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EFFECTS OF MIGRATION ON SENDING COUNTRIES: WHAT DO WE KNOW?

by

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PREFACE

Managing migration more effectively has become a top policy priority for most developed and developing countries. This is especially relevant today in view of the prospects of continued international migration, driven by the ageing of OECD populations, increased labour shortages in many developed countries and persistent gaps in income and standard-of- living differentials across developed and developing countries.

It is widely recognised that migration, if properly managed, may generate important gains not only for migrants but also for host and sending countries. Developing countries in particular may have a lot to gain in terms of growth, investment, human capital accumulation and poverty reduction if they manage to restructure effectively their economies following emigration and diffuse these benefits throughout the economy. To do so, migration and development policies need to become more coherent.

This paper, focusing mostly on European migration, provides an evaluative review which aims to enhance our understanding of migration and its potential role for development. The authors first analyse the existing OECD data on foreign-born nationals in Europe relative to the rest of the OECD, paying attention to skill characteristics and destination patterns. It is shown that in addition to income disparities between home and host countries, colonial ties, language and geographic proximity are among the main determinants of European migration giving rise to different migration regimes across EU member states. The paper also reviews the most recent analytical and empirical evidence on the economic and social benefits and costs of migration throughout the "migration cycle" i.e. during the exit, or possible repatriation period. It is found that substantial benefits are associated not only with remittances but also with unemployment alleviation, human capital accumulation and diaspora networks.

This critical review of the existing evidence leads to a discussion of interlinkages between migration and other policy domains including trade, investment and development assistance and addresses policy challenges to better manage migration and maximise the net gains for both sending and receiving countries. It is argued that seasonal and temporary work arrangements promoting circular migration as well as appropriate admission procedures could maximise the mutual gains from migration. Moreover greater coherence between development assistance and migration policies can mitigate the risks from the brain drain in critical service delivery sectors.

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This paper is an outcome of the Development Centre's activities on Policy Coherence and Productive Capacity Building under its 2005-2006 Programme of work. It is also expected to provide a useful input towards the Centre's continuing work on migration and development under its expanding activities on "Policy Coherence for Development and Human Security".

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SUMMARY

This report evaluates the evidence on how migration may promote or hinder development in countries of origin, and explores possible win-win solutions for both sending and receiving countries. The analysis of recent OECD data of foreign-born nationals into Europe documents the presence of multiple migration patterns and reveals that the EU lags significantly behind the United States in attracting highly-skilled migrants who originate mostly from Africa. Reviewing the analytical and empirical evidence on the economic and social costs and benefits of migration and remittances for sending countries reveals that migration can generate substantial direct and indirect gains for sending countries via employment generation, human capital accumulation, remittances, diaspora networks and return migration. Policy coherence across various policies including migration, trade, investment and development cooperation can augment these gains. Major challenges for EU policymaking to maximise the gains from migration for both sending and receiving countries could include better management of migration and human resources, smart visa policies to facilitate circular migration and greater synergies between migration and development assistance programmes in the context of poverty reduction strategy initiatives.

RÉSUMÉ

Comment les migrations peuvent-elles favoriser ou faire obstacle au développement dans les pays d'origine ? Ce rapport explore les solutions qui pourraient être gagnantes à la fois pour les pays d'envoi et d'accueil. L'analyse des données récentes de l'OCDE sur les ressortissants étrangers en Europe rend compte de l'existence de nombreux facteurs de migration. Elle démontre que l'Europe est sensiblement en retard par rapport aux Etats-Unis pour attirer des migrants hautement qualifiés, principalement originaires d'Afrique. Les preuves analytiques et empiriques des coûts et des bénéfices économiques et sociaux provoqués par les migrations ainsi que des transferts de fonds des pays révèlent que les migrations peuvent générer des gains substantiels directs et indirects pour les pays via les créations d'emploi, l'accumulation de capital, les transferts de fonds, les réseaux de dispersion et les retours de migrations. Pour augmenter ces gains, il faut une cohérence entre les nombreuses politiques qui touchent aux migrations, au commerce, à l'investissement et à la coopération pour le développement. Les principaux défis des politiques européennes pour maximiser les gains des migrations pour les pays d'origine et d'accueil pourraient ainsi passer par une meilleure gestion des ressources humaines, par des politiques de visa intelligentes en vue de faciliter les migrations circulaires et par une meilleure synergie entre les migrations et les programmes d'aide au développement, et ce dans le cadre des initiatives prises autour de la stratégie actuelle de réduction de la pauvreté.

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EXECUTIVE SUMMARY

Managing migration has become a priority for OECD policy making. This change of thinking about migration is drawn from the understanding that migration, if well managed, may generate important gains for both the host countries and the migrants' countries of origin. Indeed, there is by now a growing consensus in policy circles that the management of the accelerating globalisation process – including effective domestic adjustment posed by it – necessitates a coherent approach to policymaking as well as increased co-operation with global partners.

This evaluative report aims to enhance our understanding of migration by analysing recent European migration patterns (section II), reviewing the existing analytical and empirical evidence on the economic and social costs and benefits of migration and remittances for sending countries and evaluating possible interlinkages between various policy domains including migration (sections III and IV). It concludes by summarising the major challenges for EU policymaking based on the evidence provided (section V).

Partly funded by the European Commission (DG Employment), the focus of the report is European migration. Europe provides an interesting case to explore migration-development interlinkages: it has a much larger share of low-skilled immigrants among its foreign born population than the United States; differentiated migration patterns are observed across member-states associated with varying impact effects for the corresponding low-income sending countries; finally, recent communications by the European Commission underline the need to jointly consider migration and development challenges for effective policy-making.

A detailed analysis of migration patterns to the EU (section II) shows that more than half of the migrants to the EU come from other EU-15 countries. A great part of the other half originates from countries in the wider Europe region (including Turkey) and North Africa. The United States is a more popular destination for highly skilled migrants compared to the EU, which attracts only one quarter of the highly- skilled migrants as compared to two thirds for North America. In 2000, there were about 11 million expatriates with low education levels living in the OECD countries of Europe, versus 6 million with secondary education and 5 million with higher education level. Highly skilled migrants who choose the EU as their destination, come mostly from Sub- Saharan Africa, the Caribbean islands, South West Asia, East Europe and the Balkans. One third of the low skilled migrants to the EU come from Asia, another third from Wider Europe. The rest are divided between the Middle East and North Africa, whereas fewer originate from Latin America and Sub Saharan Africa. In contrast to common beliefs, low-skilled migrants to Europe originate from higher income countries rather that low income ones.

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Migration is not solely driven by income disparities between home and destination countries, but instead it is motivated by geographic proximity and historical links such as common language and colonial ties which explain between 20 and 30 per cent of the variation of bilateral migration flows between Europe and its partners. A small number of developing and transition countries with high low-skilled emigration rates to the EU are indeed characterised by geographic proximity to the EU and/ or colonial ties.

Migration may impact on development in various and complex ways. Migration- related shocks produce endogenous behavioural and policy responses that affecting both labour resource utilization and productivity in sending countries; these in turn influence growth, poverty and inequality (section III.1.). The observation that inter-linkages, channels and outcomes have not been uniform across countries or time, has led to the decomposition of the migration cycle into five stages including an exit, adjustment, consolidation, networking and repatriation, immigration or circulation stage (section III.2). Each stage is associated with a different configuration of shocks and differentiated impacts on growth and inequality, thus explaining to a large extent both the heterogeneity of outcomes and the observed variation between short and long term effects; moreover, some of the above stages may not even be reached or their duration may differ significantly from one country to another.

The review of the empirical evidence identifies many cases where migration has had direct and indirect positive impact effects on development, via employment generation, remittances, human capital accumulation, diaspora networks or return migration. Gains tend to become more diffused within sending countries when labour markets are integrated; segmentation, either due to inadequate infrastructure or cultural and ethnic barriers, can restrict gains within migrant communities and might increase relative deprivation of non- migrant ones. However, there exist cases where massive and unmanaged migration especially of highly-skilled migrants, can have deleterious effects on service delivery (section III.3.2), inequality -depending on which group the migrants are drawn from- or labour depletion. Moreover, migration may have both positive or negative social effects (section III.5) in terms of children's education and health depending on changes in family composition and the role of women within the family and society.

Remittance flows do benefit both the migrants' households and the non recipient ones through multiplier effects of spending. Temporary migration tends to be more conducive to higher remittance flows than permanent settlement to the host country,especially when it involves low-skilled migrants, not accompanied by family members, who expect to return to their country of origin. Diasporas, can play a major role in promoting trade and investment flows between host and sending countries since long standing immigrant communities tend to influence trade preferences, facilitate trade intermediation and provide useful information on countries of origin (section III.4).

In conclusion, the review of the empirical literature reveals that the synergies between migration and development, if explored and strengthened, could lead to substantial gains for both home and host countries. The last section of the report discusses how migration may be managed so as to maximise the net gains for both sending and receiving countries and produce win-win outcomes.

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For an effective management of migration, information about migrants and patterns of migration should be improved. Better- managed low-skilled migration can fill labour-market needs in many OECD countries while having a pro-poor impact on sending countries since low-skilled migrants tend to come from disadvantaged families. At the same time, the obstacles and existing disincentives towards attracting and retaining highly- skilled migrants in Europe prevalent in European legislation and practices should be systematically reviewed and removed whenever possible.

For both low and highly skilled migrants, multi-annual seasonal and/or temporary work arrangements could be introduced that would allow migrants to benefit from labour mobility, make European labour markets more flexible and allow sending countries to maximise the gains from migration. Smart visa policies, which would allow for and facilitate "circular migration" may include the extension of multi- annual visas, flexible employment schemes, transferability of pensions, incentives for participation in temporary return programmes, etc.

The analysis of migration patterns to Europe highlights the need for multiple European migration-policy regimes. The first policy regime applies to migrations from low income countries whereas the second one concerns the EU neighbourhood and the MENA countries.

Strengthening differentiated partnerships and engaging in structured dialogue with the countries concerned could be of primary interest to Europe. Identifying areas where partnerships with significant potential gains could be developed, would allow the EU to tackle the challenges associated with the need to manage migration flows and address security concerns. By supporting capacity building in low income countries with significant rates of migration to European countries could help spread the benefits of migration to the whole economy and enhance the retentive capacity of the migrants' home country, thus promoting its smoother integration into the world economy. In the case of European neighbouring countries across South-Eastern Europe, the Middle East and the Maghreb, co-operation and partnership can be based on the pursuit of deeper market integration through trade, investment and circular migration flows comprising both unskilled and skilled labour. In this relatively integrated regional market, migration, trade and investment policies need to be designed in a more coherent manner so that synergies across policy domains could maximise the potential gains for both home and host countries.

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I. TOWARDS A COHERENT EU MIGRATION-DEVELOPMENT POLICY AGENDA: MOTIVATION AND METHODOLOGY

Migration into Europe is on the rise and likely to increase in the years to come. According to Eurostat estimates, the population of the EU-25 is expected to increase by more than 13 million inhabitants from 456.8 million on 1 January 2004 to 470.1 million on 1 January 2025, with population growth mainly due to net migration (COM(2005)134). The ageing of European societies, limited intra-European mobility, the maintenance if not widening of income differentials, expectations of improved standards of living and targeted policies are some of the most important pull factors driving migration into Europe; push factors include high population growth, high unemployment, bad working conditions, poverty, insecurity and unfavourable economic prospects.

Managing effectively migration flows and improving migrants' integration into European societies are becoming top policy priorities for European policymakers. There is a growing consensus that migration, if well managed, can bring substantial gains both to the EU and to the countries of origin. However, with increased migration comes also the challenge of addressing effectively the risks associated with it: illegality, human trafficking, money laundering and a possible alienation and marginalisation of migrant communities. These can threaten the rule of law and social cohesion in host countries while posing security risks for individuals, including migrants, as well as local communities.

The realisation that the migration, development and security agendas are interrelated and should be tackled within a coherent policy framework has increasingly gained ground in EU policy circles. In an important issues paper on the "European Union's Development Policy" in January 2005, the Commission recommended to the Council that it steps up cooperation and extends the scope of partnership agreements between the EU and developing countries to address effectively the challenges of globalisation. By arguing that "development policy is becoming the privileged instrument for managing globalisation" (Ibid, p. 2), the authors of the report argued that Council should review its Declaration on Development Policy in view of the increasing interdependence of issues, including trade, migration and security as well as the new political priorities of an enlarged EU under the European Neighbourhood Policy and the European Security Strategy (Ibid, p. 2).

These recommendations have in fact been incorporated into a series of subsequent Communications from the Commission to the Council, the European Parliament and the European Economic and Social Committee. Indeed, in April 2005 [COM(2005)134], the EU Commission identified migration and security as priority areas for policy coherence, highlighting the challenge of attaining further synergies between these policy domains and development policy objectives (Ibid, p. 4). According to this Communication, the EU also needs to "treat

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security and development as complementary agendas, with the common aim of creating a secure environment and of breaking the vicious circle of poverty, war, environmental degradation and failing social and political structures" [COM(2005)134 final, p. 10]. Similarly, building on its 2002 Communication on Migration and Development [COM(2002)703], the Commission reiterated its aim to "promote the synergies between migration and development, to make migration a positive factor for development" [COM(2005)134 final, p. 15]. The Commission has indicated its intention to do so through the development of appropriate EU policies on economic migration, the promotion of cheaper and more secure channels for private migrant remittances, and policies to turn the "brain-drain" into a "brain-gain" through appropriate incentives and mobility schemes (Ibid, p. 15).

In a more recent EU Council document, (22 November 2005), the Commission calls for increased partnership between EU, source and transit countries – including the extension of financial assistance – to address the joint challenges posed by the need to manage migration flows effectively and address possible security concerns associated with migration.

From the above it follows that there is by now a growing consensus in EU policy circles that the management of the accelerating globalisation process – including effective domestic adjustment posed by it – necessitates a coherent approach to policymaking as well as increased co-operation with Europe's global partners.

Migration policy is at the core of the EU policy-coherence agenda. Understanding better the opportunities and risks posed by migration for sending countries would allow EU member states and European institutions to:

- address more effectively EU domestic policy concerns, including persisting unemployment, shortages of manpower and labour market needs, increased marginalization of second- generation immigrant communities, failures of improved integration schemes, security concerns, etc, through the active engagement of partner countries in the management of migrant flows;
- identify better the areas where increased partnership with developing and transition countries is feasible and beneficial and evaluate the nature and magnitude of the potential net gains involved;
- explore the potential complementarities between migration, development assistance, trade and investment policies in the context of the EU's development policies;
- integrate more effectively the migration dimension into all relevant EU policies, including the EU Neighbourhood Policy, the European Security Strategy, Europe's Development Strategy as well as EU regional initiatives (e.g. the EU Strategy for Africa).

This evaluative report aims to enhance this understanding by identifying through analysis of recent empirical evidence, the existing patterns of migration into Europe and the presence of multiple migration regimes (section II), reviewing the existing analytical and empirical evidence on the economic and social costs and benefits of migration and remittances for sending countries and evaluating possible interlinkages between various policy domains including migration (sections III and IV). It concludes by summarising the major challenges for EU policymaking based on the evidence provided (section V).

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II. WHERE DO EU MIGRANTS COME FROM?

II.1. Patterns of Migration

This section draws from 1999-2003 census data[1] in order to provide an indication of where migrants to the EU have been coming from. According to the evidence (Chart 1 of Appendix) showing the relative shares by country of origin, just over half of the EU's foreign born population were born in other EU-15 countries. One third of the remainder has come from the wider Europe area (in which we include Turkey), with a slightly smaller proportion originating in Africa. Among the countries which have sent a large number of migrants to the EU figures Turkey (with a share of 5.8 per cent), Morocco (4.5 per cent), Algeria (3.9 per cent), Serbia-Montenegro (2.2 per cent) and Tunisia (1.3 per cent), India and Pakistan (1.8 per cent and 1.2 per cent respectively) and Albania (1.7 per cent).

When foreign born individuals who have kept their foreign nationality are considered (Chart 2 in Appendix), Morocco is the single largest, non-EU country of origin, providing 10 per cent of the foreign born foreign nationals in the EU. Albania appears with an important share of 5.6 per cent, whereas Turkey ranks second in the Wider Europe area (with 4.3 per cent). From Asia, China exhibits the highest share (1.4 per cent).

Comparing the highly skilled to the low skilled foreign born European residents (Chart 3 in Appendix), it is interesting to note that the main sending region is Africa (13.5 per cent of all highly skilled foreign born living in the EU), followed by Asia (9 per cent) and the Wider Europe (8.6 per cent). Country wise, first in ranking is Algeria (13.5 per cent), followed by Morocco (3.1 per cent) and India (2.7 per cent). Surprisingly, Turkey contributes only 1.4 per cent of the EU's high skilled foreign born. Among the low skilled foreign born living in the EU, Asia exhibits the highest share among low skilled foreign born living in the EU (24.4 per cent), followed by the Wider Europe region (21 per cent)[2].

II.1.1. Unskilled Labour Supply Flows

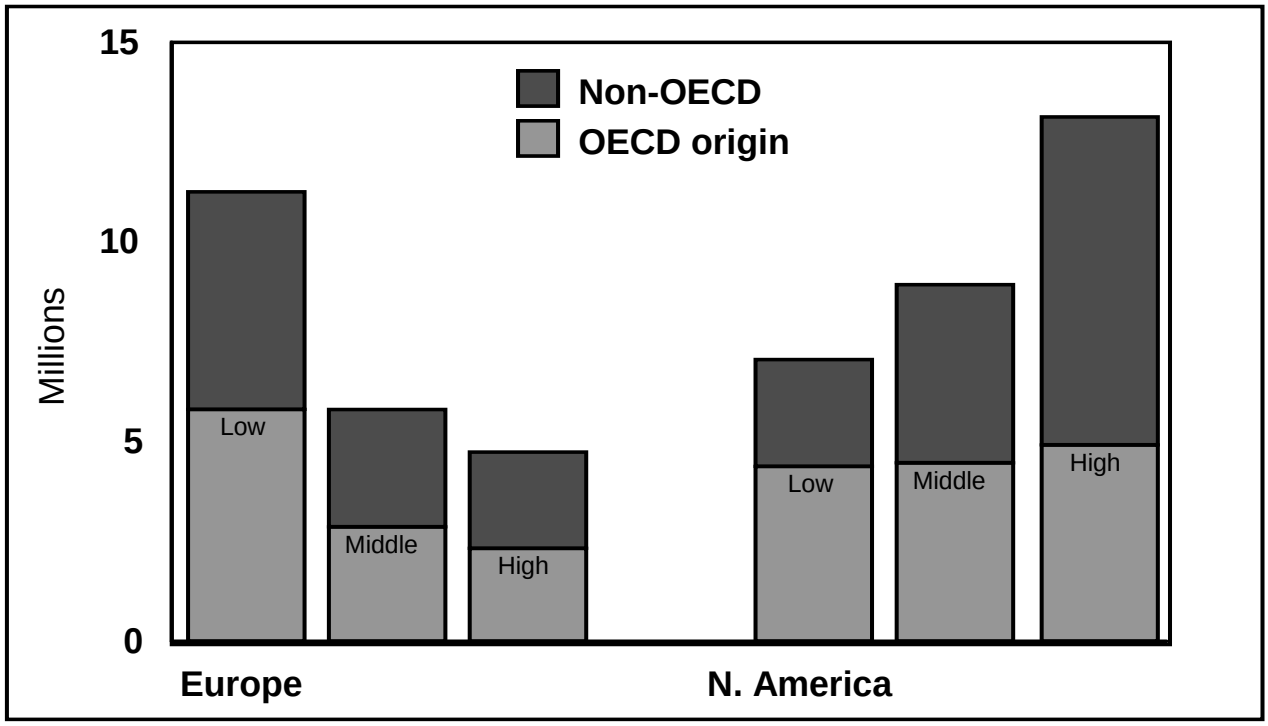
Until quite recently, little effort was made by the European states to attract in particular highly skilled migrants. Partly by default and partly by design, a significant portion of migrants to Europe has consequently possessed fairly low skill levels. This is brought out clearly in Figure II.1. In the OECD countries of Europe, there were by 2000 about 11 million expatriate

1. OECD Database on Immigrants and Expatriates, 2004
2. Table A1 in the Appendix uses the same data to show the ten main origin countries of low and high skilled migration for each EU receiving country

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adults with low levels of education (nine years of schooling or less). In comparison, there were nearly 6 million with a secondary school education and slightly less than 5 million with a tertiary education. By contrast, foreign-born adults in North America have substantially higher levels of educational attainment.

Figure II.1. **Adult Migrants in OECD Europe and N. America by Education Level and Origin (2000)**



Source: OECD Database on Expatriates and Immigrants, 2004.

