thus innovation, productivity and its competitiveness on the international markets. Both at the EU and Member States levels awareness rose that the accumulation of human capital by means of both international recruitment and education are crucial for the achievement of the Lisbon targets of "creating more and better jobs" and "sustainable growth". Thus, immigration policies in many EU countries were reoriented in recent years in order to give preference to high skilled migrants.

However, the EU lags significantly behind North America as destination for high skilled migrants. This is true even for those originating in the neighbouring regions – Eastern Europe, the Middle East and North Africa. In order to make the EU a more attractive place to work and live for high skilled migrants, the EU and its Member States will have to grant them more generous conditions, for example access to the whole EU labour market and a permanent residence permit from the outset for them and the accompanying family.

Special consideration should be given to encouraging third country students and graduates to stay and work in the EU after successfully completing their studies in one of the Member States. The language proficiency achieved and frequent contacts with the natives during the years of study enhance their successful integration into the host country's society. Moreover, the extended period of residence and often (part-time) work during the study in the host country, is often a guarantee for a smooth transition into the labour market, without the problems of non-recognition of qualifications or working experience that some immigrants encounter.

References

Angrist, J. and Kugler, A. (2003), *Protective or Counterproductive? Labour Market Institutions and the Effect of Immigration on EU Natives*, The Economic Journal (113): 302-331.

Bommes, M., Baraulina, T., El-Cherkeh, T., Daume, H. and F. Vadean (2006), *Egyptian, Afghan, and Serbian Diaspora communities in Germany: How do they contribute to their country of origin?,* HWWI Research Paper 3-5, Hamburg Institute of International Economics (HWWI), Hamburg.

Boswell, C. and Straubhaar, T. (2005), *Does Germany Need Labour Migration?*, Focus Migration, Policy Brief No. 2 (online information service on migration: www.focus-migration.de).

Council of the European Union (2006), *Brussels European Council 14/15 December 2006*, Presidency Conclusions 16879/06, Brussels.

European Commission (2006), *Report on the Functioning of the Transitional Arrangements set out in the 2003 Accession Treaty (period 1 May 2004 – 30 April 2006)*, COM (2006), Brussels.

European Commission (2005a), *Policy Plan on Legal Migration*, COM (2005) 669 Final, Brussels.

European Commission (2005b), *Priority actions for responding to the challenges of migration: First follow-up to Hampton Court*, COM (2005) 621 Final, Brussels.

European Commission (2005c), *Migration and Development: Some concrete orientations*, COM (2005) 390 final, Brussels.

European Commission (2005d), *A common Agenda for Integration: Framework for the Integration of Third-Country Nationals in the European Union*, COM (2005) 389 final, Brussels.

European Commission (2005e), *Common Actions for Growth and Employment: The Community Lisbon Programme*, COM (2005) 330 final, Brussels.

European Commission (2005f), *Integrated Guidelines for Growth and Jobs*, COM (2005) 141 final, Brussels.

European Commission (2005g), *Green Paper on an EU Approach to Managing Economic Migration*, COM (2004) 811 final, Brussels.

European Commission (2004a), *First Annual Report on Migration and Integration*, COM (2004) 508 final, Brussels.

European Commission (2004b*), Employment in Europe 2004: Recent Trends and Prospects*, DG Employment and Social Affairs, Luxembourg.

European Commission (2003*), Employment in Europe 2003: Recent Trends and Prospects*, DG Employment and Social Affairs, Luxembourg.

European Council Directive 2005/71/EC of 12 November 2005 on *a specific procedure for admitting third-country nationals for purposes of scientific research*.

European Council Directive 2004/114/EC of 13 December 2004 on *the conditions of admission of third-country nationals for the purposes of studies, pupil exchange, unremunerated training or voluntary service* (applicable as of 12 January 2007).

European Council Directive 2003/109/EC of 25 November 2003 concerning *the status of third-country nationals who are long-term residents* (applicable as of 26 January 2006).

Fargues, Ph., ed. (2005), *Mediterranean Migration – 2005 Report*, Euro-Mediterranean Consortium for Applied Research on International Migration, European University Institute: Florence.

Global Commission on International Migration (2005), *Migration in an interconnected world: New directions for action***,** Report of the Global Commission on International Migration, Geneva.

International Labour Organization (2004), *Towards a fair deal for migrant workers in the global economy*, Geneva: ILO.

International Monetary Fund (2005), *Balance of Payments Statistics Yearbook 2005*, Volume 56, Washington DC: IMF.

International Organisation for Migration (2005), *World Migration 2005: Costs and Benefits of International Migration*, Geneva: IOM.

Katseli, L.T., Lucas, R.E.B. and T. Xenogiani (2006), *Effects of Migration on Sending Countries: What do we Know?*, OECD Development Centre Working Paper No. 250, Paris: OECD.

Kolb, H. (2005), *The German "Green Card"*, Focus Migration, Policy Brief No. 3 (online information service on migration: www.focus-migration.de).

Malmberg, B., Bloom, D., Canning, D., Münz, R. and K. Tamas (2006) *Global Population Ageing and European Union External Policies*, Stockholm: Institute for Futures Studies.

Münz, R. (2007), *Migration, Labor Markets, and Integration of Migrants: An Overview for Europe*, Hamburg: HWWI.

Münz, R. and Fassmann, H. (2004), *Migrants in Europe and their Economic Position: Evidence from the European Labour Force Survey and from Other Sources*, Paper prepared for the European Commission, DG Employment and Social Affairs, Brussels: European Commission; Hamburg: HWWA.

Münz, R., Straubhaar, T., Vadean, F. and N. Vadean (2006), *The Costs and Benefits of European Immigration*, HWWI Policy Report No. 3, Hamburg: HWWI.

