



Demographic trends and — urbanization





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Demographic Trends and Cities: Framing the Report



I. Global Trends: Why do they matter for cities?

“Sustainable Development Goal 11 is a commitment to making cities inclusive, safe, resilient and sustainable, and participatory planning can play an important role in the implementation...Sustainable urbanization requires that cities generate adequate income and decent employment opportunities; provide the necessary infrastructure for water and sanitation, energy, transportation and communication; ensure equitable access to housing and services; minimize the number of people living in slums; and preserve a healthy environment within the city and surrounding areas.” (UN General Assembly 2015)

It is now widely accepted that the future is urban. Over 55 percent of the world’s population lived in urban areas in 2018; by 2050, this proportion will grow to two-thirds. The United Nations calls urbanization one of four “demographic mega-trends” (UNDESA 2019), along with population growth, aging, and international migration. Yet patterns of urbanization are highly heterogeneous, both within and across countries. Asia and Africa will see both the largest numbers of urban dwellers and the fastest growth in urbanization (see figure 1). In fact, seven of the ten countries with the fastest projected urbanization rates between 2018 and 2050 are located in Africa. Burundi is expected to urbanize fastest in the coming decades, followed by Nepal and Malawi.

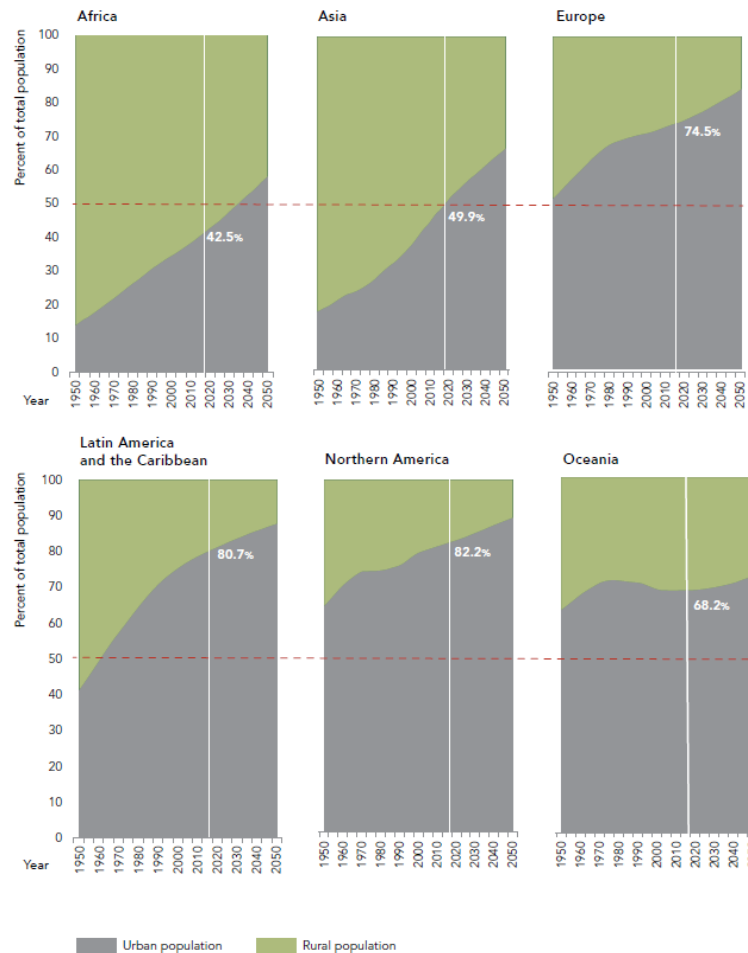
Although global urbanization will continue, its pace is expected to slow in the future, with both the absolute size of the urban population and the proportion of urban dwellers likely to grow less rapidly (UNDESA 2019). Already, we are beginning to see shrinking cities in some parts of Eastern Europe, where both total population and urban population are declining. Since urbanization and urban growth are so disparate across geographies, the implications of these trends are also very localized. As Part II of this chapter, we highlight some global demographic trends

and their implications for urban areas, while Part III will highlight some regional trends.

What are the implications of demographic trends on urbanization, urban growth, and the well-being of urban populations? Demographic trends interact with economic, social, and political trends to create a dynamic context for the functioning of cities, towns, and metropolitan areas. The Sustainable Development Goals (SDGs) are a beacon that prompt us to “leave no one behind” and to address the dynamic nature of populations. *Demographic Trends and Urbanization* identifies key demographic trends and their impact on cities to inform policy dialogue and investment priorities. It highlights the

heterogeneity of demographic trends across regions and brings out their implications for urban areas. As policy makers use demographic projections to look ahead, they will face questions that are best addressed proactively. The report is intended as a roadmap for cities and towns, so that they can prepare for a changing population and make proactive policy decisions. It is also meant as an aid to World Bank staff as they engage with national and city governments and advise on the implications of demographic change for cities and metropolitan areas. Finally, members of civil society, investors, and communities are likely to benefit from the insights in this report.

FIGURE 1 Growth of urbanization by world region 1950-2050.



Source: Das and Espinoza 2019 based on UNDESA 2018a

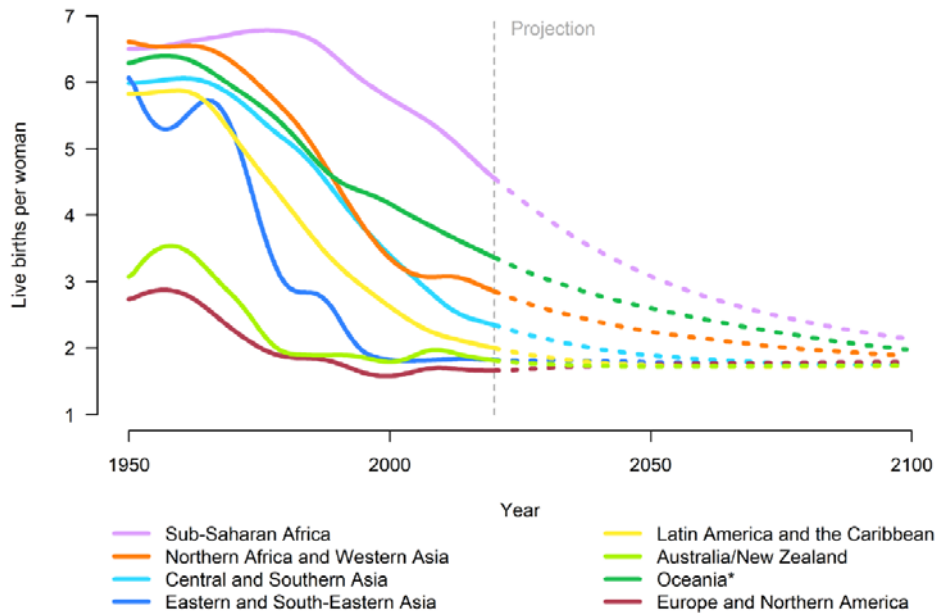
The patterns, pace, and causes of urbanization are diverse, and very much influenced by demography. Cities have been the engines of growth over the past century, propelled by unprecedented population increases. However, the days of easy growth due to high birthrates and mass migration from the countryside are coming to an end in some regions. Many of today’s cities must contend with declining and aging populations, either now or in the near future. Understanding these underlying dynamics can help to elevate discussions about public spending, infrastructure investment, and urban design based on projections of future urban growth or decline.

For example, our research found that although many cities in Latin America are going through another short burst of population growth, at least in absolute numbers, the region faces an imminent new reality of aging and shrinking cities. What does this mean for the current cycle of infrastructure investment and spending? Equally, many cities in Eastern Europe and Central Asia are already declining and shrinking. These demographic trends present policy makers with challenges—but also

opportunities—as they contemplate policy and investment decisions. Infrastructure investments in particular have a long life-cycle and can “lock in” a city’s development path, and must therefore be made with an eye to long-run demographic projections, which may indicate how and how long a city will keep growing. This big-picture analysis gives way at the city level to more granular investigations related to, for example, the regeneration of neglected neighborhoods in city centers that may be more accessible for the elderly, the prevalence of public space and parks with recreational opportunities for young people, and the need to better integrate and “mix” residential neighborhoods and employment opportunities. The built environment shapes, and in many ways determines, the way we live, work, and play. In order to enable our cities to facilitate and respond to human needs and preferences, urban design must begin from an understanding of our demographic reality and our demographic future.

Fertility, mortality, and migration: This report focuses on this classic triumvirate of demographic trends, but also brings out other associated

FIGURE 2 Fertility Decline Across the World: 1950-2100



Data source: United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Population Prospects 2019*.
 * excluding Australia and New Zealand

demographic patterns and their implications for urban policy and for the well-being of residents. While most countries around the world have seen a decline in both fertility and mortality, the patterns vary across and within regions, and even within countries. Figure 2 shows the pace of fertility decline across geographical regions. These trends are important for urban growth, which is determined by natural increase, migration, and the reclassification of urban areas (UNDESA 2019). Overall, in part as a result of better services and lower levels of poverty, both fertility and mortality in urban centers tend to be lower than in rural areas.

Europe has the lowest fertility rates and is the fastest-aging continent. By the 1970s, Australia, Japan, and all highly developed countries in Europe and North America had experienced a fertility decline. In China, fertility fell sharply in the 1970s in response to population policies. Other countries, like Cuba, the Republic of Korea, and Thailand, joined the expanding group of countries with fertility below replacement level in the 1980s and 1990s. The five countries or territories with the world's lowest total fertility rates for 2010–15 are in East Asia: Taiwan, China (1.11); Macao SAR, China (1.19); Hong Kong SAR, China (1.20); Singapore (1.23); and the Republic of Korea (1.23) (UNDESA 2019).

Age structure: Demographic trends of fertility, mortality, and life expectancy have a bearing on the age structure of the population. The “population pyramids” that are seen early in the demographic transition, with their wide base indicative of larger cohorts of children and smaller cohorts of older persons, often give way to other shapes. For instance, many countries in sub-Saharan Africa, the Middle East and North Africa (MENA), and South Asia see a “youth bulge.” This means that, while fertility many have dropped, the children that were born a decade or two ago are now part of the youth population. In countries with very low fertility and increased life expectancy, such as Japan, the age structure resembles an inverted pyramid. Each of the shapes has national policy implications and, depending on the

degree of urbanization and the location of the cohorts, can affect urban policy. Cities that have larger proportions of the youngest cohorts, for instance, will need to invest in maternal and child health, schooling, childcare, and other aspects affecting child development and parents of young children. In all likelihood, parents of young children are also active workers, and while the city may have a high dependency burden arising from children under the age of 14, it will also see a larger cohort of workers compared to a city that has both a high proportion of young children and of older persons (above age 65). Figures 3a and 3b highlight the ways in which the age structure of the population will change from 2020 to 2100.

Overall, age structure has a bearing on dependency burden and the extent to which a country (or a sub-national region or city) has to provide for the care of “dependents” as opposed to benefitting from the “dividend” of having a higher proportion of working age adults. This benefit is often called the “demographic dividend.” The literature is rife with analyses of the demographic dividend in regions as diverse as MENA, Asia, and Africa (see, for instance, World Bank and IMF 2016). However, such a dividend does not accrue automatically. Countries, regions, and cities have to put in place appropriate policies and incentives for jobs and economic growth that can reap the dividend.

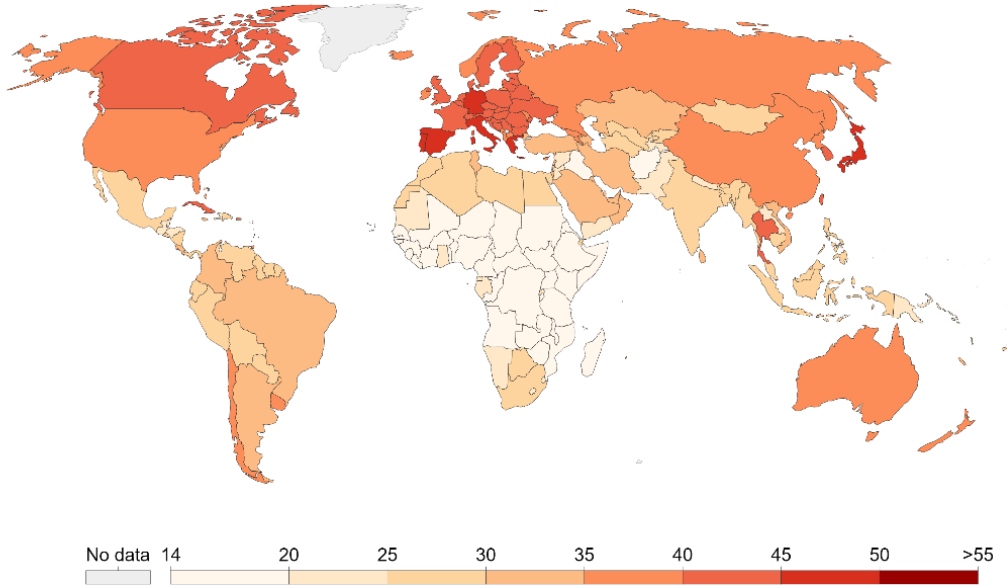
Aging of the population deserves additional discussion, not least because the UN (UNDESA 2019) has identified aging as a “demographic megatrend.” The number of older people worldwide is projected to grow from 901 million in 2015 to 1.4 billion in 2030 to 2.1 billion in 2050. In 2015, one in eight people worldwide was 60 or older; in 2030, this number will be one in six, and by 2050, one in five. The proportion of the world’s “oldest old” —i.e., people aged 80 years and over—is projected to rise from 14 percent in 2015 to more than 20 percent in 2050. Most will be women: in 2015, women accounted for 54 percent of the world’s older population and 61 percent of the “oldest old” (UNDESA 2015). In some countries,

FIGURE 3A AND 3B Distribution Median Age of the Global Population – 2020 and 2100

Median Age, 2020



The median age divides the population in two parts of equal size: that is, there are as many persons with ages above the median age as there are with ages below the median ages.

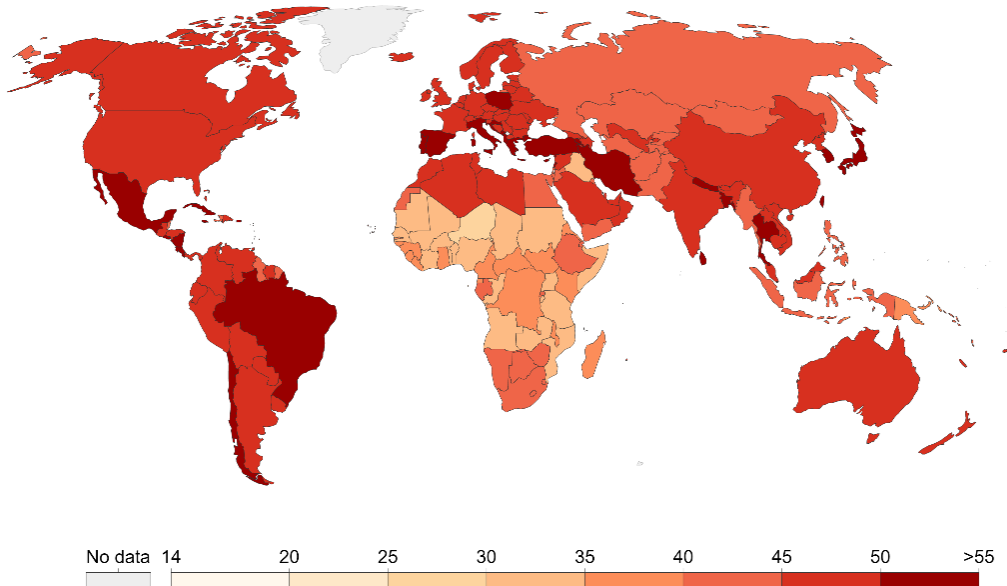


Source: UN Population Division (Median Age) (2017) OurWorldInData.org/age-structure • CC BY
 Note: 1950 to 2015 show historical estimates. From 2016 the UN projections (medium variant) are shown.

Median Age, 2100



The median age divides the population in two parts of equal size: that is, there are as many persons with ages above the median age as there are with ages below the median ages.



Source: UN Population Division (Median Age) (2017) OurWorldInData.org/age-structure • CC BY
 Note: 1950 to 2015 show historical estimates. From 2016 the UN projections (medium variant) are shown.

especially in East Asia, working-age adults may migrate to cities in pursuit of employment while the elderly stay behind in rural areas. This has implications for intergenerational transfers and social protection in both urban and rural areas.

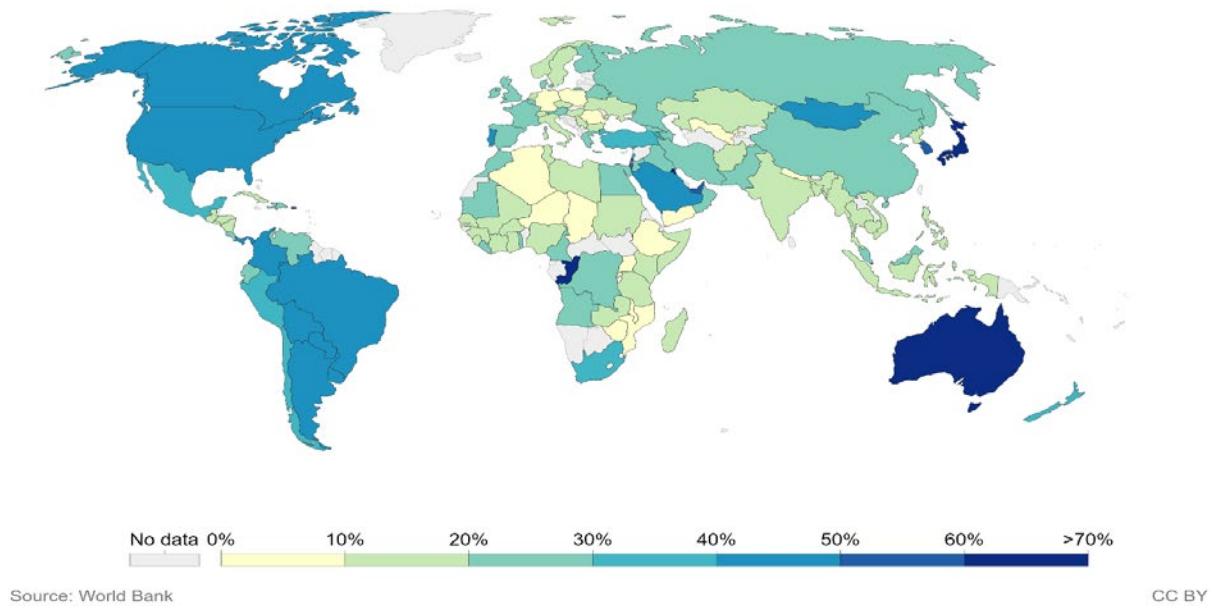
Migration: Internal and international migration affect not just urban growth, but also the population's age, socioeconomic status, and other characteristics. For instance, migrants are often younger on average compared to their sending areas or, indeed, their receiving areas. Therefore, migration has an impact on the age structure of both areas. This is true of both internal and international migrants (UNDESA 2019). Migration can be voluntary, with workers or students seeking jobs or education, respectively; it can also be involuntary or forced. Policies need to ensure that migration occurs in a manner that protects both migrants and the populations in receiving areas. Conversely, measures that seek to control rural-to-urban migration are usually “ineffective at forestalling city growth and can even result in economic, social and environmental harm” (UNDESA 2018b, 4). Migrant workers in cities have received sharp attention during the current pandemic, as the poorest among them are often informal manual workers in precarious jobs, living in crowded, sub-standard dwellings. With the widespread lockdowns, they have become unemployed and, as in India, have had to return to their homes in villages. In still other cases, the poorest migrants may be cloistered in employer-provided dwellings and be at greater risk of contracting COVID-19.

Involuntary migrants range from those escaping war to those escaping disasters, such as floods or droughts. Forced migrants often land in urban areas. In 2018, about 61 percent of the world's refugee population was based in urban centers (UNHCR 2018). Climate-related migration has always been common and is expected to increase over time. A

“In drylands, labor migration and rural to urban migration can be expected to increase, and extreme events will probably lead to more migration under distress. ... In coastal zones, by midcentury there may be increased rates of rural to urban migration, temporary and indefinite, as well as displacement from smaller atolls and the seaward edge of deltas as a result of erosion and salinization. For montane regions, though case-dependent, further increases in already high rates of rural to urban migration and to international destinations are projected. Smallholder cropping regions can expect increased rates of rural to urban migration across all regions, both temporary and indefinite.” (Rigaud et al 2018, 30)

recent report on climate-induced migration makes the following projections for urban areas:

Spatial patterns: Who lives where and how does it matter? Spatial patterns of residency are another important correlate of the differential effect demographic trends have on urban and rural areas. In 2018, about a fourth of the world's urban population, or a billion people, lived in slums or informal settlements, with the majority being concentrated in Asia and Africa (UNDESA 2019). Slums are often overcrowded, have poor housing, and lack access to basic infrastructure, such as the water and sanitation services so essential for the control and management of disease. Residential patterns also have implications for the spread of disease in cities that are not managed well. The COVID-19 pandemic has brought issues of residential patterns to the forefront of policy, as urban centers have been the areas worst affected. The debate on the extent to which population density in urban areas matters is a heated one, with one aspect emerging with clarity—that sound urban management has implications not just for the localized area of the city, but globally.

FIGURE 4 Share of people living in urban agglomerations of more than 1 million, 2017

Source: Our World in Data, based on World Bank data <https://ourworldindata.org/urbanization>

The population of some countries is concentrated in a few big cities, while that of others is more dispersed across cities and towns of different sizes. Figure 4 shows the distribution of the population that lives in agglomerations larger than one million. The countries in this category are very heterogeneous. Some, like Kuwait, the United Arab Emirates, Japan, Puerto Rico, and Israel, have high concentrations of people living in large urban agglomeration; other countries in Europe, Asia, and Africa have between 10 and 40 percent of their populations in

cities of over a million persons. This spatial distribution has implications for a range of urban policies, from transportation and other services to economic growth and public administration, and also bears on economies of scale.

This section has highlighted some of the major global demographic trends and their implications for urban areas as a prelude to the next section, which will address some regional and city-level trends and their implications.

II. Major demographic trends at regional, national and city-level

This section highlights some regional demographic trends.

Eastern Europe and Central Asia. The countries of Eastern Europe and Central Asia (ECA) are experiencing demographic trends that are unprecedented in human history. The combination of extremely low birth rates, emigration, and moderate mortality is leading to rapid population aging together with population decline in many countries of the region. However, Turkey and Central Asian countries (Tajikistan, Turkmenistan, and Uzbekistan) have only just entered this late stage of demographic transition, with fertility and mortality at all ages falling and working-age cohorts growing as a share of the population. The rest of the region has already reached an advanced state of population aging and, according to the demographic dividend framework, can be considered late- or post-dividend countries.

Population aging is largely attributable to low and declining fertility rates rather than an increase in longevity, unlike in East Asia. This trend could sharply slow population growth. In many countries in the region, the population is already shrinking. In addition, emigration has accelerated population decline—the young leave and don't necessarily return.

The demographic shifts of the past decades, especially the expansion of the working-age population and declining fertility rates, have opened a window of opportunity for the countries of Eastern Europe and Central Asia. In all ECA countries, the number of young people is expected to stabilize at around 17 percent of the population by 2075, according to the medium-fertility scenario of the UN World Population Prospects. The working-age population, however, is relatively large, and expected to expand further in the coming decades in most countries.

All countries in the region are also experiencing increases in the proportion of people in older age groups. However, life expectancy among both younger and older age groups is lower in ECA countries than in other regions, largely due to non-communicable diseases (especially heart disease), injuries (mainly road accidents), and other lifestyle-related mortality risks. In terms of life expectancy at young ages, the region is still lagging behind Western and Northern Europe. In addition, migration rates of young people from ECA countries are higher than elsewhere, accelerating the aging trend.

East Asia and Pacific region. The East Asia and Pacific (EAP) region as a whole has undergone a demographic transition that has changed the region's age structure significantly. Due to fertility declines, the proportion of the working-age population is currently at its peak. However, it is expected to decline, while the share of older persons is increasing.

The population in the EAP region is aging more rapidly than any region in history. The main driver of this phenomenon has been a rapid decline in fertility combined with steady increases in both life expectancy and health life expectancy. Although much of East Asia and Pacific has still to experience its most rapid period of aging, it already has the largest regional population of people aged 65 and above, primarily concentrated in China (World Bank 2017).

The demographic diversity of EAP countries and territories is highly correlated with income levels. In 2010–15, the total fertility rate was well below the replacement level (2.1 children per woman) in high-income economies (for example, 1.4 in Japan and 1.2 in the Republic of Korea) and well above that level of reference in lower-middle-income countries, with a maximum value of 5.9 children per woman in Timor-Leste (World Bank 2016). This indicator reveals important variations within the region: while the lowest values are recorded in lower-middle-income countries with an average life expectancy close to 70 years, the higher values are observed in high-income countries, with an average life expectancy between 82 and 84 years.

The correlation between total fertility and population growth also depends on income level: in almost all lower-middle-income countries, a high fertility rate has been the major driver of population growth, and in almost all and upper-middle- and high-income countries, fertility below replacement level has slowed population growth, and even led to population decline. There are some exceptions, generally related to either past fertility rates (e.g., Brunei Darussalam and New Caledonia) or international migration movements (e.g., Singapore and Macao SAR, China).

During the last four decades of the twentieth century, the working-age populations of the region grew much more rapidly than the dependent populations, fueling growth in per-capita income. Over the coming decades, however, demographic change will be increasingly unfavorable. The working-age populations of many countries will grow more slowly than dependent populations due to rapid growth in the number of elderly persons. Thus, the demographic dividend will be undone.

South Asia. The region is experiencing rapid demographic changes that create a window of opportunity for potential demographic dividend. South Asian countries are of very unequal size and the population of these countries is growing at a variable pace. According to UN estimates, the average rate of population growth in Afghanistan was nearly 3.2 percent for the period 2010–15, compared to scarcely more than 0.4 percent for Sri Lanka. The progress of demographic transition also varies. The transition has not yet begun in Afghanistan, is complete in Sri Lanka, and is under way in the other countries of South Asia. Only Sri Lanka is in the process of completing its demographic transition; its rate of population growth is below 1 percent.

Total fertility: Between the periods 1950–55 and 2010–15, fertility declined sharply in all countries of the region, except in Afghanistan, where, according to United Nations estimates, it remained above 5 children per woman. Women in Sri Lanka had slightly over two children on average in the period 2010–15 and the fertility transition there is complete, whereas in Afghanistan it has yet to start. In the other countries, the fertility transition is under way.

Mortality: As in the rest of the world, mortality has declined in all countries of the region since 1950. The region's two extremes are Afghanistan, where life expectancy at birth was 62 years in 2010–15, and Sri Lanka, where the mean length of life (close to 75 years in the same period) is above the world average. The other countries are in intermediate positions.



As consequence, South Asia is experiencing a youth bulge. The main contributing factors are increasing life expectancy and falling fertility rates, which are more pronounced in urban areas. Fertility rates have been consistently lower in urban areas than in rural areas, and they are falling faster among urban women in some countries, including Bangladesh.

Middle East and North Africa. The Middle East and North Africa (MENA) region's population continues to grow strongly, albeit at a declining rate, driven by fertility rates higher than the global average. As in some other regions, the combination of a decline in child mortality and the relatively slow onset of fertility decline has resulted in a large youth bulge.

The current fertility rate for the region declined from over 6 births per woman in 1984 to 2.8 in 2015 (still higher than the world average of 2.4). The decline started first in Egypt, Iran, and Tunisia. These three countries were among the first in the region to adopt policies intended to lower fertility as a way to slow population growth (Population Reference Bureau 2008). Iraq, West Bank and Gaza, and the Republic of Yemen still have very high fertility rates, with over 4 births per woman. Life expectancy is

comparable to the world average, and the mortality rate is lower despite the conflicts affecting many countries in the region.

Aging is not an issue yet, but is set to rapidly increase over the coming decades. The share of the population over age 65 was 4.8 percent in 2015, well below the world average of 8.3 percent; however, this share is expected to double by 2040 (though still remain below the projected 2040 world average of 14 percent).

The population in the MENA region is expected to double in size during the first half of the twenty-first century, with major changes in population age structure. Adolescents and the youth population in almost all countries in the region will increase, expanding the share of the working-age population, with fewer dependents to support. MENA's growing young population is a huge opportunity and could generate a demographic dividend. However, in Gulf Cooperation Council countries, foreign migrant laborers make up a large share of the total population, and migration is the main force that drives the growth rates of the youth population.

Latin America and the Caribbean. The demographic transition in most countries in the Latin America and the Caribbean (LAC) region is advanced, with low infant mortality and replacement-level fertility rates, which were attained over the course of 40 or fewer years. Although the pathways to the fertility transition in these countries were similar, the initial fertility level, timing, and pace varied. Argentina and Uruguay, for example, had relatively low fertility in the 1960s and mostly sustained that rate into the 1980s. Other countries—Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, and Venezuela—underwent the transition rapidly in the 1960s but have since seen a slower reduction in fertility. Some countries—El Salvador, Mexico, Nicaragua, and Peru—saw little fertility decline in the 1960s but then rapid decline two decades later.

Under the medium-fertility variant, life expectancy at birth is 75.7 years, and the overall infant mortality rate was 16 per 1,000 live births for 2015–20. An increasing share of the population is over the age of 65: from 5.6 percent in 2000 to a projected 19.4 percent in 2050 (UNDESA 2019).

Consequently, countries in Latin America and the Caribbean are currently younger, but face rapidly aging populations. On average across the region, there are proportionally more people aged 15 to 64 years (66.8 percent of the total population) than children under 14 (25.6 percent) or over 65 years old (7.6 percent). The total dependency ratio, which peaked in the mid-1960s, has trended down, reaching in 2015 a value close to 50 dependents per 100 people of working age. However, it is estimated that, as a consequence of an aging population, this indicator will begin to grow again in 2035, and the demographic dividend will end.

In fact, the combination of fewer children and older adults is putting an end to the demographic dividend that Latin America has been enjoying since the 1970s—that is, the period during which the population aged between 15 and 64 has grown faster than the population younger than 15 and older than 64. Its

end implies there are fewer active people to support a growing number of dependents. Countries with the youngest populations, like Paraguay, Bolivia, and Guatemala, may still benefit from the dividend until 2045, but Uruguay, Brazil, and Colombia have only a couple of years of dividend left, while the dividend is already over in Chile and Costa Rica.

Sub-Saharan Africa. The Sub-Saharan Africa (SSA) region is a latecomer to the demographic transition and remains in its early stages, with fertility rates and youth dependency ratios that are still amongst the highest in the world.

Mortality levels have decreased dramatically over the last 50 years, in spite of the emergence of major epidemics such as HIV/AIDS and, more recently, Ebola in West Africa. At the same time, high fertility levels have persisted. Fertility decline was slower and much more limited than in other regions: from 6.6 in 1950–55 to 5.1 in 2010–15. (In Latin America and the Caribbean, fertility declined from 5.9 to 2.1 in the same period.) Thus, the time gap between the decline of mortality and the decline of fertility appears to be longer in this region than in any other developing region. A youthful age structure is also contributing to the upward trend in population growth. Even if Sub-Saharan Africa countries were to reach replacement fertility level today, the overall population would still continue to increase over the next 70 years.

Rapid population growth and the occurrence of a demographic transition in the region have generated discussions on SSA's prospects for opening a demographic window of opportunity and capturing a demographic dividend for the first time. SSA faces big challenges, however, in harnessing its demographic dividend. Most importantly, its demographic transition is projected to occur very slowly. The projected decline in fertility in Sub-Saharan Africa implies that while the working-age share started rising in 1990, it will not peak until 2080, a period of 90 years.

III. Main urban trends:

Eastern Europe and Central Asia. ECA countries have the lowest total and urban population growth rates in the world, and are among the only countries experiencing declines in both. However, within the Eastern Europe and Central Asia region, the story is far more varied: (1) Some countries continue to urbanize in the strict sense, but this is due to urban areas declining more slowly than rural areas (e.g., Bulgaria, the Russian Federation, and Ukraine); (2) A few countries have de-urbanized because the urban population has declined while rural areas have grown slowly (Poland) or because the urban population is declining more quickly than the rural population (Romania); (3) Countries in Central Asia, which remain predominantly rural, are either urbanizing very slowly (the Kyrgyz Republic, Tajikistan) or observing a slight decline in urbanization (Kazakhstan, Uzbekistan); and (4) Among all ECA countries, Turkey is perhaps the only one following the usual urbanization story.

Cities in ECA have two contrasting patterns of demographic growth and decline. Cities in countries with fertility below the replacement level or with negative net migration are overwhelmingly declining in population, while cities in countries with fertility above

the replacement level or with positive net migration tend to be growing. Poland, Turkey, and the Central Asian countries seem less affected by city population decline, while in Albania, Bulgaria, Romania, and Ukraine, the population declined in more than 80 percent of cities between 2000 and 2010.

East Asia and Pacific region. The speed and scope of urbanization in the EAP region is unprecedented. All Asian subregions are experiencing urban growth at higher rates than the overall population growth. While the region as a whole does not yet have the urbanization levels of North America (81.6 percent), Latin America and the Caribbean (79.9 percent), or Europe (73.9 percent), by 2050, urban areas will account for seven out of ten people (World Bank 2017).

The region is home to 17 megacities, including the world's largest (Tokyo). The bulk of urban dwellers live in small- and medium-size cities, where much of the region's demographic and urban transition is actually unfolding. While many cities are growing, others are experiencing growth stagnation or even population decline. The causes are varied, ranging from aging populations to loss of employment and deindustrialization (UN-Habitat and ESCAP 2015).

Cities are aging rapidly due to the decline in fertility rates above replacement levels (except in Manila, where total fertility rate is expected to reach 2.1 around 2020). However, migration (both internal and international) also plays an important role in the population growth of almost all cities, either reinforcing their depopulation (Seoul) or counteracting the effects of population loss due to fertility decline in cities that are net receivers (Beijing, Ho Chi Minh, and Tokyo).

South Asia. Urbanization in South Asia is relatively slow, but the absolute rise in urban population in the region is very large (Ellis and Roberts 2016). More than 23 percent of the world's population and at least 14 percent of its urban population resides in South Asia. In all countries in South Asia except Sri Lanka, the total population will continue to increase beyond 2050, driven by urban population growth. This growth is mainly a result of natural increase and reclassification. Though internal migration in South Asian countries far outpaces international migration, rural-to-urban migration does not contribute greatly to urban population growth.

Middle East and North Africa. We observe high rates of urbanization with declining urban growth rates. As of 2015, the MENA region was 64 percent urbanized, with an urban population of 275 million. Urbanization in most countries is in a relatively advanced stage; so is the demographic transition in urban areas, due to a sharp decline in mortality, especially among children, and a decline in fertility rates. Nevertheless, the populations of MENA countries will continue to grow rapidly for several decades due to the legacy of high fertility rates in the past, as well as migration. The projections also call attention to population aging, which will accelerate

in cities over the coming decades, in line with national trends.

Sub-Saharan Africa. The region has the highest urban growth rates in the world, driven by high rates of natural increase and rural-to-urban migration, and based on a comparatively low level of urbanization of only 39 percent in 2015 (compared to the world average of 54 percent) (UNDESA 2018a). This region also has the fastest growing rural population, which has been slowing the urbanization rate.

Latin America and the Caribbean. According to official statistics from the United Nations and CELADE–Population Division of ECLAC, the degree of urbanization in Latin America and the Caribbean is currently on the order of 80 percent. This is higher than the average for industrialized countries. Of all the major subregions of the world, only North America posts a similar level. However, the rapid urbanization of the region, and its high urban population percentages, mask substantial differences among countries. The Southern Cone countries (Argentina, Chile, and Uruguay) and Brazil, which are already very urbanized, generally have lower and more stable population growth rates than Caribbean and Central American countries, which are less urbanized and have higher growth rates of total and urban population.

Almost all the countries in Latin America and the Caribbean have seen massive migration from rural areas to urban ones. This trend continues despite the high degree of urbanization in the region, due to the persistent socioeconomic gaps between the two environments, which typically work against rural areas. However, although its importance tends to be higher in less urbanized countries, traditional rural-to-urban migration is no longer the main source of urban population growth at the regional level.

References

- Das, Maitreyi Bordia, and Sabina Anne Espinoza. 2019. *Inclusion Matters in Africa*. Washington, DC: World Bank. <https://openknowledge.worldbank.org/handle/10986/32528>
- Ellis, P., and M. Roberts. 2016. *Leveraging Urbanization in South Asia: Managing Spatial Transformation for Prosperity and Livability*. South Asia Development Matters. Washington, DC: World Bank.
- Population Reference Bureau. 2008. "Fertility Declining in the Middle East and North Africa." PRB.org, January 24, 2008. <https://www.prb.org/menafertilitydecline/>
- Rigaud, Kanta Kumari, Alex de Sherbinin, Bryan Jones, Jonas Bergmann, Viviane Clement, Kayly Ober, Jacob Schewe, Susana Adamo, Brent McCusker, Silke Heuser, and Amelia Midgley. 2018. *Groundswell: Preparing for Internal Climate Migration*. Washington, DC: World Bank. <https://openknowledge.worldbank.org/handle/10986/29461> License: CC BY 3.0 IGO."
- UN General Assembly. 2015. Resolution 70, *Transforming Our World: the 2030 Agenda for Sustainable Development*. A/RES/70/1, 21 October 2015. <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>
- UNDESA (United Nations, Department of Economic and Social Affairs), Population Division. 2015. *World Population Ageing 2015*. ST/ESA/SER.A/390. New York: United Nations. https://www.un.org/en/development/desa/population/publications/pdf/ageing/WPA2015_Report.pdf
- UNDESA (United Nations, Department of Economic and Social Affairs), Population Division. 2018a. *World Urbanization Prospects 2018*. New York: United Nations.
- UNDESA (United Nations, Department of Economic and Social Affairs), Population Division. 2018b. *World Urbanization Prospects 2018 – Highlights*. ST/ESA/SER.A/421. New York: United Nations. <https://population.un.org/wup/Publications/Files/WUP2018-Highlights.pdf>
- UNDESA (United Nations, Department of Economic and Social Affairs), Population Division. 2019. *World Population Prospects 2019: Highlights*. ST/ESA/SER.A/423. New York: United Nations. https://population.un.org/wpp/Publications/Files/WPP2019_Highlights.pdf
- UNHCR (United Nations High Commissioner for Refugees). 2018. *Global Trends – Forced Displacement in 2018*. Geneva, Switzerland: United Nations High Commissioner for Refugees. <https://www.unhcr.org/5d08d7ec7.pdf>
- UN-Habitat (United Nations Human Settlements Programme) and ESCAP (United Nations Economic and Social Commission for Asia and the Pacific). 2015. *The State of Asian and Pacific Cities 2015: Urban Transformations Shifting from Quantity to Quality*. <https://www.unescap.org/sites/default/files/The%20State%20of%20Asian%20and%20Pacific%20Cities%202015.pdf>
- World Bank and IMF (International Monetary Fund). 2016. *Global Monitoring Report 2015/2016: Development Goals in an Era of Demographic Change*. Washington, DC: World Bank.
- World Bank. 2016. Fertility Rate, Total (Births per Woman). World Bank Open Data. <https://data.worldbank.org/indicator/SP.DYN.TFRT.IN>
- World Bank. 2017. *East Asia and Pacific Cities: Expanding Opportunities for the Urban Poor*. Washington, DC: World Bank. <https://openknowledge.worldbank.org/handle/10986/27614>



DEMOGRAPHIC TRENDS IN URBAN

Subsaharan Africa



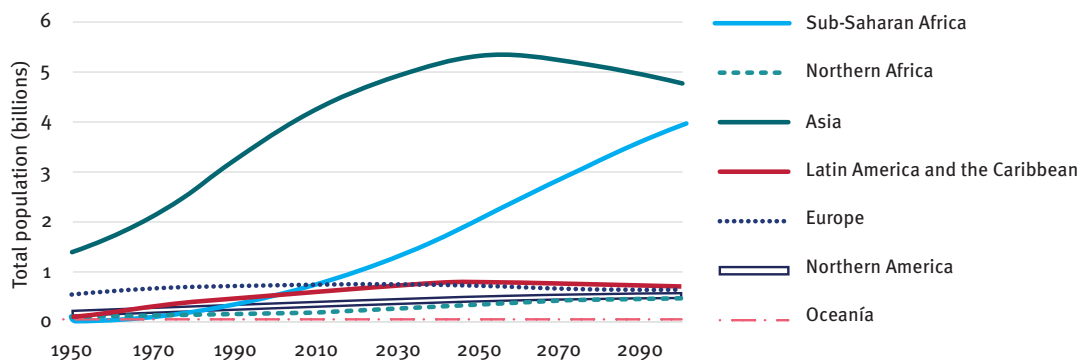
- Africa is the fastest growing and youngest region in the world. The region includes mostly pre- or early-demographic dividend countries that have fertility rates greater than 4 births per woman.
- As life expectancy increases, between 2015 and 2050, Africa will have the fastest increase in the world in the number of elderly persons.
- There is a great diversity of demographic trends amongst African countries.
- Africa has the highest urban growth rates in the world, but a relatively low share of population living in urban areas—39 percent.
- Urban growth rates are mostly driven by natural population growth rates, which contribute 60 percent of urban growth, as opposed to 40 percent for rural-to-urban migration.
- Small and intermediate cities, not the largest ones, will absorb the bulk of urban population growth.
- Since sub-Saharan Africa is urbanizing at a relatively low level of per-capita income, urban investments are lagging behind urban population growth.
- Conflict- and climate-induced migration affect the region's urbanization trends in dramatic ways.

