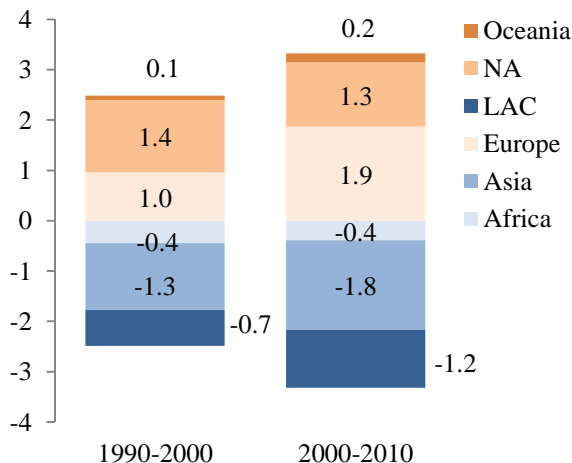


## II. NET INTERNATIONAL MIGRATION

### A. GLOBAL TRENDS

During the period 1950-2010, the developed regions experienced population gains from positive net international migration while the developing regions were losing population from negative net international migration. During the most recent decades, net international migration to the developed regions increased from 2.5 million per year in 1990-2010 to 3.5 million per year in 2000-2010. Europe and Northern America were gaining the most from net international migration, whereas Asia and Latin America and the Caribbean were losing the most (figure II.1).

**Figure II.1. Annual net migration by major area, 1990-2000 and 2000-2010 (millions)**



Source: United Nations, Department of Economic and Social Affairs, Population Division (2013). *World Population Prospects: The 2012 Revision, DVD Edition*.

Note: LAC refers to Latin America and the Caribbean, while NA refers to Northern America.

Net immigration to Northern America, however, declined from 1.4 million annually in 1990-2000 to 1.3 million per year in 2000-2010, while it almost doubled in Europe from one million to 1.9 million per year over the same period. Latin America and the Caribbean experienced an increase in the annual number of net emigrants from 0.7 million in 1990-2000 to 1.2 million in 2000 and 2010.

These regional trends mask substantial variations at the country level. In 1990-2000, out of 232 countries or areas in the world, 94 countries or areas gained population from net immigration and 135 countries or areas lost population due to net emigration. By 2000-2010, the number of countries gaining population due to net migration had increased to 101, and the number of countries losing population had declined to 128 countries or areas (table II.1).

#### Box II.1. Data considerations - Definitions

Net international migration for a given country refers to the difference between the number of immigrants and the number of emigrants. If more people immigrate to a country than emigrate from it, the country gains population from positive net migration. When more people emigrate than immigrate, the country loses population through negative net migration. At the global level, population grows or declines due to natural change while international migration is necessarily zero. Whenever the world's constituent countries are divided into groups of mutually exclusive units—such as the developed and the developing regions—net migration flows to one group cancel out net migration flows

In the developed regions, the majority of countries experienced net immigration and that number increased from 35 in 1990-2000 to 40 in 2000-2010. In the developing regions, the majority of countries experienced net emigration, both in 1990-2000 and 2000-2010. However, in the developing regions, the number of countries experiencing net emigration declined from 115 to 113 between 1990-2000 and 2000-2010, whereas the number of countries gaining population due to net immigration increased from 59 to 61.

Among the countries gaining population in both 1990-2000 and 2000-2010 were traditional countries of immigration, such as Australia, Canada, New Zealand and the United States as well as countries which started to see an increase

TABLE II.1: NUMBER OF COUNTRIES OR AREAS BY NET MIGRATION STATUS DEVELOPMENT GROUP AND MAJOR AREA, 1990-2000 AND 2000-2010

Development group and major area	Net immigration		Net emigration		Change in status (net emigration → net immigration country)
	1990-2000	2000-2010	1990-2000	2000-2010	1990-2000 and 2000-2010
World.....	94	101	135	128	29
Developed regions .....	35	40	20	15	6
Developing regions .....	59	61	115	113	23
Africa.....	26	19	32	39	7
Asia.....	17	22	32	27	9
Europe.....	30	35	18	13	6
Latin America and the Caribbean .....	14	19	34	29	6
Northern America .....	2	2	2	2	—
Oceania.....	5	4	17	18	1

Source: United Nations, Department of Economic and Social Affairs, Population Division (2013). *World Population Prospects: The 2012 Revision, DVD Edition*.

Note: Change in status refers to the number of countries which changed from net emigration status in 1990-2000 to net immigration status in 2000-2010. Countries with zero net migration in 1990-2000 and 2000-2010 have been excluded from the analysis.