Niessen, J. and Y. Schibel (2004), *Handbook on integration for policy-makers and practitioners, Migration Policy Institute*, Washington DC: MPI.

Organisation for Economic Co-operation and Development (2006), *International Migration outlook: SOPEMI 2006*, Paris: OECD.

Organisation for Economic Co-operation and Development (2005a), *OECD Economic Surveys: Belgium,* OECD Economic Surveys, Vol. 2005/5, Paris: OECD.

Organisation for Economic Co-operation and Development (2005b), *The Labour Market Integration of Immigrants in Germany*, DELSA/ELSA/WP2(2005)3/REV1, Paris: OECD.

Organisation for Economic Co-operation and Development (2003), *OECD Economic Surveys: Spain*, OECD Economic Surveys, Vol. 2003/7, Paris: OECD.

Papademetriou, D.G. and D. Meissner (2006), *New Migration Thinking for a New Century*, Policy Paper for the "Gaining from Migration" Project, Paris: OECD.

Roodenburg, H., Euwals, R. and H. ter Rele (2003), *Immigration and the Dutch Economy*, The Hague: CPB Netherlands Bureau for Economic Policy Analysis.

Venturini, A. and Villoso, C. (2004), *Labour Market Effects of Immigration: an Empirical Analysis on Italian Data*, ILO International Migration Papers 69, Geneva: ILO.

Annex

Table 1: Demographic Indicators in Europe, 2005

	Pop. January 2005 in 1,000	births	deaths	Nat. pop. change	Net migration	Total pop. change	Pop. January 2006 in 1,000
			per 1,000 population				
EU-27	**488,910**	**10.5**	**9.9**	**0.6**	**3.3**	**3.9**	**490,816**
Austria	8,207	9.4	9.0	0.4	7.4	7.8	8,270
Belgium	10,446	11.4	10.0	1.4	3.2	4.6	10,494
Bulgaria	7,761	9.0	14.6	-5.6	-1.8	-7.4	7,704
Cyprus (i)	749	10.9	6.7	4.1	27.2	31.3	773
Czech Rep.	10,221	10.0	10.5	-0.5	3.5	2.9	10,251
Denmark	5,411	11.8	10.3	1.6	1.4	3.0	5,428
Estonia	1,347	10.6	13.1	-2.5	-0.3	-2.8	1,343
Finland	5,237	11.0	9.2	1.8	1.7	3.5	5,255
France	60,561	12.6	8.8	3.7	1.7	5.4	60,892
Germany	82,501	8.4	10.1	-1.7	1.2	-0.5	82,456
Greece	11,076	9.4	9.2	0.2	3.1	3.3	11,112
Hungary	10,098	9.6	13.5	-3.9	1.8	-2.1	10,076
Ireland	4,109	15.3	6.5	8.8	11.4	20.2	4,193
Italy	58,462	9.9	10.4	-0.5	5.8	5.3	58,772
Latvia	2,306	9.3	14.2	-4.9	-0.5	-5.4	2,294
Lithuania	3,425	8.9	12.9	-4.0	-3.0	-7.0	3,401
Luxemburg	455	11.5	7.6	3.9	3.4	7.3	458
Malta	403	9.9	7.2	2.7	5.0	7.8	406
Netherlands	16,306	11.6	8.4	3.1	-1.2	2.0	16,338
Poland	38,174	9.4	9.7	-0.3	-0.3	-0.7	38,148
Portugal	10,529	10.5	9.7	0.8	3.9	4.7	10,579
Romania	21,659	10.2	12.3	-2.1	-0.5	-2.5	21,604
Slovakia	5,385	10.0	9.8	0.2	0.8	0.9	5,390
Slovenia	1,998	8.8	9.2	-0.5	3.6	3.1	2,004
Spain	43,038	10.9	8.8	2.1	15.0	17.1	43,781
Sweden	9,011	10.4	9.9	0.5	2.7	3.2	9,040
UK	60,035	11.9	9.9	2.0	3.3	5.3	60,354
Candidate Countries							
Croatia	4,444	9.4	11.1	-1.7	2.6	0.9	4,448
Macedonia	2,030	:	:	:	:	0.2	2,034
Turkey	71,610	18.9	6.2	12.7	0.0	12.7	72,520
Other EEA and Switzerland							
Iceland	294	14.2	6.2	7.9	2.0	10.0	297
Liechtenstein	35	10.8	6.4	4.5	3.8	8.3	35
Norway	4,606	12.4	8.8	3.7	4.7	8.4	4,645
Switzerland	7,415	9.6	8.3	1.3	4.7	6.0	7,460

Notes:

(i) Greek part of Cyprus only.