Africa¹ is the fastest growing region in the world, with a population that increased by 2.6 percent a year in the period 2010–15. More than half of the world’s population increase between now and 2050 is expected to occur in sub-Saharan Africa: 1.3 billion of 2.2 billion people (UN 2017). The region’s population will nearly double, from 1 billion in 2010 to almost 2 billion in 2040, and may surpass 3 billion by 2070 (Figure 1).

Much of this growth will take place in urban centers, which are already struggling to provide the

infrastructure and services needed for the creation of jobs in the tradable sector (e.g., agro-processing, manufacturing, business services, etc.) to absorb the growing low-skill working-age population (Lall, Henderson, and Venables 2017). So, although the continent’s growing young and increasingly urban population offers an opportunity to advance social and economic agendas, it also presents risks, since work opportunities remain scarce and young people lack a vision of a better future for themselves.

FIGURE 1 Population by region*: estimates, 1950–2015, and medium-variant projection, 2015–2100



Source: UN 2017

* UN Classification

¹ “Africa” and “African cities” are short for sub-Saharan Africa, or cities of sub-Saharan Africa, including: Angola, Benin, Botswana, Burkina Faso, Burundi, Cabo Verde, Cameroon, the Central African Republic, Chad, Comoros, the Democratic Republic of Congo, the Republic of Congo, Côte D’Ivoire, Equatorial Guinea, Eritrea, Eswatini, Ethiopia, Gabon, The Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, São Tomé and Príncipe, Senegal, the Seychelles, Sierra Leone, Somalia, South Africa, South Sudan, Sudan, Tanzania, Togo, Uganda, Zambia, and Zimbabwe.

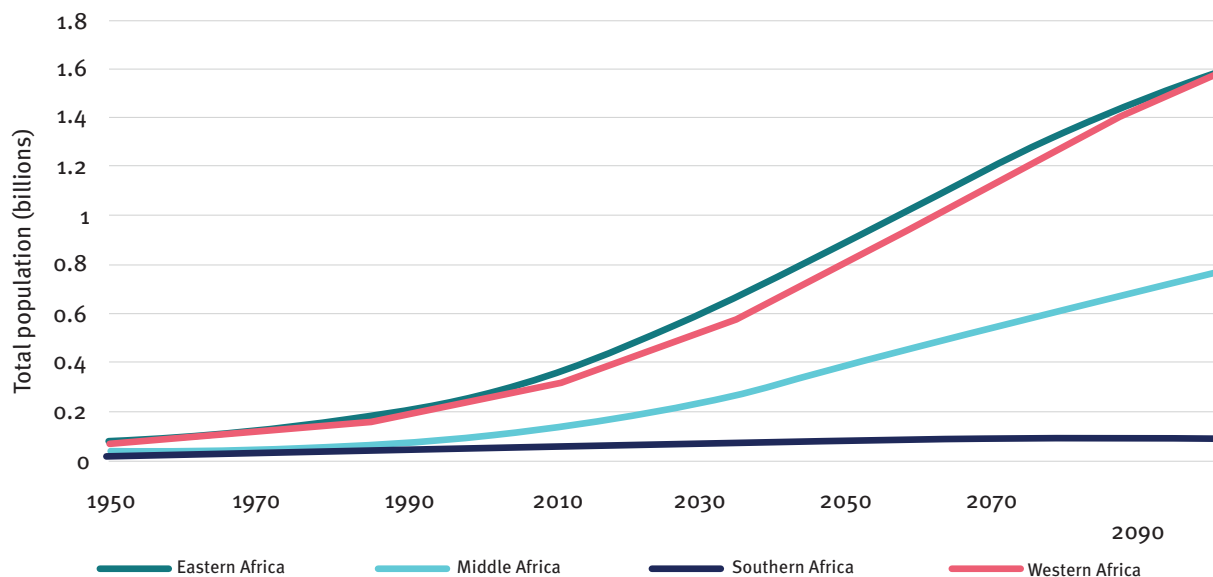
Africa's population growth is driven by consistently high fertility levels: the region remains in the early stages of the demographic transition, with fertility rates and a youth dependency ratio that are still amongst the highest in the world. The young and working-age share of the population started rising in the 1990s and will not peak until 2080. With a median age of 18 years and 43 percent of the population under 15, sub-Saharan Africa is by far the youngest region in the world. Over the coming decades, the number of older persons is also expected to grow faster in Africa than in any other region due to improvements in life expectancy, though its overall share of elderly in the total global population will remain small.

We observe important variations across the region. Population projections reflect different population growth rates (figure 2). Fertility levels range from less than 3 births per woman in some countries in southern Africa to over 6 births per woman in the Democratic Republic of Congo, Angola, and Niger.

The diversity and heterogeneity of demographic trends amongst African countries is reflected at the city level. Overall, cities are characterized by consistent population growth despite falling fertility, and will see increasing numbers of older persons. A typical African city will more than double its population over the next three decades, and many villages and towns will transform into large urban centers.

This note will begin by laying out the dynamics of the demographic transition on the continent, including the factors contributing to the consistently high levels of population growth in African cities and countries. This will set the context for a discussion of demographic trends in African cities, based on population projections we ran in a selected group of capital cities, as well as some reflections on the role of migration in driving urbanization in Africa. We will conclude by calling on policy makers and leaders to prepare for this significant growth of African cities over the coming decades, which will bring both great opportunities and great risks.

FIGURE 2 Population by sub-region of sub-Saharan Africa: estimates, 1950-2015, and medium-variant projection, 2015-2100



Source: UN 2017



I. Main demographic trends at the national and regional level

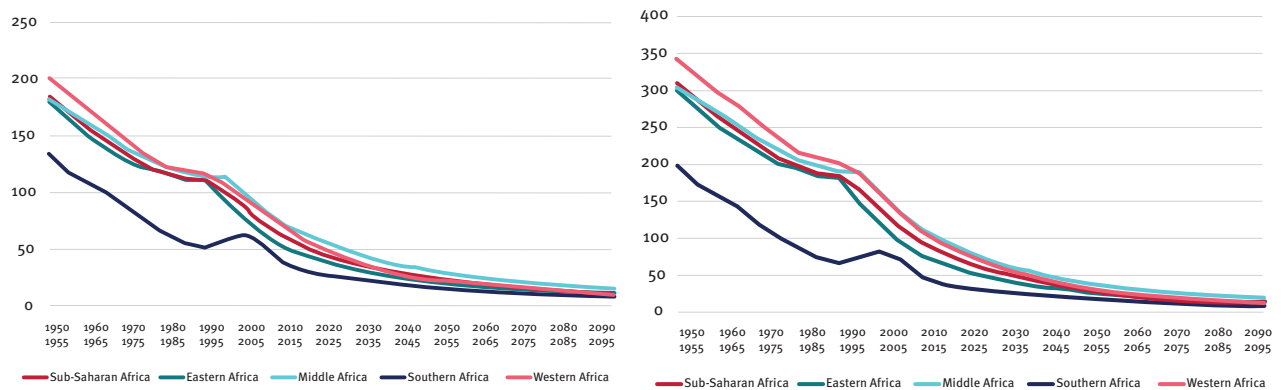
Sub-Saharan Africa is a latecomer to the demographic transition. Rapid population growth in Africa is expected to continue, even if fertility rates fall substantially in the near future. UN projections assume that fertility in sub-Saharan Africa will fall from around 5.1 births per woman in 2010–15 to 3.2 in 2045–50 to just above 2.1 in 2095–2100. (Numbers for sub-Saharan Africa are consistently higher than those for the whole continent.) After 2050, sub-Saharan Africa is expected to be the only region still experiencing substantial population growth, albeit at a slower rate than in 2017: the United Nations anticipates that the current high growth rate of 2.6 percent will fall to 1.9 percent in 2045–50 and to 0.7 percent in 2095–2100 (UN 2017).

Sub-Saharan Africa is a vast and very diverse region, and its countries have all experienced different demographic trajectories, related to a variety of historical, cultural, social, and religious factors and legacies. However, several common causes explain the unprecedented population growth that the region experienced from 1950 to 2010 (Bongaarts

2017, Canning, Raja, and Yazbeck 2015, May and Turbat 2017).

First, mortality levels (especially infant and under-five mortality) have decreased dramatically in sub-Saharan Africa over the last 50 years, in spite of the emergence of major epidemics such as HIV/AIDS and, more recently, Ebola in West Africa (Figure 3). During 1950–55, 310 of 1,000 sub-Saharan African children born annually did not survive to see their fifth birthday; by 2010–15, the under-five mortality rate decreased to 95 per 1,000, and it is expected to decrease further to 37 per 1,000 by 2045–50. While the decline has been remarkable, these rates are still higher than in any other region in the world, and there are wide variations within the region. Southern Africa has relatively low under-five mortality rates compared to the regional context, with a range of between 34 to 64 deaths per 1,000 live births in the period 2010–15. In middle, eastern, and western Africa, mortality rates are around twice as high than in southern Africa, with more than 130 deaths per 1,000 live births in some countries, such as Chad and Central African Republic.

FIGURE 3 Infant and under-five mortality (both sexes combined) in sub-Saharan Africa, 1950–2015 (estimated) and 2015–50 (projected)



Source: UN 2017

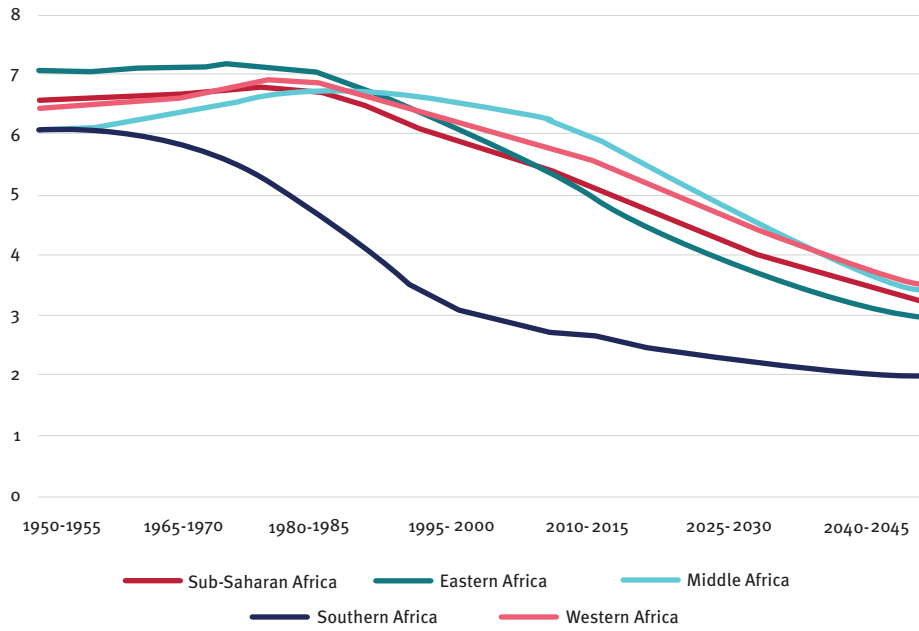
Second, high fertility levels have persisted. The fertility rate has declined from 6.6 children per woman in 1950–55 to 5.1 in 2010–15, but the decline was slow and much more limited than in other regions. As a comparison, in Latin America and the Caribbean, fertility declined from 5.9 to 2.1 over the same period. Once again, regional averages mask large variations (figure 4).

Thus, fertility has declined much more slowly than mortality, and the time gap between the decline of mortality and the decline of fertility appears to be longer in sub-Saharan Africa than in any other developing region. Although the fertility transitions have now started in nearly all sub-Saharan African countries, actual fertility declines have often been modest. In addition, fertility in a number of these countries has stalled mid-transition, a pattern that has rarely been observed elsewhere. The slow pace of the sub-Saharan African transitions can be attributed to several factors: the slow pace of social and economic development, the pronatalist culture, and the fact that family planning programs remain weak in many countries (Bongaarts 2017).

A key question is whether fertility in Africa will continue to decline slowly or whether the fertility transition will accelerate. The decline in fertility is projected to continue in all regions, with replacement-level fertility attained in all islands by 2025–30 and in South Africa by 2030–35; it is projected to take at least another 50 years for rest of the continent. Again, there are wide variations in the pace and magnitude of decline. While countries such as Mauritius continue to have low fertility rates—at below-replacement level in 1995–2000—others, such as Angola, Niger, and Somalia, will continue to have relatively high levels of fertility, with a projected total fertility rate close to or above 4 children per woman in 2045–50 (UN 2017).

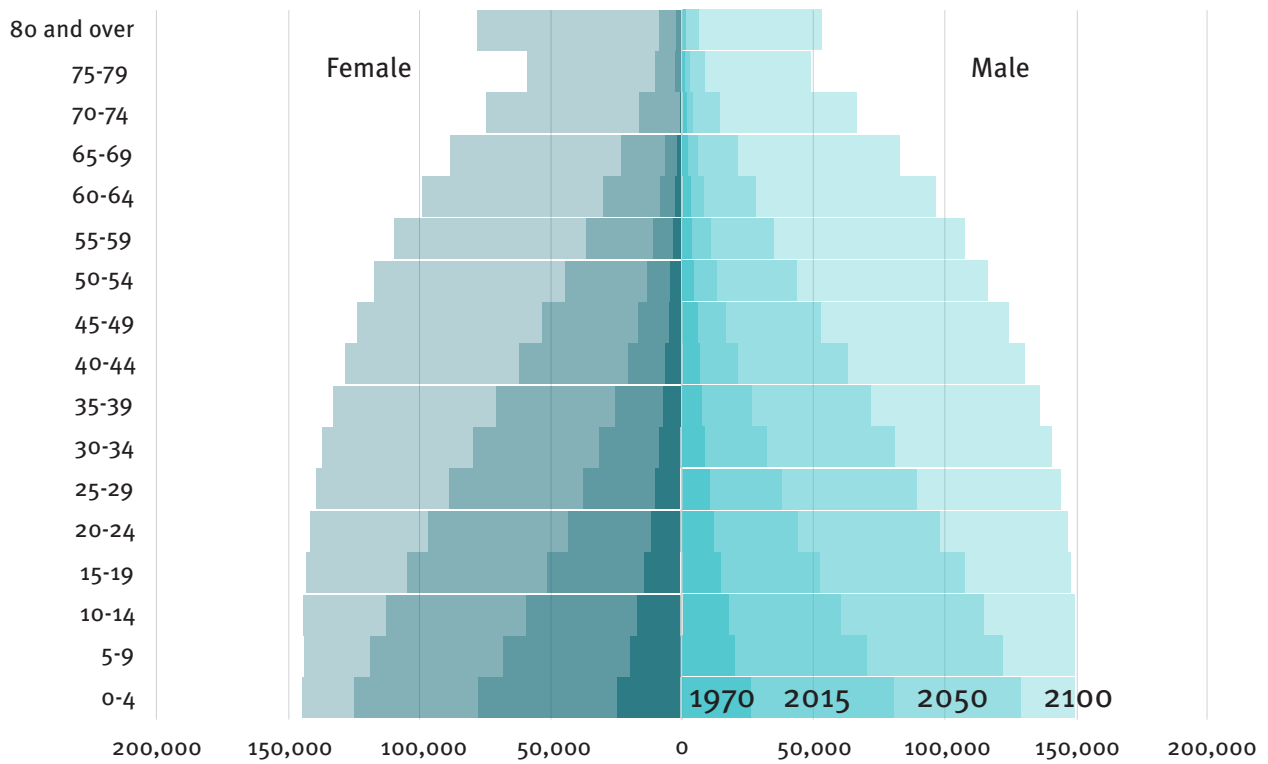
Third, the youthful age structure contributes to the upward trend in population growth. Because the population in sub-Saharan Africa is very young, numerous young people will enter the reproductive age bracket, which will also fuel population growth. In other words, even if sub-Saharan African countries were to reach replacement fertility level today, the overall population would still continue to increase over the next 70 years (figure 1).

FIGURE 4 Total fertility rates (children per woman) in sub-Saharan Africa region, 1950–2015 (estimated) and 2015–50 (projected)



Source: UN 2017

FIGURE 5 Population structure demonstrating youth bulge and population aging in sub-Saharan Africa



Source: UN 2017



The youth bulge

With a median age of 18.3, 43 percent of its population under 15, and less than 5 percent elderly (population aged 65 or over), sub-Saharan Africa is by far the youngest region in the world (figure 5). Sub-Saharan Africa will be home to an increasing share of the world's children: the share of children in Africa's population is expected to remain above 33 percent through 2055, much higher than in other regions, where it will fall to 23 percent or below.

Sub-Saharan Africa's youth bulge may offer a considerable demographic dividend and is a critical issue for the region's future. Over the coming decades, sub-Saharan Africa's labor force will grow faster than the population dependent on it. Working-age people are projected to number 1.1 billion by 2040 (UN-Habitat 2014). But a large working-age population requires a comparably large demand for labor and economic opportunity to absorb this growing population. The significant increase of young and working-age people can be an opportunity if sub-Saharan African countries can provide the jobs and services they will demand; otherwise, it can pose an enormous challenge.

Population Aging

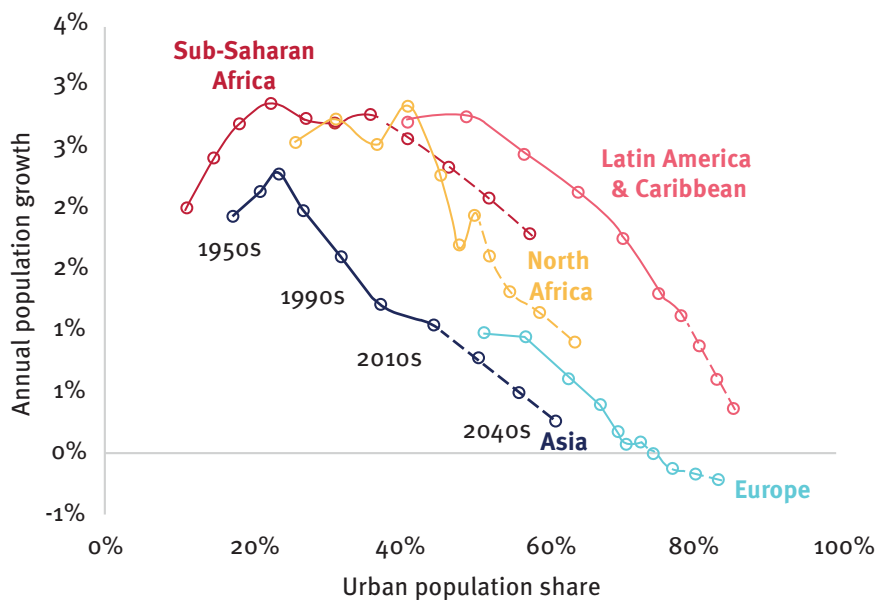
Africa will also experience a rapid aging of the population as life expectancy increases and the large cohort of young people grows older. Globally, the population aged 65 or over is the fastest growing cohort, and sub-Saharan Africa is leading this trend. Although the older population constitutes a smaller proportion of the total population than is the case in other regions of the world, the absolute number of older persons is expected to almost quadruple its value between 2015 and 2050, from 29 to 108 million. That represents a projected 272 percent increase, the fastest in the world (followed by Latin America and the Caribbean, at 214 percent, and Asia, at 180 percent) (UN 2017). This is an additional challenge for the region, which will need to adapt service delivery models and social safety net systems.

II. Main Urban Trends

Sub-Saharan Africa has the highest urban growth rates in the world, driven by high rates of natural increase and rural-to-urban migration, and based on a comparatively low level of urbanization of only 39 percent in 2015 (compared to the world average of 54 percent) (UN 2018). Sub-Saharan Africa’s urban population amounted to 376 million inhabitants in 2015 and is projected to grow to 1.3 billion by 2050. Sub-Saharan Africa will be majority-urban by 2035 and may be just over 58 percent urban by 2050 (UN 2018). The case of Africa illustrates how rapid urban population growth does not necessarily translate into

rapid increases in the urbanization level, because the latter depends on how fast urban populations are growing relative to the total population. Africa also has the fastest growing rural population, which has been slowing the urbanization rate. For example, Niger’s urban population grew by 4.2 percent in 2017, among the highest rates in the world. But because Niger’s rural fertility remained high, rural population growth (3.75 percent) slowed urbanization, keeping the proportion of the population in cities under 20 percent (World Bank 2019). This contrasts with the experience of other regions (figure 6).

FIGURE 6 High rural population growth in Africa means low urbanization, despite urban growth



Source: UN 2018

Evidence from other regions indicates that the pace of urbanization tends to slow down as the population becomes more urbanized. Southern Africa is the most urbanized region in sub-Saharan Africa and reached an overall region-wide urban majority around the end of the 1990s. In 2015, just over 60 percent of people in southern Africa lived in cities, with urban populations growing an average of 0.81 percent annually in 2015–20.

Western Africa and eastern Africa are the most rapidly urbanizing subregions in sub-Saharan Africa (figure 6). Eastern Africa is the world’s least-urbanized but fastest urbanizing subregion. Urban centers in eastern Africa are 26.6 percent urbanized, and grew more than 4.5 percent between 2010 and 2015. Cities in eastern Africa will face enormous pressure to accommodate an urban population that in 2050 is

projected to be five times greater than it was in 2010 (UN 2018). Western and middle Africa have slightly lower urban growth rates of over 4 percent at higher urbanization rates of 45 and 48 percent respectively, according to the latest UN World Urbanization Prospects data for 2018.

Small and intermediate cities, not the largest ones, will absorb the bulk of urban population growth. Cities with less than 1 million inhabitants are predicted to absorb 75 percent of urban growth. They are the fastest growing urban centers and already account for 63 percent of the urban population in Africa (UN-Habitat 2016). A typical African city will more than double its population over the next three decades, and many villages and towns will transform into large urban centers.

FIGURE 6 There is not one sub-Saharan Africa

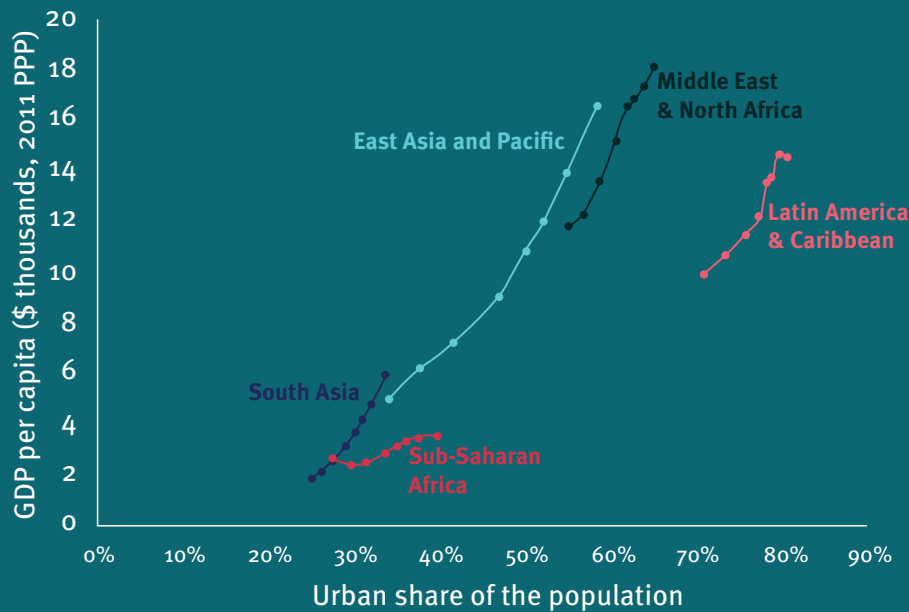


Source: UN 2018

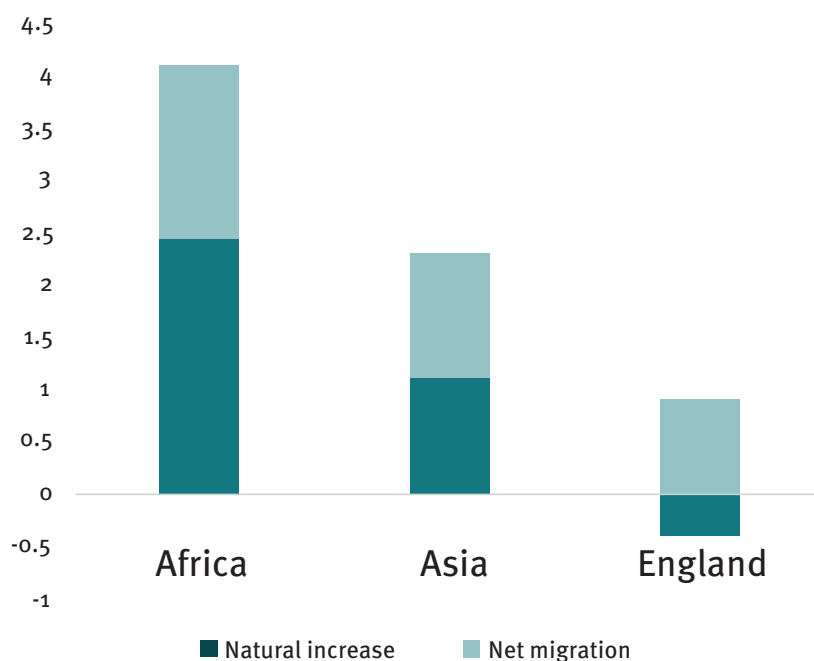
BOX**Cities in sub-Saharan Africa are experiencing rapid population growth, yet their economic growth has not kept pace.**

Urbanization in sub-Saharan Africa has followed wealth creation but has not driven economic growth and poverty reduction. Sub-Saharan is urbanizing at a lower per-capita income rate than East Asia and Pacific did (figure BOX). East Asia and Pacific reached 50 percent urbanization at a GDP per capita of \$10,800 (2011 PPP). Latin America and the Caribbean and the Middle East and North Africa followed a similar trend, with GDP per capita growing hand in hand with urbanization. When passing the bar of 34 percent, South Asia was on track with East Asia and had a GDP per capita of \$5,900 (2011 PPP). By contrast, sub-Saharan Africa reached 34 percent urbanization at a GDP per capita of less than \$3,000 (2011 PPP). The region's low income limits its ability to finance the investments in infrastructure needed to accommodate urban growth.

FIGURE BOX Urbanization in Africa is tracking East Asia and Pacific's pathway but with slow rates of economic growth



Source: UN 2018 and World Development Indicators

FIGURE 7 Urban population growth in percentage points explained by natural increase and net migration

Source: Jedwab, Christiaensen, and Gindelsky 2017

The drivers of urbanization in Africa

Different sub-Saharan African subregions, countries, and cities follow different patterns of migration and urbanization. Rural-to-urban migration accounts for only 40 percent of Africa's urban population growth (figure 7). Mortality rates in low- and middle-income countries over the period 1960–2010 were lower than those in industrial Europe in 1700–1950, explaining today's rapid natural urban population growth, which contrasts with Asia.

Overall, the contribution of net-positive migration to urban growth in sub-Saharan Africa is declining relative to that of natural growth (figure 8). Again, there are differences across subregions. Migration contributes the most to urbanization in least urbanized eastern Africa—more, in fact, than the natural growth does—and contributes the least (even becoming negative) in southern Africa, the most urbanized subregion.

Examining a few countries illustrates how internal migration contributes, or not, to urbanization.

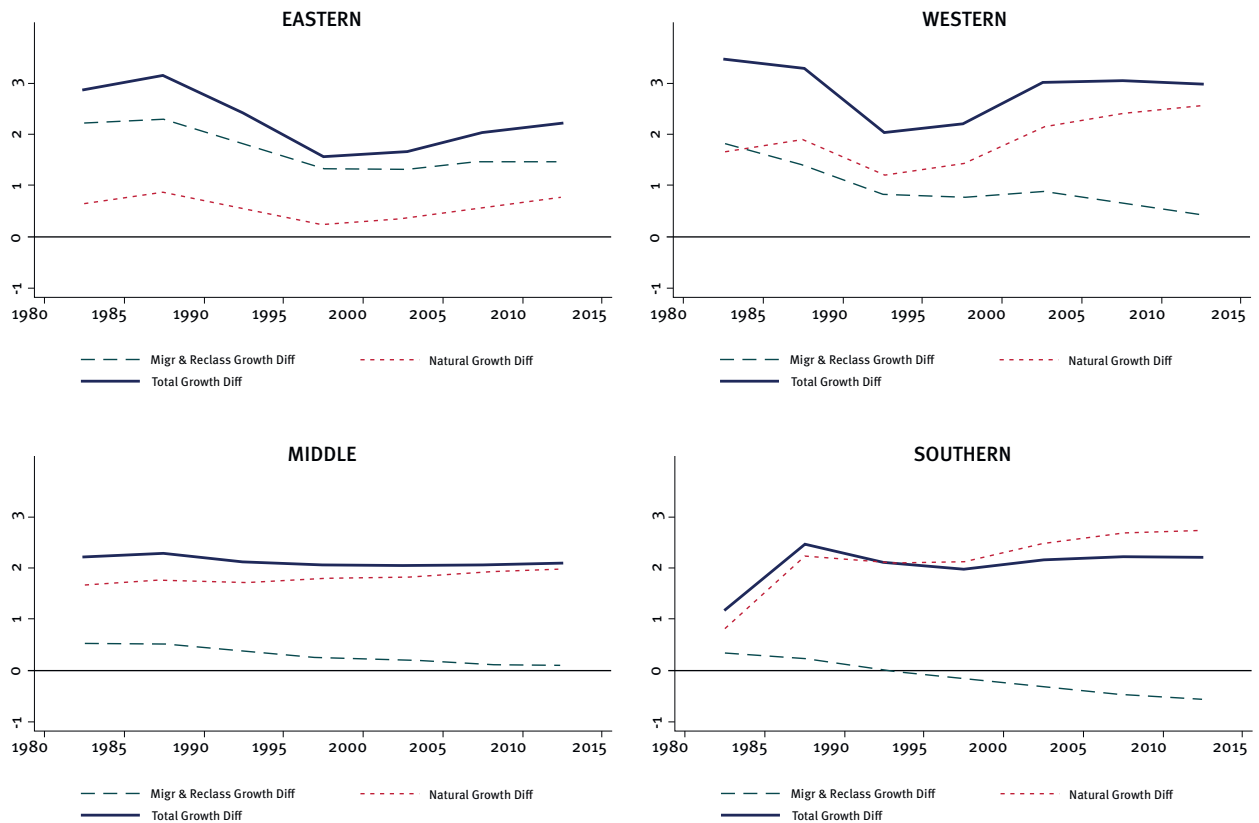
In Tanzania, migration drives growth in the capital, Dar es Salaam, which provides more diverse opportunities than smaller cities do. Dar es Salaam attracted almost 1 million migrants over 10 years, by far the largest flow into any Tanzanian urban destination. In most other cities and towns, natural growth dominated the growth patterns (figure 9).

Conflict- and climate-induced migration also impact urbanization trends in the region. In Nigeria, migration caused by conflict in recent years has increased and accelerated urbanization in the country's northeast and center. Rural inhabitants are fleeing their villages and seeking refuge in the surrounding capitals of the local government areas and in the state capitals Yola, Maiduguri, and Damaturu. Refugees are also seeking safety in Abuja Federal Capital Territory and other state capitals (World Bank 2016). Eritrea, Ethiopia, and Somalia have also diverged from the average subregional urbanization patterns as a result of droughts or civil conflicts (UN-Habitat 2014).

Climate change is likely to contribute considerably to rural-to-urban migration in the near future. As agricultural opportunities “dry out,” climate migrants end up in cities in search of nonfarm livelihoods. The desertification of the Sahel is expected to contribute to population pressure toward both the West African coast and North African urban centers (UN-Habitat 2014). In eastern Africa, the number of climate migrants is expected to steadily rise, from 2.6 million in 2020 to 10 million in 2050. Some 750,000 people will move to urban areas by 2050 in eastern Africa as a direct result of climate change impacts (World Bank 2017b).



FIGURE 8 Migration’s contribution to urban growth is declining, except in eastern Africa, where the urban share of the population is the lowest



Source: Bocquier and Schoumaker 2018

FIGURE 9 Net migration and natural growth in Tanzania’s cities, 2002–12



Source: World Bank 2017c

III.

Main demographic trends in African cities

Africa's cities are among the fastest growing in the world, along with Asia's. By 2030, four mega-cities of more than 10 million inhabitants will be found in sub-Saharan Africa (Dar es Salaam, Luanda, Kinshasa, and Lagos), and 15 cities in the region will host at least 5 million (Figure 10). Africa's cities of more than 1 million people in 2018 are predicted to grow 3.5 percent per year on average between 2018 and 2030, with eastern Africa growing the fastest and West Africa having the largest share of people living in big cities.

A series of population projections² were run to trace demographic trends in a group of selected capital cities in Africa. The projections highlight how the legacy of past fertility drives population growth in many cities even though fertility levels are lower in all cities in this group. This is in line with average lower fertility levels in urban areas than in rural areas, which we observe in the entire region (Canning,

Raja, and Yazbeck 2015; Bocquier and Schoumaker 2018).

Although in general fertility is lower in cities than in rural areas, some capital cities have experienced stalling fertility levels, amongst them Accra, Bamako, Banjul, Brazzaville, Bujumbura, Cotonou, Conakry, Dakar, Dar es Salaam, Harare, Kampala, Kinshasa, Lagos, Libreville, Lomé, Lusaka, Nairobi, Niamey, Windhoek, and Yaoundé/Douala (see examples in figure 11).

Almost all the cities we analyzed experience high population growth, declining fertility levels, and gradual but definite increase of the older population as life expectancy at birth increases and the large cohorts of young people age (table 1). Nevertheless, the projected increase of population observed in capital cities, though significant, does not exceed population growth at the national level except for in Cape Town.

² We ran population projections for a group of selected cities to compare city-level with national-level trends. The cities were selected on the basis of their regional representation, their specific demographic profile (fertility, mortality, migration, age-sex population structure, and population growth), and data availability. Projections of chosen cities were made with the components method, the usual procedure used by official statistical agencies to project national populations. Starting from the last census, the population evolution is simulated on the basis of fertility, mortality, and migration hypotheses. Future births and deaths are estimated from fertility and mortality trends in recent decades. Migration is estimated by differences between overall population growth and natural increase during the last intercensal period. When migratory balances are smooth (below 5 per thousand), they remain constant; when they exceed this limit, the trend is assumed to decrease gradually in the future. The time horizon of projections extends from the last census up to 2050.

FIGURE 10 African cities are growing fast, except in South Africa

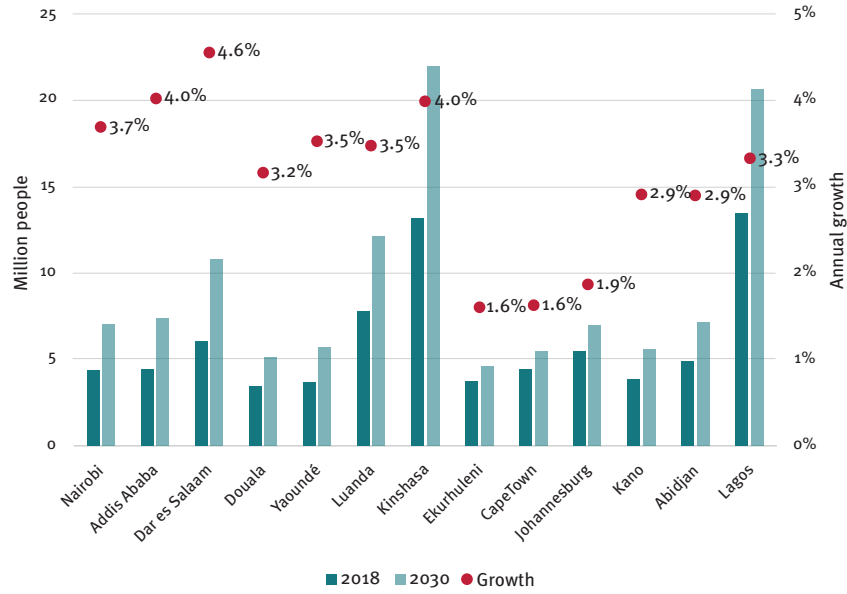
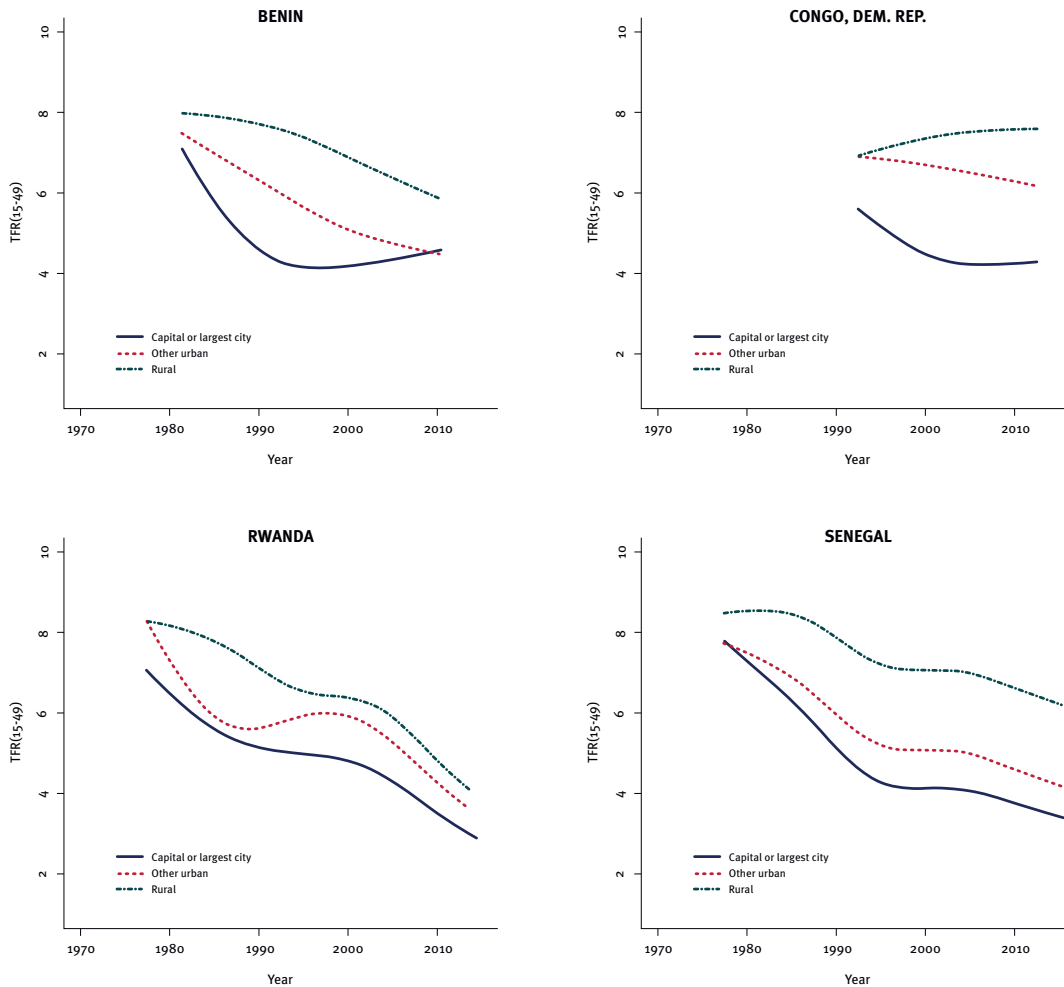


FIGURE 11 Declines in fertility by area



Source: Bocquier and Schoumaker 2018.

