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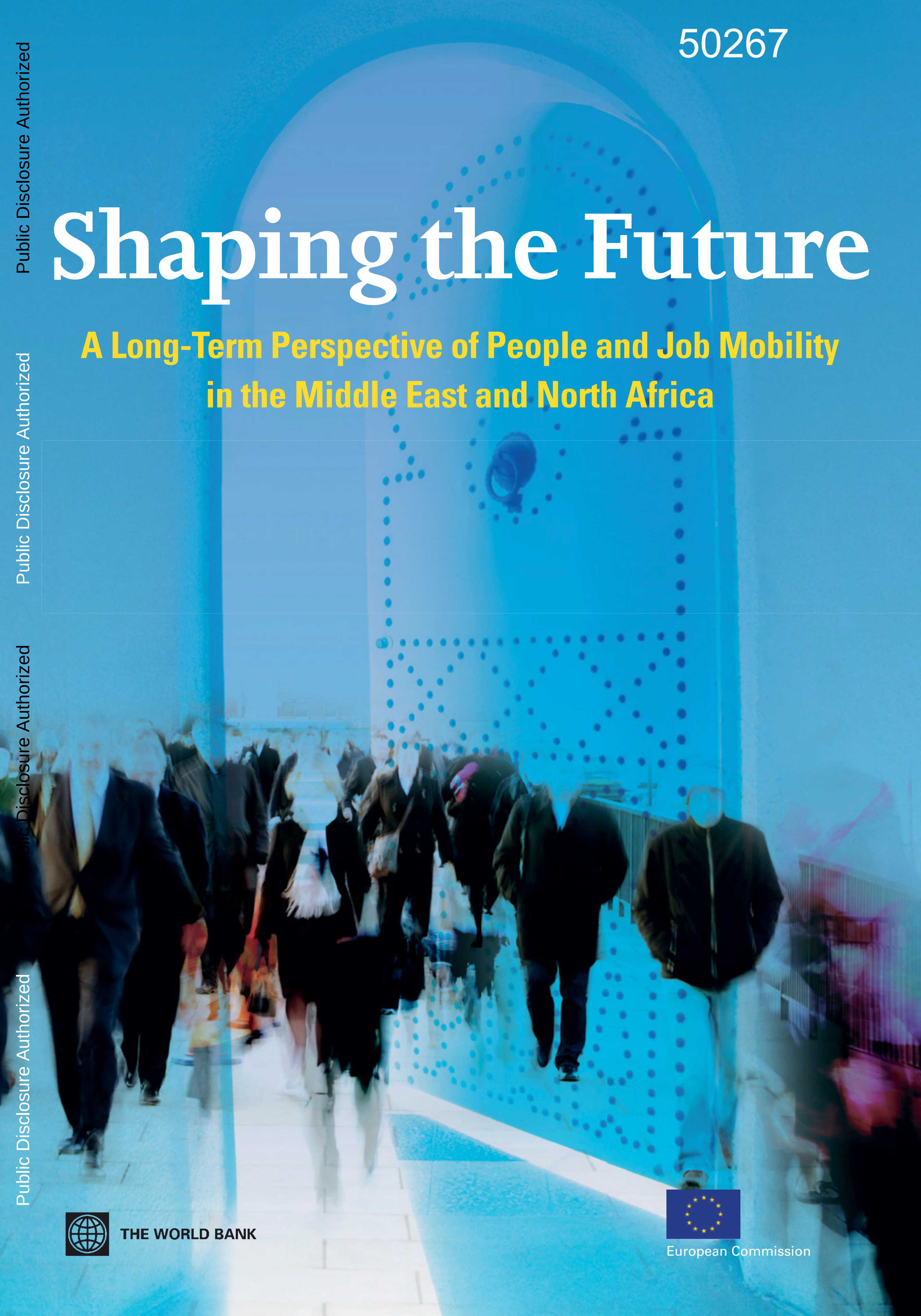
Shaping the Future

A Long-Term Perspective of People and Job Mobility in the Middle East and North Africa



THE WORLD BANK

European Commission

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A Long-Term Perspective of People and Job Mobility for the Middle East and North Africa

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The genesis of this study lies in the growing realization, both inside and outside the World Bank, that migration represents challenges and opportunities for both sending and receiving countries. A sound management of economic migration, based on cooperation between home and host countries and integrated into long-term development strategies, can have beneficial outcomes for both sides, as well as for the migrants and their households. The characteristics and specific needs of, as well as the advantages offered by, the countries of the Middle East and North Africa (MENA) led the Bank's MNA Region[1] to initiate a program of country and regional investigations on this subject, of which this study is the culmination. The study was prepared under the overall guidance of Mustapha Nabli (as chief economist, MNA Region) and Michal Rutkowski (as director of human development, MNA Region) by Leila Zlaoui (team leader), Sara Johansson de Silva, and Alexander Kolev, who were assisted by Ben Varon and Lin Chin in the last phase. Special thanks to Abdeslam Marfouk, Université de Bruxelles, for providing key data updates.

The study is co-financed by the European Union and the World Bank. It is the product of a broad collaborative effort, reflecting the approach to migration planning and management advocated throughout the text. The contributors to the study encompass Bank staff as well as local consultants from both MENA countries and donor partners. The study draws heavily on the work of international and multinational organizations, such as the European Community, the United Nations, the International Labour Organization (ILO), and the Organisation for Economic Co-operation and Development. The study builds on the experience and lessons of other regions and countries with successful labor migration and insourcing histories and sets the framework for future MNA/EC joint work in the region.

The study consists of the main body of the analysis—including findings, projections, and implications for policy makers on both the sending and receiving sides (with a focus on Europe on the latter)—and four background

papers on migration trends, issues, and prospects, which are on the CD mounted inside the back cover. These papers were prepared for the World Bank by Flore Gubert and Christophe J. Nordman (*Migration from MENA to OCED Countries: Trends, Determinants, and Prospects*), Johannes Koettl (*Prospects for Management of Migration between Europe and the Middle East and North Africa*), Georges Corm (*Labor Migration in the Middle East and North Africa: A View from the Region)*, and Christophe Schramm (*Migration from Egypt, Morocco, and Tunisia: Synthesis of Three Case Studies*). The synthesis of three case studies is based on papers prepared by Tahar Abdessalem, Ahmed Basti, Mohamed Khachani, Fouzi Mourji, Ayman Zohry, and the International Organization for Migration country branches of Tunis and Cairo. The case studies benefited from Hedi Larbi's invaluable insights.

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1. MNA is the denomination of the MENA unit in the World Bank organizational listing of regions. MNA includes Algeria, Bahrain, Djibouti, the Arab Republic of Egypt, the Islamic Republic of Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Malta, Morocco, Oman, Qatar, Saudi Arabia, the Syrian Arab Republic, Tunisia, the United Arab Emirates, West Bank and Gaza, and the Republic of Yemen.

Abbreviations

AILE	Digital Registry of Foreign Workers
ATCT	Agence Tunisienne de Coopération Technique
BPO	business process outsourcing
CEDEFOP	European Centre for the Development of Vocational Training
CFO	Commission of Filipinos Overseas
EAP	East Asia and the Pacific
EC	European Commission
ECA	Europe and Central Asia
EU	European Union
FDI	foreign direct investment
GCC	Gulf Cooperation Council
GDP	gross domestic product
GNP	gross national product
HSMP	High Skilled Migration Programme (United Kingdom)
ICT	information and communication technology
ILO	International Labour Organization
IMIS	Integrated Migration Information System
IOM	International Organization for Migration
JVR	job vacancy rate
LAC	Latin America and the Caribbean
MENA	Middle East and North Africa
NAAPEC	National Agency for the Promotion of Employment and Competence
NGO	nongovernmental organization
OECD	Organisation for Economic Co-operation and Development
OTE	Office des Tunisiens à l'Etranger
OWWA	Overseas Workers Welfare Administration
POEA	Philippines Overseas Employment Administration
R&D	research and development

SA	South Asia
SSA	Sub-Saharan Africa
TICs	traditional immigration countries
UAE	United Arab Emirates
UN	United Nations
VTC	vocational training centers

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Overview

A Global Market for Jobs and Workers Is Developing Rapidly

The internationalization of the production of goods and services, reduced communications and transportation costs, and global demographic developments will lead to higher international mobility of labor and jobs in the coming decades. Over the long run, income growth and the prosperity of nations will depend on the availability of a sufficiently large workforce with a range of skill levels and the ability to adapt to the changing needs of society. Two pillars underpin the analysis presented in *Shaping the Future: A Long-Term Perspective of People and Job Mobility for the Middle East and North Africa*. First, increasingly strong forces will be pulling for the migration of people and jobs across the world's regions in the future. Second, countries and regions can adopt a proactive approach to prepare for these global changes, seize opportunities, and address risks head on.

The globalization of labor markets involves both the age-old phenomenon of migration by people seeking better opportunities across borders, and the relatively recent phenomenon of job mobility through the outsourcing and offshoring of jobs to other countries. Advances in telecommunication, management, and organization have made the relocation of activities both attractive and possible, allowing large and small firms alike to build relationships abroad to tap into technology upgrades and cost savings. Firms look for the best-adapted workers for their money. Individuals look for an improved quality of life—even to the point of leaving their home countries for work abroad. As a result, firms are increasingly tapping into the global market for services, talent, and sheer manpower, recruiting migrants and moving jobs around the world.

Both industrial and developing countries stand to benefit from better-organized migration schemes, more opportunities for labor migration, and better matching between skill demand and skill supply. This is very much the case for the Middle East and North Africa (MENA) and Europe, where important migration links exist. Currently, migration is the main form of global integration for MENA countries, and is making an important contribution to household incomes and national economies in the region. Yet, the scope for improving migration outcomes is significant.

Demographic Differences Will Increase Pressures for Migration

In the course of the next 40 to 45 years, the world population will go through significant shifts, which will affect growth and welfare prospects in all regions. The population will grow by some 2.6 billion people to reach 9 billion by 2050. At the same time, declining fertility and increasing longevity are contributing to an aging population worldwide. As a result, the population over 40 years old stands to increase by as much as 2 billion people—or by 75 percent—and the share of people 65 and older will more than double. These prospects could pose serious risks to economic growth, fiscal balances, and the welfare of the elderly.

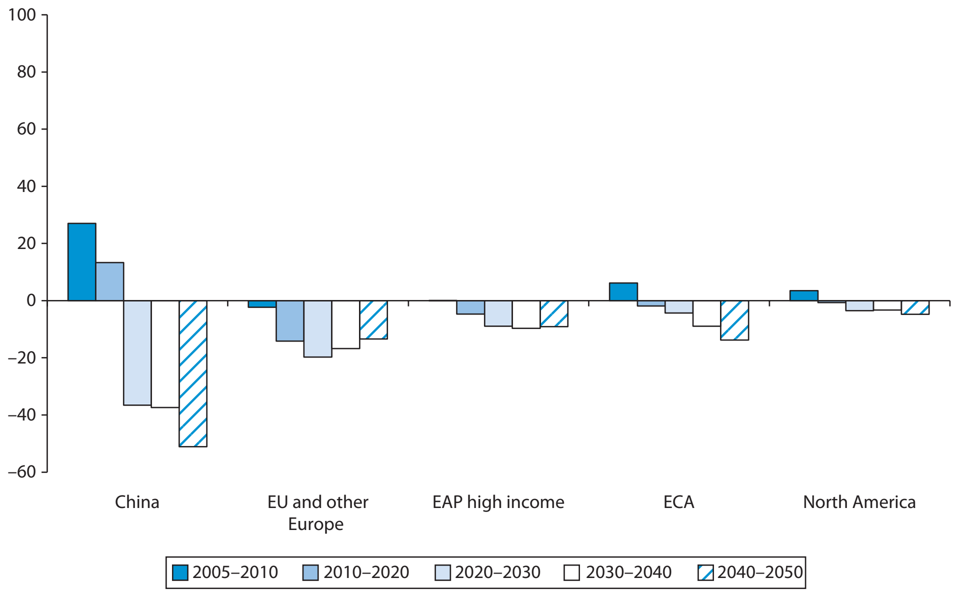
The dynamics vary significantly by region, with some regions, notably Europe, facing the prospects of a rapid decline in population and labor force, even if drastic policy measures are put in place. In the absence of migration, and assuming that participation rates remain unchanged, Central Asia, the high-income countries in East Asia as well as China, Europe, and North America would collectively lose 216 million workers between now and 2050 (see figure 1). The European Union alone would experience a loss of 66 million workers, a decline of almost one-third, and by 2050, there will be about two retirees per every one active person. Without heroic assumptions about labor productivity growth, a reasonable level of aggregate income growth cannot be sustained unless migrants are allowed to replace the retiring workforce.

Other and generally poorer regions would have migrant labor to offer. For various reasons, potential migrants are likely to be young workers; that is, members of the labor force ages 15 to 39, and may represent 570 million additional workers by 2050. This group will be the largest in countries in Sub-Saharan Africa (SSA), followed by South Asia (SA), and MENA. In SSA, the labor force in the age group 15 to 39 is projected to increase by a total of 328 million by 2050.[1] India and the other South Asian countries are projected to be the second-largest potential suppliers of migrant labor over this period with, respectively, an increase of 68 million and 89 million people in the labor force of those between the ages of 15 and 39. In the MENA Region, the increase in the labor force in the same age group is estimated to be on the order of 44 million people, compared with 29 million in Latin America and the Caribbean (LAC), and 12 million in East Asia and the Pacific (EAP). Except in SSA, however, the supply of migrant labor will decline after 2020, and beyond 2030 India, EAP, and LAC will experience declining labor forces, too (see figure 2).

To meet the challenge of an aging and shrinking labor force, while maintaining living standards and international competitiveness, deficit regions,

Figure 1. Change in Total Labor Force for Deficit Regions, by Decade

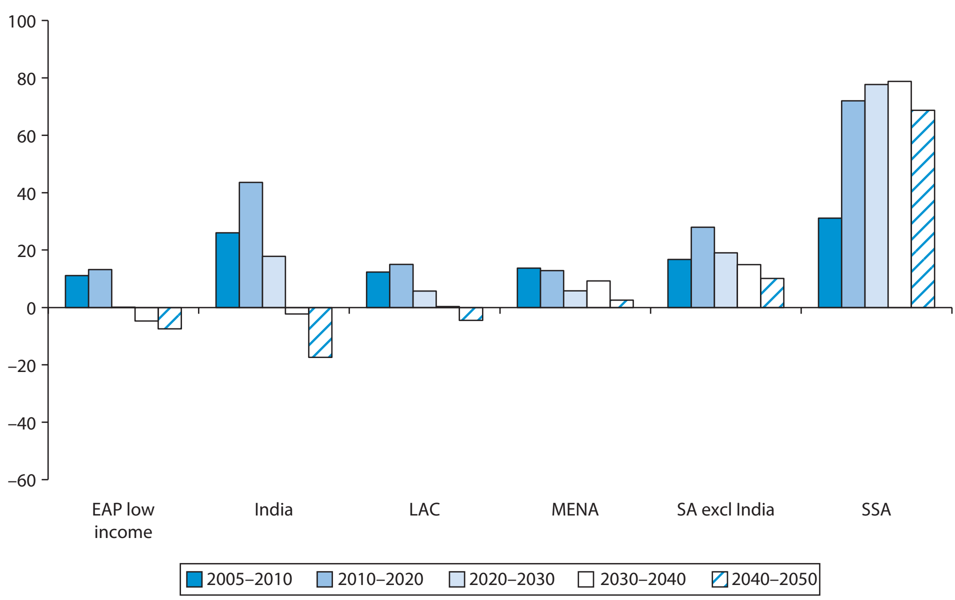
(millions, zero-migration variant, 2005–50)



Source: Koettl in background papers.

Figure 2. Change in Total Labor Force for Growing Regions, by Decade

(millions, zero-migration variant, 2005–50)

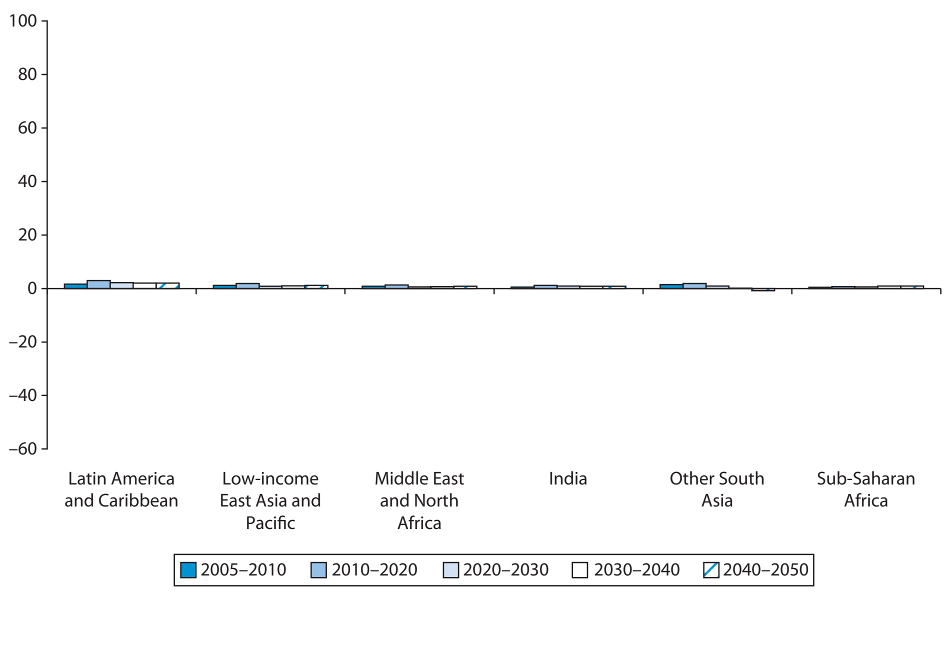


Source: Koettl in background papers.

including European countries, need to adopt a comprehensive approach. This approach should aim to increase labor force employment rates (through, for example, increasing retirement ages and women's participation rates) and boost productivity (through innovation). Domestic labor market reforms will not be sufficient to close the labor force gap, however, and such reforms also carry political costs.

Under current migration policies and with the broad economic and political parameters unchanged, only a small fraction of the labor deficit would be filled by other regions with surplus labor. What role could migration play to fill labor shortages? As this and other research shows, the magnitude of imbalances is such that migration into deficit regions is likely to intensify in the future. As noted above, MENA, SA, and the poorer countries of East Asia will experience continued increases in their young labor forces from where migrants could be expected to come. Mass migration on a scale that would completely offset the gap between labor surplus and deficit regions is not a realistic alternative; such major displacement would, among other things, risk draining developing countries of their young and skilled workforce. Conversely, if current migration policies and the other socioeconomic and political circumstances that drive migration stay unchanged, only a small fraction of this surplus workforce—32 million or less than 15 percent of the loss in workers in deficit regions—would be willing or able to leave (see figure 3).

Figure 3. Emigration of the 15–39-Year-Old Labor Force by Sending Region at Current Emigration Rates (in millions) by Decade



Labor Shortages Are Likely to Occur in Occupations across the Skills Spectrum

Labor migration involves and will continue to involve different skill levels. Labor shortages in some areas, such as health care professionals at various skill levels, are already significant. Short- and long-term projections both point to the fact that labor shortages will grow in many rich countries, and that these labor shortages will occur across the skills spectrum, with significant demand for mid-level skills (such as nurses, intermediate business services) or even relatively low-level skills (retail sales persons, waiters, and so on). Migrants with vocational, secondary levels of education, and linguistic proficiency conceivably could fill these gaps.

Countries are increasingly aware of the need to attract talent at the high-skilled level, but policies and instruments to promote mid-level skills are not as high on the policy agenda. Employers will continue to hunt globally for the best talent. Scientists and academics already move in a global labor market, as do business executives. Emerging economies, including China and India, are increasingly supplying the much-needed talent through migrants or outsourcing. Many European countries now focus on how to adapt migration policies to catch up with traditional immigration countries, like Australia, Canada, and the United States, to attract a more skilled workforce. Commensurate initiatives are not available, however, to explore how to prepare and organize the recruitment of mid-level skills and provide the necessary training. Yet mid-level skills not only are in high demand, but also are likely to constitute the bulk of future labor shortages if no action is taken.

How Can MENA's Sending Countries Prepare for Higher People and Job Mobility?

Opportunities for regular labor migration to Europe and the Middle East currently are limited. Migration within and out of MENA has a long history. The more recent surge took place in the 1960s, as Western and Northern European countries actively recruited Maghreb workers for their expanding economies. This recruitment continued in the 1970s as the booming oil economies in the Gulf absorbed a large pool of skilled and low-skilled manpower. Over time, as formal job opportunities diminished, migration to Europe increasingly took the form of permanent migration for the purposes of family reunification and formation, as well as undocumented migration and has been directed to Southern European countries. In the Gulf countries, in particular, Middle Eastern workers have faced increased competition from national and Asian workers.

MENA migrants have brought important benefits to home and host countries. Remittance income is a key source of foreign exchange in the MENA sending countries: formal remittances income accounts for between 5 and 20 percent of the gross national product (GNP) in some of the main MENA migration countries. Jobs abroad (in the member countries of the Organisation for Economic Co-operation and Development [OECD] and the Gulf) are equivalent to 6 percent of total employment at home. The impact on technology flows, innovation, education, and investment of an active Diaspora and returning migrants is potentially significant. Estimates suggest that migrants have contributed considerably to economic growth in "new" receiving countries, such as Spain.

Yet outcomes are still disappointing relative to the potential. Irregular migration from the MENA Region currently is subjecting migrant workers to poor living and working conditions, substantial health and income risks, and social marginalization. Second-generation immigrants in Europe generally do much worse on labor markets than their national peers, and migrants are proportionally less likely to be employed in occupations corresponding to their level of education. Social and political tension around immigration and integration issues is rising in a number of countries. Last, compared with migrants from other regions, a large share of MENA's educated workers leaves for foreign shores, potentially draining the sending country of its skilled workforce.

MENA's demographic bulge is now hitting labor markets with full force. To meet labor force growth and absorb the large pool of unemployed, the region needs to create nearly 5 million jobs per year up until 2020. At the moment, job creation is barely keeping up with the growing labor force, and although unemployment rates are falling, they remain excessively high, especially among the young and educated.

Migration is not a panacea for sluggish job creation in MENA countries or for an aging European population, but it could form part of the policy approach to address these challenges. Migration cannot solve MENA's unemployment problem. As seen above, migration would need to take on unrealistic proportions to replace the demographic deficit in Europe and elsewhere. But many of the policy actions and institutional reforms that will be needed to stimulate global labor and job mobility—enhanced education, overall investment climate, financial system, public sector—are in tune with those needed to foster private sector job creation and labor productivity growth at home.

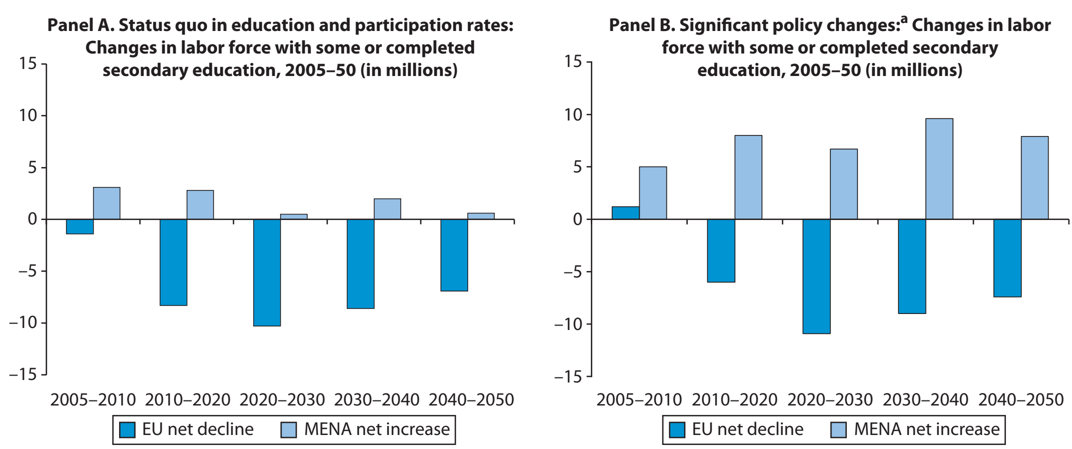
Outsourcing and offshoring offer additional opportunities for tapping into the global jobs market. The international migration of jobs to China and India shows the important potential for job creation from the insourcing of jobs. Offshoring to third parties is accelerating, and developing countries are increasing their stake. In the right circumstances, MENA could attract significant job creation, especially in business services, from abroad. The region's strengths include its geographic, cultural, and linguistic ties to Europe; its stable investment climate, despite weaknesses in the business environment; and its wage advantages in a few sectors. However, from a knowledge perspective—the education level and specialization of the workforce, private sector research and development (R&D), information and communication technology (ICT) skills—the region may, on average, have less to offer.

Actually, some of the features that block economic growth and domestic job creation as well as insourcing options also may hamper the potential for higher migration benefits in the sending countries. High illiteracy rates, as well as unreformed education systems favoring social sciences over physical sciences, technical and engineering skills, or business services, keep MENA uncompetitive compared with other regions.

Hence, to seize the opportunities from global developments in terms of insourcing and address the risks that excessive skilled labor migration pose for MENA's own labor market needs in the long term, MENA countries need to make strong and concrete efforts to increase significantly their labor force participation rates and improve education achievements. For example, under the assumption that Europe wants to replenish its diminishing workforce so that the current age and skill structure is preserved, the demand for replacement workers in European countries will reach a peak in the 2020s and primarily will affect mid-level skills. Based on current education outcomes, MENA countries will provide a poor match, because most of its potential migrants (those ages 15–39) at most will have completed primary education. If women's participation rates and overall education levels improve significantly over time, however, MENA's matching prospects will be enhanced (as figure 4 illustrates).

Both sending and receiving countries need to adopt a proactive stand to meet the long-term challenges of sustainable job creation and growth. Migration carries benefits and costs for the sending countries, the receiving countries,

Figure 4. Skill Mismatch with and without Policy Reform in MENA Countries



Sources: UN 2005, ILO 1997, and authors' estimates.
a. MENA matches current education and participation rates in Southern European countries; the European Union continues to increase levels of education.

and the migrants themselves, and it has a wide-ranging impact on competitiveness, social welfare, and cultural identity. High levels of irregular migration, problems of integration, and the issue of "brain drain" divert attention from migrants' contributions to economic growth, globalization, and cultural diversity. Although migration has a prominent place on the international policy agenda, the focus remains mainly on high-skilled migration, integration policies, and security concerns. Preparing for the future effectively will require—additionally and especially—wide-ranging changes in education, social protection, labor markets, and migration policies in both sending and receiving countries, as well as significant efforts to incorporate these issues in international cooperation.

Most important, addressing future labor market skill needs requires action now. Why? Because it takes 15 to 20 years or more to train a skilled worker from childhood to adulthood, making the supply of skilled workers inelastic in the short term. Today's children will make up the labor force of 2030, and the labor force of 2040 to 2050 will be born and educated in the next 10 to 20 years. A collaborative approach to the challenges ahead is required and would bring important gains to both sending and receiving countries; similarly, noncollaboration would hurt both sides equally. If the investment to expand, in number and quality, the global pool of medium- and high-skilled workers is not undertaken today, the large number of skilled workers migrating to higher-income areas will create skill shortages in sending countries. Moreover, in the absence of a large pool of competences and expertise, competition between labor deficit countries would increase the remuneration of scarce labor without avoiding shortages in light of the inelastic character of the supply.

The common policy agenda embraces a host of economic and social reforms. Policies will need to include (i) education, training, and migration preparation; (ii) encouraging mobility through social security and health insurance portability; (iii) specific emigrant-immigrant services that facilitate adaptation to host countries' cultures and maintain ties with home countries; (iv) measures to identify and fill labor market gaps; and (v) a mix of migration programs—temporary, circular, permanent, demand, or supply driven—that will be most effective for a smooth functioning of labor markets and fiscal sustainability. Ongoing education, social protection, and financial reforms need to be revisited and fine-tuned to meet the demands of global mobility. Recognizing that education for a global labor market is an issue for which collaboration is in the common interest and competition or short-term opportunism would hurt all stakeholders, partnerships between growing and deficit regions of the world involving public, private, and associative actors are needed to address the know-how and financial challenges associated with preparing a high-quality global workforce for the future (see table 1).[2]

Table 1. Collaboration or Competition? A Payoff Matrix

Policy area	Collaboration	Competition
Education	Improved access and enhanced quality of education services ➔ Large enough pool for the needs of both labor surplus and deficit regions Adequate quality of workforce, pulling up productivity and growth in surplus regions and addressing the needs of deficit regions	Continuation of current education investment and quality ➔ Large number of illiterates, dropouts, and unemployable graduates in surplus regions Social and political tensions in surplus areas Skill shortages in deficit regions Tense competition for a small pool of skilled and medium-skilled labor between surplus and deficit regions and among countries in deficit regions
Integration	Promotion of multiculturalism, acceptance of cultural differences and appreciation of diversity, and preparation of migrants ➔ Smoother integration of foreign labor force in host countries Mutual gains from Diaspora networks	Status quo with little integration efforts in host countries coupled with poorly designed policies to maintain migrants' ties with home countries ➔ Social tensions in host countries from minorities' sense of alienation and exclusion Distortion of home countries values and cultural norms especially for second generations Potential exploitation of identity and cultural issues for political motives
Social Protection	Portability of social protection ➔ Increased mobility and full use of a variety of mobility schemes, including circularity in the interest of migrant workers and home and host countries labor market Mutual gains from cross-fertilization and knowledge dissemination	Limited or nonexistent portability for pension and health benefits ➔ Loss of benefits for migrant workers Global mobility constraints, less return migration, and less-than-optimal use of migration regime options
Financial Services	Facilitation of transnational investments and a wide range of saving and investment instruments ➔ Optimal use of migrants' savings to the benefit of sending and host countries	High cost of remittance transfers and limited opportunities for investments across national boundaries ➔ Less-than-optimal use of migrants' savings at the expense of sending and receiving regions

Notes

1. There is considerable uncertainty, though, on the impact of HIV/AIDS on life expectancy in African countries.

2. This payoff matrix is an adaptation of the prisoner's dilemma framework to the migration management issue. In game theory, the prisoner's dilemma is a type of non-zero-sum game in which two players may each "cooperate" with or "defect" from (that is, betray) the other player. In this game, as in all game theory, the only concern of each player (the "prisoner") is to maximize his or her own payoff, without any concern for the other player's payoff. The unique equilibrium for this game is a Pareto-suboptimal solution—that is, rational choice leads the two players to both "defect," even though each player's individual reward would be greater if they both "cooperated."

1

Introduction

The world population is going through significant shifts that will affect labor demand and, ultimately, the growth and welfare prospects of all regions. Some regions and countries, most notably Europe, but also North America, China, and other East and Central Asian countries, will experience significant reductions in their available labor force in the coming decades. If no migration takes place, these shrinking regions will collectively lose hundreds of millions of workers between now and 2050. Foreign labor could not reasonably be expected to fill these gaps. It is remarkable, nevertheless, that if current emigration rates remain unchanged, only a tiny fraction of the labor force decline would be met by migrants. This calls for a stronger role for migration policy in both emigration and immigration countries and regions.

The economy-wide cost of aging populations or increasing old-age dependency rates (the ratio of retirees to working-age population) has been the subject of much study, most of which concludes that demographic transitions will have strong effects on a number of economic indicators that in turn can affect income growth. Declining saving rates, increasing consumption taxes and social security contributions, and increasing real wages (a reflection of relative labor scarcity) are associated with an aging population.[1] Because of longer life expectancies and lower fertility, working populations will have to support the consumption, including of health and care services, of a consistently increasing group of retirees. The falling share of the working-age population means that relatively fewer people will pay taxes and social contributions, while the rising share of the elderly means that more people are receiving pensions and needing costly health services.[2] Shrinking active populations also would mean lower employment in the economies that, in turn, tend to lower per capita income growth. Projections for the European Union (EU) indicate that, as a result of an aging population, the annual average potential gross domestic product (GDP) growth rate could decline from 2.4 percent during 2004–10 to only 1.2 percent between 2031 and 2050. Coupled with the decline in GDP, EU population aging could lead to an increase in age-related spending between 3 and 4 percentage points of GDP between 2004 and 2050—the equivalent of a 10 percent increase in the size of the government sector.[3] Some of this impact could be mitigated by, for example, increases in capital intensity, technological progress, and overall growth in labor productivity, increased activity rates, and higher retirement ages, but such policy responses are not likely to be sufficient to reverse these declines and, at any rate, will not reverse the aging of the labor force.

The gains and losses of increased migration flows are not uniformly distributed within countries or among migrants, and individuals' assets—capital, land, labor, and human capital—will determine the net impact on their income. In receiving countries especially, those differences are likely to shape voters' preferences and acceptance for migration. To the extent that migration constitutes a labor supply shock, increased migration should affect wages negatively and increase the return to capital and land. Generally, new migrants may have the most to win, especially if they are from poorer countries.[4] As long as there is some segmentation of labor markets, the impact on wages for low-skilled native workers in receiving countries would be relatively small, however.[5] If migrants are viewed as substitutes for native workers, the negative impact of migration on the wages of the latter would be higher. If migration is a response to a labor supply shock caused by rapidly shrinking labor forces caused by accelerated attrition from the retirement of rapidly aging populations, migrants likely will complement the native labor force at the various skill levels and segments of the labor market.

On the premise that migration is a desirable feature of globalization, policies for managing the international movement of workers need to build a constituency in their favor. In other words, they need to offer clear benefits to sending countries, receiving countries, and the migrants themselves. From this perspective, it is clear, first, that all parties stand to win from regular rather than irregular migration. Second, migration policies should encourage migration forms that benefit longer-term economic development and poverty reduction in sending countries. This would augur for, among other things, managed labor migration (including for the low-skilled workers), efficient remittance channels, and measures to address the problems associated with skilled emigration. Migration policies should further ensure that migrants are protected from risks, ranging from health to vulnerable employment situations and outright marginalization. This objective requires portable social protection benefits and well-designed integration policies that are respectful of cultural diversity. Third, policies must favor migration flows that contribute to the prosperity of receiving countries and guarantee the security of these countries. This last objective could be fulfilled only with regular migration flows and a stronger focus on managed labor migration across all skill levels, as well as with integration policies that address marginalization and segregation.

The costs of badly managed migration are high, and both migrant sending and receiving countries stand to win by adopting proactive and coordinated approaches. Skilled migration can result in "brain drain" and a related loss of public investments in education and training of skilled labor. Poor and inefficient education policies, combined with the lack of predeparture training programs and job counseling for potential migrants, may accentuate skill mismatch and make the integration into foreign labor markets difficult. Restrictive labor migration policies may increase the scope for irregular migration, which is often seen as a risk factor for criminal activities, labor exploitation, and human rights abuse, while contributing to xenophobia and social instability in the receiving countries.

This study reviews global demographic trends and related labor force trends, identifies the main imbalances that are likely to occur (as some regions experience rapid population aging and shrinking workforces, while others see a rapidly growing young workforce), and illustrates how these imbalances are likely to raise pressures for migration. Although the overall analysis underscores the fact that labor and job mobility is a global issue requiring global cooperation, a closer look at the MENA and EU neighborhoods indicates that both Europe and the MENA Region stand to win from well-managed migration flows that focus on skills and labor shortages, and that offer opportunities for return migration as well as for integration in host countries.[6] For EU countries, increased labor mobility offers a way to cope with labor market pressure and skill shortages and to address the demographic challenges posed by low fertility rates and an aging population. For sending MENA countries, labor emigration provides important benefits (household income, foreign exchange to the country, and risk diversion) and could ease some labor market and political pressures related to the demographic strain and the difficulty to generate enough jobs for its current youth bulge.