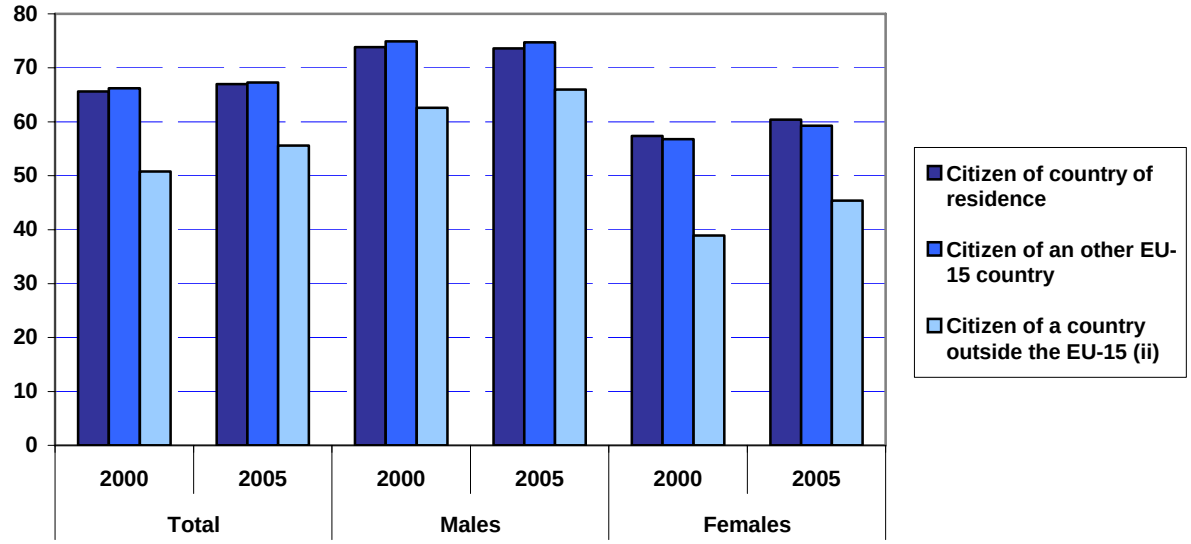
Source: EUROSTAT, Chronos Database; for Macedonia: World Development Indicators 2006; Münz et al. (2006).

Table 2: Foreign-nationals and foreign-born population in EU-27 (latest available year)

	Foreign-nationals(i)						Foreign-born[(i)]					
	Total		Citizen of an other EU-27 country		Citizen of a country outside the EU-27		Total		Born in an other EU-27 country		Born in a country outside the EU-27	
	in 1,000	%	in 1,000	%	in 1,000	%	in 1,000	%	in 1,000	%	in 1,000	%
EU-27	**22,888**	**4.7**	**8,462[(ii)]**	**1.7[(ii)]**	**14,426[(ii)]**	**3.0[(ii)]**	**40,560**	**8.3**	**13,222[(iii)]**	**2.7[(iii)]**	**27,279[(iii)]**	**5.6[(iii)]**
Austria	777	9.5	272	3.3	505	6.2	1,234	15.1	489	6.0	745	9.1
Belgium	871	8.4	618	6.0	253	2.4	1,186	11.4	611	5.9	575	5.5
Bulgaria	26	0.3	:	:	:	:	104	1.3	:	:	:	:
Cyprus[(iv)]	65	9.4	35	5.1	30	4.3	116	13.9	44	5.3	72	8.6
Czech Republic	254	2.5	126	1.2	128	1.3	453	4.4	344	3.3	109	1.1
Denmark	268	4.9	91	1.7	177	3.2	389	7.2	116	2.2	273	5.0
Estonia	95	6.9	(3)	(0.2)	92	6.7	202	15.2	(10)	(0.8)	192	14.4
Finland	108	2.1	46	0.9	62	1.2	156	3.0	63	1.2	93	1.8
France	3,263	5.6	1,278	2.2	1,985	3.4	6,471	10.7	2,125	3.5	4,346	7.2
Germany	6,739	8.9	2,385	3.1	4,354	5.8	10,144	12.3	:	:	:	:
Greece	762	7.0	163	1.5	599	5.5	974	8.8	214	1.9	760	6.9
Hungary	142	1.4	92	0.9	50	0.5	316	3.1	200	2.0	116	1.1
Ireland	223	5.5	152	3.7	71	1.8	585	14.1	429	10.3	156	3.8
Italy	2,402	4.1	:	:	:	:	2,519	4.3	:	:	:	:
Latvia	103	3.9	(10)	(0.4)	93	3.5	449	19.5	43	1.9	406	17.6
Lithuania	21	0.6	(5)	(0.1)	16	0.5	165	4.8	11	0.3	154	4.5
Luxemburg	177	39.0	:	:	:	:	174	37.4	:	:	:	:
Malta	13	3.2	6	1.5	7	1.7	11	2.7	4	1.0	7	1.7
Netherlands	699	4.3	261	1.6	438	2.7	1,736	10.6	354	2.2	1,382	8.4
Poland	49	0.1	(12)	(0.03)	37	0.1	703	1.8	241	0.6	462	1.2
Portugal	449	4.3	90	0.9	359	3.4	764	7.3	178	1.7	586	5.6
Romania	26	0.1	:	:	:	:	103	0.6	:	:	:	:
Slovakia	22	0.4	(12)	(0.2)	(10)	(0.2)	124	2.3	106	2.0	18	0.3
Slovenia	37	1.9	(4)	(0.2)	(33)	(1.7)	167	8.5	14	0.7	153	7.8
Spain	1,977	4.6	594	1.4	1,383	3.2	4,790	11.1	1,405	3.3	3,385	7.8
Sweden	463	5.1	205	2.3	258	2.8	1,117	12.4	558	6.2	559	6.2
United Kingdom	2,857	2.9	1,131	1.1	1,726	1.8	5,408	9.1	1,592	2.7	3,816	6.4

Notes: (i) Data on the total foreign-national and foreign-born populations are from OECD (2006), UN (2006) and national statistics. The totals are split between “other EU-27” and “outside EU-27” on the basis of estimations computed with data from the European Labour Force Survey (2005). (ii) For the estimation of the EU-27 total we assume that the foreign-nationals in Bulgaria, Italy, Luxembourg and Romania (for which there are no data available in the LFS) are distributed among “other EU-27” and “outside EU-27” in the same way as the average of the remaining EU-27 countries. (iii) For the estimation of the EU-27 total we assume that the foreign-born in Bulgaria, Germany, Italy, Luxemburg and Romania (for which there are no data available in the LFS) are distributed among “other EU-27” and “outside EU-27” in the same way as the average of the remaining EU-27 countries. (iv) Greek part of Cyprus only.
Data in brackets are of limited reliability due to the small sample size.
Source: OECD (2006), UN (2006), European Labour Force Survey (LFS) ad hoc modules (2005), and national statistics.