Note: Fertility trends were constructed by pooling birth histories from successive surveys and smoothing with restricted cubic splines.

TABLE 1 Key demographics in selected capital cities in sub-Saharan Africa, baseline year–2050 (projections)

Country/City	Total Population (thousand)		Relative increase (%)	Aging Index (65+)		Total fertility rate (live births per woman)		
	Baseline year	2050		Baseline year	2050	Baseline year	2050	
Ethiopia	Addis Ababa	2,933	5,700	94.4	15.1	53.1	1.82	2.10
	Country	87,702	190,868	117.6	7.4	24.9	4.63	2.29
South Africa	Cape Town	4,025	5,847	45.3	23.7	66.4	2.20	1.80
	Country	56,015	72,757	29.9	17.8	50.4	2.55	1.93
Guinea	Conakry	1,674	3,454	106.3	6.4	19.5	3.47	2.19
	Country	11,807	26,851	127.4	7.1	14.9	5.13	3.06
Benin	Cotonou	679	587	-13.6	7.5	42.7	3.40	2.10
	Country	10,003	23,930	139.2	7.4	14.3	5.22	3.33
Tanzania	Dar es Salaam	4,244	6,857	61.6	7.5	37.4	2.10	1.90
	Country	49,080	138,082	181.3	6.8	13.5	5.24	3.44
Mozambique	Maputo	1,185	1,524	35.5	6.2	70.8	2.96	2.00
	Country	24,221	67,775	179.8	6.8	12.2	5.45	3.44

Source: Based on data provided by National Statistics Office and international organizations such as the United Nations (Department of Economic and Social Affairs, Population Division), World Health Organization (WHO), and the Demographic and Health Survey (DHS) Program.

Note: Baseline year: Ethiopia and Mozambique, 2010; Tanzania, 2012; Benin, 2013; Guinea, 2014; South Africa, 2015

The cities in this group are characterized by young population structures and high child-dependency ratios. The aging of the population is only beginning but, because fertility is falling, aging trends are expected to accelerate in the coming decades, in line with national trends. The increase in the old-age dependency ratio between the baseline year and 2050 is projected to be substantial for all cities in this group, especially cities such as Maputo, where the old-age dependency ratio is expected to increase by almost six times its current value (figure 12).

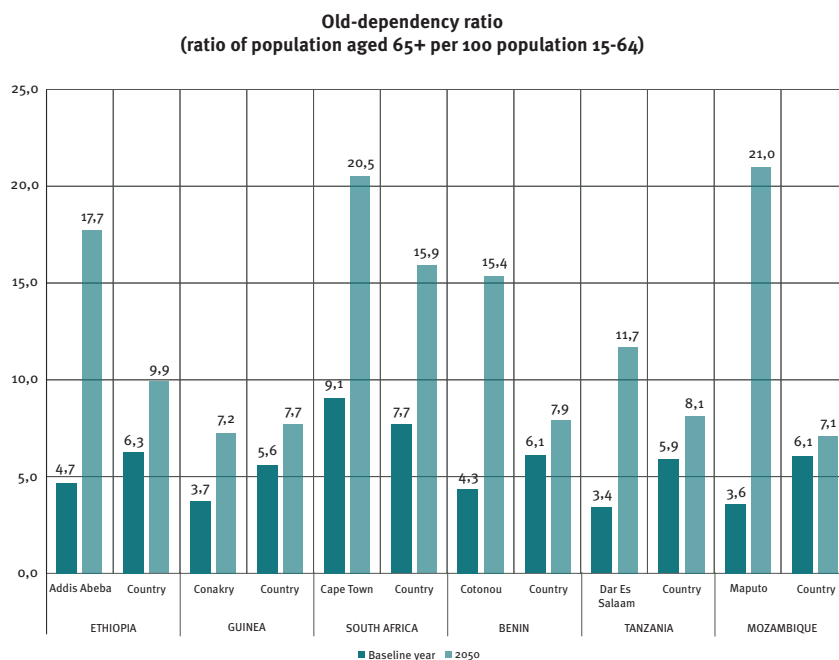
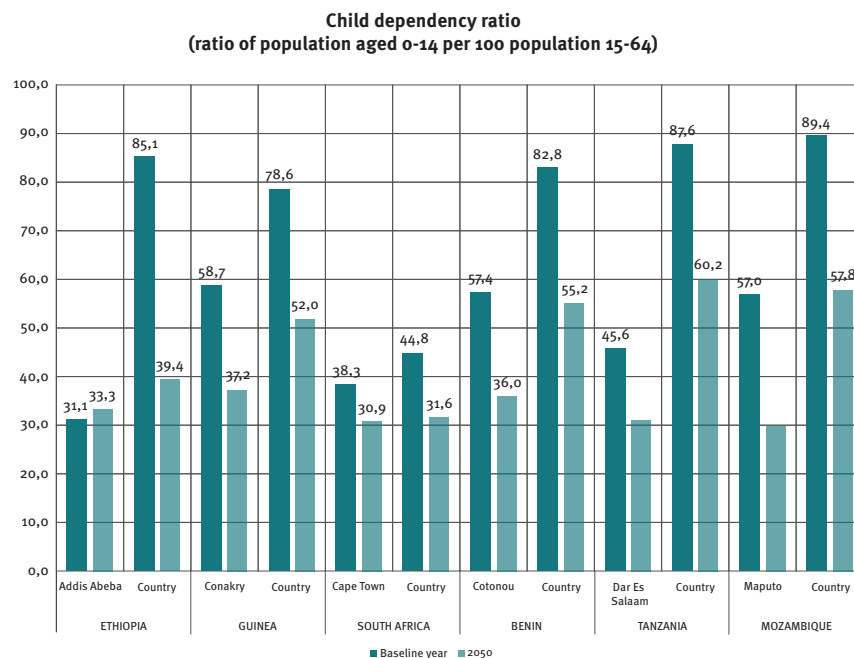
Our projections also underscore the role of migration in changing population structures. Migration from rural areas is a significant contributor to the urbanization process, accounting for about 40 percent of urban population growth. In Addis Ababa, Dar es Salaam, and Cotonou, migration will be the main

force driving population change. However, while Addis Ababa and Dar es Salaam are net receivers, in Cotonou negative net migration³ will contribute to population decline (24 per 1,000 people left the city according to the latest population census).

Migration also affects the age and sex structure of both sending and receiving cities. For example, Dar es Salaam's population has become increasingly "feminized" (95 men per 100 women) and youthful (population aged 10–34) as a result of the different mobility patterns of men and women. On average, we observe that men start to migrate at an earlier age (10–14 years) and most men migrate at 25–29 years, whereas women start to be mobile at 25–29 years, exceed men's migration rates throughout the 30-to-34-year-old cohort, and sustain migration higher rates through their 70s (Leyna et al. 2017).

³ Net change due to migration was obtained from the difference between overall population growth and natural increase (births minus deaths) during the last intercensal period. Net migration by age and sex were estimated based on Census Survival Rate Method (see Arriaga 1994).

FIGURE 12 Child and old-age dependency ratios in selected cities and countries in sub-Saharan Africa, baseline year and 2050 (projections)



Source: At city-level based on data provided by National Statistics Office, and at country-level based on data provided by United Nations, Department of Economic and Social Affairs, Population Division 2017.

Note: Baseline year: Ethiopia and Mozambique, 2010; Tanzania, 2012; Benin, 2013; Guinea, 2014; South Africa, 2015



IV. Conclusion: Opportunities and challenges for cities in Africa

African cities need to prepare for major urban population growth over the coming decades at a pace comparable only to Asia's rapid urbanization over the last decades. Although growth rates for urban and total populations in Africa are declining, the rates apply to ever larger national and urban populations, and therefore the increase in absolute numbers will be vast. Since urban populations grow faster relative to national populations, we can expect strong increases in urbanization on the continent over the next decades (UN-Habitat 2014).

A population structure with more workers and fewer dependents presents an enormous opportunity for wealth creation, provided there are labor opportunities. If African cities are to harness their potential for economic transformation, investments in urban planning and infrastructure are urgently needed, as are investments in better skills and education. Improved urban planning will deliver the benefits of agglomeration, reduce inequality, and mitigate risks. Better planned and connected cities will provide lower transport costs and living expenses, so that firms will not have to pay high wages because

of urban costs. This business situation will enhance cities' competitiveness, their ability to promote tradable economic sectors, and their capacity to create additional jobs—in turn affecting fertility. Improving access to and quality of education is key, with particular attention to the needs of girls and young women.

African cities today are already struggling to keep up with the urban explosion. The priorities of planning and education are urgent, as urban areas will keep growing and expand very quickly. In many countries, low development indicators, high fertility, and rapid urban growth signal the possible onset of particularly complex problems. The Arab Spring, despite its political and religious overtones, grew out of the demographic youth bulge and governments' failure to provide economic opportunity, housing, and an optimistic vision of the future. African policy makers can learn from this experience and prioritize investments that will enable job creation, education, and adequate housing and services, and ultimately offer better opportunities and quality of life for their growing populations.

References

- Awumbila, Mariama. 2017. "Drivers of Migration and Urbanization in Africa: Key Trends and Issues." Background Paper prepared for the United Nations Expert Group Meeting on Sustainable Cities, Human Mobility and International Migration, New York, September 7–8, 2017. <http://www.un.org/en/development/desa/population/events/pdf/expert/27/papers/III/paper-Awunbila-final.pdf>
- Bocquier, Philippe, and Bruno Schoumaker. 2018. *The demographic transition in Sub-Saharan Africa and the role of urban areas in this transition*. Louvain-la-Neuve, Belgium: Centre de Recherches en Démographie, Université catholique de Louvain.
- Bongaarts, John. 2017. "Africa's Unique Fertility Transition." *Population and Development Review* 43 (S1): 39–58. doi:10.1111/j.1728-4457.2016.00164.x
- Brockerhoff, Martin. 1998. "Migration and the Fertility Transition in African Cities." In *Migration, Urbanization, and Development: New Directions and Issues*, edited by R. E. Bilson, 357–87. New York: United Nations Population Fund.
- Canning, David, Sangeeta Raja, and Abdo S. Yazbeck. 2015. *Africa's Demographic Transition: Dividend or Disaster?* Washington, DC: World Bank. doi:10.1596/978-1-4648-0489-2
- Charlot, Sylvie, and Gilles Duranton. 2004. "Communication Externalities in Cities." *Journal of Urban Economics* 56 (3): 581–613.
- IDMC (Internal Displacement Monitoring Centre). 2016. *Leaving No One Behind: Internal Displacement and the New Urban Agenda*. Geneva: Internal Displacement Monitoring Centre.
- Jedwab, Remi, Luc Christiaensen, and Marina Gindelsky. 2017. "Rural Push, Urban Pull and... Urban Push? New Historical Evidence from Developing Countries." *Journal of Urban Economics* 98: 6–16. doi:10.1016/j.jue.2015.09.002
- Lall, Somik Vinay, J. Vernon Henderson, and Anthony J. Venables. 2017. *Africa's Cities: Opening Doors to the World*. Washington, DC: World Bank.
- Leyna, Germana H., Lisa F. Berkman, Marina A. Njelekela, Patrick Kazonda, Kahema Irema, Wafaie Fawzi, and Japhet Killewo. 2017. Profile: "The Dar Es Salaam Health and Demographic Surveillance System (Dar esSalaam HDSS)." *International Journal of Epidemiology* 46 (3): 801–808. doi:10.1093/ije/dyw324
- Majelantle, R.G., and K. Navaneetham. 2013. "Migration and Fertility: A Review of Theories and Evidences." *Journal of Global Economics* 1 (1): 1–3.
- May, John. F., and Vincent Turbat. 2017. "The demographic dividend in sub-Saharan Africa: two issues that need more attention". *Journal of Demographic Economics*, 83(1): 77.
- Myers, Norman. 2005. "Environmental Refugees: An Emergent Security Issue." Paper presented at the 13th OSCE Economic Forum, Prague, May 23–27, 2005.
- National Research Council. 2006. *Aging in Sub-Saharan Africa: Recommendations for Furthering Research*. Panel on Policy Research and Data Needs to Meet the Challenge of Aging in Africa. Barney Cohen and Jane Menken, eds. Committee on Population, Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press.

- Poelhekke, Steven. 2011. "Urban Growth and Uninsured Rural Risk: Booming Towns in Bust Times." *Journal of Development Economics* 96 (2): 461–75. doi:[10.1016/j.jdeveco.2010.07.007](https://doi.org/10.1016/j.jdeveco.2010.07.007)
- Satterthwaite, David. 2017. "The Impact of Urban Development on Risk in Sub-Saharan Africa's Cities with a Focus on Small and Intermediate Urban Centres." *International Journal of Disaster Risk Reduction* 26 (December): 16–23. doi:10.1016/j.ijdrr.2017.09.025
- IHME (Institute for Health Metrics and Evaluation). 2015. "The State of Health in the Commonwealth: Sierra Leone profile." Seattle, WA: IHME.
- UN (United Nations). 2014. *World Population Prospects: The 2014 Revision*. New York: United Nations.
- UN (United Nations). 2017. *World Population Prospects: The 2017 Revision, Vol. II: Demographic Profiles*. New York: United Nations.
- UN (United Nations). 2018. *World Urbanization Prospects: The 2018 Revision*. New York: United Nations.
- UN DESA (United Nations Department of Economic and Social Affairs). 2004. "Demographic Impact of AIDS." In *The Impact of AIDS*, United Nations Department of Economic and Social Affairs, Population Division, 11–38. New York: UN.
- UN-Habitat (United Nations Human Settlements Programme). 2014. *State of African Cities 2014: Re-imagining Sustainable Urban Transitions*. Nairobi, Kenya: United Nations Human Settlements Programme.
- UN-Habitat (United Nations Human Settlements Programme). 2016. *Urbanization and Development: Emerging Futures*. In *World Cities Report 2016*. Nairobi, Kenya: United Nations Human Settlements Programme.
- World Bank. 2016. *From Oil to Cities: Nigeria's Next Transformation*. Directions in Development: Countries and Regions. Washington, DC: World Bank.
- World Bank. 2017a. *Forcibly Displaced: Toward a Development Approach Supporting Refugees, the Internally Displaced, and Their Hosts*. Washington, DC: World Bank. doi:10.1596/978-1-4648-0938-5
- World Bank. 2017b. *Groundswell: Preparing for Internal Climate Migration*. Washington, DC: World Bank.
- World Bank. 2017c. *Rwanda Economic Update: Rethinking Urbanization in Rwanda – from Demographic Transition to Economic Transformation*. Washington, DC: World Bank.
- World Bank. 2017d. *United Republic of Tanzania Urbanization Review*. Washington, DC: World Bank.
- World Bank. 2019. *World Bank World Development Indicators*. Washington, DC: World Bank.
- World Bank and IMF (International Monetary Fund). 2013. *Global Monitoring Report 2013: Rural-Urban Dynamics and the Millennium Development Goals*. Washington, DC: World Bank, 85.

DEMOGRAPHIC PERSPECTIVE ON URBANIZATION

East Asia and Pacific region



- The East Asia and Pacific (EAP) region includes both early-dividend countries, in which fertility rates have started to decline recently and the change in age structure offers enormous opportunities for growth, and late-dividend countries that have experienced rapid decline in fertility since the 1960s, in which rapid aging is taking place and working-age people will be a shrinking share of the population.
- The region is experiencing rapid urban growth, second only to Sub-Saharan Africa, and became 50% urban in 2018, though there is significant diversity in urban growth among subregions.
- In terms of absolute numbers, EAP has the largest regional population of elderly. However, within the region, there is enormous diversity in aging levels, which are correlated with national income levels.
- Migration is likely to have a significant role in driving urbanization levels, though widespread anti-migration policies in the region contribute to social exclusion and inequity.
- The majority of the region's population resides in secondary cities.



Over the past two decades, the East Asia and Pacific (EAP) region has experienced unprecedented rates of urbanization. Between 1960 and 2015, urban growth averaged 3 percent, significantly higher than the global average (2.1 percent) and second only to Sub-Saharan Africa (3.9 percent). Much of this rapid urbanization is happening in China, which accounted for nearly two-thirds of the region's total urban population between 2005 and 2015.

Rapid urbanization has created an enormous opportunity for economic growth and prosperity (World Bank 2017). But fully realizing its benefits requires that urban planners and managers take into account the demographic profiles and associated needs of the growing population. While aging is the demographic trend of most immediate concern for the region's high-income economies, internal migration is an important factor in middle- and low-income countries that are still urbanizing.

Cities must make provisions and policies for urban infrastructure and services with an eye toward

accommodating the interaction of urbanization, migration, and aging. So far, policy responding to the needs of aging populations in cities has largely remained nascent. Countries in the East Asia and Pacific region are unusual in their attempts to institutionalize migration control and constrain the mobility of rural-to-urban migrants. These policies have had limited success and have instead resulted in increased social exclusion for migrants. To benefit fully from urbanization, countries must acknowledge shifting demographic trends in urban areas and institute policies that allow people to thrive in cities.

This note will begin by examining the main demographic trends in the region, amongst them declining fertility levels and rapid aging. It will then lay out the region's urbanization trends before discussing the main findings of selected city-level population projections. The note will conclude with a review of the main challenges the region is facing and relevant policy questions and implications as they relate to a shrinking labor force, rising dependency burdens, and the role of (internal) migration.

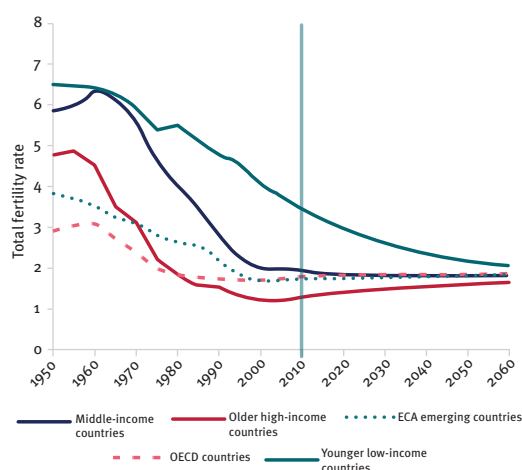
I. Main demographic trends at the national and regional level

The population in East Asia and Pacific is aging more rapidly than any region in history. The main driver of this phenomenon has been a rapid decline in fertility combined with steady increases in both life expectancy and health life expectancy. In contrast, in regions such as Eastern Europe and Central Asia, significant emigration has had an important role in shaping the population's age structure (World Bank 2016b).

Fast drops in fertility and rapid extension of life expectancy are the major drivers of the aging population structure. The overall fertility rate in the East Asia and Pacific region dropped from 5.91 births per woman in 1960 to 2.46 in 2005—a significantly faster decline than that of the world as a whole (5.51 to 3.03; World Bank 2016b). However, trends differ across countries in the region (figure 1). The total fertility rate in 2010 was as low as 1.28 births per woman in some older high-income countries (Hong Kong SAR, China; Japan; the Republic of Korea; and Singapore) and as high as 3.45 in some younger low-income countries (Cambodia, the Lao People's Democratic Republic, Myanmar, Papua New Guinea, the Philippines, and Timor-Leste). Several countries

(China, Indonesia, Malaysia, Mongolia, Thailand, and Vietnam) fall between these extremes, with an average total fertility rate of 1.93 births per woman. Within this group, China had a total fertility rate of 1.66, Thailand, 1.41, and Vietnam, 1.75 (World Bank 2016b).

Although much of East Asia and Pacific has yet to experience its most rapid period of aging, it already has the largest regional population of people aged 65 and above, primarily concentrated in China (World Bank 2016b). In 2015, the region had about 221 million people aged 65 and older, which amounted to approximately 36 percent of the world's total population of this age group. China alone had just over 130 million elderly people. The pace of this transition has been striking: nearly all middle-income countries in the region are projected to transition from young to old societies (meaning that the share of the population ages 65 and older is greater than 14 percent) in 20 to 25 years, whereas Organization for Economic Cooperation and Development countries have completed this transition or are projected to do so in 50 to 100 years (World Bank 2016b).

FIGURE 1 Total fertility rate in East Asian and Pacific economies, by group, 1950–2060

Source: World Bank 2016b

Note: Older high-income economies are Hong Kong SAR, China; Japan; the Republic of Korea; and Singapore. Middle-income countries are China, Indonesia, Malaysia, Mongolia, Thailand, and Vietnam. Younger low-income countries are Cambodia, Lao PDR, Myanmar, Papua New Guinea, Philippines, and Timor-Leste.

The demographic diversity of East Asian and Pacific countries and territories is highly correlated with the income levels of the countries. The average fertility rate for the East Asia and Pacific region declined from 2.5 births per woman in 1990 to 1.8 in 2016, but the rate varies across high-income, middle-income, and low-income economies.¹ In the period 2010–15, the total fertility rate was well below the replacement level (2.1 children per woman) in high-income economies (for example, 1.4 in Japan and 1.2 in the Republic of Korea) and well above it in low- and middle-income countries, with a maximum value in Timor-Leste of 5.9 children per woman (UNDESA 2017).

Overall, in EAP, the share of the population ages 65 and older accounted for an average of around 7 percent of the total population in 2010, similar to the share in Latin America and the Caribbean, and somewhat higher than the shares in the Middle East and North Africa and South Asia (both 5 percent) (World Bank 2016b). However, these averages conceal enormous diversity within the East Asia and Pacific. The demography diversity across the region

suggests three groupings of its economies in terms of their demographic transition (World Bank 2016b):

- High-income economies (Hong Kong SAR, China; Japan; the Republic of Korea; and Singapore), where the transition to an aged population is well under way. The average share of the total population in the 65-and-older age group is 14 percent or higher.
- Middle-income countries (China, Indonesia, Malaysia, Mongolia, Thailand, and Vietnam), where the transition to an aging population has begun. The average share of the total population in the 65-and-older age group is 6–14 percent. In China, an upper-middle-income country, 10 percent of the total population is 65 or older.
- Low-income and small island countries (Cambodia, Lao PDR, Myanmar, Papua New Guinea, the Philippines, Timor-Leste, and small island countries), which still have a youthful population structure.

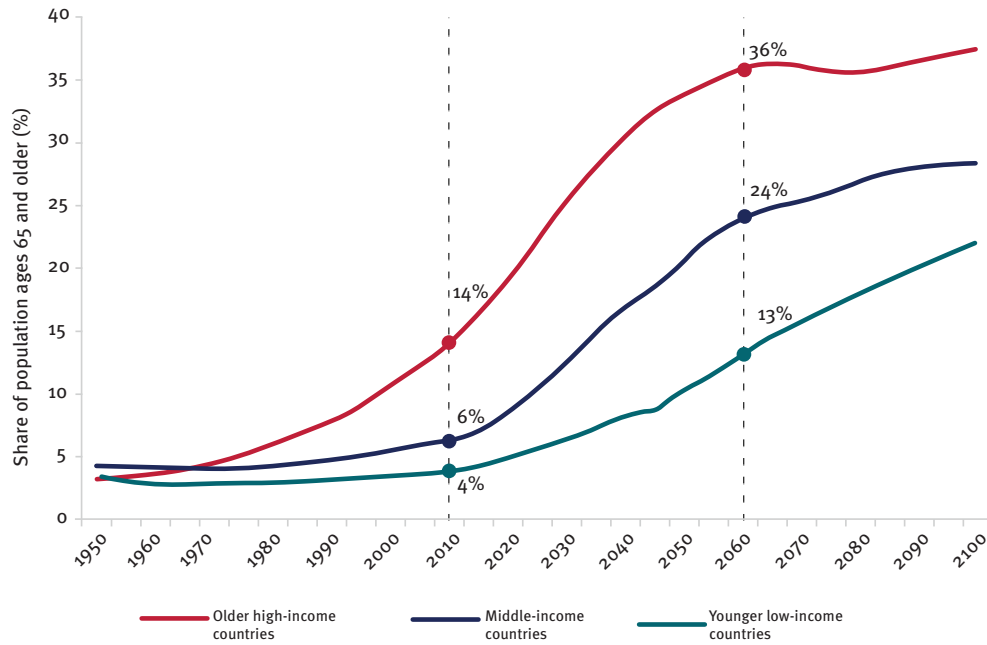
¹ According to the World Bank List of Economies, high-income economies include Brunei Darussalam, Guam, Hong Kong SAR, China; Japan; the Republic of Korea; Macao SAR, China; Singapore; and some countries and territories in the Pacific (Northern Mariana Islands, New Caledonia, Palau, and French Polynesia). Upper-middle income countries include China, Malaysia, Thailand, and some countries and territories in the Pacific (American Samoa, Fiji, the Republic of the Marshall Islands, Nauru, Samoa, Tonga, and Tuvalu). Lower-middle income countries include Cambodia, Indonesia, Lao PDR, Mongolia, Myanmar, the Philippines, Timor-Leste, Vietnam, and some countries in the Pacific (the Federated States of Micronesia, Kiribati, Papua New Guinea, the Solomon Islands, and Vanuatu). Low-income economies only include the Democratic People's Republic of Korea (World Bank 2018).

TABLE 1 Fertility and income levels: comparisons among East Asian and Pacific countries

Country	World Bank Classification June 2018	TFR 1970-1975	TFR 2010-2015
Macao SAR, China	High-income	1.79	1.19
Hong Kong SAR, China	High-income	3.01	1.20
Singapore	High-income	2.82	1.23
Republic of Korea	High-income	4.00	1.23
Japan	High-income	2.13	1.41
Thailand	Upper-middle income	5.05	1.53
China	Upper-middle income	4.77	1.60
Brunei Darussalam	High-income	5.49	1.90
Dem. People's Republic of Korea	Low-income	4.00	1.95
Vietnam	Lower-middle income	6.33	1.96
French Polynesia	High-income	4.86	2.07
Malaysia	Upper-middle income	4.72	2.11
New Caledonia	High-income	5.20	2.24
Myanmar	Lower-middle income	5.74	2.30
Guam	High-income	4.12	2.42
Indonesia	Lower-middle income	5.30	2.45
Fiji	Upper-middle income	4.20	2.61
Cambodia	Lower-middle income	6.16	2.70
Mongolia	Lower-middle income	7.50	2.83
Lao PDR	Lower-middle income	5.99	2.93
Philippines	Lower-middle income	5.98	3.05
Micronesia, Fed. Sts.	Lower-middle income	6.90	3.33
Vanuatu	Lower-middle income	6.11	3.41
Kiribati	Lower-middle income	5.00	3.79
Tonga	Upper-middle income	5.50	3.79
Papua New Guinea	Lower-middle income	6.09	3.84
Solomon Islands	Lower-middle income	7.24	4.06
Samoa	Upper-middle income	7.00	4.16
Timor-Leste	Lower-middle income	5.54	5.91

Source: UNDESA (2017) and World Bank (2018)

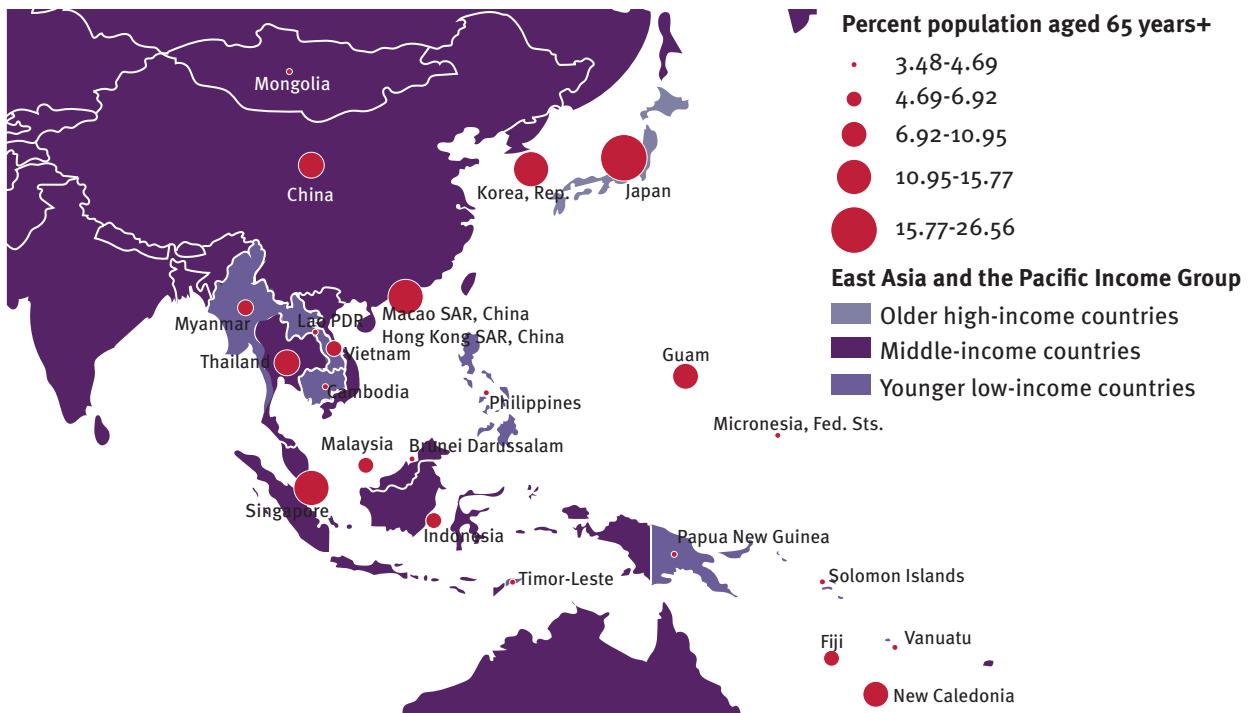
FIGURE 2 Three aging patterns in selected countries in East Asia and Pacific region by income levels



Source: World Bank 2016b

Note: High-income economies are Hong Kong SAR, China; Japan; the Republic of Korea; and Singapore. Middle-income countries are China, Indonesia, Malaysia, Mongolia, Thailand, and Vietnam. Low-income countries are Cambodia, Lao PDR, Myanmar, Papua New Guinea, Philippines, and Timor-Leste.

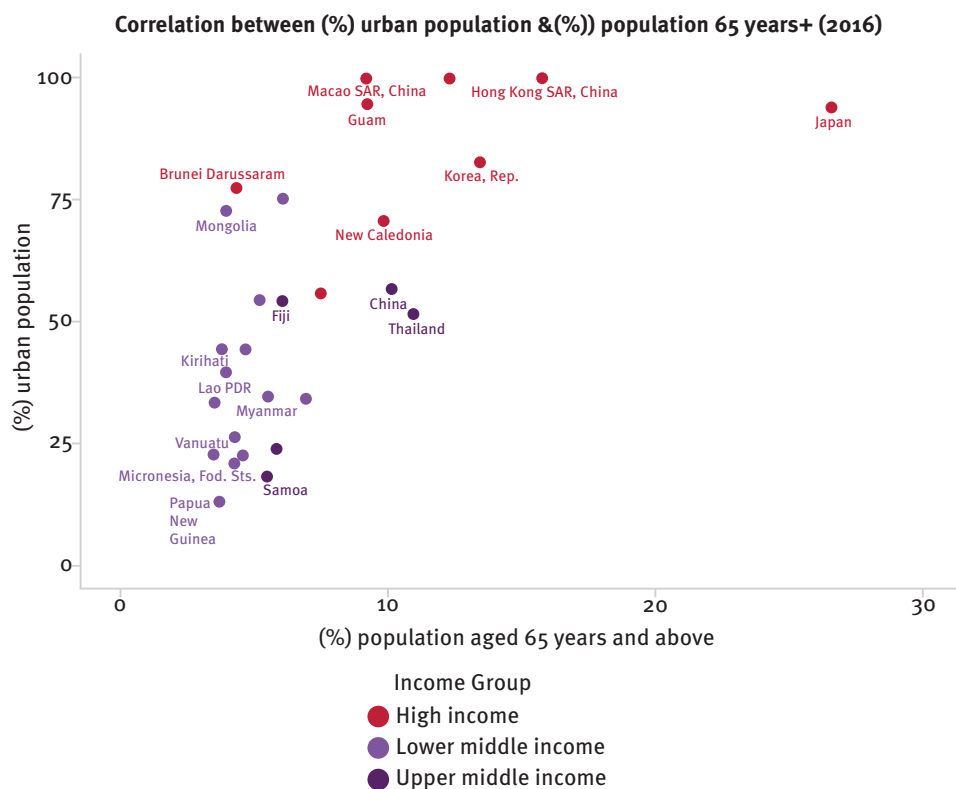
FIGURE 3 Share of elderly population across East Asian and Pacific economies, 2016



Source: World Bank Open Data (<https://data.worldbank.org>)

Note: High-income economies are Hong Kong SAR, China; Japan; the Republic of Korea; and Singapore. Middle-income countries are China, Indonesia, Malaysia, Mongolia, Thailand, and Vietnam. Low-income countries are Cambodia, Lao PDR, Myanmar, Papua New Guinea, Philippines, and Timor-Leste.

FIGURE 4 Correlation between aged population and urban population in East Asian and Pacific economies, 2016



Source: World Bank Open Data (<https://data.worldbank.org>)

There is also a high correlation between the aged and urbanized populations. High-income economies such as Japan, the Republic of Korea, and Hong Kong SAR, China, have the highest rates of both (figure 4). Urbanization is also positively correlated with GDP (World Bank and IMF 2013).

Mortality. Declining fertility has coincided with steady increases in life expectancy in the East Asia and Pacific region. The gap in life expectancy for people at age 60 between the region's youngest and oldest economies is projected to grow from 3 years in the 1950s to 7 years in 2060. At the same time, gaps in life expectancy at birth between middle-income countries and high-income economies are expected to narrow, from 19 years in 1950 to 15 years

in 2010 to 14 years by 2060 (World Bank 2016b). The growing gap in life expectancy for people ages 60 and older and the shrinking gap in life expectancy at birth mean that the youngest low-income countries in the region will become younger because of decreasing mortality rates at birth, and that older countries will become older because of increasing life expectancy (figure 5; World Bank 2016b).

These gains mirror the regional decline in mortality rates, particularly among women and children: between 1970 and 2010, age-specific mortality rates declined by over 70 percent for children ages 14 or younger and by nearly 70 percent for women aged 15–39 (World Bank 2016b, figure 6).

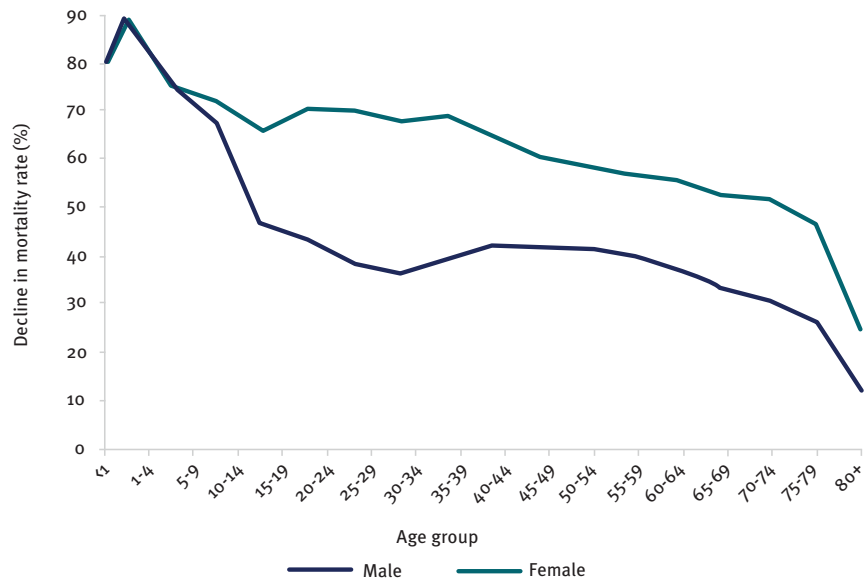
FIGURE 5 Population pyramids for low-, middle-, and high-income countries in the East Asia and Pacific region, 1990, 2000, 2010, and 2016



Source: World Bank Open Data (<https://data.worldbank.org>).

Note: High-income economies are Hong Kong SAR, China; Japan; the Republic of Korea; and Singapore. Middle-income countries are China, Indonesia, Malaysia, Mongolia, Thailand, and Vietnam. Low-income countries are Cambodia, Lao PDR, Myanmar, Papua New Guinea, Philippines, and Timor-Leste.

FIGURE 6 Percentage of decline in age-specific mortality rate in East Asia and Pacific by gender, 1970-2010



Source: World Bank (2016b)

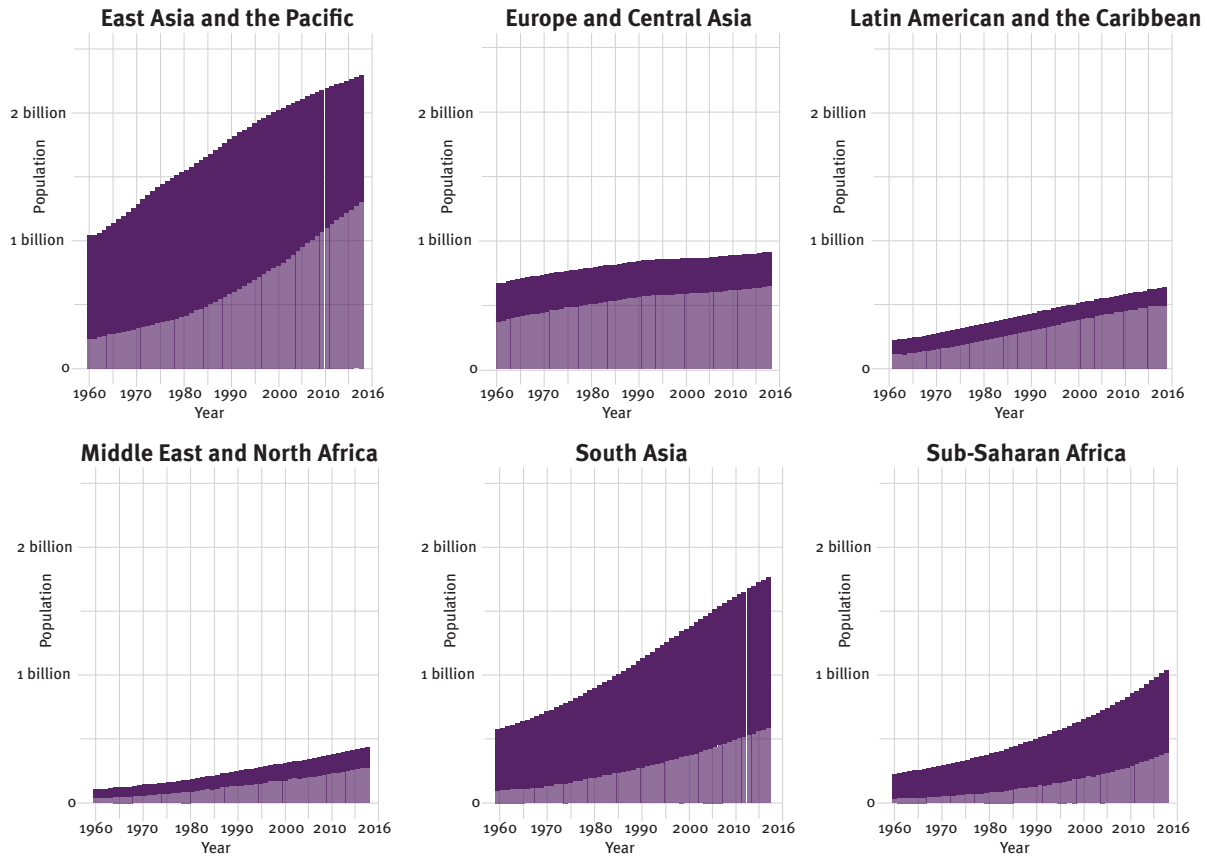


II. Main urban trends

The speed and scope of urbanization in EAP is unprecedented. Urban population growth between 1960 and 2015 averaged 3 percent for the East Asia and Pacific region, significantly higher than the global rate (2.1 percent) and second only to Sub-Saharan Africa (3.9 percent). In 2015, 17 of the world's megacities were in the East Asia and Pacific region (UN-Habitat and UNESCAP 2015), though the majority of the region's urban population currently lives in small and medium-size cities. The region's urban population is estimated at 1.2 billion, roughly a third of the total urban population of the world (Baker and Gadgil 2017; figure 7). Much of the rapid urbanization is in China, which accounts for two-thirds of the region's urban land. Its urban population increased by 130 million people between 2000 and 2010. Excluding China, the region's urban population growth during that time still averaged 2.5 percent a year (World Bank 2015; figure 8).