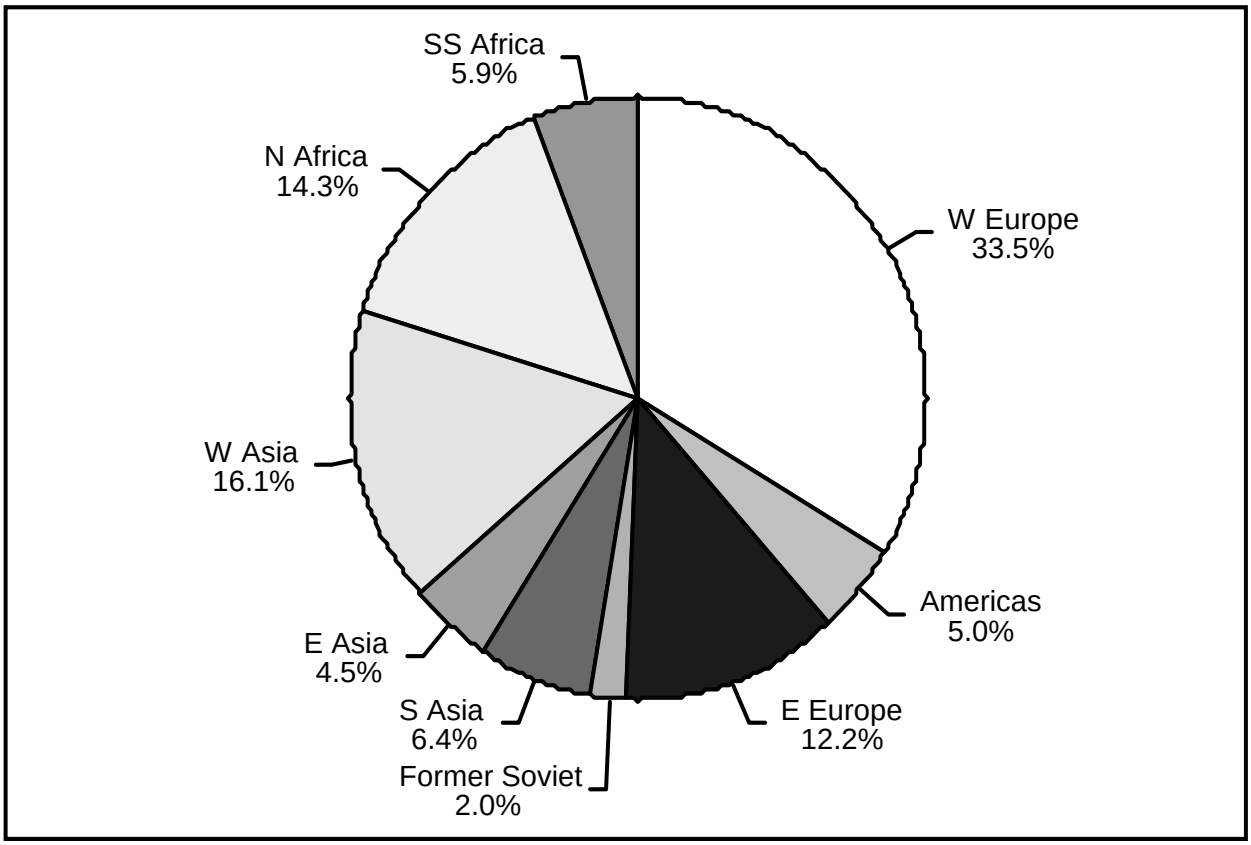
The early guest worker programmes in Europe, most of which ended around 1974, were designed to provide workers for manufacturing and some service jobs. Most of these tasks were semi-or low-skilled. Family reunification, which followed the settlement of substantial numbers of guest workers, brought in relatives with a socio-economic profile similar to that of the original guest workers. Little systematic information is available on the skill levels of the waves of people seeking asylum in Europe during the 1990s, but many were from countries where educational attainment is on average not high. Meanwhile, the growth in contract labour schemes in European agriculture has expanded low-skill opportunities for migrant workers. In 2000, about 55 per cent of foreign adults present in the EU-15 were estimated to have had less than a secondary education, which means less than 9 years of schooling.

Of these low educational attainment adults, about a third originated from within Western Europe itself (especially from Italy, Portugal and Spain). Almost another third were from the Middle East and North Africa, roughly equally divided between these two component regions

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(see Figure II.2). About 14 per cent were from Eastern Europe and the former Soviet Union. On the other hand, the major developing regions of sub-Saharan Africa, South Asia and Latin America are estimated to have contributed less than 17 per cent of this low-skilled migrant population.

Figure II.2. **Low Education Adult Migrants in EU-15 by Region of Origin (2000)**

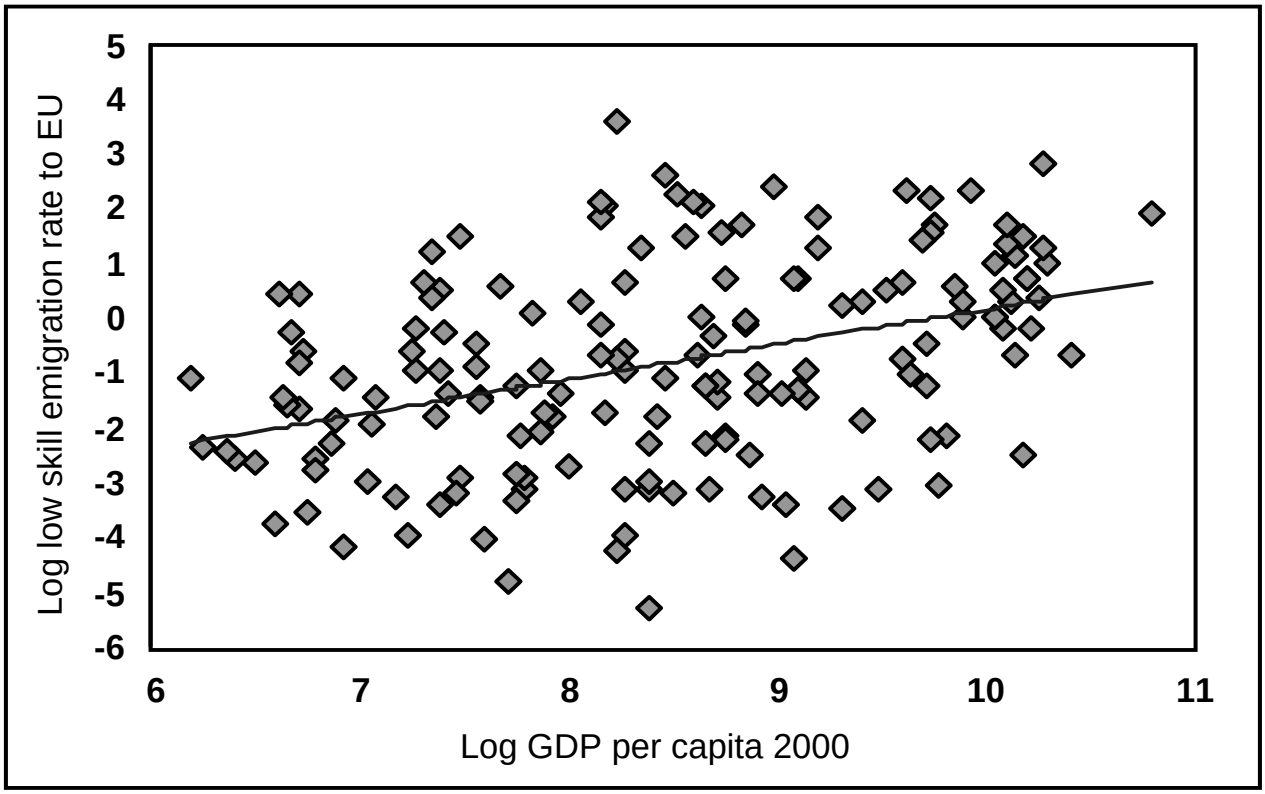


Source: OECD Database on Expatriates and Immigrants, 2004.

Indeed, on average, the propensity of low skilled workers to migrate to the EU-15 has been greater from the higher income countries than from the lower income countries. Figure II.3 shows the proportion of 164 countries' low skilled adult populations residing in the EU-15, as of 2000, against the income level of the country of origin. There was clearly substantial variation in the emigration rate of low skilled workers to the EU-15 among countries with similar incomes. Yet, the propensity of low skilled persons to reside in the EU-15 clearly rises with income; the line of best-fit, superimposed on Figure II.3, clearly depicts this tendency.

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Figure II.3. **Low-Skilled Migration Rate to EU-15 against Income Level of Country (2000)**



Source: OECD Database on Expatriates and Immigrants, 2004.

Migration to the EU-15 has thus comprised large numbers of low-skill persons, even though these have not been drawn in particular from poor countries. There are nonetheless a few developing and transition countries with relatively large portions of their low-skill populations present in the EU, where they comprise large populations. Some of the more important of these are listed in Table 1.

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Table 1. **Low Educational Attainment Adults in EU-15 Selected Developing and Transition Countries (2000)**

	Number of Low Education Adults in EU-15	Per cent age of Low Education Adults in EU-15
Turkey	1 510 746	5.5
Algeria	463 307	4.6
Morocco	765 714	6.7
Tunisia	190 828	5.1
Albania	64 861	8.6
Bosnia and Herzegovina	182 651	12.0
Croatia	208 834	11.7
Macedonia, FYR	76 276	10.2
Romania	91 823	2.2
Serbia and Montenegro	231 741	5.7
Senegal	62 974	2.0
Jamaica	69 778	8.2
Suriname	91 864	38.8

Source: OECD Database on Expatriates and Immigrants, 2004.

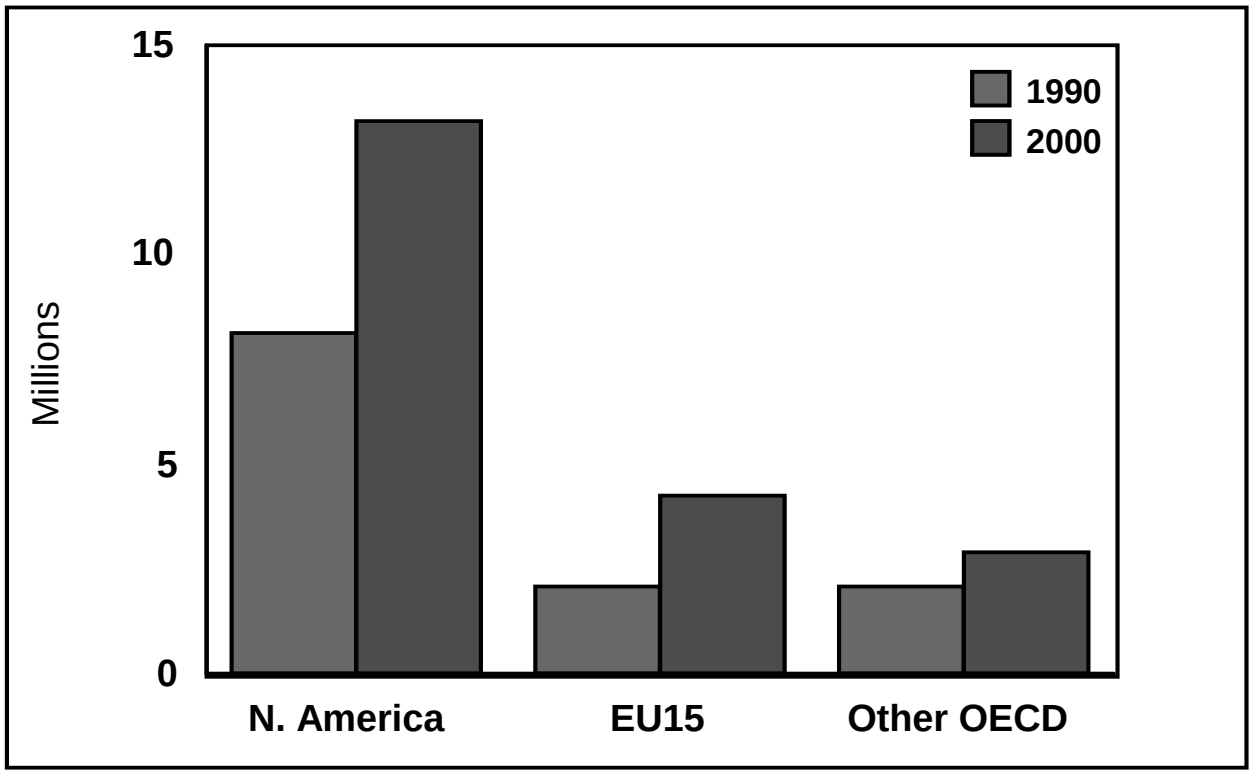
The economies of most of the countries in Table 1 have performed poorly of late. It is not surprising to see high rates of emigration from these states. But two key factors distinguish these states from other low-income countries from which very few low skill migrants come to the EU. The first factor is proximity, which is apparent among the countries of East Europe and the Maghreb. The second factor is former colonial ties, as in Senegal, Jamaica and Suriname.

II.1.2. Evidence on the Size of the Brain Drain

The foreign-born, tertiary-educated populations of the OECD countries are estimated to have increased by nearly 8 million between 1990 and 2000. By the turn of the millennium, this resulted in a total of slightly over 20 million such highly skilled people in the OECD.

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Figure II.4. **Number of Tertiary Educated Migrants in OECD Countries: 1990 and 2000**



Source: Docquier and Marfouk (2005).

North America is clearly the dominant attraction (see Figure II.4). Almost two thirds of the foreign-born, tertiary-educated population, living in the OECD countries were in North America in 2000. Most of these were in the US. The OECD countries of Europe have attracted about a quarter of the highly skilled migrants, while the remaining 10 per cent are to be found in Australia, New Zealand, Japan and Korea.

More than 40 per cent of these highly skilled migrants are actually transfers from one OECD country to another (see Table 2). Brain circulation among the advanced economies is common. In 2000, almost a third of the highly skilled adults in the OECD who originated from outside of the OECD came from East Asia. Nearly 80 per cent of these East Asians resided in North America. The next three largest groups are from South Asia, the Caribbean and South America, and again more than 70 per cent of each of these were in North America. Even from Sub-Saharan Africa, a slightly larger fraction of the brain drain is to North America than to Europe.

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Table 2. **Tertiary Educated Adult Population in OECD Countries (2000) by Region of Origin and Region of Residence (per cent)**

Region of origin	OECD Countries of Residence by Region			
	America	Europe	Asia/Pacific	TOTAL
OECD	24.86	11.93	5.71	42.49
Caribbean	5.44	0.34	0.01	5.79
C America	2.04	0.03	0.02	2.10
S America	4.30	1.02	0.40	5.72
Europe	1.44	1.81	0.48	3.73
Former Soviet	2.44	1.26	0.16	3.86
S Asia	5.60	1.51	0.65	7.76
E Asia	13.58	1.44	2.38	17.41
W Asia	2.57	0.98	0.26	3.81
N Africa	0.89	1.22	0.11	2.22
SS Africa	2.19	2.08	0.42	4.69
Oceania	0.16	0.01	0.25	0.43
TOTAL	65.52	23.62	10.86	100.00

Source: OECD Database on Expatriates and Immigrants, 2004.

But how important are these migrations of highly skilled persons relative to their availability in the home country? Figure II.5 maps the percentage of each country's tertiary educated adults absent in the OECD countries, as of 2000. The regions with high rates of brain drain are clear: Central America and the Caribbean Islands, South West Asia and parts of Indochina, East Europe and the Balkans, but above all Sub-Saharan Africa where almost the entire region exhibits a high rate of brain drain.

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Figure II.5. **Percentage of Tertiary Educated Population in OECD Countries (2000)**



Source: OECD Database on Expatriates and Immigrants, 2004

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Table 3. **Percentage of Tertiary Educated Adult Population in EU-15 Countries**
Top Forty Countries (2000)

Suriname	43.17	Saint Kitts and Nevis	15.50
Gambia	40.32	Dominica	13.86
Mozambique	36.68	Togo	13.45
Cape Verde	31.13	Grenada	12.89
Mauritius	29.12	Gabon	12.79
Angola	28.16	Equatorial Guinea	12.70
Malta	25.24	Morocco	12.34
Guinea-Bissau	23.80	Malawi	12.06
Sierra Leone	21.29	Mali	11.37
Cyprus	19.87	Senegal	11.30
Ghana	19.10	Bosnia and Herzegovina	10.95
Seychelles	18.74	Saint Vincent and the Grenadines	10.89
Comoros	18.72	Rwanda	10.76
Kenya	18.63	Afghanistan	10.17
Uganda	18.10	Congo, Dem. Rep.	9.83
Saint Lucia	17.93	Tunisia	9.77
Congo, Rep.	17.16	Barbados	9.55
Sao Tome and Principe	17.12	Cameroon	9.50
Somalia	16.56	Lebanon	9.15
Macedonia, FYR	15.89	Sri Lanka	8.62

Source: Docquier and Marfouk (2005).

For some of these countries, the EU forms an important destination for their highly skilled. Table 3 lists the forty countries with the highest portion of their tertiary educated populations present in the EU-15 by 2000. In most of these forty countries, more than one in ten of their tertiary educated population is in the EU. For countries such as Gambia and Suriname, this fraction exceeds forty percent.

Twenty six of the forty countries listed in Table 3 with a high brain drain rate to the EU are in Africa: all but two is in Sub-Saharan Africa. A further seven are small states in the Caribbean or nearby; most have former colonial ties to Europe. Only two East European states appear in this list despite the high rate of brain drain from East Europe noted in connection with Figure II.5.

Among the transition economies of East Europe and of the new European states of the former USSR, only four had more than half of their tertiary educated OECD expatriates in the EU-15 in 2000 (see Table 4). Despite the much greater distance, America proved to be the largest destination in the brain drain from most of these states. From Slovakia, Belarus, Lithuania, and to a lesser extent the Czech Republic, a brain drain had occurred to non-EU-15, OECD, European states.

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Table 4. **Regional Distribution of Tertiary Educated Expatriates in OECD Countries From East Europe and European States of Former Soviet Union (2000)**

	Tertiary Educated Population in OECD percentage in each region			
	Americas	EU	Other OECD Europe	Asia/ Pacific OECD
Albania	44.8	52.2	1.4	1.7
Bosnia and Herzegovina	39.5	45.8	5.3	9.3
Bulgaria	30.8	26.4	5.2	37.5
Croatia	48.4	35.1	4.4	12.0
Czech Republic	47.7	27.7	20.8	3.9
Hungary	59.7	27.2	5.3	7.7
Macedonia, FYR	19.3	54.6	2.8	23.3
Poland	59.2	33.2	2.1	5.5
Romania	54.3	29.3	12.5	3.9
Serbia and Montenegro	28.3	49.1	11.3	11.2
Slovakia	30.6	15.1	52.4	1.8
Slovenia	40.0	50.8	3.8	5.4
Belarus	49.6	8.5	40.7	1.2
Estonia	39.6	54.5	1.1	4.8
Latvia	68.4	18.6	2.5	10.5
Lithuania	46.2	15.7	34.6	3.5
Moldova	67.0	28.8	2.3	2.0
Russia	69.2	19.3	6.4	5.1
Ukraine	62.8	13.0	21.9	2.3

Source: OECD Database on Expatriates and Immigrants, 2004.

II.2. EU Multiple Regimes: Differentiated Needs and Regional Markets Across the EU

The distribution of migrants across countries and by country of origin, as presented in the previous sections, highlights the importance of historical and colonial ties, common language and geographic proximity in determining the migrants' destination country. In this section, we attempt to quantify the part of the bilateral "flows" between two countries which can be explained by these factors: geographic proximity, language, colonial ties.

The choice and construction of the dependent variable for the purpose of this exercise has proven to be quite difficult. To the best of our knowledge, there is no good data measuring bilateral flows available for a large number of countries. Where they do exist, they do not cover a large number of sending countries. The OECD database on immigrants and expatriates is one of the first attempts to count foreign born citizens in the OECD member countries by country of birth and, most importantly, by education level. This dataset allows us to overcome certain of the data problems discussed in the literature.

The share of home country population present in Europe is explained by a set of economic, political and proximity factors presented in Table A2 of the Appendix that act both as

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push and pull factors in influencing the decision to migrate. Explanatory variables include demographic pressure, such as population density and population growth. In order to account for current economic and living conditions in the migrants' country of origin we include controls for GDP per capita, a variable measuring life expectancy at birth (in years) and a measure for unemployment in order to account for a part of the push factors which have been identified in the literature as main causes of migration. These three variables also serve to account for pull factors, when measured at the country of destination. Hence they are used in combination with those for the country of origin in some of the regressions (GDP of the country of destination is used lagged).

One of the most well-known factors determining migration is migration costs, which we would like to account for in our regressions. The cost of migration has been often proxied by the distance between the country of origin and that of destination. For that reason we use data from the CEPII geographic distance measures[3]. The CEPII has calculated different measures of bilateral distances (in kilometres) available for 225 countries across the world. We use two distance measures based on bilateral distances between the biggest cities of those two countries, those inter-city distances being weighted by the share of the city in the overall country's population[4]. Finally, we use a dummy variable for contiguity.

We expect common language and colonial ties to play an important role in determining migration flows between two countries. For that purpose we use a dummy variable which equals one if the two countries have been in colonial relationship after 1945[5]. We have also attempted to use different variables capturing colonial ties: whether the two countries were ever in colonial relationship, if they are currently in a colonial relationship, if they were or currently are the same country, if they were colonized by the same country post-1945 etc. The results we get with all these proxies of colonial ties are similar and are not reported in tables A3-A5 but they are available from the authors upon request.