Figure 1: Employment rates in EU-15[(i)] of population aged 15 to 64 by nationality and gender, 2000, 2005



Notes: (i) Incomplete EU-15 average: employment rates (2005) do not include data for Italy; employment rates (2000) do not include data for France and Italy. (ii) Including all countries that became EU Member States in 2004 and 2007.

Source: European Labour Force Survey (LFS), 2005; Eurostat.

Table 3: Employment rates of population aged 15 to 64 by place of birth and gender, 2005 (in percent)

	Born in country of residence			Born in an other EU-27 country			Born in a country outside EU-27		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
EU-27[(i)]	**64.5**	**71.2**	**57.7**	**66.8**	**74.4**	**60.2**	**60.3**	**69.8**	**51.2**
Austria	68.8	74.5	63.0	66.6	71.3	63.1	58.8	66.2	51.5
Belgium	62.8	68.7	56.7	56.9	67.6	47.2	43.2	55.6	31.2
Cyprus	68.4	80.1	56.8	61.8	73.8	52.2	74.4	76.9	72.8
Czech Republic	64.7	73.3	56.1	59.1	64.6	53.1	68.8	88.1	46.4
Denmark	76.8	80.8	72.6	67.7	71.8	64.0	56.6	68.0	48.4
Estonia	64.4	65.4	63.4	60.7	:	:	68.7	73.6	64.8
Finland	69.6	71.2	68.0	64.4	70.9	58.0	48.4	53.9	43.6
France	63.6	68.6	58.6	65.5	73.7	58.6	53.6	63.4	44.1
Germany	67.0	72.2	61.8	:	:	:	:	:	:
Greece	59.8	73.8	45.9	62.8	77.3	53.6	66.6	83.8	47.8
Hungary	56.7	62.8	50.9	62.2	73.9	52.6	63.2	70.9	56.5
Ireland	67.0	75.8	58.0	71.6	81.8	60.6	61.0	71.0	50.2
Italy	57.3	69.4	45.3	:	:	:	:	:	:
Latvia	62.3	65.6	59.3	62.4	(66.3)	(58.4)	69.1	79.3	60.4
Lithuania	62.4	65.8	59.1	:	:	:	73.0	82.7	64.5
Malta	53.5	73.6	33.3	45.2	72.7	26.0	61.6	73.1	48.2
Netherlands	75.1	81.6	68.5	69.1	76.4	63.5	58.6	67.4	49.6
Poland	52.4	58.3	46.6	(26.1)	(25.2)	(27.1)	29.4	(36.5)	(22.5)
Portugal	67.2	73.1	61.4	66.0	74.4	58.1	74.8	79.8	70.4
Slovakia	57.5	64.1	50.9	48.4	62.6	36.8	(70.2)	:	:
Slovenia	65.9	69.8	61.8	(59.2)	(69.9)	(51.1)	68.2	75.5	61.0
Spain	62.3	74.4	50.0	70.2	79.6	61.4	69.6	79.5	60.0
Sweden	74.6	76.3	72.9	72.9	75.3	70.7	54.9	58.4	51.4
United Kingdom	72.4	77.9	67.0	70.7	76.6	65.7	61.4	71.0	52.4

Notes: (i) Incomplete EU-27 average: employment rates of natives do not include data for Bulgaria, Luxemburg, and Romania; employment rates of immigrants (born in an other EU-27 country or outside the EU-27) do not include data for Bulgaria, Germany, Italy, Luxemburg and Romania.

Data in brackets are of limited reliability due to the small sample size.

Source: European Labour Force Survey (LFS) ad hoc modules, Eurostat; own calculations.

Table 4: Employment rates of population aged 15 to 64 by nationality and gender, 2005 (in percent)

	Citizen of the country of residence			Citizen of an other EU-27 country			Citizen of a country outside EU-27		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
EU-27[(i)]	**64.9**	**71.4**	**58.4**	**67.0**	**75.1**	**59.0**	**54.4**	**64.8**	**43.7**
Austria	68.3	74.1	62.5	70.5	76.3	65.9	57.1	64.6	49.2
Belgium	61.9	68.3	55.4	59.8	68.3	50.4	34.0	48.0	19.5
Cyprus	68.3	80.1	56.8	66.8	75.0	58.2	75.8	74.3	76.6
Czech Republic	64.6	73.2	56.0	74.0	84.7	62.2	70.8	88.3	49.7
Denmark	76.3	80.5	72.0	67.3	78.2	57.1	50.1	61.5	42.2
Estonia	65.7	66.3	65.2	:	:	:	61.8	67.3	56.4
Finland	69.5	71.1	67.8	61.3	70.9	51.7	45.1	52.9	38.6
France	63.5	68.6	58.5	66.3	75.1	57.9	44.3	58.6	29.4
Germany	66.7	72.1	61.2	64.2	73.0	54.8	47.7	58.5	36.3
Greece	59.8	73.8	46.0	62.5	78.6	52.3	69.4	86.6	49.2
Hungary	56.7	62.9	50.9	65.2	76.4	56.1	67.8	76.1	59.5
Ireland	67.0	75.9	58.1	73.5	83.1	61.7	58.9	70.0	46.8
Latvia	63.1	66.9	59.5	:	:	:	(64.3)	:	:
Lithuania	62.6	66.2	59.2	:	:	:	72.8	87.5	:
Malta	53.6	73.6	33.4	40.1	68.2	25.4	62.9	73.0	52.7
Netherlands	74.1	80.7	67.5	75.2	82.3	68.1	41.2	53.8	28.7
Poland	52.2	58.2	46.4	:	:	:	(44.4)	(64.3)	(31.4)
Portugal	67.5	73.3	61.8	69.0	76.3	(59.5)	72.2	78.7	66.1
Slovakia	57.4	64.1	50.8	:	:	:	:	:	:
Slovenia	66.0	70.2	61.8	:	:	:	(54.5)	(76.9)	:
Spain	62.5	74.5	50.2	70.8	79.0	62.9	69.4	78.8	60.1
Sweden	73.5	75.3	71.6	71.9	75.0	68.9	44.7	49.2	40.6
United Kingdom	72.1	77.8	66.5	70.2	76.4	64.9	57.7	65.8	50.1