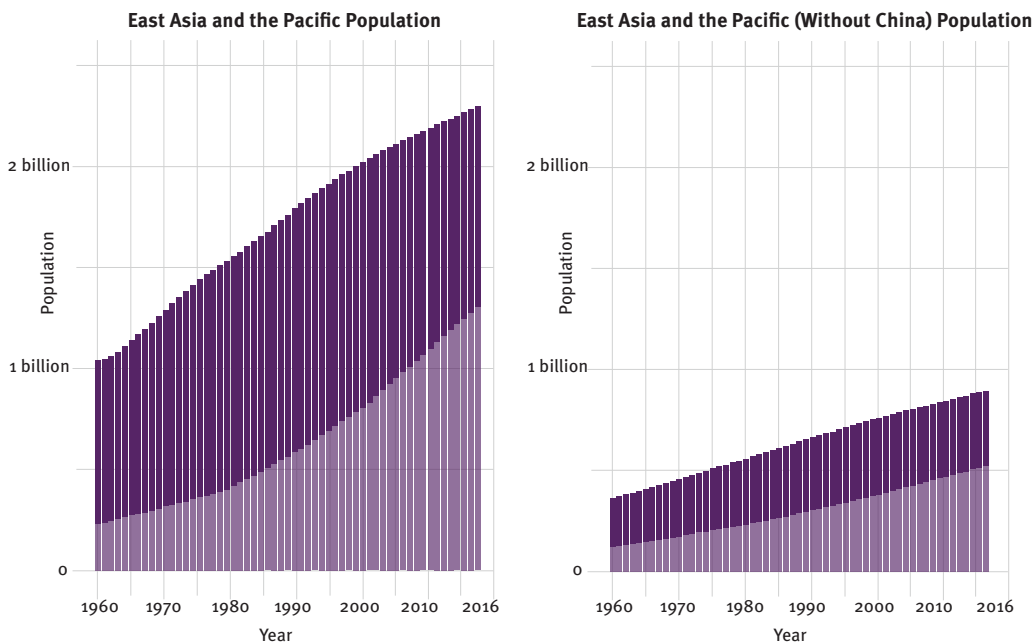


FIGURE 7 Total and urban population, by region, 1960–2016



Source: World Bank Open Data (<https://data.worldbank.org>).

FIGURE 8 Total and urban population in the East Asia and Pacific region, including and excluding China, 1960–2016



Source: World Bank Open Data (<https://data.worldbank.org>).

Urbanization has varied considerably throughout the region. Over half the population of China, Fiji, Indonesia, Malaysia, and Mongolia and nearly half the population of the Philippines now live in urban areas (figure 9). Malaysia achieved high urbanization (a population that is 50 percent urban) in 1990, whereas China, Indonesia, and Thailand crossed that threshold only in the past 10 years (Baker and Gadgil 2017).

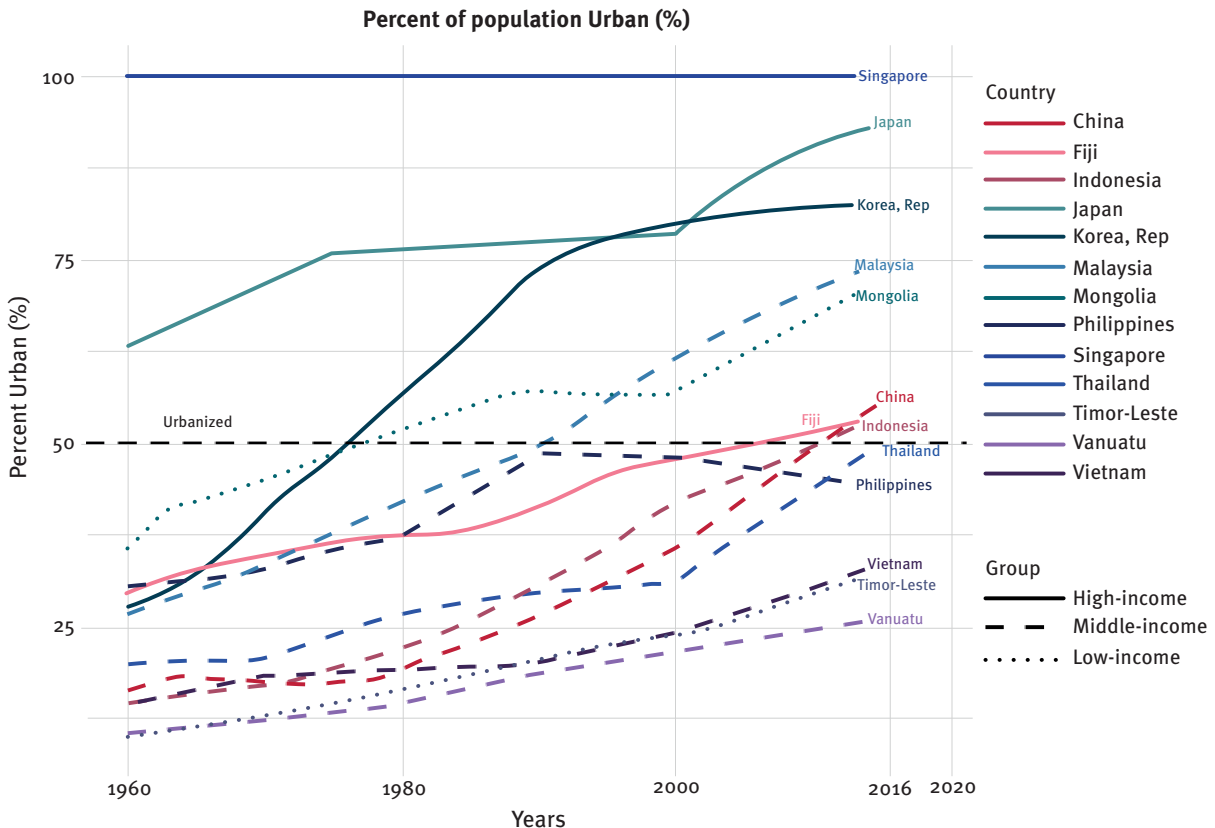
East Asian and Pacific cities appear to be densifying, having risen from 5,400 people per square kilometer in 2000 to 5,800 in 2010. But densification is not uniform across economies. More than 60 percent of China’s urban areas, including Chongqing, Shanghai, and Tianjin, saw density decline, despite a growing urban population. Density also decreased in Taiwan, China (by 519 people per square kilometer),

the Republic of Korea (by 73 people per square kilometer), and Cambodia (by 49 people per square kilometer) (World Bank 2015).

Secondary cities are on the rise.² This trend is much more apparent in upper-middle-income economies (see the share of the urban population that lives in secondary cities; UN-Habitat 2015). In contrast, lower-middle-income countries, such as Cambodia, Lao PDR, and Mongolia, do not have secondary cities that rival current urban centers. In high-income economies, the share of the urban population living in secondary cities has been stable over the past two decades. In the Republic of Korea, secondary cities accounted for 44.3 percent of the urban population in 1995; by 2025, the share is expected to increase slightly, to 46.2 percent.

2 <https://www.unescap.org/sites/default/files/The%20State%20of%20Asian%20and%20Pacific%20Cities%202015.pdf>

FIGURE 9 Urban population as a share of total population in selected East Asia and Pacific countries, 1960–2016



SOURCE: WORLD BANK OPEN DATA ([HTTPS://DATA.WORLDBANK.ORG](https://data.worldbank.org)).



However, despite rising populations, small and medium-size cities still face development challenges, including limited funding, lack of basic infrastructure, and low capacity of local officials (Rodriguez, 2014). For instance, although Vietnam has raised the GDP per capita of its secondary cities, urban poverty remains concentrated in smaller cities, while larger municipalities—such as Hanoi and Ho Chi Minh—account for only 11 percent of the nation’s urban poor (Baker and Gadgil 2017).

Internal migration is boosting urban growth, but migration levels are difficult to measure consistently. Following the global pattern, in the East Asia and Pacific region, much of the urban population growth of the past decades has been the result of spatial reclassification and natural growth (UNDESA 2012), the latter of which is also facilitated by migration (since migrants are often of childbearing age). The relative contributions of the four elements of urban population growth (natural increase, internal migration, international migration, and spatial reclassification)³ in the region over the last 15 years

are not available; however, recent studies suggest that migration has had a significant and increasing contribution to urbanization in recent years (Hugo 2014, World Bank 2015).

For instance, over the past three decades, China has experienced the greatest internal (rural-to-urban) migration in history: in 2013, rural migrant workers accounted for 44 percent of total urban employment (World Bank and Development Research Center of the State Council, People’s Republic of China 2014). In Indonesia, migration and spatial reclassification together account for more than 70 percent of urban growth (World Bank and IMF 2013). In the much smaller nation of Timor-Leste, remittances from internal migration indicate that migration has become increasingly important as a household development strategy and risk diversification (Housen, Hopkins, and Earnest 2012). In these cases, one or more members of a rural household move to an urban area to secure a job with higher and more predictable income, thus managing income volatility risk inherent to rural agriculture (box 1).

³ A common misconception is to assume that urbanization and urban growth are driven by a simple redistribution of people from rural to urban areas via internal migration. In reality, there are four components to urban growth (Hugo 2014): natural increase (more births than deaths), net internal migration (more in-migrants from elsewhere in the country than out-migrants moving to elsewhere in the country), net international migration (more immigrants from other countries than emigrants to other countries), and reclassification (reclassifying rural areas as urban, as large urban areas grow).

BOX 1 Migration as a household risk diversification strategy in Myanmar

A significant portion of rural families in Ayeyarwady and Magway, Myanmar, practice migration primarily to manage risk. The strategy is particularly apparent in households that live close to the subsistence level and are at risk from natural disasters or other adverse events that threaten their primary source of income (agriculture). To mitigate these risks, rural households send family members to take up nonfarm jobs in cities such as Mandalay and Yangon, where the risk of negative shocks is considerably lower. Migration also enables migrants to earn income during the off-peak agricultural season, further reducing risk to the families' income. Migrants can send home some of the income earned in urban areas as remittances to help family in rural areas cope with irregular income during non-productive months. In 2015, up to half of the remittances that migrants sent home were used for basic food expenses (World Bank 2016a).



Internal migration is often viewed as a straightforward process in which individuals relocate to an urban destination. But national internal migration statistics do not yield a simple urban–rural measurement. Internal migration is complex, involving a mix of motivations as well as migration and mobility strategies, including multiple stepwise moves. A common definition for measuring migration trends across countries does not exist. UNDESA (2015) demonstrates the huge variation in how the 193 UN member states measure migration status. Countries differ widely in the type of internal migration data they collect, the sources they use, the ways they measure migration, the time intervals they consider, the periodicity of their collection, the scope of their questions, and the spatial frameworks they employ.⁴

Although meaningful comparisons of migration trends across countries and regions remain a challenge, country-specific definitions (most of which

highlight interprovincial migration and therefore underestimate migration from rural to urban areas within provinces) suggest that a substantial share of the population comprises internal migrants, especially in Cambodia, China, Mongolia, and Vietnam (table 2).

Measuring migration in the East Asia and Pacific region is complicated by a host of exclusionary policy measures aimed at preventing migration, which have resulted in consistent underestimation of the number of migrants in cities. China, Indonesia, the Philippines, Thailand, and Vietnam, among others, have implemented exclusionary policies that disadvantage migrants (Baker and Gadgil 2017). According to the United Nations Population Division (2018), all middle-income countries in the region have expressed a desire to further reduce rural-to-urban migration. Even countries with comparatively low urbanization (such as Cambodia) have such policies (see also, box 2).

⁴ The three main types of migration measurements are lifetime migration (measured by comparing current residence with place of birth within the same country), migration over a fixed interval (measured by comparing current residence with place of residence at some previous date), and migration based on the place of last residence (measured by comparing current residence with previous place of residence, irrespective of the date of the move).

TABLE 2 Internal migration's share of population in selected East Asian and Pacific countries

Country	Internal migrants as share of the population (%)	Year	Definition	Source
Cambodia	12.2	2008	Interprovince migration: population that has ever moved across provinces.	Cambodia General Population Census (2008), online tables (National Institute of Statistics of Cambodia 2009)
China	19.6	2011	Total migration rate: population that is registered (with hukou) in a town or district other than the one in which they live.	China Statistical Yearbook 2012 (National Bureau of Statistics of China 2012)
Indonesia	2.3	2010	Population that is living in a province different from the one they lived in five years ago.	Indonesia Statistical Yearbook 2012 (Statistics Indonesia 2012)
Mongolia	31.6a	2007	Population that ever moved from birthplace.	Shi (2011), analysis of Household Economic and Social Survey of Mongolia 2007/08
Thailand	2.0	2009	Interprovince migration: in last two years population that was away for at least one month at a time or permanently away.	2009 Migration Survey (National Statistical Office 2009)
Vietnam	9.7	2010	Interprovince migration: all moves across provinces in the calendar year.	Statistical Yearbook of Vietnam 2012 (General Statistics Office of Vietnam 2012)

Source: World Bank 2014.

a. Refers to adult population.

BOX 2 Anti-migration policies as a defining feature of urbanization in the East Asia and Pacific region

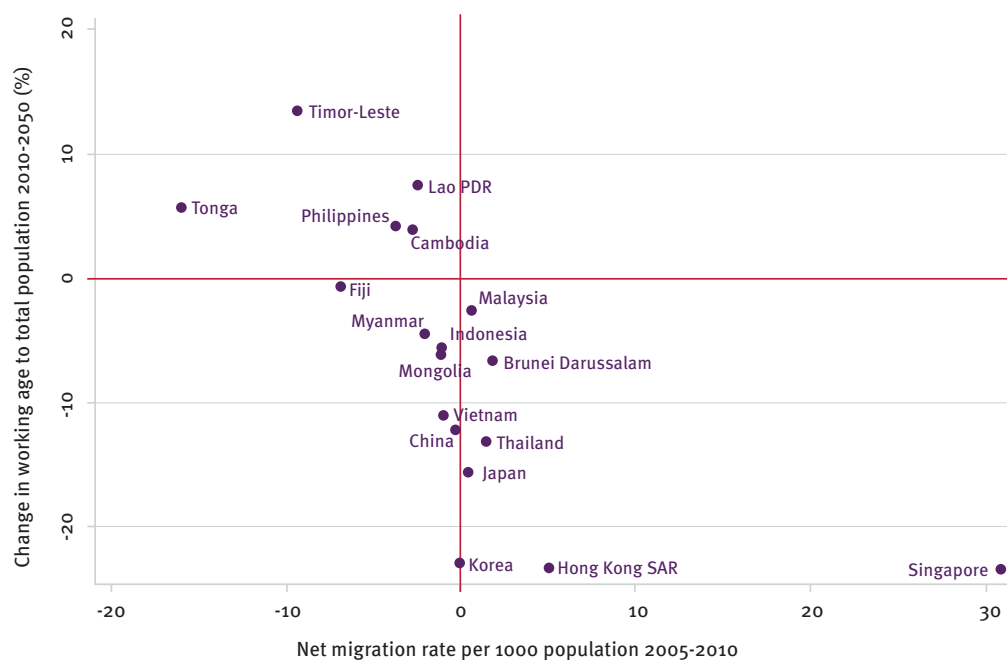
Household registration is a defining feature of policy responses to migration in the East Asia and Pacific region and has resulted in a class of undocumented citizens who live in cities but are unable to fulfill the requirements to register in their destination areas. This undocumented status blocks access to government services and leaves migrants vulnerable to exploitation by prospective employers.

China's hukou system is the most well-known example of such policies. It is best understood as a model of differentiated citizenship, in which rights differ by household registration (Wu 2011). Over time, the dynamics of the hukou system have generated a large population of marginalized, undocumented migrants without urban registration, often referred to as the floating population. According to the World Bank and the Development Research Center of the State Council of China (2014), the share of the urban population in China comprising temporary migrants grew from 31 percent in 2000 to 42 percent in 2010.

Vietnam's population management policies prior to the 1986 Do Moi reforms also limited migration to cities through a household registration system and housing policies. Residential registration status, permanent or temporary, determined eligibility for social services such as health care and schooling based on the current place of residence. While permanent residents could access these social services for free or at subsidized costs in their registered locality, temporary residents had to pay in full. Changing registration status was difficult, which created a class of temporary migrants who were unable to register in urban destinations and struggled to access state support. While this type of movement control lessened after economic liberalization in the late 1980s, the reforms did not make it easier for migrants to change their residence status. Large numbers of migrants are still unable to fulfill the conditions, and barriers make routine activities such as registering births and accessing basic health and education services complex and bureaucratic (Asia Foundation 2011).

Other examples of policies that discriminate against migrants include Mongolia's Civil Registration Law (Articles 25 and 26) and Indonesia's Jakarta Smart Card and Jakarta Health Card.

FIGURE 10 Changes in working-age (15-64 years) population to total forecast for 2010-2015 and net migration rate per 1,000 population for 2005-10



Source: Quillin (2012)

Low levels of international migration are exacerbating the problems of an aging population and shrinking labor force. The demographic decline in some high-growth East Asian economies has the potential to significantly affect their future outlook, raising the question of how countries can design international migration policies so as to positively enhance the returns of international labor flows. As figure 10 demonstrates, most countries experiencing demographic decline have levels of net migration near zero, while quite a few countries (including Indonesia, Mongolia, Myanmar, and Vietnam) are losing population to emigration and demographic shifts (Quillin, 2012).

The result is a shrinking labor force across the East Asia and Pacific region (though regional variation across countries exists), and a concomitant rising dependency burden on the younger population, especially in urban areas and among low-income

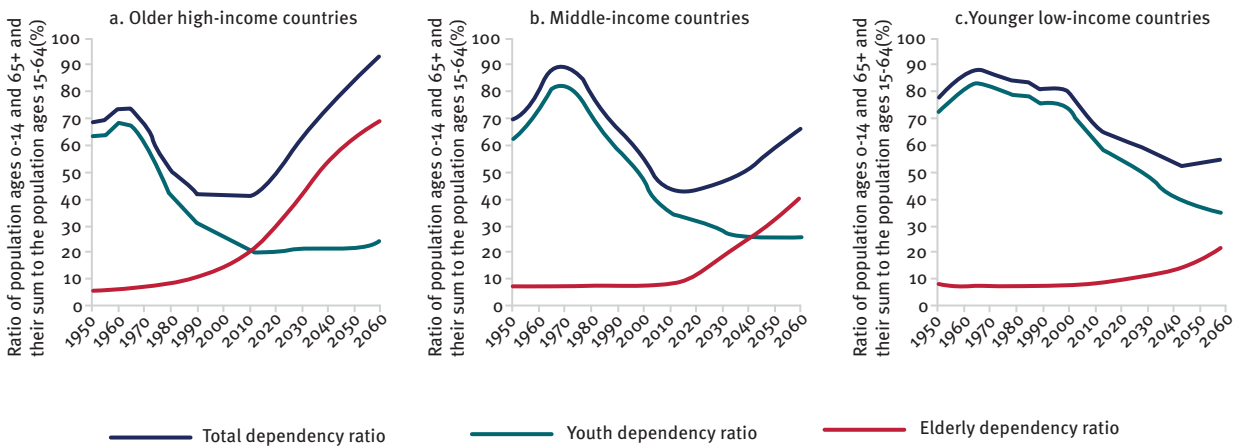
populations. While own-labor income accounts for the largest share of income among the elderly population, dependence on family support accounts for the second-largest share (World Bank 2016b). Co-residence of older people with adult children is high, though it has declined considerably in some countries (World Bank 2016b). Even when they live in different households, adult children may be obligated to support their parents through private transfers, an increasing burden that has raised concerns in some countries.

Another concern is the rising poverty rate among the elderly population. While receiving a pension is associated with poverty reduction in both rural and urban areas, pension rates are low, and most elderly people—especially poor elderly people in urban areas—rely on own-labor income (World Bank 2016b). Poverty rates among elderly people are moderate in China, Indonesia, and Vietnam.

In high- and middle-income East Asian and Pacific economies, the elderly dependency ratio is projected to increase beginning in 2020, while the youth dependency ratio is projected to decline (figure 11). Based on these trends, high-income economies in the region are projected to have a total dependency ratio of 94 per 100 people in 2060, compared with 67 in middle-income countries.

However, in low-income countries, which are expected to account for the largest share of the increase in the working-age population, the total dependency ratio is expected to shrink until 2040. Indonesia and the Philippines are expected to contribute the most to the increase in absolute terms, while Lao PDR, Papua New Guinea, and Timor-Leste are expected to contribute the most in relative terms (World Bank 2016b).

FIGURE 11 Total, youth, and elderly dependency ratios in low-, middle-, and high-income economies in the East Asia and Pacific region, 1950–2060



Source: World Bank 2016b

Note: The elderly dependency ratio (EDR) is the ratio of the population 65 years and older to the population aged 15–64. The youth dependency ratio (YDR) is the ratio of the population aged 0–14 to the population aged 15–64. The total dependency ratio (TDR) equals EDR plus YDR.



III.

Key demographic trends at the city level

Population projections⁵ were run for a group of selected cities to compare city-level with national-level trends. The cities were selected on the basis of their regional representation and their specific demographic profile (fertility, mortality, migration, age-sex population structure, and population growth). Based on the results of the projections, this section explores future trends in demographic dynamics of selected cities, especially the magnitude and age-sex population structure.

In line with the trends observed at the national and regional levels, the selected cities face rapid aging due to the decline in fertility rates below replacement levels (except in Manila, where the total fertility rate is expected to reach 2.1 around 2020). All of the selected cities are expected to see a substantial increase in the old-dependency ratio between the baseline year and 2050; this is true especially for Ho Chi Minh, where the old-age dependency ratio is projected to quadruple its value (figure 12).

Migration (both internal and international) also plays an important role in population growth of almost all of the selected cities, reinforcing their

depopulation (Seoul) or counteracting the effects of fertility decline (Beijing, Ho Chi Minh, and Tokyo) (table 3). The table below shows how the urban population growth of Seoul is relatively lower than many of the other Korean urban areas, suggesting that secondary cities, such as Yonqin, Suwon, or Incheon, may be absorbing a considerable number of migrants that could have gone to Seoul. Similar trends may be expected in countries with robustly growing secondary cities or regions, such as the Philippines.

Migration not only affects the population's size but also its structure by sex and age. For example, in Beijing, migration has resulted in a younger and more male population, likely due to the immigration of adult males (30–49 years old). However, the flow of workers into Beijing from other parts of China has slowed in recent years; in 2016, the number of migrants in Beijing dropped for the first time since 2000 (Zuo 2018). This decline is likely due to the challenges migrants face in assimilating in the destination due to the long legacy of social exclusion under hukou, and the simultaneous relaxation of hukou controls in secondary cities of China.

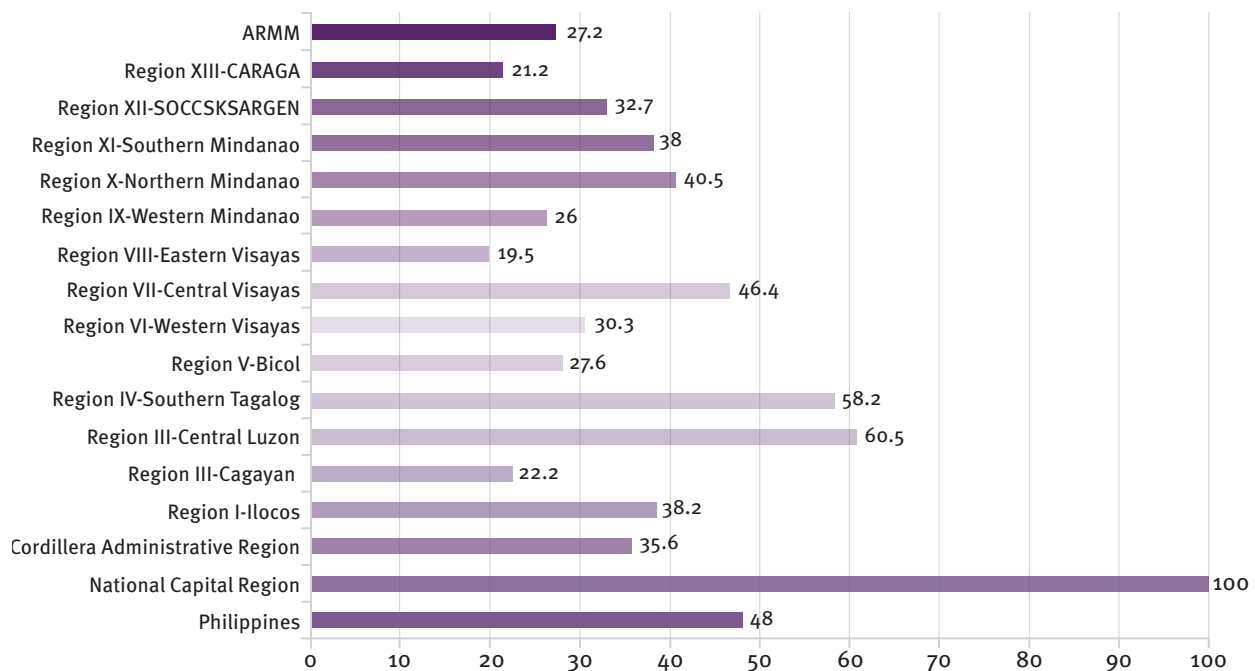
⁵ Projections of chosen cities were made with the components method, the usual procedure used by official statistical agencies to project national populations. Starting from the last census, the population evolution is simulated on the basis of fertility, mortality, and migration hypotheses. Future births and deaths are estimated from fertility and mortality trends in recent decades. Migration is estimated by differences between overall population growth and natural increase (births minus deaths) during the last intercensal period. When migratory balances are smooth (below 5 per thousand), they remain constant; when they exceed this limit, the trend is assumed to decrease gradually in the future. The time horizon of projections extends from last census up to 2050.

TABLE 3 Key demographics in selected capital cities in Eastern Asia and Pacific, baseline year to 2050 (projections)

Country/Cities	Total Population (thousand)		Relative increase (%)	Aging Index (65+)		Total Fertility Rate (live births per woman)		
	Baseline year	2050		Baseline year	2050 Baseline year	Baseline year	2050	
China	Beijing	19,182	40,152	109.3	41.0	122.7	1.59	1.76
	Hong Kong SAR	7,268	6,949	-4.4	95.4	356.9	1.20	1.20
	Country-wide	1,359,759	1,364,460	0.3	47.1	188.2	1.60	1.75
Vietnam	Ho Chi Minh	7,584	14,482	91.0	21.4	143.9	1.65	1.07
	Country-wide	88,474	114,632	15.5	27.7	127.2	1.96	1.90
Japan	Tokyo	13,249	13,998	5.7	164.6	353.0	1.11	0.90
	Country-wide	128,551	108,796	-15.4	168.5	289.7	1.41	1.70
Korea, Rep.	Seoul	9,792	6,321	-35.4	62.1	182.4	1.03	1.20
	Country-wide	49,555	50,459	1.8	66.5	305.4	1.23	1.63
Philippines	Manila	1,653	1,766	6.8	13.8	54.5	2.38	1.52
	Country-wide	93,726	151,296	61.4	12.2	41.1	3.05	2.21

Source: Based on data provided by the National Statistics Office and international organizations such as the United Nations (Department of Economic and Social Affairs, Population Division), the World Health Organization (WHO), and the Demographic and Health Survey (DHS) Program.

Note: Baseline year: Vietnam – 2009. Beijing; China; Korea, Rep.; Philippines; and Japan – 2010. Hong Kong SAR, China – 2011.

FIGURE 12 Philippines Urbanization Level by Region. Source: ADB, Republic of the Philippines National Urban Assessment

ARMM= Autonomous Region in Muslim Mindanao

Source: National Statistics Office. 2010. Philippine Statistical Yearbook. Manila

TABLE 4 Projected Population Growth of Korean Cities

City	Statistical concept	City Population (Thousands)			Average annual rate of change (percentage)		City population as a proportion of the country or area's total or urban population in 2018 (percentage)	
		2000	2018	2030	2000-2018	2018-2030	Total Population	Urban Population
Busan	Urban Agglomeration	363	3467	3532	-0.3	0.2	6.8	8.3
Changwon	Urban Agglomeration	1,077	1060	1070	-0.1	0.1	2.1	2.5
Daegu	City Proper	2,323	2221	2205	-0.2	-0.1	4.3	5.3
Daejeon	City Proper	1,354	1558	1610	0.8	0.3	3.0	3.7
Goyan	City Proper	734	1039	1145	1.9	0.8	2.0	2.5
Gwangju	City Proper	1,343	1518	1559	0.7	0.2	3.0	3.6
Incheon	City Proper	2,371	2763	2923	0.9	0.5	5.4	6.6
Seoul	Urban Agglomeration	9,879	9963	10163	0.0	0.2	19.5	23.9
Suweon	Urban Agglomeration	932	1265	1420	1.7	1.0	2.5	3.0
Yongin	Urban Agglomeration	374	1039	1186	5.7	1.1	2.0	2.5

Source: UN, *The world's Cities in 2018*

Despite this decline in migrants and an aging population, cities may still grow through spatial re-classification. In the case of Beijing, the city rapidly expanded by 48 percent (from 1,827 km² to 2,716 km²) between 2000 and 2010 (World Bank 2015). A study by the World Bank found that several EAP cities, including Beijing and Hanoi, are surrounded by hundreds of small peripheral settlements. Cities are rapidly expanding and increasing in population in part by absorbing surrounding rural settlements, rather than through migration or natural growth.

In contrast, in Ho Chi Minh, Manila, and Seoul, migration has resulted in a higher female population, especially among youth and young adults. While in Ho Chi Minh this trend is due to an influx of female immigrants, in Manila and Seoul it is a consequence of emigration, mostly of men, to other countries (Manila) or to nearby areas and satellite cities (Seoul) (Abel and Heo 2018; Seo and Kwon 2017; UNESCO, UNDP, IOM, and UN-Habitat 2018).

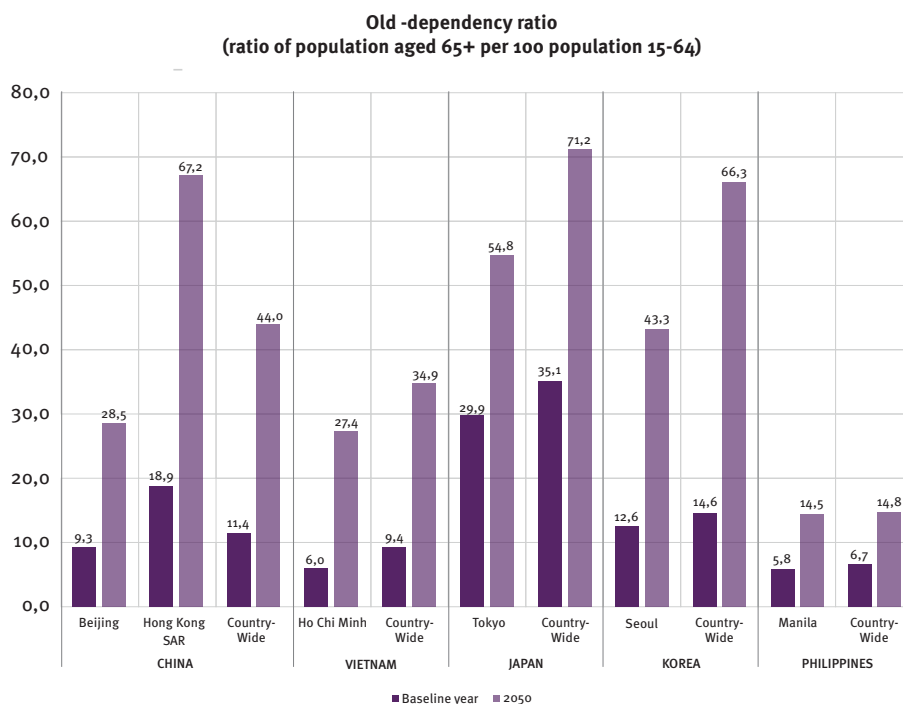
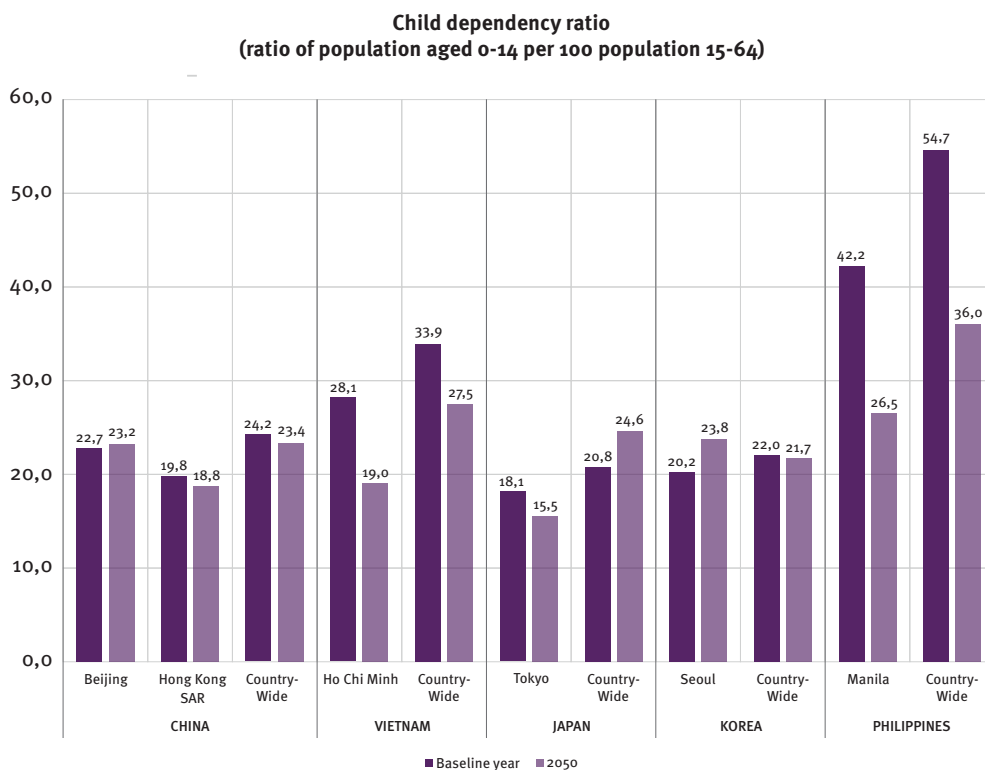
In the context of rapid urbanization, many municipal policy makers and city officials have viewed

low- and semi-skilled internal migrants as a drain on urban resources and a contributor to slums and urban poverty. The continued arrival of migrants, coupled with anti-migrant policies, exacerbates the development of informal settlements on urban peripheries and disaster-prone areas where land is less contested. These settlements typically have insecure tenure, which doubly delegitimizes migrants' presence as urban citizens. Remote sensing analysis conducted between 2000 and 2010 found that cities in the East Asia and Pacific region have been experiencing considerable sprawl (figure 14).

Chinese cities lead the region in average growth by area (3.3 percent a year) and population (3.1 percent a year). Outside China, Ho Chi Minh led in growth of urban area (from 549 km² in 2000 to 815 in 2010, a 48 percent increase), and Johor Baru, Malaysia, led in growth of urban population (4.7 percent a year) (World Bank 2015). These results show that a sizable portion of the region's growth is in secondary cities rather than in megacities.⁶

⁶ Between 2000 and 2010, small and medium-size cities accounted for the largest share of urban expansion and urban population growth in absolute terms, despite the fact that large urban areas grew faster. This is because, even though the urban area of megacities is about 50 times larger on average than that of small cities, small cities with a population of 1–10 million make up the majority of urban land and urban population in the region (World Bank 2015).

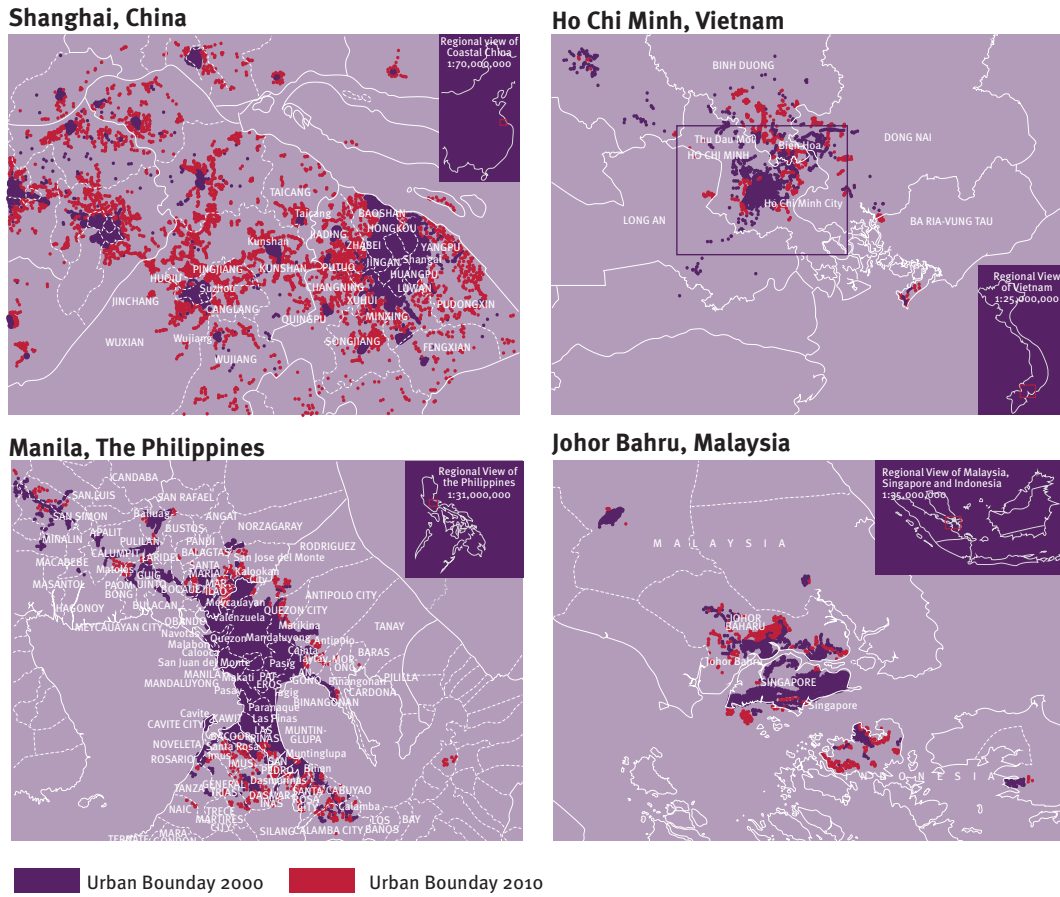
FIGURE 13. Child and old-dependency ratios in selected cities and countries' Eastern Asia and the Pacific, baseline year and 2050 (projections)



Source: At city-level based on data provided by National Statistics Office, and at country-level based on data provided by United Nations, Department of Economic and Social Affairs, Population Division 2017.