We also employ a dummy variable which equals one if the two countries have the same official language[6].

The results of these regressions are presented in Tables A3-A5 in the Appendix. Table A3 presents the results of the regressions for EU receiving countries and low and middle income sending countries[7]. Tables A4 and A5 report the results of the same regressions distinguishing between highly skilled (Table A4) and low skilled (Table A5) foreign born. For the full sample of foreign born, colonial and historical ties, common language and geographic proximity explain about 20 per cent of the variation in the share of migrants stocks. This goes up to 25 per cent for low skilled foreign born and 30 per cent for the highly skilled. The coefficient of the variable on colonial ties has the right positive sign and is statistically significant in all specifications. The

3. These can be found at: http://www.cepii.fr/distance/noticedist_en.pdf

4. Head and Mayer (2002) for more details about international and intra-national distance calculations.

5. Data from CEPII.

6. Data from CEPII.

7. Note that only pairs of countries with positive migration flows are included.

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same holds true for the common official language dummy which confirms that a common language favours migration between two countries. The coefficient of the distance variable between the two countries is an important determinant and has the expected negative sign which is robust to the different specifications. This also holds for the coefficient of the contiguity dummy, which is positive and statistically significant on top and above the distance measure. As expected, unemployment at the country of origin increases migration incidence as it is a standard push factor operating through increased pressure (mostly in labour markets, but also in access to land etc). The results of the regressions also reveal a negative impact for the unemployment rate in the country of destination. The coefficient of the GDP measure in the sending country has the right negative sign but is only statistically significant in one specification. In contrast that of the receiving country is positive and statistically significant in all cases.

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III. MIGRATION-DEVELOPMENT INTERLINKAGES: A REVIEW OF THE EMPIRICAL LITERATURE

III.1. Migration-Development Channels and Interlinkages

Migration affects a migrant's home country in a variety of ways. In particular, shocks related to migration processes include changes in labour supply as well as changes in productivity. Migration processes also induce endogenous behavioural or policy responses as sending countries tend to adjust to ongoing shocks. Both shocks and responses affect labour resource availability and productivity.

Negative shocks in labour supply appear at early stages of migration, when a large number of people, mostly economic migrants, decide to leave their home country to seek employment and better living conditions elsewhere. These shocks may be positive at later stages of migration when return migration takes place and/or immigration may take over. Migration might even lead to depopulation or more often to massive departure of labour with specific levels and types of skills (e.g. nurses, doctors, teachers) which at least in the short-run may have severe adverse effects on the stock of human capital. In the medium run however, moderate emigration can result in improved incentives for skill accumulation and replenishment, thus enhancing productivity. These changes in labour supply, induced by migration, constitute the first channel through which migration affects development.

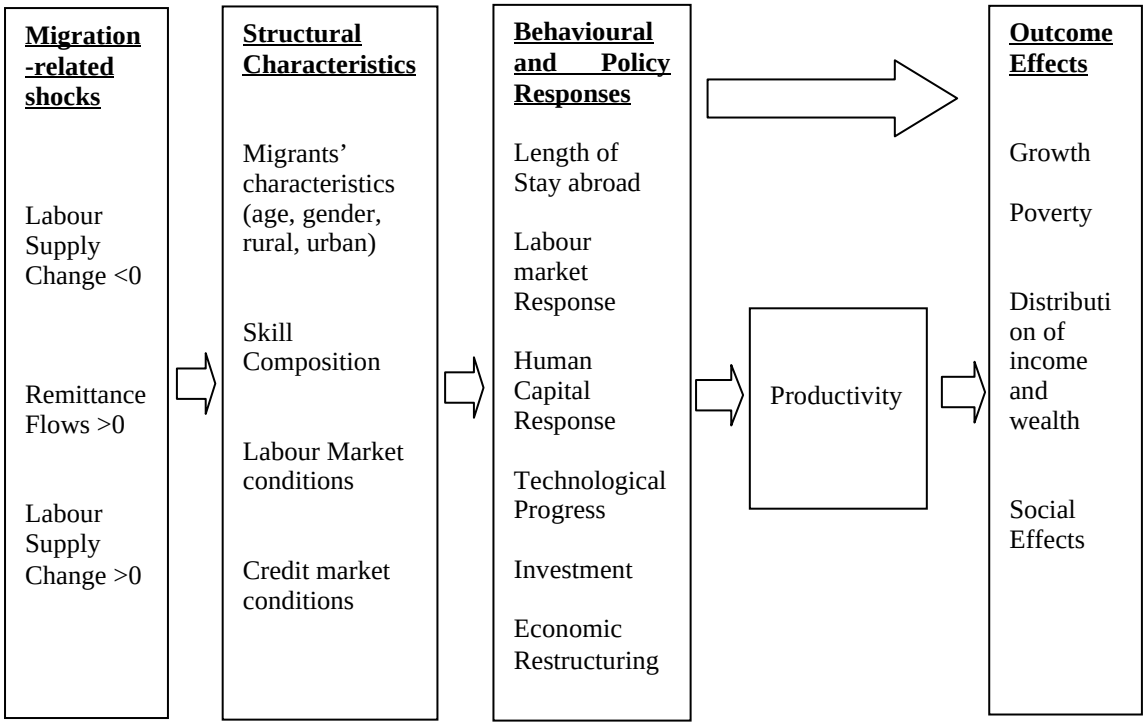
A further major impact of migration on development comes through remittances which are sent by migrants to families and relatives who have remained in their country of origin. Both the labour supply eventually and the transfer shock affect poverty and growth directly through substitution and income effects and indirectly through productivity changes.

The impact of migration on development through the various channels described above is summarised in Figure III.1. Migration-related shocks linked to labour supply changes lead to specific behavioural and policy responses depending on specific structural characteristics. These structural characteristics include labour and credit market conditions as well as the migrants' characteristics (gender, age, skill, regional origin). For example, in countries with a large supply of unskilled labour and a high rate of unskilled unemployment, migration of a proportion of this labour group will not have a major impact on productivity since unemployed or unskilled workers will fill in for migrant labour. However if the substitutability between migrants and natives is low, then migration could have a negative impact on output and productivity. In later stages of migration, when either migrants start returning back home or immigration is taking

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over emigration, the labour supply shock may be positive, and its impact would depend again on labour market conditions. Thus the skill composition of labour in the migrants' sending country and the effective substitutability of labour critically affect income and productivity. Even in cases where substitutability is low, however, productivity increases might eventually be substantial if the improved prospects associated with migration induce non-migrants to invest in education and skill accumulation in expectation of better future prospects abroad (Boucher *et al.*, 2005). According to this new strand of the skilled migration literature, (Boucher *et al.*, 2005) the higher probability of migration increases the incentives to acquire education and through that the share of skilled population in the migrants' home country. This hypothetical increased human capital would have positive effects on productivity and subsequently growth. This outcome is possible under the assumption that not all skilled individuals will actually migrate and that access to education and training is feasible. Migration may also have some effects upon sectoral restructuring, and through them, may also affect productivity. In the case of countries which went through the migration process some time ago, changes in the structure of the economy occurred through the mechanisation of agriculture shifting unskilled labour from agriculture to manufacturing as happened in the case of Greece (Glytsos and Katseli, 2006). Structural labour supply shocks, characteristics and behavioural responses thus influence the impact effects of migration on sending countries.

Figure III.1. **Transmission Channels**



The development impact of remittances is also conditional on structural characteristics and behavioural responses due to restructured incentives. Thus, credit market conditions, determine not only the cost of transferring money and thus the channel chosen by migrants to send remittances back home, but also the way remittances are invested. Indeed, the growth and

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development potential of remittances may be limited by local market imperfections, such as imperfect or absent rural credit markets in which case, recipients would be constrained to borrow against remittances or use them as collateral. Inefficient rural credit markets would also hamper the channelling of savings from households with remittances to those desiring to invest them in productive activities.

The existing evidence also suggests that the potential impact of remittances on the sending country may change with the type of migration (temporary versus permanent/ skilled versus unskilled) and the likelihood of return migration as a consequence of behavioural responses to migration (Léon-Ledesma and Piracha, 2004). Thus, one dollar received from a highly- skilled Mexican migrant occupying a relatively high- status job in Mexico city, might produce stronger incentives for investment in education among family members left behind than if this same migrant occupied a menial job in the United States (Boucher *et al.*, 2005).

III.2. Economic Effects Over the Migration Cycle: A Stage-based Experience

A brief review of the empirical literature reveals that there is in fact an important degree of heterogeneity in the way migration and remittances impact on growth, poverty, inequality and development. In addition, the existing research stresses the importance of distinguishing between the short and long term impact of migration (Lucas, 2004). The heterogeneity found in the literature may be explained by the fact that most studies use cross country information. This implies that the findings are a mix of cross country variation and within country-across time variation.

The heterogeneity of growth outcomes along with the differences which exist between the short and the long run may be partly explained by a simple time-varying framework, as presented in Figure III.2. This life cycle model of migration can be useful in explaining within country variation, shed light on the heterogeneity of outcomes and reconcile some of the econometric evidence. Following a simple decomposition of income growth, migration can impact on growth through labour supply, productivity and changes in transfers. The magnitude of the shock however depends on the stage of the country in the migration cycle. Reviewing migration experiences, five stages can often be identified, each stage being associated with a different configuration of shocks and differentiated impacts on growth and inequality as described below:

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Figure III.2. **A Cycle model of Migration: Likely Impact Effects**

$\dot{Y} = \dot{L} + \dot{Y/N} + \dot{R}$

Growth= labour supply changes+ productivity effects + transfer effects

	Labour: $\dot{L}$	Productivity: $\dot{Y/N}$	Transfers: $\dot{R}$	Growth: $\dot{Y}$	Poverty	Inequality
Exit Stage	<0	<0 (skill depletion)	0	≤0	>0	>0
Adjustment Stage	≤0	?	≥0	≤0	≥0	≥0
Consolidation Stage	≈0	>0	>0	>0	<0	<0, Poor households start transforming Remittances into productive assets
Networking Stage	=0	>0 (Investments and improvements in human capital)	≥0	>0	<0	<0?
Repatriation/ Immigration/ Circulation Stage	>0	?	<0	?	?	Rising urban population, rising urban poverty?

Exit stage: The departure of migrants involves a decline in the supply of labour and usually implies a fall in output unless there is a large pool of unemployed or underutilised labour. In the case of skilled emigration, productivity declines as well. Because of the departure of labour, changes in the composition of output are likely to occur depending on the sectoral employment of emigrants. Moreover, intra-household inequality may increase and family roles may also change as a result.

Adjustment stage: As emigration continues and more people leave the country, output continues to fall. On the other hand, however, continuing migration improves the information flow and thus reduces the information and transaction costs related to migration. This reduced cost of migration encourages family members to accompany initial migrants; households start using migration as a livelihood strategy. Furthermore the possibility of migration might also encourage those left behind to start investing in skills required to leave the country and seek improved prospects abroad. At this stage, the home country's economy starts adjusting to migration. This may take the form of increased labour force participation by certain groups of the

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population, child labour or formation of human capital. These changes may under certain conditions lead to the restructuring of the economy including the mechanisation of agriculture, or increased investment including human capital accumulation. However, massive skilled labour migration may turn out to be disastrous for the home country if a critical mass of human capital and skilled labour is seriously depleted with no prospects of replenishment.

Consolidation stage: Although family reunion may continue at this stage, labour supply is likely to stabilise. Sending countries usually tend to experience an upturn in economic activity due to the growing inflow of migrant remittances, economic restructuring or human capital accumulation. The magnitude of remittance flows and their use depend on financial market conditions and the characteristics of the migrants themselves. Remittances first increase consumption, especially of food and other basic needs. Remittances are often used to finance improvements in housing and living conditions as well as education expenses for children. Growth is likely to increase and poverty be reduced in this consolidation stage. Furthermore, the lower informational and administrative costs of migration lead to changes in the composition and characteristics of households whose members migrate. Poorer households can afford to migrate and the remittances sent to their families help to reduce absolute poverty and improve inequality. The continuous increase in the demand for non-tradeables may lead to a real exchange rate appreciation especially if a high concentration of transfers (e.g. ODA, remittances) coincides with a commodity boom.

Networking stage: During this stage, integration of migrants in the destination country is more likely and networks are created across transnational communities; family reunion is completed and second-generation emigrants appear. Migrants continue to send remittances; these fuel growth, which remains positive. The creation of associations in the receiving country with links with the home country improves the communication between the two countries and enhances market activities. As time passes, migrants acquire the knowledge of markets in both countries and become good trade and investment intermediaries. Thus trading and investment activities between sending and receiving countries expand with investment and entrepreneurial activities in sending countries on the rise. Human capital accumulation spurred by remittance flows and improved incentives contribute to skill formation. All these developments lead to productivity increases in sending countries. Although positive growth may be accompanied by a reduction in absolute poverty, the changes in income and wealth distribution as well as in relative poverty and inequality, depend on migrant selection across households along with the allocation of remittances. Positive growth does not guarantee that inequality will decline.

Repatriation, immigration or circulation stage: By this stage, emigration has already, in most cases, contributed to development, skill formation and increased growth. As a result the home region starts experiencing labour shortages especially in unskilled- type jobs in selected local markets which are covered by inflows mostly from neighbouring countries. These are permanent or temporary depending on labour market conditions and policies. Repatriation of older migrants often coincides with immigration of unskilled labour. As labour supply increases, productivity growth may stall while transfers may decline with repatriation. Return migrants often choose to settle in cities, which often leads to rising urban population, and increasing pressures on urban labour markets. New immigrants, being more flexible, usually settle in areas

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where the shortages appear, such as rural areas, finding employment as agricultural workers or providing household services. Growth effects are ambiguous, depending on the degree of complementarity/substitutability of the labour new immigrants relative to natives, the skills transferred as a consequence of repatriation, labour market flexibility, and the incentive effects on the younger generation. In the case of more integrated regional markets, migration for seasonal or contract work facilitates the creation of economic and social networks leading to positive externalities in trade and investment. In this stage, the impact on growth and poverty is ambiguous.

The framework above does not apply equally to all countries and experiences. Some of the above stages might not be reached, or their duration may differ significantly from one country to another. For example, in certain cases, the adjustment stage is skipped or it involves a positive impact on growth, under a hypothesis of labour surplus. Moreover, certain countries have never experienced the final stage of repatriation and immigration as yet. The empirical evidence, linked in important ways with this framework, will be reviewed in the next section. Moreover, it is already clear that the impact effects of migration on growth, poverty and inequality are time- dependent.

III.3. Review of the Empirical Evidence on the Economic Impact of Migration

The effects of migration on the sending countries depend critically upon the magnitudes, composition and nature of the migration streams, as well upon the specific context from which migrants are drawn. In particular four key aspects of migrations may be distinguished: the effects of unskilled labour flows; the consequences of a brain drain and the potential for gain routed through a highly educated diaspora; the importance of return migration; and, the contributions of remittances. What does the empirical evidence indicate with respect to each of these?

III.3.1. Unskilled Labour Supply Flows

With and without surplus labour

To understand the economic impacts of unskilled labour withdrawal, an important distinction must be made between two contexts:

The first are situations in which labour markets in the country of origin are tight, so that unemployment spells are brief and infrequent and underemployment rare. In such contexts, emigration of workers requires employers to raise wage offers to fill the resultant vacancies. Overall output declines, at least in the short run. Employers, and possibly more skilled workers, may be hurt by this loss of labourers to complement their own resources in production. On the other hand, low skilled workers benefit from the higher wages they now command. Moreover, in the longer run, the mix of productive activities may begin to adjust to the diminished supply of low-skilled workers, ameliorating the overall loss in output.

The second scenario is one in which the departing workers can be readily replaced at little or no cost to employers: where 'surplus labour' exists. Typical of such settings are contexts in

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which a substantial pool of unemployed workers exists, or where many workers are effectively under-employed at very low wages. Here, by definition, costs imposed on employers are minimal and overall output may hardly be affected. Yet unskilled workers, left at home, gain as the waiting time to find a job is cut, or as they ratchet up the job ladder.

Both forms are common across the countries and regions of the world. However, much of the emigration of low skilled workers occurs from poorly performing economies. Surplus labour conditions can be expected to be frequent among the high emigration countries.

Formal evidence, testing whether or not labour markets exhibit surplus labour characteristics is rare. Globally there are some contexts in which mass labour withdrawal has been accompanied by rising wages at home, perhaps partially induced by the emigration process. For instance, manufacturing wages in the Philippines have tracked recruitment of overseas workers remarkably closely, despite persistent, high unemployment rates. In Pakistan, construction wages for both skilled and less skilled workers, particularly in the construction sector, have responded over time to the mass movements of men to the Persian Gulf (Lucas, 2005*a*). In earlier times, the mass deployment to South Africa of mine workers from Malawi and Mozambique induced rising labour costs to the dismay of estate owners at home (Lucas, 1987).

But such instances are probably not the norm. Table 5 presents some labour market indicators for a few of the countries listed in Table 1[8]. With the exception of Croatia, these indicators suggest very considerable slack in the home labour markets of each of these principal countries of migrants' origin. In Albania too, the loss of state sector jobs after 1990, followed by the widespread effects of the pyramid scheme collapse, resulted in mass unemployment (Çuka *et al.*, 2003). It seems probable that the withdrawal of low skilled workers, even in large numbers, has imposed little damage on most of these countries' economies. Rather, these mass withdrawals have probably served to improve the lot of those left behind.

Table 5. **Labour Market Indicators Since 1990: Selected Developing and Transition Countries**

		Real Wage Annual Growth per cent	Average Unemployment Rate per cent
Macedonia, FYR	1995-2004	1.37	
Croatia	1991-2004	2.51	
Romania	1991-2004	0.40	8.9
Turkey	1990-2001		7.9
Morocco	1990-2003		18.1
Algeria	1990-2004		26.0
Tunisia	1994-2004		15.1
Suriname	1990-1994		13.3

Source: IMF International Financial Statistics (October 2005)[9].

8. Real wage growth in Table 5 is based on end-point comparisons, deflating reported wages by the consumer price index. For the other countries in Table 1, comparable measures are not available.

9. At http://www.imfstatistics.org/imf/ifsbrowser.aspx

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No matter whether an exodus of unskilled workers induces higher wages for those who remain at home or simply diminishes the pool of those unemployed and underemployed, thereby shortening waiting times for job openings, either way, low skilled workers who remain at home are rendered better off. In other words, such a pattern of migration offers a device for reducing poverty for those staying behind while clearly offering significant financial relief for the low skilled migrants themselves.

Regional effects and impacts on rural and urban areas

The chances of an indigenous population migrating vary very considerably from one location to another, within any given country. It is common to find that large numbers of people have departed from one village, county or region, but far fewer from the next.

A major factor causing this concentration upon specific places of origin is the role played by social networks in facilitating migration. Once a few people have relocated, it becomes easier for friends and relatives to follow. There are many reasons for this: kinfolk, established in the place of destination, can make it easier to find employment, before or after migrating; obtaining visas and other documents can be substantially cheaper through personal contacts[10]; friends and relatives may provide affordable accommodation upon arrival; they certainly can make the social adjustments to a new setting far easier.

There has been some controversy over how much of the tendency of large numbers of migrants to follow prior migration streams actually reflects such contributions of kith and kin. An alternative explanation is simply that past and current migrations both reflect common underlying causes from specific locations. However, more careful, recent analyses indeed support a significant causal role for social networks in shaping migration (Munshi, 2003; McKenzie and Rapoport, 2004). In places with little initial out migration, a cumulative inertia sets in, and such places are increasingly isolated from the benefits of development at the core (Molho, 1995).

From some countries international migrants leave homes primarily in the capital cities; from other countries, rural origins of emigrants are more common. For instance, most overseas workers deployed from the Philippines are drawn from Luzon island and from the metropolitan Manila region in particular (Saith 1997). In contrast, most Pakistani workers going to the Persian Gulf have come from quite poor, rural areas that lack irrigation, including North West Frontier Province (Azam, 1991; Addleton, 1992). Similarly, much of the migration out of Albania since 1990 has been from the rural populations living in the poorer northern and southern extremities (King *et al.*, 2003). Yet Gudim (2004) estimates that only about a third of Moldova's emigrants are from rural areas. On the other hand, although data are lacking, it seems that much of the migration from Morocco to Europe has originated from more rural parts of Morocco (Leichtman, 2002). Similarly, the very substantial migrations from western Mali to France draw very largely on the rural population (Gubert, 2002).

10. See the evidence in Shah (1998) on costs of visas to enter Kuwait, for instance.

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These specific, geographic concentrations of migrants' origins may have important implications for labour market impacts at home. The departure of migrants may serve either to raise wages or to diminish under-employment in the vicinity from which the migrant departs. But do these benefits spread throughout other portions of the country? Although the benefits of any remittances from departing migrants might spread more broadly, what can be said of the more immediate labour market impacts?