The idea of migration as a demographic arbitrage between older and younger working populations warrants some comments. Demographic projections are only projections and certainly inexact; in the past, demographic projections suggested a slower demographic transition for the MENA Region than what actually occurred. Moreover, this partial equilibrium approach does not take into account the potential impact of a host of economic and political factors beyond population growth and structure, including economic growth, technological change, and labor productivity growth, as well as wage and labor market flexibility. An improved economic climate in sending countries favoring investment could mean higher domestic job creation, which in turn would imply that a larger share of workers could be absorbed at home.

Participation rates are sensitive to economic conditions, however, and may in fact increase in response to better opportunities, which would raise the growth of the workforce further. Conversely, because of poor economic conditions, countries with negative working-age population growth still may be sending migrants abroad, as is happening in some of the former communist countries. Slow economic growth in receiving countries would moderate demand for migrants—indeed, sustaining economic growth is a driving factor for migration in the first place. Finally, outsourcing and more liberal trade policies toward developing countries (agricultural policies being a prime example) could facilitate job creation and economic growth in sending countries and reduce demand for labor in receiving countries.

All these caveats apply to the analysis that follows. However, the scenarios presented below suggest that some migration pressures will arise in the future under reasonable assumptions of demographic and economic developments. A more comprehensive approach using a dynamic general equilibrium framework to capture demographic, economic, and technological changes needs to be developed and should be updated every 5 to 10 years. Such an approach would allow a better understanding of the future outlooks and guide policy makers in their positioning with respect to the mobility of labor and jobs in global markets.

The demographic and labor demand perspective applied here excludes other types of migration. The most obvious exclusion is human rights–related migration—including asylum and refugees who migrate to avoid political instability or persecution. Moreover, although the study takes a long-term view, it does not include other global developments that could give rise to higher migration, including climate change and the potentially huge impact of an increasing incidence of water scarcity and natural disasters. Finally, for the more immediate future, high and rising international food prices present a high risk for MENA countries, which on average are net importers of food and for which consumption vulnerability—here meaning the risk of falling into poverty—is high. In the absence of safety nets, increased poverty because of higher food prices could contribute to increased migration flows. The impact of food prices on the domestic agricultural sectors, land value, and agricultural employment remains to be seen.

The objective of this study is to provide a long-term perspective for the ongoing policy dialogue on the management of labor migration in Europe and the MENA countries. It is organized as follows. Chapter 1 puts the report and migration in the context of the economic and social development in MENA countries. Chapter 2 provides the historical context of MENA migration patterns and an overview of the presence and skill characteristics of migrants in OECD countries today. This chapter also discusses the potential for insourcing—that is, migration of jobs into the region—as an alternative or complement to labor migration. Chapter 3 analyzes the demand and supply framework for migration, the determinants of migration patterns, the potential demand for labor in the EU, and the characteristics and trends of MENA labor supply. Chapter 4 looks to the worldwide impact of demographic and labor force developments in the decades ahead and their implications on labor and job mobility. The chapter analyzes the likely population and labor force growth in Europe and MENA, the challenges this growth poses, and the scope for demographic arbitrage between the two regions. This chapter provides the basis for the fifth and concluding chapter. Chapter 5 covers the institutional setup and the various economic and social protection policies and practices worldwide that have a strong and positive bearing on migration flows and presents a conceptual framework on both the labor and job sending and receiving sides that can be used by policy makers to articulate, defend, and implement a collaborative approach to the challenges ahead.

Against the backdrop of this ambitious agenda, the study of migration is handicapped by serious data limitations, as confirmed by nearly all studies and researchers. These difficulties permeate all aspects of the subject, including migrant stocks and characteristics, migrant flows, remittances, and others. Some of these problems are more acute in the case of MENA, but they are by no means limited to the region, the nearly universal problem of unrecorded migrants being a prime example. These problems hinder in particular cross-country comparisons but pose a lesser difficulty here, where the concern is focused on long-term trends for the region as a whole.

Finally, this study heavily draws on the background papers and to a greater extent than the specific references to them may suggest.

People and Job Migration: The Stakes for the MENA Region

After independence and up until the early 1980s, Middle East and North Africa (MENA) countries[7] followed a model of state-led development. This development included nationalization of private assets, state planning of economic activities, and industrial development through protected local markets. Wealth was redistributed through public expenditures directed at social development and large-scale public sector employment. Financed by oil revenues in oil-producing countries, loans and grants from oil producers to nonoil producers and international aid, and helped by remittances from workers in oil-producing countries, this development model initially served the region well. The period was marked by fast growth (on average 3.6 percent a year in GDP per capita between 1965 and 1980), a sharp fall in poverty, large education gains (average education level for the adult population rose from less than one year in 1960 to three years by 1980), and impressive improvements in health indicators (reductions in maternal mortality and declines in fertility, a halving of infant mortality rates, and increase in life expectancy—up to 62 years from 47 at the beginning of the period).

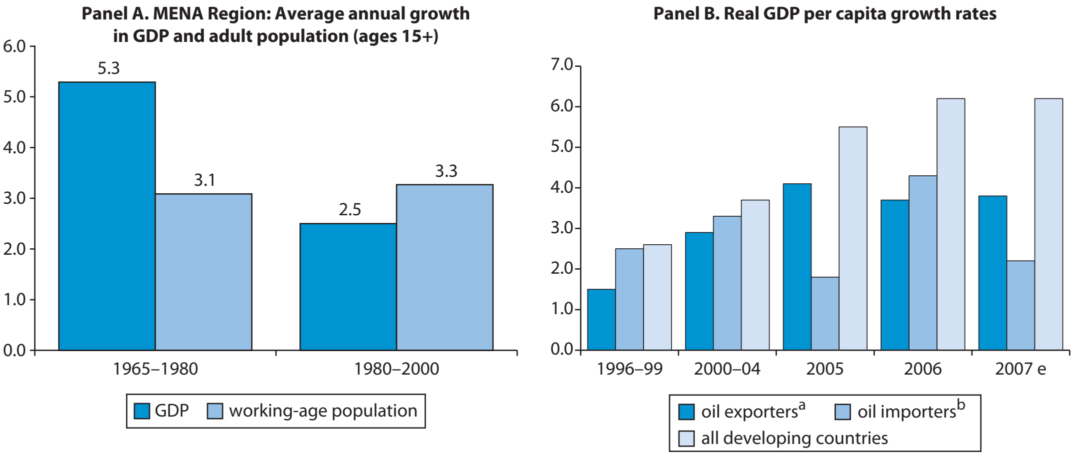
Over the longer run, however, this development model also proved costly. A dramatic expansion in the scale of the public sector, a stifled demand for accountability, highly regulated labor markets, repressed financial sectors, and inward-looking and heavily protected industries constrained MENA countries' ability to adjust to a changing global environment when oil prices collapsed in the mid-1980s. Macroeconomic imbalances emerged rapidly, and the state-led model, which depended on oil, aid, and labor remittances, could not keep up with labor force growth, as all three sources declined.

During the 1990s, macroeconomic stability was largely achieved in most countries, as evidenced by improved fiscal and external balances and low and falling inflation. Despite efforts to restructure and integrate into the global economy across the region, however, the public sector continued to dominate economic activity. The pace and depth of second-generation reforms aimed at trade, labor markets, privatization, deregulation, and competition remained by and large modest and structural reform remained incomplete in most countries. Excessive and costly regulation stifled the development of a dynamic private sector and constrained the region's ability to create jobs for a growing labor force.

Between 2000 and 2007, sustained increases in oil prices, together with progress on economic reforms, has raised economic growth in the MENA Region. The region experienced its strongest per capita growth since the oil boom of the 1970s. Largely, higher growth rates reflected developments in the buoyant oil-exporting economies. Overall, these countries have managed their growing wealth prudently, sustaining high fiscal surpluses, building up reserves, and paying off government debt. Heightened competition from Asia and declining European demand has encouraged poorer oil-importing economies to remove obstacles to export-led growth. Almost all countries, but especially oil importers, have taken significant steps to reduce impediments to trade and to anchor their economies in the global market. Reforms aimed at improving the overall investment climate and enhance governance have been implemented in several countries, including service sector liberalization as well as judiciary, anticorruption, and civil service reform.

Oil-importing countries have experienced regionwide positive spillovers from the oil bonanza, in the form of increased labor remittances, foreign direct and portfolio investment, tourism receipts, and aid—the share of foreign direct investment (FDI) in GDP, for example, has more than doubled in oil-importing countries since the end of the 1990s. However, high oil prices directly took a significant toll on oil-importing countries, where growth generally has been respectable but more modest over the past years. Moreover, GDP growth is not keeping up with the growth of the labor force and the gap between MENA's per capita growth rate and those of other developing countries is far from closed (see figure 1.1). Finally, oil-importing countries remain especially vulnerable because of the recent global slowdown following the U.S. subprime mortgage crisis and the fiscal implications of rising food prices.

Figure 1.1. MENA: Economic Growth (past and present)



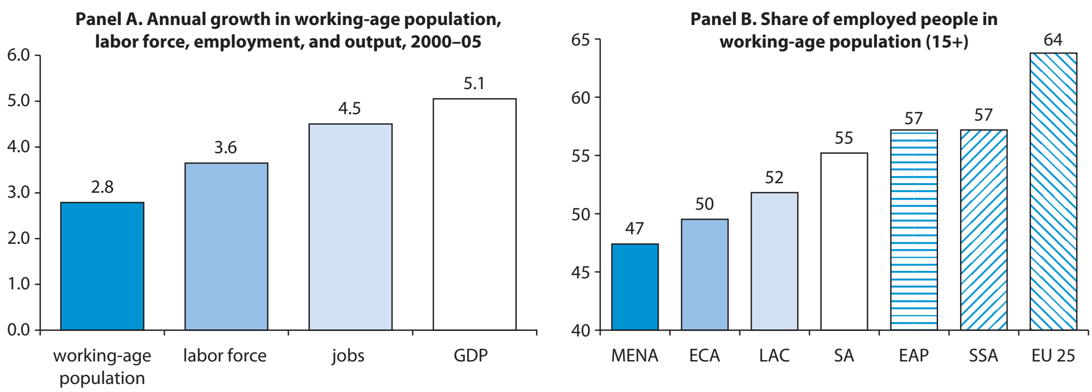
Source: World Bank 2007a; World Bank data.
Note: GDP = gross domestic product; MENA = Middle East and North Africa;
a. Excluding Iraq.
b. Excluding West Bank and Gaza.

In response to economic growth, the employment situation has improved. During the 1990s, low rates of job creation, combined with the continued rapid growth of the population and increases in labor force participation, resulted in rising unemployment rates. By the end of the 1990s, 14 percent of the regional labor force was unemployed, a majority of them young, new entrants to the labor markets, and many of them with higher levels of education. This situation reflected a variety of problems—including low and volatile growth rates, rigid labor markets, insufficient and inadequate skills development in relation to private sector needs, and higher reservation wages resulting from both high public sector employment and possibly also from remittances. But the sustained economic expansion has paid off in terms of higher job creation, largely driven by the private sector. Since the turn of the century, unemployment rates have fallen in most MENA countries, whether oil importers or oil exporters, and by 2005, the regional unemployment rate had fallen below 11 percent of the labor force. This is all the more remarkable as labor force growth, driven by demographics and rapidly rising participation rates, especially among women, peaked in the same period.

Nevertheless, it is not yet possible to tell whether this pace of job creation can be sustained. Many jobs were created in sectors that experienced low labor productivity growth, including agriculture and the informal nonagricultural sectors, without real prospects for income growth over the longer term. And in the region as a whole, the job situation remains dire: one in two people of working age (between 15 and 64) does not have a job, and is either unemployed or not active in the labor market at all. In fact, the MENA Region has the lowest share of employed workforce among developing (and developed) regions (see figure 1.2).

Not withstanding the important reform efforts of the last decade, considerable room remains to strengthen the contribution of the private sector to growth and employment creation. Countries in the region, especially outside the Gulf Cooperation Council (GCC), still rank substantially below other middle-income countries in terms of the conditions for private sector growth and job creation. (see table 1.1). For example, it still takes more than two and a half years in the Arab Republic of Egypt, on average, to resolve a

Figure 1.2. MENA: The Comparative Employment Situation



Source: World Bank 2007b.
Note: EAP = East Asia and the Pacific; ECA = Europe and Central Asia; EU = European Union; GDP = gross domestic product; LAC = Latin America and the Caribbean; MENA= Middle East and North Africa; SA = South Asia; SSA = Sub-Saharan Africa.

Table 1.1. Ease of Doing Business Rankings: MENA and Other Middle-Income Countries
(rank among 178 countries)

		MENA Region			
Economy	Other middle-income countries	All	Maghreb	GCC	Other MENA
Ease of Doing Business Rank	83	100	114	45	120
Starting a Business	86	119	83	106	137
Enforcing Contracts	87	119	104	122	122
Getting Credit	73	103	116	82	108
Protecting Investors	81	99	123	60	108
Closing a Business	95	98	45	86	121
Dealing with Licenses	85	97	97	75	107
Employing Workers	87	87	132	43	92
Trading Across Borders	88	84	70	65	97
Registering Property	88	81	108	25	96
Paying Taxes	97	66	146	6	66

Source: World Bank 2008a.
Note: GCC = Gulf Cooperation Council; MENA = Middle East and North Africa.

contractual dispute; in Maghreb countries, tax payments absorb between 6 to 12 working weeks of entrepreneurs' time annually, and in a majority of MENA countries, more than 10 different procedures are required to start a business.[8] Against MENA's history of rapid increases in the labor force and high unemployment, it is understandable that labor migration has traditionally played an important role in relieving pressure in the domestic labor markets. As shown in table 1.2, in the Maghreb countries[9] in the early 2000s, the migrant labor force was equivalent to one-quarter of the unemployed at home and 6 percent of the employed. In Egypt, Morocco, and Tunisia, the migrant labor force is particularly important relative to the domestic labor force.

In fact, the MENA Region is more globally integrated through labor mobility than through investments and trade (see figure 1.3). In spite of an important surge in oil-related investment in recent years, the MENA Region, which accounts for some 3 percent of the world's GDP, receives just over 1 percent of global direct investment and accounts for some 5 percent of global trade flows. In contrast, the region is a major player in the international movement of people. Some 10 percent of the world's remittance inflows are directed to MENA countries, and nearly 20 percent of the world's remittance payments originate in the Gulf countries.

Remittances have developed into a major source of foreign exchange earnings for MENA countries. Formal remittance income accounts for between 5 and 20 percent of GNP in some of the main MENA migrants' countries (see figure 1.4), and MENA countries are among the world's main receivers of remittances in absolute and relative terms. Moreover, actual remittances are likely to be much higher (by up to 30 percent according to some estimates—see Corm in background papers) than what official statistics show. For example, for countries with exchange control regulations, like the Syrian Arab Republic and Tunisia, or for countries with weak banking systems (Algeria,

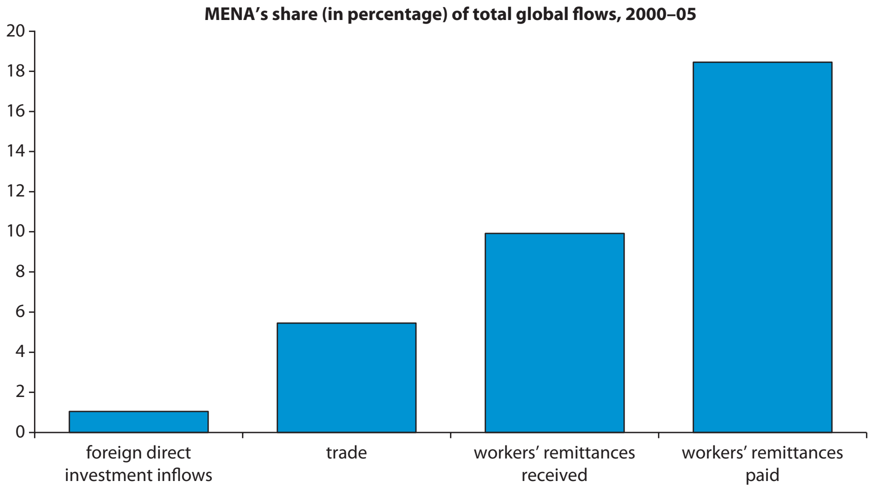
Table 1.2. MENA Labor Migration and Domestic Labor Markets

(thousand people)

	Foreign Labor in OECD + GCC 2001–2002	Unemployed	Employed	% Share of unemployed	% Share of employed
Maghreb	**1,112**	**4,221**	**18,185**	**26.3**	**6.1**
Algeria	250	2,478	6,597	10.1	3.8
Morocco	679	1,275	8,955	53.2	7.6
Tunisia	183	468	2,633	39.0	6.9
Other	**1,264**	**4,199**	**20,792**	**30.1**	**6.1**
Egypt	1,173	2,007	15,182	58.5	7.7
Iran, Islamic Republic. of	91	2,192	5,610	4.2	1.6

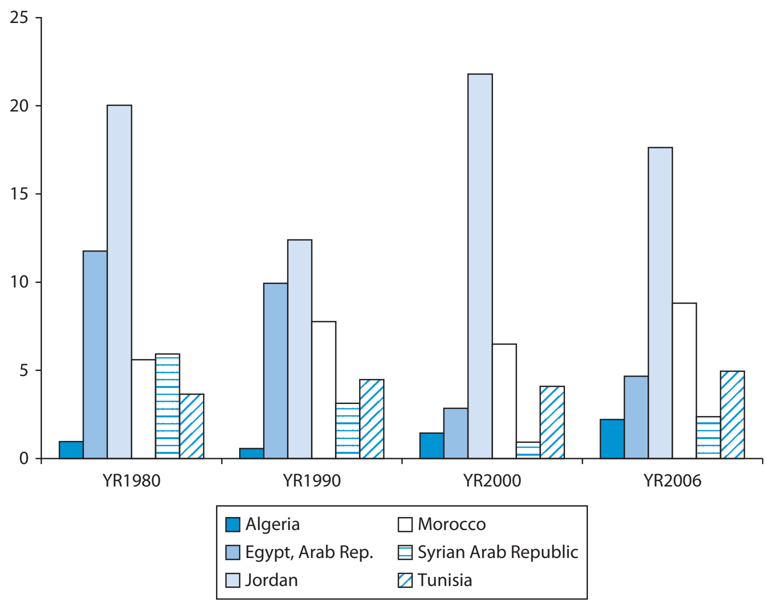
Source: Corm in background papers; World Bank data.
Note: GCC = Gulf Cooperation Council, includes Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates.

Figure 1.3. MENA: Global Integration Indicators



Sources: World Bank 2007a.
Note: Trade = import plus exports.

Figure 1.4. MENA: Selected Remittance Flows as Percentage of GDP, 1980–2006



Source: World Bank 2007a.
Note: GDP = gross domestic product; MENA = Middle East and North Africa.

the Islamic Republic of Iran, Iraq, Libya, and Syria), an important share of remittances is likely to move through informal or parallel circuits.

To raise employment rates, even quite modestly, the MENA Region faces major challenges in coming years. To meet projected labor force growth and absorb incremental unemployment, more than 4.5 million new jobs will be needed every year for the next 15 years.[10] Most of these jobs must clearly be home grown and arise from higher job creation, in tandem with some productivity improvements. But global demand for labor offers important and complementary job opportunities for MENA's populations, in the form of labor mobility (international migration within and outside the region) and the newer phenomenon of job mobility (outsourcing and offshoring activities in the region). Moreover, these additional opportunities must be integrated in the region's long-term growth and job creation strategy. Economic reforms that foster domestic job creation are likely to maximize the benefits from labor migration as well, while attracting FDI and outsourcing opportunities from outside the region.

The remainder of the report focuses on the MENA Region's global employment opportunities. With new technology and higher economic integration, labor markets stand to become more integrated. Workers can seize job opportunities abroad by migrating, or jobs can move to areas where workers are available. Although the report emphasizes labor migration, which remains the main form of labor-related mobility on the global market, job mobility (or outsourcing)—a more recent but highly promising trend for skilled labor—is also discussed.

Notes

1. See Auerbach, Kotlikoff, Hagemann, and Nicoletti 1989.

2. OECD 2008.

3. IMF 2006.

4. World Bank 2006. The underlying assumptions for the modeling exercise were as follows: wages are flexible, old and new migrants are perfectly substitutable, both old and new migrants are mostly unskilled, native and migrant unskilled labor are not perfect substitutes, unskilled labor is a substitute for capital and skilled labor, and skilled labor is a near complement with capital.

5. In addition, general equilibrium effects will be at play—because the cost of capital increases, relative demand for (goods that are intensive in) low-skilled labor will increase, which in turn will favor wages for the less-skilled workers.

6. See Diwan, Johansson de Silva, Nabli, and Coulibali 2005; Holzmann and Münz 2004; and Katseli, Lucas, and Xenogiani 2007.

7. Algeria, Bahrain, Djibouti, the Arab Republic of Egypt, the Islamic Republic of Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Malta, Morocco, Oman, Qatar, Saudi Arabia, the Syrian Arab Republic, Tunisia, the United Arab Emirates, West Bank and Gaza, and the Republic of Yemen.

8. World Bank 2008a.

9. The Maghreb also includes Libya, which is not shown separately in table 1.2.

10. World Bank 2007.

2

People and Job Mobility in the MENA Region

Labor Migration Out of MENA

Evolution of MENA Migration[1]

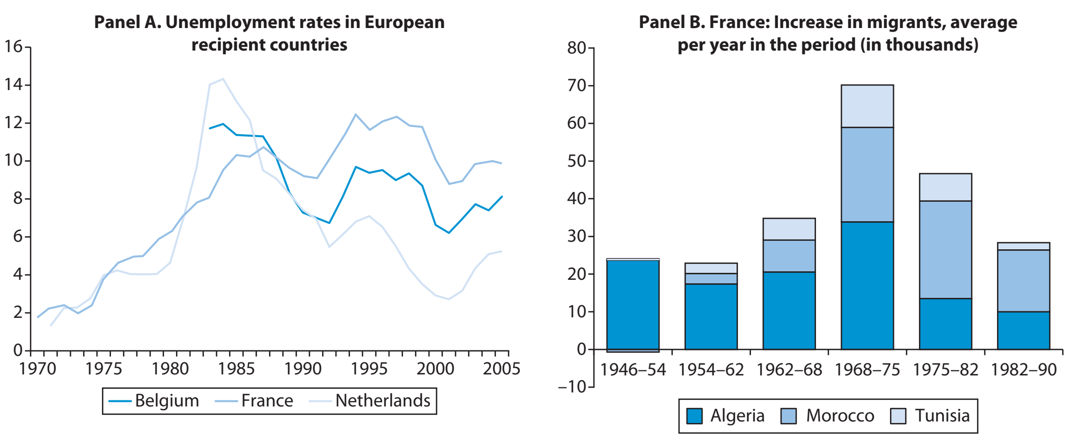
The MENA Region has a long history of migration, related to the growth of Islam, trade, and tribal pastoralism, as well as war and conflict; however, the region's population experienced a period of relative stability from the sixteenth century to the mid-1960s. Arab and Berber invasion of the Iberian Peninsula in the eighth century, and the expansion of the Ottoman Empire in the fifteenth and sixteenth centuries, are examples of events that resulted in important population movements and constantly changing geographic and economic borders in the region and its neighborhood. After the sixteenth century, however, at a time when Europe began out-migration to the Americas, migratory movements in the MENA Region were limited and consisted mainly of immigration by refugees from neighboring areas (for example, the Caucasus) and European colonial settlers. Lebanon constituted an important exception; during the mid-1850s, France and Great Britain fought for the control of the province, which led to the first waves of migration from Lebanon to North and South America. In more recent times, the main migratory flows have been directed toward the European continent and the oil-producing countries in the Persian Gulf.

The 1960s to the mid-1970s saw massive labor emigration from the Maghreb and Turkey to Europe. After World War II, during the "three glorious decades" (1945–75), economies in Western Europe were in their reconstruction phase and enjoyed high growth rates. Because of relatively high dependency rates (more due to a high share of children relative to the working-age population than to retirees), these countries developed needs for workers much beyond what national labor forces could provide. In the 1960s, these migration flows gathered even faster momentum, as the northwestern European economies—Belgium, France, Germany, and the Netherlands—expanded by 5 percent per year. At that time, many migrants were recruited from outside Europe through guest-worker programs in Austria, France, and Germany. Between 1962 and 1975, the Maghreb population in France increased by as much as 700,000 persons—one-fourth of that country's total population increase over that period. The receiving countries did not envision that the newcomers would stay permanently, and most of these immigrants had no intention to stay. However, by the end of the oil price crisis of 1973, when European economies came to an abrupt halt and unemployment soared, they had already settled in and become permanent residents.

After the twin oil shocks and the onset of stagflation in Europe in the mid and late 1970s, the nature of emigration to Europe changed. Family reunification, family formation, and asylum became the only channels for legal migration, and undocumented labor migration increased. In the mid-1970s and throughout the 1980s and 1990s, unemployment grew dramatically in Europe, the demand for foreign labor declined, and migration policy tightened (see figure 2.1).

At the same time, the North African economies slowed down, the domestic labor market situation worsened, and interest in migration opportunities remained high. Because most legal channels for economic migration had been closed, other forms of migration took over. Since the mid-1970s, migrants have instead entered the European Union through family reunification, family formation, and asylum, and as irregular migrants. In France, the average entry

Figure 2.1. Receiving Countries' Unemployment Trends and Migration from Maghreb into France



Source: OECD 2008a; National census data reported in Verhaeren 1995.
Note: Data for Belgium available only from 1983 onward.

of Maghreb migrants fell from around 70,000 per year in the mid-1970s, to less than half that amount in the 1980s.

When legal options for labor migration diminished, the main direction of North African economic migration shifted from Northern Europe to the Southern European countries. In particular, Italy and Spain, formerly exporters of labor to Northern and Continental Europe, became increasingly attractive to North African migrants, as their income levels have increased and converged with those of the northern countries, and their demand for low-skilled labor increased (the sustained economic boom in Spain provided a particularly strong pulling force). Their long coastlines along the Mediterranean have provided easier access to Europe for undocumented migrants from North Africa and Sub-Saharan Africa (SSA), as well as for Asian migrants who use the North African countries as transit ports on their way to Europe.

The MENA migrants' characteristics changed as a result of transformations in the region and changing migration policies in receiving countries. The move from active recruitment of labor to family reunification and formation changed the type of migrants who arrive in Europe (for example, more women migrate than men and, partly as a consequence, more inactive persons are among them). In MENA countries, the constant increase in education opportunities, unmatched by job opportunities, has resulted in higher levels of education among new cohorts (although, as will be discussed below, MENA migrants still have lower levels of education than others). Data on Moroccan migrants in Europe show this changing face of migration. Migrants arriving in the 1960s were predominantly uneducated; today, most migrants have completed at least a secondary level of education. The percentage of people who were inactive at the time of migration also has increased significantly, while that of people with permanent employment has contracted (see table 2.1).

In recent years, the terrorist attacks by Islamist groups in Europe, the United States, and other countries have contributed to the rise of anti-immigration attitudes in Europe, especially toward potential migrants from MENA. Yet, long before the terrorist attacks, low economic growth rates, high unemployment, the perception of a lack of economic and social integration of MENA migrants in European countries, and the rise of social conflict with

Table 2.1. Selected Characteristics of Moroccan Migrants in the 1960s and 1990s

	Period of migration	
Characteristics	**1960s**	**1990s**
Percent with secondary education or above	18.5	59.9
Percent permanent workers	45.5	34.7
Percent unemployed	16.0	16.2
Percent inactive	16.5	27.0

Source: Khachani, Mourji, and Schramm in background papers. Based on a survey by the *Institut National de Statistique et d'Economie Appliquée* (*INSEA*) survey in 2000, which encompassed 1,400 household heads and does not purport to be representative of all migrants.

youth from MENA migrant communities have led many European countries to set up more restrictive immigration policies. At the same time, the proliferation of undocumented migration, from MENA as well as from SSA and Central Asia, is now a growing concern among EU policy makers.

Within the region, there have been important labor flows.[2] The main population flows within the MENA Region have been associated with temporary labor migration, especially from Egypt and the Republic of Yemen, but also from Mashreq countries like Jordan and West Bank and Gaza, to the oil-producing countries within the GCC. Libya and Iraq, two other oil-based economies, became other destinations for emigrants from Maghreb countries. Generally, no bilateral agreements were put in place to organize the flow of migrants and protect their rights.

In the 1980s, GCC states started to replace Arab migrants with migrants from other regions. Replacement of Arab migrants in GCC started long before the Gulf crisis in 1990 and the subsequent war in 1991. GCC states began recruiting workers from Asia on the grounds that they were cheaper and more productive. The preference for non-Arab foreign nationals became more evident in the aftermath of the invasion of Kuwait and mass expulsion of emigrants took place on several occasions, affecting in particular Egyptian, Palestinian, and Yemeni workers. Between 1975 and 1995, the share of Egyptian workers in GCC countries' expatriate population fell from 72 percent to 31 percent.

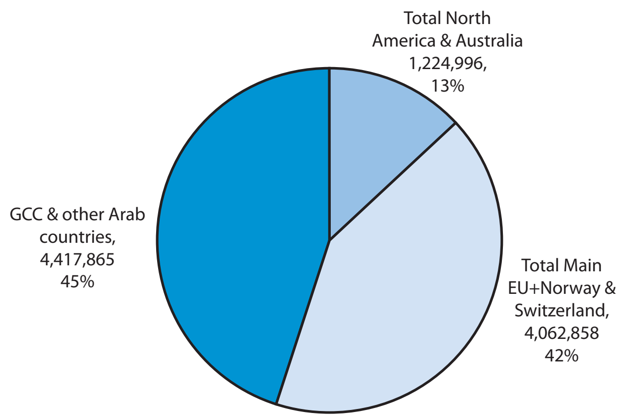
MENA has the largest refugee population in the world. In 2005, some 45 percent of all the world's international refugees were located in MENA, which accounts for only 5 percent of the world's population. The region is home to the largest and oldest refugee population in the world, the Palestinians, with estimates ranging between 3 and 4 million. Recent wars and conflict elsewhere have caused many Iraqi, Kurdish, Iranian, and Lebanese civilians to leave their countries of origin.

Increasing migratory pressures arise from growing numbers of transit migrants, especially from SSA. A number of countries in MENA, especially in the Maghreb, have become host countries for a large irregular migrant population from SSA and South Asia, some of whom are in transit to Europe (the Canary Islands, Sicily, Southern Spain, and Malta). Many of the African migrants end up staying for long periods or permanently.

MENA Migration in a Comparative Perspective

Migration must be understood and measured from both sending and receiving countries' perspectives. This section examines the number and characteristics of migrants in relation to host populations, other migrants, and home country populations. The main destinations for MENA migrants have been and largely remain within region or neighboring regions. As seen in figure 2.2, the GCC and other Arab countries are the largest destination region for MENA,

Figure 2.2. Distribution of MENA Region Migrants by Destination Regions (2000–03)



Source: Corm in background papers.
Note: EU = European Union; GCC = Gulf Cooperation Council.

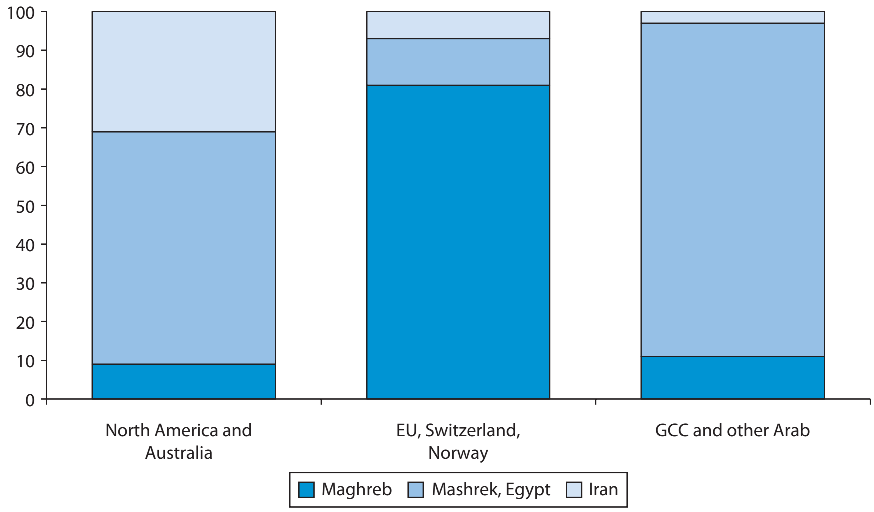
with 45 percent of total migration against 42 percent for European countries. Only 13 percent of MENA migrants are in traditional immigration countries like Australia and North America. Geography, language, and previous colonial ties thus play an important role in the search for job opportunities abroad. Moreover, important differences remain between Europe and GCC in the nature of migration. GCC countries only attract temporary labor, because host countries there do not grant nationality to long-term residents and ownership rights to housing and business are still restricted.

Geographic proximity and colonial relationships also explain who in MENA goes where. Figure 2.3 shows the relative shares of the migrants from different MENA country groups going to the main destination regions. Not surprisingly, roughly four-fifths of MENA immigrants to Europe came from the Maghreb countries, compared with less than 10 percent in the case of Australia and North America.

Migration statistics suffer from various shortcomings and need to be interpreted with caution.[3] Thanks to recent efforts, data exist on migration stocks in most member countries of the Organisation for Economic Co-operation and Development (OECD).[4] In contrast, interregional migration, which is important especially for Egypt and the Mashreq, is particularly difficult to estimate because of missing data. The remainder of this chapter therefore will draw on OECD data, but the limitations this introduces in terms of analyzing intraregional migration must be kept in mind.

Considering OECD countries as a whole, migrants from MENA constitute a fraction of the total stock of immigrants on the order of only 8 percent. Different databases show that the share of migrants from MENA countries in the total stock of migrants in 2000 is rather low in most OECD countries

Figure 2.3. Distribution of MENA Emigrants by Region of Origin and Destination



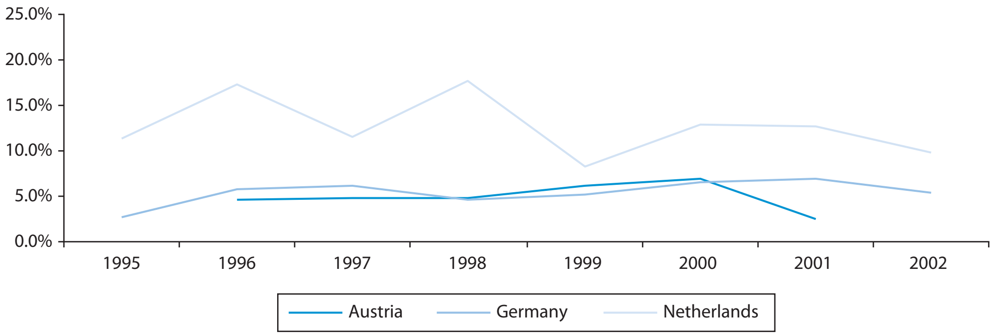
Source: Corm in background papers.
Note: EU = European Union; GCC = Gulf Cooperation Council.

(see annex table A1), though unevenly spread, with great concentration in a few countries. Data on annual migratory flows provided by the Migration Policy Institute (see figures 2.4 through 2.6) suggest that the share of migrants from MENA countries in the migratory flows to OECD countries has been, and has remained, rather low, almost consistently so for the last 10 years, except for a few European countries (such as Sweden, the Netherlands, and Norway) where MENA refugees have been given asylum.