Baseline year: Vietnam – 2009. Beijing, China; Korea, Rep.; Philippines; and Japan – 2010. Hong Kong SAR, China – 2011.

FIGURE 14. Urban expansion in East Asian and Pacific cities, 2000–10



Source: World Bank 2015.

Note: Only labeled areas are considered to be part of a city's urban area.



IV. Policy implications & Conclusions

Aging is a significant emerging trend across the region, and East Asia and Pacific is aging more rapidly than any other region in history. Adding to current aged populations in high-income countries, nearly all middle-income countries in the region are projected to transition from young to old societies in 20–25 years (World Bank 2016b). This trend also interacts with migration and gender in unique ways that will result in a future East Asia Pacific that is not only elderly, but also majority female. Cities across the region have the opportunity, today, to plan specifically for the needs of these demographics by implementing policies to ensure long-term accessibility and inclusivity across a variety of sectors, including transportation, housing, and social services. Decision makers can also leverage technological innovations to ensure inclusivity for aging and/or migrant populations. The conclusions and policy implications discussed in this section can be generalized to most high-, middle- and low-income countries in the region, but it is important to note that low-population countries in the Pacific may require special approaches. Three primary areas of focus are highlighted below.

Spatial and Territorial Inclusion: Strategies for housing, infrastructure, transportation, service provision, and connectivity

There is ample evidence that investing in affordable, safe, and reliable housing, as well as in infrastructure services and transportation, can reduce spatial inequality by enhancing access to employment opportunities and ensuring sustainable growth of the urban footprint.

The East Asia and Pacific region has made several successful efforts aimed at improving the housing

conditions for slum dwellers. In the Mekong Delta's secondary cities, the third generation of urban-upgrade effort under the World Bank's Vietnam Scaling Up Urban Upgrading Project incorporates universal accessibility design into upgrade efforts to address local government concerns about accessibility for aging and disabled populations. Universal design includes simple elements such as curb cuts on sidewalks and ramps into buildings to accommodate wheelchairs and canes, which are inexpensive to include up front but expensive to retrofit. The scope for embedding universal accessibility in upgrade programs is considerable. Over time, such efforts can secure better accessibility for aging and disabled populations at low cost.

In Shanghai, the elderly population accounted for 25.7 percent of the total population in 2012 and has been growing at about 5.6 percent a year. But the housing facilities occupied by senior citizens, especially among lower-income individuals, are often old or outdated. Accidents are the leading cause of death among senior citizens. Collaboration among Shanghai's Civil Affairs Bureau, the Senior Citizens' Foundation, and Habitat for Humanity China yielded one solution (box 3). In contrast, some countries, such as Singapore,⁷ have started experimenting with the use of disruptive technologies and new nursing home designs to provide a better living situation for their elderly population. These include, among others: a smart elderly care system that notifies family members and caregivers of irregular body movements of elderly residents, as well as shared social amenities and kitchens to promote social activities among aging individuals.

7 See Smart Nation Singapore: <https://www.smartnation.gov.sg/what-is-smart-nation/initiatives/Urban-Living/smart-elderly-alert-system>

BOX 3 Accommodating the elderly through housing design in Shanghai

In 2010, Habitat for Humanity China, in partnership with Shanghai's Civil Affairs Bureau and Senior Citizens' Foundation, launched the Age-Friendly Housing Project to address concerns about accidents among low-income elderly populations. Elderly residents were provided with renovations—including handrails, grab bars, and anti-slip flooring—to improve the safety of their homes and ensure accessibility. In 2011, the project offered renovations to 25 elderly residents in the Yangpu and Zhabei districts. Many recipients lacked support from their families, had limited financial security, and faced illness and disabilities. The project also increased awareness in local communities and worked to involve all residents in mobilizing resources to rehabilitate the homes. Community engagement extended to event planning and partnerships to engage sponsors as well as to design, contracting, and construction.

Source: Colliers International 2015.

BOX 5 Relaxing hukou restrictions in China

In a welcome policy shift, China has begun relaxing hukou restrictions, though mostly in smaller cities rather than large metropolises such as Beijing and Shanghai. The impact is expected to be positive, reducing the social and economic marginalization of the floating population and their children. Hugo (2014) found positive trends in the proportion of migrant workers who had been discriminated against in urban areas but are now included in health, old-age, and other social welfare systems. The largest municipalities continue to receive more migrants, despite government efforts to limit growth of the largest urban areas. Xing and Zhang (2017) found that despite a strict hukou policy that restricts migration into the largest cities, migrants continue to prefer Beijing, Shanghai, and Shenzhen, even though they may lose income in the short term.

Transportation policies, such as linking non-motorized transportation and bus rapid transit in Guangzhou, also promote spatial inclusion by increasing the access of lower-income populations, including rural-to-urban migrants, to urban services and employment opportunities. This policy is also aligned with the elderly population's transportation needs. A study performed in 2017 revealed that the elderly population in Beijing preferred walking (54.7%), cycling (20.4%), and ground buses (14.6%) as opposed to cars (5.2%) (Liu et al. 2017). Typical Transit Oriented Development (TOD) approaches focus only on connecting jobs and residential areas, but the aging population is and will remain much more active than their predecessors. Accessibility is relative, and planners must think through new approaches to transportation, including leveraging new ride share technologies, like Go Jek (in Indonesia) or Grab, which have the potential to shift the ways in which the elderly can maintain mobility.

Urban Sprawl and Social Exclusion

Local government officials have long stigmatized migrants, making them scapegoats for problems arising from inadequate urban planning. Urban sprawl and slum growth often result from planners' and local governments' lack of attentiveness to demographic trends and attempts to discourage migration. These latter policies are based on flawed assumptions that withholding affordable service provision and requiring documentation of urban residence will discourage future migration.

The result is that peripheral informal settlements spur urban development outside city limits, stretching the limited carrying capacity of networked service provision as low-density settlements develop within the urban sprawl. Over time, neglected neighborhoods become concentrated and pockets of poverty develop, reducing the overall competitiveness of the city. In addition, it is costlier

to retrospectively upgrade slum settlements that have resulted from a failure of urban planning and evidence-based infrastructure investment than it is to provide services planned in advance.

The region is moving toward the acceptance of internal migration trends and a shift away from exclusionary migration policies, but these changes are still gaining traction. As noted in box 5, China provides an example of a course correction with the reform of its urban hukou system. Yet as a whole, the East Asia and Pacific region must actively expand opportunities for internal migrants or risk not only wasting the potential of a young and vibrant section of society, but also experiencing the long-term consequences of discrimination and exclusion, which will determine the very fabric and structure of urban centers.

Aging: Shrinking labor force, dependency burden, and interaction with migration

Rapid aging of the East Asia and Pacific region's high-income countries has implications for the region's economic future, especially in countries whose labor force is projected to shrink. Between 2010 and 2040, the working-age population is projected to fall by more than 15 percent in the Republic of Korea and by at least 10 percent in China, Japan, and Thailand (World Bank 2016b).

However, some middle- and low-income countries (Cambodia, Indonesia, Lao PDR, Myanmar, and the Philippines) are expected to experience "demographic tailwinds," or favorable demographic trends that will boost economic growth, at least in the near term. The immediate challenge for these countries is to optimize this growth and harness the potential of the productive population cohorts, which can be better achieved through inclusive urban policies, especially toward internal migrants. However, in the long run, these countries will also see sharp increases in aging rates and must plan accordingly.

BOX 6 Building the human capital of rural-to-urban migrants in China

Nearly half the rural population of China's Anhui Province has sought employment in cities and the nonfarm sector. Recognizing that migrants had been used to fill the most menial and lowest-paying jobs in the urban labor market, local governments partnered with the World Bank to offer vocational and skills training in the provinces of Anhui, Ningxia, and Shandong. The training programs were leveraged to build relationships with urban employers, who saw the benefits of hiring trained workers. As a result, a new market of labor brokers developed to match rural-to-urban migrants with better job opportunities in the cities. In Anhui Province alone, more than 57,000 migrants received training from 2009 to 2014 through 10 project-supported schools, and 98 percent of graduates received occupational qualification certificates. The percentage of graduates entering employment within six months increased from 51 percent to 98.2 percent. Initial monthly wages received by graduates doubled from 1,430 yuan to 3,300 yuan.

Source Baker and Gadgil 2017.



Migration could counter rising dependency ratios, as we have already seen in the city-level projections. The rapid aging and subsequent shrinking of countries' labor forces may increase their incentive to adopt migration policies that encourage the arrival of younger workers. China has already benefited from mass internal migration of young rural workers to higher-productivity work in urban areas. However, countries would have to stop thinking of migrants as the urban poor and start improving their understanding of rural-to-urban migrants—who are often in their 20s, have an entrepreneurial spirit, and are better educated than their rural counterparts—in order to support their moves to urban areas.

Migration and aging also interact in important ways in both origin and destination areas. While the effects of migrant settlement in urban destinations is relevant to issues of sustainable urbanization, that view is one-sided. When migrants move from rural to urban areas, they leave behind elderly family members. Since they frequently lack easy access to housing services in urban areas, migrants often maintain dual households, leaving their children with elderly grandparents in their rural places of origin. These arrangements highlight why governments must take into account infrastructure service provision in both origin and destination areas when they plan infrastructure investments—which is rarely done now. Deeper understanding of the interaction between migration and aging could facilitate better distribution of infrastructure services in origin and destination areas.

The East Asia and Pacific region offers several examples of social safety nets for both the elderly and migrant populations. The Republic of Korea's Social Insurance Program targets elderly people with no or low income, providing insurance and pension packages to stabilize the bottom 70

percent. In Thailand, the Community Organization Development Institute's slum-upgrading program has incorporated welfare support for the elderly and migrant populations, and the Philippines recently initiated a program that facilitates remittance services for internal migrants (Baker and Gadgil 2017). In China, Shanghai now provides universal compulsory education for migrant children following the construction of new schools and the introduction of policy that pays for enrollment in private schools. China has also addressed the economic prospects of rural-to-urban migrants through vocational and skills training (box 6).

Underlying these policies is an acknowledgement by governments of the need to directly address rather than ignore significant demographic shifts. Support programs for elderly urban populations have been instituted primarily in economies that have already completed their demographic transition. They provide an example to young economies that are in the midst of a youth bulge and have time to invest in both productivity-enhancing reforms and social safety nets to capitalize on the demographic dividend and prepare for inevitable rapid aging.

Looking forward, the East Asia and Pacific region, with several high- and middle-income economies, is well positioned to develop new technologies to address the specific needs of an aging population. Innovations that aim to make cities more inclusive for aging populations are likely to provide pioneering examples to developing countries in regions beyond EAP. Cities are recognizing the need to be responsive to the changing demographic needs—a position that is critically aligned with the New Urban Agenda, which emphasizes inclusive service provision in cities and is central to achieving Sustainable Development Goal 11 to make cities and human settlements inclusive, safe, resilient, and sustainable.

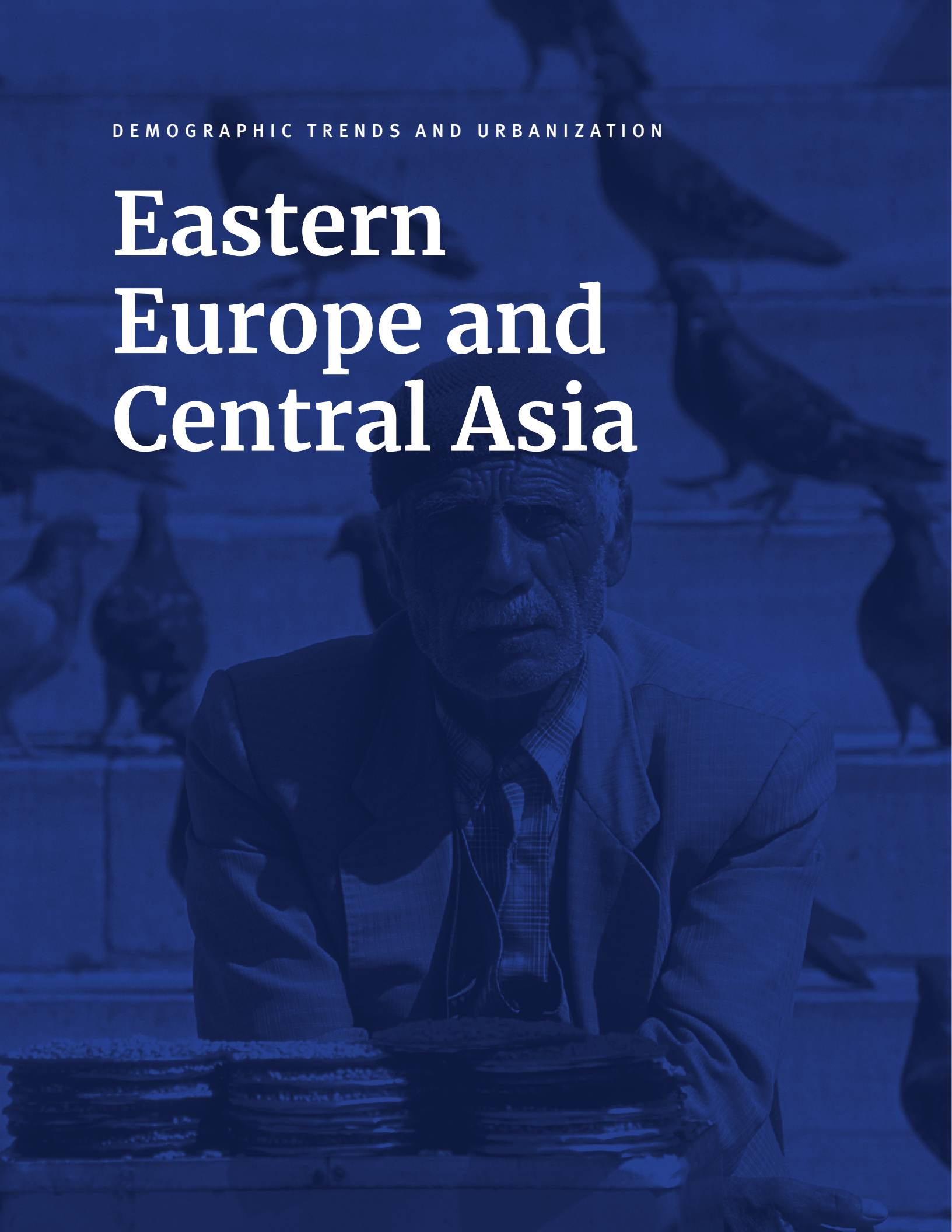
References

- Abel, Guy J., and Nayoung Heo. 2018. "Changing internal migration flows patterns in South Korea." *Regional Studies, Regional Science* 5 (1): 78–80.
- Asia Foundation. 2011. *Annual Report 2011*. San Francisco, CA: Asia Foundation.
- Baker, Judy L., and Gauri U. Gadgil, eds. 2017. *East Asia and Pacific Cities: Expanding Opportunities for the Urban Poor*. Urban Development Series. Washington, DC: World Bank. doi:10.1596/978-1-4648-1093-0.
- Colliers International. 2015. *Aging China: Opportunities in Real Estate for Senior Housing*. Shanghai: Colliers International.
- Credit Suisse Research Institute. 2013. *Chinese Demographics: Labour Mobility, Migration, Urbanization and Reforms*. London: Credit Suisse Research Institute.
- Hildebrand, Mark, Trevor Kanaley, and Brian Roberts. 2013. *Strategy Paper: Sustainable and Inclusive Urbanization in Asia Pacific*. New York: United Nations Development Programme (UNDP).
- Housen, Tambri, Sandra Hopkins, and Jaya Earnest. 2012. *Migration Patterns and the Impact of Internal Remittances on Poverty and Human Capital in Timor-Leste*. Perth: Curtin University.
- Hugo, Graeme. 2014. *Urban Migration Trends, Challenges, Responses and Policy in the Asia-Pacific*. Background paper for *World Migration Report 2015: Migrants and Cities, New Partnerships to Manage Mobility*, International Organization for Migration. Adelaide: International Organization for Migration.
- Liang, Zai. 2004. "Patterns of Migration and Occupational Attainment in China: 1985–1990." *Development and Society* 33 (2): 251–74.
- Liu, Wenzhi, Huapu Lu, Zhiyuan Sun, and Jing Liu. 2017. "Elderly's travel patterns and trends: The empirical analysis of Beijing." *Sustainability* 9 (6): 981.
- McGranahan, Gordon, and Diana Mitlin. 2016. "Learning from Sustained Success: How Community Driven Initiatives to Improve Urban Sanitation can Meet the Challenges." *World Development* 87: 307–17. doi:10.1016/j.worlddev.2016.06.019
- Quillin, Bryce. 2012. "The end of the 'demographic dividend' in East Asia." *People Move, World Bank Blogs*, July 3, 2012. <https://blogs.worldbank.org/peoplemove/the-end-of-the-demographic-dividend-in-east-asia>
- Rodriguez, Jorge Carrillo, ed. 2014. *The New Urban: Towards Progressive Secondary Cities*. Bangkok: Asia Development Dialogue.
- Seo, Ducksu, and Youngsang Kwon. 2017. "In-migration and housing choice in Ho Chi Minh City: Toward sustainable housing development in Vietnam." *Sustainability* 9 (10): 1738.
- Singh, Gayatri. 2017. *Urban Poverty in Ulaanbaatar: Understanding the Dimensions and Addressing the Challenges*. Washington, DC: World Bank.
- Singh, Gayatri, and Gauri Gadgil. 2017. *Navigating Informality: Perils and Prospects in Metro Manila's Slums*. Washington, DC: World Bank.
- UN (United Nations). 2010. *Internal Migration: Opportunities and Challenges for Socio-economic Development in Vietnam*. Ha Noi: United Nations.
- UN-Habitat (United Nations Human Settlements Programme). 2015. *The State of Asian and Pacific Cities 2015: Urban Transformations Shifting from Quantity to Quality*. Nairobi: UN-Habitat.

- UN-Habitat (United Nations Human Settlements Programme). 2016. Urbanization and Development: Emerging Futures. In World Cities Report 2016. Nairobi: UN-Habitat.
- UN-Habitat (United Nations Human Settlements Programme) and UNESCAP (United Nations Economic and Social Commission for Asia and the Pacific). 2015. The State of Asian and Pacific Cities 2015: Urban transformations Shifting from quantity to quality. London: UN-Habitat.
- UNDESA (United Nations Department of Economic and Social Affairs), Population Division. 2001. The Components of Urban Growth in Developing Countries. New York: United Nations.
- UNDESA (United Nations Department of Economic and Social Affairs). 2012. World Urbanization Prospects: The 2011 Revision. New York: United Nations.
- UNDESA (United Nations Department of Economic and Social Affairs), Population Division. 2013. Cross National Comparisons of Internal Migration: An Update on Global Patterns and Trends. Technical Paper No. 2013/1. New York: United Nations.
- UNDESA (United Nations Department of Economic and Social Affairs), Population Division. 2015. International Migrant Stock 2015. Electronic resource. <http://www.un.org/en/development/desa/population/migration/data/estimates2/estimates15.shtml>
- UNDESA (United Nations Department of Economic and Social Affairs), Population Division. 2017. World Population Prospects: The 2017 Revision. New York: United Nations.
- UNDESA (United Nations Department of Economic and Social Affairs), Population Division. 2018. World Population Policies 2015: Highlights. ST/ESA/SER.A/373. New York: United Nations.
- UNESCO (United Nations Educational, Scientific and Cultural Organization), UNDP (United Nations Development Programme), IOM (International Organization for Migration), and UN-Habitat (United Nations Human Settlements Programme). 2018. Internal Migration in Southeast Asia: Towards Better Inclusion of Internal Migrants. Bangkok: UNESCO.
- World Bank and Development Research Center of the State Council, The People's Republic of China. 2014. Urban China: Toward Efficient, Inclusive, and Sustainable Urbanization. Washington, DC: World Bank. doi:10.1596/978-1-4648-0206-5
- World Bank and IMF (International Monetary Fund). 2013. Global Monitoring Report 2013: Rural-Urban Dynamics and the Millennium Development Goals. Washington, DC: World Bank.
- World Bank. 2014. East Asia Pacific at Work: Employment, Enterprise, and Well-Being. Washington, DC: World Bank. doi:10.1596/978-1-4648-0206-5
- World Bank. 2015. East Asia's Changing Urban Landscape: Measuring a Decade of *Spatial Growth*. Washington, DC: World Bank.
- World Bank. 2016a. *A Country on the Move: Domestic Migration in Two Regions of Myanmar*. Washington, DC: World Bank.
- World Bank. 2016b. *Live Long and Prosper: Aging in East Asia and the Pacific*. Washington, DC: World Bank.
- Wu, Weiping. 2008. "Migrant Settlement and Spatial Distribution in Metropolitan Shanghai." *The Professional Geographer* 60 (1): 101–20.
- Wu, Xiaogang. 2011. "The Household Registration System and Rural–Urban Educational Quality in Contemporary China." *Chinese Sociological Review* 44 (2): 31–51. doi:10.2753/CSA2162-0555440202
- Xing, Chunbing, and Junfu Zhang. 2017. "The Preference for Larger Cities in China: Evidence from Rural-Urban Migrants." *China Economic Review* 43 (April): 72–90.
- Zhang, Heather, and Bin Wu. 2007. *Marginalisation in China: Perspectives on Transition and Globalization*. Edited by Richard Sanders. Hampshire, UK: Ashgate Publishing Ltd.
- Zuo, Mandy. 2018. "Beijing's population drops for first time since 2000 as migrants are driven out." *South China Morning Post*, January 2, 2018. <https://www.scmp.com/news/china/policies-politics/article/2129877/beijings-population-drops-first-time-2000-migrants>

DEMOGRAPHIC TRENDS AND URBANIZATION

Eastern Europe and Central Asia



- Most countries in the region transitioned to fertility rates below replacement levels two decades ago, making them late- and post-dividend countries according to the typology of the Global Monitoring Report (World Bank Group 2016).
- The rise in average age in Eastern Europe and Central Asia (ECA) is largely attributable to a decrease in fertility rather than to an increase in longevity, which makes aging trends in ECA unique. The emigration of young people is reinforcing these trends.
- Gender differences in mortality trends are remarkable, with men in Central Europe and the Baltics living much shorter lives than both women in the region and men in Northern Europe. As a result, some countries in the region have a high widowhood rate.
- In more than half of low- and middle-income countries in the region, the urban population declined between 1991 and 2011.
- Population aging is expected to accelerate across all capital cities studied.
- Moving forward, ECA countries and cities will continue to see diverse and contrasting patterns of growth and decline.



DEMOGRAPHIC TRANSITION

The countries of Eastern Europe and Central Asia (ECA) are experiencing a population trend that is unprecedented in human history. The current combination of extremely low birth rates, migration losses, and moderate mortality is leading to a combination of rapid population aging together with population decline in many countries of the region.

Turkey and Central Asian countries (Tajikistan, Turkmenistan, and Uzbekistan) have only just entered the late stage of demographic transition, with fertility and mortality at all ages falling and working-age cohorts growing as a share of the population. The rest of the region has already reached an advanced state of population aging and, according to the demographic dividend framework, can be considered late- or post-dividend countries.

However, population aging is largely attributable to low and declining fertility rates rather than an increase in longevity, unlike in East Asia. This trend could sharply slow population growth. In many countries in the region, the population is already shrinking. In addition, emigration has accelerated population decline—the young leave and don't necessarily return.

Over the past two decades, the Eastern Europe and Central Asia (ECA) region has experienced disruptive demographic trends unique among developing regions.¹ In most of the region's countries, fertility rates have long been below the replacement rate, and the population is aging rapidly. Emigration is reinforcing the demographic transition because those leaving are overwhelmingly young. And this demographic transition is happening much faster than in high-income economies. Most countries in the region are either growing very slowly or starting to experience a population decline.

These national demographic trends are starting to trickle down to urban areas and cities. In more than half of low- and middle-income countries in the region, the urban population declined between 1991 and 2011. However, the effects vary across urban areas. The average city in ECA has seen little population growth in the past decade. Many cities are losing population, though a few are growing—some at high rates. The region's unique and disruptive demographics have important policy implications for both growing and declining cities.

¹ This chapter draws heavily from Restrepo Cadavid et al. (2017) and linked country snapshots and from Bussolo, Koettl, and Sinnott (2015).

I. Demographic trends at the national and regional level: The ECA region faces unique demographic trends

Fertility rates in ECA are low and declining

Sharply decreasing fertility rates, concomitant population aging, and emigration affect most ECA countries. The average number of births per woman fell from 1.72 in the period 1989–2000 to 1.65 in 2000–14 (table 1). Though the region’s fertility rate has historically been below the global average, for more than two decades it has also been well below the replacement rate² (2.1 births per woman). Demographic transition is happening much faster in ECA than in high-income economies. France took nearly two centuries to go from 5 births per woman to below the replacement rate; Albania took only 34 years. However, there is variation across countries: in Turkey and Central Asian countries the fertility rate remains above the replacement level.

The ECA region, excluding the Muslim-majority countries, is the only region worldwide to have experienced a contraction in population between 1995 and 2010. The trend was particularly pronounced

in the transition period in the mid-1990s, during the collapse of communism. During this period, the population declined from 428 million people in 1995 to 424 million in 2010. At the same time, the population in Muslim-majority countries in the region increased from 48 million in 1996 to 59 million in 2010. By 2050, the estimated population of non-Muslim majority countries will stand at 406 million people, or 22 million less than in 1995 (World Bank 2019).

ECA’s population is rapidly aging

The region’s population is aging despite only limited improvement—and in some cases, deterioration—in life expectancy. Driven by declines in fertility, the median age rose from 26 in 1960 to 34 in 2010 and is expected to reach 44 in 2050. Twenty-one of the 28 countries studied experienced median-age increases of 10 years or more between 1950 and 2015 (World Bank 2019).

² “Replacement-level fertility” is the total fertility rate—the average number of children born per woman—at which a population exactly replaces itself from one generation to the next, without migration. This rate is roughly 2.1 children per woman for most countries, although it may modestly vary with mortality rates.

TABLE 1 Average fertility rates in the ECA region

Subregion	1960–89	1989–2000	2000–14
Belarus, Moldova, Russian Federation, and Ukraine	2.25	1.61	1.36
Central Europe and Baltic countries	2.16	1.54	1.39
Southeast Europe	3.26	2.22	1.72
Southern Caucasus	3.24	2.15	1.78
Turkey	4.94	2.78	2.23
Central Asia	5.12	3.41	2.74
Eastern ECA	2.40	1.72	1.65
World	4.26	2.95	2.54

Source: Restrepo Cadavid et al. (2017), based on World Development Indicators data.

Across all regions, ECA has experienced the smallest gains in life expectancy since the 1960s. People born in the region in 2011 could expect to live 72 years, 10 fewer than their counterparts in the EU-15 countries.³ Mortality in middle and old age has barely fallen, and has actually increased for men in their mid-40s to early 60s. This was probably the first case in world population history in which a sustained and substantial increase in mortality was not associated with a major epidemic or a war (Botev 2012). The persistent mortality rates shape the age structure of the population. Ukraine's labor force would be 19 percent larger if its mortality rates had fallen as France's did (Bussolo, Koettl, and Sinnot 2015).

As the adverse trends in mortality have affected mostly men, the gender differences in life expectancy in the region are remarkable. In 2005, at the peak of the adverse mortality trends, the gender gap in life expectancy was 13.5 years in Russia, over 12 years in Belarus, and around 11 years in Ukraine and the three Baltic countries (Estonia, Latvia, and Lithuania). As a result, the prevalence of widowhood amongst older women in the region is very high: over 60 percent of women aged 70 or over were widows, according to the 2000 census. In other countries, especially those in the southern part of the region or in Central Asia, the gender difference in life expectancy is similar

to that found in western Europe (Austria, Belgium, Denmark, France, and Germany) (Botev 2012).

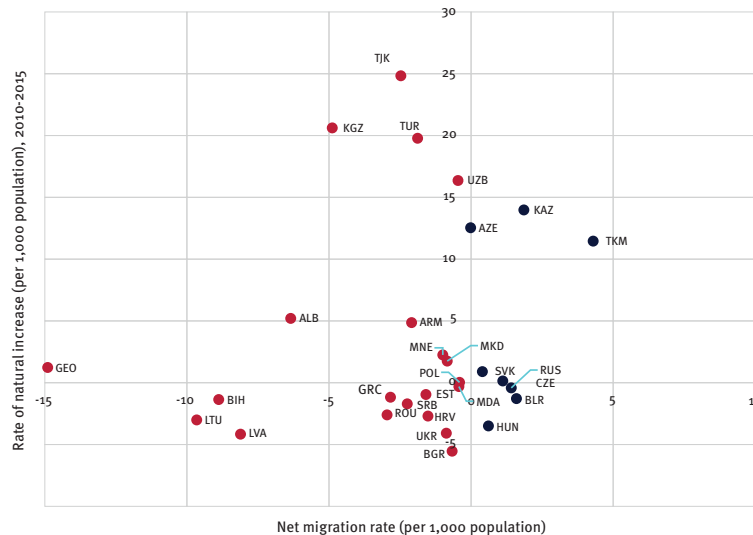
Most of the region suffers from negative net migration rates, reinforcing the demographic transition

Migration also shapes national demographic trends in the region, especially the emigration of young people, which is accelerating the aging of their societies of origin. The ECA region is unique in being both a major origin of and a major destination for migrants, but the destination and scale of migration vary across subregions. Western Europe has attracted migrants from Central and Eastern Europe for several decades, while the Russian Federation is one of the main receivers of migrants from Central Asia (Lutz 2010). Net migration was negative in most countries between 2005 and 2010 (figure 1, in red); since most of the people who left were young, this trend is reinforcing the demographic transition.

ECA countries have received many refugees, asylum seekers, and internally displaced persons—about 6.7 million, compared with 3.1 million in EU countries (box 1). Forced displacement affects only a small proportion of the population (1.5 percent in the ECA region, compared with 0.008 percent in the EU) and thus has not affected national demographic

³ Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom.

FIGURE 1 The Impact of Migration on Population Growth in the ECA region: Most countries present negative net migration rates (in red), reinforcing the demographic transition (2010–15)



Source: UNDESA (2017).

trends much. Displaced persons constitute less than 1 percent of the population in ECA and EU countries,⁴ but subnational impact varies, and in a few cities the forcibly displaced population exceeds 20 percent.⁵

Population is either growing slowly or declining

The changes in fertility and life expectancy, especially the persistent and adverse mortality rates, have shaped the current demographic situation in the region, determining population size, growth rates, and population structure. The rapid declines in fertility, even in countries that already had very low levels of fertility, have meant that relatively smaller cohorts were being added to the national populations during the past 50 years (figure 2). Gender difference in old-age mortality (as mentioned previously) and child mortality have also skewed the population distribution. In fact, in subregions such as the Southern Caucasus, child-sex ratios are skewed and there is excess female mortality after birth: according to Das

Gupta, in the 1990s, the ratio of boys to girls in the South Caucasus countries rose to levels second only to China. This mirrors patterns found in other settings (e.g., India, China) with strong a preference for sons (Das Gupta 2015).

All these trends have led to populations in ECA countries that are slowly growing or declining. In 10 of the region's 28 low- and middle-income countries, the population declined between 1991 and 2011. Many are seeing major reductions of their young cohorts and an aging of the population. As the number of people above age 64 grows, population aging is expected to increase substantially between 2010 and 2030 and to deepen further until 2060. Unless migration and fertility patterns shift, these trends are expected to continue for decades.

⁴ Except for Georgia (7.4 percent), Azerbaijan (6 percent), Ukraine (4 percent), Turkey (3.9 percent), Sweden (3.5 percent), Bosnia (3 percent), Serbia (2.9 percent), Kosovo (2.9 percent), Austria (2 percent), Germany (1.5 percent), Switzerland (1.4 percent), and Norway (1.3 percent).

⁵ Sviatohorsk (322 percent) in Ukraine and Killis (96 percent), Sanliurfa (22 percent), and Gaziantap (22 percent) in Turkey.



BOX 1 Refugees, asylum seekers, and internally displaced persons in the ECA region

About 10 percent of the world’s refugees, asylum seekers, and internally displaced persons—or roughly 6.7 million people—are in the ECA region.* Most are in Turkey and Ukraine, but Azerbaijan, Bosnia and Herzegovina, Georgia, and Serbia also have large numbers. In 2017, for the third consecutive year, Turkey hosted the most in the world, at 3.1 million, and Ukraine hosted 1.8 million (table B1.1). Georgia had the highest share of refugees, asylum seekers, and internally displaced persons relative to its population (7.4 percent), followed by Azerbaijan (6.3 percent) and Ukraine (4 percent). In the region, refugees and internally displaced persons are primarily an urban issue. More than 90 percent of Turkey’s and Ukraine’s refugees and internally displaced persons are in urban areas, as are about half of those in Azerbaijan and Serbia.

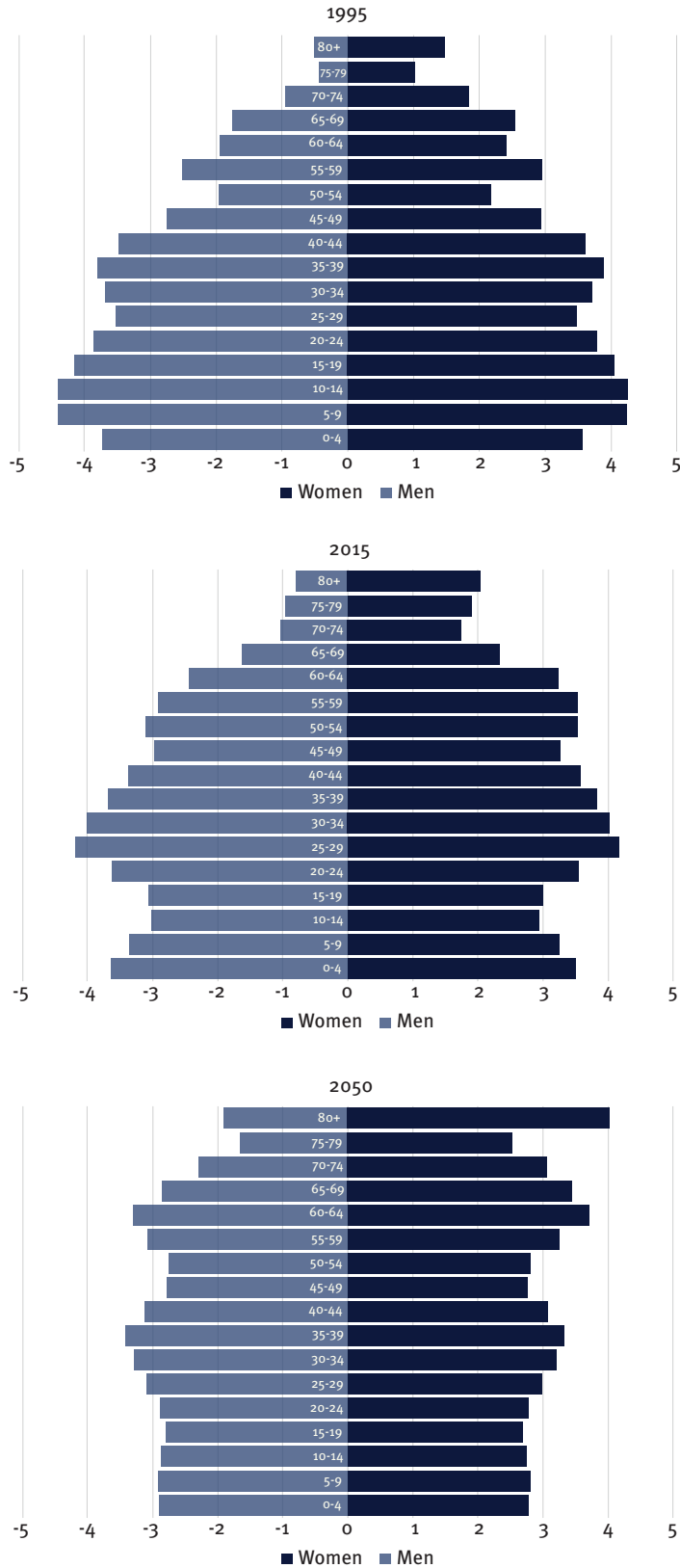
TABLE B1.1. Refugees and internal displaced persons in the main ECA receiving countries, 2017

Country	Total refugees and IDPs	Refugees and IDPs in rural areas (incl. camps)	Refugees and IDPs in cities/towns	Unknown	Refugees in cities/towns (%)
Azerbaijan	615,014	320,900	289,334	4,780	47%
Bosnia and Herzegovina	156,134	–	95,476	60,658	–
Georgia	276,537	–	612	275,925	–
Russian Federation	322,741	–	–	322,741	–
Serbia (and Kosovo)	259,157	108,447	150,710	–	58%
Turkey	3,114,321	233,669	2,854,268	–	92%
Ukraine	1,845,238	–	1,845,238	–	100%

Source: Julve Lopez, Stavros, and Goga 2018.

1. United Nations High Commissioner for Refugees Population Statistics Database (<http://popstats.unhcr.org>).

FIGURE 2. A changing age-pyramid: from slowly growing to shrinking.
Population age-sex structure of the ECA region, 1995, 2015, and 2050



Source: World Bank (2019).

II. Main urban trends: Demographic trends are shaping the region's urbanization

National demographic trends are trickling down to urban areas

National demographic trends are influencing the ECA region's urban areas and its urbanization trends, though patterns differ across countries. In more than half of the low- and middle-income countries, urban populations declined between 1991 and 2011, a direct consequence of overall population decline. ECA countries have the lowest total and urban population growth rates in the world, and are among the only countries experiencing declines in both (figure 3). Changes in national population and urban population are strongly correlated, as observed in figure 3.

However, within the ECA region, the story is far more varied.⁶ In broad terms, urbanization follows four main patterns:

- Some countries continue to urbanize in the strict sense, but this is due to urban areas declining more slowly than rural areas. This is

happening in countries experiencing a strong demographic transition, such as Bulgaria, the Russian Federation, and Ukraine.⁷

- A few countries have de-urbanized because the urban population has declined while rural areas have grown slowly (Poland) or because the urban population is declining more quickly than the rural population (Romania). However, this might be due to suburbanization that is not fully captured by national definitions of urban areas.⁸
- Countries in Central Asia, which remain predominantly rural, are either urbanizing very slowly (the Kyrgyz Republic, Tajikistan) or observing a slight decline in urbanization (Kazakhstan, Uzbekistan). Both urban and rural populations are growing, but rural population growth is outpacing urban population growth. For example, between 1989 and 2014, the rural population in the Kyrgyz Republic grew by 42 percent, while the urban population grew by 25 percent.

⁶ This paragraph refers to urbanization trends since the fall of the Soviet Union.

⁷ Belarus is similar, but with a very slowly growing urban population combined with a declining rural population.

⁸ For example, in Romania, areas surrounding the largest cities correspond to the fastest-growing areas (in population) in the country.

FIGURE 3 Urban and total population growth, ECA and the rest of the world 1991/2011

Source: Restrepo Cadavid and others (2017), based on World Development Indicators data.

- Among all ECA countries, Turkey is perhaps the only one following the usual urbanization story: it has experienced a substantial growth in urbanization over the past two decades, fueled by a growing urban population combined with a stable rural population.