Here, much depends upon how well integrated is the domestic labour market across different locations and regions within the country. A key factor in this integration is the extent of internal migration induced in response to emigration from particular locations. If workers readily move to replace departing compatriots, or in response to rising wages caused by this departure, then the labour market benefits defuse outwards. A ripple effect is initiated. But the propensity to migrate internally varies considerably. Differences in language or ethnicity may discourage such internal mobility. Differences in occupational structures between regions may present a barrier to job entry. Or the costs of relocating one's home may prove prohibitive.

Systematic information on the specific connection between emigration and induced internal migration is lacking. Nonetheless some insights may be gleaned. In the Philippines there has certainly been substantial migration into the Manila region from lower income, rural areas although a clear connection with observed emigration from Manila is difficult to establish (Saith, 1997). In India there are indications that the huge migrations from Kerala to the Persian Gulf have helped to raise wages in Kerala, though there has been little sign of any induced migration into Kerala as a result (Zacharia *et al.*, 1999). Indeed, inter-state migration in India is generally very limited, suggesting that one should not expect to see much by way of a ripple effect in wages across other states. On the other hand, Mahmud (1989) describes rapid replacement of overseas workers leaving rural Bangladesh, as nearby villagers move in to take their place. Certainly, the populations of Sub-Saharan Africa are amazingly peripatetic, perhaps indicating that internal migrations integrate the labour market effects of emigration quite rapidly in this region. In contrast, the populations of many European states appear quite intransigent, even in the face of growing earnings and unemployment gaps. For instance, Faini *et al.* (1997) explore some reasons for the lack of South-North movement in Italy despite growing differences in unemployment spells between these regions. In particular, this study finds that the desire of couples to find employment in the same location for both partners has presented a major barrier to South-North mobility in Italy.

From Albania there has been an exodus of migrants since 1990. Perhaps a fifth or more of Albanians now live outside of Albania. Some of this involves short-term temporary moves, especially to Greece, though some is more permanent. Internal migration in Albania was already substantial before 1990, but the rate of internal movement to urban areas (especially Tirana) has accelerated significantly along with the explosion in emigration (Carletto *et al.*, 2004). In part, it seems movement of families from poor rural areas into towns, albeit frequently to peri-urban areas, has been financed out of the earnings and remittances of emigrant family members. In addition, some of the urbanization stems from relocation of returning emigrants who settle in town (Çuka *et al.*, 2003). Emigration has offered a major vehicle for poverty relief in the context of

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Albania's transition, (De Soto *et al.*, 2002), though most of this relief may have stemmed from remittances rather than any induced improvement in the domestic labour market scenario.

Summing up

In contrast to North America, a large portion of the foreign population in the EU comprises low skill workers who have entered through a variety of temporary schemes, as asylum seekers, or on an irregular basis. The probability of low skilled populations coming to the EU is greater among countries with higher incomes, rather than from the least developed regions. Nonetheless a small number of developing and transition countries do have significant numbers of low skill expatriates in the EU. This is particularly true for the neighbouring countries of East Europe, the Maghreb and Turkey, plus a smaller number of countries with former colonial ties to European nations.

In those select developing and transition countries that have provided low skill workers to the EU in large numbers, labour market prospects at home for low skill workers are generally quite poor. The opportunity to be in the EU offers a major form of relief, not only for the migrants themselves but in alleviating some of the pressures on those left behind in the home labour market. In some instances, these benefits are concentrated quite specifically on the particular communities or regions from which the migrants are drawn. In other cases, perhaps smaller in number, the benefits diffuse more broadly as the home population migrates internally to take advantage of vacancies that open. Given that poverty is typically concentrated in rural areas in most developing countries, where migration of low skill workers draws upon the rural population, the poverty reducing effects are probably greatest.

To date, a relatively small number of developing and transition countries have been the beneficiaries of these poverty-alleviating effects of low skill migration to the EU. But for this small set of countries the effects have probably been very substantial.

III.3.2. Brain Drain, Brain Gain and Brain Circulation

The process of brain drain is commonly considered one of the most negative facets of international migration from the perspective of home country development. What are the issues?

The loss of highly educated individuals can impose at least three kinds of specific losses on those left at home (Davies, 2003):

> First, the presence of highly educated people may generate spill over benefits to other citizens. Bright people, and especially scientists and engineers, contribute to innovation, technological adaptation and adoption, accelerating productivity growth. Having bright colleagues or counterparts can raise productivity through mutual interaction. And an enlightened elite has the potential to improve governance and civic performance of society. Of course, highly educated people also earn relatively high incomes, so it is not always obvious how much of these spill-over benefits are effectively captured by the highly educated individuals themselves.

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Second, in many countries a significant portion of the cost of education is paid for out of fiscal revenues. The departure of highly educated emigrants then represents an export of human capital in which the nation has invested. In addition, there is a loss of potential tax revenue that might have been raised from the income of the emigrant, though this needs to be balanced against diminished public spending on the emigrant and his or her family.

Third, the loss of key personnel can render more difficult the delivery of critical social services, such as health care and education.

The measures discussed in section II.1.2., which have only recently become available, offer good indications of the size of the brain to the OECD countries and the directions that this process has taken. Nonetheless, two important limitations of these indicators should be noted. First, they tell us nothing about the brain drain to non-OECD states. For countries losing professionals to such destinations as the Persian Gulf, South Africa and Singapore, this omission may be very significant, though we lack data to be sure. Second, counting the number of expatriates with a tertiary education provides no information on their field of expertise. How many are software engineers, versus teachers, nurses or artists? Which are the occupations at risk?

Occupations at risk

Although the brain drain is frequently cast as the loss of highly skilled persons in general, in practice the impacts of withdrawal may be quite different depending upon the professions affected.

There is considerable evidence that the presence of highly educated persons is positively correlated with many indications of a well-functioning society. These correlates range from the lower incidence of poverty to political stability, from a cleaner environment to greater income equality, from lower crime rates to lower population growth (McMahon, 1999). Whether the presence of highly educated persons actually causes these better social outcomes is far less clear.

Although we lack evidence, it seems probable that positive social spillovers from the presence of highly educated people may well depend upon the activities of those professionals. Better governance, for example, is more likely to derive from the presence of enlightened administrators, than from having a larger number of entertainers, though both are commonly designated as professional emigrants.

The departure of scientists and engineers is often thought to impose particular losses on an economy, given the importance of such persons in generating new ideas and hence raising productivity (Meyer and Brown, 1999). Yet most developing countries undertake relatively little research and development, and this absence of research is not just because they lack scientists and engineers. Indeed, given the growing importance of out-sourcing and the international diffusion of new technologies, at least some developing countries may gain more from scientists and engineers abroad than from those at home (Eaton and Kortum, 1996, 2002). Nonetheless, technology adaptation may remain critical for developing country performance, and not merely technological innovation at home, and adaptation places demands on scientists and engineers too.

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Beyond spillovers, an additional reason that the impact of the brain drain may differ across professions derives from differences in fiscal impacts. Although a brain surgeon and a secretary may both possess a tertiary education, the social costs of their training are very different. They can also be expected to make quite different net contributions to the fiscal balance, through payment of taxes and through demands on social spending.

But the occupational composition of the brain drain attracts most attention because of its potential effects on delivery of key social services: notably health care and teaching[11]. The onset of the HIV-AIDS epidemic has raised special concerns about the simultaneous loss of medical personnel, often recruited by state health systems abroad, in the context of sub-Saharan Africa. Moreover, the demands for healthcare workers in the OECD countries are projected to grow rapidly, as incomes rise and populations age. On the other hand, it is not clear that availability of healthcare workers is the principal constraint upon low-income countries' capacity to deliver life-saving, medical attention. An OECD (2003) study found some 35 thousand registered nurses in South Africa who were either not employed or not working as nurses. This report concludes that emigration of health-workers from South Africa is not the root cause of the difficulties, though this emigration may exacerbate the problems. Certainly in many parts of Africa malaria prevention and simple treatments, such as oral rehydration, may be the most effective life-savers. These fundamental problems may not be very effectively addressed by retention of potential, emigrant, healthcare workers who are based in urban hospitals treating the relatively wealthy.

More generally, the issue of how effectively highly skilled workers are employed in the home country is quite central to the whole question of the brain drain, and not just in the instance of healthcare workers. Where the higher educational system has expanded to the point that it is effectively difficult to absorb graduates into the labour market, or where a mismatch occurs between fields of study and the demands of the economy, the costs imposed by emigration may be quite minimal. Hugo (1996), for instance, notes that such situations are not uncommon in parts of Asia and dubs these as cases of brain 'overflow'. In Egypt, government has acted as the guarantor of employment to college graduates, raising doubts about the productive contribution of many of the highly trained. In contexts of brain overflow, the merits of public investment in higher education, either in general or in specific fields, may well be questioned. But given such spending, any additional costs imposed by emigration of the highly skilled can be negligible.

Even where no overflow is apparent, and the labour market for the highly skilled remains tight, any costs of emigration can be contained through various mechanisms. One such route is by replacement migration. It has become common in some countries for professional immigrants from a third country to fill places left open by departing nationals. "The *South African Medical Journal* describes a 'medical carousel', in which doctors seem to be continually moving to

11. Data on the occupational distribution of skilled emigrants in the OECD countries may offer only a partial picture of the specific skills lost to the countries of origin. It is not uncommon to find women who were nurses at home working as servants or nannies, or to find people who were teachers at home working as taxi drivers abroad (See Özden, 2005, who coins the term brain 'waste' to encompass such examples).

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countries with a perceived higher standard of living. Pakistani doctors move to the UK, UK doctors move to Canada, and Canadians move to the USA." (Bundred and Levitt, 2000).

In addition, departing, highly trained workers may be replaced through induced further education among the younger generation in the home country. Indeed, this is one of the key aspects of a potential brain gain effect that has attracted considerable recent attention.

Brain gain and induced education at home

The argument has been put forward that the opportunities for the highly educated to emigrate may induce expanded education at home. If only a fraction of those who are induced to continue their education emigrate then the stock of highly educated left at home may even expand, potentially enhancing economic growth in the home country (Mountford, 1997; Stark and Wang, 2002).

Schiff (2005) raises a number of doubts about these arguments, even on theoretical grounds. For instance, if tertiary education expands in the home country, the rate of admission to destination countries could well decline in response, thus effectively reducing the incentive to continue education. Moreover, those induced to continue their education, because of prior departure of others, may well be of lower ability, and hence present limited contributions to domestic productivity.

Certainly the empirical evidence proves mixed. Most of this evidence looks at the cross-country patterns of brain drain in relation to measures of educational attainment at home. The results in this literature prove sensitive to the data and measures adopted. For instance, Beine *et al*. (2001) found that the stock of human capital across countries is positively correlated with a measure of the overall rate of out migration to the OECD countries. In contrast, some of the more recent cross-country studies have shown exactly the opposite: that tertiary enrolment levels and increments to these levels are negatively correlated with the brain drain rate (Faini, 2002; Lucas, 2005*b*).

The truth probably varies from country to country. For instance, in the Philippines there is little question that the unusually high levels of tertiary education attained, given the income level of the country, is induced to a considerable extent by the opportunity to emigrate afforded by that education. More than 70 per cent of higher education in the Philippines is obtained at private universities. The cost to families of obtaining this private education is significant, yet the returns on that investment remain notably low for anyone who remains in the Philippines. On the other hand, a higher education opens emigration opportunities, particularly for women moving to the US. Indeed, there are even signs that the choice of field to study at college in the Philippines has moved with the shifting demands of the global market (Lucas, 2005*a*).

An example of the opposite effect is apparently provided by Mexico. On the one hand, migration to the US generates remittances that make continued education more affordable. On the other hand, the option to migrate to the US (with or without a visa) means that relatively high wages are available without continued education. McKenzie and Rapoport find that the latter effect dominates: that migration to the US diminishes educational attainment amongst

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rural Mexicans (see McKenzie and Rapoport, 2005, and McKenzie, 2005). Boucher *et al.* (2005) find that Mexican high- skill internal migration networks increase the likelihood that children will stay in school beyond compulsory age, whereas this is not true for international migration networks. Their argument is that education does not pay off for Mexican migrants to the US and thus the prospect of migration to the US does not increase the incentives for additional schooling in the Mexican communities of origin.

In any case, most of this evidence addresses whether migration (particularly of the highly skilled) stimulates expanded education at home. Little attention has been paid to whether this results in even greater brain drain rates versus more highly educated people left at home or whether impaired access to education in high costs prevent the realisation of a brain gain. Nor is the more complex question of whether any expanded education incorporates those with lesser, inherent abilities and hence contributes less to economic growth.

Return migration of the highly skilled

A common benefit, claimed for the process of highly skilled migration, is that migrants return with newly acquired skills and hence raise domestic productivity upon repatriation. However, at least three doubts may be voiced with respect to this potential benefit.

- How appropriate are the newly acquired skills to the home environment?

Where the gap in technology between the country of origin and the host country is large, the specific skills learned while overseas may be of limited relevance upon return. This is likely to be especially true for migrants from the lower income countries returning from the higher income countries. Of course there is some potential to upgrade the available technology at home, based upon the experiences of returning migrants, but this may be less feasible where only a few highly trained migrants return. There is little hard evidence on this issue. Tan (1993: 322-323) however doubts the value of learning, while abroad, among Filipino medical personnel, given that "Our overseas doctors and nurses in the West and in the Middle East work with more state-of-the-art equipment". Certainly the applicability of experience in a modern, overseas hospital to public health issues in rural clinics in the developing countries, where the needs are normally the greatest at home, may be doubted. Moreover, where qualified, Filipino nurses, for example, are employed as nannies in the Persian Gulf or the US, little gain in nursing skills can be expected upon return. Indeed, it seems that occupational switches are not uncommon among returned highly-educated migrants. This has been extensively documented in the case of repatriates from Germany to Southern European countries most notably Greece, during the 1980s (Glytsos and Katseli, 2006). More recently, both Rozario and Gow (2003) and Anh (2003) find that such returnees are commonly appointed to managerial positions in Bangladesh and Viet Nam respectively, though it remains entirely possible that these returnees make better managers in light of their overseas, professional experience.

If returned migrants earn more than those who remained at home, this may reflect any of three effects: the acquisition of valuable skills while abroad; deliberate efforts to attract migrants to return home, or initial selection of the best and brightest who emigrated in the first place. In the case of Viet Nam, Anh (2003) reports that the rigid pay scales in the state enterprises actually

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offer returnees less than those who remained at home and gained seniority. In contrast, De Coulon and Piracha (2005) find that migrants returning to Albania indeed earn more than those who stayed behind, controlling for the fact that migration has been more common among the less skilled.

- How productively are these new skills deployed upon return?

Beyond the issue of pay among returned migrants there is an issue of whether they enter employment at all. Many migrants return to enjoy their retirement at home, where living costs are much lower. Other, perhaps younger returnees, have difficulty finding a job that meets their requirements. The Southern European experience suggests that in some cases unemployment among repatriates can remain high regardless of the qualifications acquired abroad due to high reservation wages, skill mismatches or job availability back home (Glytsos and Katseli, 2006). Very little systematic evidence exists on the employment rate of highly skilled returned migrants. The study of returned migrants to Bangladesh by Rozario and Gow (2003) found that most of their sample were employed, but also pointed to the main difficulty in conducting such studies: the very small numbers of returned migrants available for sampling.

As Hildebrandt and McKenzie (2004) show, however, employment may not be essential for return migration to prove 'productive'. This study demonstrates that children of migrant families have a lower infant mortality rate and higher birth weight than other children in rural Mexico; that improved health knowledge among returned migrant mothers plays a key role in this improvement; and that this knowledge spreads to others in the village, improving child health among non-migrant families too.

- How large is the return rate of the highly skilled?

Data on the return rate of migrants, whether skilled or unskilled, are very scarce. Nonetheless, studies in both the US and Sweden point to higher and earlier return migration among migrants from higher income countries (Borjas and Bratsberg, 1996; Edin *et al.*, 2000).

Study abroad has become one of the prime mechanisms through which overseas recruitment of the highly skilled proceeds. The US has been the dominant destination for foreign students for some time. But the competition is broadening. Not only have the European universities expanded foreign student enrolments, but also the universities in Australia and even in Japan. Surprisingly little is known about how many of these students leave the country upon graduation and even less is known about how many go home. One of the only systematic data sets on this tracks foreign students completing a doctoral degree in science or engineering from a US university. Here, the number of individuals remaining in the US dips after a couple of years but then again rises as these graduates return to the US. After five years, about half of those who graduated in 1994-95 were still in the US. However, this fraction varied considerably by country of origin (Finn, 2001). More than 85 per cent from some of the low-income countries, such as China, India and Nigeria were still in the US. In contrast, the return rates to some of the middle-income countries, such as Chile, Mexico and the Republic of Korea were much higher. On the other hand, graduates from some of the higher income countries, (from France, Germany, the UK, Canada and New Zealand), also exhibited fairly high stay rates.

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The return of scientists and engineers, either upon graduation or after some period of work experience in the US, has been an important vehicle in the evolution of high-tech industries for such economies as that of Chinese Taipei and of South Korea (Saxenian, 1999). However, this return appears to have been instigated largely by the improving economic conditions at home. Moreover, for these upper-middle-income economies, the frontier technologies brought home from Silicon Valley proved more readily applicable than is likely to be true for most of the least developed economies.

III.3.3. Repatriation and Circularity

Repatriation, the return home of migrants, is more common than frequently recognized. Moreover, there is no simple alignment between status of entry and propensity to return home. Some 'temporary' migrants come to settle for very long periods, if not permanently. The return of 'permanent' immigrants is not at all unusual.

The reasons for return can be divided into four groups:

— First, return may not be voluntary but induced by policies. A change in migration regulations or policies may require some set of foreign migrants to depart. The conditions of initial entry may demand return as a condition of entry. Irregular migrants may be caught and deported.

— Second, the circumstances that led to the initial migration may alter, leading to voluntary return. Economic improvements at home or deterioration in the destination country may prompt a decision to return. The same is true for resolution of conflict at home or the outbreak of violence in the host region. (A prime example of the latter is the exodus from the Persian Gulf at the time of the Kuwait crisis in 1991).

— Third, migration may involve a gamble and some sorting among migrants. Those who prove successful may be rewarded and stay on. Those who are disappointed or fail to realize their dreams in the host country may well leave.

— Fourth, return may have been planned at the outset. Such a strategy is often called 'target saving'. The migrant saves while abroad with the intent of returning home with his or her accumulated savings (Katseli and Glytsos, 1989). This may take the form of a fairly short-term horizon, moving abroad for a few months or a couple of years to provide funds to establish a family upon return or to improve the well being of an existing family. In some instances, the plan may be to spend an entire working life abroad and only to return upon retirement. The latter might be motivated by nostalgia for the old country or by more practical considerations such as the lower cost of living at home (Dustmann, 2001).

Data on return migration are very limited. Jasso and Rosenzweig (1982) calculate that nearly a third of the emigrants who entered the US from 1908 to 1957 again emigrated from the US. Borjas and Bratsberg (1996) conclude that US immigrants tend to return more readily to nearby, wealthy nations than to other countries. Nonetheless these US data, which are rather tenuous, also show a higher return rate of Africans than of Europeans from the US.

The European attitude to permanent settlement has always been quite different from that of the traditional immigration nations in North America and Australasia. The European

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countries have never had a program intended to encourage permanent settlement. Nonetheless, by default, as well as active family reunification policies, permanent settlement has occurred. Certainly the early guest worker programs led to substantial permanent migration as families followed the initial workers. In some parts of Europe there is also evidence that the extent of permanent migration may be increasing. Thus Edin *et al.* (2000) make rich use of the Swedish register base data to show that recent refugee inflows into Sweden have been more permanent in nature than were the earlier, economic migrations from Nordic neighbours. Indeed, in her comparison of refugees and economic migrants in the US, Cortes (2004) assumes that refugees are more permanent settlers by nature, and offers this as an explanation for their investment in local human capital resulting in higher earnings over time among refugees than among other, measurably comparable migrants. Edin *et al.* (2000) also find from their Swedish data that it is the relatively less successful in economic terms, both among the refugees and the economic migrants, who are more likely to return.

The costs, dangers, indignities and difficulties in crossing borders illegally discourage return among irregular migrants. Once the border has been breached successfully, many undocumented migrants are unwilling even to visit their home for fear of the process of subsequent recently.

The economic assimilation of returned migrants appears to be very varied. Since many migrants view their return as retirement, it is not surprising to find low employment rates in some contexts (see Arif, 1996, on returned migrants to Pakistan). However, a common goal among returning migrants is to start a small business of their own, in which they may work or simply provide the capital to employ family members or hired labour.

An ILO survey of Pakistani migrants who returned from the Persian Gulf from 1975-1985 showed that nearly a third had set themselves up in business. The savings accumulated while overseas are shown by Arif and Irfan (1997) and by Ilahi (1999) to have played a key role in this transition from wage employment prior to migration into self-employment afterwards. Similarly, McCormick and Wahba (2001) demonstrate that the amount of savings accumulated while abroad significantly raises the probability of migrants establishing a business upon returning to Egypt. This study of Egypt also points to an interesting distinction: among returned, skilled workers, a longer stay abroad raises even further the odds of establishing a business, given the amount saved. This proves not to be the case for unskilled workers. McCormick and Wahba interpret this distinction as reflecting the influence of skills acquired abroad upon the ability of skilled workers to start their own business; they argue that unskilled workers' experiences abroad teach them little that would be useful in business though their savings still enable the unskilled to set up an enterprise.