Within OECD, migrants from MENA are concentrated in Continental and Northern Europe. According to stock data from 2000, the share of migrants from MENA countries in the total stock of migrants is higher than 10 percent in only seven OECD countries, all of them in the European Economic Area (Belgium, Denmark, France, Italy, the Netherlands, Spain, and Sweden). In North America, the share of migrants from MENA countries is rather low: 5.3 percent in Canada and 2.6 percent in the United States. At a more aggregated level (see figure 2.7), the data show that while immigrants from MENA to OECD countries constituted the second largest group of immigrants in Continental European countries, behind immigrants from high-income countries, they appeared only at the third and fourth position in Northern and Southern European countries, respectively. In other OECD countries, migrants from the MENA Region accounted for a marginal share of the migrant population.

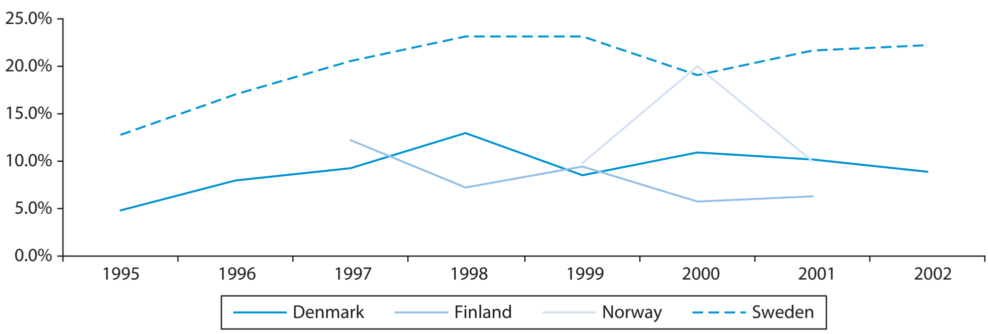
The distribution of MENA immigrants across OECD countries varies by country of origin, with Maghreb migrants dominating in France, Italy, and Spain. In Continental and Southern Europe, as many as, respectively, 90 percent

Figure 2.4. Share of Migrants from MENA Countries in the Migratory Flows to Some Selected Continental European Countries



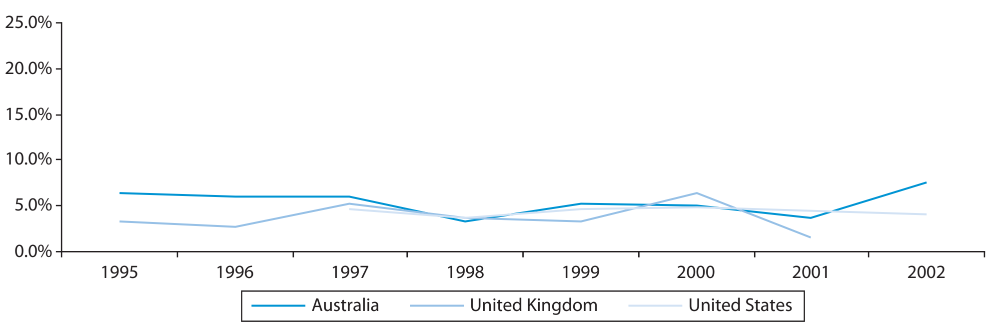
Source: Gubert and Nordman in background papers.
Note: Countries were selected on the basis of data availability.

Figure 2.5. Share of Migrants from MENA Countries in the Migratory Flows to Some Selected Northern European Countries, 1995–2002



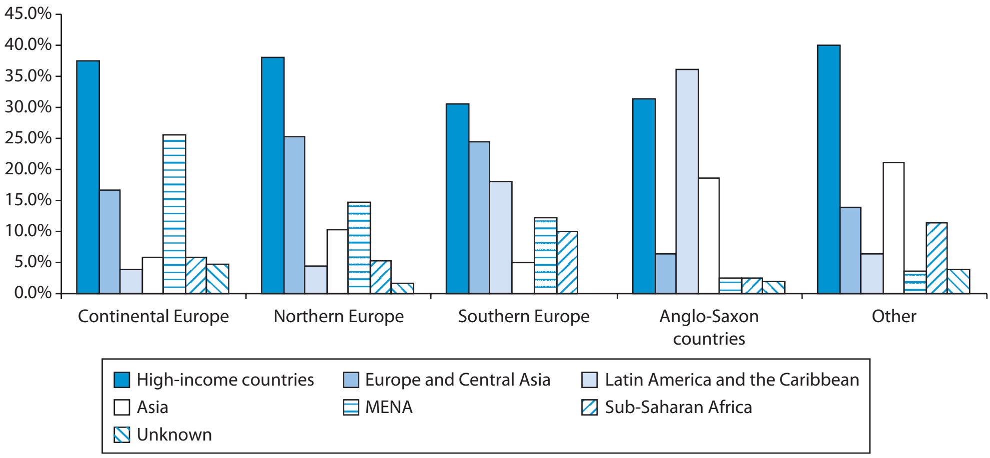
Source: Gubert and Nordman in background papers.
Note: Countries were selected on the basis of data availability.

Figure 2.6. Share of Migrants from MENA Countries in the Migratory Flows to Some Selected Anglo-Saxon Countries, 1995–2002



Source: Gubert and Nordman in background papers.
Note: Countries were selected on the basis of data availability.

Figure 2.7. Distribution of Migrants by Region of Origin and Sub-Group of OECD Countries, 2000



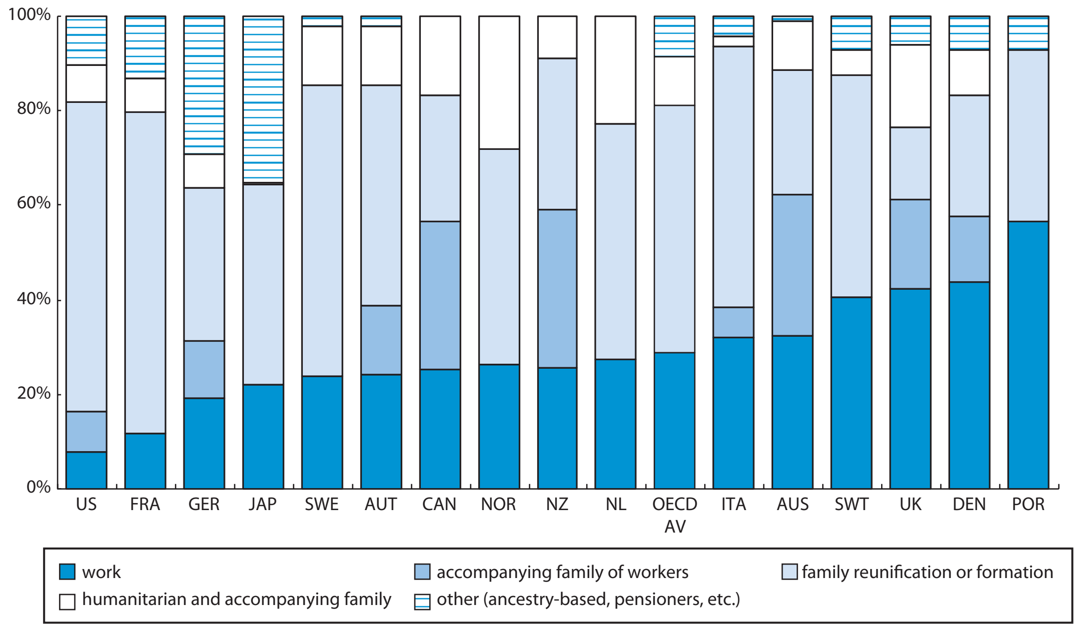
Source: Gubert and Nordman in background papers.
Note: The group of Continental European countries includes Austria, Belgium, France, Luxemburg, the Netherlands, and Switzerland; the group of Northern European countries consists of Denmark, Finland, Norway, and Sweden; the group of southern European countries includes Greece, Italy, Portugal, and Spain; and the group of Anglo-Saxon countries consists of Australia, Canada, Ireland, New Zealand, the United Kingdom, and the United States, plus Japan. The "Other" category includes the Republic of Korea, Mexico, and Turkey. Former socialist countries (Hungary, Poland, the Czech Republic, and the Slovak Republic) and Germany are excluded here because of the unavailability of data on the country of origin of a large share of their migrants. The "High-Income Countries" category includes both OECD and non-OECD countries according to the World Bank's classification.

and 77 percent of migrants from the MENA Region come from a Maghreb country; in contrast, this share is below 10 percent in Northern Europe and in the group of Anglo-Saxon countries. The sudden rapid growth of North African immigration to Southern European countries such as Italy and Spain is the result of a number of factors, including the interruption of immigration in the traditional recipient countries (Belgium, France, and the Netherlands). Among Anglo-Saxon countries and the more recent OECD members from Eastern Europe, more than 40 percent of migrants from the MENA Region come from the Mashreq. In Northern Europe (as well as in the Republic of Korea, Mexico, and Turkey), nearly two-thirds of the migrants from the MENA Region are either Iraqis or Iranians. These patterns are evidence of important network effects: once a migrant group is established, migration tends to be self-reinforcing, as family, friends, and business connections draw new migrants to receiving countries.

In the European Union, employment is no longer the most frequently cited reason for legal migration. Many different motivations drive immigration in OECD countries, and these are shaped to a large extent by the focus of immigration policies. Countries that receive relatively large shares of MENA migrants, like France and Sweden, have a relatively low level of work-related inflows; instead, family reunification or formation dominates migration permits. Humanitarian migration varies considerably among European countries (see figure 2.8).

Overall, the share of emigrant population from MENA to OECD countries tends to be low, but Maghreb countries and Lebanon are important exceptions. From the perspective of the sending countries, expatriation rates from MENA to OECD countries are low either because emigration flows are directed to non-OECD countries (usually to Arab oil countries) or because emigration flows on the whole are rather low (see box 2.1 for definitions of the key indicators used). This is particularly the case of labor-importing countries such as Oman, Saudi Arabia, the United Arab Emirates, the Republic of Yemen, and Libya. Exceptions include Maghreb countries and Lebanon. Indeed, out of

Figure 2.8. Migration Inflows (permits) by Reason for Entry in 2004



Source: OECD 2007.

Box 2.1. Selected Terminology

Expatriation rates illustrate a population's tendency to migrate. Expatriation rates from country of origin *i* to OECD countries are calculated by dividing the expatriate population residing in OECD age 25 and over from that country by the native-born population age 25 and over of the same country.

Expatriation rates for the highly skilled show the tendency for the highly educated population to migrate. These are calculated by dividing the number of individuals with tertiary education (13 years and above) born in country *j* and living in an OECD country by the total number of individuals with tertiary education born in country *j* (that is, "brain drain").

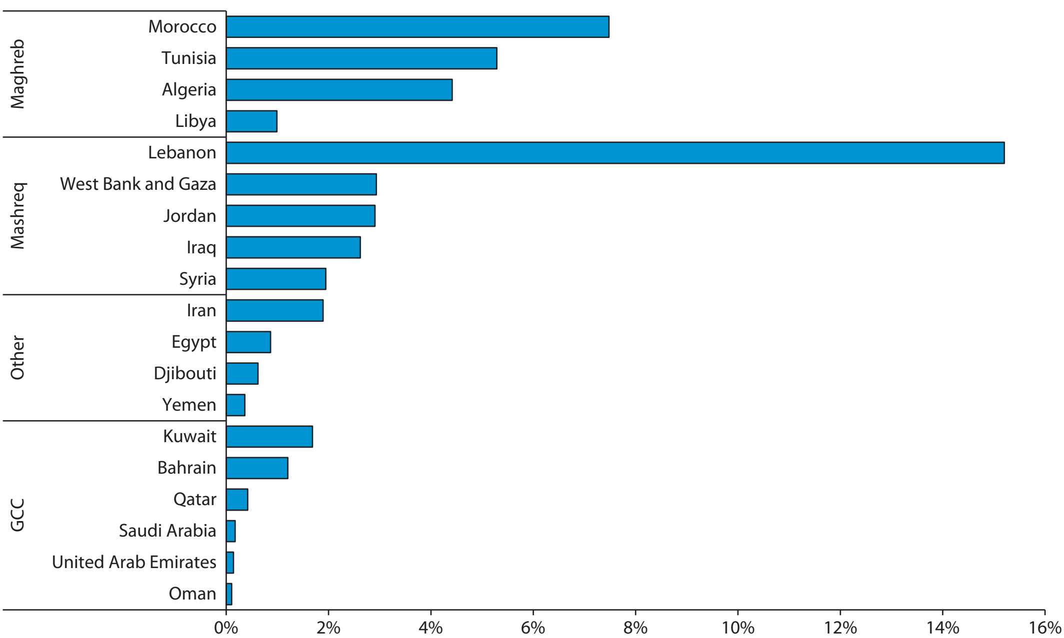
Selection rates are calculated as the share of highly educated migrants from country *j* among total migrants from country *j* in a receiving country or region.

seven Lebanese-born persons over age 25, one resides in an OECD country (see figure 2.9).

Consistent with global migration trends, women are accounting for a relatively high and increasing share of total MENA migration. Between 1990 and 2000, female migration grew by 4.1 percent per year, compared with 3.1 percent per year for men. By 2000, more than two in five migrants from the MENA Region residing in the OECD were women. The increase was noticeable in sending countries in both Maghreb and Mashreq (see figure 2.10).

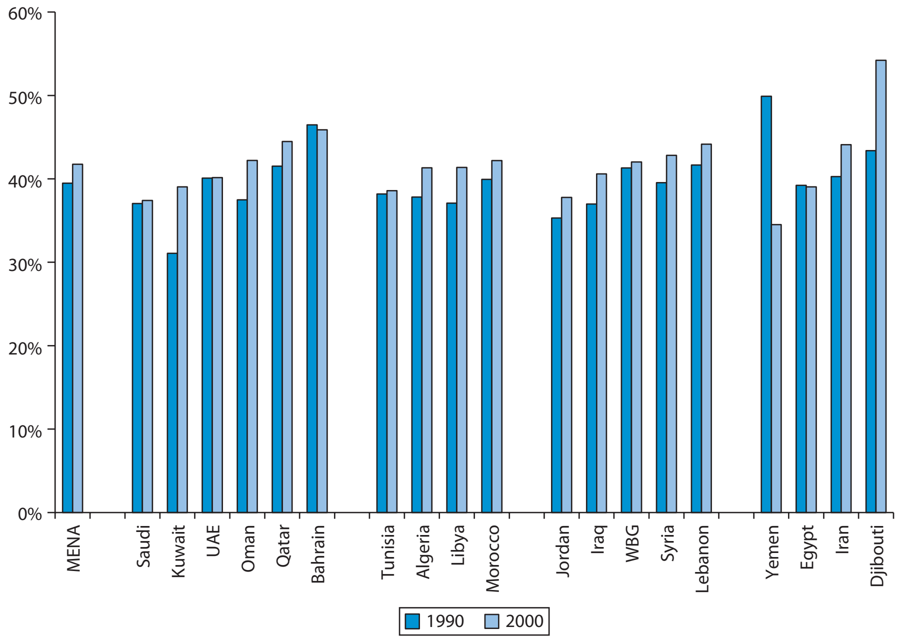
The MENA Region appears to suffer more from "brain drain" than other regions. The expatriation rate among the highly educated is higher in the MENA Region (9.1 percent) than in Latin America (8.3 percent), East Asia and Pacific (7.7 percent), and Eastern Europe and Central Asia (4.1 percent).[5] The expatriation rates of the highly skilled vastly exceed the total expatriation rates for all MENA countries (see figure 2.11). Moreover, the share of the highly educated in the total stock of migrants—the so-called selection rate—from MENA countries generally has increased since 1990 (see figure 2.12). This evolution reflects both the adoption of selective migration policies biased toward the highly skilled in some receiving countries and the increasing proportion of educated individuals in sending countries. Education levels have increased proportionally among both female and male migrants.

Figure 2.9. Expatriation Rates to OECD Countries of Population Age 25 and Over in 2000 by MENA Country



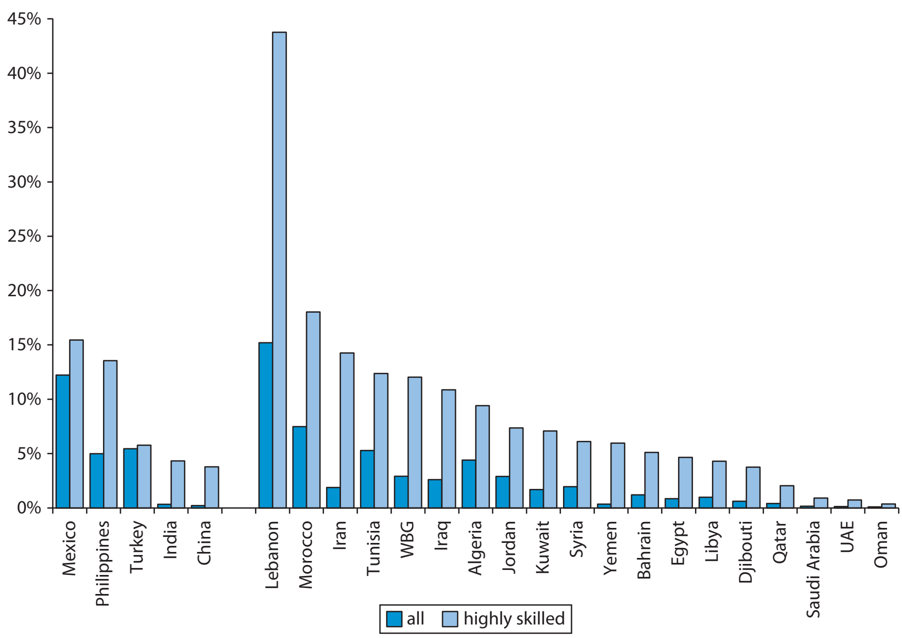
Source: Estimates based on Docquier, Lowell, and Marfouk 2007.
Note: GCC = Gulf Cooperation Council.

Figure 2.10. Female Share of Total Migrants: 1990 and 2000



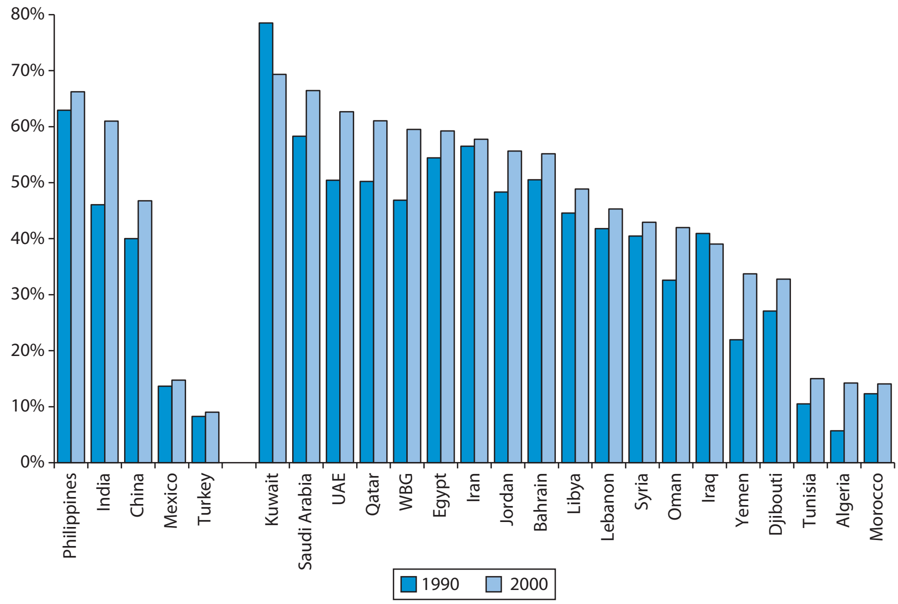
Source: Estimates based on Docquier, Lowell, and Marfouk 2007.
Note: MENA = Middle East and North Africa; UAE = United Arab Emirates; WBG = West Bank and Gaza.

Figure 2.11. Expatriation Rates (%) to the OECD, 2000
(all versus highly skilled migrants, MENA and comparators)



Source: Estimates based on Docquier, Lowell, and Marfouk 2007.

Figure 2.12. Highly Skilled Selection Rates, OECD, 1990 and 2000

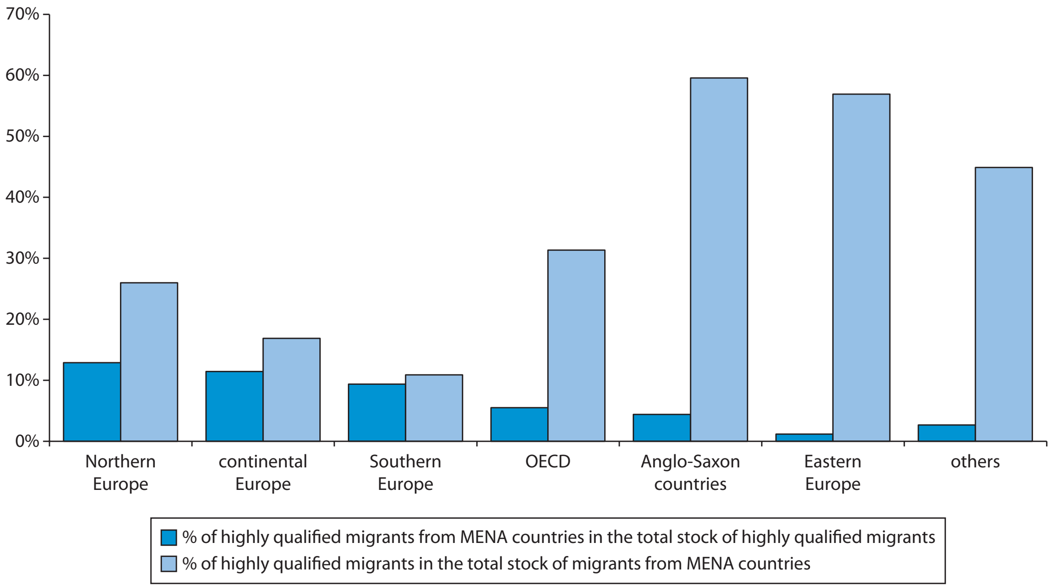


Source: Estimates based on Docquier, Lowell, and Marfouk 2007.
Note: UAE = United Arab Emirates; WBG = West Bank and Gaza.

The share of highly educated immigrants from MENA is highest in Eastern Europe and Anglo-Saxon countries (see figure 2.13). The share of highly educated migrants varies significantly between recipient countries and reflects differences in migration policy regimes. In countries with a strong presence of MENA migrants, the share of high-skill migrants is low. In countries where MENA migrants constitute a small or negligible share of total migrants, MENA migrants tend to be more educated, as in, for example, Eastern Europe and Anglo-Saxon countries.

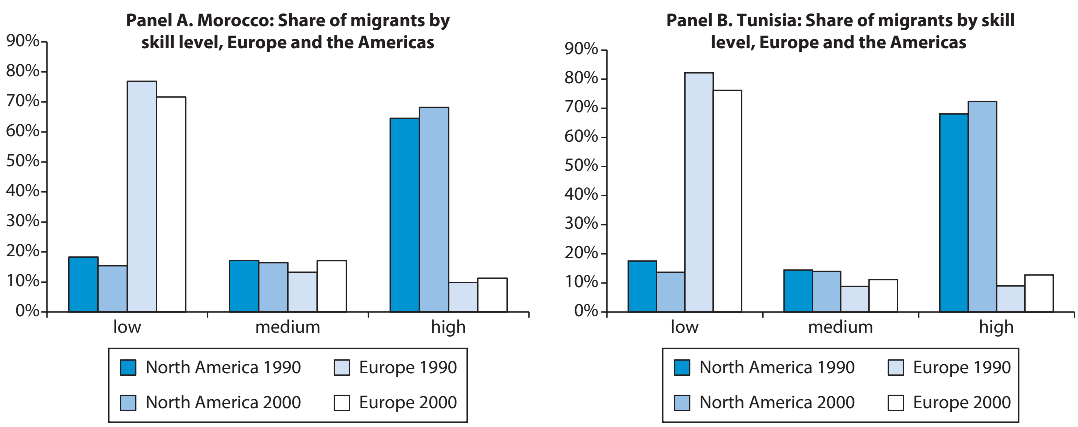
Yet, the share of highly educated migrants among all migrants is smaller for MENA migrants than for other migrants in OECD countries. By 2000, half of all male MENA migrants and 55 percent of female migrants in the OECD still had below medium levels of education. There are also important differences in the level of education of migrants between different recipient countries (see figure 2.14). Most significant, geographically more distant migration destinations such as Canada and the United States attract, in relative terms, many more skilled migrants than European countries do. These differences partly reflect differences in migration policy and partly reflect differences in migrating capacities: skilled migrants tend to have the financial and other means of facilitating traveling, transition, and integration "on their own." Therefore, they are better able to travel geographically farther and to settle without strong migrant networks in place.

Figure 2.13. Share of Highly Educated Migrants from MENA Countries in OECD Countries, 2000



Source: Estimates based on Docquier, Lowell, and Marfouk 2007.
Note: MENA = Middle East and North Africa; OECD = Organisation for Economic Co-operation and Development.

Figure 2.14. Share of Skilled Migrants from Morocco and Tunisia, by Destination, 1990–2000



Source: Estimates based on Docquier, Lowell, and Marfouk 2007.
Note: North America = United States and Canada; Europe = EU-15+ the Czech Republic, Hungary, Iceland, the Slovak Republic, Switzerland, and Norway.

In conclusion, MENA migrants constitute a small overall share in OECD immigration; however, they are strongly represented in some European countries, notably France, Sweden, Spain, and the Netherlands. While North African migrants have headed primarily for the French-speaking countries and for Spain and Italy, other MENA countries are more represented in

Northern Europe, generally because of differences in asylum policies. Because of their generally low level of education, MENA migrants tend to be more low-skill than other migrants in Europe. However, the brain drain phenomenon is nonetheless relatively important in MENA, indeed more so than in other migration regions.

Job Migration to MENA[6]

Recent developments in global labor markets suggest that offshoring and international outsourcing—in effect, the international migration of jobs—could become an important complement to trade and labor migration. Global labor opportunities are not restricted to migration. The MENA Region could tap into the job creation potential offered by offshoring and outsourcing activities. The globalization of jobs is expanding rapidly and involves both developed and developing regions. Economic activities that are not constrained by the need for customer contact, local knowledge, or complex interactions can be performed anywhere in the world (see table 2.2). Information technology and reduced transportation costs have made it possible for companies to locate many of their activities, be they production of services or of goods, in areas where it is most attractive for them in terms of cost and quality of labor, cost of infrastructure, regulations, and existing tax systems. A firm can thus decide to "offshore" its services, that is, perform them in another country outside the market where they are sold. In addition, it can "outsource" these services, that is, buy them from a third party instead of performing them in a wholly owned unit (whether in the same or another country). Among the major services that can be performed remotely are technology support, software development, transactions processing, accounting, and human resource management. For firms, offshoring offers ways to reduce costs and increase productivity. For recipient countries, insourcing jobs from foreign firms provides a source of revenue and a vehicle for job creation.

Offshoring and outsourcing of corporate service functions are increasingly seen as the next shift in the global market. The total market for all offshore service exports was estimated at US$32 billion in 2001, one-third of which was outsourced to other companies.[7] Offshore outsourcing of business processes alone was expected to grow from US$1.3 billion in 2002 to US$24 billion in

Table 2.2. Attributes of Jobs Outsourced

No face-to-face customer servicing requirement
High information content
Work process is telecommutable and Internet enabled
High wage differential with similar occupation in destination country
Low setup barriers
Low social networking requirement

Source: Gubert and Nordman in background papers.

2007, raising the international share of the total market from 1 percent to 14 percent in five years.[8] Most offshoring activities are still performed by foreign affiliates of large multinational companies, but offshoring to third parties in low-cost countries is developing fast, especially for European companies. More recent estimates put the entire global outsourcing industry (domestic and international) at US$297 billion in 2007,[9] and two emerging economies, namely China and India, capture 16 percent (nearly US$50 billion) of the global outsourcing activities.

Developing countries have an important and growing stake in insourcing jobs. During 2000–04, India is estimated to have created 260,000 jobs in the offshoring sector.[10] Many countries now want to do the same. Offshored services are still concentrated in a small number of countries: Canada, India, Ireland, and Israel accounted for 71 percent of the total market for offshored services in 2001.[11] But since then, other emerging markets have attracted offshored activities. India is the major destination, followed by the Philippines. However, countries in Europe, the Middle East, and Africa are becoming competitive targets for outsourcing. The Czech Republic, Ghana, Hungary, Malaysia, Poland, Senegal, and Uruguay are emerging as outsourcing destinations, especially for European call centers.

An important potential for offshoring exists in areas where MENA countries could provide the workforce. Because of the cross-border nature of offshoring activities and the dynamism experienced in this sector, comprehensive and up-to-date data are lacking. Available information suggests that although MENA has attracted limited jobs from abroad so far, this may be changing, especially in the services sector. And, clearly, the potential is huge. A study by McKinsey Global Institute[12] suggested that the global offshoring sector could be absorbing some 18 million full-time jobs. Key sectors include automotive, health, insurance, information communication technology (ICT), software, pharmaceutical services, retail, and banking services. These areas will require, in particular, engineers and ICT specialists. Similarly, a report by Datamonitor projected for 2007, about 290,000 agent positions (16 percent of all agent positions in the region) will be located in Europe, the Middle East, and Africa.[13] The same study estimated the annual growth of outsourcing activities to the Middle East and Africa at a rate of 22 percent between 2002 and 2007. Most of the outsourced activities are service and IT jobs, including Web design, software development, and call centers, for which wages typically account for a high share of total costs (see table 2.3).

The United Arab Emirates is a major center for outsourcing business activities. Dubai has emerged as an important service hub between Europe and the Asian continent. Indeed, in 2002–03, around 80 percent of the activities outsourced to the MENA Region took place in the United Arab Emirates, with the establishment of headquarters accounting for 50 percent of all export-oriented projects in MENA countries' offshored activities.[14] Other MENA countries now

Table 2.3. Regional Distribution of Export-Oriented FDI Projects in Outsourced Services, 2002–03

	Call centers	Shared services centers	IT services	Regional HQ	Total	Share in total (percent)
Developed Countries	279	48	293	339	**959**	51.9
Central and Eastern Europe (including Turkey)	33	19	26	18	**96**	5.2
Asia (South and East)	149	64	265	158	**636**	34.4
Central Asia	1	1	1	1	**4**	0.2
Latin America and Caribbean	29	5	22	10	**66**	3.6
MENA	19	1	15	35	**70**	3.8
Sub-Saharan Africa	3	1	10	4	**18**	1
Total	**513**	**139**	**632**	**565**	**1 849**	**100**
Share in total (percent)	27.7	7.5	34.2	30.6	**100**	

Source: UNCTAD 2004.

Note: FDI = foreign direct investment; HQ = headquarters; IT = information technology; MENA = Middle East and North Africa.

appear to be picking up speed. Because of the important dynamism of the offshoring sector, recent and consolidated information on the different activities in different countries is hard to come by, and data from the early 2000s are not likely to be representative of the current situation. For example, since the early 2000s, the number of call centers in Morocco and Tunisia has increased rapidly; by 2006, some 60 call centers were operational in Morocco, employing about 10,000 staff, and Egypt is coming to the forefront as a key location for offshoring (see box 2.2).

Some MENA countries appear to offer significant cost advantages for outsourcing. The consensus is that limited availability of skilled personnel or "the supply of talent" is constraining the growth potential of international outsourcing and contributing to rapidly rising wages within the offshore sectors in some emerging economies. Can MENA countries supply that talent at a competitive cost? Countries aiming to be the target of offshoring and outsourcing should have the following characteristics: low labor cost, skilled labor, familiarity with the language of the source country (French, English, or Spanish, for example), developed communication infrastructure, other low costs (electricity, telecom, rent, taxes), and an adequate business environment. Regarding some of these aspects, a number of MENA countries appear to have advantages compared with other countries. In countries like Algeria and Egypt, wages appear to be lower than in some of the countries currently providing offshored services (see figure 2.15). French-speaking MENA countries hold a specific advantage for French companies (for costs) and non-French-speaking competitors. A study by the Foreign Investment Promotion Agency (FIPA-Invest) in Tunisia indicates that salaries in Morocco and Tunisia for call center services are considerably lower than in European countries. For example, the salary of a French-speaking agent in Tunisia would be less than half of

Box 2.2. Offshoring in Egypt

Egypt ranks 12th in the list of offshoring destination; its share in the market is estimated to grow by 52 percent in 2007. The Egyptian government is increasing the attractiveness of the country for outsourcing activities by constructing a Smart Village, which aims to "provide a high tech environment necessary to attract IT companies to set up offices in Egypt." Upon completion, the village will include 58 offices ready to be rented or bought and it will accommodate 30,000 employees. It will provide all of what IT businesses need (Internet connections, technological services, and so on), and companies located there will enjoy a 10-year tax exemption.

The village has already attracted multinational companies like Microsoft and HP, as well as local companies such as Xceed. This firm, the largest and most sophisticated Contact Center in the Southern Mediterranean region, is an Egyptian-based provider of integrated customer contact solutions to commercial and government clients worldwide (complaints management, customer retention programs, order handling, technical support and market research support, Internet-based customer care, and acquisition services). The languages used range from Arabic, English, and French to German, Spanish, and Italian. Xceed employs 2,000 IT professionals and technical support staff. Today, Xceed manages 1.5 million calls a month, supports calls from more than 12 different countries in nine different languages, and serves the IT, telecommunication, automotive, travel, and tourism sectors. Its portfolio of clients includes major national companies such as Egypt Telecom, as well as 500 international companies: Microsoft Europe, Middle East, and Africa (Microsoft EMEA), Oracle, General Motors, NetOne, 9 Telecom, Aviation Information Technology (AVIT), Carrefour, CIT Global, and others.