### Box II.2. Data considerations – Data source

The data used in this part of the report are from the latest population estimates and projections produced by the United Nations Population Division.<sup>1</sup> In estimating and projecting population net migration is often derived as a residual. Estimates are produced for the period 1950-2010 and projections for the period 2010-2050. Given the volatility of international migration flows, it is impossible to accurately project future migration levels and trends and their impact on population change and population structures. However, population projections including different migration scenarios can help assess the likely impact international migration might have on future populations. For the medium projection variant, the future path of international migration is set on the basis of past international migration estimates and migration policy considerations for the respective countries. Projected levels of net migration are generally kept constant over the next decades, starting in 2010-2015. For countries with sizable refugee populations, it is assumed that refugees return to their country of origin within the next five to ten years.

<sup>1</sup> United Nations, Department of Economic and Social Affairs, Population Division (2013). *World Population Prospects: The 2012 Revision, DVD Edition*.

in their levels of immigration in the 1990s and 2000s, such as Italy and Spain. In addition, countries in the developing regions recruiting labour migrants, such as Qatar, Singapore and the United Arab Emirates were among the countries experiencing net immigration in both periods. Interestingly, 23 countries in the developing regions changed their status from net emigration in 1990-2000 to net immigration in 2000-2010. Some of these countries repatriated refugees, such as Burundi, Eritrea and South Sudan, while others had recently begun to recruit foreign workers on a larger scale, such as Kuwait and Saudi Arabia.

Among the group of countries experiencing net emigration were traditional countries of emigration, such as Bangladesh, China, India, Mexico, Pakistan and the Philippines. Many of these countries had long-standing ties with traditional countries of immigration, such as Australia, Canada and the United States, while others had newly established ties with countries in South-Eastern and Western Asia which were recruiting foreign workers.

Between 1990-2000 and 2000-2010, the number of countries with net immigration increased in Asia, Europe and Latin America and the Caribbean, decreased in Africa and Oceania and remained the same in Northern America. Furthermore, the number of countries that

TABLE II.2: COUNTRIES AND AREAS WITH THE HIGHEST AND THE LOWEST LEVEL OF ANNUAL NET MIGRATION, 1990-2000 AND 2000-2010 (THOUSANDS)

A. Net immigration countries or areas				
Rank	Country or area	1990-2000	Country or area	2000-2010
1.	United States of America .....	1 292	United States of America .....	1 055
2.	Russian Federation .....	453	Spain .....	508
3.	Germany .....	407	United Arab Emirates .....	468
4.	Afghanistan .....	264	Russian Federation .....	389
5.	Canada .....	146	Italy .....	376
6.	Spain .....	112	South Africa .....	247
7.	Ethiopia .....	99	Saudi Arabia .....	235
8.	South Africa .....	96	Canada .....	228
9.	Australia .....	87	United Kingdom .....	181
10.	United Arab Emirates .....	79	Australia .....	181
B. Net emigration countries or areas				
Rank	Country or area	1990-2000	Country or area	2000-2010
1.	Kazakhstan .....	- 284	Bangladesh .....	- 557
2.	Mexico .....	- 264	Mexico .....	- 498
3.	Egypt .....	- 205	India .....	- 490
4.	Bangladesh .....	- 169	China .....	- 418
5.	Iran (Islamic Republic of) .....	- 166	Pakistan .....	- 360
6.	Pakistan .....	- 159	Philippines .....	- 236
7.	Philippines .....	- 147	Myanmar .....	- 180
8.	China .....	- 143	Viet Nam .....	- 165
9.	Morocco .....	- 118	Zimbabwe .....	- 150
10.	Republic of Korea .....	- 115	Nepal .....	- 148

Source: United Nations, Department of Economic and Social Affairs, Population Division (2013). *World Population Prospects: The 2012 Revision, DVD Edition*.

changed from net emigration countries in 1990-2000 to net immigration countries in 2000-2010, the so-called “status changes” was highest in Asia (9), followed by Africa (7), Europe (6), Latin America and the Caribbean (6) and Oceania (1).

During 2000-2010, the United States, Spain and the United Arab Emirates were the top net immigration countries, whereas Bangladesh, Mexico and India were the top net emigration countries (table II.2). Compared to 1990-2000, Italy, Spain, Saudi Arabia, South Africa, the United Arab Emirates and the United Kingdom moved up on the list of leading net immigration countries, whereas Afghanistan, Australia, Canada, Ethiopia, Germany and the Russian Federation moved down on that list. For the main net emigration countries, especially Bangladesh, China and India became more important as their levels of net emigration more than doubled.