The massive increase in emigration from Albania since 1990 has involved both fairly permanent movers and those who continue to migrate back and forth, particularly to Greece. Konica and Filer (2003) estimate that 61 per cent of Albanians who left the country after 1990 had returned by 1996. De Soto *et al.* (2002) note that about a quarter of migrant-sending households in Albania report that the migrant family member had left permanently. On the other hand, 15 per cent who had emigrated had left Albania at least six times since 1990. King *et al.* (2003) argue that

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the lack of credit facilities and physical infrastructure (notably reliable power and decent communications) have presented barriers to business establishment by returning Albanians.

Although systematic data are lacking it seems that enterprises started by returned migrant are commonly located in urban areas, and are in the retail and service sectors rather than manufacturing (Puri and Ritzema, 1999). Lack of entrepreneurial experience is commonly cited as a problem with these start-ups, though not much is known about their failure rates. Certainly, given the scale and sectors in which these new enterprises are initiated, most of the employment generation is probably among family members of the migrants rather than providing substantial, fresh wage employment for outsiders.

III.4. Diasporas: Migration, Trade and Investment Interlinkages[12]

Even without repatriation, the diaspora can play a number of important roles in helping development of the home economy. The primary route is no doubt by remitting to the home country. In addition, however, technology transfer and encouragement to trade and capital flows can be important in some settings, with highly skilled migrants playing a more visible role in these latter contributions.

In contrast to what traditional trade theory suggests about the substitutability of trade and migration, nowadays large wage and income disparities persist despite the globalisation process. Current evidence suggests that trade and migration are more complements than substitutes and that the substitutability takes place only in the very long run. Boeri and Brücker (2005) show that it takes about 35 years for factor price equalisation to occur which implies that in the short and medium run, migration and trade are more likely to be complements rather than substitutes.

Diasporas, as trade intermediaries and information providers, play a major role in the way migration may influence trade between two countries. There are two main reasons discussed in the literature which may explain how migrants may serve to promote trade (Head and Ries, 1998, Girma and Yu, 2000). The first channel runs through the access to information of migrants regarding both their country of origin and their country of residence and work. More specifically migrants may serve as trade intermediaries and facilitators because of their knowledge of opportunities, potential markets, their access to distribution channels, contacts and language, local customs, laws and business practices. Moreover migrants participate into networks and associations which provide essential links between their home country and their destination country. Membership in such networks may play an important part in contract enforcement given the importance of reputation. Furthermore, access to information and knowledge about market and trade opportunities, offer immigrants an advantage for setting up their own businesses. This information channel implies that migration may actually have an impact both on exports and imports.

12. This section draws significantly on the paper "Policy Coherence for Development: a Background Paper on Migration Policy and its Interactions with Policies on Aid, Trade and FDI", written by T. Xenogiani (2006) under the OECD Development Centre's project on Policy Coherence and Development.

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A second channel through which immigrants may impact on trade arises when migrants have a preference for home produced goods either because of habit, or addiction or home sickness (Wagner, Head and Ries, 2002). If these products that they used to consume at home are not available in the current market of the host country, then imports from the home country would be necessary. This channel however is only expected to affect imports and not exports.

Head and Reis (1998) test the hypothesis that immigrants increase trade with the country of origin because of the better knowledge of market opportunities they may have. Looking at Canadian trade data with 136 partners for the period 1980-1992, they find that a 10 per cent increase in immigrants is associated with a 1 per cent increase in Canadian exports and 3 per cent increase in Canadian imports from the immigrant's country. Wagner, Head and Ries (2002) also examine the link between trade and migration but they use cross-province variation in international trade and immigration patterns within Canada. Both papers find a stronger effect on imports rather than exports and the explanation they offer is based on the presence of a preference channel.

Girma and Yu (2000) use data from the UK and 48 partners (for the period 1981-1993) to estimate a similar hypothesis, that of the link between immigration and trade. Co *et al.* (2004) use US state level exports data to 28 source countries of immigrants to find a strong link between trade and immigration. Their paper distinguishes among destination states, rather than treating them as homogeneous (e.g. the US as a whole). Dunlevy and Hutchinson (2001) investigate the impact of immigrants on American exports during the late nineteenth and early twentieth century. Their results confirm a positive relationship between the existence of immigrants of a specific country and US exports to that country. Rauch and Trindade (2002), also examine trade patterns in 1980 and 1990 and find that the cross product of Ethnic Chinese population shares in each trading partners pair is positively related to trade volumes. Most importantly they examine these effects for different types of goods, distinguishing mainly between homogeneous and heterogeneous products.

A more recent paper which examines the role of business and social networks on trade between French regions, is that by Combes, Lafourcade and Mayer (2004). These networks are proxied by the financial structure and location of firms as well as the bilateral stocks of migrants. Migration enters into the picture through the existence of immigrants' social networks which are hypothesised to be all the more useful in the case of differentiated goods where information is very important. The estimated model is that of French interregional trade (94 regions), with a structural specification based on a model of trade with monopolistic competition, home biased preferences, information and transport costs. This paper is very informative about the importance of business networks relative to social networks as drivers of trade. They find business and social networks to have a positive and significant impact on trade flows, with firm networks multiplying trade flows by four and migrant stocks by two[13].

13. Networks can affect trade in two ways: by reducing information cost and by diffusing preferences (higher valuation of goods produced locally because of persistence in consumption habits or chauvinism).

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For migrants to act as trade intermediaries, the intent to return home is critical: their knowledge of trade and investment opportunities at home, ability to enforce contracts through personal contacts at home, and specific knowledge about conditions at home, deteriorate the longer they are away.

III.5. Social Effects of Migration on Sending Countries

Although the economic effects of migration have been extensively studied, the social effects have received less attention. However, they are very important and often closely linked with the much more studied economic effects of migration. Migration may impact on social life in several ways and the impact will be different for different types of migration as well as different stages of the migration cycle. For instance, the selection of family members into migration, at early stages, will have an impact on family roles. At later stages, the impact may change since family reunion takes place or new members of the family may have the chance to migrate independently.

The social effects of migration consist of changes in family composition, in gender roles, child outcomes in terms of labour, health and education, cultural effects and issues related to crime. In this section, we will attempt a short description of these effects and a brief review of the existing literature on selected social effects of migration.

One may identify two main possible effects of migration on outcomes for children. First migration, through remittances, increases household income which may lead to reduced child labour and increased educational attainment. On the other hand, migration also alters family composition and roles within the family which may have adverse effects on educational success and educational outcomes for children in migrants' households. Children in migrants' families often grow up in single parent families and are confronted with problems of family disintegration and family stress. Moreover migration may cause a shift in adolescents' orientation, in the sense that children may consider migration as their ultimate goal and decide to pursue further education in order to increase their migration prospects and probability (e.g. migration alterns the structure of incentives for human capital accumulation). These could have direct, positive, impacts on schooling outcomes and educational attainment. Under the hypothesis that not all of these individuals will leave the country, this may increase the stock of human capital for future generations (Mountford 1997, Vidal 1998, Beine, Docquier and Rapoport 2001 and 2003).

Although the first direct channel is relatively established in the literature, the second is less well developed. There are studies in the US showing that children growing up in single parent households have poorer school performance. However the causal link is not very clear as poor performance may be linked to lower income and not the absence of the father or the

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mother, rather than poor performance being attributed to incomplete family socialization, and lack of parental attention[14]. These effects may differ in less developed countries or may be offset by intra household resource allocation and the role of extended family members. McKenzie and Rapoport (2005) and McKenzie (2005) point out that migration itself may well have an impact on education of children, and not just the remittances from that migration. At least two effects of migration may be cited: the absence of migrant parents may lead to less child supervision with lower attendance and success at school; in addition, emulation of the parents' migration may result in more or less schooling depending upon whether the parents' move abroad necessitated having an education. In the context of the Philippines it seems that the extended family substitutes for absent parents in bringing up children relatively successfully (Battistella and Conaco,1998). Moreover the absence of the father or mother because of migration, should be correlated with higher rather than lower income (because of the inflow of remittances) and thus lower income would not serve as an explanation of poor school performance.

In further evidence from the Philippines, Yang (2005) examines how Philippine households responded to overseas members' income shocks, caused by the 1997 Asian crisis. Different exchange rates produced different income shocks for households receiving remittances, depending on the country of residence of their household members. Positive income shocks are found to be associated with more schooling for children, lower child labour and greater household expenditure on education.

The finding of McKenzie and Rapoport (2005) that migration to the US from Mexico discourages continuing education in Mexico has already been noted in section III.3.2. The findings of Kandel (2003) offers further support for this. Kandel finds that siblings' migration to the US increases the likelihood of leaving school for those siblings left behind[15].

Apart from education, migration may impact on children's health. Hildebrandt and McKenzie (2005) use historical migration networks (formed as a result of US demand conditions and the pattern of development of the railroad system in the early 1990s) as instruments for current household migration from Mexico, in order to estimate the impact of migration on children's health. The authors identify two channels through which migration may have an impact on health. The first is through the impact of migration on income and wealth, especially through remittances. The second channel is indirect and consists of gaining knowledge and experience of foreign health practice which may lead to better health even for the same income level. Both infant mortality and birth weight show better outcomes in families from which a member has ever migrated to the US, controlling for family and community characteristics[16]. Turning to health inputs, this study finds that children in migrant households are "19 per cent less likely to be breastfed and 11 per cent less likely to have received all of their recommended

14. For a discussion on this matter see K. Lang and J.L. Zagorsky (2001). Lang and Zagorsky find little evidence that parental presence early in life affects economic well being in adulthood.

15. Similarly López-Córdoba (2004) finds that municipalities in Mexico which receive more remittances have greater literacy levels and higher school attendance among their children.

16. These results are statistically significant using instrumental variables but not under ordinary least squares.

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vaccinations" (McKenzie, 2005:13). Since children from migrant households have higher survival rates, yet lower levels of some key inputs likely to impact survival, it seems likely that remittances in the migrant households contribute positively to these higher survival rates.

Migration may have an important impact on migrants' household lives in terms of family roles and gender roles within the family. In particular the selection of migrants within the household (whether it is the father, the mother or older children who migrate) will have an impact on the family members who stay behind and their roles within the household after migration has started. Most importantly the role of women in the household and subsequently in the society may change. In this sub section, we review the limited empirical evidence on these matters.

A very important factor determining the social outcomes of migration is who migrates in the household. At early stages of migration in many countries, men (and in particular men aged 30-50) are the most likely to be the first to migrate. At later stages though, women may follow them either as accompanying members or as independent migrants. Once the head of the household has gone abroad, informal negotiations take place within the family to elect the person who will serve as the representative of the household. In some cases this is the mother or spouse of the migrant; in others it is the elder son. The selection of family and household members into migration depends to a large extent on skills and demand conditions in host countries. For example, skilled Bulgarian and Ukrainian women tend to be more represented among migrants from these countries, since the growing share of the service sector has increased the demand for female migrants. However research in Mexico (Cerutti and Massey 2001, Curran and Rivero-Fuentes, 2003) has shown that women often have to wait for the development of female centered-networks to start migrating.

The way the family operates after the first departure of its member(s) will have an impact on future migration moves and the allocation and use of remittances. Curran and Saguy (2001) examine the cultural changes related to migration and the formation of social networks. They argue that it is not only gender that matters but also the position within the household. Research in rural households in the Philippines[17] shows that poorer households are more likely to send young women to the city as seasonal migrants. In Thailand, Curran (1995, 1996) finds that although both sons and daughters are equally likely to migrate, daughters are more likely to remit. In Peru though, this move towards equality is only partial, since women actually lose out financially with the husband's migration (Deery, 1978). In the Dominican Republic it is found (Grasmuck and Pessar, 1991) that men are more eager to return home than women, mainly because women fear that by going back they will lose freedoms acquired in the destination country.

In general for women whose husbands migrate, the outcomes of migration are mixed and depend on the existing cultural practices and soft institutions, the flexibility of gender roles and family organization[18]. Research by the IOM[19] suggests that migration may have an empowering

17. Trager (1988) and Lauby and Stark (1988).

18. "Experts group meeting on international migration and development in Latin America and the Caribbean", Population Division, Department of Economic and Social Affairs, UNS, 30/11-2/12/2005.

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impact on women through their physical and financial independence and their self esteem gained by being perceived as family providers by the community. However this is not always the case as women might encounter difficulties in the accessing labour market and in earning their living. In successful cases, women can become drivers of change in family relations and structure. In addition the empowering of women can play a crucial role in the way remittances are spent back home. Moreover, by modifying the traditional gender roles in the family, migration may also have an impact on community activities and operations depending on womens' role and participation in the community.

There is indeed a literature, mostly based on US data, that shows that women legislators or female representatives put more priority on issues related to women, children and families, state workers compensatory policies, family assistance and child support enforcement (see Thomas, 1991; Thomas and Welch, 1991; Case 1998; Besley and Case, 2000 and 2002; Rehavi, 2003). In a different context, Clots-Figueras investigates how women's political representation influences expenditure, public goods and policy decisions using panel data from the 16 main states in India during the period 1967-1999[20]. Thus female participation in decision making, induced by the new role of women in the society following migration, may be an important factor of development.

Zachariah *et al.* (1999) examine the social, economic and demographic effects of migration for the region of Kerala. The authors talk about the "Gulf wives", that is the million married women living away from their husbands in Kerala. Although in the beginning, difficulties are encountered, they later on learn to be independent and autonomous; they gain status, management skills and experience in dealing with the world outside their homes. The society may also benefit in the long run from this new group of active citizens, and possibly even more so than short term from remittances.

Davis and Winters (2001) look at the formation of gender networks in Mexico-US migration. In particular they examine why the determinants of migration and migration patterns may differ between men and women and they put emphasis on the role of migrant networks. Their evidence shows that the decision to migrate is equally influenced by the presence of male or female networks whereas the choice of destination for female migrants is strongly influenced by the presence of women's networks.

19. IOM, Essentials of Migration management, Vol. 2: developing migration policy.

20. Clots-Figueras (2005) finds that that women legislators have a differential impact on public goods, policy and expenditure decisions if we compare them to their male counterparts. Scheduled caste and scheduled tribe women legislators favour capital investments, especially on irrigation and low tiers of education, and increase revenue expenditure on water supply. They also favour women-friendly laws, such as amendments to the Hindu Succession Act, designed to give women the same inheritance rights as men. On the other hand, general women legislators do not have any impact on women-friendly laws, oppose redistributive policies such as land reforms, favour pro-rich expenditure, invest in high tiers of education and reduce social expenditure.

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IV. REMITTANCES

The potential, global income gains, even from small expansions to international migration, are estimated to be extremely large. Simulations by Walmsley and Winters (2003) indicate that a 3 per cent expansion in international migration could add more to world incomes than a complete liberalization of all trade (see also World Bank, 2005). In this process, migrants are the big winners. The earnings gaps between countries are so large, even for comparable workers, that there are very major income gains available for migrants (Freeman and Oostendorp, 2000). Increasing commercialization of both legal and irregular migration has meant that middle-men now appropriate a part of these rents from migration: nonetheless the net gains to migrants remain large.

Remittances are the key mechanism through which migrants transfer a part of these net gains to those remaining at home. Indeed, this probably represents the dominant route through which non-migrants benefit from the migration process. In broad terms, remittances comprise money transfers from abroad, gifts in kind sent by migrants, and both money and gifts brought home by returning migrants. Most of the attention falls on the first of these, though the other components can be quite large too. The channels through which money is transferred from abroad are commonly divided into two: formal and informal. The formal mechanisms encompass such intermediaries as Western Union but also some of the commercial banks and other similar institutions. The informal channels refer to such networks as the Hawala system explain in the Middle East or the hundi system in the Indian subcontinent. The informal channels are generally much cheaper than the formal channels and are more capable of delivering money quickly to rural and remote areas.

Given that remittances represent a primary route through which non-migrants benefit from the migration process, what forms do these benefits take and who are the beneficiaries?

IV.1. Benefits to Remittance-Receiving Households

Consider first the issue of which types of families receive the most remittances. In particular, are poor families the beneficiaries of significant remittance receipts? This depends upon two underlying factors: whether members of poorer families migrate abroad; and how much overseas migrants from poor families remit. Both components depend very much upon the nature of the migration regime.

Moreover duration of absence is a major determinant of remittances. However the evidence on whether remittances rise or fall with duration of absence is mixed (see, for example, the review in Glytsos, 2001). This ambiguity probably stems from the intersection of two effects.

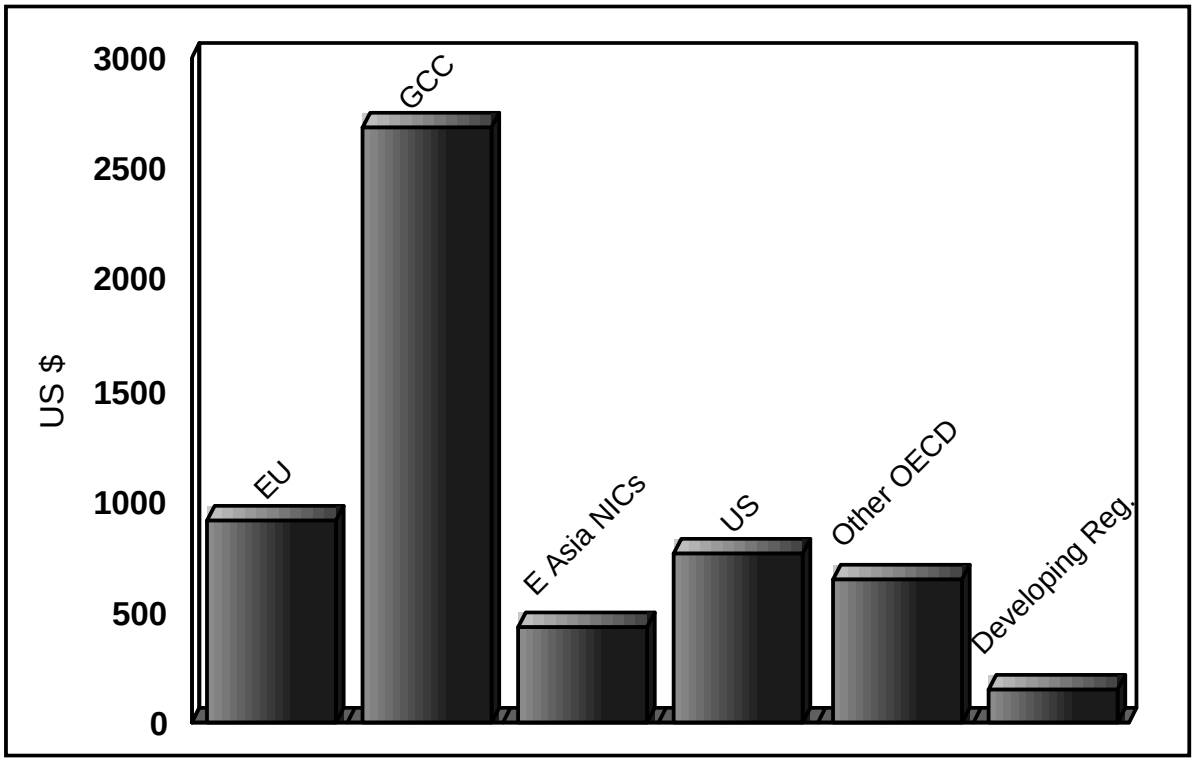
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The earnings of migrants generally rise with time spent in the host country, leaving them better able to afford higher remittances. On the other hand, absence may diminish commitment to those left behind. What is clear is that migrants who have left their immediate family behind remit far more than when the family accompanies them. In this sense, the intent to return to their family is a key factor in motivating high savings and remittances and this intention may be correlated with the skill level of the migrant. Indeed, migration by lower skill workers draws upon the poorer portions of the population. Where these migrants intend to return home, and particularly when their immediate families are left behind, remittances can be very high[21]. Thus, remittances per migrant from the Persian Gulf have been by far the highest from any part of the world (see Figure IV.1). In contrast, migration of highly skilled workers who settle permanently abroad with their families commonly brings little by way of remittances to the home country.

21. This poses a fundamental dilemma. While assimilation and integration of migrants within their host country settings are key objectives in their own right, this very process of settlement may ultimately lead to less contact and interest in the home country, resulting in diminished transfers home, either in the form of remittances or more generally.

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Figure IV.1. **Reported Remittances Sent per Migrant (2000)**



Note: GCC: Gulf Cooperation Council States.

Source: IMF Balance of Payments Statistics and UN Trends in Migrant Stock.