Demographic trends at the city level are diverse and contrasting

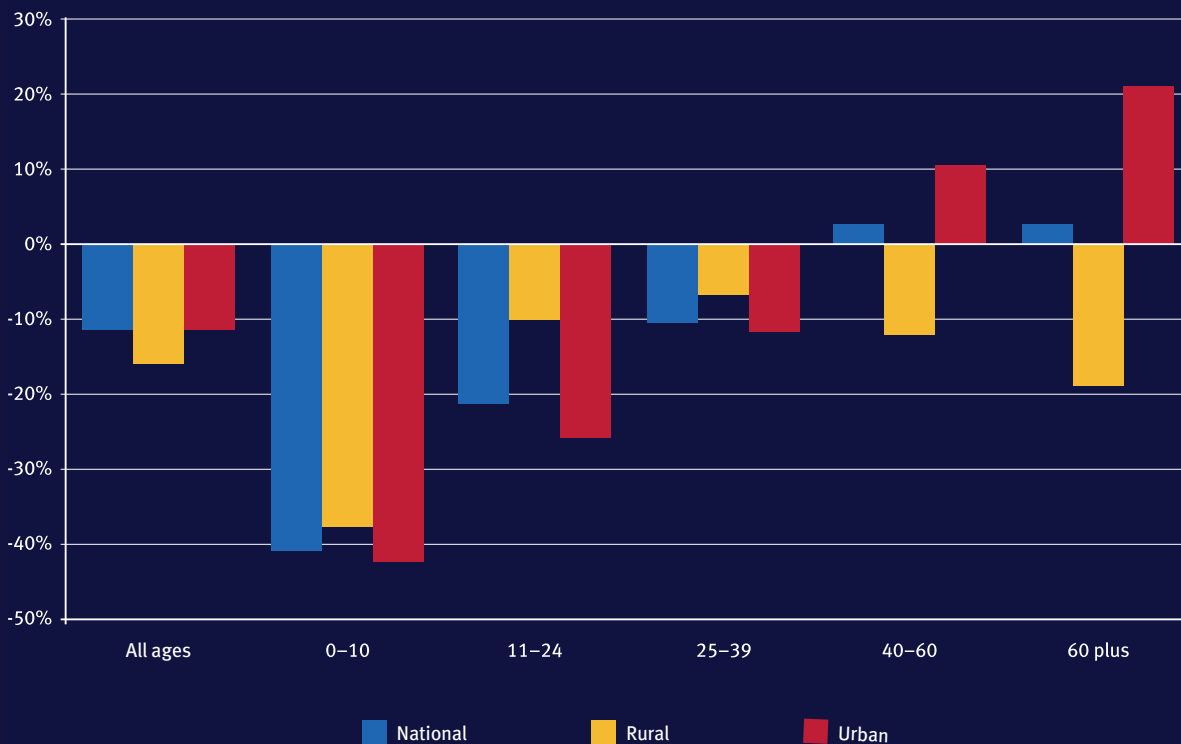
Demographic changes at the city level are often much more pronounced and diverse than those at the national level. For example, migration can lead to population decline (and aging) in some cities while contributing to population growth in others (Bussolo, Koettl, and Sinnott 2015). Regional variations in fertility, mortality, and migration can also contribute to spatial variations in demographic transition, as evidenced by Ukraine's experience (box 2).

The degree of city population growth and decline across the ECA region is closely linked to the national and urban population trends previously discussed. In fact, 52 percent of the variance in city population growth is explained by national-level natural increase and migration. Sixty-two percent of ECA cities are losing population, but there is a heterogeneity within the region (Restrepo Cadavid et al. 2017), which can also be attributed to national trends. Cities in countries with fertility below the replacement level or with negative net migration are overwhelmingly declining in population; cities in countries with fertility above the replacement level or positive net migration tend to be growing. Poland, Turkey, and the Central Asian countries seem less affected by city population decline, while in Albania, Bulgaria, Romania, and Ukraine, the population declined in more than 80 percent of cities between 2000 and 2010 (figure 4).

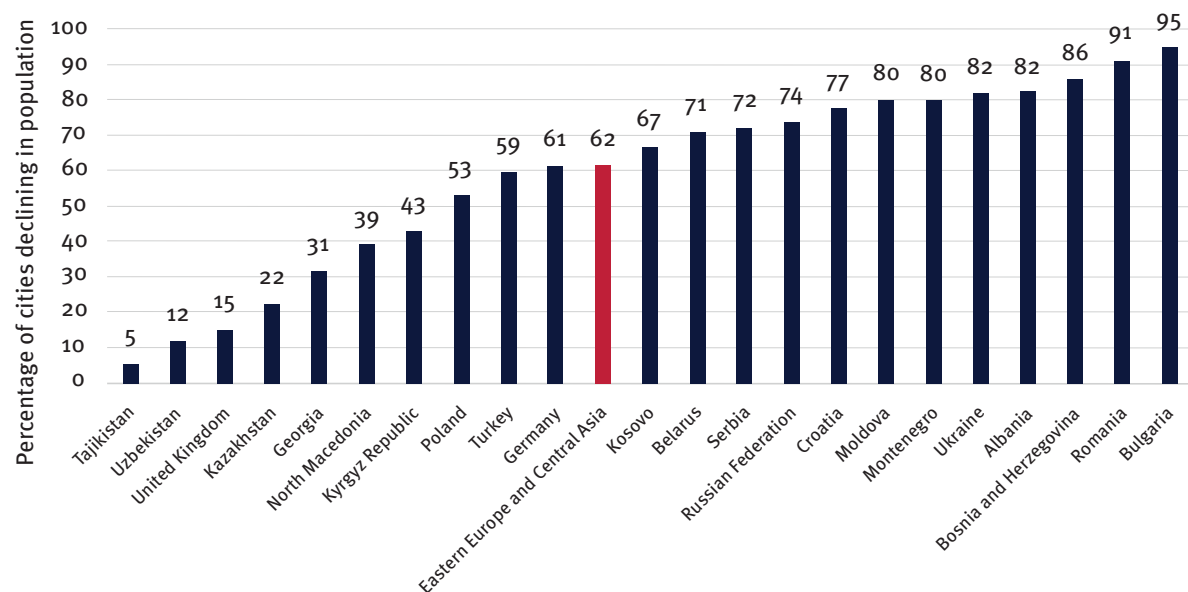
BOX 2 The differential effects of demographic transition at the subnational level in Ukraine

Between 1993 and 2013, Ukraine lost 13 percent of its population from a combination of out-migration, fertility that remained below the replacement level over a long period, and high old-age mortality. But subnational demographic trends during that period differed. Western oblasts experienced a much smaller population decline, having both higher fertility rates and lower mortality rates than eastern oblasts. Cities in the eastern region are also shrinking more than the national average, while cities in the western region are growing more. Demographic transition is also influencing the population composition of urban areas (see figure B2.1). Younger cohorts are declining sharply—at rates higher than national and rural averages—while the urban cohort of 40- to 60-year-olds is growing considerably, and the 60-and-older urban cohort is the fastest-growing in the country (World Bank 2015).

FIGURE B2.1 Population changes in Ukraine, by age cohort, 1989–2011



Source: World Bank (2015), based on data from the Ukraine Statistics Department.

FIGURE 4 Proportion of cities declining in ECA countries, 2000–10

Source: Restrepo Cadavid et al. 2017.

Note: Regional (ECA and Western Balkan) averages are weighted and do not include Bosnia and Herzegovina or Kosovo because data are for different periods (1991–2013 for Bosnia and Herzegovina and 1991–2001 for Kosovo). Results for Kosovo should be interpreted with caution due to the small sample size.

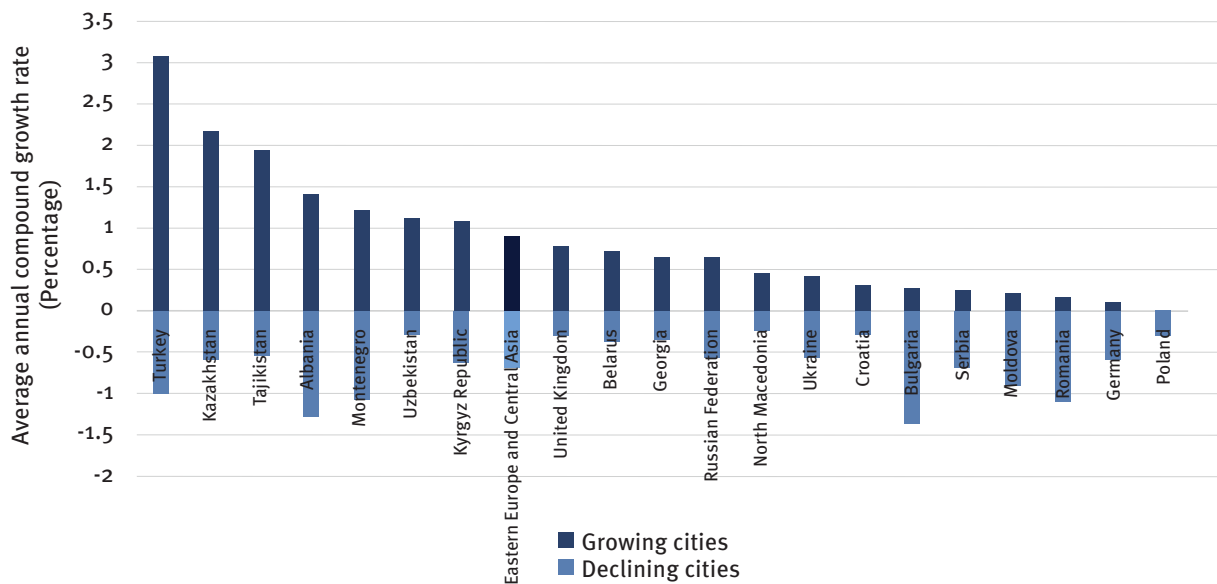
Some cities continue to grow at fast rates, while others are shrinking rapidly

Cities in ECA have two contrasting patterns of demographic growth and decline. Declining cities lost an average of 11.5 percent of their population between 2000 and 2010. But the remaining cities are growing—some very fast—at a rate averaging 12 percent during the period 2000–10. In Albania, Tajikistan, and Turkey, shrinking cities are shrinking quickly, and growing cities are growing quickly (figure 5). In Kazakhstan, the Kyrgyz Republic, and Uzbekistan, growing cities are rapidly absorbing population, and declining cities are not shrinking as fast; in Bulgaria, Moldova, and Romania, on the other hand, growing

cities are growing more slowly than ECA cities in general, while declining cities are shrinking quickly.

How do national demographics trickle down to specific cities? Bigger cities grow more and decline less than smaller cities do (Restrepo Cadavid et al. 2017). Capital cities and secondary cities also have an advantage in attracting populations. Economic diversification matters, with cities that are dominated by one industry or economic sector (often called *monotowns*) growing much less or declining much more than their peers. Proximity to a coast and mild winters improve a city's population growth. But proximity to larger cities can hinder a city's ability to attract population, particularly in regions and countries in demographic decline.

FIGURE 5 Average annual compound urban population growth or decline in ECA countries, 2000–10



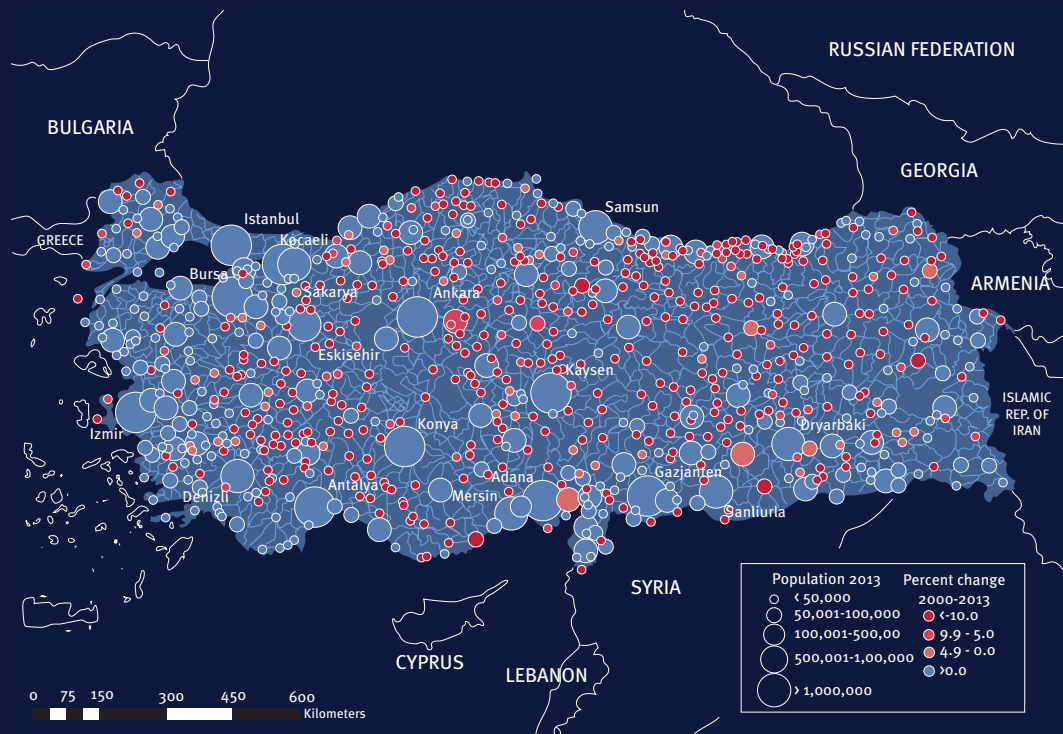
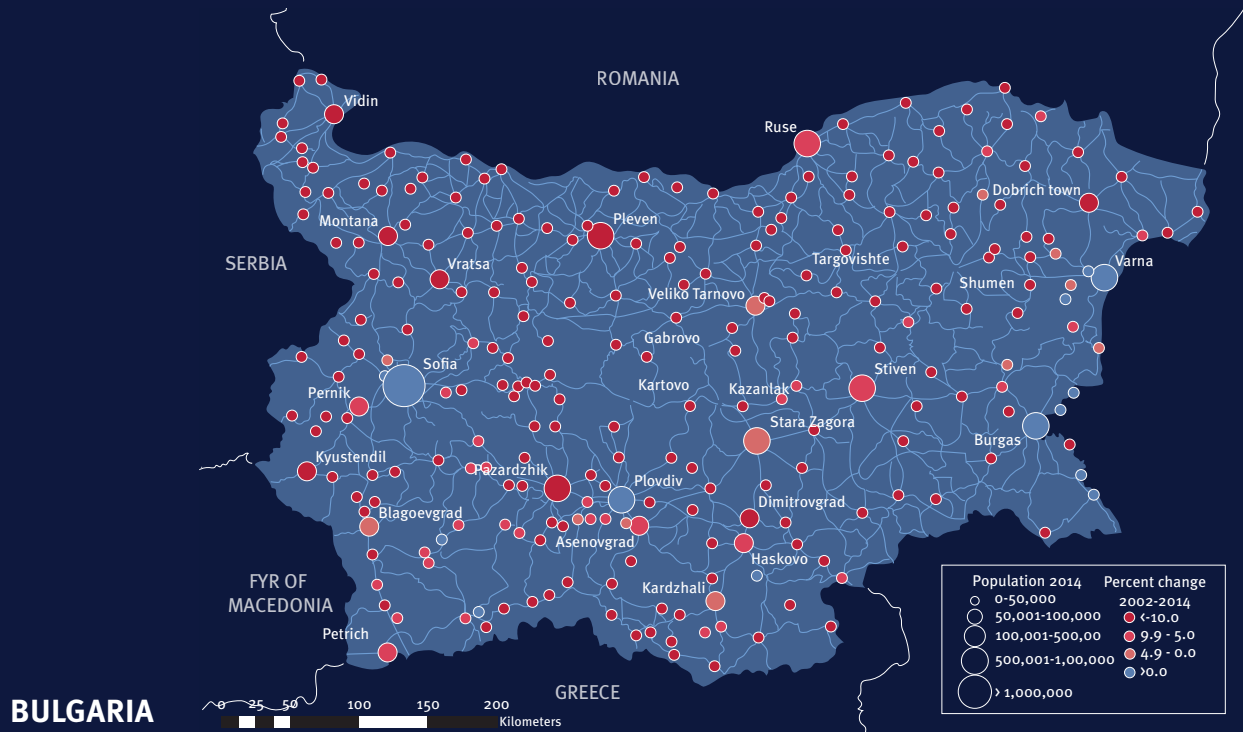
Source: Restrepo Cadavid et al. 2017.

Growing and shrinking cities appear to have distinct characteristics in terms of location, size, and economic performance

The spatial variations in city growth and decline are striking in some countries. In Bulgaria, growth and decline are strongly concentrated. The urban population is growing in the capital, Sofia, and in major urban centers along the coast and in the west, while cities outside these areas are overwhelmingly declining (figure 6). In Turkey, larger cities are growing, while small cities are mostly declining (see figure 6). Urban demographic trends also correlate with economic trends. On average, cities with a shrinking population perform worse economically than cities with a growing population (see figure 7; economic performance can be measured using nighttime light intensity as a proxy⁹). But city population decline is not always linked to economic decline in the ECA region as a whole, contrary to the experience of other countries around the world (for example, rust belt cities in the United States). In fact, some declining cities in the region are performing as well as or better than growing cities.

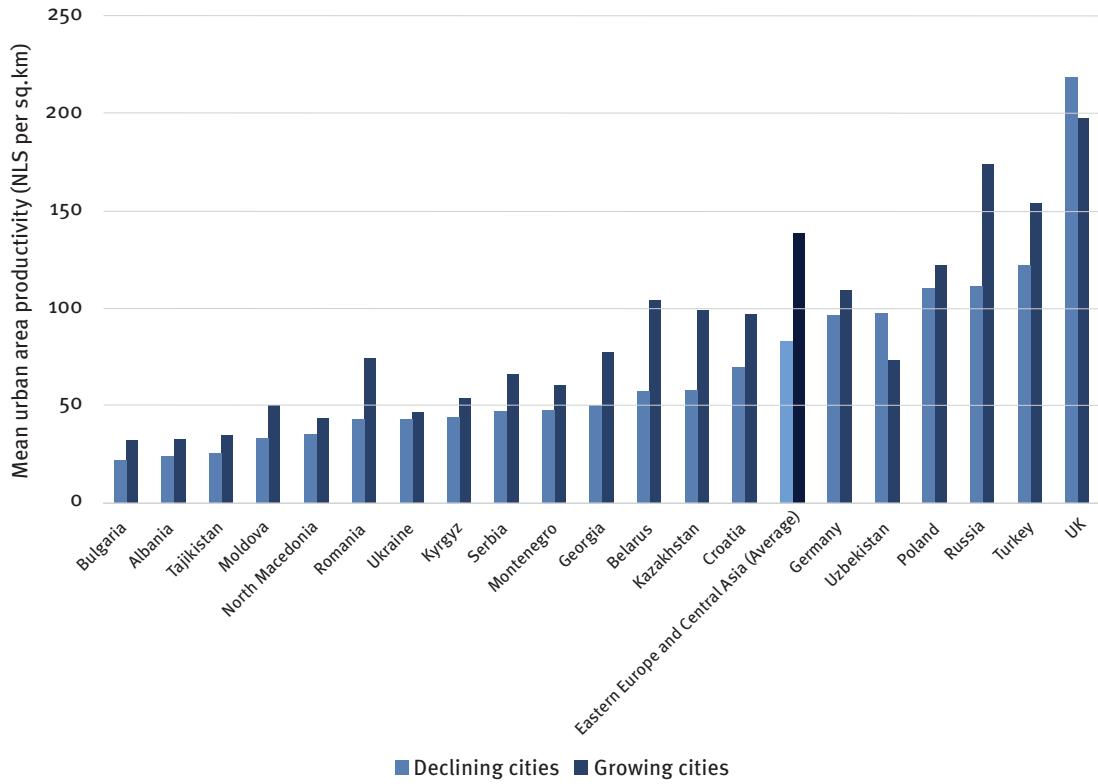


FIGURE 6. Economic performance in shrinking and growing ECA cities in 2010



Source: Based on data from Restrepo Cadavid and others 2017.

FIGURE 7 Economic performance in shrinking and growing ECA cities in 2010



Source: Based on data from Restrepo Cadavid et al. 2017.



III.

Key Demographic Trends at the City Level

Moving forward, ECA countries and cities will continue to see diverse and contrasting patterns of growth and decline

City population projections¹⁰ to 2050 were run for a group of capital cities to compare city-level with national-level trends. As observed in table 2, the demographic patterns and trends of capital cities vary substantially from each other and from national trends. For example, although the urban population in most cities in Bulgaria is in decline (Restrepo Cadavid et al. 2017), projections show that the population of Sofia, the capital city, will increase by 5.8 percent between 2010 and 2050 (see table 2). Considering that fertility rates are below the replacement level, this population growth can be largely explained by net migration rates close to 5 per 1,000 persons, and—by 2050—slight reversal of fertility decline for countries in the post-transition stage. This same trend is observed in the capital cities Kiev¹¹ and Minsk,¹² although in these cities, migration will play a leading role, since projected fertility will remain constant (table 2).

Population aging is expected to accelerate across all the capital cities studied

Beyond population growth or decline, the sustained low fertility rates observed in capital cities in ECA is expected to accelerate population aging in the coming decades. The increase in the old-age dependency ratio between the baseline year and 2050 is projected to be substantial for all these cities, especially in those such as Tallinn, where the ratio is projected to double (figure 8). However, the proportion of the elderly in cities in ECA will increase rapidly at the beginning of the projection period and then stabilize in cities that are projected to experience slight recovery in total fertility. This increase in the older population compared to the working-age population will present a serious challenge to these cities in terms of productivity and attractiveness, as well as accessibility of the city for an older population. The challenges related to care services are particularly pronounced, since in many of places the care of older persons has traditionally been a family responsibility (UNDESA 2014).

10 Projections of chosen cities were made with the components method, the usual procedure used by official statistical agencies to project national populations. Starting from the last census, the population evolution is simulated on the basis of fertility, mortality, and migration hypotheses. Future births and deaths are estimated from fertility and mortality trends in recent decades. Migration is estimated by differences between overall population growth and natural increase during the last intercensal period. When migratory balances are smooth (below 5 per thousand), they remain constant; when they exceed this limit, the trend is assumed to decrease gradually in the future. The time horizon of projections extends from the last census up to 2050.

11 Kyiv city and Kyiv Region are major recipients of interregional migration. In the 2000s, the population of the capital grew by 20,000 people per year due to the influx from other regions. Due to the current crisis, the migration growth decreased (14,400 in 2014, about 12,000 in 2015), but remained the highest in Ukraine. However, this data refers only to officially registered resettlements and does not include internally displaced persons (IOM Ukraine 2016).

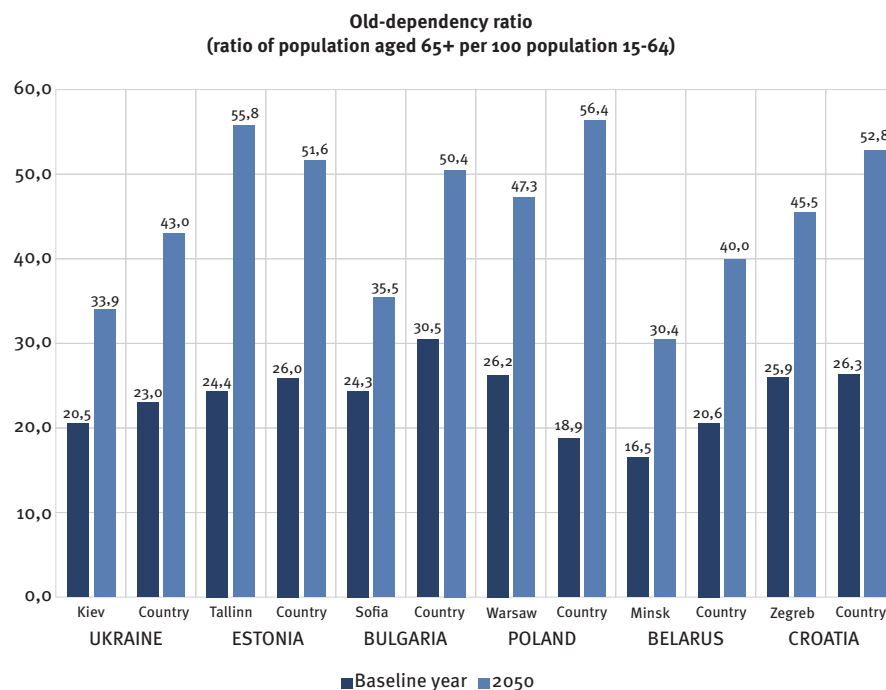
12 Minsk has a slightly positive inflow of population as opposed to an outflow. Much of it derives from migration from other parts of the republic and, to a lesser extent, other countries of the former Soviet Union (Marples 2016).

TABLE 2 Key demographics in selected capital cities' ECA, baseline year to 2050 (projections)

Country/City 2010	Total population (thousands)		Relative increase %	Aging index (65+) /*/		Total fertility rates (live births per woman)		
	2010	2050	2010	2010	2050	2010	2050	
Ukraine	Kiev	2,882	3,404	18.1	86.2	138.1	1.49	1.49
	Country	45,576	36,416	-20.1	106.2	167.2	1.49	1.76
Belarus	Minsk	1,948	2,399	23.1	82.7	140,6	1,31	1.30
	Country	9,486	8,571	-9,6	88.7	144.1	1.64	1.85
Bulgaria	Sofia	1,323	1,400	5.8	117.0	156.3	1.31	1.50
	Country	7,085	5,424	-23.4	146.1	199.4	1.51	1.79
Estonia	Tallinn	405	365	-10,0	109.6	233.0	1.72	1.50
	Country	1,332	1,145	-14.0	115.3	192.4	1.59	1.81
Poland	Warsaw	1,731	1,626	-6.0	122.8	199.3	1.40	1.50
	Country	38,321	32,390	-15.5	90.6	259.3	1.33	1.56
Croatia	Zagreb	799	781	-2.3	111.1	200.0	1.49	1.50
	Country	4,313	3,461	-19.8	114.4	225.9	1.49	1.63

Note: The Aging Index refers to the number of elders (65 years or over) per 100 persons younger than 15 in a specific population. This index increases as the population ages.

Source: Based on data provided by National Statistics Office and international organizations such as United Nations (Department of Economic and Social Affairs, Population Division), World Health Organization (WHO), and the Demographic and Health Survey (DHS) Program.

FIGURE 8 Old-age dependency ratios in selected cities and countries' ECA, baseline year and 2050 (projections)


Source: At city level, based on data provided by National Statistics Office; at country level, based on data provided by United Nations, Department of Economic and Social Affairs, Population Division 2017.

Note: Baseline year: Estonia, 2010; Poland and Croatia, 2011; Belarus, 2015; Ukraine and Bulgaria, 2017

IV. Policy implications of urban demographic trends in the ECA region

ECA's unique demographic trends should be an essential part of the policy dialogue and policy design in the region. Of course, the implications of these trends are important for all sectors, and present both challenges and opportunities related to a range of sectors—from jobs and economic productivity, to infrastructure and service provision, to the provision of (health) care services and the effects on macroeconomic and fiscal policy space.

When thinking about urban development, it is important to note that both growing and declining cities face challenges. Growing cities need to plan and manage urban growth in peri-urban areas, coordinate beyond administrative boundaries, and expand infrastructure to meet the growing demand for services. Growing cities also need policies to tackle congestion costs and foster agglomeration economies. Furthermore, there is evidence that large and growing cities in the region are increasing suburbanization, sometimes while inner city populations decline (Cristea et al. 2017; Restrepo Cadavid et al. 2017). The latter suggest that cities may be struggling to adapt land use in city centers or to

make housing affordable. In addition, growing cities increasingly operate as multicity agglomerations, risking coordination failures that can limit their economic performance. These complex challenges are faced by growing cities across the world, and there are recognized policy options to address them.

For declining cities, the policy toolkit is only emerging, and its effectiveness is still being examined. Urban population decline can lead to fiscal imbalances, housing vacancies, and urban blight. City revenue is eroded, while the per-capita cost of providing services increases because of lost economies of scale or economies of density. In addition, given the durable character of the housing stock, housing vacancies rise, leading to urban blight—as in many cities in Bulgaria (World Bank 2017). However, city population decline also presents an opportunity for ECA countries to pilot smart decline policies. For instance, city centers can be reshaped to increase public space, reduce congestion costs, and make cities more livable. Furthermore, as observed in the region, a smaller population does not necessarily equate to worse economic performance.



Accordingly, the process of managing decline, like managing growth, should be embraced as a way to ensure that cities can fully utilize their potential.

National and local governments have yet to acknowledge the scale of the disruptive demographics faced by the region's cities, and to shape policies to deal with them. This is particularly true in the case of shrinking cities. Many local governments optimistically assume that they will be able to reverse decline, so they continue to plan for growth.¹³ Most national governments have disregarded the scale and likely irreversibility of urban population declines and neglected the need to develop policies to manage them. While some western European countries have started to shape national and local policies for aging or declining cities (box 3), eastern European countries have done little.

Finally, population aging calls for attention and adaptation from ECA cities. As populations grow older, their urban service needs will change. Demand will shift (for example, from education to health). Local governments might experience financial stress as the tax base declines. The changing demographic structure requires cities to rethink the way they plan and provide services, ensuring accessibility and promoting inclusiveness. Older populations have different needs and use the urban environment differently; these considerations have to be integrated

into planning decisions that promote greater city connectivity and compactness, the development of urban public spaces and communal gathering places, and other measures that enable people of different capacities to enjoy and access the amenities of the city. Policy makers must also take into account the gender differences in mortality rates in some countries, including excess mortality of men in old age and the concomitant high prevalence of widowhood, which necessitates robust safety nets and pension systems.

To take these steps, national and local governments must first acknowledge the effect that disruptive demographics are having—and will have—in their cities. Establishing the right policies to manage urban decline might seem more important in eastern Europe, while Turkey and Central Asian countries might prioritize tackling the rapid population growth of their large and medium-size cities. However, in all countries in the region, some cities are growing and others are declining. Furthermore, Turkey and Central Asian countries, because their recent substantial declines in fertility rates have slowed population growth, will soon confront issues like those in eastern European countries. National and local governments must recognize their unique demographics, adapt to them, and plan flexibly enough to be able to deal with disruptive trends.

¹³ For example, in Ukraine, existing urban plans, aligned with national growth policies, propose expansion of housing and economic activity regardless of the local context (World Bank 2015).

Box 3 National and local policies to manage city population decline in western Europe

National policies for smart decline. In 2001, Germany introduced the Stadtumbau Ost (urban redevelopment east) program to address the decline of eastern German cities after unification. It subsidized the demolition of buildings in cities with a declining population on the condition that the city develop a comprehensive urban development plan. Almost all cities in eastern Germany applied to the program, which eventually supported the demolishment of 350,000 apartments. The program also focused on planning and developing public–private partnerships with local authorities and housing enterprises.

New angles to increase city competitiveness. Many cities undergoing population decline simultaneously face economic decline. One response is to diversify and reorient the economic base toward emerging sectors such as technology, creative industries, and tourism. Bilbao, Spain, adopted this approach, transforming its base from the steel and heavy-metal industries that had dominated the 1980s toward a more service-oriented structure. To achieve this, the city worked out a strategic development plan and created a dedicated agency, Bilbao Metropoli 30. Under the plan, the city led the construction of the Guggenheim Museum, invested in redeveloping old factories (for example, converting them into art centers), and supported the growth of tourism infrastructure, technology parks, and cluster associations to consolidate creative industries (e.g., design, furniture production, and information and communications technology). After more than 20 years of decline, Bilbao's population is now stable. Today, it is one of the main economic centers in northern Spain. Manchester, United Kingdom, underwent a similar transformation after its manufacturing base declined between 1951 and 1981 and the city lost 22 percent of its jobs. In 1988, through the Central Manchester Development Corporation, the city focused redevelopment on consolidation as a cultural and knowledge hub in the United Kingdom.

Flexible planning. Dresden, Germany, experienced severe economic decline after the fall of the Soviet Union and German unification. With an economic crisis leading to out-migration and decreasing birth rates, Dresden lost 60,000 of its 500,000 residents between 1989 and 1999. Housing and office units became vacant, and infrastructure was in oversupply. In 2000, the city recognized the decline and shifted its plans, which had previously focused on growth, toward a compact city model aimed at reducing land consumption and developing an attractive city center.

Source: Restrepo Cadavid et al. 2017.

References

- Ahmed, S. Amer. 2015. "Demographic change and Development. United Nations expert group meeting on policy responses to low fertility." Presentation for the United Nations Expert Group Meeting on Policy Responses to Low Fertility, New York, November 2–3, 2015. http://www.un.org/en/development/desa/population/events/pdf/expert/24/Presentations/Amer_EGM_%2002Nov2015.pdf
- Botev, Nikolai. 2012. Population Ageing in Central and Eastern Europe and its Demographic and Social Context. *European Journal of Ageing* 9: 69–79. doi:10.1007/s10433-012-0217-9
- Bussolo, Maurizio, Johannes Koettl, and Emily Sinnott. 2015. *Golden Aging: Prospects for Healthy, Active, and Prosperous Aging in Eastern Europe and Central Asia*. Washington, DC: World Bank. doi:10.1596/978-1-4648-0353-6
- Chawla, Mukesh, Gordon Betcherman, and Arup Banerji. 2007. *From Red to Gray: The „Third Transition” of Aging Populations in Eastern Europe and the Former Soviet Union*. Washington, DC: World Bank. <https://openknowledge.worldbank.org/handle/10986/6741>
- Cristea, Marius, Codruța Mare, Ciprian Moldovan, Andreea China, Thomas Farole, Adina Vințan, Jane Park, Keith Patrick Garrett, and Marcel Ionescu-Heroiu. 2017. *Magnet Cities: Migration and Commuting in Romania*. Washington, DC: World Bank. <http://documents.worldbank.org/curated/en/327451497949480572/Magnet-cities-migration-and-commuting-in-Romania>.
- Das Gupta, Monica. 2015. "“Missing girls’ in the South Caucasus Countries: Trends, possible causes, and policy options." Policy Research Working Paper no. 7236, April 2015, World Bank, Washington, D.C. <http://documents.worldbank.org/curated/en/233691467992010518/Missing-girls-in-the-south-Caucasus-countries-trends-possible-causes-and-policy-options>
- Henderson, J. Vernon, Adam Storeygard, and David N. Weil. 2009. "Measuring Economic Growth from Outer Space." NBER Working Paper No. 15199. doi:10.3386/w15199.
- IOM (International Organization for Migration). 2015. *Migration Facts and Trends: South-Eastern Europe, Eastern Europe and Central Asia*. Vienna: IOM. https://publications.iom.int/es/system/files/pdf/migration_facts_and_trends_seeca.pdf
- IOM (International Organization for Migration). 2016. *Migration in Ukraine: Facts and figures*. Kyiv: IOM Ukraine. http://iom.org.ua/sites/default/files/ff_eng_10_10_press.pdf
- Julve Lopez, E., A. Stavros, and S. Goga. 2018. "World Bank Note on Urban Refugees in East Eastern Europe and Central Asia (ECA)." World Bank, Washington, DC.
- Lutz, Wolfgang. 2010. *Emerging Population Issues in Eastern Eastern Europe and Central Asia: Research Gaps on Demographic Trends, Human Capital and Climate Change*. New York: United Nations Population Fund (UNFPA).
- Marples, David R. 2016. "The ‘Minsk Phenomenon:’ Demographic development in the Republic of Belarus." *Nationalities Papers, The Journal of Nationalism and Ethnicity* 44 (6): 919–931. doi:10.1080/00905992.2016.1218451
- McKee, Martin, and Vladimir Shkolnikov. 2001. "Understanding the Toll of Premature Death among Men in Eastern Europe." *BMJ (Clinical research ed.)* 323 (7320): 1051–1055. doi:10.1136/bmj.323.7320.1051

- Restrepo Cadavid, Paula, Grace Cineas, Luis E. Quintero, and Sofia Zhukova. 2017. *Cities in Eastern Europe and Central Asia: A Shifting Story of Urban Growth and Decline*. Washington, DC: World Bank. <http://documents.worldbank.org/curated/en/319131510892209158/Cities-in-Europe-and-Central-Asia-a-shifting-story-of-urban-growth-and-decline>.
- Shi, Kaifang, Bailang Yu, Yixiu Huang, Yingjie Hu, Bing Yin, Zuoqi Chen, Liujia Chen, and Jianping Wu. 2014. "Evaluating the Ability of NPP-VIIRS Nighttime Light Data to Estimate the Gross Domestic Product and the Electric Power Consumption of China at Multiple Scales: A Comparison with DMSP-OLS Data." *Remote Sensing* 6 (2): 1705–1724. doi:10.3390/rs6021705
- UNDESA (United Nations Department of Economic and Social Affairs), Population Division. 2014. *World Fertility Report 2013: Fertility at the Extremes*. New York: United Nations.
- UNDESA (United Nations Department of Economic and Social Affairs), Population Division. 2017. *World Population Prospects: The 2017 Revision*. Online Edition.
- World Bank. 2015. *Ukraine: Urbanization Review*. Washington, DC: World Bank. <http://documents.worldbank.org/curated/en/213551473856022449/Ukraine-Urbanization-review>
- World Bank Group. 2016. *Global Monitoring Report 2015/2016: Development Goals in an Era of Demographic Change*. Washington, DC: World Bank. DOI: 10.1596/978-1-4648-0669-8. License: Creative Commons Attribution CC BY 3.0 IGO
- World Bank. 2017. *Bulgaria Housing Sector Assessment*. Washington, DC: World Bank.
- World Bank. 2019. World Development Indicators data. Online resource, last updated January 30, 2019. <https://datacatalog.worldbank.org/>

MAJOR DEMOGRAPHIC TRENDS IN CITIES

Latin America and the Caribbean



- The Latin American and Caribbean Region (LCR) combines early-dividend countries like Mexico and those in the Andes and Central America, in which the working-age cohort is still growing as a share of the population, and late-dividend countries like Chile, Colombia, and Brazil, characterized by shrinking working-age shares and imminent, rapid aging of their populations.
- Latin America is the most urbanized region in the world and had reached an urban majority by 1960, a milestone achieved globally only in 2008.
- Average growth rates in cities today are declining, and city centers are losing population to the urban periphery. Urbanization is shifting towards small and intermediate cities.
- The demographic dividend is coming to an end: the region is aging rapidly, a trend that is especially pronounced in urban areas. The dependent population will be comprised of old people, rather than children.
- The pace of the demographic transition is striking. The old-age dependency ratio is projected to increase most dramatically in cities with a young population structure today.
- Large-scale migration movements are affecting urban demographic trends in the region. In some cities in Colombia, the population has grown by 20 percent as a result of the Venezuelan migratory movement.

Latin America is the most urbanized region in the world, on par with North America. Over 80 percent of the population now lives in cities, including 88.2 percent of Venezuelans, 92 percent of Argentinians, and 95.4 percent of Uruguayans.

Both the extent and speed of Latin America's urban transformation are striking: since the 1950s, the proportion of the region's population living in cities has grown from 40 to 80 percent (UN DESA 2018). In 1950, the region had no megacities with more than 10 million inhabitants. It now has five, with Buenos Aires (15 million), Mexico City (21 million), and São Paulo (21 million) among the world's largest.

Since the 1990s, urbanization rates have been decelerating in the region, and the "urban explosion" is now a thing of the past. Despite great variation across and within subregions, the average growth rate of cities in the region is declining, and city centers are losing population. However, that trend often goes unnoticed because the population of cities continues to grow in absolute numbers. Most cities analyzed for this study will experience a population increase of around 20 percent between 2010 and 2050 (González 2016).

Latin American and Caribbean cities today are enjoying the high point of their demographic evolution. Most cities and countries still benefit from an increasingly young, active population and a concomitant decline in dependent population. However, this is about to change, and urban centers will soon face an aging and shrinking population.

Decelerated urban growth, if managed well, could alleviate some of the damage caused by earlier urbanization. The functions of the built environment will change dramatically, and effective policy making and public investment should anticipate the shift.

This note will begin by examining the main demographic trends in the region, amongst them declining population growth and rapid aging. This will be followed by a review of the region's main urban trends, including the role of migration in driving urbanization, the rapid pace of aging, and the decelerated growth rates in most cities in the region. The note will conclude with a reflection about the main policy questions and implications of these demographic trends.

I. Major demographic trends at the national and regional level

As in other regions of the world, in LCR, the demographic transition coincided with improvements in education and health care. Key drivers were a dramatic decline in fertility rates and an increase in life expectancy.