#### B. CONTRIBUTION OF INTERNATIONAL MIGRATION TO OVERALL POPULATION CHANGE

In 1950-1960, the population both in the developed and the developing regions was primarily growing due to natural increase (figure II.2). By 2000-2010, net migration had become the primary source of population growth in the developed regions, whereas the developing regions were still growing due to a surplus of births over deaths (natural increase). Following the projection assumptions defined earlier (box II.2), the population of the developed regions will still be growing by 2040-2050, but at a declining rate with net migration being the only source of the projected population growth and natural increase having become negative. In the developing regions, the population is projected to continue to grow, albeit at lower rates, due to natural increase while net emigration will have a negligible effect on population size.

Over the period 1950-2010, the populations of Africa, Asia and Latin America and the Caribbean grew due to natural increase, although at differing rates (figure II.3). Negative net migration was more than offset by natural increase, which will remain the major factor behind future population growth in these major regions.

**Box II.3. Net migration – One factor contributing to population change**

Over time, a population grows or declines due to natural increase (births minus deaths) and net migration (immigrants minus emigrants). Migration affects population change directly by adding to or subtracting from the population. It also affects population indirectly by impacting, for example, the age structure of a population and related mortality and fertility patterns in the respective countries. This part of the report will focus on the direct impact of net migration and natural change on overall population change.

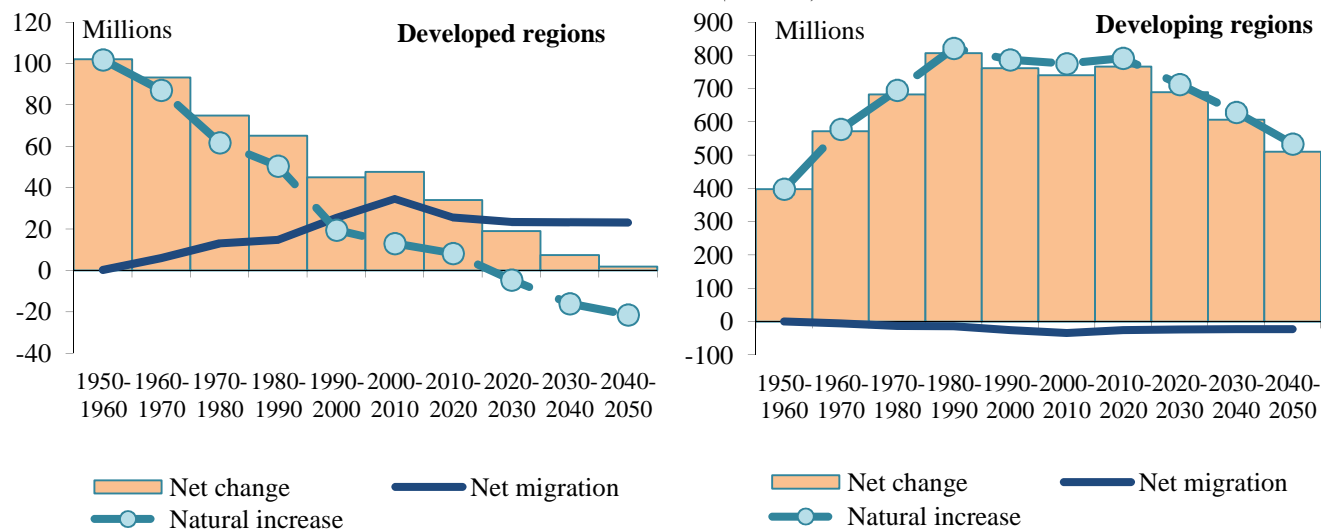
In Europe, Northern America and Oceania, positive net migration has had an increasing impact on population growth since 1950, while natural increase has become less important. In

Europe, natural increase became negative in 1990-2000 and net migration is projected to offset population decline until 2010-2020. After 2020, however, and despite continued positive net migration, the surplus of deaths over births is projected to dominate population change, leading to population decline in Europe.

Between 1950-1960 and 2000-2010, net migration increasingly contributed to population growth in Northern America and Oceania, while natural increase became less important. By 2030-2040, net migration in Northern America will, for the first time, contribute more to population growth than natural increase. From then on, net migration will drive population growth in Northern America. In Oceania, natural increase will remain the main driver of population growth, but at a declining rate.