Not surprisingly then, the income distribution effects of remittances are mixed[22]. For example, in both Egypt and Pakistan, Adams (1991, 1998) estimates that overseas migration has sharpened inequalities in family incomes. In both of these cases, the increase in inequality is driven more by the patterns of migration across income classes, rather than by difference in the propensity to remit. In particular, the middle classes tended not to migrate from Egypt and from Pakistan according to these results. In contrast, Taylor and Wyatt (1996) find that remittances to rural Mexico (over 80 per cent of which come from the US) reduce inequality. Some, but by no means all of the differences across such studies arise because of difference in defining income classes. It matters whether income class is measured including or excluding the remittance incomes, and whether estimates of pre-migration incomes of migrants are included in family

22. It is also true that the income distribution effects of migration are mixed. For example, Davies and Wooton (1992) note that the mix of skilled and unskilled emigration can alter the distribution of income at home, depending upon whether the employment of skilled workers lowers or raises the wages of less skilled workers.

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incomes. Despite such differences in approach, it seems whether a greater portion of income is received by richer or poorer families genuinely vary with the context.

This difference in impacts of remittances on income inequality notwithstanding, there is fairly uniform agreement that remittances reduce absolute, if not relative, poverty. Although the poorest segments of society may not receive overseas remittances, at least some portion of poor families are remittance receivers in most contexts where emigration is substantial. See for instance Tingsabadh (1989) on Thailand; Gustafsson and Makonnen (1993) on migration of Lesotho's mine workers to South Africa; Lachaud (1999) on Burkina Faso; and Adams (2005) on Guatemala. Each of these studies concludes that remittances diminish the incidence of poverty, and in some cases by substantial amounts.

Indeed, since remittances are an addition to income levels, they could only deepen absolute poverty if inequality were sharply increased in the process. Thus, Adams and Page (2003*a*) argue that international migration and its associated remittances have been among the key components in generating exceptionally low levels of poverty in the Middle East and North Africa region. For instance, Adams and Page note that the period of sharp reductions in poverty in Morocco (during the 1980s) coincided with rapid increases in remittance incomes. In this case, since overall inequality has remained fairly constant in Morocco, Adams and Page argue that remittances reduced poverty mostly by boosting mean incomes. Indeed, in a more global analysis using cross-country data, Adams and Page (2003*b*) find that remittances diminish poverty incidence, even given both mean income levels and the Gini coefficient of inequality, though this result is more difficult to interpret.

No matter whether the income gains from remittances are consumed, invested, or used to lower commitment to the labour force at home, each of these is a form of benefit to the recipient family. Nonetheless, there are good reasons for interest in the ways in which families take out these benefits. One reason has to do with the distribution of benefits within the family. Are most of the benefits consumed by the men or by adults more generally at home, or do children benefit through spending on their education and health? Another set of reasons lies in the differential impacts beyond the family: is the additional income from remittances spent on items that have large or small second round, multiplier effects on spending by others? if remittances finance investments they may benefit others by generating jobs. If labour supply is diminished through labour force withdrawal or shorter working hours, then employers and other workers may be affected by this behaviour. The subject of benefits within the family is addressed first, before turning to some of the implications beyond the recipient family in the following section.

A number of studies indicate that remittances result in expanded education among the younger family members at home. A large portion of these studies asks families whether the cash received from remitters is spent on the education of children. However, there is a basic problem with such an approach. To the extent that alternative sources of income in the family are fungible, even if remittances are 'spent' on schooling this may reflect diversion of other income sources away from schooling expenditures. A more careful study in El Salvador by Edwards and Ureta (2003) finds not only that education level of children rises with household incomes, but education also rises with the portion of income received in the form of remittances. Such a result suggests that it is not just the additional income from remittances that permits additional

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schooling, but that the way in which remittances enter the household may indeed matter too. For example, some observers have suggested that if remittances give women additional control over spending patterns then more may be spent on the children (Chimhowu *et al*., 2003). In a related vein, Yang (2004) finds that families in the Philippines who were subjected to large losses in incomes, as a result of having a member abroad in a country where the exchange rate fell during the East Asia crisis, pulled their children out of school. However McKenzie and Rapoport (2005) and McKenzie (2005) point out a further limitation of such results which relate to difficulty in distinguishing between the direct impact of migration on children's outcomes and that operating through the remittances channel (see section on the social impacts for further discussion on this).

A further potential benefit to the family, from receiving remittances, is that these transfers may also act as a form of insurance. The idea is that when the family left at home hits hard times for some reason beyond their control, a member who has migrated to a setting where his or her livelihood remains in tact during these hard times can transfer support home in the form of remittances. This may also offer the migrant some insurance in return, with support (remittances) going in the opposite direction when the migrant has a difficult spell (particularly soon after migrating)[23].

A fairly wide range of empirical studies has found support for these ideas, especially in the context of migrations in Africa. Lucas and Stark (1985) found remittances going to families in rural Botswana were particularly large for families in villages undergoing severe drought and where those families' livelihoods were vulnerable to the lack of rains[24]. Gubert (2002) shows that remittances (largely from France) to the Kayes area of Western Mali again respond positively to loss in crop production in the household at home, but also to such shocks from debilitating illness and death among family members at home. Quartey and Blankson (2004) extend this idea to insurance from macro-economic shocks, examining household consumption smoothing during periods of high inflation. Among a sub-sample of food crop farmers (whom Quartey and Blankson describe as the poorest of the poor) the role of remittances in consumption smoothing is found to be large and statistically strong.

In a number of countries with high emigration rates, remittances thus play a key role in supplementing incomes of migrants' families left at home, offering means to pay for education of children, to afford better health care and to offer a safety net for the family in times of crisis. In the process, remittances fairly uniformly provide a key element in poverty alleviation. But what are the benefits to the home nation more broadly? Do non-migrant families also benefit from these remittances?

23. Mazzucato (2005) finds evidence in support of such reverse insurance flows from Ghana to recent migrants who moved to Amsterdam.

24. Hoddinott (1992, 1994) also finds supporting evidence for this notion of the insurance role played by remittances in Western Kenya, as do Schrieder and Knerr (2000) in Cameroon. See also Brown (1997) on Pacific island migrants.

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IV.2. Effects of Remittances on Non-migrant Households

There are a number of routes through which the macro-economic effects of remittance inflows can and do benefit the wider community and not just those families directly receiving the transfers. One such important route is through any multiplier effects of spending by the recipients. That is, the spending of remittances may generate incomes for those providing the goods and services purchased, and they in turn spend this income, setting off a chain reaction.

Three general issues may be noted with respect to this potential multiplier effect. First, for additional domestic spending to result in added domestic production requires either idle capacity or fresh inputs to enable this production. Where production is effectively constrained by production capacity, additional spending is more likely to result in either rising prices or spending on imports [see, for example, Handoussa (1991) on imports and remittances to Egypt]. Second, as already noted, migrants tend to originate from some, specific places and regions and not others. Local spending in these area may not have much impact on other areas if the multiplier linkages remain largely local, which depends upon the extent of trade in goods and services beyond the specific community. Third, remittance transfers enter the economy through a select set of families. Their initial spending may or may not be similar to the national average. Nonetheless after one or two rounds in the spending-income chain, the multiplier effect of remittance spending is likely to resemble the multiplier effect of any other spending in this economy.

There is substantial evidence suggesting that multiplier effects from remittance spending, particularly from housing construction, are quite large (see, for example, Stahl and Habib 1988 on construction in Bangladesh, Adelman *et al.* 1988 and Zarate 2002 on Mexico, Kandil and Metwally 1990 on Egypt, Glytsos 1993 on Greece). However, each of these analyses assumes no capacity constraints on domestic expansion. Yet, in some contexts at least, additional remittances have driven up prices of land and housing, perhaps indicating a lack of excess construction capacity.

In a sequel to the earlier work by Yang (2004), previously mentioned, Yang and Martinez (2005) look at Filipino families without documented migrant workers overseas. Where such families live in the same sub-regions as migrant families hit badly by exchange rate shocks to their migrant members overseas, during the East Asia crisis, even non-migrant families suffered significant income losses. A possible interpretation is that the loss in spending resulted in significant multiplier contractions on the local economies. On the other hand this may also reflect higher migration from these neighbourhoods of undocumented migrants who suffer similar, direct shocks to those of their regular counterparts.

In contrast, in the context of Kerala, Nair (1998) argues that most of the expansionary effects of remittances have been dissipated among other states of India, simply going to finance a growing trade deficit with the rest of the nation. Similarly, in a recent, very detailed attempt to trace remittance spending chains within Ghana, Mazzucato (2005) found paths of spending out of initial remittances from the Netherlands stretching across many regions of Ghana, encompassing goods and services in both urban and rural settings. Indeed, in this latter study,

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even remittances spent on something as "unproductive" as a lavish funeral is shown to have major expansionary effects through the multiplier impacts of the initial spending.

Education, improved health and construction are all forms of investment in their own right. In addition, however, there is evidence that in some contexts other forms of investment are financed or encouraged by remittances, investments that may also provide employment for others.

Thus, Glytsos (2002*a*) uses data on seven Mediterranean countries from about 1969 to 1993 to simulate the direct and indirect effects of remittances on incomes, and hence on investment, in a simple dynamic, simultaneous model of aggregate investments, consumption, imports and their effects on GDP. In this study, Glytsos finds that investment rises with remittances in six out of the seven countries and in four of these investment rises by more than the initial amount remitted. In a separate study of Morocco, Glytsos (2002*b*) also finds support for the positive effect of remittances on investments, though perhaps more in construction form for these investments do not appear to have added to income growth. León-Ledesma and Piracha (2004) look at the case of eleven transition economies in Eastern Europe between 1990 and 1999. In this context, they also find a significant positive association between remittances and aggregate investments, after controlling for GDP per capita, the real rate of interest and inflation. Lucas (1987) finds a positive effect of remittances upon cattle accumulation and on crop productivity in the principal nations sending workers to the South African mines. Woodruff and Zenteno (2001, abstract) note, in the context of urban Mexico, that, "Within the ten states with the highest rate of migration to the United States, we estimate that more than 40 per cent of the capital invested in microenterprises is associated with remittances." Similarly, McCormick and Wahba (2003) emphasize the role of remittances in small enterprise development in Cairo. Finally, in Pakistan, Alderman (1996) and Adams (1998) agree that remittances from the Gulf have significantly increased investments.

Lack of appropriate, local infrastructure can discourage the financing of private investments out of remittance receipts. Hugo (2003), for instance, argues that the lack of physical infrastructure has prevented investments despite substantial remittances to East Flores, in Eastern Indonesia, from irregular migrants working in Malaysia. In this context, Hugo argues that lack of transport facilities, in particular, has limited private investment options in this peripheral region. Typically, remittances are not themselves directly invested in infrastructure. This is hardly surprising, given the lack of private returns on such investments. Nonetheless there are exceptions. In some instances, local acclamation proves a sufficient reward to encourage migrants and their families to invest in local public goods, including the construction of religious structures. More broadly, the Home Town Associations organized among Mexican migrants in the US, have served to channel substantial amounts of money into various forms of physical infrastructure in rural Mexico. Here the Associations serve as a device to channel funds toward a common goal, with the important added incentive of matching funding from the Mexican Government. On the other hand, this means that government funding has consequently been directed towards those communities that are major remittance recipients and hence better off, at the expense of poorer communities with few migrants in the US.

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International remittances bring not only additional income and its potential for expansionary effects through investments and the multiplier consequences of added spending, but also an infusion of foreign exchange. This infusion may prove a mixed blessing. For economies where imports are high relative to foreign exchange reserves, or for heavily indebted nations, any addition to foreign exchange availability can prove very valuable. Limited access to world financial markets inhibits production opportunities at home, by limiting availability of material imports and even of trade credit. In such instances, remittances can lower a critical barrier to production expansion and prove extremely valuable. Given the very limited debt finance and ODA now available to the developing countries, remittances have indeed come to play a major role precisely as such a key source of foreign exchange in the last decade.

There are two major potential offsetting effects however. First remittances may lead to inflationary pressures through monetary expansion. To a large extent this is at the discretion of the monetary authorities, however, and in practice there appears to be little clear indication of instances in which remittances have led to rapid inflation[25]. Second, remittances can serve to keep the exchange rate high and hence result in difficulties exporting (or developing import competing industries) and hence generating employment. This possibility has led some observers to describe this as the Dutch disease effect of remittances (see, for instance, Quibria, 1996). As with any inflow of foreign exchange, no matter whether from oil earnings, capital inflow, aid or remittances, there is a potential to buttress the exchange rate (Van Wijnbergen, 1986). Most probably the substantial remittance inflows to Albania, for instance, since 1990 have postponed any depreciation of the Leke. On the other hand, it may be objected that this is not truly like the Dutch disease problem. The central feature of the Dutch disease is foreign exchange generation through an activity involving little employment. Emigration and remittance generation, from Albania and many other countries of origin too, has resulted in foreign exchange precisely by providing an important source of employment.

Just how much foreign exchange is generated by remittances may depend, though, on how the remittances enter the country. It seems that remittances arriving through informal channels may often be settled by providing foreign exchange to finance capital flight. To the extent that this is true, which is difficult to document, net foreign exchange inflows may be limited (Passas, 1999). In contrast, Brazil has developed an interesting scheme to securitise remittances that involve holding the remittances in the form of foreign exchange, in offshore banks. By avoiding risks associated with collateral in local currency and by avoiding local banks, Brazil is able to offer the remittances as collateral and to borrow foreign capital at premium rates (Ketkar and Ratha, 2005).

25. Looney (1989) does argue that remittances resulted in inflation in some of the Arab countries in the 1980s. In contrast, Stahl and Arnold (1986) deny such an effect in their study of Asia.

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V. SUMMARISING THE EVIDENCE: CHALLENGES FOR EU POLICY MAKING

The analysis provided in section II on patterns of migration highlights some of the key features of European migration; it demonstrates *inter alia* that:

- More than half of the migrants to the EU come from other EU countries. A great part of the other half originates from countries in the wider Europe region (16.4 per cent) and Africa (13.6 per cent).
- Europe lags significantly behind the United States as an attractive destination for relatively highly skilled migrants even for those migrants originating in East Europe or the new European States of the former USSR. (Europe attracts only a quarter of the highly skilled migrants as opposed to two-thirds residing in North America).
- Europe's high skill migrants come mainly from Africa (13.5 per cent of the highly skilled EU residents born in non-OECD countries, but living in the EU), representing a high proportion of the high skill population of that region.
- Most of Europe's low-skilled migrants born in non-OECD countries come either from Asia (24.4 per cent), from wider Europe (21 per cent) or the Maghreb (14.4 per cent).
- The probability of low-skilled population coming to the EU is greater among sending countries with higher incomes, as opposed to less developed ones.
- Geographic proximity, a common language and colonial and historical ties are important determinants of European migration, explaining about 20 per cent of the variation in the share of total migrant stocks and 30 per cent for the highly-skilled ones.

The evidence on migration-development interlinkages, presented in sections III and IV can be summarized as follows:

- The impact of migration on growth, poverty, inequality and development across sending countries is highly heterogeneous due to local characteristics and the stage of migration a country finds itself in.
- In the short run, sizeable and sustainable net gains from migration are generated if migration creates new employment opportunities for low-skill workers especially in sending countries with a substantial pool of unemployed or underemployed; these gains occur provided that job vacancies are filled by those previously unemployed.
- In the medium to long run, substantial gains from migration can be derived from enhanced productivity, as a consequence of technological change, productive

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restructuring, internal labour mobility or skill accumulation and replenishment as a response to better expected rewards from investment offered by migration.

— Net gains from the brain drain depend on the effective absorptive or utilization capacity of high skilled professionals in sending countries prior to migration and the incentives created for skill accumulation and replenishment; when high skilled workers are effectively employed, emigration could cripple, at least in the short run, the delivery of key social services most notably in health care, teaching and administration, especially when these shortages cannot be filled via replacement migration. If professionals are unemployed or underutilized, possible employment elsewhere creates direct gains through higher income and remittances. Moreover, even the prospect of emigration of the highly skilled can entail large gains for the country of origin as it provides a positive expected return to investment in skills.

— When skills are not directly transferable, repatriates often put to profitable use the entrepreneurial, organizational or managerial skills they have acquired abroad or invest their savings in profitable activities in the retail or service sectors.

— The higher the degree of integration of domestic labour markets across different locations and regions within a country, the greater seems to be the diffusion of labour-market benefits from migration throughout the economy.

Evidence from section IV on remittances leads to the following conclusions:

— Remittances are private flows and not instruments of development finance; however, they have a major impact on development as a driver for growth through multiplier effects on consumption and investment, as a major source of foreign exchange and as an instrument that helps mitigate risks and vulnerability.

— Remittances tend to have strong expansionary effects on demand and economic activity due to expected increases in both consumption and investment. Despite some possible negative effects on inflation and the real exchange rate or price competitiveness.

— Remittances diminish the incidence of poverty, quite often by substantial amounts. The pro-poor effects associated with remittances are much stronger in the case of low-skill as opposed to high-skill migration, especially if high-skilled migrants settle permanently abroad with their families.

— Remittances from the highly skilled can provide incentives for human capital accumulation among members of recipient households since they validate the increased rewards associated with migration.

Remittances often finance expanded education opportunities for the young, especially if women are given greater control over spending patterns in the households; remittances also act as an important form of insurance for poor families against natural or economic hazards, including variability in foreign exchange receipts, terms of trade fluctuations and natural disasters.

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Challenges for policy making

Managing migration has become a priority for OECD and EU policy making. This change of thinking about migration is based on the understanding that migration, if well managed, may generate important gains for both host and sending countries. Effective management can also mitigate the risks associated with migration.

Based on the evidence presented in this paper, policy challenges can be summarised as follows:

a) Better management of migration and human resources needed for win-win outcomes

— Information on migration flows needs to be substantially improved through better collection of data, statistical capacity-building and more effective harmonisation and data-sharing across countries. As suggested by the European Commission's Policy Plan on Legal Migration, (COM(2005)669), information contained in the European Job Mobility Portal and the network created to foster mobility of EU nationals (EURES) could be expanded to support the management of economic immigration of third country nationals while an appropriate database could be envisaged to provide information on incoming as well as return migrants.

— Legislative or operational obstacles in attracting and retaining highly skilled migrants in European Member states should be investigated and removed while attractive schemes to facilitate skill circularity should be promoted. Enterprises, universities or research institutions across host and sending countries could thus be encouraged to devise flexible schemes and enter into institutional partnerships promoting mobility and exchange.

— Migration of low-skill migrants creates large positive gains for sending countries and can confer important advantages to many receiving countries as well. Migration policies need to address in a more comprehensive, flexible and consistent manner low skill migration, taking into account variations in demographic trends, present and future labour market needs and business characteristics across European countries.

b) Smart visa policies for development

— Targeted emigration of a modest number of highly skilled workers from low- income countries can provide powerful incentives for human- capital accumulation in the country of origin; policies to that effect should become integral components of development cooperation policies, and structured partnerships for development.

— Circular and repetitive migration may serve as a possible alternative to long term settlement. It can entail substantial gains for both host and sending countries provided that it can be properly managed. Administrative costs to circular migration should be significantly reduced and legislative bottlenecks removed, where appropriate. Smart visa policies to facilitate circular migration may include flexible schemes, multi-entry rolling

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visas, shorter administrative procedures for return migrants, pension transferability schemes, lower costs for participation in temporary return programmes, etc.

c) Operationalising Policy Coherence for Development under multiple policy regimes

Given the interdependence between migration and development dynamics, migration and development policies need to be jointly addressed at the global, the European and the national levels:

— At the global level, globalisation and the increased mobility of goods and services require a fresh look and extension of the provisions governing freedom of movement of people, including unskilled labour which can result in substantial gains for developing and transition countries. Including provisions for the movement of unskilled workers in the Doha Round under Mode 4 could provide powerful incentives for progress in other areas.

— At the European level, exploring synergies between the EU's migration and development-cooperation policies in different geographic contexts would enhance the effectiveness of both policies for sending and receiving countries alike. The same can be said at the level of EU member- states where migration related policies are addressed by various ministries and institutions without the necessary coordination.