Notes: (i) Incomplete EU-27 average: employment rates do not include data for Bulgaria, Italy, Luxemburg and Romania.

Data in brackets are of limited reliability due to the small sample size.

Source: European Labour Force Survey (LFS) ad hoc modules, Eurostat; own calculations.

Table 5: Unemployment rates of population aged 15 to 64 by place of birth and gender, 2005 (in percent)

	Born in country of residence			Born in an other EU-27 country			Born in a country outside EU-27		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
EU-27[(i)]	**8.5**	**7.9**	**9.3**	**7.6**	**6.8**	**8.4**	**12.9**	**11.9**	**14.2**
Austria	4.3	4.1	4.4	6.2	6.3	6.0	13.3	14.0	12.3
Belgium	6.9	6.3	7.5	8.6	5.0	12.8	25.2	23.0	28.8
Cyprus	5.5	4.4	7.0	(7.1)	:	(9.9)	4.6	(5.4)	(4.0)
Czech Republic	7.7	6.2	9.7	14.6	14.2	15.2	9.1	:	21.6
Denmark	4.5	4.0	5.0	:	:	:	12.2	(9.1)	15.1
Estonia	8.0	10.0	6.0	:	:	:	(10.3)	:	:
Finland	9.3	9.3	9.4	15.5	:	(17.8)	28.8	30.4	26.9
France	8.6	8.1	9.2	6.7	5.8	7.7	18.1	16.2	20.6
Germany	10.4	10.6	10.1	:	:	:	:	:	:
Greece	9.7	5.9	15.2	10.9	(7.9)	13.4	10.1	6.1	16.8
Hungary	7.2	7.0	7.4	:	:	:	:	:	:
Ireland	4.1	4.5	3.5	5.7	5.6	(5.9)	(6.9)	:	:
Italy	7.4	6.2	9.2	:	:	:	:	:	:
Latvia	9.3	10.1	8.5	:	:	:	7.4	:	(10.8)
Lithuania	8.5	8.6	8.3	:	:	:	11.1	:	:
Malta	7.6	7.0	8.8	18.0	11.1	28.8	11.1	11.3	10.7
Netherlands	4.0	3.6	4.5	5.8	(6.2)	(5.4)	12.2	13.1	10.9
Poland	18.3	17.4	19.4		:	:	(15.8)	:	:
Portugal	7.5	6.8	8.4	(9.6)	:	:	8.9	(9.0)	(8.8)
Slovakia	16.3	15.7	17.0	29.1	(26.1)	(33.0)	:	:	:
Slovenia	5.7	5.7	5.8	:	:	:	(7.5)	(4.3)	(11.2)
Spain	9.1	7.0	12.0	9.8	7.8	12.0	11.9	10.1	14.1
Sweden	7.9	7.8	7.9	7.0	8.1	6.0	20.2	20.8	19.5
United Kingdom	4.3	4.7	3.7	5.9	6.5	5.3	7.9	7.8	7.9

Notes: (i) Incomplete EU-27 average: unemployment rates of natives do not include data for Bulgaria, Luxembourg, and Romania; unemployment rates of immigrants (born in an other EU-27 country or outside the EU-27) do not include data for Bulgaria, Germany, Italy, Luxemburg and Romania.

Data in brackets are of limited reliability due to the small sample size.

Source: European Labour Force Survey (LFS) ad hoc modules, Eurostat; own calculations.

Table 6: Unemployment rates of population aged 15 to 64 by nationality and gender, 2005 (in percent)