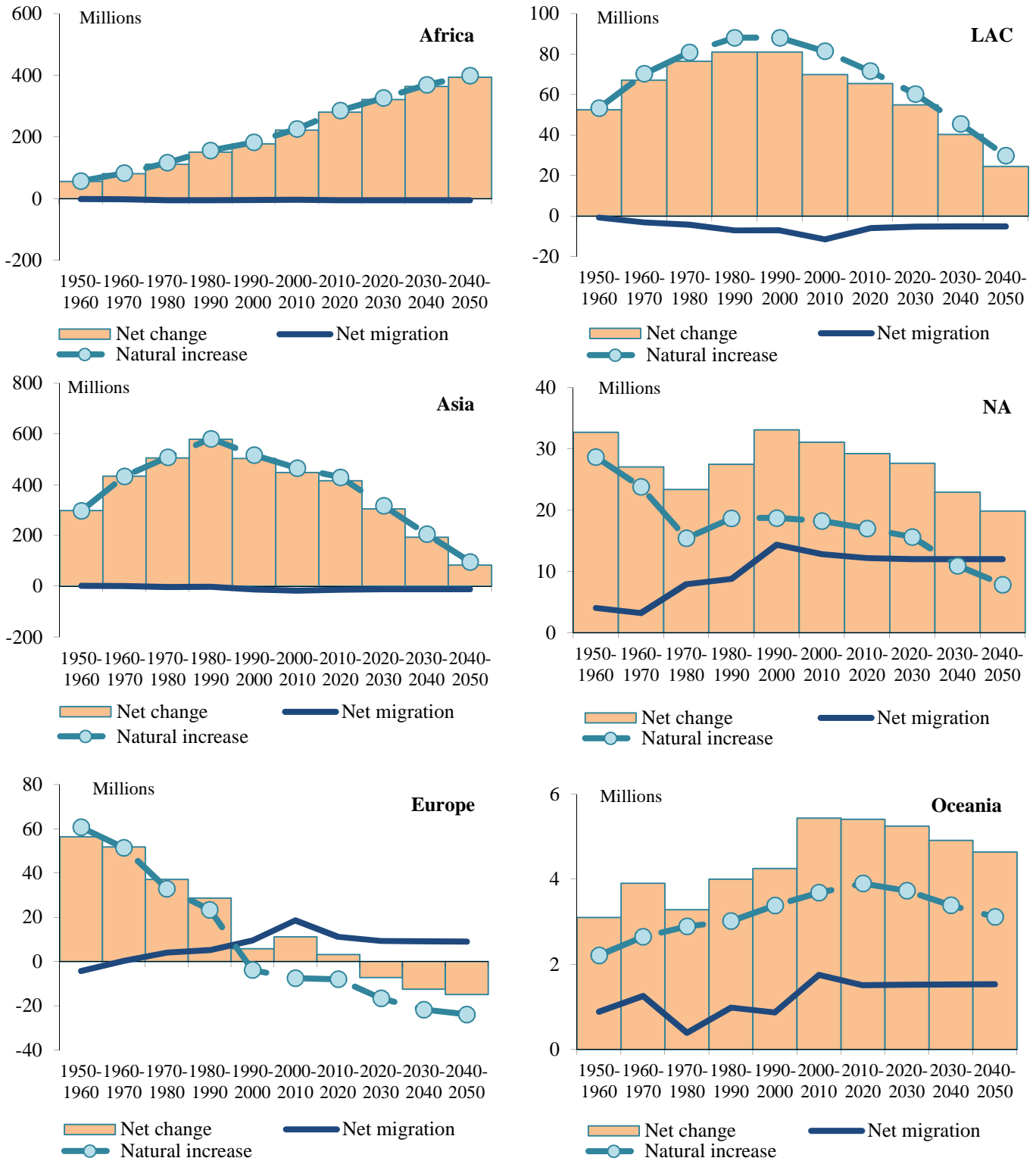
The impact of international migration on population growth or decline can also be assessed by comparing the results of the 2010-2050 population projection of the medium variant with those obtained by projecting the population with zero international migration. In other words, the zero-migration scenario illustrates the effect natural population change alone would have on future population growth since migration is set to zero starting in 2010. Comparing the projected

**Figure II.2. Contribution of natural increase and net migration to total population change by development group, 1950-1960 to 2040-2050 (millions)**



Source: United Nations, Department of Economic and Social Affairs, Population Division (2013). *World Population Prospects: The 2012 Revision, DVD Edition*.

**Figure II.3. Contribution of natural increase and net migration to total population change by major area, 1950-1960 to 2040-2050 (millions)**



Source: United Nations, Department of Economic and Social Affairs, Population Division (2013). *World Population Prospects: The 2012 Revision, DVD Edition*.