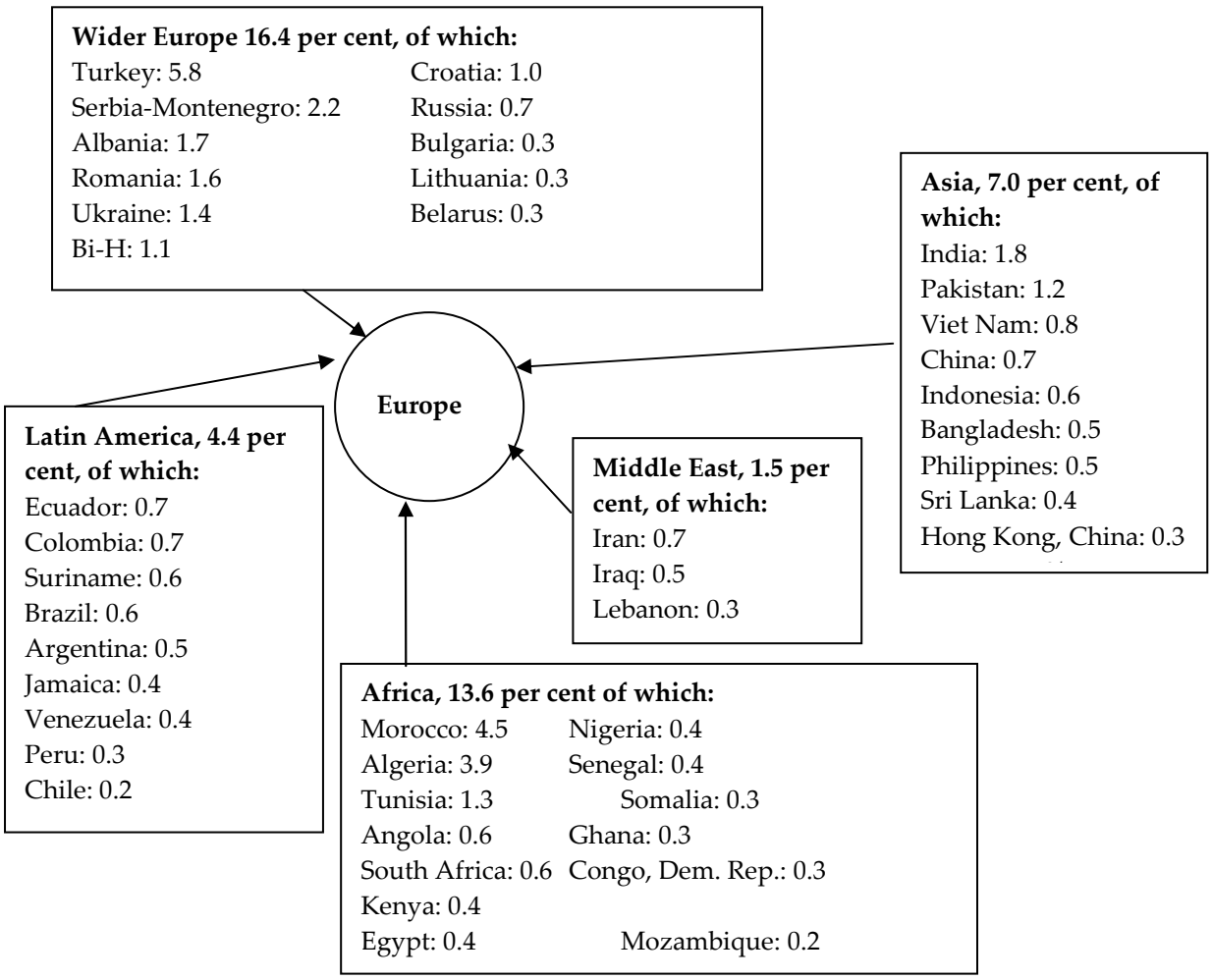
— Enhanced coherence between migration and development- cooperation policies is especially needed in the framework of the EU's dialogue and partnership with low-income countries, most notably the ACP countries. Enhancing the sending countries' capacity- building and market- integration through appropriate programmes and policies underpinned by development assistance can facilitate the diffusion of gains from migration, and turn the brain drain into a brain gain. For example, investments in infrastructure would tend to facilitate domestic labour market adjustment across segmented markets, spreading the benefits from migration and remittances to a wider region. Similarly, appropriate capacity building in health and education sectors would enhance low- income countries' skill retention capacity, permit skill circularity and facilitate skill creation and replenishment as a consequence of migration induced incentives in favour of additional schooling and training.

— Policy coherence across migration, trade, investment and development assistance should be taken into account and further explored. Interlinkages across these policy domains are easier to achieve in the case of integrated regional markets. Thus cooperation and partnerships with neighbouring countries across Southern and Eastern Europe, the Middle East and the Maghreb, can be based on the pursuit of deeper market integration and structured around policies to facilitate trade, investment and circular migration flows.

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APPENDIX

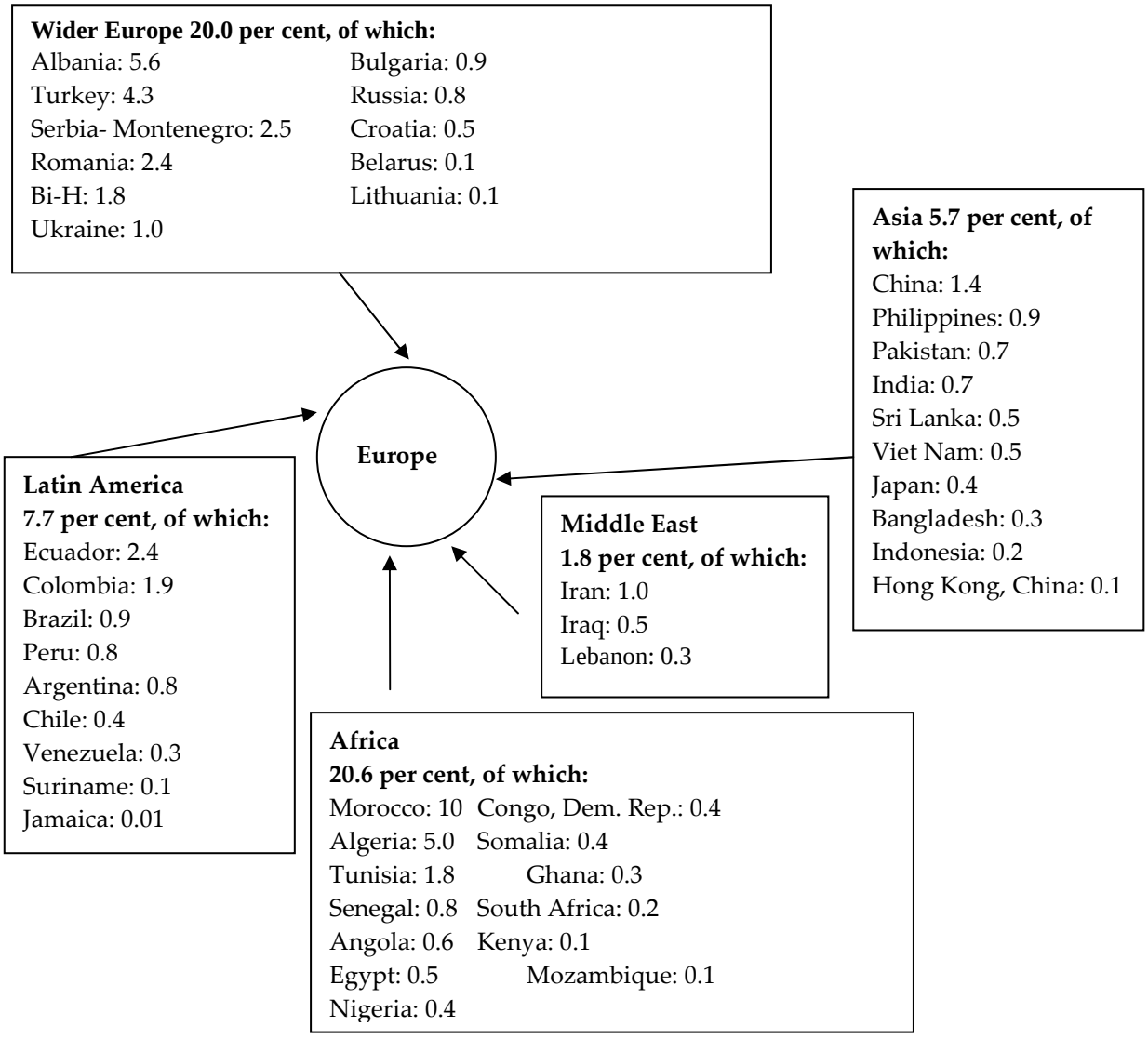
Chart 1. **Share of Foreign Born Living in the EU, by non-EU Country of Birth (total born in country i, living in the EU/ total foreign born in the EU), in percentage**



Source: OECD Database on Expatriates and Immigrants, 2004 (Census Data 1999-2003).

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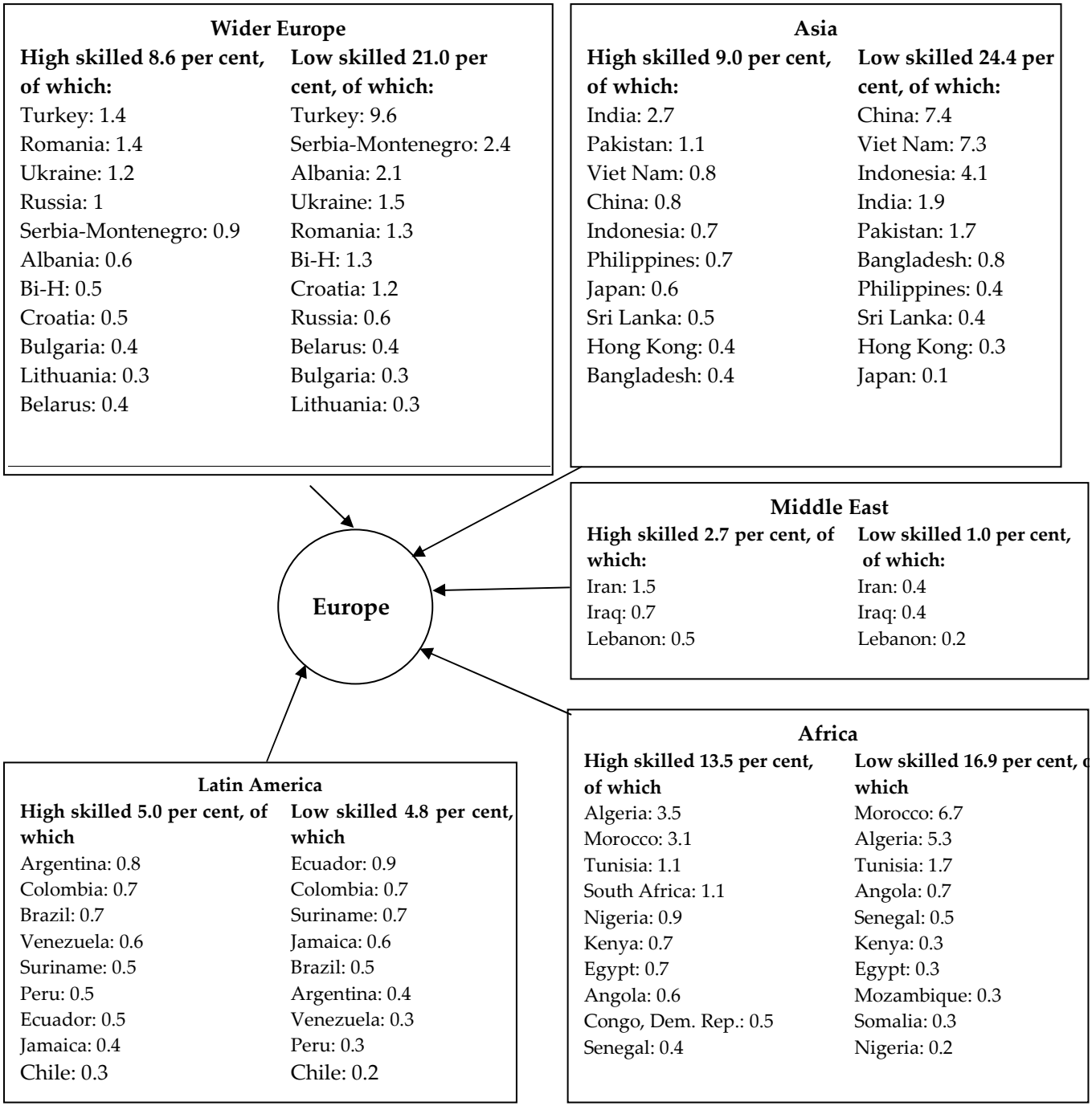
Chart 2. **Share of Foreign Born Living in the EU, with Foreign Nationality, by non-EU Country of Birth (total born in country i, living in the EU/ total foreign born in the EU), in percentage**



Source: OECD Database on Expatriates and Immigrants, 2004 (Census Data 1999-2003).

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Chart 3. **Share of High and Low Skilled Foreign Born Living in the EU, by non-EU Country of Birth (total born in country i, living in the EU/ total foreign born in the EU), in percentage**



Source: OECD Database on Expatriates and Immigrants, 2004 (Census Data 1999-2003).

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Table A1. Share of Foreign Born Living in the EU, by non-EU Country of Birth and Skill Level

Share of Foreign Born, living in EU countries, by non-EU Country of Birth							
All Foreign Born		With Foreign Nationality		Low Skilled		High Skilled	
Country of Birth	per cent	Country of Birth	per cent	Country of Birth	per cent	Country of Birth	per cent
AUSTRIA							
Serbia and Montenegro	14.3	Bosnia-Herzegovina	19.7	Turkey	20.1	Romania	3.9
Bosnia-Herzegovina	13.5	Serbia and Montenegro	18.1	Serbia and Montenegro	19.9	Serbia and Montenegro	3.8
Turkey	12.5	Turkey	15.8	Bosnia-Herzegovina	14.3	Bosnia-Herzegovina	3.5
Romania	3.9	Croatia	4.2	Croatia	4	Croatia	2.7
Croatia	3.9	Romania	2.7	Romania	3.1	Iran	2.7
Slovenia	2.1	Macedonia	2	Slovenia	2.3	Egypt	2.5
Other	1.7	Other	1.8	Macedonia	1.8	United States	2.4
Macedonia	1.4	Slovenia	1.1	Iran	1	Turkey	2.4
Switzerland	1.2	Iran	1	India	1	Russia	1.9
Iran	1.2	United States	0.9	China	0.9	Bulgaria	1.9
Egypt	1	Switzerland	0.8	Philippines	0.9	Switzerland	1.7
Philippines	0.9	India	0.8	Egypt	0.8	Slovenia	1.7
BELGIUM							
Morocco	10.7	Morocco	10.4	Morocco	13.9	Congo, Dem. Rep.	10.4
Turkey	6.5	Turkey	5.8	Turkey	9.6	Morocco	6
Congo, Dem. Rep.	4.6	Serbia and Montenegro	1.7	Congo, Dem. Rep.	2.3	Congo	3.5
Serbia and Montenegro	1.9	United States	1.6	Serbia and Montenegro	2.1	United States	2.1
Algeria	1.4	Congo, Dem. Rep.	1.6	Algeria	1.7	Turkey	1.7
Congo	1.4	Algeria	1.5	Tunisia	0.7	USSR	1.7
United States	1.3	USSR	1	USSR	0.6	Romania	1.3
USSR	1	China	0.7	Congo	0.6	Viet Nam	1.2
India	0.9	Congo	0.6	India	0.5	Algeria	1.1
Tunisia	0.8	India	0.6	Philippines	0.4	Serbia and Montenegro	1.1
Romania	0.7	Japan	0.6	China	0.4	Rwanda	1.1
Viet Nam	0.7	Tunisia	0.6	Viet Nam	0.4	India	1
CZECH REPUBLIC							
Ukraine	7.5	Ukraine	16.9	Ukraine	5.3	Ukraine	9.8
Viet Nam	3.3	Viet Nam	15.5	Romania	4.5	Russia	8.3
Russia	3	Russia	7.3	Viet Nam	2.7	Viet Nam	2.2
Romania	2.7	Bulgaria	3	Russia	1.8	Bulgaria	2
Serbia and Montenegro	1.1	Serbia and Montenegro	2.4	Serbia and Montenegro	0.7	United States	1.9
Bulgaria	1.1	Romania	1.9	Bulgaria	0.6	Serbia and Montenegro	1.8
United States	0.5	Kazakhstan	1.9	Croatia	0.3	Kazakhstan	0.9
Kazakhstan	0.5	United States	1.6	Kazakhstan	0.2	China	0.8
Croatia	0.4	Bosnia-Herzegovina	1.4	United States	0.2	Belarus	0.8
Bosnia-Herzegovina	0.4	Belarus	1.2	China	0.2	Bosnia-Herzegovina	0.7
Belarus	0.3	China	1.2	Bosnia-Herzegovina	0.1	Romania	0.7
China	0.3	Armenia	0.9	Armenia	0.1	Croatia	0.6

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GERMANY							
Other	50.5		0	Other	38	Other	54.9
Turkey	13.1		0	Turkey	24.4	USSR	6
ASIA	4.1		0	ASIA	4.3	ASIA	5.3
USSR	3.6		0	Serbia and Montenegro	3.8	EURO	2.9
Serbia and Montenegro	3.1		0	USSR	2.8	Turkey	2.6
EURO	2.3		0	Croatia	2.6	United States	2.6
Croatia	2.1		0	EURO	2.1	Iran	1.7
Bosnia-Herzegovina	1.6		0	Bosnia-Herzegovina	1.9	Serbia and Montenegro	1.3
AFRI	1.2		0	AFRI	1.4	Romania	1.1
Romania	0.9		0	Morocco	0.8	AFRI	1.1
United States	0.8		0	Viet Nam	0.7	SCAC	1
Iran	0.8		0	Romania	0.6	Croatia	0.9

DENMARK							
Turkey	8.4	Turkey	10.5	Turkey	14.5	Norway	6.2
Iraq	4.9	Bosnia-Herzegovina	7.3	Lebanon	5.1	Iran	4.6
Bosnia-Herzegovina	4.6	Iraq	6.3	Iraq	4.8	United States	4.2
Norway	4.6	Norway	4.9	Norway	4.4	Iraq	4
Lebanon	3.4	Somalia	4.9	Bosnia-Herzegovina	4.3	Bosnia-Herzegovina	3.1
Somalia	3.3	Serbia and Montenegro	4	Somalia	3.9	Turkey	2.3
Serbia and Montenegro	3.3	Pakistan	3	Serbia and Montenegro	3.8	Iceland	1.9
Iran	3.2	Afghanistan	3	Pakistan	3.6	North and South Korea	1.8
Pakistan	2.9	Iceland	2.4	Viet Nam	3.3	Serbia and Montenegro	1.7
Viet Nam	2.4	Thailand	2.2	Sri Lanka	2.8	Pakistan	1.6
United States	2.4	Lebanon	2.2	Iran	2.8	Lebanon	1.5
North and South Korea	2.3	United States	2.2	Thailand	2.5	Afghanistan	1.4

SPAIN							
Morocco	14.5	Morocco	15.5	Morocco	20.9	Argentina	7.5
Ecuador	10.1	Ecuador	14.2	Ecuador	11.7	Morocco	6.5
Colombia	8.1	Colombia	10.6	Colombia	7.6	Colombia	6.3
Argentina	4.8	Romania	3.8	Romania	3.1	Ecuador	5.6
Venezuela	3.1	Argentina	3.7	Argentina	3.1	Venezuela	5.3
Romania	2.8	Peru	2.6	Dominican Republic	2.6	Peru	3.8
Peru	2.5	Dominican Republic	2.1	Venezuela	2.1	Cuba	3.6
Switzerland	2.5	Cuba	1.8	Switzerland	1.9	Switzerland	3.3
Cuba	2.4	Bulgaria	1.8	China	1.8	United States	2.1
Dominican Republic	2.1	China	1.7	Peru	1.8	Mexico	2
Brazil	1.6	Algeria	1.6	Algeria	1.6	Brazil	1.9
China	1.4	Ukraine	1.5	Cuba	1.5	Romania	1.7

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FINLAND							
USSR	25.1	USSR	31.9	USSR	25.9	USSR	34
Estonia	6	Estonia	8.8	Estonia	5.8	Estonia	4.5
FYUG	3.2	FYUG	5.2	Somalia	4.1	United States	2.6
Somalia	3.2	Somalia	4.2	Serbia and Montenegro	3.5	China	2.2
Iraq	2.5	Iraq	3.7	Viet Nam	3.3	Serbia and Montenegro	1.9
United States	2.3	Russia	2.8	Iraq	2.9	Canada	1.3
Viet Nam	2.2	Turkey	2.2	United States	2.6	Iraq	1.2
Russia	2	United States	2.1	Turkey	2.3	Russia	1.2
Turkey	1.7	China	2.1	China	2	Iran	1.2
Iran	1.6	Iran	2	Thailand	1.9	Somalia	1
China	1.6	Viet Nam	1.9	Iran	1.8	Turkey	0.8
Thailand	1.4	Thailand	1.8	Russia	1.3	Ethiopia	0.7

FRANCE							
Algeria	21.3	Algeria	15.3	Algeria	22.4	Algeria	18.3
Morocco	12.1	Morocco	14.1	Morocco	12.4	Morocco	11.6
Tunisia	5.9	Turkey	5.5	Tunisia	6	Tunisia	5.4
Turkey	3.1	Tunisia	4.4	Turkey	4.1	Viet Nam	3.1
Viet Nam	2	Senegal	1.4	Viet Nam	1.4	Madagascar	2.1
Senegal	1.4	FYUG	1.3	Senegal	1.3	United States	2
Switzerland	1.3	Mali	1.2	FYUG	1.1	Senegal	1.8
Madagascar	1.3	Switzerland	1	Cambodia	1	Switzerland	1.7
FYUG	1	Congo	1	Mali	0.9	Lebanon	1.7
Cambodia	1	China	0.9	Madagascar	0.8	Congo	1.3
Côte d'Ivoire	0.8	United States	0.9	Switzerland	0.8	Cameroon	1.3
Congo	0.8	Cambodia	0.8	Laos	0.7	Iran	1.2