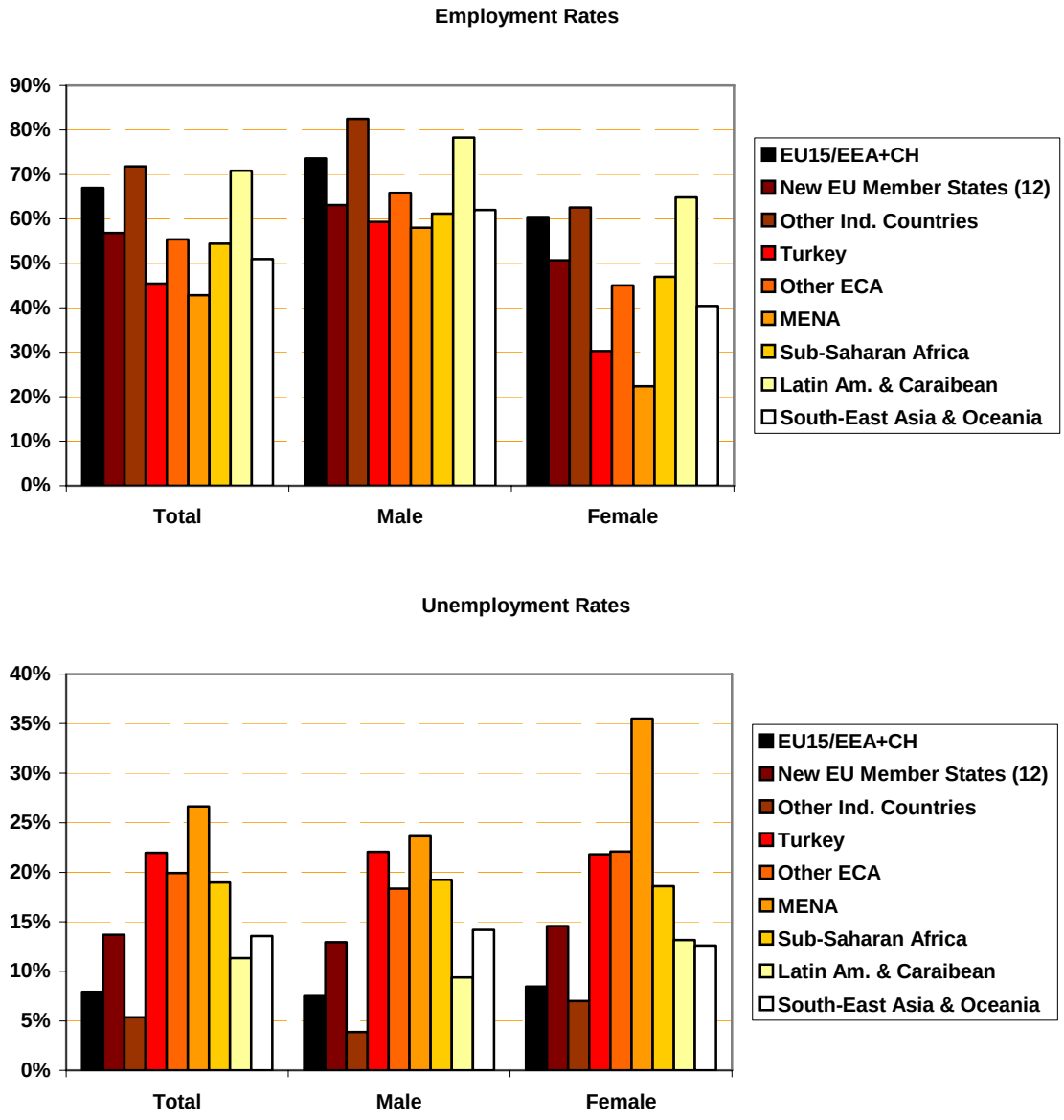
	Citizen of the country of residence			Citizen of an other EU-27 country			Citizen of a country outside EU-27		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
EU-27[(i)]	**9.0**	**8.5**	**9.6**	**9.9**	**9.6**	**10.4**	**17.7**	**17.3**	**18.3**
Austria	4.5	4.4	4.7	6.5	6.4	6.6	14.7	15.5	13.5
Belgium	7.4	6.6	8.3	9.6	7.1	13.1	34.1	32.9	36.8
Cyprus	5.5	4.3	7.0	7.0	(6.5)	(7.8)	(4.1)	:	(3.8)
Czech Republic	7.9	6.3	9.8	5.1	:	:	8.5	:	20.0
Denmark	4.7	4.1	5.3	:	:	:	13.9	:	(18.2)
Estonia	6.6	8.6	4.7	:	:	:	15.3	(15.3)	(15.4)
Finland	9.5	9.4	9.5	(16.8)	:	:	29.4	(30.8)	(27.8)
France	8.8	8.3	9.4	7.1	5.9	8.6	25.1	20.8	32.7
Germany	10.5	10.7	10.3	14.1	14.2	13.9	23.7	24.3	22.6
Greece	9.9	6.0	15.4	7.4	:	(10.9)	8.3	4.5	15.2
Hungary	7.2	7.0	7.4	:	:	:	:	:	:
Ireland	4.1	4.5	3.6	6.0	(6.1)	:	(6.9)	:	:
Latvia	9.1	9.5	8.7	:	:	:	:	:	:
Lithuania	8.6	8.7	8.5	:	:	:	:	:	:
Malta	7.8	7.2	9.0	22.1	17.2	28.1	6.6	5.3	8.5
Netherlands	4.5	4.2	4.9	(4.5)	:	:	18.7	19.8	(16.6)
Poland	18.3	17.4	19.4	:	:	:	:	:	:
Portugal	7.5	6.8	8.3	:	:	:	12.9	(11.2)	(14.8)
Slovakia	16.4	15.7	17.1	:	:	:	:	:	:
Slovenia	5.9	5.6	6.3	:	:	:	:	:	:
Spain	9.1	7.0	12.1	9.8	8.2	11.7	12.3	10.8	14.2
Sweden	8.4	8.4	8.4	7.5	8.6	6.2	26.0	28.4	23.1
United Kingdom	4.3	4.8	3.8	7.4	7.6	7.1	9.3	9.7	8.9

Notes: (i) Incomplete EU-27 average: unemployment rates do not include data for Bulgaria, Italy, Luxemburg and Romania.

Data in brackets are of limited reliability due to the small sample size.

Source: European Labour Force Survey (LFS) ad hoc modules, Eurostat; own calculations.

Figure 2: Employment rates and unemployment rates of population aged 15 to 64 by nationality and gender, 2005, EU-27 averages[(i)]



Notes: Incomplete EU-27 average: employment and unemployment rates do not include data for Bulgaria, Italy, Luxemburg and Romania.

Source: European Labour Force Survey (LFS) ad hoc modules, Eurostat; Münz (2007).

.