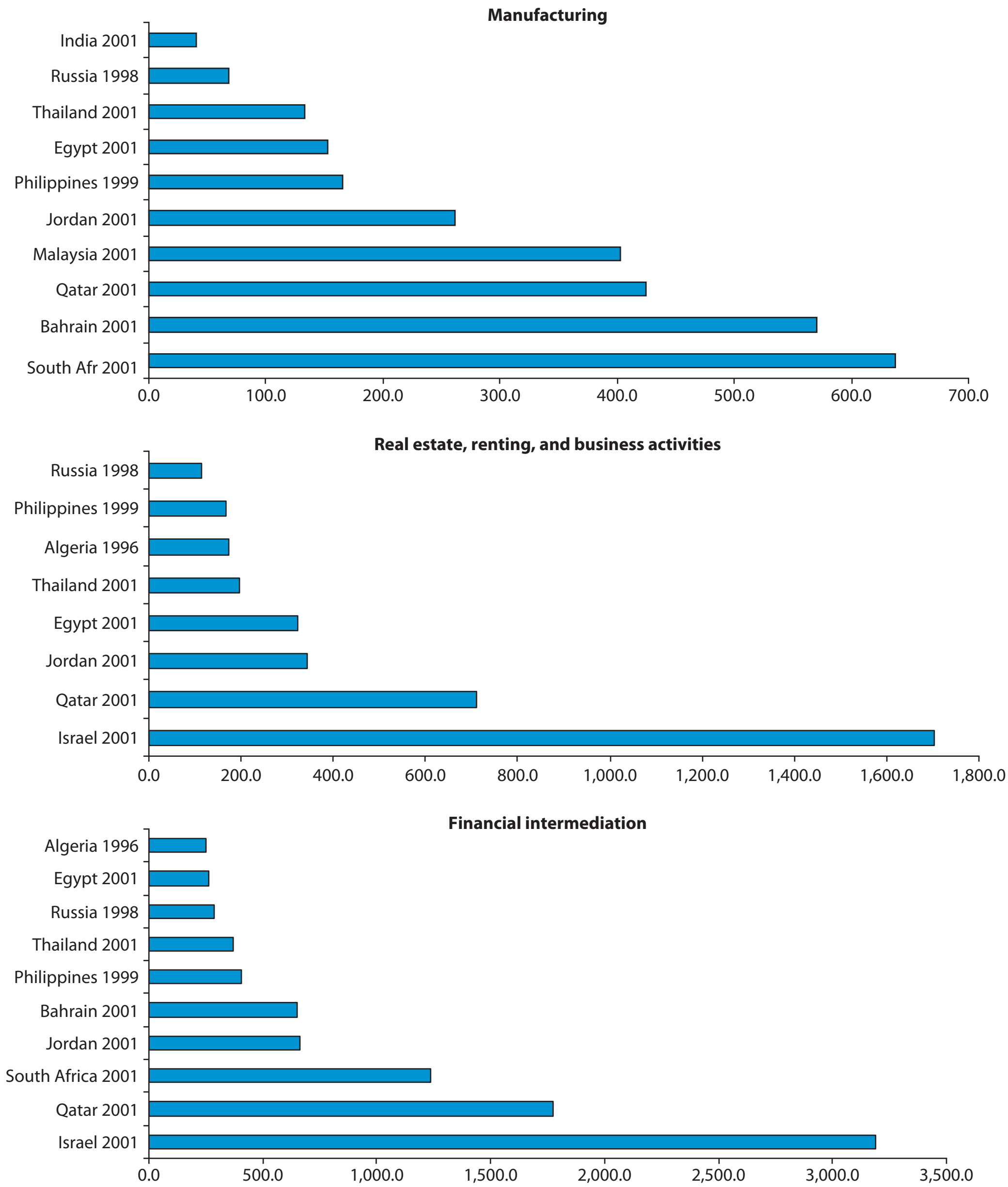
Furthermore, the Egyptian government cooperated with Microsoft in 2001 to launch the "Partner in Learning" program, which trains thousands of teachers in IT. In addition, the Information Technology Industry Development Agency (ITIDA) was created by the government in 2004 with the aim to "increase exports of ICT products and services, encourage and support e-business in Egypt, guide and encourage investment in ICT sector." Government incentives include 100 percent tax-free environment for 50 years, as well as the nonexistence of corporate and income tax, and other incentives.

Sources: McCue 2006; Yarney 2005; www.Unido.org/doc/25786; www.ITIDA.gov.eg.

that of a person in Hungary or Poland and less than one-fifth of that of a French person.[15]

While wage differentials are important, offshoring activities are driven increasingly by more than low wages. The motivation behind outsourcing has developed beyond that of lowering costs. Companies looking to outsource activities increasingly expect their business partners to interact with them in developing new forms of doing business and even identify new lines of business. These demands mean that countries wishing to attract insourcing need to compete on innovative capacity and flexibility as well. Beyond stable and predictable economic policies—an area in which MENA countries score relatively well—these new international business relationships require

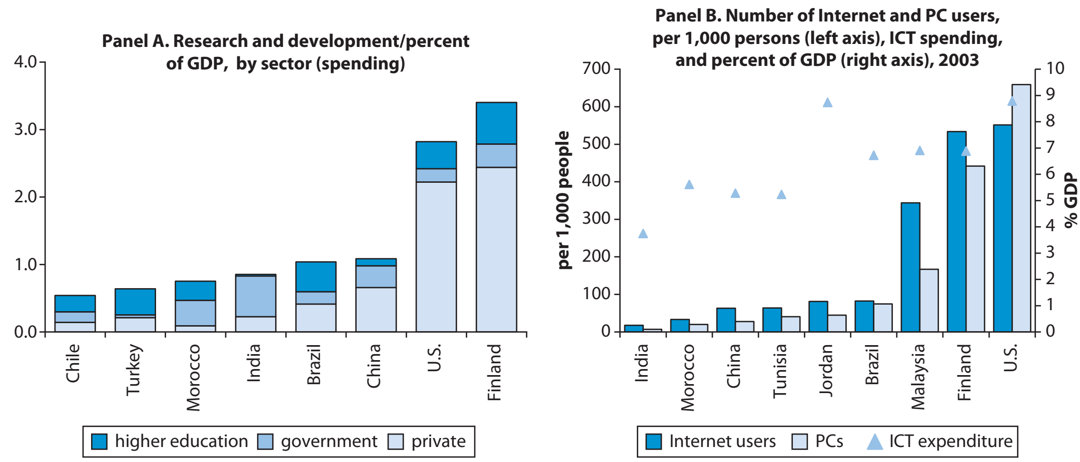
Figure 2.15. Comparative Wages in Selected Sectors and Countries
(US$ per month)



Source: Gubert and Nordman in background papers.

a strong knowledge component in the host economies. In MENA countries, however, education systems are not producing enough people with the right skills (see chapter 3). Moreover, MENA countries are not characterized by high levels of research and development (R&D), particularly in the private sector where spillovers might be high. Computer and Internet access and use

Figure 2.16. Knowledge Economy and Innovation Indicators



Source: World Bank 2005.
Note: GDP = gross domestic product; ICT = information communication technology; PC = personal computer.

are not high, especially not relative to the expenditures levels (see figure 2.16). These factors, together with some of the rigidities in the investment climate indicated in table 2.1, risk restricting the growth and diversification of outsourcing activities.

Offshoring is a rapidly growing area worldwide, and MENA countries could usefully exploit some of their geographic, linguistic, and cultural advantages. The future of offshoring in MENA countries lies with the direction and effectiveness of education reforms in MENA countries. Given the mounting labor market disequilibria and the shrinking labor force in high-income countries over the next generations, outsourcing—as a complement to migration—may become another important mechanism in the global search for workers. As chapter 3 shows in more detail, future labor demand is likely to center on jobs across the skills spectrum, in particular medium and high skill. This demand likely will continue to translate into offshoring/insourcing opportunities in both the mid-skill (call centers) and high-skill range (informatics, accounting services, and R&D).

Notes

1. The discussion in this section focuses mostly on MENA migrants as a group. See annex A, table A2 for narrative profiles of MENA migrants by country.

2. The Mashreq comprises Iraq, Jordan, Lebanon, the Syrian Arab Republic, and West Bank and Gaza. The GCC is made up of Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates.

3. For example, migrants counted by country of origin exceed those of host countries because of dual citizenships, irregular migrants, and so on. In the case of the European Union, there is an aggregated difference of 2.5 million migrants for Algeria, Egypt, Morocco, Tunisia, and Turkey (Fargues 2005).

4. Dumont and Lemaître 2005; Docquier and Marfouk 2005; Docquier, Lowell, and Marfouk 2007.

5. Because of the important size of their brain drain and the small size of their populations and economies, very small countries and islands that disproportionately affect averages were removed from the different subgroups. Only developing countries are included.

6. This section draws on, among other things, the three country case studies, synthesized by Schramm, and the background overview by Corm in the background papers, which devoted special attention to offshoring and outsourcing.

7. According to the McKinsey Global Institute 2004, p. 153.

8. McKinsey Global Institute 2004, p. 153.

9. Estimates by XMG (http://www.xmg-global.com/mc_articles/mc071102.html). The forecast includes information technology, business process outsourcing (BPO), and call center services, and the onshore and offshore delivery of outsourcing services.

10. Knowledge@Wharton 2005.

11. McKinsey Global Institute 2004, p. 159.

12. McKinsey Global Institute 2005.

13. *Call Center Magazine* 2003.

14. UNCTAD 2004.

15. FIPA-Invest in Tunisia 2004 (*Etude Comparative de Competitivite par Produit*).

3

Demand and Supply Framework

Migration outcomes are determined by a mix of economic, political, social, and demographic factors in the sending and receiving countries. Some negative outcomes of migration are linked to a poor matching between the demand and the supply side. Both immigration and emigration policies in the wider sense—including their education and labor market dimensions—can facilitate the matching process, increase efficiency, and deliver gains to the countries and individuals involved. To improve migration outcomes, the determinants of migration and the demand for foreign labor in particular must be understood.

Understanding the Demand Side

A mix of economic, political, social, and demographic factors influence people's decision to move abroad and, from the opposite side, the demand for foreign workers. Actual migration is thus a result of a combination of factors in the sending and destination countries. In developing countries, high population pressures, scarcity of good jobs, low returns to schooling, and high poverty levels contribute to increase the supply of migrants. Noneconomic home country factors also may play a role; these factors include the extent of political rights, such as fair and free elections and government accountability, as well as civil rights, including the rule of law and the right to freedom of association. The generosity of social protection and safety nets could influence migrants' choice of a country of destination—referred to as the "welfare magnet effect." Destination is influenced by factors that lower the transaction costs involved with migration, such as geographic proximity, former colonial relationships, cultural ties between host and origin countries, or "network effects"—that is, existing connections between individuals in a host country and friends and relatives left at home.[1] Falling international communications and transportations costs affect the willingness of people to look for opportunities abroad. Finally, demand for migration will depend on labor deficits resulting from aging populations and economic structures in which foreign workers can be accommodated easily.

Econometric analysis prepared for this study suggests that the magnitude of both migratory stocks and migratory flows to member countries of the Organisation for Economic Co-operation and Development (OECD) is largely explained by the opportunities in host countries (see table 3.1).[2] Past colonial relationship and distance between two countries are strong correlates of migration stocks, although less so for educated migrants who are better equipped to seize good job opportunities in distant countries. Shared language, in contrast, is important only for the most educated migrants, whose jobs may involve professional skills in which the mastering of a language is important. Furthermore, economic conditions in host countries, such as income level, the returns to education, unemployment rates, and labor productivity growth, all of which indicate a potential for high income, act as strong factors. Population aging in host countries has a significant positive effect on expatriation rates, while demographic pressures in sending countries do not seem to have a strong influence. Lack of political rights creates incentives for emigration.

Table 3.1. Testing the Determinants of Migration through a Gravity Approach: Key Results

Variable	Impact on migration
Past colonial relationship	Positive
Distance between countries	Positive but less for educated migrants
Shared language	Positive but only for educated migrants
Economic development (GDP per capita in host countries)	Positive
Private returns to education	Positive, mostly for educated migrants
Unemployment rates in host country	Negative for medium educated: positive for low and high educated, possibly picking up the effect of social welfare systems that raise reservation wages of native workers
Social protection systems	Positive, mostly for educated group
Aging population in host country	Positive
Limited political rights	Positive
Limited civil rights	Negative

Source: Draws on Gubert and Nordman in background papers.
Note: GDP = gross domestic product.

The Demand for Foreign Labor in the European Union

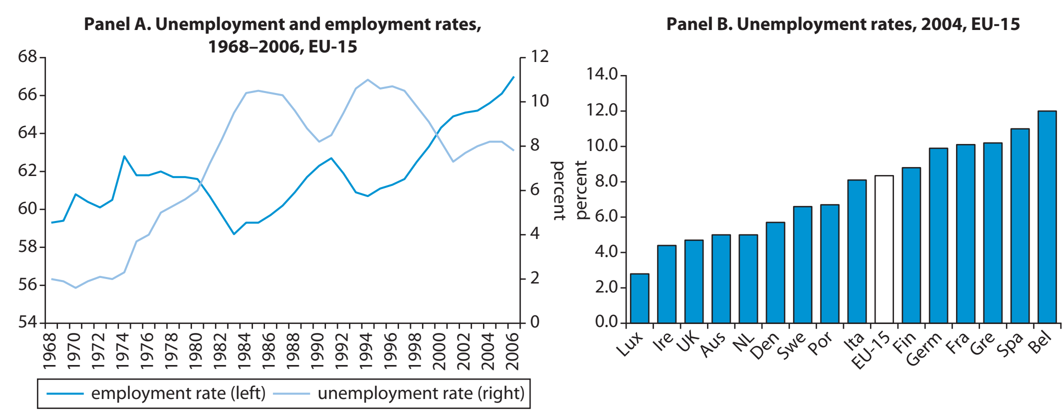
The lion's share of south-north migration from the MENA Region is clearly directed to Europe. What then is the demand for labor in the European countries, and how well do and could migrants from North Africa respond to that demand?

Mere numbers suggest that demand for migrant labor is high in Europe. However, migration flows, including of undocumented labor, occur in parallel with relatively high (albeit falling) unemployment rates among native workers, as well as high unemployment rates among migrant workers. This puzzle is best understood via an analysis of the development of unemployment and (i) the employability of the native workforce; (ii) the operation of labor market institutions; and (iii) lack of workforce mobility.

The rapid rise in unemployment in the 1970s (see figure 3.1) followed upon the oil price shock and the subsequent drop in labor productivity. As inflation subsided in the late 1980s, unemployment stayed high, reflecting a new and higher natural, or equilibrium, rate of unemployment. This coincided with a rapid increase in the duration of unemployment. In France, for example, the average duration of unemployment doubled from around six months in the early 1970s to more than 12 months in 2000. By now, the share of long-term unemployed among all unemployed is at or above 20 percent in most European countries. Unlike frictional unemployment, long-term unemployment carries with it the loss of human capital and morale, ultimately threatening the employability of the person.

Labor market institutions, including unemployment benefits, employment protection legislation, and the tax wedge are often put forward as a key component in explaining Europe's unemployment persistence.[3] High unemployment

Figure 3.1. Evolution of Unemployment Rates in Europe



Source: OECD 2008b.

benefits tend to contribute to a higher natural rate of unemployment, because they raise "reservation wages"[4] and decrease search intensity. The more generous the benefits (in terms of level and duration) and the less conditional they are (with fewer requirements for the unemployed to search for and accept jobs), the higher the rate of unemployment. However, on average, migrants have less access to unemployment benefits and social assistance than the native unemployed. In systems in which benefits become more generous with years of contribution and age, young and newly arrived migrants are likely to receive fewer benefits and have, as a consequence, lower reservation wages. Similarly, strict hiring and firing regulations may tend to raise unemployment rates, because they discourage hiring in the first place. However, migrants, because of their lower reservation wages, are more likely to accept temporary employment that circumvents these costs. In a majority of OECD countries, migrants have a higher share of temporary employment than natives.[5] A high tax wedge—currently at above 30 percent in most European countries—also raises the cost of hiring formally and long term and increases the attraction for informal hiring as well, which generally involves a higher degree of migrants.

Finally, the lack of mobility of the native labor force may explain why labor shortages occur in parallel with unemployment. Europeans may be less likely than migrants to move between regions within their country and even more unwilling to move to another European country.[6] Migrants—by definition already on the move and sometimes arriving without families—could constitute a rather mobile workforce and fill shortages in areas where native workers will not move, thereby contributing to regional economic development in Europe.[7] The employment situation in EU-15 countries has improved quite significantly since the end of the 1990s. Unemployment rates remain much higher than in the 1990s, but they coincide with higher participation rates; and overall employment rates (factoring in both unemployment and participation) have been on the rise since 1994. Spain, a new host country, has seen its unemployment rate more than halve, and its share of long-term unemployment has fallen as well.

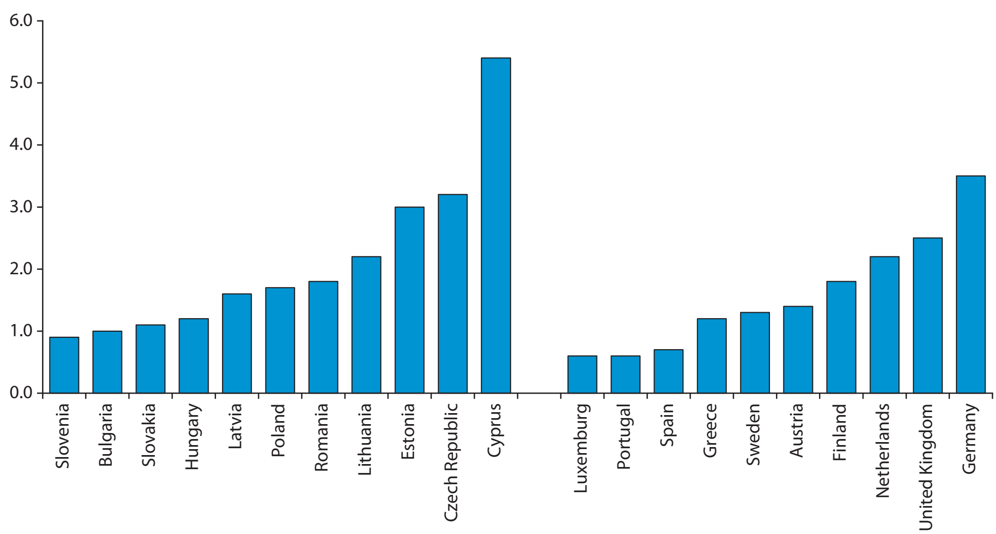
Identifying labor shortages is difficult, as rapid technological and labor market changes require a continual reevaluation of which skills are needed. Quantifying labor shortages is even more difficult, because many of these shortages are never officially recorded. Several countries have developed mechanisms to assess short-terms needs (for example, Italy's Excelsior System, the United Kingdom's Employers Skills Survey, and so on). At a regional level, *Eurostat*, the statistical office for the European Union, has developed an EU-wide job vacancy survey, which gives some, albeit limited, insights into unfilled positions and labor demand in some countries. In addition, recognizing the needs for better labor market information and intelligence, the European Centre for the Development of Vocational Training (CEDEFOP) has produced a medium-term forecast of skill needs in Europe. It is exploring the feasibility of identifying the skills and competence needs at the workplace level using enterprise surveys to complement quantitative measurement at the macro level.

It appears that a steady supply of jobs is available in Europe at any point in time and regardless of business cycles. The job vacancy rate (JVR) measures the proportion of total posts that are vacant, as a percentage of all existing jobs (occupied and vacant). *Eurostat*'s data set does not include all countries and is notably lacking information for France and Italy. However, among countries for which data are available, job vacancy rates[8] were particularly high in Belgium, Finland, Germany, the Netherlands, and the United Kingdom in 2006 (see figure 3.2). Moreover, the variations in past years (2001–04) in vacancy rates was small, ranging from –0.7 percent to +0.2 percent only, indicating that this type of labor shortages have been only marginally sensitive to short-term economic cycles.

Based on these data, and bearing in mind that they exclude several large countries, the total number of job vacancies for 18 countries in the European Union reached 2.3 million in 2005 and 2.7 million in 2006. More than half of the job vacancies were available in Germany and another 25 percent in the United Kingdom (see figure 3.3).

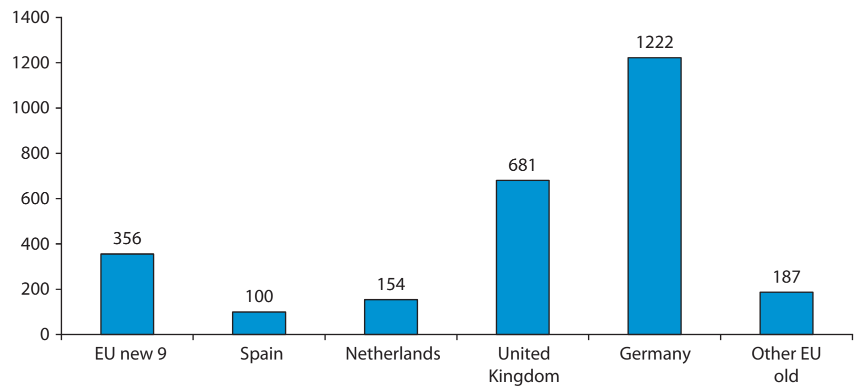
The most serious recruitment difficulties appear to arise in finance and in wholesale and retail trade, hotels and restaurants, and transport and communication. In 2006, for a total of 17 European countries, the number of vacant jobs stood at around 760,000 in finance; 665,000 in wholesale and retail trade, hotels and restaurants, and transport and communication; 618,000 in

Figure 3.2. Job Vacancy Rates in Some European Countries, 2006



Source: Authors' estimates based on *Eurostat*.
Note: 2005 data for Austria, Greece, the Netherlands, and Portugal.

Figure 3.3. Vacant Jobs by Country, 2006
(in thousands)



Source: Eurostat 2008.
Note: EU new = Bulgaria, the Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Romania, Slovenia, and the Slovak Republic. Other EU old = Austria, Finland, Greece, Luxemburg, Portugal, and Sweden.

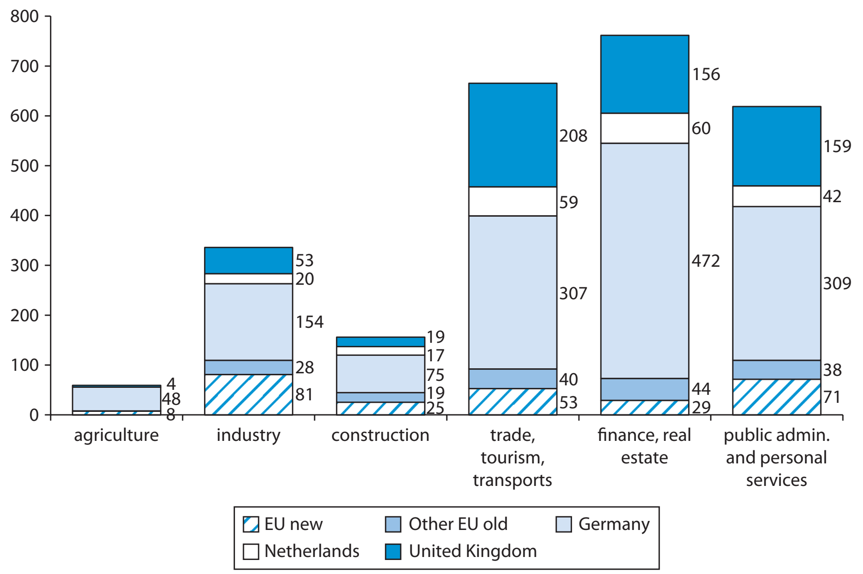
public administration and personal services; 335,000 in the industry sector (excluding construction); and 156,000 in construction. Data on job vacancies at a more disaggregated sector level show variations between countries (see figure 3.4). For example, in the new EU member countries, job needs are highest in industry and in public and personal services. In Germany, the Netherlands, and the United Kingdom, the services sector experiences the most job shortages. Job vacancies are an imperfect measure of job demand because some of these jobs may be available merely during a recruitment process and do not reflect a real lack of available workers. Without overinterpreting the exact numbers, they nonetheless suggest that labor shortages may be real, which is an issue in particular in the services sector in the European OECD countries.

Looking forward, labor needs are likely to encompass both skilled and low-skilled labor. The discussion of labor shortages in Europe tends to focus on skilled workers; yet, the high preponderance of migrants in relatively low-skill occupations points to a high demand for low-skilled labor as well. Projections from various sources of Europe's future labor needs center on the increasing formal qualification requirements, even among more elementary occupations.

A study by the CEDEFOP, "Future Skills Needs in Europe—Medium-Term Forecast"[9] for the period 2006–15, projects a drastic increase in qualification requirements across most jobs in Europe (including the EU-25, Norway, and Switzerland) with more than 12.5 million additional jobs required at the highest qualification level across all occupational groups (see box 3.1 for definitions) and an additional increase of about 9.5 million jobs required at the medium

Figure 3.4. Job Vacancies by Economic Sector and Country, 2005

(thousands)



Source: Authors' estimates based on *Eurostat* 2008.
Note: Country groups as in figure 3.3.

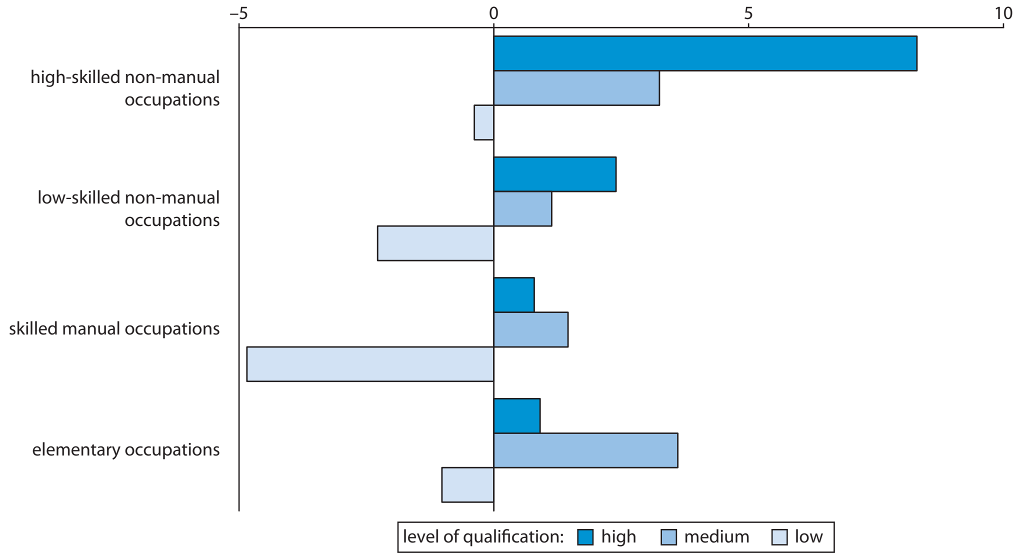
Box 3.1. CEDEFOP Definition of Occupational Groups

Highly skilled, non-manual occupations: Managers, professionals, technicians, and associate professionals
Skilled non-manual occupations: Clerical support workers, service, and sales workers
Skilled manual occupations: Skilled agricultural, forestry, and fishery workers, craft and related trade workers, plant and machine operators, and assemblers
Elementary occupations: Cleaners and helpers, agricultural workers, laborers in mining, construction, manufacturing and transports, food preparation assistants, street and related sales and services workers, refuse workers, and others

level of qualifications. By contrast, jobs at low qualification levels are expected to fall by 8.5 million across all occupational groups (see figure 3.5).[10]

The projections take into account demand expansion as well as replacement demand (from attrition). In all categories, replacement demand exceeds demand from expansion, a clear reflection of population aging and attrition of the labor force. In terms of occupation, because of expanding demand for higher skills, demand will be high for technical and professional occupation groups. But because of attrition, there will also be significant demand for service workers and shop, market, and sales workers as well as elementary occupations; however, as seen in figure 3.5, the demand for formal qualifications is

Figure 3.5. Net Employment Change (in millions), 2006–15, by Occupational Groups and Highest Level of Qualification, EU-25, Norway, and Switzerland



Source: CEDEFOP 2008.

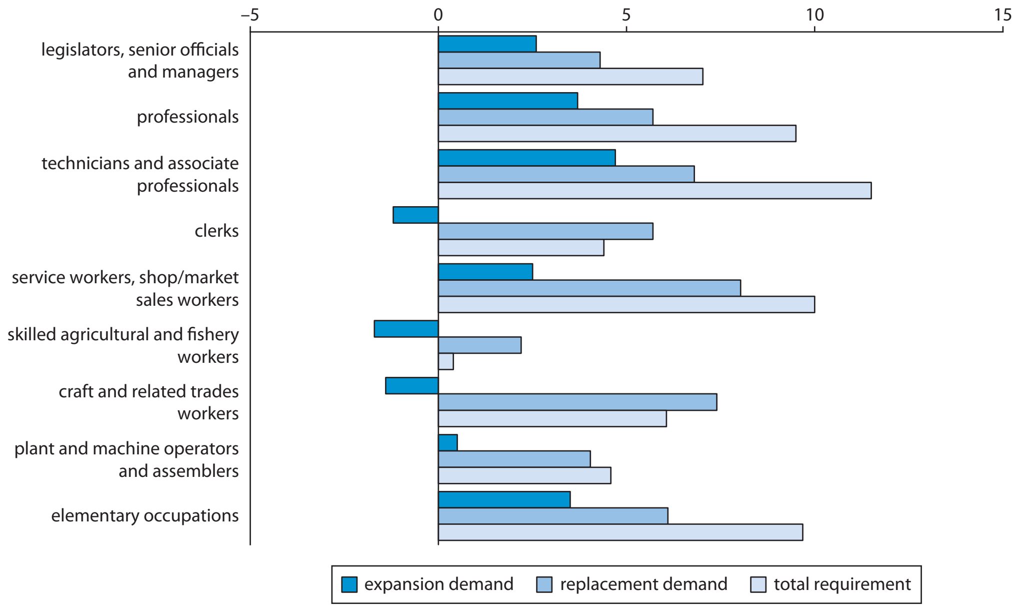
expected to increase across the board and cover workforce replacement and expansion (see figure 3.6).

Projections of jobs and skills shortages in France over the short and long term also suggest that while there will be an important demand for skilled labor, the economy will also face significant shortages in low-skilled labor, especially in the services sector (see box 3.2). Many jobs in wholesale and retail trade, hotels and restaurants, and transport and communication are relatively low-paid jobs, with a large degree of informality, and are associated with long hours of work and difficult working conditions. These jobs may not be attractive for the unemployed whose wage expectations are influenced by unemployment benefits and other forms of social assistance. Migrants may step in to fill this gap.

The Supply of Migrants from MENA

How can MENA migrants adapt to the labor market needs in Europe over the short and medium term? At the moment, the employment outcomes of MENA migrants in European countries is disappointing, reflecting to a large extent the nature of migration (the predominance of family reunification over labor migration) and the low employability of MENA migrants who are not sufficiently prepared for the needs of the European labor markets. Labor shortages clearly involve a significant number of low-skill or mid-skill jobs and will

Figure 3.6. Demand by Occupation, Broad Groups (change in millions), 2006–15, EU-25, Norway, and Switzerland



Source: CEDEFOP 2008.

Box 3.2. Recruitment Difficulties and Skills Shortages in France

A 2006 report by the French Ministry of Economy, Finance and Industry provides a detailed picture of recruitment difficulties and skills shortages in France, both over the short and the long term.

Short-term labor needs were assessed using a 2005 qualitative survey with employers. The main constraints were in (i) skilled workers and technicians in engineering and construction, (ii) workers in the restaurants and hotel business at different skill levels, (iii) personal and household services, including nurses and nannies. Complementary job statistics from the employment agency corroborate these results: skilled construction workers, chefs and cooks, and hotel personnel, and more generally mid-skilled services personnel, are in short supply. These are not new phenomena, however; most of the areas facing labor shortages in 2005 were already under pressure in 2000.

Long-term needs were assessed on the basis of projections of job creation, coupled with retirement in different occupations and the job openings this would entail. Following this method, between 2005 and 2015, and assuming a growth rate of 2 percent per year, there could be a need for as many as 750,000 new jobs per year. The greatest retirement pressures will be in the tertiary sector, both at high-skilled and low-skilled levels. Mirroring the short-term labor needs, most low-skill jobs will be needed in personal services, trade, tourism and transports, and construction. Most skilled jobs will be needed in the health sector and in business services like

(*Box continues on the following page.*)

Box 3.2. (*continued*)

accounting. More precisely, the projections suggest the following long-term job creation needs due to retirement: contracting industry (413,000 job openings), tourism and transport (444,000 new jobs), accounting and administrative services (641,000 new jobs), trade (453,000 new jobs), personal services (790,000 new jobs), and public administration (500,000 new jobs). Most low-skill jobs will be created in the following sectors: personal services (+416,000 jobs over the period), transport and tourism (+225,000 jobs), trade (+196,000 jobs), and contracting industry (+116,000 jobs). By contrast, most skilled jobs will be created in the health sector (+304,000 jobs) and in accounting services (+197,000 jobs).

The same report concludes that labor and skill needs will be particularly high in the following occupations: managers and professional occupations (teachers, managers and administrative officers, software and IT professionals, sales managers and technicians, managers and technicians in the contracting industry, research engineers and researchers); technical and skilled occupations (executive assistants, nurses, sales representatives, intermediate sales and service occupations, administrative clerks, supervisors, and processing occupations); skilled workers (skilled drivers, skilled workers in processing, skilled workers in storehouse management, skilled workers in heavy construction); and lower-skill occupations (child minders, care assistants, in-home employees, light duty cleaners).

Source: Gubert and Nordman in background papers.

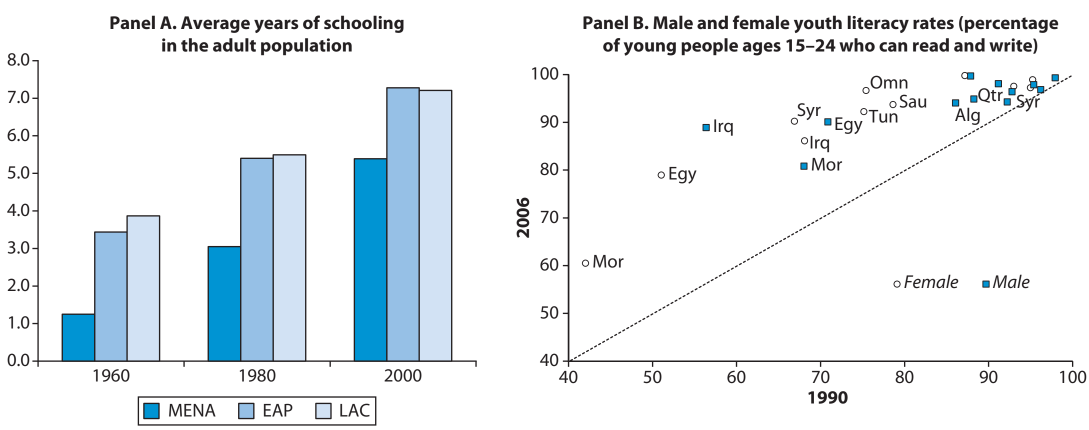
continue to do so. Given sufficient language training and minor preparation, relatively low-skilled MENA potential migrants should be employable for such jobs, even in the services sector. To improve the employability of migrants in Europe and raise private and public returns to education, however, the region needs a more proactive approach. A migration strategy should reorient the education system, but also, over the short term, build partnerships to respond to labor shortages as rapidly as they occur.

Poor education outcomes in MENA countries remain an obstacle to compete in global labor markets. More important, MENA's education systems do not deliver and remain at the root of MENA's educational and technological shortcomings.[11] Returns to education are comparatively low in the region; migration, under the right circumstances, could offer a means of increasing those returns. The region has made important strides in making education available to its rapidly growing population and comparatively large amounts of public resources have been and still are spent on education. As a result, the average age of schooling in the adult population has more than tripled in the past 50 years. However, by 2000, the MENA Region had reached only the level of schooling that countries in East Asia and Latin America had reached by 1980. Moreover, the quality and equity of spending has suffered.[12]

Illiteracy rates are comparatively high among new labor market entrants in MENA, especially for young women. A first and basic indicator of the lack of employability—and of the lags and shortcoming of the education systems in the MENA Region—is the large number of illiterate youth that still are entering the labor market. As seen in figure 3.7, commendable progress has been made during the last 15 years. Yet, in 2005, only 60 percent of the Moroccan young women and 80 percent of the Egyptian young women could read and write.