The decline in fertility

The region's fertility rate declined from nearly 6 births per woman in 1960 to just over 2 in 2010–15. Although the decline of fertility below the replacement level has occurred or will take place soon in all countries of the region, the pace and timing of this decline has somewhat varied between subregions: South America has, on average, already reached the replacement level (2005–2010), while Central America and the Caribbean will follow shortly (between 2020 and 2025 and between 2025 and 2030, respectively; see figure 1). Women in the poorest socio-economic strata have, on average, more children; higher fertility rates are also found in rural areas and among small farmers, landless workers, and ethnic minorities. Additionally, the teenage fertility rate

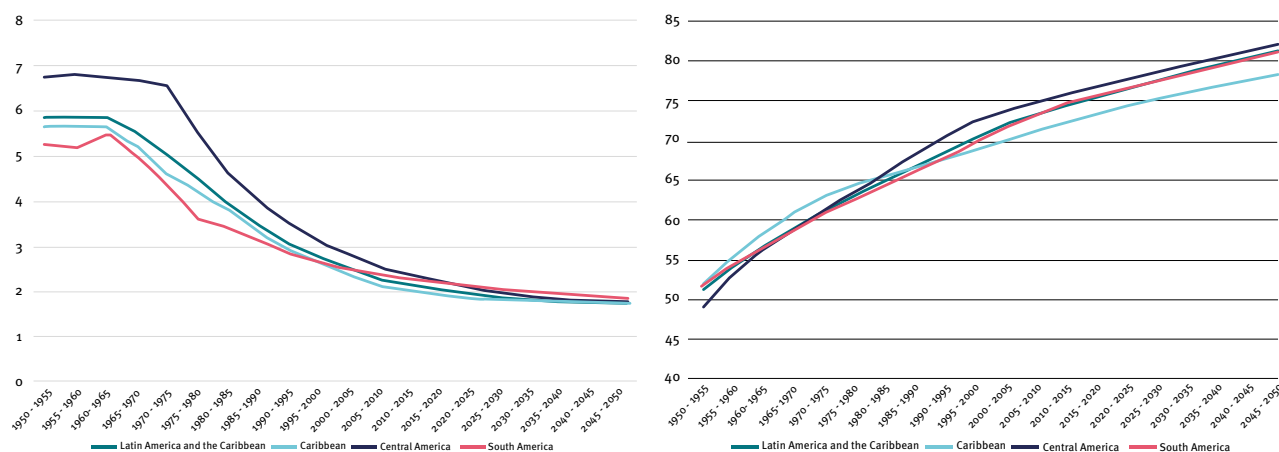
in LCR has shown few signs of falling in the past 30 years, especially among lower-income communities (Rodríguez Vignoli and Cavenaghi 2014).

Increase in life expectancy

Over the same period (1960–2015), average life expectancy at birth increased from 56 years to 74.6 years—in other words, the average Latin American today lives 18 years longer.¹ Average life expectancy is projected to increase to 82 years by 2045 (UN DESA 2017a). As is the case with fertility, we find significant variation in life expectancy at birth among LCR countries and subregions, ranging from 72.4 years in the Caribbean to 75.8 in Central America during the period 2010–15. Figure 1 shows life expectancy between 1950–55 and 2045–50 for all subregions. Although it indicates a clear trend towards convergence, some important differences still exist among subregions and are expected to persist at least until the middle of this century.

¹ This compares to average life expectancy at birth in Europe of 77.2 years, in North America of 79.2 years, and in Africa of 60 years for the period 2010–2015 (UN DESA 2017a).

FIGURE 1 Total fertility and life expectancy at birth in LCR by subregions, 1950–2050



Source: UN DESA 2017a.

Lower population growth and rapid aging

This decline in fertility and increase in life expectancy explains both the slower population growth and the rapid aging of the population in the near future: population growth rates in LCR peaked in the 1950s at 2.7 percent a year and steadily fell, before leveling off at 1 percent in 2015–20. Given past fertility trends, the population will continue to grow in absolute terms until about 2055–60 (albeit at slower rates) and will then start to decline (UN DESA 2017a).

Increased life expectancy combined with sharp declines in fertility, which has occurred in Asia as well as LCR, contributes to a rapid aging of the population. The number of persons aged 60 years or older in LCR is projected to increase more than twofold—from 70 to 200 million—between 2015 and 2050, when older people will make up about 25.5 percent of the total population (as opposed to 11.2 percent in 2015). The median age of the population is expected to increase from 29.2 to 41.1 years during that period. Aging trends in LCR are similar to those observed in Asia and North America, but trail behind trends that can be observed in Europe, where the proportion of elderly in 2050 is projected to amount to 46.2 percent (UN ECLAC 2015).

The demographic dividend

As a country or region transitions from high fertility and high mortality to a new equilibrium of low fertility and low mortality, it passes through an auspicious moment where the working age population is growing and the dependency ratio is declining. With a larger share of the population working, saving, and investing, and a smaller share depending on income transfers, the country experiences a “demographic dividend” that can boost wealth creation and prosperity. LCR’s economic growth over the past decades coincided with an unprecedented increase in the share of its population that was active, and a corresponding decline in the proportion that was dependent.

However, this window of opportunity will start to close as early as 2027, when the share of the dependent population in the region will again increase (González 2016). More importantly, the dependent population will include more people of old age, rather than children, as has historically been the case. Although workers will stay active longer than they do today, overall fewer people will be working for every additional person of retirement age (figure 3). Europe, Japan, and North America are already facing the resulting pressure on national budgets, pension liabilities, health care, and social care providers, and Latin American and Caribbean countries increasingly see it as a concern.

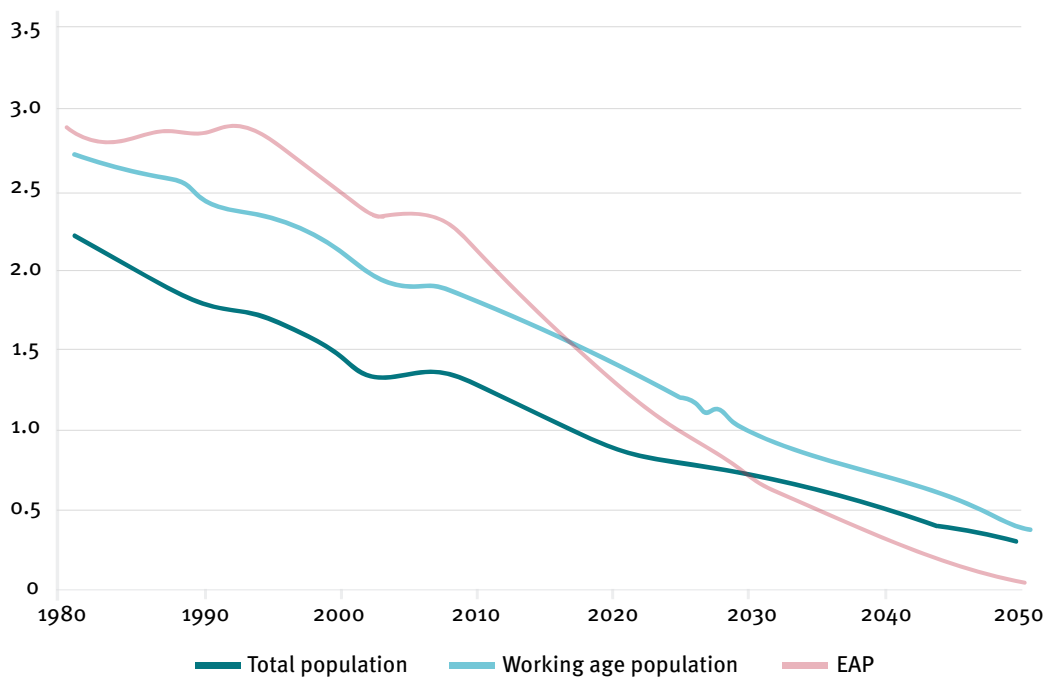


FIGURE 2. Population structure of Latin America and the Caribbean, by sex and age group, 1970 and 2010



Source: UN-Habitat 2012, based on data from CEPALSTAT and the United Nations Department of Economic and Social Affairs

FIGURE 3 Annual growth rate of total population, working age population, and economically active population in LCR, 1980–2050 (per 100) Percent.



Source: UN ECLAC 2015

II. Main urban trends: The end of the urban explosion

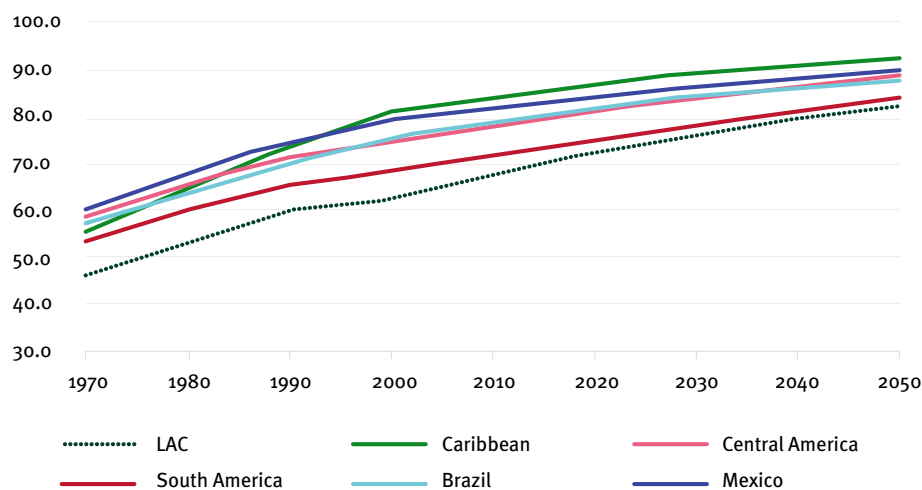
Today, the LCR region is characterized by a double transition: the demographic transition resulting from the decrease in population growth rates and from population aging; and the urban transition, referring to the decrease in the rate of rural-to-urban migration. In LCR, the urban population growth rate declined from 4.5 percent in 1950–55 to 1.4 percent in 2010–15, and is projected to fall further, to only 0.4 percent in 2045–50 (UN DESA 2018). The decline does not depend on population size, suggesting that urban population growth is increasingly associated with natural growth and less with rural-to-urban migration.

Urban growth rates tend to be lowest in countries in the advanced stages of the demographic transition, characterized by overall low population growth and high urbanization. The Southern Cone countries (Argentina, Chile, and Uruguay) and Brazil, which are already very urbanized, generally have lower and more stable population growth rates than Caribbean and Central American countries, which are less

urbanized and have both higher total and urban population growth rates (figures 4 and 5). This suggests that rural-to-urban migration still contributes to the growth of cities in Central America, but is less important in more urbanized subregions.

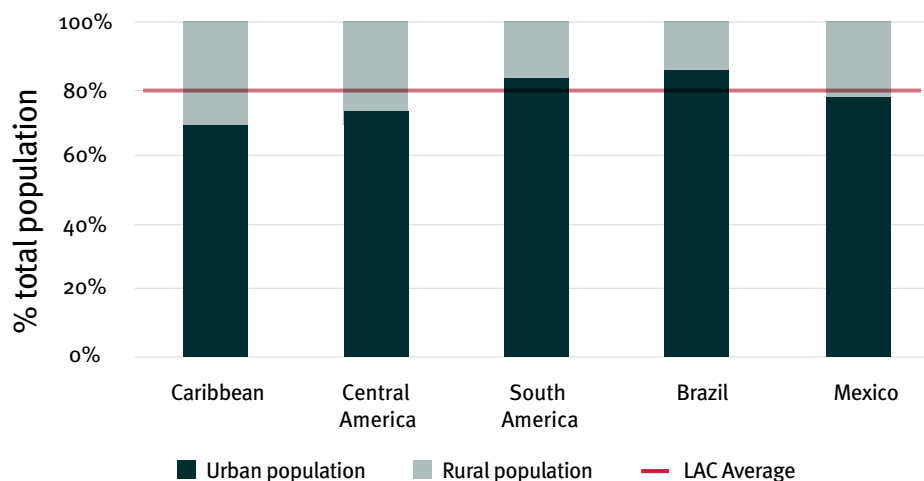
Nevertheless, these regional trends again hide differences between countries. In Central America, urbanization ranges from 50 percent in Guatemala to 74 percent in Panama. Although the demographic transition is still in its early days for most of Central America, Guatemala's transition is particularly late: Guatemala today has a population growth rate (2.76 percent) that is close to the average for LCR as a whole in 1960. Bolivia, Ecuador, Guatemala, Honduras, Panama, and Paraguay—all countries with urbanization below the regional average—have urban population centers that attract migration from the countryside. Although net migration in the major cities is negative, that indicator typically reflects suburbanization (people leaving the urban center and moving to the peripheries).

FIGURE 4 Urban population as a share of the total population in LCR, 1970–2050 (%)



Source: UN DESA 2018. World Urbanization Prospects: The 2018 Revision. New York: United Nations

FIGURE 5 Urban and rural population in LCR, by subregion and country, 2015 (%)



Source: UN DESA 2018. World Urbanization Prospects: The 2018 Revision. New York: United Nations

Growth of small and intermediate cities

Urbanization in the LCR region is shifting toward small and intermediate cities, which in recent decades have grown faster than larger cities, as is the case in other regions. Historically, population has been concentrated in just a few cities. The region continues to have the largest share of population (14 percent) living in megacities with more than 10 million inhabitants—Buenos Aires, Mexico City, Rio de Janeiro, and São Paulo. At the same time, half the urban population lives in cities with fewer than 1 million people. In general, larger cities have been growing less since the 1970s, whereas cities with fewer than 1 million inhabitants had the highest growth rates over the past decade – though in a context of decelerating growth. For most megacities in the region, net migration is negative, though they are still attracting newcomers, especially from nearby areas.

The movement away from megacities has been accompanied by movement from city centers to peripheries (González 2016). The majority of cities in the region will experience a population decline in their city centers between 2010 and 2050, with Cali

being the exception amongst the cities analyzed. Although the center-to-periphery shift does not have a clear correlation with demographic structure, it will likely result in a higher concentration of dependent older people in sending areas (city centers) and a younger population in receiving areas (peripheries). Highly educated people are also over-represented in out-migration from large cities to suburban areas. This trend warrants attention from policy makers trying to recover the urban core and optimize its use, attractiveness, and functionality.

The Role of Migration

Many of the region’s megacities have served as arrival hubs and have strong immigrant networks. They continue to receive large inflows from other Latin American countries. Buenos Aires, Panama City, and Santiago have seen sustained economic growth and maintained flexible and dynamic labor markets that can incorporate immigrants. However, data from CEPAL suggest that the most attractive cities for migrants are not the largest urban areas, but medium-sized cities. In terms of in-migration, these mid-size cities far surpass both those

with more than 1 million people and those with fewer than 100,000, which seem to experience net expulsion. The relationship between city size and net migration rate is evidenced in figure 7.

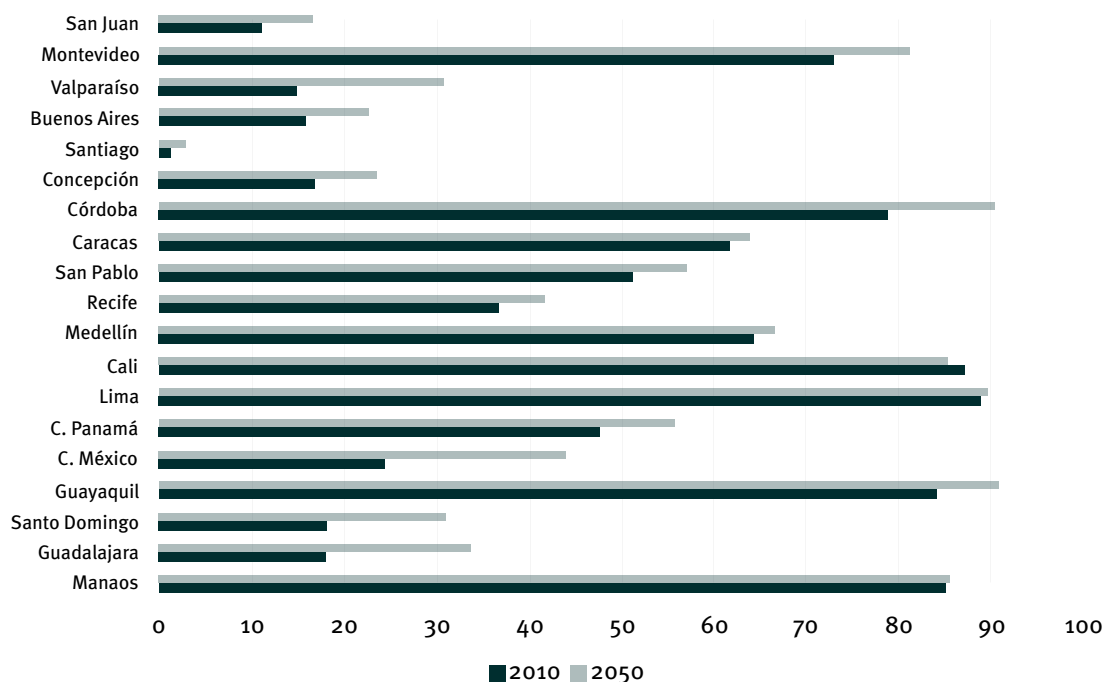
Emigration in the region is strongly correlated with lower income. On average, about 10 percent of the population in countries with GDP per capita below \$5,000 live as immigrants abroad, compared with about 4 percent in countries with GDP per capita above \$10,000 (Beaton et al. 2017). Central America and the Caribbean stand out, with about 10 percent of their population living abroad. Factors other than income levels, such as the occurrence of natural disasters, citizen security, and climate change, seem to contribute to higher emigration levels in the Caribbean. Emigrants tend to represent the younger and more productive segment of the population. In the Caribbean, emigrants also tend to be highly educated. Cities and countries that receive a large influx of migration experience the “rejuvenating effect of migration”—a deceleration of population aging. Sending areas observe the opposite trend: population aging accelerates because of population outflows. The large migration of Nicaraguans to Costa Rica since the 1990s offers a case in point. Costa Rica has the highest proportion of foreign-born residents in the region, and most are from Nicaragua (6.7 percent of the Costa Rican population in 2011). Since the main influx in the 1990s, which occurred as a result of the conflict in Nicaragua, population aging has decelerated in Costa Rica and accelerated in Nicaragua. Most of the emigrants were younger people, but the effect is short term and is reversing as the cohort ages.

Forced displacement in the region has also significantly driven urbanization in some countries: in Colombia, of the 7.6 million people internally displaced as a result of the decade-long armed conflict, between 60 and 93 percent have been displaced to urban areas. Displaced persons tend to flee from rural areas and smaller towns to larger cities across the country, particularly the capital city, Bogota. They typically reside in peripheral areas of the cities and in informal settlements with little access to services and limited economic opportunities. This displacement has been a major driver of the spontaneous and unplanned urbanization of Colombian cities.

More recently, the large-scale migration of Venezuelans has gravely impacted urban centers in neighboring countries, first and foremost Colombia, Peru, and Ecuador. This exodus picked up dramatically in 2017 and further accelerated in 2018, with an estimated 5,500 persons leaving the country every day in 2018 (IOM 2019). In 2019, the International Organization for Migration (IOM) estimated that more than 4 million Venezuelans have fled their country.² One year later, in July 2020, the number of Venezuelans residing in neighboring countries reached 5.2 million by the end of the following year, assuming the crisis in Venezuela persisted (R4V 2020). The displacement crisis is predominantly an urban crisis in the region, with some cities in Colombia experiencing a population increase of up to 20 percent in only two years (CONPES 2018). This population movement is changing the urban footprint and placing enormous stress on infrastructure, service delivery, and livelihoods in many cities in the region.

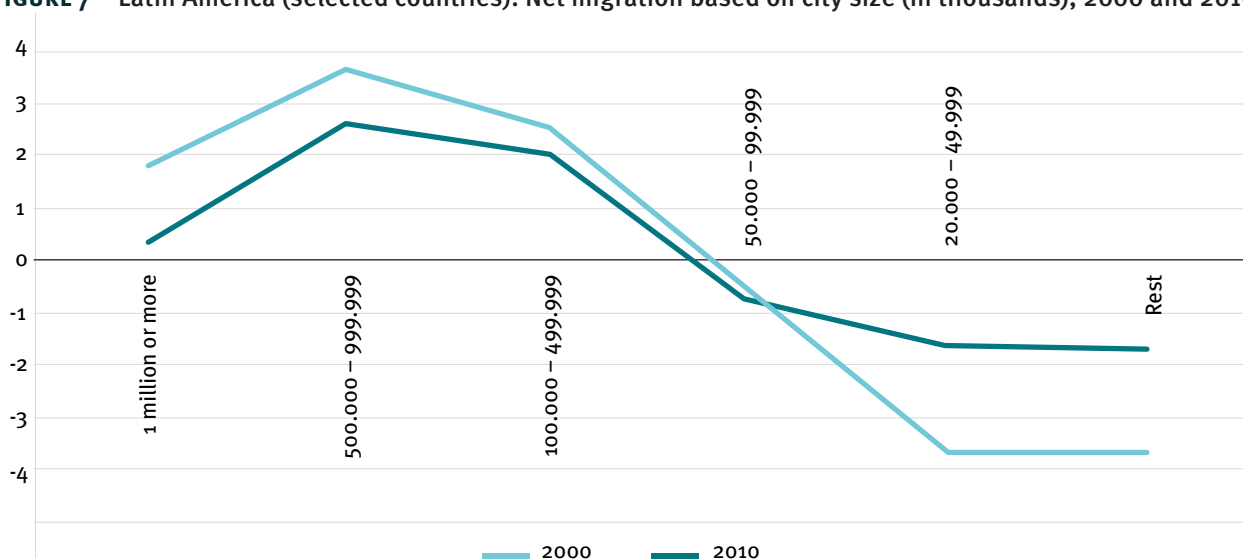
² <https://www.unhcr.org/en-us/news/press/2019/6/5cfa2a4a4/refugees-migrants-venezuela-top-4-million-unhcr-iom.html>

FIGURE 6 Share of population in the city center as percentage of total urban population, including urban periphery (2010–50)



Source: Gonzales et al. 2016

FIGURE 7 Latin America (selected countries): Net migration based on city size (in thousands), 2000 and 2010



Source: Prepared on the basis of special processing of microdata of the census, database of Internal Migration in LCR (MIALC for its acronym in Spanish) and database of the Spatial Distribution of Population and Urbanization in LCR (DEPUALC for its acronym in Spanish). Note: Countries with available censuses and information included in the 2010s: Bolivia (2012), Brazil (2010), Costa Rica (2011), Ecuador (2010), Honduras (2013), Mexico (2010), Panama (2010), Dominican Republic (2010), Uruguay (2011), and Venezuela (2011). Countries with available censuses and information included in the 2000s: Brazil (2000), Costa Rica (2000), Ecuador (2001), Honduras (2001), Mexico (2000), Dominican Republic (2002), and Venezuela (2001).”

Source: UN ECLAC 2012.



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Key demographic trends in cities

Although most of the LCR countries have already seen fertility rates drop to below or near to replacement level, the higher levels of fertility recorded until the 1980s produced the current demographic profile: a numerous adult population in reproductive age, contributing to a sustained birth rate even though the average number of children per woman is low. This phenomenon will cause a growth of total population in absolute terms until approximately 2055, when population will begin to decline.

This demographic profile is reflected at the city level despite the fact that, in general, lower fertility values are registered in urban areas: In line with national trends, urban population projections³ in selected cities in the region demonstrate that many cities have already transitioned to fertility levels near or below replacement. However, their young age structure will contribute to continued population growth over the coming decades as a consequence of the high fertility levels of the past (table 1). Most cities

that were analyzed will experience a population increase of around 20 percent or more between 2010 and 2050, with the exception of Montevideo (9.2% increase) and La Habana, which will see a population contraction of 20 percent by 2050. On the other hand, Panama City, Manaus, and the greater metropolitan areas of Santiago and Lima will experience a population increase of around 50 percent or more by 2050. In many cities, including Cordoba, Medellín, Guadalajara, and Mexico City, projected urban population growth is well below the national average.

Most cities will experience an increase in population until the middle of this century (albeit at slower rates) and will subsequently begin to decline. Cities with young age structures (and high growth rates)—amongst them Santo Domingo, Guadalajara, and Manaus—will tend to see their population peak after 2060, whereas cities with a comparably older age structure and lower growth rates (Valparaiso, Santiago, and São Paulo) will tend to see their

³ Population projections were run for a group of selected cities to compare city-level with national-level trends. The cities were selected on the basis of their regional representation, their specific demographic profile (fertility, mortality, migration, age-sex population structure, and population growth), and data availability. Projections of chosen cities were made with the components method, the usual procedure used by official statistical agencies to project national populations. Starting from the last census, the population evolution is simulated on the basis of fertility, mortality, and migration hypotheses. Future births and deaths are estimated from fertility and mortality trends in recent decades. Migration is estimated by differences between overall population growth and natural increase during the last intercensal period. When migratory balances are smooth (below 5 per thousand), they remain constant; when they exceed this limit, the trend is assumed to decrease gradually in the future. The time horizon of projections extends from last census up to 2050.

populations peak before 2050. Only the cities with the very oldest populations will contract in the coming decades, with the exception of Havana and San Juan of Puerto Rico, which saw its urban population peak in 2012 and is already shrinking.

In selected cities, migration plays an important role in accounting for the population growth trends. In Panama City, high population growth is driven by a high net migration rate⁴ that also contributes to a younger population structure (Rodríguez Vignoli 2017). In Cali, on the other hand, emigration contributes to lower population growth than would otherwise be the case given the natural growth trends.

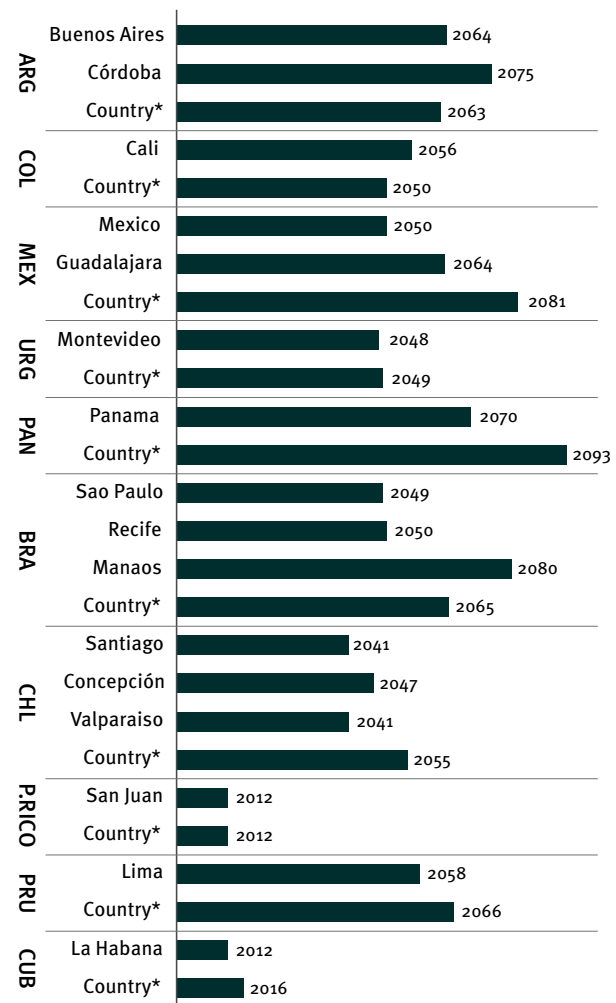
All cities are experiencing an aging of their population structures at greater speeds than what is observed at the national level. This reflects the combined effect of declining fertility and expanding life expectancy, trends that are more pronounced in large cities.

The median age of the urban population will increase from around 28–30 years in 2010 to 40 years by 2050. San Juan’s median age will be 52 in 2050, compared with 57 in Yubari, Japan, considered the world’s “oldest city” (figure 9). The region’s median age in 2050 is projected to be around 41 years.

In line with national- and regional-level trends, the pace of the demographic transition in the selected cities is striking. In cities in the advanced stages of the demographic transition, it takes longer for the share of the population aged 65 and older to double from 10 to 20 percent: 54 years in Montevideo and 70 years in Buenos Aires. But in Manaus, Brazil—still in an early stage of the transition, with a young population structure, moderate fertility (above 2.26 births per woman), and life expectancy below 75 years—that doubling will take only 25 years. So, even though Manaus today has one of the youngest population structures in the region, the speed of its transition to a structure dominated by older people will be unprecedented (González 2016).

The increase in the old-age dependency ratio between the baseline year and 2050 is projected to be substantial for all these cities, and will occur alongside a steep decline of the child-dependency ratio, as can be seen in figure 9. Again, the increase in the old-age dependency ratio is especially pronounced in cities with young population structures today, like Manaus and Guayaquil, where the old-age dependency ratio is projected to increase to almost four times its current value by 2050 (figure 10).

FIGURE 8 Year of population peak in selected LCR cities



Source: Gonzales et al. 2016

⁴ Net change due to migration was obtained from the difference between overall population growth and natural increase (births minus deaths) during the last intercensal period. Net migration by age and sex were estimated based on Census Survival Rate Method (see Arriaga 1994).

TABLE 1 Key demographics in selected cities in LCR, baseline year to 2050 (projections)

Country/City	Total Population		Relative increase (%) 2010	Aging Index (65+)* (live births per woman)		Total fertility rate		
	2010	2050		2010	2050	2010	2050	
Argentina	Buenos Aires	13.016	17.869	37,3	45,3	94,0	2,47	1,75
	Cordoba	1.517	1.929	27,2	39,8	84,1	2,20	1,92
	Country	41.221	55.227	34,0	40,2	94,6	2,34	1,93
Mexico	Mexico	20.495	25.753	25,7	22,5	128,5	2,07	1,71
	Guadalajara	4.497	6.285	39,8	17,7	97,3	2,36	1,90
	Country	117.317	164.280	40,0	19,8	111,3	2,29	1,72
Panama	Panama	1.708	2.840	66,3	25,9	95,3	2,20	1,90
	Country	3.645	5.829	59,9	23,2	90,7	2,60	1,98
Uruguay	Montevideo	1.657	1.810	9,2	72,0	139,0	1,80	1,70
	Country	3.385	3.662	8,2	63,0	130,0	2,04	1,82
Brazil	Sao Paulo	20.152	24.016	19,2	30,0	138,0	1,77	1,52
	Recife	3.717	4.430	19,2	28,4	136,6	1,62	1,60
	Manaos	2.180	3.621	66,1	11,9	89,6	2,26	1,70
	Country	196.795	232.688	18,2	27,0	155,8	1,78	1,63
Colombia	Cali	2.549	2.870	12,9	27,7	121,6	2,10	1,70
	Country	45.918	54.734	19,2	22,2	133,2	1,93	1,67
Chile	Gran Santiago	4.734	6.870	45,1	42,7	177,4	1,84	1,70
	Gran Concepción	757	905	19,5	41,8	171,9	1,76	1,70
	Gran Valparaiso	902	1002	11,0	55,1	177,4	1,79	1,70
	Country	16.993	20.718	21,9	41,1	158,7	1,82	1,73
Puerto Rico	San Juan	2.676	2.038	-23,9	74,0	303,4	1,63	1,50
	Country	3.717	3.282	-11,7	62,8	217,9	1,52	1,61
Peru	RM Lima	9233	13988	51,1	27,4	118,6	1,96	1,71
	Country	29.374	41620	41,7	21,1	92,2	2,50	1,84
Cuba	La Habana	2.130	1.687	-20,8	96,6	243,5	1,46	1,80
	Country	11.382	10.823	-4,9	71,9	231,3	1,71	1,76

Note: The Aging Index refers to the number of elders (65 years or over) per 100 persons younger than 15 in a specific population. This index increases as the population ages.

Source: Based on data provided by National Statistics Office and international organizations such as the United Nations (Department of Economic and Social Affairs, Population Division), the World Health Organization (WHO), and the Demographic and Health Survey (DHS) Program.

Note: Baseline year: Colombia, Argentina, Brazil, Mexico, Panama, Chile, Puerto Rico, Perú, 2010; Uruguay, 2011; Cuba, 2012

IV.

Policy implications: Embracing the demographic trend and broadening the base

Over the past decades, policy makers have struggled to manage the “urban explosion” in the LCR region. Cities and municipalities were overwhelmed by the rapid influx of people and now struggle with the consequences of unplanned growth, informal settlements, and urban slums, where poverty, exclusion, and natural hazards abound.

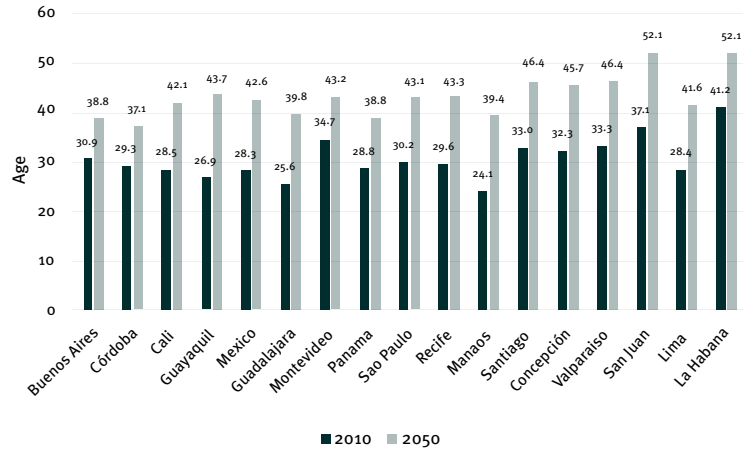
But the Latin American and the Caribbean region is about to transition from massive population growth in cities to stable and shrinking urban centers and aging populations. Though the region will see another short burst of urban population growth—at least in absolute numbers—it imminently faces a new reality. However, policy makers risk missing today’s urban demographic shifts. Consumed with the rapid urbanization of the past, they may neglect to plan for the challenges—and for the opportunity—presented by a new normal of decelerated or declining urban growth in the near future.

The imminent demographic transition will impose increased fiscal pressures related to health care and social protection. The region’s weak social protection systems are likely to be overwhelmed by the rising share of older people in the population.

However, decelerated urban growth, if managed well, could alleviate some of the damage caused by earlier urbanization. This is a moment when the region could markedly improve urban spaces, infrastructure, and basic services and deliver on its promise of a better future for its urban residents.

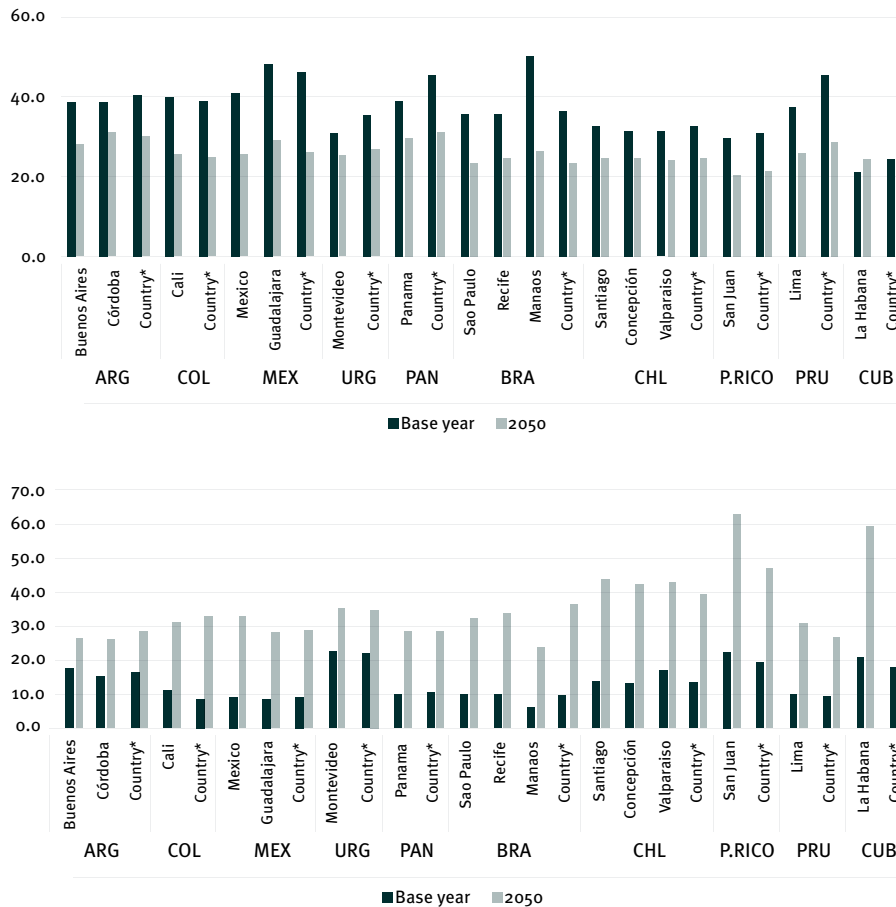
Urban expansion in the region over the past decades was marked by urban sprawl and a movement toward the periphery, with multiplying roads, shopping centers, and gated communities. To attract new residents and adapt to the needs and lifestyles of older people, cities will need to employ strategies like better connectivity, improved service delivery, and a return to compact, mixed-used developments. As rural-to-urban migration wanes and the urban transition consolidates, city-to-city migration will gain in importance. With an aging and shrinking population, cities must devise effective strategies to retain residents and attract new ones. An older population will demand a more manageable and interconnected urban fabric, and younger generations’ attraction to cities will also depend on the vibrancy and density of urban life.

FIGURE 9 Median age of the population in selected LCR cities, 2010 and 2050 (years)



Source: Gonzales et al. 2016

FIGURE 10 Child and old-age dependency ratios in selected cities and countries in LCR, baseline year and 2050 (projections)



Source: At city level, based on data provided by National Statistics Office; at country level, based on data provided by United Nations, Department of Economic and Social Affairs, Population Division 2017.

Note: Baseline year: Colombia, Argentina, Brazil, Mexico, Panama, Chile, Puerto Rico, Peru, 2010; Uruguay, 2011; Cuba, 2012



The declining share of the active population is ending the demographic dividend, and will affect economic growth, productivity, and urban life. If economic opportunities dry up because of the demographic shift, cities risk losing their remaining young and active population, thus accelerating the downward demographic spiral. We already observe a hollowing out of the urban core in most cities in the region. Today's infrastructure and urban planning decisions will be key to attracting future industries and residents, and will determine the growth trajectory and prosperity of cities.

In North America, young, creative, and wealthy people are beginning to return to urban centers. Latin American cities, too, need to recuperate their city centers and improve their value proposition. Successful cities, such as Curitiba, Guadalajara,

and Monterrey, have invested in universities and research institutes, promoted public-private partnerships, and focused on improving the quality of life for young families. The right regulatory environment for immigration is also key. Since migrants tend to come from the younger and more productive segment of the population, Latin American and the Caribbean cities in the advanced stages of the demographic transition could also slow population decline and aging by attracting young people from other parts of the region. Even the large influx of a displaced population, however tragic the circumstances of their emigration, could be considered a demographic boon that will allow cities to extend the period of the demographic dividend, spur economic growth, and rejuvenate the population for generations to come.