Table 7: Population aged 25 to 64 by place of birth and level of education, 2005 (in percent)

	Born in country of residence			Born in an other EU-27 country			Born in a country outside EU-27		
	Low	Medium	High	Low	Medium	High	Low	Medium	High
EU-27[(i)]	**28.1**	**47.6**	**24.3**	**30.7**	**41.0**	**28.3**	**36.3**	**37.9**	**25.8**
Austria	16.5	65.8	17.7	14.0	57.7	28.3	45.6	41.5	12.9
Belgium	32.7	36.2	31.1	41.8	26.5	31.7	48.3	25.4	26.3
Cyprus	33.9	40.2	26.0	25.1	31.8	43.1	38.1	29.5	32.4
Czech Republic	9.9	77.2	13.0	23.6	62.2	14.3	15.9	54.2	29.9
Denmark	17.0	50.5	32.4	(10.6)	42.2	47.2	26.4	35.7	37.8
Estonia	11.0	56.2	32.8	:	:	:	10.5	52.5	37.0
Finland	20.8	44.6	34.6	20.5	47.0	32.5	28.3	44.8	26.9
France	31.3	43.5	25.2	51.0	28.7	20.3	47.6	27.9	24.5
Germany	12.4	62.2	25.4	:	:	:	:	:	:
Greece	40.4	38.9	20.8	25.3	51.3	23.4	44.4	40.5	15.0
Hungary	24.1	59.0	16.8	16.4	60.8	22.8	11.0	57.9	31.1
Ireland	37.0	35.9	27.2	25.5	35.5	39.0	13.1	27.9	59.0
Italy	50.0	38.1	11.9	:	:	:	:	:	:
Latvia	16.7	62.4	20.9	(33.7)	43.6	:	12.1	62.6	25.3
Lithuania	13.1	60.5	26.5	:	:	:	7.7	65.3	27.0
Malta	74.7	13.7	11.5	68.2	10.9	20.9	50.4	26.1	23.5
Netherlands	28.0	40.8	31.2	14.9	51.2	33.9	33.8	44.1	22.1
Poland	15.3	68.2	16.5	38.7	47.4	(13.9)	(19.9)	58.1	22.0
Portugal	75.7	12.5	11.8	45.3	27.9	26.8	50.5	25.9	23.6
Slovakia	12.3	73.9	13.8	(15.5)	63.9	20.6	:	:	:
Slovenia	18.4	60.7	20.8	(21.8)	(60.9)	(17.3)	30.3	57.5	12.2
Spain	52.8	19.1	28.2	32.2	33.0	34.8	43.9	30.0	26.1
Sweden	15.7	55.1	29.2	16.6	50.3	33.1	23.0	46.1	30.9
United Kingdom	14.4	56.2	29.5	14.8	56.7	28.6	20.0	50.0	30.0

Notes: (i) Incomplete EU-27 average: education levels of natives do not include data for Bulgaria, Luxembourg and Romania; education levels of immigrants (born in an other EU-27 country or outside the EU-27) do not include data for Bulgaria, Germany, Italy, Luxemburg and Romania.

Data in brackets are of limited reliability due to the small sample size.

Source: European Labour Force Survey (LFS) ad hoc modules, Eurostat; own calculations.

Table 8: Population aged 25 to 64 by nationality and level of education, 2005 (in percent)