The education system in the MENA Region is biased toward humanities and social sciences at the expense of technical and scientific orientations that tend to be more important for innovation and knowledge development. Postsecondary qualifications have increased significantly: as late as in 1985, on average only 4.7 percent of people in the relevant age group were enrolled in tertiary education. By 2003, this number had increased fivefold, to 25.8 percent. In spite of this massive catch-up, however, the region lagged behind comparator countries in East Asia and Latin America, where tertiary enrollment rates reached 38 and 37 percent.[13] Furthermore, the main majors for university students in the MENA Region also show a disproportionate preference for humanities at the expense of science and engineering subjects (see table 3.2). Because of their significance for innovation and technological progress, a high level of human capital focused on science and engineering may be more crucial for long-term private sector development and economy-wide growth prospects than other forms of knowledge. The importance of humanities in MENA is at least partly driven by the large public sector employment, where such degrees are more highly valued than in the private sector. The scale of civil service recruitment in MENA has distorted incentives by somewhat artificially raising returns (salaries are paid with public money) to education in nontechnical areas. As an illustration,

Figure 3.7. Education Outcomes in MENA and Comparator Countries



Source: Adapted from World Bank 2008b.
Note: EAP: Mean of China, Indonesia, the Republic of Korea, Malaysia, the Philippines, and Thailand. LAC: Mean of Argentina, Brazil, Chile, Mexico, and Peru.

Table 3.2. Distribution of University Students by Field of Study

(percent)

	Year	Education and humanities	Social science	Medicine	Scientific, technical, and engineering	Other
MENA		**30.8**	**32.2**	**6.7**	**22.6**	**7.7**
Maghreb						
Algeria	2003	16.4	38.2	7.1	18.0	20.2
Morocco	2003	27.6	47.8	3.9	18.3	2.3
Tunisia	2002	22.0	27.0	7.0	31.0	13.0
GCC						
Bahrain	2002	10.0	50.0	7.0	21.0	12.0
Oman	2003	54.2	21.1	2.8	14.0	7.9
Qatar	2003	19.1	48.3	3.9	19.1	9.5
Saudi Arabia	2003	60.7	15.1	4.6	13.6	6.1
UAE	1996	57.8	13.6	1.7	24.1	2.8
Other						
Djibouti	2003	20.0	51.0	0.0	22.0	7.0
Egypt, Arab Rep. of	1995	35.0	41.2	7.4	10.2	6.1
Iran, Islamic Rep. of	2003	17.6	27.5	7.3	38.2	9.3
Iraq	2003	30.8	21.3	8.1	24.1	15.8
Jordan	2002	30.0	26.0	10.0	30.0	4.0
Lebanon	2003	21.2	38.8	8.5	25.7	5.8
Syrian Arab Rep.	1994	29.2	28.2	11.5	25.3	5.8
West Bank-Gaza	2003	42.4	33.4	5.6	18.1	0.4
East Asia		**19.9**	**33.7**	**6.2**	**30.8**	**9.8**
China	1994	22.8	9.4	8.9	46.8	12.1
Indonesia	1995	21.3	54.9	2.1	15.1	6.7
Korea, Rep. of	2002	23.4	20.4	7.3	41.1	7.9
Malaysia	2002	20.0	27.0	4.0	40.0	11.2
Philippines	2002	20.0	31.0	9.0	24.0	16.0
Thailand	1995	12.2	59.7	5.9	17.6	4.7
Latin America		**17.4**	**39.2**	**10.5**	**23.8**	**9.4**
Argentina	2002	10.0	35.0	10.0	14.0	31.0
Bolivia	2000	26.0	33.0	17.0	16.0	8.0
Brazil	1994	20.5	44.0	9.3	20.1	6.1
Chile	2002	20.0	35.0	9.0	32.0	5.0
Colombia	1996	17.1	43.2	9.1	28.5	2.2
Mexico	2002	15.0	42.0	8.0	32.0	4.3
Peru	1991	13.0	42.1	11.4	24.3	9.2

Source: Reproduced from World Bank 2008b.

Note: GCC = Gulf Cooperation Council; MENA = Middle East and North Africa; UAE = United Arab Emirates.

technology and engineering students attending university in Morocco increased by 3,500 between 1994–95 and 2003–04 but still accounted for only 2 percent of all students.

Access to education remains unequal and outcomes disappointing. A relatively high share of spending on secondary and tertiary education, compared with primary education, has tended to favor better-off families. Education gaps between the poor and the non-poor have narrowed in some countries (Egypt) but widened in others (Morocco). The distribution of education, as measured by the Gini coefficient of years of schooling, has fallen significantly, from 0.760 in 1970 to 0.507 in 2000, but it remains much higher than in East Asia or Latin America. Similarly, MENA countries score, in general, less well on international mathematics and science tests.

The ultimate evidence of problems in the education sector is the high unemployment rate among the highly qualified, especially women. Rapid increases in enrollment rates at higher levels of education, coupled with quality problems and mismatches in skills and expectations in the labor markets, have resulted in high unemployment rates among the educated. Unemployment rates are particularly high among young new entrants and women who have completed secondary or higher education (see table 3.3).

As discussed, although education levels are increasing in the region, a higher proportion of MENA migrants in OECD countries have low skills, compared with other migrants or Europeans. Consider, for example, France and Spain, the first an "old" and the second a "new" MENA migrant-receiving country. In France, the share of low-skilled workers among people born in MENA and those born in other non-OECD countries is similar. But among those who still hold a foreign nationality, the share of low-skilled workers is much higher for MENA migrants. In Spain, the differences between MENA migrants and non-MENA migrants are even starker: three-quarters of MENA migrants are low-skilled workers, compared with half for other migrants (see table 3.4).

The actual labor market situation of MENA migrants varies sharply from one OECD country to another. Data from the European Labor Force Survey show that immigrants from MENA countries have a lower probability of being employed than EU nationals and immigrants from other regions. In 2005, two in three EU-15 nationals between the ages of 15 and 64 living in their country of birth were employed. The comparable figure for nationals of MENA countries living in EU-15 countries was 45 percent—much lower than for the group of migrants as a whole, for which the employment rate reached 59 percent. Figure 3.8 illustrates the employment rates for MENA foreign-born and foreign nationals, males and females, compared with Turkey and other important migrant groups in 2005. MENA and Turkish male and female immigrants perform poorly compared with other migrant groups, especially for women—only 24 percent of female MENA nationals in

Table 3.3. Unemployment Rates in Selected MENA Countries, by Gender and Education Level, 2006

	Males	Females	Total
Jordan			
Less than secondary	14.2	19.2	14.2
Secondary and intermediary	9.5	22.9	12.1
Higher	12	29.5	17.7
Egypt, Rep. of			
Less than secondary	1.5	1.1	1.4
Secondary	6.5	33.8	13.5
Higher	8.5	24.6	13.7
Morocco			
No diploma			5.2
Intermediate			20.5
Higher			26.8
Algeria			
None	7.8	2.9	6.6
Primary	16.5	9.5	15.7
Secondary	18.4	22.8	19.3
Higher	14.5	27.5	19.3
Iran, Islamic Rep. of			
Less than secondary	6.1	2.7	5.7
Secondary and intermediary	14.3	31.9	16.4
Higher	10.5	31.3	17.1

Source: World Bank 2007b.

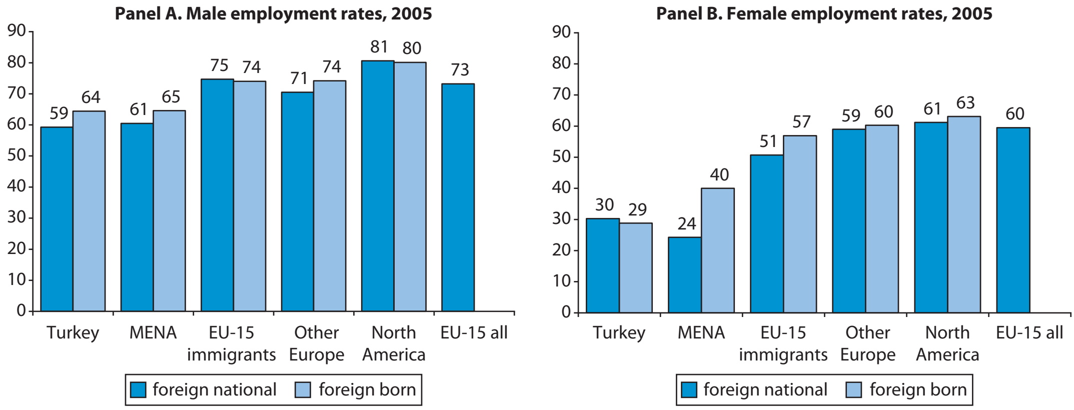
Table 3.4. Education Levels of Migrants in France and Spain, by Origin

	France				Spain		
	Low skilled	Medium skilled	High skilled		Low skilled	Medium skilled	High skilled
Share of all by place of birth				**Share of all by place of birth**			
Total	46.8	36.2	17.0	Total	63.5	17.1	19.5
French	45.8	37.4	16.9	Spanish	63.9	16.7	19.4
Migrants	54.8	27.2	18.1	Migrants	55.4	22.8	21.8
MENA	54.5	28.2	17.3	MENA	75.2	13.3	11.5
Other	54.9	26.5	18.6	Other	51.4	24.7	23.9
Foreign nationality only							
MENA	69.2	21.3	9.5				
Other	59.5	23.2	17.3				

Source: Authors' estimates, based on Dumont and Lemaître 2004.

the European Union were employed. The share of employed migrant women from MENA in Europe, however, is *not* below the share of employed women in the MENA Region, which generally hovers between 10 and 30 percent, depending on the country.[14]

Figure 3.8. Employment Rates in EU-15, EU-15 Average and Migrants Groups, by Nationality and Country of Birth



Source: Münz 2007, based on European Labor Force Survey.
Note: EU-15 immigrants are people born in, or citizen of, an EU-15 country but living in another EU-15 country.
EU-15 all = EU-15 nationals and all migrant groups.

The *type* of flows influences the characteristics of migrants and their employability, which explains MENA nationals' apparent lack of employability in the European Union. With the exception of Greece, Ireland, Italy, and Spain, where labor immigration dominates, immigration flows to most other European OECD countries mainly include individuals who are admitted on humanitarian or social grounds (family reunion, annual refugee quotas, and asylum seekers). These immigrants have limited education and may face cultural and language difficulties to respond to the requirements of Europe's formal labor markets.[15] Hidden barriers for access to employment as well as employer discrimination also explain the greater vulnerability of foreign workers. The limited transferability of credentials adds to these barriers—employers in receiving countries may not be willing to accept credentials and experience gained outside of host countries.

High unemployment and low participation rates appear to persist across generations, among the children as well as the grandchildren of immigrants. This persistence may be related to the fact that low-skilled immigrants belong to a poorer socioeconomic strata, with fewer abilities to support children in school. Recent data for student performance from the OECD, for example, suggest that, on average, second-generation immigrants in France do only slightly better than first-generation immigrants in reading and mathematics, and much worse than national students.[16] There is some evidence that even highly educated MENA migrants have a comparatively low probability of getting a skilled job in host countries; a high level of education does *not* guarantee a skilled job. A recent study of migrants who arrived in the United States with a degree from abroad suggests that, all other things being

Table 3.5. Probability of Obtaining Skilled Jobs in the United States, Selected Countries, 1990s

Country	Professional	Master's	Bachelor's
Algeria	66	49	31
Egypt, Arab Rep. of	80	49	31
Iran, Islamic Rep. of	81	55	39
Iraq	83	47	31
Jordan	55	38	24
Kuwait	89	51	39
Lebanon	85	58	44
Morocco	35	48	30
Saudi	79	51	38
Syrian Arab Rep.	74	30	20
Yemen, Rep. of	26	39	24
MENA	69	47	32
India	87	80	69

Source: Reproduced from World Bank 2008b.

equal, a Moroccan with a bachelor's degree had only 30 percent probability of getting a skilled job, compared with 69 percent for an Indian holding a bachelor's degree (see table 3.5). Only one in two Egyptians with a master's degree would be able to hold a skilled job, compared with 80 percent for Indians. And these gaps seem to have increased over time.

Notes

1. Pedersen, Pytlikova, and Smith 2004.

2. In its most basic form, the gravity model explains migration flows (or stocks) from one country to another by each country's economic characteristics and bilateral geographic characteristic. For more information on the model and the results obtained, see Gubert and Nordman in background papers.

3. See OECD 1994.

4. The reservation wage is the lowest wage at which a worker would be willing to accept a certain job.

5. OECD 2008b.

6. For example, in spite of high unemployment among German engineers, Airbus Germany could not fill engineering posts in Northern Germany (*Die Welt* 2006).

7. Spain, for example, allows Spanish firms to recruit foreign workers directly in home countries and with "no questions asked," as long as the job in question is included in a list of difficult-to-fill positions, which is elaborated for each region.

8. *Eurostat* defines job vacancy as a post newly created, unoccupied or about to become vacant (i) for which the employer is taking active steps to find a suitable candidate from outside the enterprise concerned and is prepared to take more steps, and (ii) that the employer intends to fill either immediately or in the near future. An occupied post is a post within an organization to which an employee has been assigned.

9. See http://www.trainingvillage.gr/etv/Information_resources/Bookshop/publication_details.asp?pub_id=488.

10. These changes reflect both increasing qualification levels of the workforce (supply) and an increasing need for higher qualifications across all jobs.

11. This situation has been abundantly described by MENA researchers: see, in particular, Zahlan 1980, 1999; Corm 1997.

12. World Bank 2008.

13. *Ibid*.

14. World Bank 2007b.

15. A significant proportion of population movements within and from MENA results from political instability and armed conflicts. Over the recent period, people from Algeria, Iraq, and the Islamic Republic of Iran have been among the largest groups of asylum seekers in Europe.

16. Calculations made with data available at www.oecd.org/pisa.

4

Migration in the Long Term: The Outlook for the Next Generations

Can migration help mitigate demographic gaps, population aging, and global labor market imbalances? The first half of this century will see considerable disparities in demographic developments between rich and poor countries. The former will experience a rapidly aging population and labor force shortages, while the working-age populations will continue to grow rapidly in the latter. These disparities create opportunities for demographic arbitrage-reducing labor market imbalances through increased labor mobility for the benefit of both the sending and receiving regions. From a quantitative perspective, the diverging demographic trends and structural differences between most European countries and MENA's economies suggest that there are synergies to explore.

Yet, whether increased labor mobility from the MENA Region can compensate for the aging labor force in Europe will depend crucially on whether MENA's skill supply matches Europe's skill requirements. Moreover, MENA, like some other developing regions, will increasingly face problems similar to those of Europe: a rapidly aging workforce and a growing contingent of elderly dependents. Within MENA, the Gulf Cooperation Council (GCC) countries provide something of a special case—they are not, demographically, experiencing a shrinking labor force, but their economies are dependent on a large migrant labor force.

This chapter presents demographic projections available from the United Nations, with a focus on demographic imbalances between European and MENA countries. Different scenarios for education profiles and labor force participation rates are provided to investigate the extent to which Europe, through different policy measures including migration, could meet this challenge. The chapter discusses various policy options to improve labor migration outcomes.

The analysis presented rests on the assumption that countries aim to replenish a diminishing labor force with the same kind of workers. In addition, younger workers may possess new skills that older workers do not—for one thing, newer cohorts are more educated than older ones. Older workers will have built up specific experience that younger workers do not have. Thus, from an aggregate perspective, workers of different generations are far from perfect substitutes for one another.

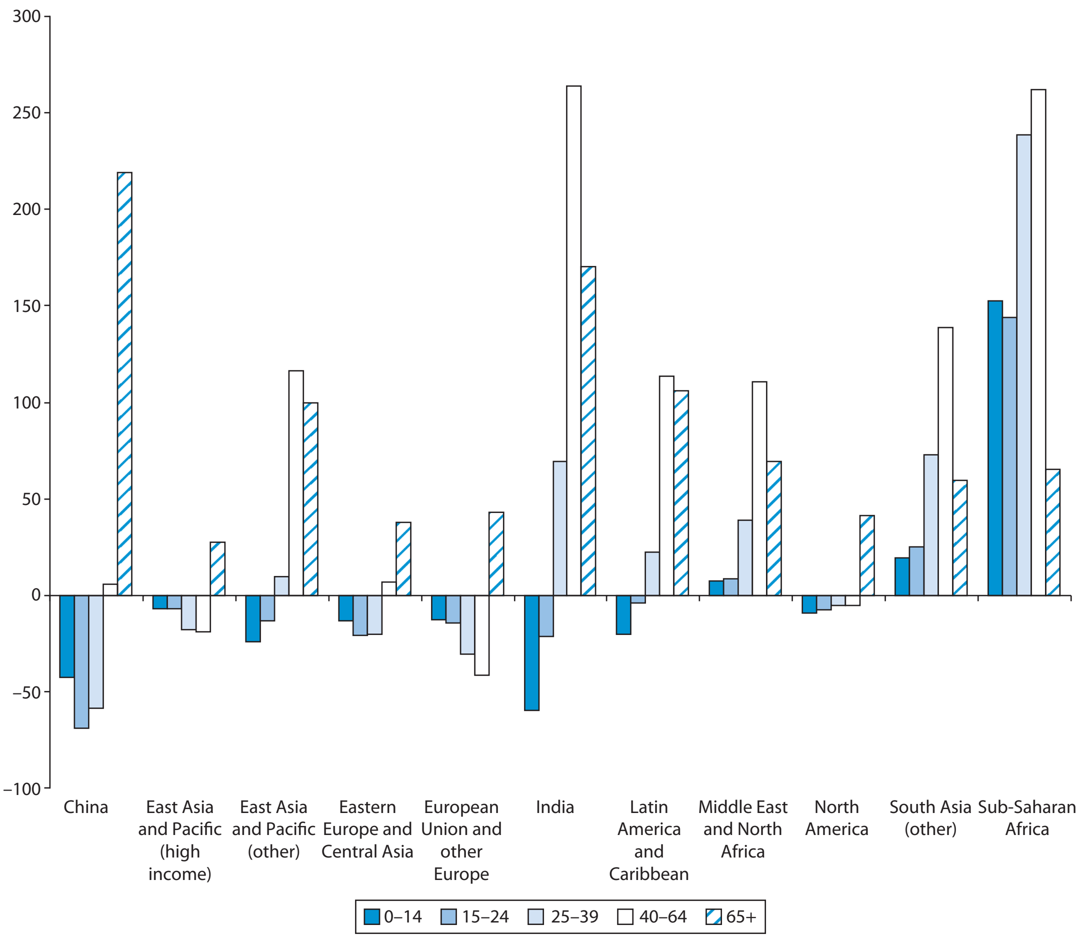
Overview of the Worldwide Impact of Demographic Developments on Labor Migration

World population growth is slowing down, although there are important differences between regions and countries. Demographic projections are based on data from the United Nations (2005), which estimates past population data and projects future demographic developments by gender and age groups from 1950 to 2050 for every country worldwide. Importantly, the projections presented here are based on the assumption of no migration taking place.[1] These projections show that (i) although the world population will reach 9 billion people by 2050, the pace of growth is slowing down, (ii) the population is aging overall, and (iii) there are large regional disparities in demographic developments. In the industrial parts of the north (North America, Europe, and Russia), in the high-income countries of East Asia and the Pacific (EAP), as well as in China, the demographic projections foresee low or even negative demographic growth. In contrast, in much of the developing world, the total population will continue to increase. In MENA and South Asia, a decline in the youngest population (ages 0–14) will be visible in 2040. In the middle-income countries of Latin America, EAP, and India, the overall population will continue to increase until 2050, but a decline in the youngest population will become apparent as early as 2020 (see figure 4.1).

The International Labour Organization (1997) provides estimates of past and future participation rates by gender and age group from 1950 to 2050 for every country worldwide. These estimates are compatible with the UN population data and allow for an exploration of the impact of demographic changes on the labor force. In the next 45 years, *without migration*, the decline in the labor force is estimated to reach 215 million people in regions with a shrinking labor force. Although the world labor force is projected to increase, there are sharp differences between regions, with some facing dramatic declines in labor force numbers—*all* in the absence of migration (see table 4.1).

In the aggregate, China is projected to experience the largest absolute decrease in its total labor force (see figure 4.2). However, this would represent only about 10 percent of its current labor force. Besides, China might not face

Figure 4.1. Demographic Change by Age Group and Region Worldwide, 2010–50
(in millions, zero-migration variant)



Source: Koettl in background papers.

the same dire consequence from an aging labor force as the member countries of the Organisation for Economic Co-operation and Development (OECD), because it has the potential to maintain economic growth rates by improving labor productivity. In relative terms, the largest labor force decline will occur in the EU-25+,[2] where the labor force is projected to decrease by 66 million people, or about 30 percent, by 2050. The biggest decrease is projected for the 2020s with a drop of 20 million people. The nearby countries in the Europe and Central Asia (ECA) Region face similar prospects. The decline in the labor force (and demand for labor migrants) of that region is estimated at 23 million between 2005 and 2050.

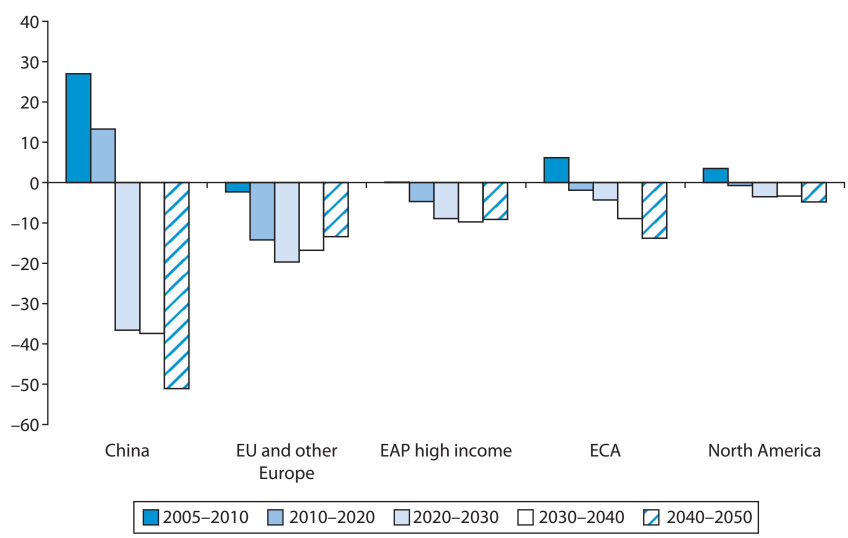
The high-income countries of EAP also face a sustained reduction in labor up until 2050.[3] The reduction will start between 2010 and 2020 and

Table 4.1. Projected Change in Labor Force, 2005–50, by Region
(in millions)

	2005–10	2010–20	2020–30	2030–40	2040–50	Total Change
Potential Demand Regions						
Change in total labor force	35	–9	–74	–76	–92	–216
China	27	13	–37	–37	–51	–85
EU and other Europe	–3	–14	–19	–17	–14	–67
East Asia and Pacific, high income	0	–5	–9	–10	–9	–33
Eastern and Central Europe and Central Asia	7	–2	–5	–9	–13	–22
North America	4	–1	–4	–3	–5	–9
Potential Supply Regions						
Change in labor force ages 15–39	111	185	126	96	52	570
Sub-Saharan Africa	31	72	78	79	69	328
South Asia excluding India	17	28	19	15	10	89
India	26	44	18	–2	–17	68
Middle East and North Africa	14	13	6	9	3	44
Latin America and Caribbean	12	15	6	0	–5	29
East Asia and Pacific excluding high income	11	13	0	–5	–8	12

Source: Koettl in background papers.

Figure 4.2. Change in Total Labor Force for Deficit Regions by Decade, 2005–50
(in millions, zero-migration variant)



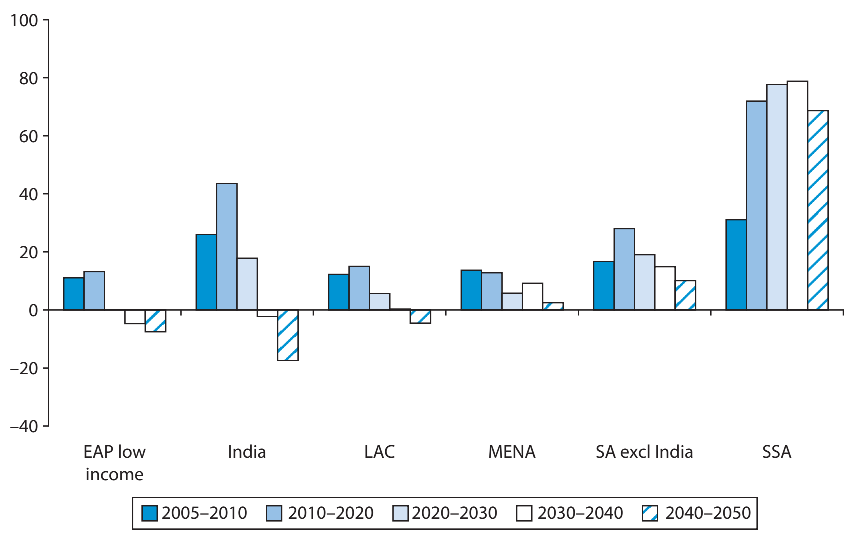
Source: Koettl in background papers.
Note: EU = European Union; EAP = East Asia and the Pacific; ECA = Europe and Central Asia.

will continue in the 2030s, with a loss of almost 10 million people in that decade. In total, the labor force is projected to decline by 33 million people by 2050.

In Canada and the United States, which have been traditional countries of immigration, the decline is more moderate, at about 9 million people occurring after 2010. North America appears to have a relatively stable labor force because of its relatively high fertility rate.

In contrast, other and generally poorer regions would have migrant labor to offer. Because of the nature of migration and the costs of uprooting individuals and workers, migrants are most likely to come from the pool of young workers, that is, those between the ages of 15 and 39. This group will be the largest in the countries of Sub-Saharan Africa, followed by South Asia and MENA (see figure 4.3). In Sub-Saharan Africa, in the next 45 years or so, the labor force in the age group 15–39 is projected to increase by a total of 328 million by 2050.[4] India and the other South Asian countries are projected to be the second-largest potential suppliers of migrant labor with, respectively, an increase of 68 million and 89 million people in the labor force between 15 and 39 years old. In the MENA Region, the increase in the labor force in the same age group is estimated to reach 44 million people, compared with 29 million in Latin America and the Caribbean (LAC), and 12 million in EAP. However, except in Sub-Saharan Africa, the supply of migrant labor will decline after 2020. Beyond 2030, India, EAP, and LAC will experience declining labor forces.

Figure 4.3. Change in Total Labor Force for Growing Regions by Decade, 2005–50
(in millions, zero-migration variant)

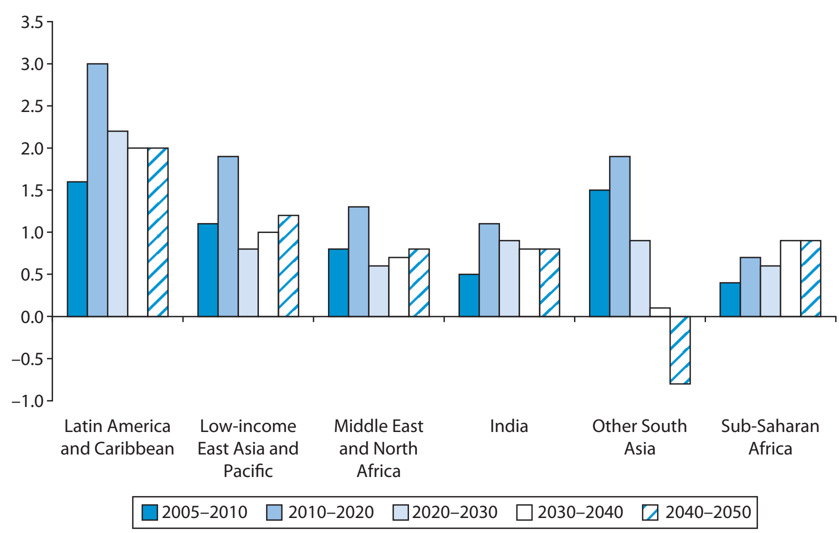


Source: Koettl in background papers.
Note: EAP = East Asia and the Pacific; ECA = Europe and Central Asia; LAC = Latin America and the Caribbean; MENA = Middle East and North Africa; SA = South Asia; SSA = Sub-Saharan Africa.

Given current immigration policies and economic and political circumstances, how many migrants would move from surplus to deficit countries? The above discussion highlights the diversity in demographic developments over the coming 40 to 50 years. As indicated in table 4.1, the decline in the labor force of population-shrinking regions is estimated at 216 million, whereas the increase in the labor force of population-growing regions would be 570 million. The change in the 15–39 age group cannot be seen as a potential supply of migrants in its entirety, because it is highly unlikely that all of the 570 million additional workers between 15 and 39 would be willing to migrate. It is useful to contrast these numbers with the number of migrants that would move from growing regions to deficit regions over the next 45 years, if current migration rates prevail in the future (status-quo scenario).

Under this status quo, only a tiny fraction, 32 million—or less than 6 percent of the additional workforce in surplus regions—would leave sending regions for deficit regions. The 32 million workers is a modest number, compared with the cumulative labor force deficit by 2050—some 215 million, half of which will materialize in Europe, North America, and high-income countries in East Asia. Figure 4.4 provides a breakdown of potential migrants from sending regions. Latin America would be the region with the highest potential migration, given its current high emigration rates to North America. Other regions with much higher population numbers have a lower migration potential because a low share of their total population currently emigrates.

Figure 4.4. Emigration of Labor Force Ages 15–39 by Sending Region at Current Emigration Rates, 2005–50, by Decade
(in millions)



Source: Koettl in background papers.

Population and Labor Force Dynamics in MENA[5]

Concentrating on the MENA Region and Europe, what demographics dynamics can be expected over time and what role could or would migration play? In addressing this question, it is important to recall that the MENA Region consists of both high immigration and high emigration countries. Emigration countries include Algeria, Djibouti, Egypt, the Islamic Republic of Iran, Iraq, Jordan, Lebanon, Morocco, the Syrian Arab Republic, Tunisia, West Bank and Gaza, and the Republic of Yemen. Immigration countries include Libya and the GCC countries, which have some of the highest shares of foreign migrants in the world. As seen in figure 2.2, a substantial part of migration from MENA countries, especially Egypt and the Mashreq, is actually directed to the MENA oil-producing countries.

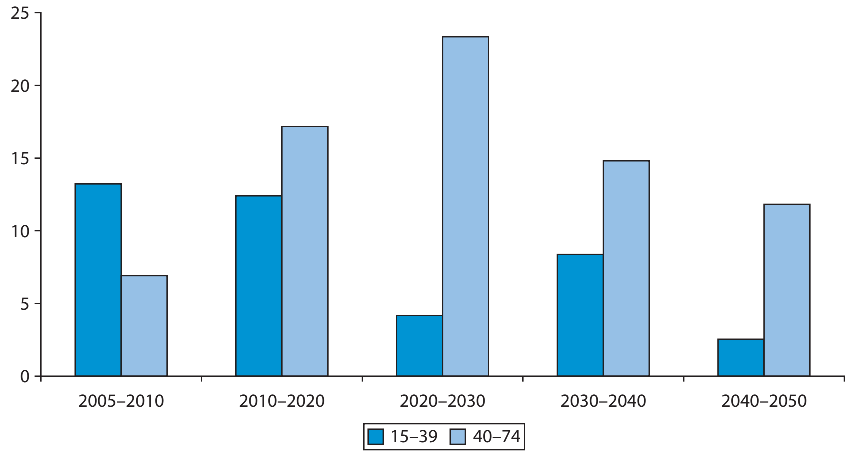
Working-age population growth is high now; over time, however, MENA emigration countries will have to face the problems associated with an aging workforce. Labor-abundant countries in MENA are facing high pressures on labor markets because of the demographic bulge caused by many young, new entrants on labor markets. However, as fertility rates continue to fall, this phenomenon will pass. By 2050, these young entrants will be retiring, and MENA emigration countries will confront the same difficulties that Europe faces today. The pool of potential migrants—the younger cohorts—is thus increasing at a slower rate over time.

In the absence of emigration, the population in MENA countries would increase by 80 percent between 2005 and 2050, and the labor force would approximately double over the same period. The total population of MENA emigration countries would increase from 301 million in 2005 to 537 million in 2050, or by 237 million people. The largest increase will occur in the 40–64 age group (108 million), followed by the over 65 age group (59 million), and the 25–39 age group (49 million).[6]

Labor force growth, however, is driven by assumptions on labor force participation rates as well as population growth. If participation rates stay at their 2010 levels until 2050 (Variant I scenario), the labor force of MENA emigration countries is projected to increase from 112 million in 2005 to 227 million in 2050. By far, the largest increases in the labor force will be in the 40–64 age group (63 million), followed by the 25–39 age group (37 million). By contrast the youngest age group (15–24) will increase by less than 4 million. Figure 4.5 provides a breakdown per period and age group.

Both MENA emigration and immigration countries will see sharp drops in the growth rate of younger cohorts. Overall, however, there are quite marked differences between the MENA emigration countries. The young labor forces in Iraq, West Bank and Gaza, and the Republic of Yemen are expected to double or more between 2005 and 2050, suggesting that they could be major suppliers of migrants over the foreseeable future. In contrast, countries like

Figure 4.5. Projected Change in Labor Force between 2005 and 2050 by Age Group for MENA Emigration Countries, Variant I
(in millions)



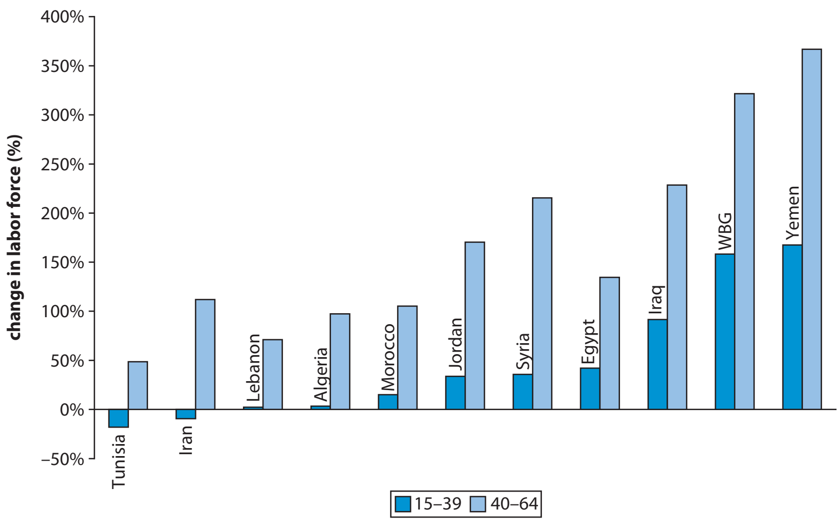
Source: Koettl in background papers.

Algeria, the Islamic Republic of Iran, Lebanon, and Tunisia will see a much faster transition to an aging labor force. These countries have invested in education and have relatively high rates of tertiary-level education, and therefore, their labor force may be relatively more attractive to other countries. As a result, they may make a parallel transition from emigration to immigration countries over time. The differential growth by age group is most visible in the labor forces of the Maghreb countries, the Islamic Republic of Iran, and Lebanon, where the net increase in the young labor force is negative or negligible (see figure 4.6).

Assuming instead that the participation rate profiles of the MENA emigration countries converge by 2050 to the average of the 2005 profiles of their EU-Mediterranean peers—namely, France, Greece, Italy, Portugal, and Spain (Variant II)—the increase in the labor force will stand at 126 million. Because of participation rate dynamics, the largest increase will then take place in the 25–39 age group, where participation rates will stand at 87 percent, compared with 72 percent in Variant I. Moreover, with convergence toward EU-Mediterranean labor force participation levels, the share of women in the total labor force would rise to 47 percent in 2050, compared with 32 percent under Variant I.