Note: LAC refers to Latin America and the Caribbean, while NA refers to Northern America.

TABLE II.3: PROJECTED POPULATION, MEDIUM VARIANT PROJECTION AND ZERO-MIGRATION SCENARIO BY DEVELOPMENT GROUP AND MAJOR AREA 2050

<i>Development group and major area</i>	<i>Population in 2050 (millions)</i>		<i>Difference as percentage of medium variant</i>
	<i>Medium variant</i>	<i>Zero-migration scenario</i>	
World.....	9 551	9 553	0.0
Developed regions .....	1 303	1 169	-10.3
Developing regions .....	8 248	8 384	1.7
Africa.....	2 393	2 425	1.3
Asia.....	5 164	5 235	1.4
Europe.....	709	656	-7.5
Latin America and the Caribbean .....	782	811	3.8
Northern America .....	446	378	-15.3
Oceania.....	57	48	-15.4

Source: United Nations, Department of Economic and Social Affairs, Population Division (2013). *World Population Prospects: The 2012 Revision, DVD Edition*.

populations of the medium variant with those of the zero-migration scenario helps assess the relative impact continued international migration is expected to have on population change.

Table II.3 presents a comparison of these two types of projection results for 2050. As expected, the zero-migration scenario produces a smaller population for the developed regions and a higher one for the developing regions. But the magnitude of the difference in relative terms is revealing: in the developed regions, zero-migration during 2010-2050 is projected to result by 2050 in a population about 10 per cent smaller than it would have been with a migration inflow. In the developing region immigration will increase the population by almost two per cent by the same year. This comparison confirms the important impact of international migration on population growth in the developed regions.

The largest relative differences between the 2050 population in the medium variant and the zero-migration scenario are found for Northern America and Oceania. Without any international migration the projected populations of Northern America and Oceania in 2050 are projected to be 15 per cent smaller than according to the medium variant. The potential difference for the population of Europe is more modest, about seven per cent. The medium variant for Africa and Asia results in populations that are smaller than under the zero-migration scenario. For Latin America

and the Caribbean the population projected without migration would be about four per cent smaller.

Given the age selectivity of migration, migration affects the age and sex composition of a population. The dependency ratio is a commonly used measure of potential social and economic support needs. The total dependency ratio is calculated as the ratio of the dependent population (under 15 years of age and 65 years or older) to the working-age population (15 to 64 years of age). Table II.4 presents dependency ratios for the medium variant projection and the zero-migration scenario. In general, the higher this ratio, the more people each potential worker needs to support.

According to the medium variant, the dependency ratio is projected to increase in the developed regions over the next 40 years from 48 to 72. In other words, for every 10 working adults, there were 4.8 dependent persons in 2010 while there are projected to be 7.2 dependent persons in 2050. Assuming no migration, the dependency ratio will increase to 76 in the developed regions in 2050 with 7.6 dependent persons per 10 working adults. Northern America, followed by Oceania and Europe would be the most affected regions if there were no international migration. They would all experience higher dependency ratios in the zero-migration scenario compared to the medium variant. In Latin America and the Caribbean, the dependency ratio under the zero-

migration scenario would decline to 57, from 58 in the medium variant, Africa's and Asia's dependency ratios would not be affected if there were no migration.

TABLE II.4: DEPENDENCY RATIO UNDER THE MEDIUM VARIANT PROJECTION AND ZERO-MIGRATION SCENARIO BY DEVELOPMENT GROUP AND MAJOR AREA, 2050

<i>Development group and major area</i>	<i>Dependency ratio in 2010</i>	<i>Dependency ratio in 2050</i>		<i>Difference between zero-migration scenario and medium variant</i>	<i>Difference as percentage of medium variant</i>
		<i>Medium variant</i>	<i>Zero-migration scenario</i>		
World.....	52	58	58	—	—
Developed regions .....	48	72	76	4.3	8.8
Developing regions .....	53	57	56	-0.3	-0.5
Africa.....	80	61	61	-0.2	-0.3
Asia.....	48	55	55	-0.2	-0.3
Europe.....	47	73	77	3.5	7.5
Latin America and the Caribbean .....	54	58	57	-1.1	-2.0
Northern America .....	49	66	71	4.6	9.4
Oceania .....	53	62	66	4.2	8.0

Source: United Nations, Department of Economic and Social Affairs, Population Division (2013). *World Population Prospects: The 2012 Revision, DVD Edition*.