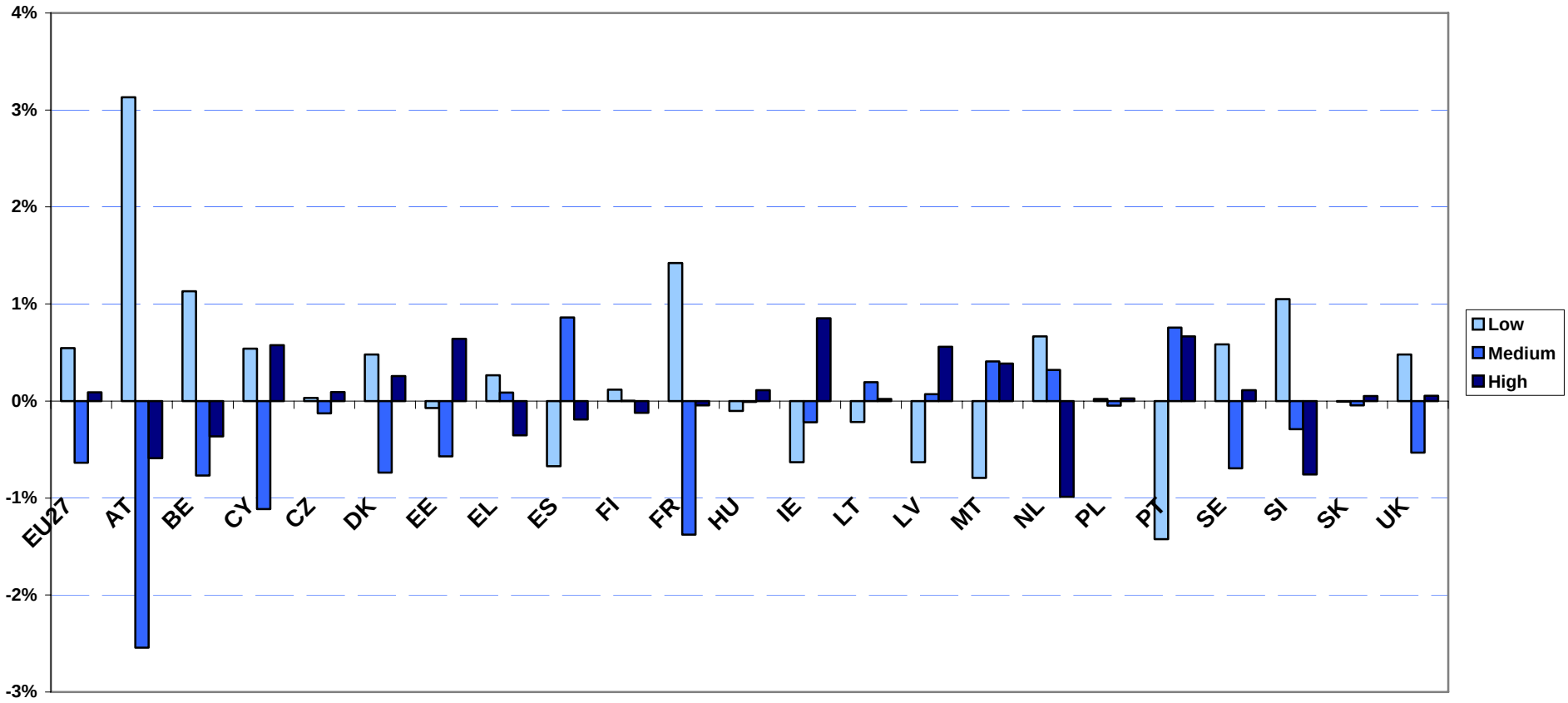
	Citizen of the country of residence			Citizen of an other EU-27 country			Citizen of a country outside EU-27		
	Low	Medium	High	Low	Medium	High	Low	Medium	High
EU-27[(i)]	**25.2**	**50.1**	**24.7**	**31.2**	**41.8**	**26.9**	**45.5**	**35.3**	**19.2**
Austria	17.4	64.7	17.9	11.7	58.2	30.1	50.0	39.5	10.5
Belgium	33.6	35.5	30.9	40.5	29.4	30.1	50.3	23.2	26.5
Cyprus	33.1	39.8	27.1	36.3	27.9	35.8	39.7	32.2	28.1
Czech Republic	10.1	76.9	13.0	9.2	66.7	24.1	17.2	50.4	32.3
Denmark	17.0	50.4	32.6	(11.3)	32.4	56.4	33.3	34.4	32.3
Estonia	11.2	54.0	34.9	:	:	:	9.7	61.8	28.5
Finland	20.8	44.6	34.6	24.4	48.3	27.3	31.0	45.5	23.5
France	32.0	42.7	25.4	52.1	24.8	23.0	62.4	21.8	15.8
Germany	13.4	61.3	25.3	34.1	45.2	20.8	50.8	34.4	14.8
Greece	40.1	39.1	20.8	28.9	52.0	19.1	48.2	38.1	13.8
Hungary	24.0	58.9	17.0	(13.4)	67.1	19.5	:	73.2	(20.5)
Ireland	36.5	35.8	27.7	22.3	35.6	42.1	13.7	28.2	58.1
Latvia	16.5	62.1	21.4	:	:	:	:	(70.1)	:
Lithuania	12.9	60.6	26.5	:	:	:	:	(63.5)	:
Malta	74.2	14.1	11.7	64.5	6.2	29.4	58.9	19.3	21.8
Netherlands	28.1	41.3	30.6	13.6	51.4	35.1	42.3	40.2	17.5
Poland	15.4	68.1	16.5	:	(62.4)	:	:	(46.5)	(43.5)
Portugal	74.3	13.1	12.6	(40.6)	(32.2)	(27.3)	62.0	24.9	13.1
Slovakia	12.4	73.7	13.9	:	:	:	:	:	:
Slovenia	19.5	60.5	20.0	:	:	:	(27.6)	(57.7)	:
Spain	52.3	19.3	28.4	29.2	34.3	36.5	47.8	29.7	22.5
Sweden	16.1	54.7	29.2	17.9	48.4	33.6	28.7	37.3	34.0
United Kingdom	14.7	55.7	29.7	15.1	57.7	27.2	19.3	54.2	26.5

Notes: (i) Incomplete EU-27 average: education levels do not include data for Bulgaria, Italy, Luxemburg and Romania.

Data in brackets are of limited reliability due to the small sample size.

Source: European Labour Force Survey (LFS) ad hoc modules, Eurostat; own calculations.

Figure 3: Impact of immigration from third countries on the skill distribution of the population aged 15-to 64 in EU-27, 2005 (increase/decrease in percent)



Notes: Incomplete EU-27 average: education levels of natives do not include data for Bulgaria, Luxemburg and Romania; education levels of immigrants (born in an other EU-27 country or outside the EU-27) do not include data for Bulgaria, Germany, Italy, Luxemburg and Romania.

Source: European Labour Force Survey (LFS) ad hoc modules, Eurostat; own calculations.

HWWI Policy Papers
by the HWWI Research Programme „Migration Research Group“

2. Die Steuerung der Arbeitsmigration im Zuwanderungsgesetz – eine kritische Bestandsaufnahme aus ökonomischer Sicht
Max Steinhardt
Hamburg, Februar 2007

1. Herausforderungen und Perspektiven der Migration im makroökonomischen Kontext
Thomas Straubhaar
Hamburg, Oktober 2006

The **Hamburg Institute of International Economics (HWWI)** is an independent economic research institute, based on a non-profit public-private partnership, which was founded in 2005. The University of Hamburg and the Hamburg Chamber of Commerce are shareholders in the Institute .

The HWWI's main goals are to:

- Promote economic sciences in research and teaching;
- Conduct high-quality economic research;
- Transfer and disseminate economic knowledge to policy makers, stakeholders and the general public.

The HWWI carries out interdisciplinary research activities in the context of the following research programmes: Economic Trends, Hamburg and Regional Development, World Economy and Migration Research Group.

Hamburg Institute of International Economics (HWWI)

Neuer Jungfernstieg 21 | 20354 Hamburg | Germany
Phone +49 (0)40 34 05 76 - 0 | Fax +49 (0)40 34 05 76 - 76
info@hwwi.org | www.hwwi.org