In the absence of migration, the population of MENA immigration countries in the Gulf will increase but also age rapidly. Trends in these countries are driven by the large stock of foreign population currently residing there (even if no further immigration is assumed under this scenario). The most important growth by far will take place in the population age 40 or above, and the 65-plus population will expand by 11 million people alone. These phenomena will

Figure 4.6. Projected Change in Labor Force between 2005 and 2050 by Country and Age Group for MENA Emigration Countries, Variant I



Source: Koettl in background papers.
Note: WBG = West Bank and Gaza.

carry over to labor force growth, which will increase by some 12 million people, or 70 percent. Three-quarters of this increase will come from the older age groups, however (see figure 4.7).

Moreover, labor force dynamics will differ significantly between countries. One set of countries—Bahrain, Kuwait, Qatar, and the United Arab Emirates—would face labor force reductions, whereas the labor force in Libya, Oman, and Saudi Arabia would more than double. But only in Oman and Saudi Arabia would the younger labor force increase significantly (see figure 4.8).

Would the growing labor force reduce demand for migration in GCC countries? The share of foreign population in GCC countries ranges from about 30 percent in Saudi Arabia to as much as 80 percent in the United Arab Emirates. In spite of a growing set of policies aimed at reducing immigration, the recent oil-fueled economic boom seems to have stimulated migration flows further, and the near-total segmentation of labor markets—foreigners in private sector jobs, nationals in public sector jobs—has made migrant labor a structural feature of GCC economies. Therefore, it is reasonable to believe that these countries will continue to demand foreign labor, whatever the underlying demographics.

At current participation rates and education levels,[7] MENA countries would offer large numbers of essentially low-skilled workers. Overall, by 2050, the increase in the labor force among the 15–39 age group, which has the largest potential to migrate, will stand at 41 million, if only emigration countries are included. However, the labor force is currently predominantly low skilled. If

Figure 4.7. Projected Change in Labor Force between 2005 and 2050 by Age Group for MENA Immigration Countries, Variant I
(in millions)

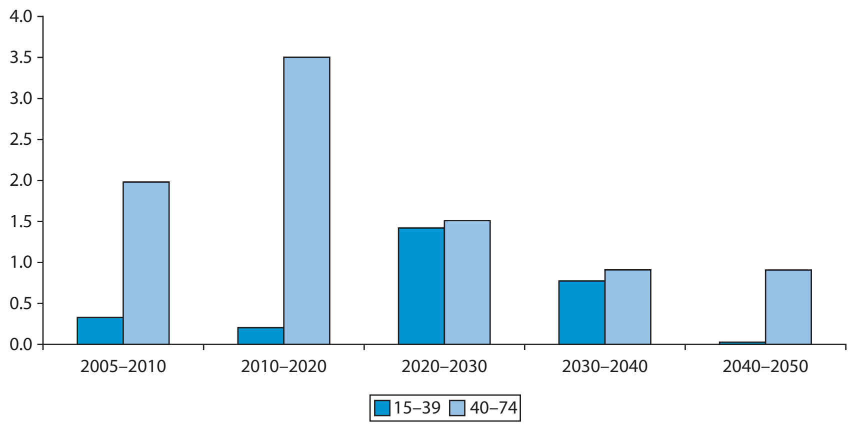
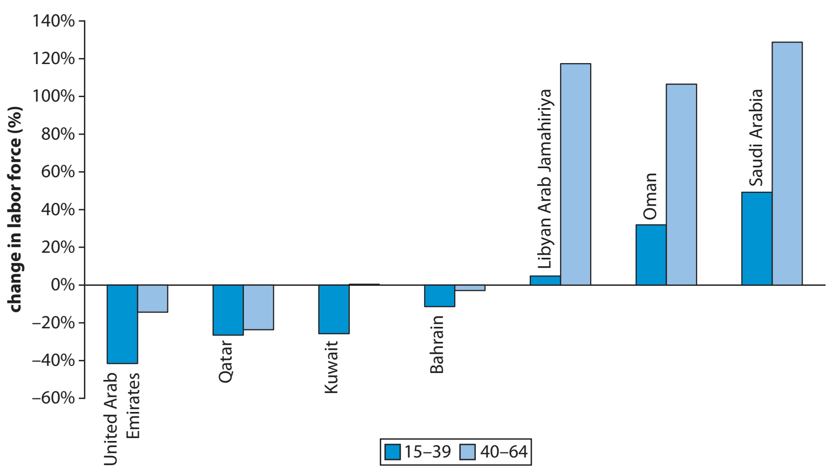


Figure 4.8. Projected Change in Labor Force between 2005 and 2050 by Country and Age Group for MENA Immigration Countries, Variant I



Source: Koettl in background papers.

these ratios do not change (and assuming constant labor force participation rates), the labor force under 40 years of age will mainly expand among those with primary education or less (25 million) and to a much lesser extent among the secondary educated (9 million) and the tertiary educated (7 million).

If their education profiles converged to EU-Mediterranean countries, MENA countries could offer a substantially more skilled workforce, however. Assuming constant participation rates, the low-skilled labor force would increase by 7 million people by 2020, but subsequently would shrink by

10 million plus during 2020–50. In contrast, by 2050, those at various levels of secondary schooling would increase by 30 million and people with some or full (complete) university education would increase by 13 million.

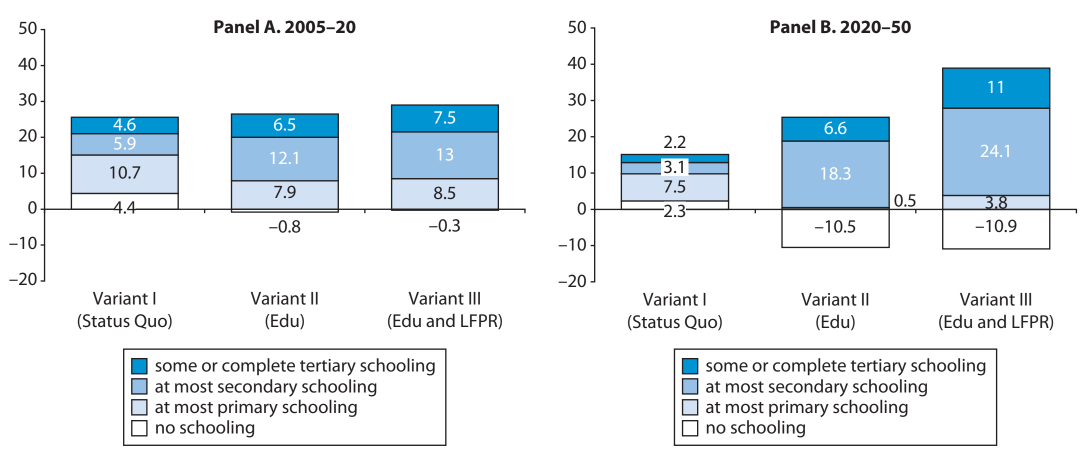
With both participation rates and education levels approaching the levels of their EU-Mediterranean peers, the labor force with secondary or tertiary levels of schooling would increase by 56 million people by 2050. Important changes will take place between now and 2020. Based on the last scenario, people who have completed more than primary schooling will have increased by 21 million by 2020. Figure 4.9 illustrates these three variants and shows that in the short run (up to 2020) the impact of education and labor force participation is relatively moderate but in the longer run (2020–50) policies could have a large impact on the education attainment of the labor force.

Population and Labor Force Dynamics in Europe

Between 2005 and 2050, in the absence of immigration, the population of EU-25+ is estimated to decrease significantly and become much older. The region's shrinking and aging population will impose new challenges on Europe's social protection systems, in particular, health care and pensions.[8] During the period, if no emigration occurs, Europe's overall population will be reduced by 57 million people from 472 million to 415 million. The largest drops will occur in the 25–39 age group between 2010 and 2030 (–20.4 million) and in the 40–64 age group between 2020 and 2050 (–42.9 million).[9] In consequence,

Figure 4.9. Evolution of MENA Labor Force (Ages 15–39) by Education Level under Different Scenarios,[a] 2005–20 and 2020–50

(in millions)



Source: Koettl in background papers.

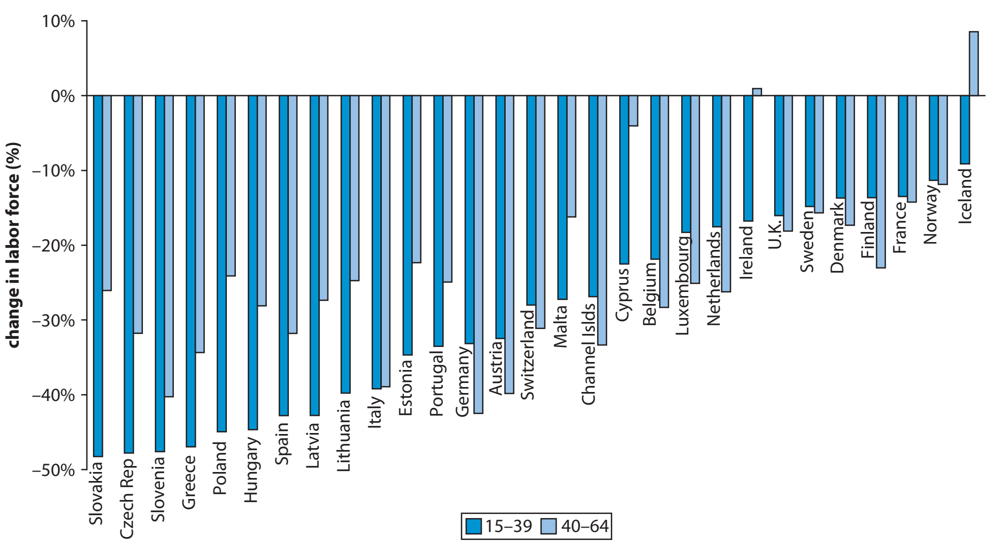
Note: a. Variant I: Unchanged education rates and labor force participation rates (LFPRs). Variant II: Unchanged LFPRs, education rates converging to France, Greece, Italy, Portugal, and Spain. Variant III: Both education rates and LFPRs converge to EU-Mediterranean peers.

and as noted above, between 2005 and 2050, the labor force in EU-25+ is expected to decline by 66 million people, if participation rates do not change. A large drop will occur already before 2020 for workers between the ages of 25 and 39 (–13 million people). After 2020, the largest drop will occur in the older age group, when the group of workers above 40 years old will fall by 30 million. These developments will raise the old-age dependency ratio[10] from 0.25 in 2005 to 0.55 in 2050 and increase the ratio of the nonactive population to the labor force from 1.08 to 1.59.

The most acute decline in the younger EU-25+ labor force would take place in the new accession countries and in the southern Mediterranean countries. Fertility rates in Europe vary from around 1.2 to 1.5 in the eastern, central, and southern European countries to 1.6 to 2.0 in the Benelux and northern European countries. As a result of these disparities, countries like Poland and Spain could lose almost half of their young labor force. In contrast, the Nordic countries, as well as France and the United Kingdom, would lose between 10 and 20 percent of their young (and old) labor force (see figure 4.10).

Policies to offset the decline in the labor force in Europe in the absence of immigration can have only a limited effect. In principle, and in the absence of extremely high productivity growth, Europe's shrinking and aging labor force phenomenon could be addressed through domestic labor market policies that have three different objectives: (i) to increase overall participation rates to significantly higher levels, comparable to those in other industrial countries like Switzerland, the United States, and the United Kingdom; (ii) to increase the

Figure 4.10. Projected Change in Labor Force between 2005 and 2050 by Country and Age Group for EU-25+, Variant I



Source: Koettl in background papers.

participation rate of women to levels comparable to those of men; and (iii) to increase the retirement age.

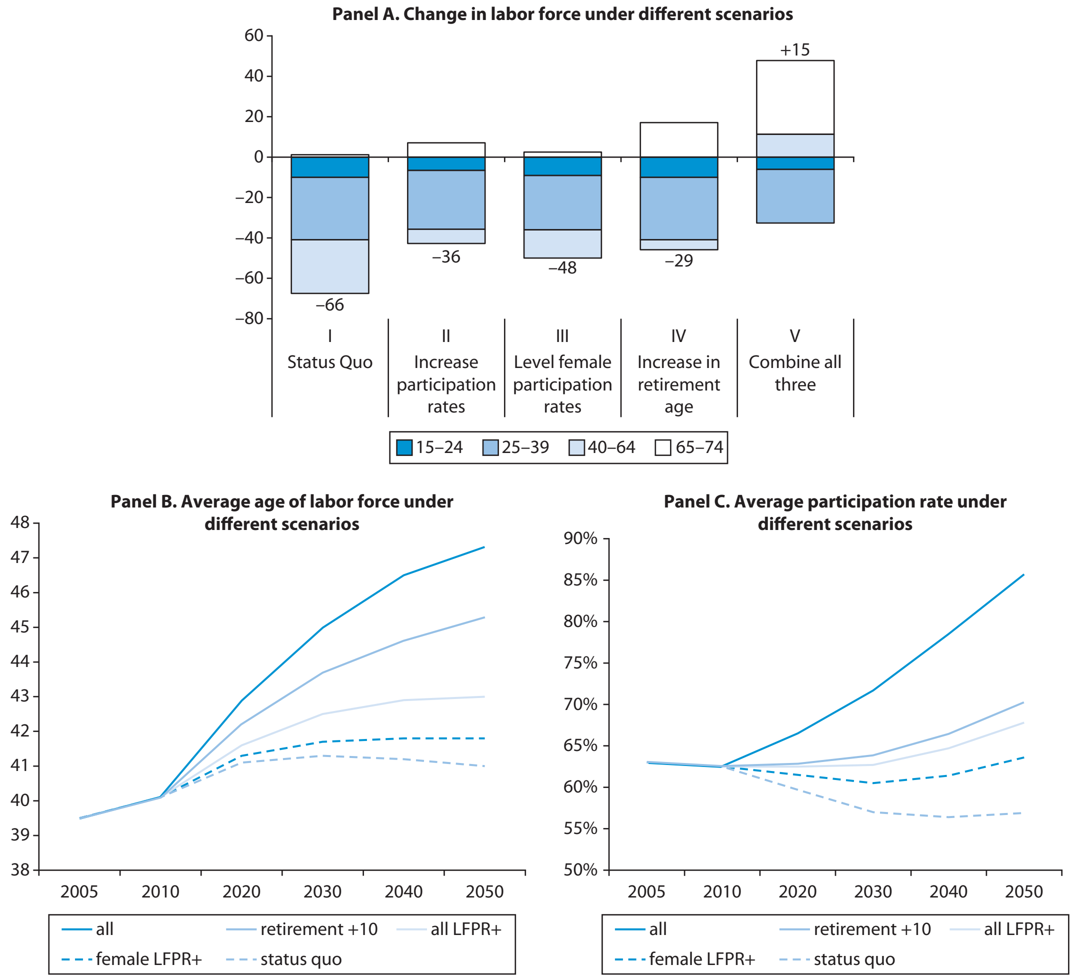
However, none of these policies could reverse the labor force decline entirely or its aging population. Figure 4.11 presents five scenarios for labor force development between 2005 and 2050. The first is the benchmark, status-quo scenario. The second assumes that labor force participation rates increase to significantly higher levels, comparable to those in Switzerland and the United Kingdom. The third scenario postulates that women's participation rates reach those of males in all age groups, while the fourth postulates an increase in the retirement age of 10 years. The fifth scenario combines the three previous policy measures. As seen, the labor force gap is not near to closing except in the last and highly unrealistic scenario, which would require dramatic increases in the already relatively high European participation rate, and which would result in a significantly higher average age in the European labor force.

Further caveats apply to these scenarios. None of these policies may be easy to implement for political economy reasons; increases in retirement age, in particular, have proven highly unpopular. Moreover, an increase in women's participation rates may increase demand for household and caring services, which would require more labor than the replacement estimates take into account—for example, the recent Spanish immigration boom has followed a remarkable increase in female participation rates.

Increased labor migration in Europe could help mitigate the age structure of the European labor force, but the window of opportunity for demographic arbitrage would most likely close after 2020. As a result of its aging labor force, Europe's greatest labor immigration needs will be for workers under the age of 40 up to the year 2025, and above the age of 40 thereafter. But because international migrants usually tend to be in the 25–39 age group, it is unlikely that Europe will be able to attract the older and more experienced workers who will be needed after 2020. If Europe has not been able to attract adequate labor migrants by 2020, it would probably be too late to stabilize its labor force; Europe's needs for experienced workers then would have to be accommodated through the immigration of younger and relatively inexperienced workers, leading to an overall younger labor force structure. The possibility for Europe to offset the decline in the labor force through increased immigration will exist mostly in the next 25 years.

Europe will need to replace young medium-skilled workers. Additional simulations, based on population and labor force data by education attainment, suggest that without labor immigration, Europe would lose a large number of primary and secondary educated people over the next 45 years (see figure 4.12). At current labor force participation and education attainment rates, the decline in secondary educated workers could reach 35 million by 2050. If education levels continue to rise, the European labor force would lose fewer tertiary-educated people, but the decline in primary- and

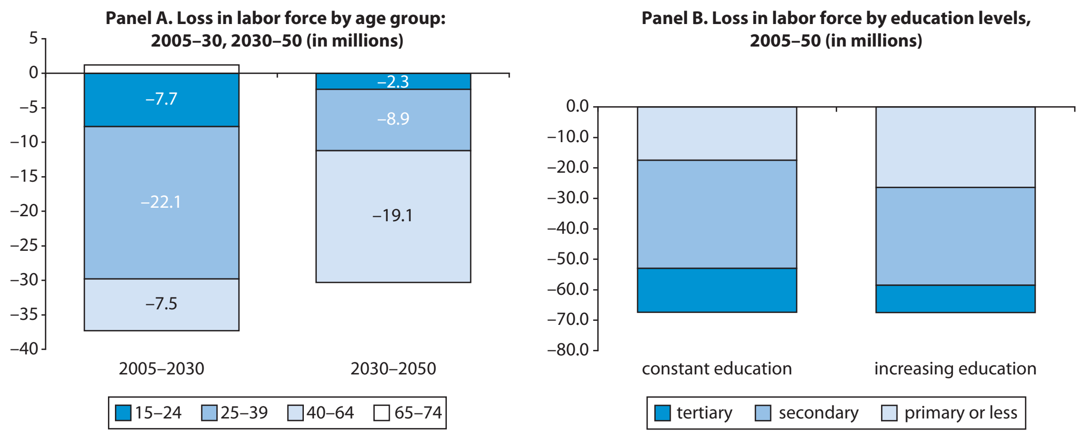
Figure 4.11. Go It Alone: Changes in Labor Force and Labor Force Average Age



Sources: UN 2005, ILO 1997, and author's calculations.
Note: LFPR = labor force participation rate.

secondary-educated people would remain dramatic. These results are consistent with the shorter-term projections undertaken for France, discussed above, which also show an important need to replace medium-skilled (and low-skilled) people who will retire. It is likely that the projected drop in primary- and secondary-educated workers will translate into greater needs for medium-skilled workers, usually who have completed their secondary education. In fact, most primary educated people in the current EU-25+ labor force are rather old and have either considerable job experience (counteracting low levels of education) and are retired or about to retire. Young people with little or no education therefore would not be suitable replacements.

Figure 4.12. Labor Force Decline by Age and Education Levels



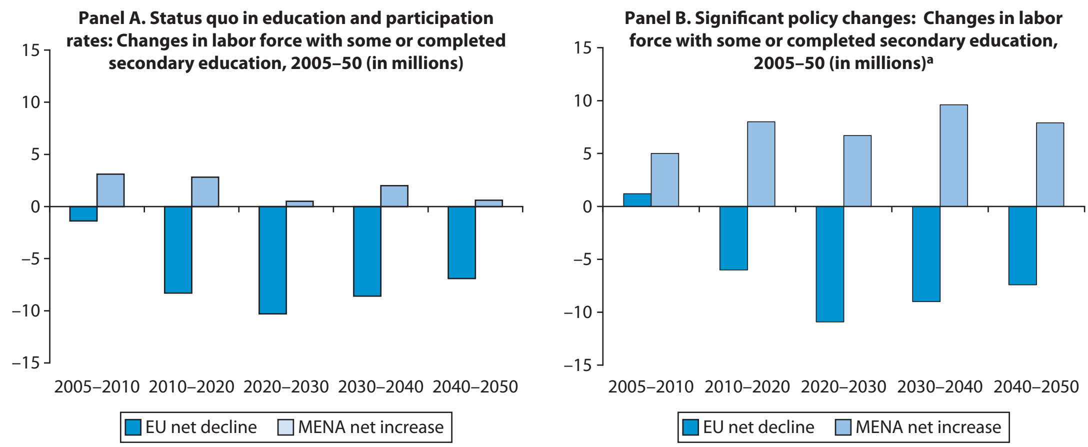
Source: Koettl in background papers.

But even France, the Nordic countries, and the Benelux countries will feel the pressures of declining labor force. The case of France puts the labor force decline in perspective. France is likely to face a much smaller decline in its labor force than, for example, Spain or the new accession countries. Fertility rates stand at almost 1.9, and in the absence of migration, the labor force would decline by about 13 percent by 2050, among the older and younger workers alike. Yet, these numbers translate into a net loss of some 80,000 people per year during the period. The retirement of baby boomers could open up some 750,000 new jobs per year over the period 2005–12—jobs that new entrants will not be able to fill in numbers.

MENA countries are currently not well placed to meet increased demand for labor in the European Union. Whether assuming zero migration or that current migration rates persist, the demand for replacement labor in the European countries is projected to cumulate in the 2020s. As discussed above, demand for replacement workers in European countries will predominantly concern medium-skilled workers who have completed their secondary education. Currently, however, workers from emigration countries in the MENA Region provide a poor match in relation to Europe's needs, as the 15–39 labor force mainly will expand among those who have completed their primary education. If education rates and labor force participation rates stay unchanged, the skill mismatch will become significant. This mismatch will be most apparent in the 2020s, when Europe's potential demand for secondary-educated migrants of roughly 10 million will coexist with a projected potential supply of labor migrant with secondary education of only 0.5 million in MENA.

If MENA's emigration countries make efforts to increase labor force participation and education rates significantly, the scope for arbitrage would be

Figure 4.13. Replacing People and Medium-Level Skills over Time: The Impact of Policy



Sources: UN 2005, ILO 1997, and authors' estimates.
Note: a. MENA matches current average education and participation rates in southern European countries; the European Union continues to increase levels of education.

much higher. Assuming, as in the scenarios presented earlier, that labor force participation rates and education rates can converge over time to the levels of the southern European countries, the match between MENA and the European Union would improve considerably (see figure 4.13). Between 2005 and 2030, the MENA emigration countries would produce a net increase of 20 million people with secondary education and 10 million people with tertiary education. This scenario's outcome will depend partly on the success in improving participation rates for women in MENA countries.

Notes

1. See Koettl in the background papers for details about the data and the methodology used for the demographic analysis.

2. The EU-25+ includes the 25 EU member states, except Bulgaria and Romania, and also includes the Channel Islands, Iceland, Norway, and Switzerland.

3. These are, among others, Australia; Hong Kong, China; Japan; the Republic of Korea; New Zealand; and Singapore.

4. There is considerable uncertainty, though, on the impact of HIV/AIDS on life expectancy in African countries.

5. While the population projections in this section come from the United Nations, the projections of labor force deficits and surpluses by age group, education, and skill level are based on Koettl's comprehensive work in the background papers.

6. The 25–39 age group is projected to increase significantly between 2005 and 2020 (more than 33 million), but will be rapidly declining from 2020 onward. Between 2020 and 2050, the 25–39 age group will increase by only 16 million. In the 2020s, this age group will decrease, but will return to a strong growth in the 2030s. The reason for this evolution is that the current strong youth cohort will produce a strong cohort of offspring.

7. See Koettl in the background papers, table A9, for the detailed figures.

8. Holzmann 2005.

9. These two age groups are part of the same cohort—the cohort following the baby boomers born in the 1950s and 1960s (the "demographic echo" of the baby boomers).

10. The old-age dependency ratio is the ratio of the over 65 age group to the 15–64 age group. The ratio gives the number of people of retirement age per person of working age.

5

A Conceptual Framework for Policy Makers

This study takes a global and regional approach to long-term migration and job mobility prospects. The objective is to draw attention to imbalances that will manifest themselves in the future often beyond the time horizon of today's policy makers. It argues that only if action is taken today can the potentially adverse impact of these imbalances be averted and can the opportunities they offer be seized.

The labor market impact of the demographic trends discussed in the preceding chapter is marked by two critical factors. First, tomorrow's demography is locked in today's demographic characteristics, in particular, fertility and life expectancy.[1] Hence policies to reverse those trends will take generations to achieve their objectives. Second, the quality of tomorrow's labor force will depend on today's reforms because it takes 15 to 20 or more years to educate a potentially skilled worker from childhood to adulthood.

As discussed above, large-scale global labor market imbalances may occur in the future, creating a strong impetus for migration flows. The shrinking of the labor force in deficit countries could exceed 200 million workers; but, on the basis of today's migration rates, only 32 million workers would be willing or able to move from sending to deficit countries to compensate for the decline. Hence only one in six of those retiring workers would be replaced. A sharp acceleration of global mobility to address the consequences of an aging population and low fertility in deficit countries is highly likely to occur, though not without consequences. This study and others like it argue that luck favors the prepared and that these forces are best met by active management. In particular, developed and developing countries stand to win from better-organized migration schemes, more opportunities for labor migration, and better matching of skill demand and supply. The stakes are high for both sending and receiving countries. In receiving countries, economic growth, fiscal balances, and the welfare of the elderly could be affected severely by sharp declines in the size of their active populations or by critical skill shortages. In sending countries, migration flows need to be *managed* to avoid severe "brain" or "hand drains" and related labor shortages.[2]

This chapter synthesizes lessons on migration policies, both in receiving and sending countries, within and outside the MENA Region. Although these policy conclusions serve as pointers, differences in endowments, challenges, and priorities preclude a *one-size-fits-all* policy approach. Migration needs to be streamlined into a diverse array of policy areas, including economic management, banking and finance, and education and social protection. Rather than deriving policy *prescriptions*, the second section of the chapter draws from the analysis of common conditions in sending and receiving countries to provide policy makers with a framework for action. The framework, it is hoped, would help map out country-specific situations and challenges, explore strategic options, and establish a policy road map.

Policies and Practices Affecting Labor Migration Outcomes

A wide range of public and private institutions in both sending and receiving countries are instrumental in structuring migration flows, reducing potential demographic and labor market imbalances, and influencing migrants' social and economic experiences in host countries—in short, arriving at a win-win-win situation. The institutional framework for labor migration not only encompasses immigration policies and regulations, but also economic integration policies, emigration policies, education systems, overall employment and social protection policy, and migrant networks. Each of these components serves in a particular context. Their influence may vary across countries and over time, and what works well in one country may not do so in another. Nevertheless, it is useful to identify what good practices exist and what lessons may be distilled and generalized. This section focuses on the programs and measures that are particularly important for the management of labor migration and the reduction of labor market imbalances.

Good Practices in Labor Migration Policies in OECD Host Countries

Labor immigration policies: traditional and new immigration countries. Given the wide range of immigration policies that exist in member countries of the Organisation for Economic Co-operation and Development (OECD), it is essential to distinguish among various types of migration, that is (i) according to the intended duration of stay (temporary, transitional, or permanent);[3] (ii) according to main motivation (humanitarian, family reunification, or economic migration); and (iii) along legal status (legal residence, with or without a work permit, and undocumented migration). Usually, immigration programs in OECD countries are intended for labor migrants, family reunion, and asylum seekers. In contrast to economic migration programs, family reunification and humanitarian migration schemes involve human rights–based considerations. Permanent immigration programs are specific to traditional immigration countries (TICs), such as Australia, Canada, and the United States, and have to be considered in their historical context as a tool for nation building. Other elements of immigration policies include discretionary immigration and regularization (annex table A4).

In contrast with TICs, family reunification or formation has been the driving force of most European countries' immigration policies. Family reunification programs play an important role in OECD immigration policies not only from a human rights perspective but also for the integration of migrants into host countries. It is, among other things, close to a prerequisite for attracting high-skilled labor. Family reunification has become so important in European countries that economic migration is no longer the most frequently cited reason for migration.

European immigration policies have so far resulted in mainly low-skilled migration. Based on 2000 data, the EU-25+ countries host about 6.4 million primary-educated migrants, out of a total of 13 million (that is, 49 percent of the EU-25+ migrant population originating from outside the EU-25+ have primary education, while only 25 percent have secondary education, and 21 percent have tertiary education).[4] The TICs, on the other hand, have much higher shares of secondary- and tertiary-educated migrants. In Australia, New Zealand, and the United States, tertiary-educated migrants represent around 40 percent and almost 60 percent in Canada. Accordingly, their shares of primary educated migrants are relatively low (16 to 30 percent). The share of secondary-educated migrants is somewhat wider, going from only 12 percent in Canada to 35 percent in the United States (see table 5.1). All of these countries apply "points system" to screen migrants (see box 5.1).

Labor migration programs can be differentiated according to their selection criteria. International experience shows that each method for choosing migrants will have a set of issues and problems. From this perspective, table 5.2 summarizes the two main forms of programs in place and their respective advantages and disadvantages.

Demand-driven programs are most responsive to the needs of host country labor markets. Future job shortages are subject to great uncertainty; the structure of economic growth and other factors, including intra-OECD migration, ultimately will form the basis for labor demand. Demand-driven programs offer the most flexible means of responding to real-time demand as it occurs in the economy, and require less government planning capacity, as they transfer the administrative burden to employers. The U.K. Work Permits Program,

Table 5.1. Education Attainment of Migrant Populations by Hosting and Sending Region, 2000
(percent)

		Migrant Population Shares by Education Attainment				
Hosting Region	Sending Region	Primary	Secondary	Tertiary	Unknown	Total
Australia	All (except New Zealand)	25.5	32.1	42.5	0.0	100.0
Australia	MENA emigration countries	32.1	25.9	42.0	0.0	100.0
Canada	All	29.6	11.6	58.8	0.0	100.0
Canada	MENA emigration countries	19.3	12.1	68.6	0.0	100.0
EU-25+	All (excluding EU-25+)	49.1	24.7	21.3	4.9	100.0
EU-25+	MENA emigration countries	64.3	16.6	16.8	2.3	100.0
EU-25+	United States	17.5	23.9	57.0	1.5	100.0
New Zealand	All (excluding Australia)	15.6	29.8	38.5	16.1	100.0
New Zealand	MENA emigration countries	11.9	27.9	45.8	14.5	100.0
United States	All	23.1	34.5	42.5	0.0	100.0
United States	MENA emigration countries	9.6	26.4	64.0	0.0	100.0
United States	Central America	45.7	38.2	16.1	0.0	100.0
United States	EU-25+	12.6	37.1	50.3	0.0	100.0

Source: Koettl in background papers.

Box 5.1. Points Systems

Points systems evaluate migrants according to predefined criteria and then select applicants according to their score. This helps make the selection transparent by defining objective criteria on which migrants are evaluated up front. Currently, Australia, Canada, and New Zealand apply a points system for permanent immigration, but the Czech Republic and the United Kingdom apply a similar system, conditioned only on the fact that applicants have to find employment within a year. Points systems can contain a demand-driven component by granting additional points for an existing job offer.

Canada was the first country to develop a points system as part of its employment-based immigration program. The criteria for admission focus on objectively measurable qualifications like education, language skills, work experience, past earnings, and age. The program is clearly skewed toward highly skilled migrants and does not specifically take into account labor market needs for low-skilled migrants; as a result, many high-skilled migrants fill lower-skilled jobs.

In the United Kingdom, the Highly Skilled Migration Programme (HSMP) makes use of a points system and allows migrants who pass the evaluation to enter the country and look for employment for up to one year. Applicants have to prove that they are willing to pursue a professional career in the United Kingdom. Points are awarded according to education, work experience, past earnings, and language skills. Additional points are awarded to those age 28 or younger, have a master of business administration degree, are general practitioners, or bring along a highly skilled spouse. Between 2002 and mid-2003 the program received almost 5,000 applications, 60 percent of whom have been accepted. After having found work within the initial one-year period, migrants are granted an additional three-year work permit, after which they can apply for permanent settlement.

(Box continues on the following page.)

Box 5.1. (*continued*)

The United States does not have a points system, but the Employment Preference component of its permanent immigration program enables priority workers and skilled and low-skilled shortage workers, as well as investors with the intention to invest large amounts of money, to apply for green cards and hence permanent residency and full access to the labor market.

These programs hinge on the ability to adjust quickly to changing labor market conditions. These adjustments have to be administered by governments and advisory bodies that are able to identify objectively future labor and skills shortages.

Source: Koettl in background papers.

Table 5.2. Migration Programs and Selection Method: Pros and Cons

Type	Advantages	Disadvantages
Demand driven/ Decentralized	+ Plugged into the economy, linked to labor demand + Flexibility + Employer pays administrative cost	– Monitoring and enforcement costs (labor market testing) – Matching process
Planned/Centralized (points systems, manpower planning)	+ Less monitoring costs	– Government capacity to project labor demand – Administrative cost on taxpayers – Vulnerable to lobbying

for example, can issue a visa and a work permit within 24 hours after the employer's request—given that the employer provides adequate documentation. Similarly, the U.S. H1-B visa procedure is initiated and sponsored by the employer for a specific migrant, although the procedures and costs are far more burdensome for the employer.

On the other hand, demand-driven programs require more resources to monitor compliance and enforcement efforts by the government. Demand-driven programs generally tie specific workers to specific employers with no transferability of the migrant worker to other employers. As such, they weaken the position of workers regarding employers and inadvertently could result in abuse. Moreover, they generally are conditioned on skills shortage—that is, the employer has to prove, sometimes through cumbersome and lengthy procedures, that no native worker could fill the job. Another challenge concerns the matching process. Usually, the employer initiates the request for entry visa and work permission, either for a specific migrant known to the employer, a migrant the employer has found through a recruitment agency in the sending country, or a migrant the employer found through an electronic database. So far, however, country experiences with electronic databases to support the matching process between potential migrants and employers have produced mixed results.[5]

The main problem associated with electronic databases seems to be the uncertainty of the qualifications of the potential migrant. Obviously, the higher the required qualifications, the less willing the employer is to hire a migrant without additional information obtained though some personal contact.

State-planned programs for permanent immigration, such as the Canadian points system (see box 5.1), tend to be less flexible and require more capacity from the government with regard to research and planning to determine labor market needs, and to administer the selection process.[6] When selection criteria are controlled by the government, lobbyists could distort decisions. Granting additional points to migrants with an existing job offer, as the Australian system does, may improve the outcome but the main charge remains with the government.

Demand-driven immigration programs have been designed for temporary and transitional migrants. Demand-driven immigration programs for *temporary migrants* are aimed at sectors with seasonal work requirements. In contrast, demand-driven *transitional migrant* programs filter successful migrants by granting migrants, first, a temporary residence and work permission, but subsequently offering a clear option for permanent residence and work permission in the long run. The original entry permission is granted for education, business, or work reasons and offers a clear avenue for migrants to permanent residency and, ultimately, citizenship. Such programs acknowledge the fact that migrants who fill inherently permanent jobs will be willing to stay in their job, and that employers are willing to keep the migrants in their positions.

Demand-driven temporary migration programs that offer inherently temporary jobs to migrants who have no intention to stay over the long term reduce the risk of mismatch. Most OECD countries successfully run seasonal migrant worker programs for the agricultural and tourism sectors.[7] Since the position filled by the migrant essentially disappears at the end of the season, migrants have no incentives to overstay their visas to continue their job, nor do employers have incentives to keep migrants in their position. Moreover, experience shows that many of these agreements work well because they aim primarily at a segment of the labor market in the host country that does not compete much with the native labor force: many of the jobs in the agricultural and tourism sectors are considered underpaid by the native labor force. But temporary migration can work in settings other than seasonal programs. A concrete example is the German-Polish bilateral agreement, which allows German companies to subcontract certain services to Polish companies, especially in the construction sector. The Polish workers who come to Germany have low incentives to overstay their jobs as their jobs remain with the Polish firm (see box 5.2). Caretaker and personal services might be another sector in which such temporary migration schemes could be developed and lead to a formalization of an important share of the informal sector.