UNITED KINGDOM							
India	9.7			India	12.8	India	9.7
Pakistan	6.7			Pakistan	11.8	United States	5.1
United States	3.3			Bangladesh	5.8	South Africa	3.8
Bangladesh	3.2			Jamaica	4.7	Pakistan	3.8
Jamaica	3.1			Kenya	2.7	Australia	3.5
South Africa	3			Cyprus	2.4	Nigeria	3.1
Kenya	2.7			Hong Kong, China	2.4	Kenya	2.8
Australia	2.3			Turkey	1.6	New Zealand	2
Hong Kong, China	2			South Africa	1.2	Canada	2
Nigeria	1.9			Unknown	1.2	Malaysia	1.8
Cyprus	1.6			Somalia	1.1	Hong Kong, China	1.7
Canada	1.5			United States	1.1	Jamaica	1.6

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GREECE							
Albania	36	Albania	59.4	Albania	44.4	Albania	14.3
Turkey	6.9	Bulgaria	5	Turkey	11.7	Georgia	7.4
Russia	6.5	Georgia	3.7	Russia	7.5	Russia	6.9
Georgia	6.4	Romania	3.1	Georgia	6.3	Egypt	5.6
Bulgaria	3.5	Cyprus	2.2	Bulgaria	4.2	Cyprus	4.9
Egypt	3	Russia	2.1	Kazakhstan	2.2	Turkey	4.3
Romania	2.4	Ukraine	2	Egypt	2	United States	4
Kazakhstan	2.2	Pakistan	1.6	Romania	1.9	Australia	3.1
United States	2.1	United States	1.4	Pakistan	1.8	Bulgaria	3
Cyprus	2.1	Turkey	1.2	India	1.2	Ukraine	2.9
Australia	1.9	Egypt	1.2	Australia	1	Romania	2.2
Ukraine	1.5	India	1.1	Ukraine	0.9	Canada	2.1
HUNGARY							
Romania	49.1	Romania	39.4	Romania	47.2	Romania	41.7
Serbia and Montenegro	9.4	Ukraine	11.2	Serbia and Montenegro	10.5	Ukraine	11
Ukraine	8.2	Serbia and Montenegro	10.1	Ukraine	6.5	Serbia and Montenegro	8.7
Russia	2.3	China	4.4	Croatia	2.5	Russia	5.5
Croatia	1.6	Russia	3	China	1.8	China	1.3
China	1.4	Viet Nam	2	Russia	1.2	United States	1.3
United States	0.9	United States	1.4	United States	0.8	Viet Nam	1
Viet Nam	0.7	Croatia	1.3	Viet Nam	0.6	Croatia	0.9
Bulgaria	0.5	Mongolia	0.8	Slovenia	0.4	Bulgaria	0.9
Mongolia	0.3	Bulgaria	0.7	Bulgaria	0.4	Syria	0.5
Turkey	0.3	Afghanistan	0.6	Afghanistan	0.3	Japan	0.3
Slovenia	0.3	Syria	0.6	Turkey	0.3	Canada	0.3
IRELAND							
United States	5.4	United States	5	United States	2.6	United States	6.4
Nigeria	2.4	Nigeria	4.1	Nigeria	1.4	Nigeria	2.6
South Africa	1.6	China	2.5	Romania	1.3	Philippines	2.4
Australia	1.6	Romania	2.3	China	0.9	South Africa	2.1
Romania	1.5	South Africa	2.2	Hong Kong, China	0.7	Australia	1.9
China	1.5	Philippines	1.8	Australia	0.7	India	1.7
Philippines	1.1	Australia	1.7	South Africa	0.6	China	1.6
Canada	1.1	Pakistan	1.4	Canada	0.6	Canada	1.5
India	0.9	India	1.3	Brazil	0.5	Pakistan	1.4
Pakistan	0.9	Latvia	1.1	Pakistan	0.5	New Zealand	1
Russia	0.7	Russia	1	Malaysia	0.5	Russia	0.9
Latvia	0.6	Lithuania	1	Latvia	0.4	Romania	0.8

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ITALY							
Switzerland	8.7	Albania	13.1	Morocco	9.7	Switzerland	6
Albania	7.2	Morocco	12.8	Switzerland	7.9	United States	4.9
Morocco	7	Romania	6	Albania	7.5	Albania	4.3
Romania	3.9	Philippines	3.9	Croatia	4.6	Morocco	3
Croatia	3.6	Serbia and Montenegro	3.7	Tunisia	4	Romania	3
Tunisia	2.7	China	3.3	Serbia and Montenegro	2.8	Croatia	3
Serbia and Montenegro	2.4	Tunisia	3.3	China	2.6	Argentina	2.9
Argentina	2.4	Senegal	2.5	Romania	2.4	Philippines	2.9
United States	2.3	Peru	2.3	Philippines	2.4	Egypt	2.9
Philippines	2.2	Macedonia	2.1	Senegal	2.2	Venezuela	2.5
Brazil	2	India	2.1	Argentina	2.2	Brazil	2.2
China	1.8	Sri Lanka	2	Libya	2.1	Russia	2.1

LUXEMBOURG							
Serbia and Montenegro	4.6	Serbia and Montenegro	5.1	Serbia and Montenegro	4	United States	1.9
Cape Verde	1.7	Bosnia-Herzegovina	1.4	Cape Verde	3	Serbia and Montenegro	1.1
Bosnia-Herzegovina	1.3	Cape Verde	1.4	Bosnia-Herzegovina	1	Congo, Dem. Rep.	0.9
United States	0.8	United States	0.8	Other	0.7	Switzerland	0.9
Other	0.8	China	0.8	China	0.6	Iran	0.7
China	0.8	Other	0.7	Angola	0.3	Russia	0.7
Switzerland	0.6	Switzerland	0.5	Brazil	0.3	Romania	0.7
Congo, Dem. Rep.	0.5	Morocco	0.4	Morocco	0.3	Morocco	0.6
Romania	0.5	Russia	0.4	Thailand	0.3	Japan	0.6
Brazil	0.4	Romania	0.4	Switzerland	0.2	China	0.6
Morocco	0.4	Brazil	0.4	Macedonia	0.2	Canada	0.6
North and South Korea	0.4	Angola	0.3	Philippines	0.2	Algeria	0.5
	0		0	Croatia	0.2		0

NETHERLANDS							
Suriname	11.6	Morocco	14.1	Turkey	21.2	Indonesia	15.1
Turkey	11.3	Turkey	13.7	Morocco	17.6	Suriname	12
Indonesia	10.3	Iraq	4.2	Suriname	14.9	EURO	10.2
Morocco	9.7	Afghanistan	3.4	Indonesia	8.1	Turkey	4.2
Netherlands Antilles	5.2	Serbia and Montenegro	3.4	Netherlands Antilles	5.6	Netherlands Antilles	4
Serbia and Montenegro	3.3	United States	2.3	EURO	4.1	Morocco	3.9
Iraq	2.1	USSR	2.3	ASIA	2.9	Iraq	3.5
Afghanistan	1.6	China	1.8	Iraq	2.5	United States	3.5
China	1.5	Somalia	1.7	Bosnia-Herzegovina	2	ASIA	3.3
Somalia	1.4	Indonesia	1.7	Afghanistan	2	AFRI	2.6
Iran	1.4	Suriname	1.5	Serbia and Montenegro	1.6	Iran	2.3
United States	1.4	Iran	1.2	Somalia	1.6	Afghanistan	2.2

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POLAND							
Ukraine	39.9	Ukraine	17.1	Ukraine	44.9	Ukraine	39.5
Belarus	13.5	Other	16.9	Belarus	13.6	Belarus	16.7
Lithuania	10.3	Russia	10.1	Lithuania	9.6	Lithuania	12.7
Russia	7	Belarus	5.1	Russia	7.7	Russia	7.2
Other	2.4	Viet Nam	4.2	Other	1.2	Kazakhstan	1
United States	1.2	Bulgaria	2.6	United States	1	Other	0.9
Serbia and Montenegro	0.5	Armenia	2.3	Bosnia-Herzegovina	0.7	Viet Nam	0.8
Kazakhstan	0.5	United States	2.3	Serbia and Montenegro	0.7	United States	0.7
Romania	0.5	Lithuania	1.7	Romania	0.6	Bulgaria	0.7
Bosnia-Herzegovina	0.5	Serbia and Montenegro	1.4	Latvia	0.3	Latvia	0.4
Latvia	0.3	Kazakhstan	1	Kazakhstan	0.2	Syria	0.4
Bulgaria	0.3	Syria	0.7	Croatia	0.2	Romania	0.4
PORTUGAL							
Angola	26.8	Angola	17.1	Angola	28.8	Angola	29
Mozambique	11.7	Brazil	14.6	Cape Verde	11.3	Mozambique	17.4
Brazil	7.7	Cape Verde	13.6	Mozambique	10.8	Brazil	7.8
Cape Verde	7	Guinea-Bissau	7	Brazil	7.4	Ukraine	2.7
Venezuela	3.5	Ukraine	5	Guinea-Bissau	4.3	Venezuela	2.6
Guinea-Bissau	3.3	Sao Tome and Principe	3.9	Venezuela	3.3	Cape Verde	1.8
Switzerland	2	Venezuela	2.4	Sao Tome and Principe	2.6	Guinea-Bissau	1.8
Sao Tome and Principe	2	Mozambique	2.2	Ukraine	1.5	South Africa	1.4
South Africa	1.8	United States	1.4	South Africa	1.4	United States	1.3
Ukraine	1.7	Moldova	1.4	India	1.3	India	1.2
Canada	1.2	Romania	1.3	United States	0.8	Sao Tome and Principe	1.1
United States	1.2	Russia	1	Canada	0.8	Canada	0.9
SLOVAKIA							
Ukraine	6.4	Ukraine	12.1	Ukraine	4.9	Ukraine	8
Romania	2.7	Romania	4.2	Romania	4.3	Russia	3.7
Russia	1.6	Viet Nam	3	United States	1.5	Serbia and Montenegro	1.7
Serbia and Montenegro	1.3	Russia	3	Serbia and Montenegro	1.1	Bulgaria	1.5
Bulgaria	0.9	Serbia and Montenegro	2.8	Russia	0.9	Romania	1.3
United States	0.7	Bulgaria	2.2	Bulgaria	0.8	United States	0.6
Viet Nam	0.6	Croatia	0.9	Viet Nam	0.5	Viet Nam	0.5
Croatia	0.3	United States	0.7	Croatia	0.2	Syria	0.5
Belarus	0.2	China	0.7	Macedonia	0.1	Afghanistan	0.4
Macedonia	0.2	Macedonia	0.6	Belarus	0.1	Belarus	0.4
Bosnia-Herzegovina	0.2	Bosnia-Herzegovina	0.6	Canada	0.1	Croatia	0.3
China	0.2	Armenia	0.5	Bosnia-Herzegovina	0.1	Armenia	0.3

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SWEDEN							
Serbia and Montenegro	7	Iraq	9.7	Serbia and Montenegro	9.3	Iran	6.9
Iraq	6.3	Norway	6.7	Iraq	6.4	Iraq	6.8
Bosnia-Herzegovina	5.1	Serbia and Montenegro	4.4	Turkey	6	Bosnia-Herzegovina	4.1
Iran	5	Bosnia-Herzegovina	3.6	Bosnia-Herzegovina	4.1	Serbia and Montenegro	4
Norway	4.2	Iran	2.8	Iran	3.5	Norway	3.5
Turkey	3.2	Turkey	2.6	Lebanon	3.3	United States	2.7
Chile	2.6	Chile	2.3	Norway	3.3	Chile	2
Lebanon	2	United States	2.1	Chile	3	Russia	1.9
Syria	1.5	Thailand	2	Syria	2.4	Romania	1.8
United States	1.5	Somalia	1.9	Thailand	2.2	China	1.7
Somalia	1.4	Russia	1.6	Viet Nam	1.8	Turkey	1.4
Thailand	1.4	Afghanistan	1.4	Somalia	1.8	India	1.3

Source: OECD Database on Expatriates and Immigrants, 2004 (Census Data 1999-2003).

Table A2. **Data Sources and Definitions**

Data on various corruption indices are taken from the World Bank updated aggregate governance research indicators. These indicators contain data for 209 countries for the period between 1996 and 2004 regarding six dimensions: voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law, and control of corruption. The data and methodology used to construct the indicators are described in "Governance Matters IV: Governance Indicators for 1996—2004"[26]. Our preferred measure is the index of voice and accountability, which attempts to measure political, civil and human rights.

Source	Description
WDI	GDP, sending country
WDI	life expectancy at birth (in years), sending country
WDI	annual population growth (per cent), sending country
WDI	total unemployment (per cent of labour force) in sending country
WDI	total unemployment (per cent of labour force) in receiving country
WDI	GDP (lagged), receiving country
WDI	life expectancy at birth (in years), receiving country
WDI	annual population growth (per cent), receiving country
WDI	population density: people per sq. km, sending country
WDI	population density: people per sq. km, receiving country
CEPII	1 if common official language in the two countries
CEPII	1 if colonial relationship after 1945
CEPII	1 if the two countries are contiguous
CEPII	distance in km between the two countries (bilateral distance between largest cities, weighted by share of the city in total population in the country)
CEPII	1 if the two countries ever had a colonial link
CEPII	1 if the two countries have had a common coloniser after 1945
World Bank	Voice and Accountability-measuring political, civil and human rights

Notes: All WDI, CEPII and World Bank data are measured in year 2000.

The stock of migrants from the OECD Database are for years 1999-2003.

26. More details can be found at: http://www.worldbank.org/wbi/governance/pubs/govmatters4.html

Table A3. **Stocks of Foreign Born as a Function of Distance, Language and Colonial-ties Factors**

Dependent Variable: log(Number of people born in country i, living in country j/total population of country i)					
	(1)	(2)	(3)	(4)	(5)
1 if common official language in the two	1.749	3.053	3.068	2.922	3.002
in the two countries	(0.199)**	(0.292)**	(0.300)**	(0.293)**	(0.304)**
1 if colonial relationship after 1945	3.558	1.787	1.858	2.047	2.129
	(0.390)**	(0.776)*	(0.825)*	(0.764)**	(0.821)**
1 if the two countries are contiguous	0.734	0.961	1.532	0.358	1.410
	(0.502)	(0.974)	(0.397)**	(0.967)	(0.395)**
distance in km between the two countries	-1.074	-0.611	-0.912	-0.947	-0.936
	(0.066)**	(0.104)**	(0.063)**	(0.126)**	(0.064)**
Voice and Accountability –				0.586	0.374
measuring political, civil and human rights				(0.115)**	(0.082)**
annual population growth (per cent),		-0.339		-0.241	
sending country		(0.091)**		(0.093)**	
annual population growth (per cent),		-0.161		-0.136	
receiving country		(0.092)		(0.093)	
total unemployment (per cent of labour force),		0.536	0.444	0.427	0.350
sending country		(0.087)**	(0.087)**	(0.090)**	(0.089)**
Total unemployment (per cent of labour force)		-0.699	-0.693	-0.650	-0.662
(per cent of labour force), receiving country		(0.171)**	(0.150)**	(0.172)**	(0.152)**
GDP, sending country		-0.039	-0.117	0.069	-0.069
		(0.043)	(0.037)**	(0.047)	(0.038)
GDP lagged, receiving country		0.962	0.984	0.932	0.973
		(0.079)**	(0.107)**	(0.080)**	(0.109)**
Life Expectancy at birth (in years)		2.716	3.072	2.005	2.511
sending country		(0.551)**	(0.564)**	(0.560)**	(0.576)**
life expectancy at birth (in years),		34.184	22.439	35.972	22.124
receiving country		(5.539)**	(2.467)**	(5.589)**	(2.503)**
population density: people per sq. km,			0.001		-0.008
sending country			(0.054)		(0.054)
population density: people per sq. km,			-0.190		-0.204
receiving country			(0.085)*		(0.087)*
Observations	2155	448	692	423	663
R-squared	0.2061	0.6412	0.6177	0.6629	0.6271

Standard errors in parentheses. One star: significant at 5 per cent; Two stars: significant at 1 per cent

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Table A4. **Stocks of Foreign Born as a Function of Distance, Language and Colonial-ties Factors**

Dependent Variable: log(Number of Highly skilled people born in country i, living in country j/total population of country i)					
	(1)	(2)	(3)	(4)	(5)
1 if common official language in the two countries	1.906	2.973	3.111	2.827	3.014
	(0.173)**	(0.254)**	(0.273)**	(0.243)**	(0.271)**
1 if colonial relationship after 1945	4.072	2.529	2.641	2.903	3.047
	(0.262)**	(0.674)**	(0.751)**	(0.633)**	(0.732)**
1 if the two countries are contiguous	1.270	1.538	1.924	1.087	1.800
	(0.453)**	(0.846)	(0.351)**	(0.801)	(0.343)**
distance in km between the two countries	-1.060	-0.517	-0.933	-0.832	-0.954
	(0.061)**	(0.092)**	(0.058)**	(0.105)**	(0.058)**
Voice and Accountability –				0.684	0.505
measuring political, civil and human rights				(0.098)**	(0.076)**
annual population growth (per cent), sending country		-0.169		-0.114	
		(0.079)*		(0.077)	
annual population growth (per cent), receiving country		0.028		0.055	
		(0.081)		(0.078)	
total unemployment (per cent of labour force),		0.595	0.298	0.459	0.160
sending country		(0.080)**	(0.082)**	(0.078)**	(0.083)
total unemployment (per cent of labour force),		-0.893	-0.790	-0.880	-0.771
receiving country		(0.158)**	(0.140)**	(0.152)**	(0.139)**
GDP, sending country		-0.118	-0.214	-0.011	-0.164
		(0.038)**	(0.034)**	(0.041)	(0.035)**
GDP lagged, receiving country		1.077	1.048	1.050	1.042
		(0.075)**	(0.096)**	(0.072)**	(0.096)**
life expectancy at birth (in years),		3.818	5.259	2.958	4.468
sending country		(0.493)**	(0.536)**	(0.478)**	(0.538)**
life expectancy at birth (in years),		37.269	15.625	39.013	14.722
receiving country		(4.840)**	(2.301)**	(4.660)**	(2.289)**
population density: people per sq. km,			-0.220		-0.230
sending country			(0.050)**		(0.049)**
population density: people per sq. km,			-0.038		-0.065
receiving country			(0.086)		(0.085)
Observations	2162	426	656	402	628
R-squared	0.3161	0.7197	0.6736	0.7565	0.6949

Standard errors in parentheses. One star: significant at 5 per cent; Two stars: significant at 1 per cent

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Table A5. **Stocks of Foreign Born as a Function of Distance, Language and Colonial-ties Factors**

Dependent Variable: log(Number of Unskilled foreign people born in country i, living in country j/total population of country i)					
	(1)	(2)	(3)	(4)	(5)
1 if common official language in the two	1.478	2.964	2.823	2.744	2.700
countries	(0.213)**	(0.339)**	(0.361)**	(0.335)**	(0.362)**
1 if colonial relationship after 1945	4.390	3.140	3.043	3.426	3.400
	(0.314)**	(0.898)**	(0.990)**	(0.870)**	(0.977)**
1 if the two countries are contiguous	2.142	1.862	3.008	1.153	2.829
	(0.537)**	(1.127)	(0.463)**	(1.100)	(0.457)**
distance in km between the two countries	-1.046	-0.777	-1.004	-1.177	-1.029
	(0.073)**	(0.123)**	(0.078)**	(0.145)**	(0.078)**
Voice and Accountability –				0.676	0.457
measuring political, civil and human rights				(0.135)**	(0.101)**
annual population growth (per cent),		-0.387		-0.263	
sending country		(0.105)**		(0.106)*	
annual population growth (per cent),		-0.518		-0.463	
receiving country		(0.109)**		(0.109)**	
total unemployment (per cent of labour force),		0.532	0.471	0.414	0.363
sending country		(0.106)**	(0.109)**	(0.107)**	(0.111)**
total unemployment (per cent of labour force),		-0.877	-0.839	-0.866	-0.805
receiving country		(0.209)**	(0.186)**	(0.208)**	(0.187)**
GDP, sending country		-0.075	-0.130	0.059	-0.067
		(0.051)	(0.045)**	(0.056)	(0.047)
GDP lagged, receiving country		1.253	1.165	1.223	1.154
		(0.100)**	(0.128)**	(0.099)**	(0.128)**
life expectancy at birth (in years),		2.766	2.840	2.058	2.154
sending country		(0.631)**	(0.688)**	(0.627)**	(0.694)**
life expectancy at birth (in years),		26.824	25.505	29.870	24.563
receiving country		(6.447)**	(3.138)**	(6.406)**	(3.166)**
population density: people per sq. km,			0.072		0.070
sending country			(0.067)		(0.067)
population density: people per sq. km,			0.006		-0.013
receiving country			(0.113)		(0.114)
Observations	2081	422	644	398	616
R-squared	0.2510	0.6609	0.6013	0.6859	0.6153

Standard errors in parentheses. One star: significant at 5 per cent; Two stars: significant at 1 per cent

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