Box 5.2. The Management of Temporary Migration Flows: The German-Polish Contract Agreement and the Spanish Agricultural Laborer Agreement

The German-Polish bilateral workers agreement allows German companies to subcontract certain services to Polish companies. This agreement, which falls under the so called GATS, Mode 4, applies, for example, to the construction, restoration, installation, power, and steel-processing activities. Polish workers coming to Germany to work there as employees of the Polish company receive German wages, but pay Polish social security contributions. The German company benefits form the lower Polish social security contributions, but the migrant worker remains tied to the Polish company at home, and also keeps social security coverage at home. Hence, the migrant worker remains fundamentally rooted in the Polish labor market and has no viable option of receiving legal employment in Germany.

Such agreements seem to work particularly well in sectors with highly competitive goods markets, that is, sectors that are under high price pressures. Typically, these sectors display high levels of informal employment of native and foreign workers, because the high price pressure translates into pressures to reduce labor costs. Hence, such agreements might be especially effective to curtail undocumented migration, as undocumented migrants clearly are related to sectors with high informal employment. In this context, additional policies with indirect effects on migration, like labor market policies and trade policies, might also be of great importance.

Spain runs a pilot project involving Moroccan workers and focusing on seasonal employment in agriculture and tourism. Contracts are drawn up before the migration episode and travel is organized. By concentrating on hiring women, often with families at home, the project is designed to ensure voluntary and timely return.

These kinds of systems of temporary or "circular" migration rely, however, on the presumption that it is acceptable to have migrants who do not integrate. Workers who do not bring over their families and who work in specific migrant-intensive sectors in specific migrant-intensive areas cannot be expected to invest in the social and economic connections needed to become a part of their host countries.

Sources: Koettl in background papers; *The Economist* 2008.

When temporary migrants are placed in inherently permanent jobs, both the employer and the migrant have incentives to extend the original work contract to a more permanent arrangement. The employer wishes to reap the benefits of on-the-job training and other human capital investments made in the migrant worker. The migrant generally would benefit from extending the employment and would continue to earn the premium over home country salaries. The European guest-worker programs in the 1960s offer a concrete example of this: although all three actors—employers, migrants, and the government—remained committed to the idea of temporary migration or "the illusion of return," in the end, all three collaborated in the transition to permanent immigration. The imposition of reentry barriers, limiting the possibility for guest workers to return home to visit their families for extended periods of time and then return to their European jobs, may have been an important driver for guest workers to settle as permanent migrants and bring their families to Europe instead.

Demand-driven immigration programs for transitional migrants may be more successful if they lead to the receipt of permanent work permits, reduce migrants' dependency on their initial employer, and give migrants full access to the labor market and social protection after some time. Such programs identify adequate migrants by first granting temporary residence and work permits. If migrants in permanent jobs are allowed to stay for a longer time in the host country, they as well as employers have the incentive to invest in training and reduce search, hiring, and firing costs; migrants have stronger incentives to integrate into host societies. This minimizes dependence on the initial employer and by consequence reduces the scope for abuse. Three types of transitional migration programs have been developed in OECD countries: (i) education-to-residency, (ii) business-to-residency, and (iii) work-to-residency.

Examples of *education-to-residency* transitional programs include Australian student visas and U.S. F-1 visas. In the United States, the student visa offers an optional practical training visa after the completion of university studies, which then typically leads to an H1-B work visa. This program has been effective in attracting highly educated migrants to the U.S. labor market and identifies successful settlers. Meanwhile, the cost of the education investment may be shared by home and host country. There is also some evidence from Canada that the education received in the host country increases the value of the education received at home, thereby reducing the brain waste.[8] In contrast, a program like the Korea Traineeship Program used migrants to fill permanent jobs in the small and medium enterprise (SME) sector without offering a path to residency. The intention was to offer a competitive advantage to smaller firms (through cheaper labor), but the result was a massive informalization of migrant workers over time.

Examples of *business-to-residency* transitional programs include the U.S. E-1 program, the North American Free Trade Agreement, the U.S.-Canada Free Trade Agreement (the so-called treaty traders), and the U.S. B-1 program. These programs allow investors, especially from countries with which the United States has free trade agreements, to engage in business in the United States and subsequently to apply for a green card.

Finally, *work-to-residency* programs allow workers to obtain a temporary work permit, usually tied to a particular employer or sector, and subsequently obtain a permanent residence and work permit. The U.S. H1-B program is one such program, allowing high- and semi-skilled migrants in to fill shortages in the U.S. labor markets over the last decade, with an annual quota of about 85,000. The program allows explicitly for so-called dual intent, whereby the migrant does not have to prove plans to return to the home country after the expiration of the visa. However, the U.S. employer has to prove that no equally qualified U.S. citizens are willing to take the job at prevailing wages, which sometimes requires considerable time and effort to show. In addition, the employer sponsors the migrant's visa, and moving jobs requires moving the sponsorship, which tends to tie the migrant to the employer and increases the potential for abuse.

The U.K. General Work Permit Scheme is similar to the U.S. program. Work permits are processed within at most one to two weeks. Employers have to prove that they were unable to fill the post with native workers, but some key priority sectors or skill categories with identified labor shortages require no such evidence (currently health care, education, actuaries, engineers). A less successful example of a transitional work-to-residency program is the German Green Card Program. The program was launched right after the burst of the IT bubble and aimed to fill a quota of 20,000 IT experts, mostly from India. However, the program did not offer any option to extend the original work permit of five years to a permanent residency. As a result, the quota was not filled, and it was mainly used by eastern European IT experts instead of Indians.

Economic integration policies. Integration of migrants into the economic and social fabric of host countries is at the core of the debate on migration. Economic integration counteracts competition between migrants and natives and helps migrants contribute to the welfare state rather than burden it. Social assimilation helps migrants to gain social capital and enhance cultural and language skills, all of which should help them improve their labor market performance and be viewed more favorably in host countries. Data from the European Community Household Panel suggest that the economic performance of migrants depends on the duration of stay; differences between natives and migrants diminish over time.

OECD countries have developed different integration programs to improve migrants' labor market outcomes. Approaches to the integration of minority populations have varied across countries, focusing on assimilation (France), the development of multiculturalism (Sweden), and the acknowledgment of the particular characteristics of migrant population (the Netherlands). While these approaches have translated into country-specific economic integration programs, today most OECD countries have developed a mix of active labor market programs opened to the population as a whole regardless of ethnic status, in the spirit of the integration model, as well as specific programs targeted toward minority groups, recognizing their special needs.[9] Some governments in host countries have supported a number of migrant associations that provide education and social services to their members. Besides this formal support by governments, migrant Diasporas have been able to mobilize large private networks to help newcomers to find jobs.

Programs to facilitate the economic integration of migrants usually cover a combination of language training and education, skills training, and antidiscrimination measures. Language abilities are seen as a key element for a successful integration in most OECD countries. Successful language training programs are those that link language training to employment experience, education, and skills upgrading.[10] In Canada, the Language Instruction for Newcomers offers free language training courses to adult permanent residents. To encourage women to participate in language class, some of the training centers also offer free child care. In France, specific measures for immigrant children who speak little French and special training and information centers dealing with the education of immigrant children who recently arrived in France have been established by the Ministry of Education. Similarly, the German government's Agency for Migration and Refugees has been asked to provide integration and orientation courses with language training and civic and history instruction. The courses are compulsory for newcomers without knowledge of German and are open to immigrants who have been in Germany for several years. In Sweden, the approach to language instruction has been slightly different: bilingualism is strongly promoted and the children of immigrants are entitled to study their mother tongue as well as Swedish.

Many OECD countries have developed active labor market programs to facilitate the matching process in the labor market. These programs are generally more effective when they are well targeted and tailored to the needs of specific groups. In France, for instance, a number of initiatives have been developed to facilitate the access to employment of disadvantaged groups. These programs are not specifically directed to migrants, but migrants who are overrepresented among the low-skilled unemployed have benefited significantly from these measures. Similarly, in Germany a number of important training programs are open to all residents. The German federal government has developed specific vocational training programs for immigrant children.

Antidiscrimination legislation is another key area in which many OECD countries have made progress to improve the economic integration of migrants. Comprehensive antidiscrimination legislation and antidiscrimination provisions incorporated into labor legislation are believed to be the most effective ways to combat discrimination at the workplace.[11] The United Kingdom and the Netherlands, for instance, have a well-established set of policies and institutions to address ethnic and racial discrimination, particularly in the workplace. In France, the government passed an antidiscrimination bill in 2001 that specifically addresses discrimination in employment and amends several provisions of the labor code; the legislation was updated after the 2005 riots.

Social protection policies. Social protection policies play an important role for the integration of migrants in host countries and for their decision to return or to stay. In fact, migrants may prolong their stay because pensions or health benefits accumulated through the migration episode will not be available when they leave, and they have not accumulated the corresponding benefits at home. Generally, legal migrants have reasonable access to social services in Europe. The bilateral EU-Mediterranean Agreements ensure portability of social security arrangements between the European Union and Algeria, Morocco, and Tunisia. However, other MENA migrants are not covered in similar arrangements, and importantly, the portability of health care benefits is not included in these agreements. *Undocumented* migrants have varying degrees of access to basic health services and no access to pensions or other forms of social services. Therefore, this following section focuses on *legal* migrants.

Newly arrived migrants—like natives who have just entered the labor market—are excluded from some forms of social assistance because of minimum time contribution requirements. Some social services—unemployment benefits, public housing—require some length of contribution or presence in the country before becoming accessible, that is, newly arrived migrants are more vulnerable to exclusion from these forms of assistance. This exclusion is not necessarily an issue of discrimination, as natives, too, generally accumulate benefits like unemployment insurance over time.

Pension contribution totalization is necessary to ensure full portability of old-age protection. Old-age pensions are usually exportable. However, in the absence of bilateral agreements that ensure portability, migrants who return home before having worked long enough to qualify for old-age pension (15 years in Europe, usually) would lose all their benefits. These migrants fall between two systems, as they will not have contributed to any scheme at home. This situation calls for a totalization of contributions (combining the working years and contributions) to count toward one benefit, paid pro rata by each country. Alternatively, migrant workers can receive a lump-sum payment reflecting contributions, upon return.

Health care benefits are exportable only to a limited extent. Only a few bilateral social security agreements (Germany and Morocco) include provisions for portability—they are not included in the EU-Mediterranean Agreements. Normally, a returned migrant would qualify for health insurance and benefits once he or she becomes employed in the home country. Retired migrants, however, may need to rely solely on private health care. Often, host country social security programs pay health care expenses abroad, as they would for any resident on holiday; however, reimbursement may reflect the cost structures at home and may not cover the actual expenses in home countries, thereby exposing the migrant to higher costs. Portability would in fact open up a cross-border trade in health services.

The lack of portability creates distortions, for example, in the form of higher informality as migrants have no incentive to contribute to social security. It also shifts around the fiscal burden of social security unequally. Returned migrants may benefit from emergency assistance and may receive means-tested social assistance or pensions, without having contributed to the system during their working years.

Labor Migration Policies in MENA Sending Countries

Governments in MENA countries are increasingly paying attention to emigration flows and the legal environment for labor migration. The efficient management of migration flows is gaining priority in the international agenda, both for receiving and sending countries. For example, the management of migration flows was mentioned in the objectives of the Barcelona Process creating a free EU-Mediterranean trade zone. This objective is mentioned in the new Neighborhood Policy of the European Union and represents an important challenge for several countries in MENA. The Moroccan government has created a special Ministry for Moroccans Abroad, seeking to review many of the issues in this area.

An important step to improve the management of migration flows has been the conclusion of bilateral agreements between a number of MENA sending countries and the countries of destination. Particular efforts have been devoted by Egypt, Morocco, and Tunisia to regulate and monitor the movements of workers and migrants, especially because these countries are also receiving a large number of irregular immigrants and asylum seekers. With respect to labor migration, the conclusion of bilateral agreements by many countries in the region has been instrumental in supporting the rights of migrant workers and defining legal channels of cooperation between host and home country authorities and specialized agencies, in particular in the area of labor migrant quotas, tax regimes, and social security arrangements (see annex table A5 for an overview of bilateral agreements).

By and large, only limited efforts are devoted to the training, orientation, and counseling of potential labor migrants. In contrast with countries like the Philippines, which have promoted emigration through several institutions (see box 5.3), no countries in MENA have developed comprehensive programs and policies to facilitate the process of matching their workers' interests and foreign labor market needs. The number of public employment agencies in the region dealing with job vacancies abroad is limited. Private recruitment agencies exist, but they work mostly with member countries of the Gulf Cooperation Council (GCC) and do not provide orientation sessions or predeparture training. The practices of these private agencies in MENA countries have been criticized and many of them seem to operate outside labor legislation and international conventions.[12] Again, this is in contrast with the Philippines' system of formal accreditation.

Box 5.3. The Philippines Labor Emigration "Know-How"

In 2006, overseas Filipinos—be they temporary workers, permanent emigrants, or irregular migrants—made up an estimated 8.2 million people, or one-quarter, of the total labor force. As in the case of many MENA countries, high emigration flows are partly explained by slow domestic growth and endemic unemployment problems, especially among the young and uneducated. The number of migrant workers has increased almost 25-fold over the past 20 years. However, as the major organized labor exporting country in the world, the Philippines has been able to reap significant benefits by responding and adjusting to global labor market demands. Importantly, the protection of workers and their families abroad has become a centerpiece of the institutional framework. As of the mid-1980s, Filipino migration increased exponentially. The takeoff was mostly due to demand for service workers, especially in household and other private services, as well as production process workers, transport equipment operators, and laborers. There has been a continued demand for professionals (including nurses) and technical and related workers. Because of the focus on private services, female workers now make up half of all Filipino temporary migrants.

In the early 1980s, the government established the Philippines Overseas Employment Administration (POEA) "to ensure decent and productive employment for Overseas Filipino workers," and the Overseas Workers Welfare Administration (OWWA). Their role was reinforced in the mid-1990s with the Migrant Workers and Overseas Filipino Act, stating that—

> *The existence of the overseas employment program rests solely on the assurance that the dignity and fundamental human rights and freedom of the Filipino citizen shall not, at any time, be compromised or violated.*

The POEA is responsible for managing the recruitment of Filipino workers and their deployment overseas. Because of the large number of demands for workers, the government licensed more than 1,000 Philippines-based agencies to recruit workers for companies in Saudi Arabia, Kuwait, and many other countries. Whether these workers are recruited by private agencies or by the government agency (POEA), workers as well as recruiters are subject to contracts enforceable under Philippine law.

The OWWA is responsible for ensuring workers welfare while they are employed abroad. Official migrants receive a number of benefits: premigration training on social and work conditions abroad; life insurance and pension plans; medical insurance; financial assistance before, during, and after the migration episode; tuition assistance for the migrant and his or her family; and paralegal services abroad. Registration for these benefits is administrated by the OWWA and costs less than US$25 per migrant per year. Repatriation assistance, whether resulting from forced or voluntary return, remains the most important program of the OWWA, however. OWWA negotiates with employers or brokers, facilitates documentary requirements and clearances, and coordinates with Philippines embassies and other agencies as necessary to speed up return. The OWWA registration card can serve as an identification and automated teller machine card abroad.

A separate agency, the Commission on Filipinos Overseas (CFO), created in 1980, provides programs and services to permanent emigrants. CFO was transferred from the Ministry of Foreign Affairs to the Office of the President in 2004. The Commission

(*Box continues on the following page.*)

Box 5.3. (*continued*)

"provides assistance to the President and the Congress of the Philippines in the formulation of policies and measures concerning or affecting Filipinos overseas." The Commission is responsible for "preserving and enhancing the social, economic and cultural ties of Filipinos overseas with the motherland." Moreover, the Commission maintains a databank on Filipino migration to provide relevant and accurate data and information for policy formulation. The CFO provides technical and secretariat support to various interagency committees related to migration.

Sources: Koettl in background papers; Agunias and Ruiz 2007.

Some new initiatives are now being launched in the region, and it will be important to evaluate their impact.

Many countries in the region are attempting to adapt their migration management institutions, programs, and instruments in a variety of ways. Over the years, Tunisia, for example has established a number of institutions and programs for the management of labor migration flows. The Ministry of Labor has developed, with the support of the International Organization for Migration (IOM), initiatives to facilitate the social and economic integration of potential emigrants. These initiatives include the organization of training for trainers in job and cultural counseling, and the strengthening of institutional capacity for monitoring of labor migration. The *Office des Tunisiens à l'Etranger* (OTE) provides social services targeted at migrants and returned migrants. An *Agence Tunisienne de Coopération Technique* (ATCT) collects data on international job vacancies, selects national candidates, prepares contracts, and organizes training for labor emigrants. In Jordan, the Ministry of Labor is similarly in charge of issuing licenses to private employment agencies whose aim is to identify job opportunities abroad for Jordanians seeking to emigrate.

In Egypt, the Emigration Sector of the Ministry of Manpower and Emigration, together with the Italian Government as the donor partner and the IOM as the implementing agency, has launched the Integrated Migration Information System (IMIS) project. The project has set up a Web site for job opportunities abroad and promoted the creation of a portal for Egyptian migrants. The Web site is tailored to provide services to employers abroad and Egyptian job seekers. It furnishes an automatic job-matching system between demand and supply. Foreign employers seeking specific employees' profiles may consult the Web site roster, identify potential candidates, and contact the Ministry of Manpower and Emigration, which can then verify the candidate profiles. The final selection of the candidates is the responsibility of the foreign employers, who can either appoint a local recruitment agency or make the selection directly.

In Morocco, the National Agency for the Promotion of Employment and Competence (NAAPEC) identifies job offers in foreign countries and opportunities of placement of Moroccan migrants abroad.[13] The Agency works closely with the Moroccan Ministry of Work and diplomatic and economic representations abroad. Within bilateral agreements and in collaboration with employment administrations of hosting countries, the Agency supports three kinds of programs: (i) the placement of skilled workers to acquire professional experience abroad, as in France; (ii) the placement of seasonal workers with a maximum duration of six months per year, as in Spain; and (iii) the placement of permanent workers with open-ended or fixed-term contracts.

Notwithstanding the streamlining of efforts in several countries, the overall approach to migration management remains fragmented and ad hoc, responding to the demands, pressures, and opportunities emanating from receiving countries. MENA sending countries need to adopt a different approach to migration management that gives attention to long-term trends and addresses in an integrated way the economic, social, and institutional facets of migration management.

Strategic Options for Adapting to Global Mobility

Can sending and receiving countries position themselves in terms of long-term labor and job mobility? Both the sending and the receiving sides face some key questions. First and foremost is the choice between "positioning" and "laissez-faire"—where the latter is more likely to be the mere consequence of inaction than an explicit and well-informed choice. Second, what does "positioning" mean and what does it entail? The response will depend on each country's specific circumstances. Great variations exist across countries in that regard, with some likely to face major labor force surpluses and other minimal changes. Moreover, in many countries, the situation will evolve over time, changing the country's status from net sending to net receiving. Yet notwithstanding the diversity of country circumstances and the dynamic nature of their labor markets, it is possible to lay out some key steps to be taken and strategic options to be explored to smooth the adaptation to global conditions.

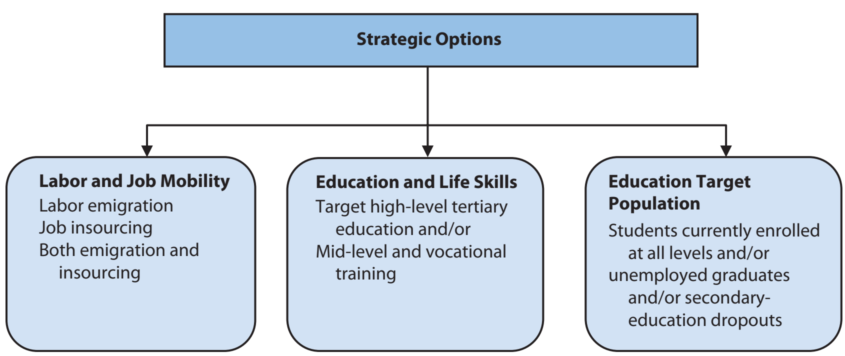
As a first step, individual countries need to develop medium- and long-term demographic and labor force projections to get a clear sense of their demographic transition stages and the related medium- and long-term impact on their labor force. This step could be anchored in a framework of repeated modeling exercises that go beyond demographic projections and explore different scenarios and strategies in a general equilibrium context, including key parameters such as growth, productivity, and technological change.

Second, countries ought to explore the strategic options that a positioning policy entails. Whether they are the sending or receiving country, they could modulate their labor market by relying on labor migration, on job mobility, or both. Some countries already have made their choice, in most cases without explicit policy articulation, but thanks to labor market flexibility and adaptation capabilities. For example, a country like the Philippines, traditionally an emigration country, is now extensively tapping into opportunities for both labor and job mobility offered in the global market. India, which was never as active as the Philippines in the labor migration market, is getting a large share of the outsourcing market. In receiving countries, however, both immigration and outsourcing are politically sensitive in light of unemployment, security issues, and questions of social homogeneity and national identity. As a result, there is scant articulation of long-term job and labor mobility policies to address demographic and labor force prospects.

From the labor-sending perspective, well-managed emigration and a clear policy for insourcing require extensive education, training, and retraining efforts (see figure 5.1). Labor sending and insourcing countries may concentrate their efforts on enhancing the quality of their tertiary education and matching its relevance to the needs of the global labor market to attract high-level jobs. Alternatively, they may decide to target mid-level skills that are already in high demand in many countries (such as nurses, cooks, waiters, and child minders) and are likely to remain so. Finally, they may opt for both types of skill levels—if both are amenable to mitigate the pressures on the domestic labor market. In any case, education and training curriculum ought to complement their technical training with life skills to promote openness, facilitate adaptation to foreign environments, and enhance abilities to recognize and seize opportunities.

Many MENA countries should explore options and make choices in conjunction with decisions about the populations concerned. Ongoing education

Figure 5.1. Labor Sending Options

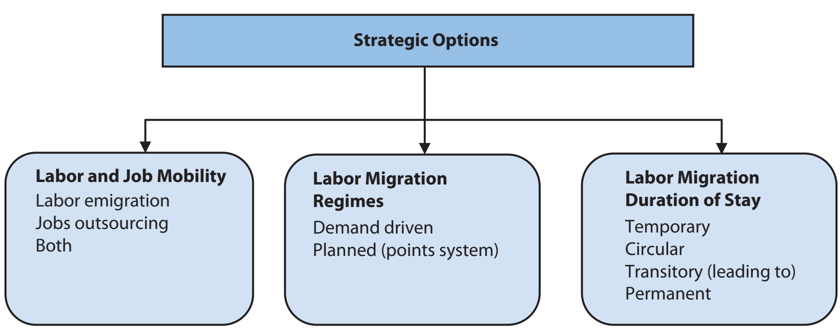


reforms focus on the existing student body, but many countries count among their unemployed a majority of young graduates and school and university dropouts—a legacy of poor education policies. These populations would benefit from the opening of education systems to second-chance education facilities and to equip them with the right technical and life skills for today's domestic and global labor markets. Addressing the needs to upgrade this population's skills will require new education reforms and solutions adapted to their specific needs. Various options could be considered, including the following:

- Improving access to existing education facilities at all levels where teaching methods and curriculum are adequate
- Inclusion in existing schools, colleges, and universities of specific curricula responding to the pedagogic needs of the populations concerned and to labor market demands
- Establishing public or private schools targeting unemployed graduates, university dropouts, and other lifelong learning interests

From the labor-receiving prospective (see figure 5.2), as population aging and low fertility work their way into declining labor force and labor shortages, businesses and governments alike are likely to consider labor and job migration options in tandem—to import labor only where task outsourcing is not feasible, as is the case for many occupations in the services sector. In many receiving countries, labor migration regimes are under review, and the pros and cons of demand-driven versus planned (points) systems are being weighed carefully. From the Gulf countries, which allow only temporary residents, to the new countries of immigration, which use a variety of temporary, transitory, and permanent migration schemes, experience offers a large variety of practices that should be evaluated and from which lessons may inform future policies.

Figure 5.2. Labor Receiving Options



Global Mobility Policy Areas

The third step is about making well-informed choices and mapping out policy and institutional reforms that will enable countries to seize opportunities and avoid the potential adverse impact of demographic and labor force imbalances. Migration management policies are by nature multisectoral (foreign affairs, interior, economy and finance, education, social protection) and involve a large array of institutions. Duplication of functions is common and coordination is often poor. In MENA countries, the migration institutional infrastructure, if it exists at all, is fragmented, with key functions scattered across ministries and agencies, and in many ways incomplete, especially regarding migration data collection and analysis.

Effective job and labor migration management will require (i) streamlining the migration institutional infrastructure[14] to assign clear functions and responsibilities to the various entities and avoid duplication, and (ii) establishing a strong home to anchor migration policy making, data collection, and analysis, and to empower coordination across sectoral ministries and agencies in all migration-related areas.

Many MENA countries have embarked on broad programs of reforms that encompass many of the areas of labor and job migration management. In most countries, however, education, social protection, and financial sector reforms were rarely designed with the optimization of opportunities for job and labor mobility as a criterion. Hence, reform programs must be revisited and their content enhanced. In this context, however, countries need to give due attention to important issues of reform interactions and the sequencing of the reform agenda, including the role of macroeconomic policies, capital controls, and currency convertibility.

From the receiving country perspective, a range of policies (education, social protection, and others) to support mobility should be coordinated with labor-sending partners. Education, in particular, will require a global approach whereby future deficit countries recognize their future dependence problems and contribute to the education effort. The objective is to ensure the quality of the cohorts that will form part of their future labor force and produce a large enough pool of skilled workers to meet the future needs of both sending and receiving countries. Many countries are waking up to the need to attract talent in the form of high-skilled persons, and this trend is likely to last, but it is also quite apparent that far less than all labor demand will arise in high-skill occupations. Indeed, many of the current and future deficit sectors and occupations probably will generate a demand for medium-level skills (such as nurses) or even relatively low-skilled workers (retail sales persons, waiters, and so on). Migrants with secondary levels of education and linguistic knowledge could conceivably fill these gaps.

These prospects require major adjustments in labor market, education, social protection, and migration management policies around the globe in sending and receiving countries. In particular, partnerships to address future labor market skill needs should be established *now*, because as noted, it takes 15 to 20 or more years to train a skilled worker from childhood to adulthood—making the supply of skills highly inelastic in the short-term. Similarly, social protection arrangements for health and pension and portability schemes will likely need to adapt to an increasingly complex mobility environment, in which workers could alternate work periods at home and abroad or between different countries.

Global mobility also requires efficient, diverse, and well-coordinated *financial services*, in particular regarding the following:

- Cost and speed of remittance transfers;
- Access of beneficiaries of remittances to financial services;
- Diversity of migration-related financial instruments (such as Diaspora bonds, transnational mortgages) to take full advantage of macroeconomic and individual financial opportunities stemming from labor mobility; and
- Capital controls and currency convertibility to facilitate migrants' capital movements and related investments.

Global labor market intermediation requires systematic labor market monitoring and trend analysis. Skills and vacancy information must be disseminated broadly to allow for efficient labor intermediation as well as for education and training purposes.

Migration regime schemes (demand driven versus planned) should be assessed thoroughly. They have different administrative arrangements and intensity and vary in terms of outcomes. Irrespective of regime choices, involving the business community in the design of migration schemes is crucial to sharpen their demand dimensions, ensure adequate employment, and facilitate migrants' integration. These schemes should be realistic in terms of the implications of labor immigration in terms of integration and accompanying family immigration.

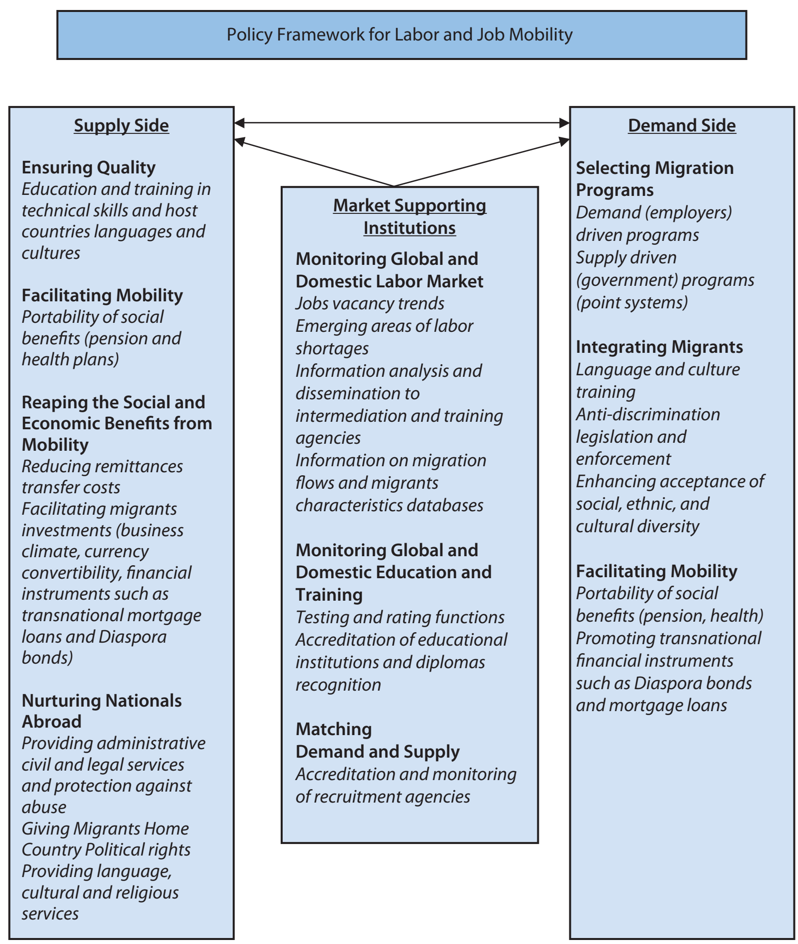
Finally, sending and receiving countries have each a role to play in facilitating migrants' integration in host countries. Integration policies must guarantee equal treatment and opportunities for migrants and host country nationals, and offer effective protection of migrants against racism and discrimination in receiving countries. Sending countries, in turn, should ensure that nurturing the cultural ties with home countries goes hand in hand with the recognition of, and benefits from, multiculturalism and that predeparture programs—in terms of language, culture, social norms, and legal system—are in place to facilitate integration in host countries. Finally, the richer and more complex cultural identities associated with mobility and globalization must make their way into the social and cultural norms—an area in which public policy and civil society activism in both sending and receiving countries have roles to play. This role may become particularly important in countries where circular migration schemes take a prominent place.

Figure 5.3 outlines the policy and institutional areas that need to be addressed to enhance global labor and job mobility.

Mobilizing Actors and Resources for Global Mobility

Implementation costs and time frame must be derived to assess feasibility. As noted above, positioning entails major reforms and human capital investment for both labor-sending and -receiving countries. Mobilizing actors and resources will be critical to success. Traditional actors in the development field, such as the public sector and the donor community, will continue to play a central role in promoting reforms and policies that are up to the challenges ahead. Other actors—such as nongovernmental organizations (NGOs) and multinationals—which are already playing an important though less

Figure 5.3. Policy Framework for Labor and Job Mobility



noticeable role in some aspects of global mobility, should be brought to the forefront of the adaptation effort.

The public sector in both sending and receiving countries is in charge of policies, their implementation, monitoring, and evaluation. In labor-sending countries, regulation and accreditation of nonpublic providers of education, labor intermediation to match migrant workers with employers abroad, and other services linked to global mobility are among the public sector's key responsibilities. As the case of the Philippines[15] illustrates, migration management requires strong state capacity. The institutionalization of labor export in that country in 1974 led to the establishment of specialized agencies for the licensing and monitoring of private recruitment agencies; provision of various services and benefits, such as insurance, loans, and scholarships; and mitigation of the risks involved in migration, such as exploitation and abuse. Labor intermediation and migrant protection against abuse are transnational issues requiring tight collaboration with host countries.

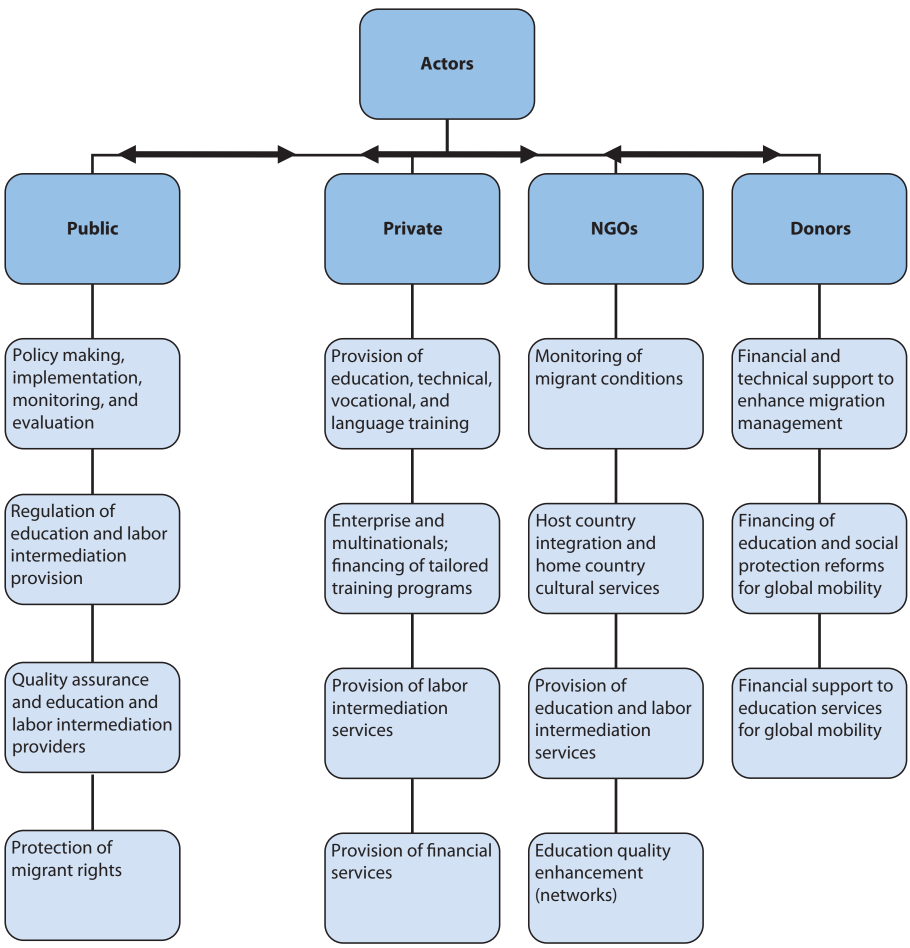
In most migrant-sending countries, the private sector is active in domestic labor market monitoring and intermediation (private recruitment companies), education and technical training, and language training. These activities should be better tuned and their scope extended to respond to global mobility-specific demands (be it for labor emigration or job insourcing) and include migrant predeparture preparation programs (language culture, logistics of arrival and settling in). Multinationals that are extensively involved in training their workers overseas could partner with local or regional institutions for a perennial approach to educating and training the workforce. Financial innovations to offer a wider variety of portable health and pension schemes and a diverse range of financial instruments for migrants and the beneficiaries of their remittances are among the areas in which domestic and international entrepreneurship could play a major role.

Like the private sector, NGOs are increasingly participating in labor intermediation, education, and training. In all regions, migrants' associations play a key role in enhancing the efficiency of migrant remittance transfers and their local investment. In many sending countries, NGOs contribute to the provision of cultural services to migrants and second generations (and beyond) born abroad. In receiving countries, they monitor migrant social conditions and are active defenders of migrants' rights. This is increasingly the case of trade unions in some countries, such as France, Germany, and the United Kingdom.[16] Technical and professional Diaspora networks are partnering increasingly with sending countries' high-level education and research institutions, especially in the scientific fields, and could play a critical role in enhancing education quality.

The role of the donor community, which includes bilateral cooperation programs, multilateral aid agencies, and an increasing number of private foundations, is crucial for addressing the know-how and financial challenges that adaptation to global labor and job mobility entails. In particular, the donor community can enhance their support of education reform efforts to address the specific needs of migrant workers, including life skills and employability. Moreover, as the needs for skilled labor increase in deficit regions, sending regions will have no choice but to educate and train for their own needs as well as for those of deficit regions. If they do not want to face major labor shortages in critical skills, the donor communities have a crucial role to play in supporting education access and quality in labor surplus regions. This role is important to meet the long-term labor needs of labor-deficit regions that are unknowingly hostage to today's education effort in terms of the quantity and quality of the future pool of workers from which their economies will draw.

Figure 5.4 maps out the main actors and their respective roles.

Figure 5.4. Key Actors and Areas of Responsibility



Note: NGO = nongovernmental organization.

As table 5.3 lays out, the consequences of collaboration versus competition in responding to the challenges ahead merit careful consideration.[17] If all actors agree to a collaborative approach to the challenges ahead, large gains would accrue to both sending and receiving countries. From a long-term perspective, the gains from collaboration and coordination are clear. Sending countries would be able to improve access to and the quality of education, while future labor deficit regions will more likely face a well-functioning global labor market. Conversely, noncollaboration would hurt both sides equally. If the investment to expand in number and quality the global pool of medium- and high-skilled workers is not undertaken *today*, the large number of skilled workers migrating to higher-income/labor deficit areas would create shortages in the sending countries.

Moreover, if the pool of medium- and high-skilled workers is not large enough to meet the demands from countries in those higher-income/labor

Table 5.3. Collaboration or Competition? A Payoff Matrix

Policy Area	Collaboration	Competition
Education	Improved access and enhanced quality of education services ➔ Large enough pool for the needs of both labor surplus and deficit regions Adequate quality of workforce, pulling up productivity and growth in surplus regions and addressing the needs of deficit regions	Continuation of current education investment and quality ➔ Large number of illiterates, dropouts, and unemployable graduates in surplus regions Social and political tensions in surplus regions Skill shortages in deficit regions Tense competition for a small pool of skilled and medium-skilled labor between surplus and deficit regions and among countries in deficit regions
Integration	Promotion of multiculturalism, acceptance of cultural differences and appreciation of diversity, and preparation of migrants ➔ Smoother integration of foreign labor force in host countries Mutual gains from Diaspora networks	Status quo with little integration efforts in host countries coupled with poorly designed policies to maintain migrants' ties with home countries ➔ Social tensions in host countries from minorities' sense of alienation and exclusion Distortion of home countries values and cultural norms especially for second generations Facilitating potential exploitation of identity and cultural issues for political motives
Social Protection	Portability of social protection ➔ Increased mobility and full use of a variety of mobility schemes, including circularity in the interest of migrant workers and home and host countries labor market Mutual gains from cross-fertilization and knowledge dissemination	Limited or nonexistent portability for pension and health benefits ➔ Loss of benefits for migrant workers Global mobility constraints, less return migration, and less-than-optimal use of migration regime options
Financial Services	Facilitation of transnational investments and a wide range of savings and investment instruments ➔ Optimal use of migrants' savings to the benefit of sending and host countries	High cost of remittance transfers and limited opportunities for investments across national boundaries ➔ Less-than-optimal use of migrants' savings at the expense of sending and receiving regions

deficit areas, competition between them would increase remuneration of scarce labor without, however, avoiding shortages, in light of the inelastic character of the supply of skills in the short term. Therefore partnerships between growing and deficit regions of the world involving public, private, and associative actors need to be established to address the know-how and financial challenges associated with preparing a high-quality global workforce for the future.

A long-term perspective of labor and population challenges will favor international cooperation. There will be rapid and large payoffs to stronger cooperation in the management of labor and job mobility for both sending and receiving areas of the world. Since reform and adaptation needs to take place now and a large share of the cost of investment will need to occur upfront, all countries need to adopt a long-term perspective and a proactive, cooperative, and concerted approach to address the challenges and opportunities associated with a smooth functioning of future labor and job markets.

Notes

1. As discussed in chapter 4, known changes in key parameters such as increasing labor force overall participation rates and retirement age would mitigate but appear unlikely to alter the global picture significantly. Nevertheless, future developments relating to productivity, capital versus labor intensity, science, and technology could transform the picture and open different avenues for future labor and jobs mobility.

2. Although, for the sake of simplicity we use the terminology of *sending* and *receiving* countries, this distinction is becoming increasingly artificial. Many countries are already and will increasingly find themselves on both sides of global labor mobility-sending and receiving. Demographic transition and differential levels of income and opportunities are likely to expand this phenomenon.

3. Temporary and permanent migration are straightforward concepts, yet in reality a large part of migrants fall somewhere in between, in the category of transitional migrants. These are migrants that arrive on temporary visas and work permits with no intention to stay permanently, but eventually transform into long-term migrants or permanent settlers.

4. All of these numbers refer to third-country nationals only and hence do not take into account intra-EU migration.

5. The Italian government, for example, was running pilot programs with Albania and Egypt, but both projects resulted in low numbers of actual matchings. On the Albanian pilot project, called Digital Registry of Foreign Workers (AILE), see OECD (2004). The pilot project with Egypt is called Integrated Information System (IMIS) and resulted in only 8 matches in 2004 and 2005, although this was not the primary objective of the project.

6. The Canadian points system apparently attracts the largest share of tertiary educated migrants, but many of those highly educated migrants end up in jobs that are not adequate for their education. This "brain waste" may result from a disconnection between labor demand and the migration program (Reitz 2005).

7. In the United States, the H2-A and H2-B visas grant access to the U.S. labor market of up to one year, with about 100,000 visas issued every year. Canada has concluded bilateral agreements aiming at seasonal workers with Mexico and Jamaica. Under the German-Polish bilateral agreement, every year more than 200,000 seasonal Polish workers enter Germany (see OECD 2004).

8. Abella 2006.

9. Ray 2004.

10. *Ibid*.

11. *Ibid*.

12. There are few statistics on private recruitment agencies in MENA countries but, based on anecdotal evidence, a large number of these agencies seem to operate without official control. It is common for these agencies to request high fees from potential emigrants without providing valuable services. As a result, they tend to have a bad reputation in many countries.

13. NAAPEC offers a range of services for all kinds of firms and destination countries: analysis of human resources needs and profile definition, gathering of applications (database, spread within the agencies network, and newspapers), preselection of applications according to the employer criteria, disposition of offices for interviewers, organization of technical tests, and administrative support for candidates.

14. See background papers, *Synthesis of Three Case Studies*, for a concise discussion of the institutional infrastructure and issues.

15. See Agunias and Ruiz 2007.

16. See Menz 2007.

17. This payoff matrix is an adaptation of the prisoner's dilemma framework to the migration management issue. The situation can be compared to the game theory concept of the prisoner's dilemma, a non-zero-sum game in which two players may each "cooperate" with or "defect" from (that is, betray) the other player. The only concern of each individual player (the "prisoner") is to maximize his or her own payoff, without any concern for the other player's payoff. The unique equilibrium for this game is a Pareto-suboptimal solution—that is, rational choice leads the two players to both "defect," even though each player's individual reward would be greater if they both "cooperated." It has also been shown, however, that if the game is repeated over several periods, cooperation may instead arise as a rational solution, because players have the opportunity to retaliate for deviant behavior.

Annex A

Table A1. Distribution of Migrants in OECD Countries, by Region of Origin, 2000

Destination country	Number of migrants by region of birth: MENA	%	OECD countries	%	Other	%	Total stock of migrants	%
EEA/EU								
Austria	29,319	3.2	208,941	22.6	686,227	74.2	924,487	100.0
Belgium	148,557	14.6	577,916	56.7	293,354	28.8	1,019,828	100.0
Denmark	46,859	13.7	116,492	34	179,039	52.3	342,390	100.0
Finland	6,987	6	41,287	35.3	68,815	58.8	117,089	100.0
France	2,329,229	41.6	1,924,101	34.4	1,346,868	24.1	5,600,199	100.0
Germany[a]	98,750	0.8	1,244,000	9.7	11,538,750	89.6	12,881,500	100.0
Greece	51,033	5.1	185,804	18.6	764,187	76.3	1,001,024	100.0
Hungary	2,664	1	22,347	8.1	250,483	90.9	275,494	100.0
Ireland	4,227	1.3	262,838	78.9	65,939	19.8	333,005	100.0
Italy	292,918	14.5	733,220	36.3	994,796	49.2	2,020,935	100.0
Luxemburg	1,841	1.4	108,484	82.6	21,063	16	131,389	100.0
Netherlands[a]	197,982	14.8	292,343	21.9	846,707	63.3	1,337,032	100.0
Poland[a]	2,735	0.2	139,325	11.1	1,112,124	88.7	1,254,184	100.0
Portugal	2,040	0.3	149,999	25.6	433,893	74.1	585,932	100.0
Slovak Republic[a]	366	0.1	4,064	0.8	514,225	99.1	518,655	100.0
Spain	311,351	16.8	571,999	30.8	973,697	52.4	1,857,047	100.0
Sweden	154,620	16.6	357,498	38.3	420,350	45.1	932,469	100.0
Czech Republic[a]	2,245	0.4	28,035	4.6	580,138	95	610,418	100.0
United Kingdom	173,277	3.8	1,597,491	35.5	2,732,553	60.7	4,503,321	100.0
Total EEA/EU	3,857,000	10.6	8,566,184	23.6	23,823,208	65.7	36,246,398	100.0
EEA/non-EU								
Norway	29,513	10.1	121,080	41.5	140,828	48.3	291,422	100.0
Other OECD								
Australia[a]	160,836	3.5	2,128,830	46.2	2,315,742	50.3	4,605,408	100.0
Canada	282,930	5.3	2,051,320	38.3	3,021,325	56.4	5,355,575	100.0
Japan	4,101	0.4	532,182	46	621,071	53.7	1,157,354	100.0

(*Table continues on the following page.*)

Table A1. Distribution of Migrants in OECD Countries, by Region of Origin, 2000 (*continued*)

Destination country	Number of migrants by region of birth: MENA	%	OECD countries	%	Other	%	Total stock of migrants	%
Korea, Rep. of[a]		0	26,757	19	114,059	81	140,816	100.0
Mexico[a]	2,169	0.5	157,650	37.9	255,909	61.6	415,728	100.0
New Zealand[a]	8,505	1.1	337,656	45.4	397,656	53.5	743,817	100.0
Switzerland[a]	39,843	2.3	816,358	47.9	848,747	49.8	1,704,949	100.0
Turkey	26,328	2.7	355,530	36.5	591,403	60.8	973,261	100.0
United States	809,759	2.6	5,824,199	18.4	25,089,139	79.1	31,723,097	100.0
Total Other OECD	1,334,471	2.9	12,230,482	26.1	33,255,051	71.0	46,820,005	100.0
Total	*9,077,984*	*7.6*	*29,483,930*	*24.7*	*81,042,295*	*67.7*	*119,604,223*	*100.0*

Sources: Dumont and Lemaître 2004; authors' calculations.
Note: a. Figures should be treated with caution because of the large share of immigrants with unknown country of birth.

Table A2. Profile of MENA Emigrants in 2000, by Country

Maghreb	
Algeria	– Emigration from Algeria is concentrated toward France: 84.2 percent of Algerians residing in an OECD country live in France, despite a diversification of migration flows from Algeria in the last 30 years. – In terms of qualifications, the composition of Algerian migrant stocks is highly contrasted between Europe and North America: respectively, 84.1 percent and 72.8 percent of Algerian migrants are highly educated in Canada and the United States, but only 10 percent in Europe's main destination countries (Belgium, France, and Spain). Two factors explain this diversity. First, the period of migration, insofar as the earlier the migrating cohort, the less educated it tends to be. Second, the migration and labor-market policies in the destination country biased toward the highly educated in North America. – Compared with other MENA countries (Egypt, Jordan, Libya, and so on), the expatriation rate of the highly educated is rather high, with estimates varying from 9.4 percent to 18 percent. Because migrant stocks are particularly large in France, even though the share of highly educated Algerian migrants is low, France has drained many highly educated Algerians: on average, 5 to 6 highly educated Algerians out of 100 reside in France.
Morocco	– Moroccan nationals are predominantly found in France (38.8 percent according to Docquier and Marfouk's database) followed by Spain (19.8 percent), the Netherlands (13.5 percent), and Italy (9.9 percent). Compared with Tunisians and Algerians, Moroccans are thus widely distributed over all European countries. This characteristic, already manifest in the 1970s, has been further accentuated in recent years. – In France, Moroccans are largely low-educated individuals with only primary education (79 percent), while this share is 66 percent in Spain, where individuals with secondary level of education represent 28.6 percent of the total stock of Moroccan migrants (compared with 7.8 percent and 16 percent for France and the Netherlands, respectively). However, the same contrast as for Algeria emerges between Europe and North America: Moroccan migrants are highly educated in Canada (72.2 percent) and the United States (64.2 percent). – The expatriation rate of the highly educated is rather high with regard to other MENA countries (on average 9.9 percent), with estimates varying from 17 percent to 19.5 percent.
Tunisia	– Emigration from Tunisia is mainly directed to France (DM: 69.9 percent ; DL: 78 percent) followed by Italy (DM: 12.2 percent; DL: 9 percent) and Germany (DM: 4.9 percent). – The stock of Tunisian nationals residing in the traditional European host countries is predominantly made up of low-educated individuals, with only primary education (80 percent in France; 78.1 percent in Italy). – The highly educated expatriation rate ranges from 12.5 to 21.4 percent, which is quite high compared with other MENA countries.

(*Table continues on the following page.*)

Table A2. Profile of MENA Emigrants in 2000, by Country (*continued*)

Mashreq	
Egypt, Arab Rep. of	– Emigration from Egypt is mainly directed to the Gulf area. Meanwhile, since the early 1960s, some Egyptians have migrated permanently to the Australia, Canada, the United States, and Western European countries (France, Italy, and the United Kingdom). The preferred destination is the United States, where about two out of five permanent Egyptian migrants live, followed by Canada and Australia, where about a fourth of permanent Egyptian migrants live. – Most Egyptians migrants residing in North America are highly educated. The pattern is different in Europe's main destination countries (France, Italy, and the United Kingdom), where nearly a third of Egyptian migrants only have primary education. – Brain drain is less than 5 percent.
Jordan	– Among OECD countries, Jordan migrants are predominantly found in the United States (66.4 percent), followed by Germany (9.5 percent), Canada (5.5 percent), and Australia (4.1 percent). – In terms of qualifications, most Jordanian migrants to North America and Australia have tertiary education. The pattern is different in Germany and the United Kingdom where more than a third of Jordanian migrants have only primary education. – On the whole, brain drain is rather limited, with estimates varying between 3.3 percent and 7.2 percent.
Lebanon	– Among OECD countries, Lebanese migrants are predominantly found in North America (Canada and the United States) and Australia, followed by some Western European countries (France, Germany, and Sweden). The preferred destination is the United States where about one-third of Lebanese migrants live. – In terms of qualifications, the share of low educated Lebanese migrants is rather low in the United States (11.4 percent), but rather high elsewhere (between 30 and 42 percent). – Brain drain is high. It is estimated that about 4 out of 10 highly educated Lebanese reside in an OECD country.
Syrian Arab Republic	– Syrian nationals are mostly found in the United States (40.7 percent), then in Germany (11.4 percent), Canada (10.9 percent), Sweden (9.3 percent), and France (8 percent). These last four countries had in 2000 a remarkably similar incidence of Syrian nationals as a proportion of the country's total population of Syrian migrants. – Differences appear in terms of qualification structures across the five dominant countries of Syrian emigration: the share of poorly educated migrants is significantly lower in the United States (16.8 percent) than in Germany (35.7 percent), Canada (29.5 percent), Sweden (40 percent), or France (32.4 percent). Hence, the share of highly educated Syrian migrants is higher in the United States (52 percent) but also in Canada (57 percent). – Brain drain indicators show that Syrian highly educated emigration is rather low, ranging from only 4.4 percent to 6.1 percent.
GCC states	
	– Labor-importing GCC states do not send many migrants to OECD countries. They have been the main recipients of migrants from Egypt, Jordan, Sudan, the Syrian Arab Republic, and the Republic of Yemen moving to the Gulf primarily to take up employment.
Other MENA	
Djibouti	– Very few migrants from Djibouti reside in OECD countries (DM: 1,638 individuals in 2000).
Iran, Islamic Rep. of	– Emigration from the Islamic Republic of Iran is mainly directed to North America and some Western European countries (Sweden, the United Kingdom and, more marginally, France and the Netherlands). The preferred destination is the United States, where about one out of two permanent Iranian migrants live, followed by Germany and Canada, where about a fifth of permanent Iranian migrants live. – Three out of four Iranian migrants residing in North America are highly educated. The pattern is different among those in Western Europe. – Brain drain is rather high, with estimates varying from 8 to 18 percent.

(*Table continues on the following page.*)

Table A2. Profile of MENA Emigrants in 2000, by Country (*continued*)

Iraq	– Emigration from Iraq is directed to the United States and to some Western European countries (Germany, the Netherlands, Sweden, and the United Kingdom); noneconomic motives for migration. – In terms of qualifications, no clear pattern emerges. The share of highly educated Iraqi migrants is slightly higher in Australia, Canada, and the United States than in other destination countries. – Brain drain is rather high (6 percent to 11 percent).
Libya	– Emigrated Libyan nationals are found almost equally in the United States (33.2 percent) and in the United Kingdom (32.4 percent). Their shares drop to 7 percent, 6 percent, and 5.9 percent in Germany, Australia, and Canada, respectively. – In the United States, the proportion of educated Libyan migrants is overwhelming (80.5 percent) compared with that in the United Kingdom (42.7 percent) or Germany (27.5 percent). Consequently, the share of poorly educated Libyan migrants is weak in the United States (2.1 percent), compared with the other seven main countries of emigration (on average 32 percent for Australia, Canada, France, Germany, Greece, and Switzerland). – Brain drain is low: only 2.4 percent. However, this is consistent with the rather low expatriation rate of the Libyan population ages 15 and over (1.79 percent, against an average of 2.77 percent for MENA countries).
Occupied Palestinian Territory	– Within OECD, nearly 8 emigrants from the Palestinian territory out of 10 are found in North America, mainly in the United States. – In terms of education, Palestinian migrants in North America are more educated on average than those in Europe.
Yemen, Rep. of	– Yemenite nationals residing in OECD countries (20,949 in 2000) are predominantly found in the United States (55.4 percent), followed by the United Kingdom (28.3 percent). The rest is divided between Germany (4.3 percent), Canada (3.3 percent), France (2.8 percent), and Australia (1.4 percent). – The structure of qualification of the Yemenite migrants is almost similar across the United States and the United Kingdom. Besides, the shares of highly and poorly educated individuals is almost equal in these two main host countries (respectively, 30 percent against 31 percent in the United States, and 35 percent against 38 percent in the United Kingdom). – Brain drain is 6 percent.

Source: Gubert and Nordman in background papers.
Note: DL = Dumont and Lemaître, 2005; DM = Docquier and Marfouk, 2005; GCC = Gulf Cooperation Council; MENA = Middle East and North Africa; OECD = Organisation for Economic Co-operation and Development.

Table A3. Youth Illiteracy Rates (Ages 15–24) in Selected MENA Countries 1980–2005

(percent)

Country		1980	1990	1995	2000	2005
Algeria		**39**	**22.7**		**21**	
	Men	24	13		13	
	Women	54	32		29	
Bahrain		**9.9**	**4.4**	**2.6**	**1.6**	**1**
	Men	7	3.8	2.5	1.8	1.3
	Women	13.6	5	2.6	1.4	0.7
Egypt, Arab Rep. of		**48.2**	**38.7**	**34.4**	**30.3**	**26.5**
	Men	35.8	29.1	26.3	23.6	21.2
	Women	61.5	49	43.1	37.4	32.1
Iraq		**62**	**59**	**57.3**	**55.4**	**53.5**
	Men	45.9	43.6	42.2	40.7	39.1
	Women	78.8	75.1	73.1	70.9	68.6

(*Table continues on the following page.*)

Table A3. Youth Illiteracy Rates (Ages 15–24) in Selected MENA Countries 1980–2005 (*continued*)

Country		1980	1990	1995	2000	2005
Jordan		**8.5**	**3.3**	**1.9**	**0.8**	**0.4**
	Men	3.6	2.1	1.5	0.9	0.5
	Women	14	4.7	2.4	0.7	0.2
Kuwait		**19.7**	**12.5**	**9.6**	**7.6**	**6**
	Men	17.4	12.1	10	8.3	6.9
	Women	22.6	12.8	9.2	6.8	5
Lebanon		**12.5**	**7.9**	**6.3**	**4.8**	**3.7**
	Men	6.8	4.5	3.6	2.8	2.1
	Women	17.8	11.4	9	7	5.4
Oman		**39.9**	**14.4**	**6**	**2.1**	**0.6**
	Men	17.7	4.6	1.6	0.5	0.2
	Women	64.4	24.6	10.5	3.8	0.9
Qatar		**16.8**	**9.7**	**7**	**5.2**	**3.9**
	Men	17.8	11.7	9.2	7.4	5.9
	Women	15.2	7	4.5	2.9	1.9
Tunisia		**28**	**15.9**		**7.5**	
		14	7.2		3	
		42	25		12	
Saudi Arabia		**26.3**	**14.6**	**10.4**	**7.3**	**5.1**
	Men	15.7	8.8	6.5	5.1	1
	Women	39.8	21.4	14.4	9.7	6.4
Syrian Arab Republic		**29.5**	**20.1**	**16.2**	**12.8**	**10**
	Men	12.5	7.8	6	4.6	3.6
	Women	47.2	33.1	26.7	21.2	16.6
United Arab Emirates		**24.7**	**15.3**	**12.1**	**9.4**	**7.4**
	Men	26.1	18.3	15.3	12.6	10.6
	Women	22	11.4	8.1	5.6	4
Yemen, Rep. of		**68.6**	**50**	**41.4**	**35**	**27.6**
	Men	44.8	26.5	20.4	17.1	13.5
	Women	89	75	64.9	53.8	42.1
Total		**45.1**	**35.3**	**31**	**27**	**23.6**
	Men	31.3	24.3	21.5	19.1	17.1
	Women	59.8	47.2	41.3	35.4	30.5

Source: ESCWA 2005, p. 29.

Table A4. Typology of Migration According to Duration of Stay, Motivation, Legal Status, Access to Labor Markets, and Some Policy Examples

Motivation	Legal status	Access to labor market	Duration of stay		
			Temporary[a]	Transitional[b]	Permanent
Humanitarian	Documented	Unlimited			U.S. refugee/asylum policy
		Limited[c]			
		No access	EU refugee/asylum policy	Asylum applicants	
	Undocumented	—			
Family Reunification	Documented	Unlimited		U.S. student visa for family members	U.S. family preference
		Limited[c]			
		No access		U.S. H-1B visa for family members	
	Undocumented	—			
Economic	Documented	Unlimited			U.S. employment-preference 1; U.S. diversity lottery; points systems (Canada, Australia, New Zealand)
		Limited[c]	Seasonal agricultural workers (U.S. H-2A; Canada w/ Jamaica and Mexico; Germany with Poland); contract workers (U.S. H-2B); German green card; German bilateral contract worker agreements (w/ Poland and others); holiday worker visas (Australia, Japan, the United Kingdom)	U.S. H-1B visa principals; student visa principals (U.S. F and J visas); business and investment visa principals (U.S. E and B visas); Work Permits (United Kingdom); European guest-worker agreements	Other U.S. employment preferences
		No access			
	Undocumented	—	Spanish regularization policy		United States IRCA 1986)

Source: Koettl in background papers.
Note: — = not available.
a. Temporary migrants have no intention to settle permanently.
b. Transitional migrants initially have the intention to stay temporarily, but eventually transform to permanent settlers.
c. Limited access to labor markets involves conditional work permits, tied to a specific employer, sector, and so on.

Table A5. Examples of Bilateral Agreements in Maghreb Countries
(in place or under negotiations, as of 2006)

Algeria
Belgium: Negotiations
France: Exchange of letters (1984–94); police cooperation agreement linked to readmission (October 25, 2003)
Germany: Provisional Agreement, and entered into force (November 1, 1999)
Italy: Signed Agreement (February 24, 2000)
Luxembourg: Negotiations
Malta: Negotiations since 2001
The Netherlands: Negotiations
Spain: Protocol regarding circulation and entered into force (February 18, 2004)
United Kingdom: Negotiations

Libya
Italy: Administrative Agreement (December 13, 2000); signed agreement (July 3, 2003)
Malta: Police cooperation agreement linked to readmission 1984; negotiations since 2001
Spain: Negotiations
United Kingdom: Memorandum of understanding (October 18, 2005)

Morocco
France: Exchange of letters (1983–93); police cooperation agreement linked to readmission, entered into force (May 1, 2001)
Germany: Entered into force (June 1, 1998)
Italy: Entered into force (July 27, 1998)
Malta: Negotiations since 2002
Portugal: Police cooperation agreement linked to readmission, entered into force (September 7, 1999)
Spain: Provisional Agreement (February 13, 1992); memorandum of understanding, agreement signed (December 24, 2003)

Tunisia
Austria: Entered into force (August 1, 1965)
Bulgaria: Negotiations
France: Exchange of letters (1984–94) and negotiations
Greece: Police cooperation agreement linked to readmission and entered into force (May 19, 1990)
Italy: Exchange of letters and entered into force (August 6, 1998); police cooperation agreement linked to readmission, signed agreement (December 13, 2003)
Malta: Negotiations since 2001
Ukraine: Negotiations
United Kingdom: Negotiations

Source: MIREM Project 2006.

References

Note: This is a list of selected references. More extensive lists, akin to bibliographies, are found accompanying the background papers on the CD.

Abella, M. 2006. "Policies and Best Practices for Management of Temporary Migration." Paper presented at the International Symposium of International Migration and Development in Turin, Italy, June 28–30.

Agunias, Rannveig, and Ruiz. 2007. "Protecting Overseas Workers: Lessons and Cautions from the Philippines." MPI Insight Paper, the Migration Policy Institute, September. http://www.migrationpolicy.org/pubs/MigDevInsight_091807.pdf.

Auerbach, Kotlikoff, Hagemann, and Nicoletti. 1989. "The Economic Dynamics of an Ageing Population: The Case of Four OECD Countries." OECD Economics Department Working Papers 62, OECD Economics Department, Paris.

Call Center Magazine. 2003. "Call Centers in EMEA: Outsourcing to Surge." www.callcentermagazine.com.

CEDEFOP (European Centre for the Development of Vocational Training). 2008. *Future Skills Needs in Europe: Medium-Term Forecast: Key Findings*. Luxembourg: Office for Official Publications of the European Communities.

Commission of the European Communities. 2004. "First Annual Report on Migration and Integration." (COM 2004 508) Brussels, May 16.

Corm, G. 1997. *Sustainable Human Development and Macro Economy: The Case of the Arab World.* Human Development Series No. 6, ESCWA, United Nations, New York.

Corm, G. 2008. "Labor Migration in the Middle East and North Africa: A Diagnostic Overview." Paper prepared for the World Bank, June 2006. Background papers for this study.

Die Welt. 2006. "Airbus findet keine Ingenieure in Deutschland." June 5. http://www.welt.de/data/2006/06/05/903068.html.

Diwan, I., S. Johansson de Silva, M. Nabli, and A. Coulibali. 2003. "Economic Reforms and People Mobility for a More Effective EU-MED Partnership." In C. Mallat, ed., *Union Européenne et Moyen Orient, Etat des lieux*, Beirut: Presses de l'Université Saint Joseph.

Docquier, F., and A. Marfouk. 2005. "International Migration by Educational Attainment, 1990–2000." In C. Ozden and M. Schiff, eds., *International Migration, Remittances and the Brain Drain.* Washington, DC: World Bank.

Docquier, F., B. L. Lowell, and A. Marfouk. 2007. "A Gendered Assessment of the Brain Drain." IZA Discussion Paper No. 3232. December, Institute for the Study of Labor, Bonn. Reprinted in Policy Research Working Paper No. 4613, May 2008, World Bank, Washington, DC.

Dumont, J. C., and G. Lemaître. 2005. "Counting Immigrants and Expatriates in OECD Countries: A New Perspective." OECD Social, Employment and Migration Working Papers, No. 25. Organisation for Economic Co-operation and Development, Paris.

The Economist. 2008. *Special Report on Migration*. January 5–11.

ESCWA (Economic and Social Commission for Western Asia). 2005. *Statistical Abstract of the ESCWA Region,* 24th Issue, E/ESCWA/2005/2. United Nations, New York.

Fargues, P., ed. 2005. *Migrations méditerranéennes, rapport 2005.* Cooperation project on migration financed by the ECMEDA program, EUI-RSCAS, CARIM Consortium, Florence.

FIPA-Invest in Tunisia. 2004. "Les centres d'appel et les centres de services partagés dans la région euro - méditerranéenne, 'ANIMA,' Investir en Méditerranée." December.

Gubert, F., and C. Nordman. 2008. "Migration from MENA to OECD Countries: Trends, Determinants and Prospects." Paper prepared for the World Bank, June 2006. Background papers for this study.

Holzmann, Robert. 2005. "Demographic Alternatives for Aging Industrial Countries: Increased Total Fertility, Labor Force Participation, or Immigration." IZA Discussion Paper No. 1885, Institute for the Study of Labor, Bonn. http://ftp.iza.org/dp1885.pdf (accessed June 5, 2006).

Holzmann, R., and R. Münz. 2004. "Challenges and Opportunities of International Migration for the EU, Its Member States, Neighboring Countries and Regions: A Policy Note." Institute for Futures Studies, Stockholm.

IMF (International Monetary Fund). 2006. "Can Europe Afford to Grow Old?" *Finance and Development* 43 (3).

ILO (International Labour Organization). 1997. *Economically Active Population, 1950–2010,* 4th edition (diskette database). Geneva: ILO.

Katseli, L., R. E. B. Lucas, and T. Xenogiani. 2007. "Policies for Migration and Development: A European Perspective." OECD Development Centre Policy Brief No. 30, Organisation for Economic Co-operation and Development, Paris.

Knowledge@Wharton. 2004. "Move Over, India: The Shifting Geography of Offshore Outsourcing Creates New Challengers." University of Pennsylvania. http://Knowledge.Wharton.upenn.edu.

Koettl, J. 2008. "Prospects for Management of Migration Between Europe and the Middle East and North Africa." Paper prepared for the World Bank, September 2007. Background papers for this study.

Mayda, A. M. 2005. "International Migration: A Panel Data Analysis of Economic and Non-Economic Determinants." Georgetown University, Washington, DC.

McCue, A. 2006. "Egypt Touts Itself as Next Offshore Outsourcing Hot-Spot." http://services.silicon.com/offshoring/0,3800004877,39156347,00.htm.

McKinsey Global Institute. 2005. *The Emerging Global Market.* San Francisco.

McKinsey Global Institute. 2004. *World Investment Report.* San Francisco.

Menz, G. 2007. "Employers, Trade Unions and Labor Migration Policies: Examining the Role of Non-State Actors." Paper prepared for the EU Studies Association 10th biennial Conference.

MIREM Project. 2006. Migration de retour vers le Maghreb. Robert Schuman Centre for Advanced Studies. www.mirem.eu.

Münz, R. 2007. "Migration, Labor Markets and Integration of Migrants. An Overview for Europe." Hamburg Institute of International Economics (HWWI), Policy Paper No. 3–6. http://www.hwwi.org (accessed October 17, 2007).

OECD (Organisation for Economic Co-operation and Development). 1994. *The OECD Jobs Study: Facts, Analysis, Strategies*. Paris: OECD.

OECD (Organisation for Economic Co-operation and Development). 2004. *Migration for Employment. Bilateral Agreements at a Crossroads.* Paris: OECD.

OECD (Organisation for Economic Co-operation and Development). 2007. *Trends in Migration.* SOPEMI 2007, Paris.

OECD (Organisation for Economic Co-operation and Development). 2008a. "Employment Statistics." OECD, Paris. www.oecd.org.

OECD (Organisation for Economic Co-operation and Development). 2008b. *OECD Observer.* "Population Ageing: Facing the Challenge." OECD, Paris.

Pedersen, M., P. J. Pytlikova, and N. Smith. 2004. "Selection or Network Effects? Migration Flows into 27 OECD Countries, 1999–2000." IZA Discussion Paper, No. 1104, Institute for the Study of Labor, Bonn. http://ftp.iza.org/dp1104.pdf (accessed September 29, 2008).

Peri, G. 2005. "International Migration: Some Comparisons and Lessons from the EU." University of California, Davis.

Ray, B. 2004. "Practices to Promote the Integration of Migrants in Labor Markets." Paper prepared for the European Commission, DG Employment and Social Affairs, Brussels, European Commission; Hamburg, HWWA.

Reitz, J. G. 2005. "Tapping Immigrants Skills. New Directions for Canadian Immigration Policy in the Knowledge Economy." *IRPP Choices* 11 (1).

Rotte, R., and M. Vogler. 1999. "The Effects of Development on Migration: Theoretical Issues and New Empirical Evidence." IZA Discussion Papers No. 46, Institute for the Study of Labor, Bonn.

Schramm, C. 2006. "Migration from Egypt, Morocco and Tunisia: Synthesis of Three Case Studies." World Bank, Washington, DC. Background papers for this study.

UNCTAD (United Nations Conference on Trade and Development). 2005. *World Investment Report.* New York and Geneva.

UNCTAD (United Nations Conference on Trade and Development). 2004. *World Investment Report.* New York and Geneva.

United Nations. 2005. *World Population Prospects. The 2004 Revision*. New York.

Verhaeren, R. 1995. "L'émigration Maghrébine depuis 1946." *Mondes en Développement* 23.

World Bank. 2005. "Knowledge Assessment Methodology." World Bank, Washington, DC. www.world bank.org/kam.

World Bank. 2006. "Global Economic Prospects: Economic Implications of Remittances and Migration." World Bank, Washington, DC.

World Bank. 2007a. *World Development Indicators*, CD-ROM. World Bank, Washington, DC.

World Bank. 2007b. *Middle East and North Africa: Economic Developments and Prospects.* Office of the MENA Region Chief Economist, Washington, DC.

World Bank. 2008a. *Doing Business.* Database and multiple updates. World Bank, Washington, DC.

World Bank. 2008b. *Education Reform in the Middle East and North Africa: The Road Not Traveled*. Washington, DC: World Bank.

Yarney, J. 2005. "African Countries Set Sights on BPO Market." http://www.computerworld.com/action/article.do?command=viewArticleBasic&articleId=103179.

Zahlan, A. B. 1980. *Science and Science Policy in the Arab World.* London: Croom Helm.

Zahlan, A. B. 1999. "The Arabs and the Challenges of Science and Technology. Progress without Change (in Arabic)." Center for Arab Unity Studies, Beirut.

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