References

- Arriaga, Eduardo. 1994. *Population Analysis with Microcomputers, Volume I and II*. Documentation for Population Analysis System (PAS) Software. United States Census Bureau. <https://www.census.gov/data/software/pas.html>.
- Beaton, Kimberly, Svetlana Cerovic, Misael Galdamez, Metodij Hadzi-Vaskov, Franz Loyola, Zsoka Koczan, Bogdan Lissovlik, Jan Kees Martijn, Yulia Ustyugova, and Joyce Wong. 2017. "Migration and Remittances in LCR: Engines of Growth and Macroeconomic Stabilizers?" IMF Working Paper No. 17/144, International Monetary Fund, Washington, DC.
- CONPES (El Consejo Nacional de Política Económica y Social). 2018. Estrategia para la atención de la migración desde Venezuela. Consejo Nacional de Política Económica y Social (National Council for Economic and Social Policy), Departamento Nacional de Planeación (National Planning Department), Government of Colombia.
- Reboiras Finardi, Leandro. 2015. *Migración internacional y envejecimiento demográfico en un contexto de migración Sur-Sur: el caso de Costa Rica y Nicaragua*. Población y Desarrollo Serie 110 (Population and Development Series, No. 110). Santiago, Chile: United Nations Economic Commission for Latin America and the Caribbean (CEPAL).
- González, Leandro, Alejandra Fantin, Laura Acosta and Natalia Tumas. 2016. *Evolución demográfica futura de las ciudades de América Latina y el Caribe*. Inter-American Development Bank.
- IOM (International Organization for Migration). 2018. "Emergency Plan for Refugees and Migrants from Venezuela Launched." Press Release, December 14, 2018. <https://www.iom.int/news/emergency-plan-refugees-and-migrants-venezuela-launched>.
- Rodríguez Vignoli, Jorge. 2017. "Efectos de la migración interna sobre el sistema de asentamientos humanos de América Latina y el Caribe." *Revista de la CEPAL* 123: 7–34. https://repositorio.cepal.org/bitstream/handle/11362/42692/1/RVE123_Rodriguez.pdf.
- Rodríguez Vignoli, Jorge, and Suzana Cavenaghi. 2014. "Adolescent and Youth Fertility and Social Inequality in Latin America and the Caribbean: What role has education played?" *Genus* 70 (1): 1–25. <http://www.jstor.org/stable/genus.70.1.1>.
- R4V (Response for Venezuelans). 2018. Regional Refugee and Migrant Response Plan for Refugees and Migrants from Venezuela, January – December 2019. Response for Venezuelans (R4V), Regional Inter-Agency Coordination Platform for Refugees and Migrants from Venezuela.
- UN CELADE (United Nations Latin American and Caribbean Demographic Centre – Population Division of ECLAC). 2014. *Tendencias y patrones de la migración latinoamericana y caribeña hacia 2010 y desafíos para una agenda regional [Trends and Patterns in Latin American and Caribbean Migration in 2010 and Challenges for a Regional Agenda]*. Santiago, Chile: United Nations.
- UN DESA (United Nations Department of Economic and Social Affairs). 2014. *World Population Prospects: The 2014 Revision*. New York: United Nations.
- UN DESA (United Nations Department of Economic and Social Affairs). 2017a. *World Population Prospects: The 2017 Revision*. Online edition. New York: United Nations.

- UN DESA (United Nations Department of Economic and Social Affairs). 2017b. *World Ageing Report 2017*. New York: United Nations.
- UN DESA (United Nations Department of Economic and Social Affairs). 2018. *World Urbanization Prospects: The 2018 Revision*. New York: United Nations.
- UN ECLAC (United Nations Economic Commission for Latin America and the Caribbean). 2012. *Population, territory and sustainable development*. Santiago, Chile: United Nations. https://repositorio.cepal.org/bitstream/handle/11362/22426/1/S2012013_en.pdf.
- UN ECLAC (United Nations Economic Commission for Latin America and the Caribbean). 2015. *Observatorio Demográfico de América Latina 2015*. Report LC/G.2675-P. Santiago: ECLAC.
- UN-Habitat (United Nations Human Settlements Programme). 2012. *State of Latin American and Caribbean Cities 2012: Towards a New Urban Transition*. Nairobi, Kenya: UN-Habitat.
- UN-Habitat (United Nations Human Settlements Programme). 2016. *Urbanization and Development: Emerging Futures*. In *World Cities Report 2016*. Nairobi, Kenya: UN-Habitat.
- UNHCR (United Nations High Commissioner for Refugees). 2019. “Colombia.” UNHCR.org. <https://www.unhcr.org/colombia.html>.
- UNHCR (United Nations High Commissioner for Refugees) and IOM (International Organization for Migration). 2019. “Venezuelan outflow continues unabated, stands now at 3.4 million.” Press Release, February 22, 2019. <https://www.unhcr.org/news/press/2019/2/5c6fb2d04/venezuelan-outflow-continues-unabated-stands-34-million.html>.
- World Bank. 2018. *Migración desde Venezuela a Colombia: Impactos y estrategia de respuesta en el corto y mediano plazo*. Colombia: World Bank.

DEMOGRAPHIC CHANGE AND URBANIZATION IN A CONFLICT-AFFECTED REGION

The Middle East and North Africa



- The Middle East and North Africa region mostly includes countries in an early stage of their demographic dividend, with high but declining fertility rates and a resulting youth bulge that is still rising but likely to stabilize in the near future.
- The youth bulge, if managed well, could present a significant demographic dividend associated with potential higher growth rates, especially in urban areas.
- While the region already has a high urbanization rate (64%), urban growth rates (currently at 2.3%) are declining, though they remain above the world's average of 2 percent.
- Much of the urban growth in absolute terms is projected to occur in the region's primary urban centers, although faster growth in relative terms is likely to occur in the region's secondary centers.
- Migrations resulting from conflict, climate impacts, and cross-border labor movement are special factors in the region and have been overriding other urbanization trends in a subset of countries.
- Aging is not yet an issue, but it is set to rapidly increase over the coming decades.

Demographic transitions are shaping the Middle East and North Africa (MENA) region's urbanization trends and urban development challenges.¹ The region's population continues to grow strongly, albeit at a declining rate, driven by fertility rates higher than the global average. As in some other regions, the combination of a decline in child mortality and the relatively slow onset of fertility decline has resulted in a large youth bulge. This youth bulge, if managed well, could present a significant demographic dividend associated with potential higher growth rates, especially in urban areas.

Strong population growth, together with the associated rural-to-urban and, to some extent, cross-border migration, has been driving the region's urban transformation. Currently, 275 million people—64 percent of the population—live in urban areas; by 2050, that number is projected to reach 486 million, or 74 percent of the population. Much of the urban growth in absolute terms will occur in the region's primary urban centers, although faster growth in relative terms will occur in the region's secondary centers.

Capital cities in the region are somewhat ahead of the national demographic trends, especially in terms of declining fertility rates. However, despite those declining rates, the population in capital cities continues to grow strongly as a result of both the population momentum² caused by past high fertility rates, and the impact of migration.

Three additional region-specific demographic phenomena are impacting MENA's urbanization evolution. First, given the region's conflicts and

associated refugee crises, forced displacement is becoming an urban issue, with 80–90 percent of forcibly displaced residing in cities. Second, climate-induced migration is impacting settlement patterns, with MENA countries being among the most water scarce in the world. Third, cross-border labor migration has shifted the population distribution, particularly in the Gulf countries, where migrant laborers account for up to 88 percent of the population in some countries. These population movements can change existing territorial settlement patterns very quickly, overriding underlying, more secular, demographic and urbanization trends.

Like many other developing regions, the MENA region faces great challenges related to rapid and unplanned urbanization. The scale and scope of these challenges often overwhelm policymakers in view of their limited capacity and resources (especially at the subnational level) and a tradition of highly centralized administrative systems, which prevails across the region.

This note will begin by examining the main demographic trends in the region, amongst them continuing population growth, a youth bulge, and migration. It will then lay out the region's main urban trends before discussing the main demographic trends in cities. The note will conclude with a review of the main challenges the region is facing and relevant policy questions and implications.

I. Major demographic trends at regional & national level

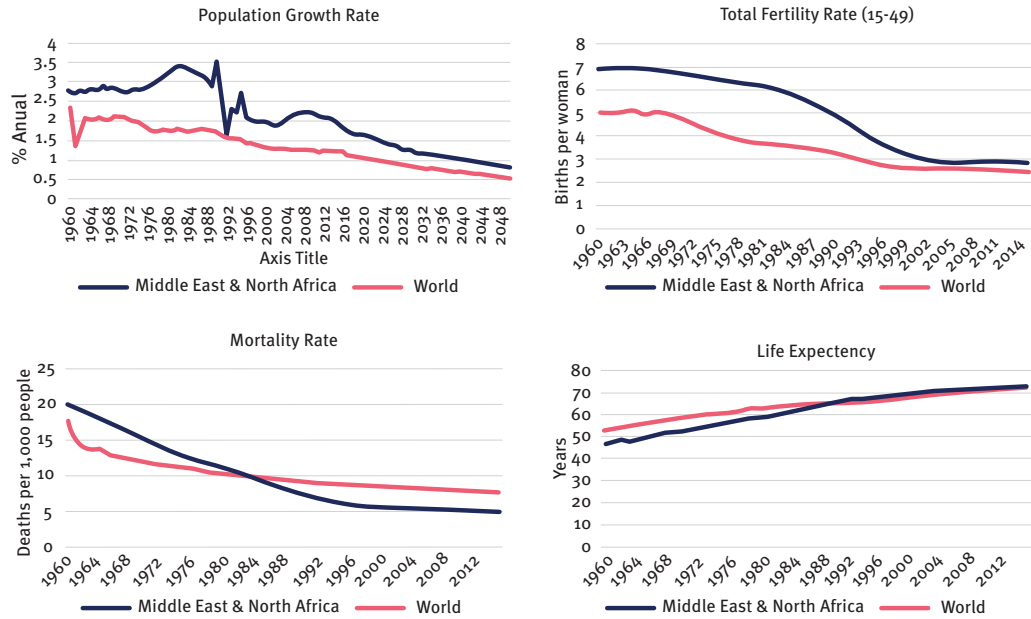
Strong, albeit declining, population growth. The population of the Middle East and North Africa region grew from 105 million in 1960 to 428 million in 2015. Between 1990 and 2015 alone, it increased by 67.6 percent, compared with the world average of 39.2 percent, and is expected to increase by 50 percent more over the next 30 years, reaching 656 million in 2050.

The population growth rate has consistently been higher than the world average, driven by high (though declining) fertility rates (figure 1). The current fertility rate for the region declined from over 6 births per woman in 1984 to 2.8 in 2015 (still higher than the world average of 2.4). The decline started first in Lebanon, followed by the Arab Republic of Egypt, the Islamic Republic of Iran, and Tunisia. These last three countries were among the first in the region to adopt policies to lower fertility as a way to slow population growth (Population Reference Bureau 2008). Iraq, West Bank and Gaza, and the Republic of Yemen still have very high fertility rates, with over 4 births per woman. Life expectancy is comparable to the world average, and the mortality rate is lower despite the conflicts affecting many countries in the

region. Population growth is projected to slow to 0.8 percent per year by 2050, although fertility rates are difficult to predict in turbulent times.

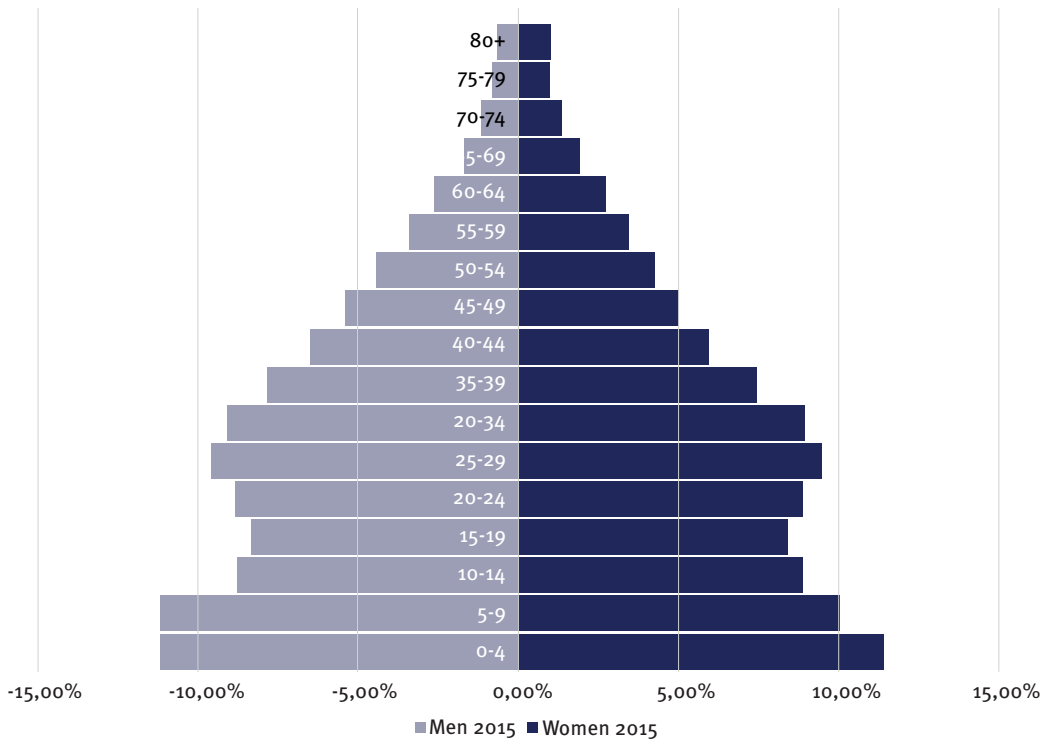
Large youth bulge. Population growth and high fertility rates have resulted in a large youth bulge in the Middle East and North Africa region (figure 2). As of 2015, 47 percent of the population was under age 25, which was above the world average of 42 percent but below the Sub-Saharan African average of 63 percent and the South Asian average of 48 percent. The share of the population under age 25 varies by country: from 24–41 percent in Gulf Cooperation Council (GCC) countries to over 60 percent in Iraq (figure 3). In some countries, particularly in the GCC, the population distribution skews strongly toward young men because of the large presence of foreign migrant workers, as described below (box 1). Regionwide, the urban youth bulge is peaking in 2020, and will subsequently stabilize, and eventually decline slowly until 2050 (figure 3, 4 and 5). This youth bulge presents a tremendous opportunity to reap the benefit of the greater economic growth often associated with demographic dividends.

FIGURE 1 Trends in main demographic parameters in the Middle East and North Africa region and the world



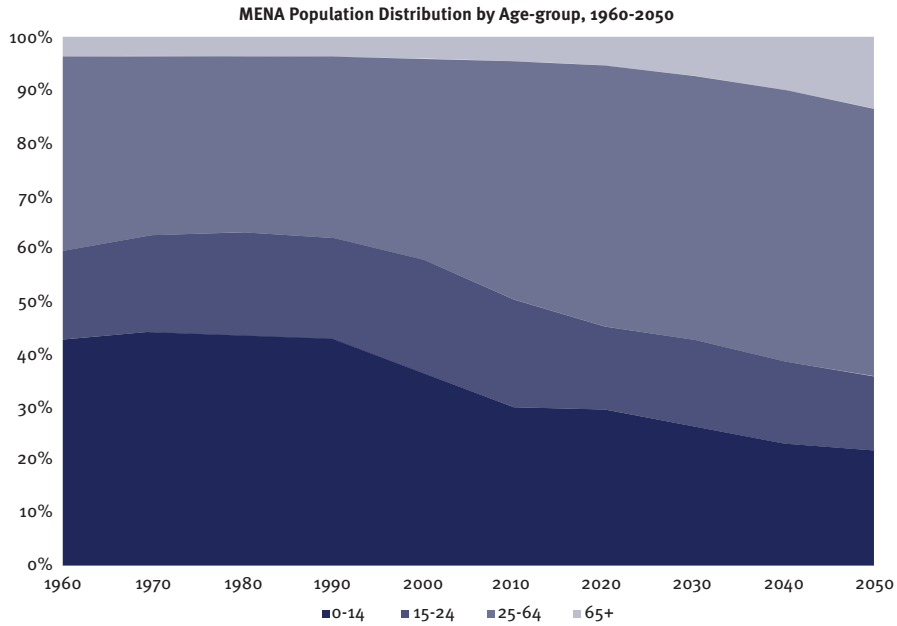
Source: World Bank (2018)

FIGURE 3 Population age-structure of the Middle East and North Africa region, 2015



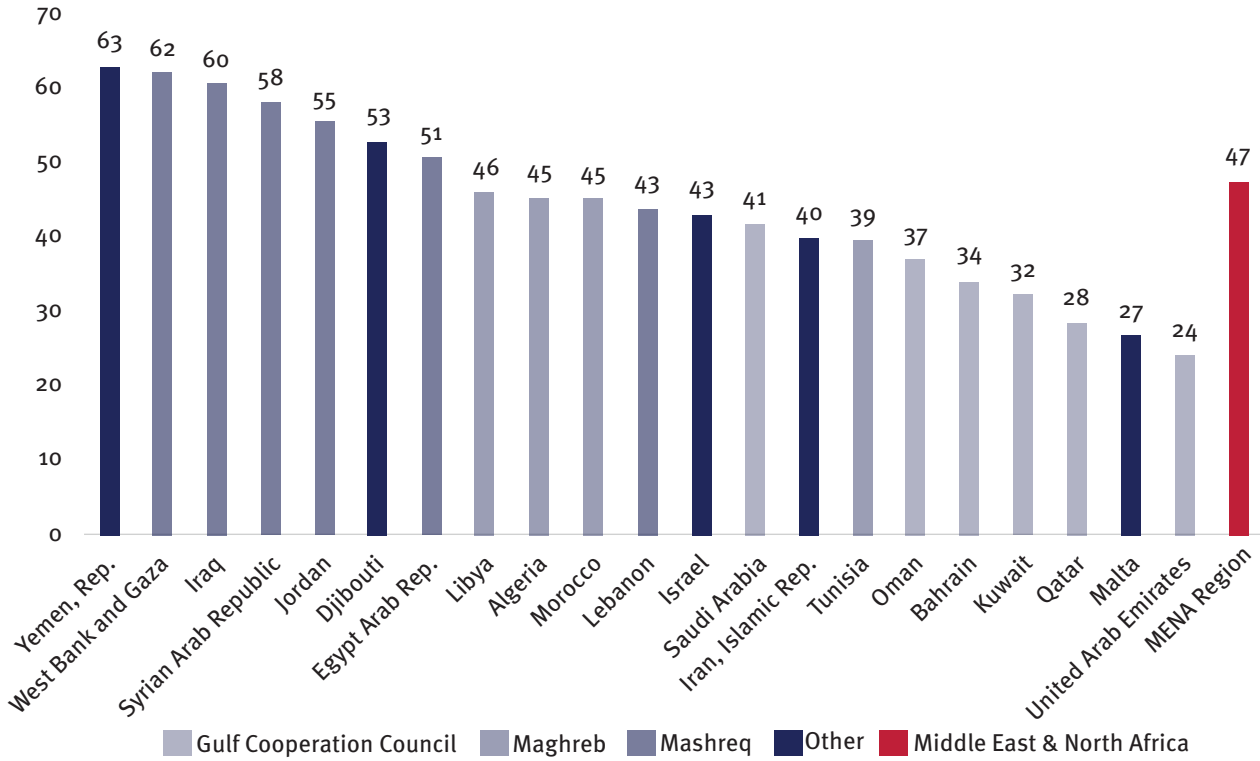
Source: World Bank (2018).

FIGURE 4 MENA Population Distribution by age groups, 1950–2050



Source: World Bank 2018

FIGURE 5 Share of population under age 25 in Middle East and North African countries, 2015

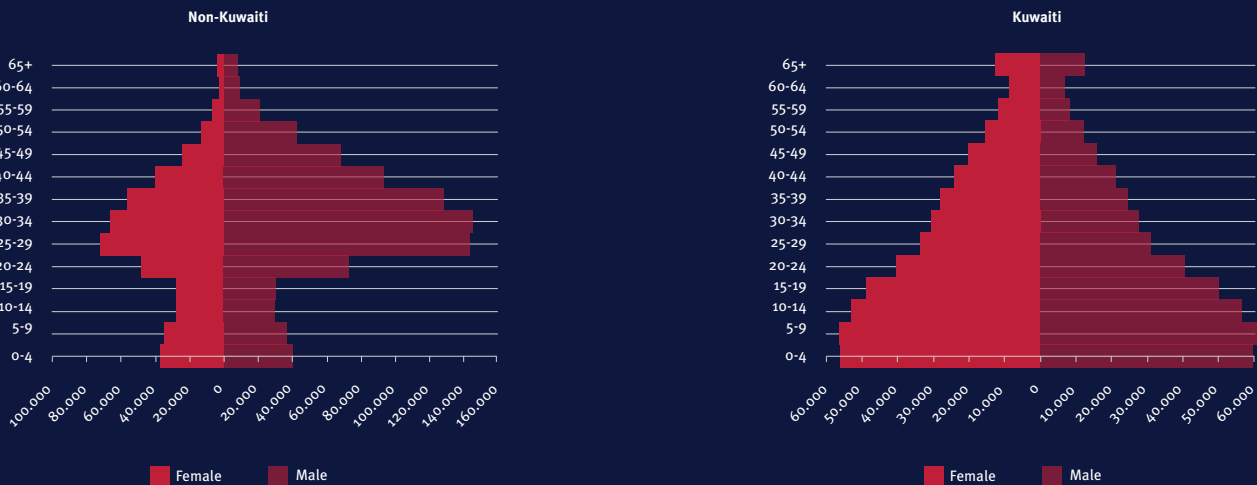




BOX 1 A skewed youth bulge in Gulf Cooperation Council countries: The demographic impact of foreign migrant workers

In some countries, foreign migrant laborers make up a large share of the total population. Among the Gulf Cooperation Council countries, they account for 88 percent of the population in Qatar, 70 percent in the United Arab Emirates, and 69 percent in Kuwait. (This compares with 0.2 percent in Morocco, 0.3 percent in both Egypt and Tunisia, 0.7 percent in Algeria, and 2.8 percent in the Islamic Republic of Iran.) Many are young men from Asia, attracted by the region's employment opportunities (figure B1.1). In Oman, approximately 600,000 people, or 28 percent of the urban population, are guest workers from Bangladesh, Egypt, India, Jordan, Pakistan, and the Philippines. As a result, the ratio of men to women is high in all cities, reaching 5.42 in Doha, for instance.

FIGURE B1.1 Population age structure of Kuwait: Kuwaitis and non-Kuwaitis, 2012

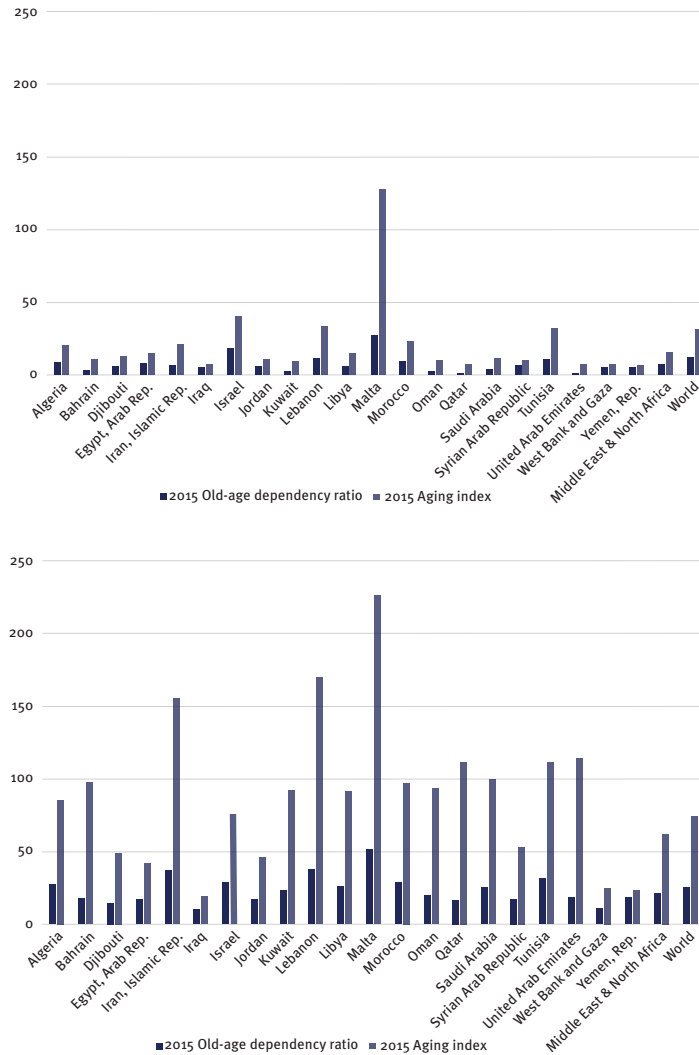


Source: UN-Habitat 2012

Imminent aging. Aging is not an issue yet, but is set to rapidly increase over the coming decades. The share of the population over age 65 was 4.8 percent in 2015, well below the world average of 8.3 percent; however, this share is expected to double by 2040

(though still remain below the projected 2040 world average of 14 percent). Like in most other regions in the world, the region will have to prepare itself for this rapid shift in population structure over the medium term.

FIGURE 6 Population aging process of the Middle East and North Africa region: old-age dependency ratio and aging index, 2015 and 2050



Note: Old-age dependency ratio: the number of elders (above 65 years) per 100 persons between 15 and 64 years old in a specific population. Aging index: the number of elders per 100 persons younger than 15 in a specific population.

Source: World Bank 2019

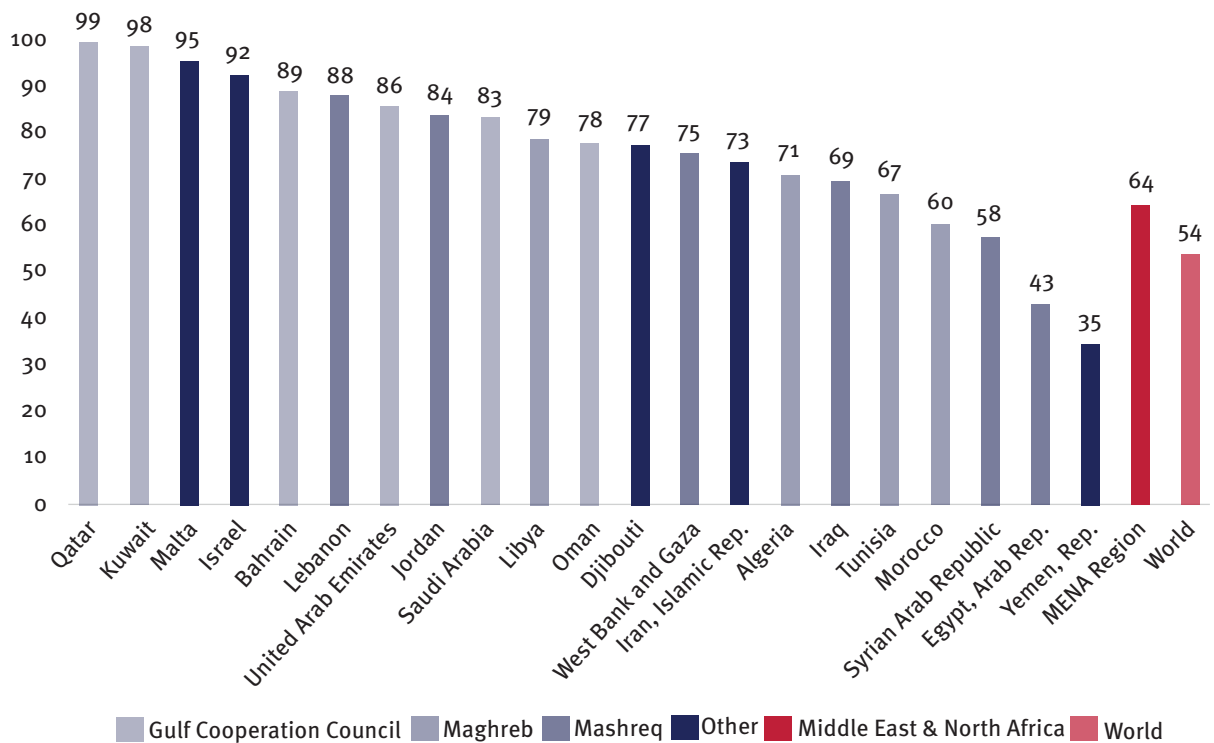
II. Main urban trends

A high rate of urbanization with declining urban growth rates. As of 2015, the Middle East and North Africa region was 64 percent urban, with an urban population of 275 million (figure 7). Most countries find themselves at relatively advanced stages of urbanization—all countries in the Maghreb are more than 60 percent urbanized, and urbanization rates of countries in the Mashreq range from 43 percent (Egypt) to 88 percent (Lebanon). The highest urbanization rates—over 80 percent—are in the GCC countries, and the lowest is in Yemen, at 35 percent. By 2050, the region’s average level of urbanization is projected to reach 76 percent, with an urban

population of 497 million. Almost every country in the region will have more than 70 percent of its population living in cities, above the world average, except for Yemen (57 percent) and Egypt (56 percent) (figure 7).

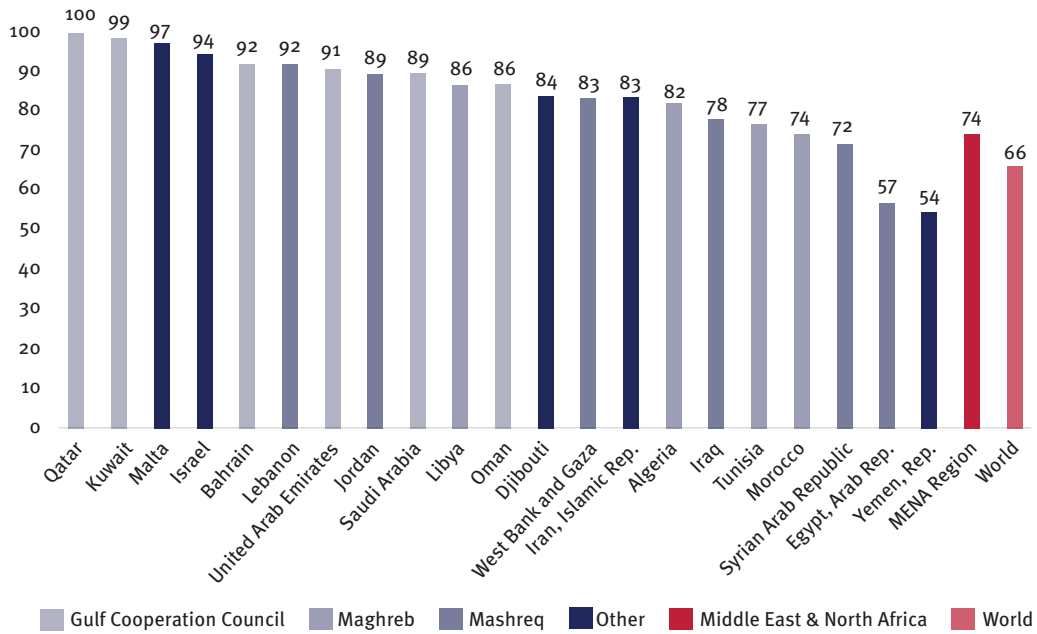
Since 1960, the Middle East and North Africa region’s urban growth rate has been higher than the world average, but has been declining due to weaker national population growth and waning migration to cities (McKinsey Global Institute 2016). In 2016, the urban growth rate reached 2.3 percent, near the world average of 2.0 percent (figure 8). These figures are based on national definitions of “urban” (box 2)

FIGURE 7 Urban population as percentage of total population in the Middle East and North African countries, 2015



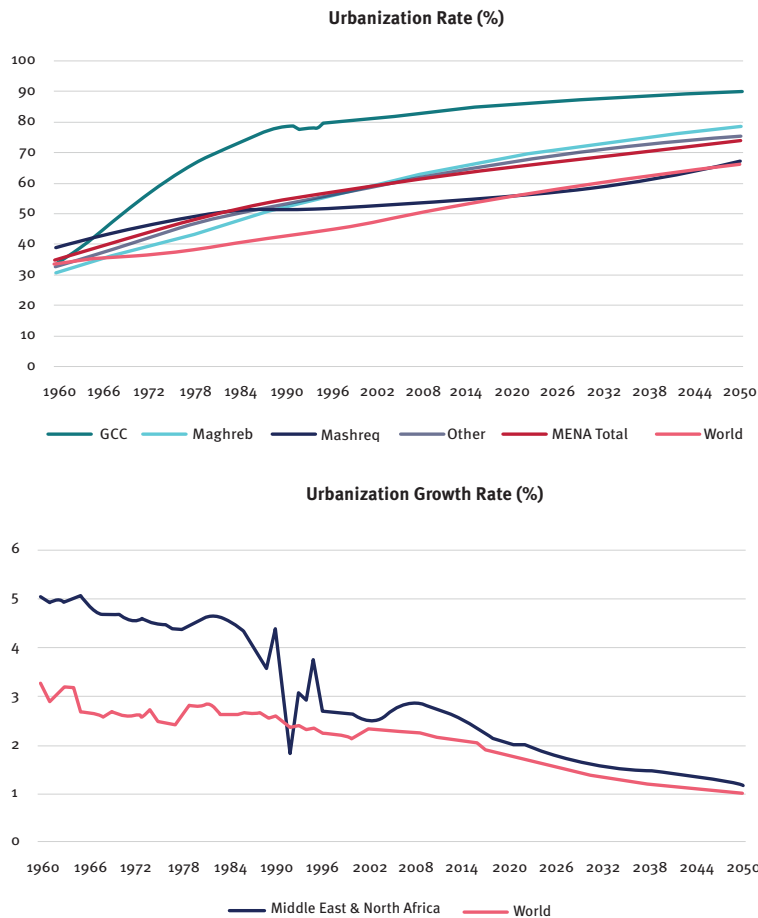
Source: World Bank 2019

FIGURE 8 Urban population as percentage of total population in Middle East and North African countries, 2050



Source: World Bank 2019

FIGURE 9 Urbanization and urban population growth rate in the Middle East and North Africa region, 1960–2050



Source: World Bank 2019

BOX 2 Global Human Settlement Layer data paint a different picture of the urban transition in the Middle East and North Africa region

World Bank and United Nations urban data are based on national definitions of “urban,” which can vary greatly. In contrast, the Global Human Settlement Layer (GHSL) definition is global. It is based on information on built-up areas extracted from Landsat image data processing, integrated with population data from the Center for International Earth Science Information Network Gridded Population of the World version 4. The GHSL classifies urbanization into urban centers, urban clusters, and rural areas. Urban centers define a city, and urban clusters define towns and sub-urbs—all urban areas.

GHSL data paint a different picture of urban growth across the region from that suggested by the World Bank and United Nations data. The GHSL estimates that the region is further along its urbanization trajectory, with urbanization in 2015 exceeding 80 percent in all countries and 90 percent in the Gulf Cooperation Council countries. The overall urbanization rate plateaued several decades ago and increased from 85 percent in 1975 to 89 percent in 2015. During that period, the urban population grew from 136 million to 380 million, with 269 million living in urban centers and 111 million in urban clusters.

Source: Contributed by Zhen Liu based on GHSL data.

BOX 4 Refugees and urban displacement in Jordan

The effect of urban displacement differs between primary and secondary cities or towns. In 2016, only 21 percent of non-Palestinian refugees in Jordan lived in camps; the majority lived in the major urban agglomerations. The largest urban area is Amman–Russeifa–Zarqa, which hosted an estimated 32 percent of registered refugees. The second-largest group of refugees is concentrated in the secondary cities Mafraq and Irbid in the northeast. In Mafraq, refugees account for 32 percent of the population; in Irbid, 23 percent. Smaller towns, such as Ma’an in the south, have a smaller refugee population, but refugees make up a high proportion of their populations, from 11 percent to 20 percent. In Ramtha and Turra, the proportion has doubled in a short time.

Source: World Bank 2017.

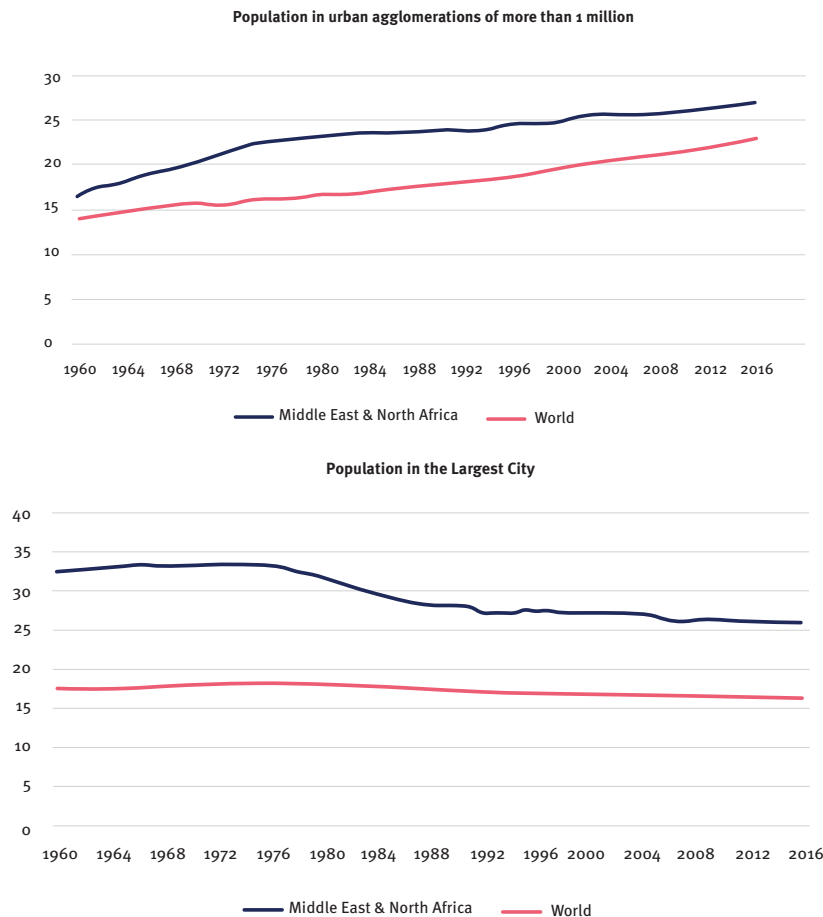


High urban primacy and spatial concentration. For historical, geographic, and climatic reasons, the Middle East and North Africa region’s urbanization is characterized by high concentration in primary urban centers and an unbalanced spatial footprint (figure 9). In 2015, 27 percent of the region’s population lived in cities with more than 1 million people, up from 16 percent in 1960. That growth is in line with global trends (figure 9), though in 2015, the share was above the global average of 23 percent. Sprawl is a major challenge in most primary cities in the region. Several large cities have become extended metropolitan regions, while others are actual or emerging mega-urban areas with complex issues of regionwide urban governance, authority conflict, and governance voids. For example, Riyadh’s urban

land area is similar to that of Seoul, the Republic of Korea, which has five times Riyadh’s population, pointing to differences in urban density.

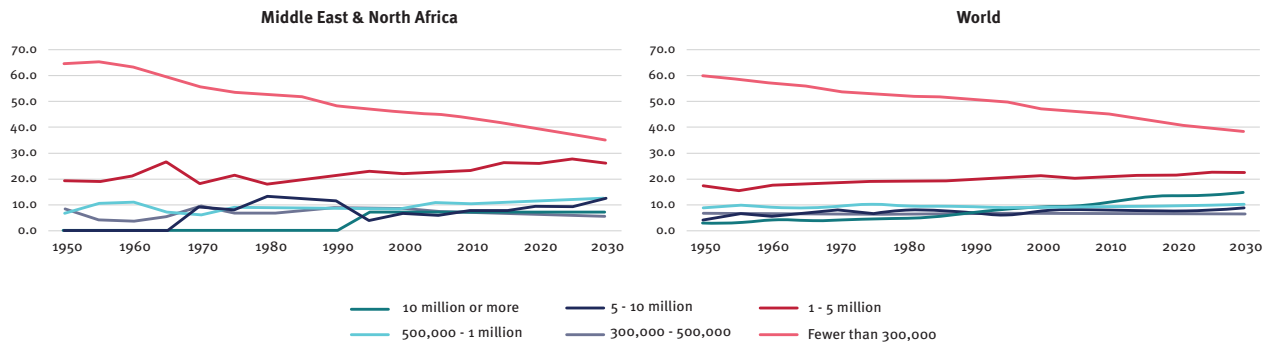
Primacy remains the norm, although secondary cities have recently been growing faster than the largest agglomerations. In Lebanon, 45 percent of the country’s population was concentrated in the Greater Beirut area in 2010; in Egypt, 18 million people—50 percent of the country’s urban population—lived in Cairo in 2015; and in Jordan, 71.5 percent of the population lived in Amman, Irbid, and Zarqa in 2015. The high dependence on primary urban centers results from the historic growth of coastal cities, the influence of colonial regimes favoring centralized administrative structures, and the prevalence of arid hinterlands—some of which are deserts. The share

FIGURE 9 Share of population in urban agglomerations of more than 1 million people and in the country’s largest city



Source: World Bank 2019

FIGURE 10. Share of total population, by city size, 1950–2030



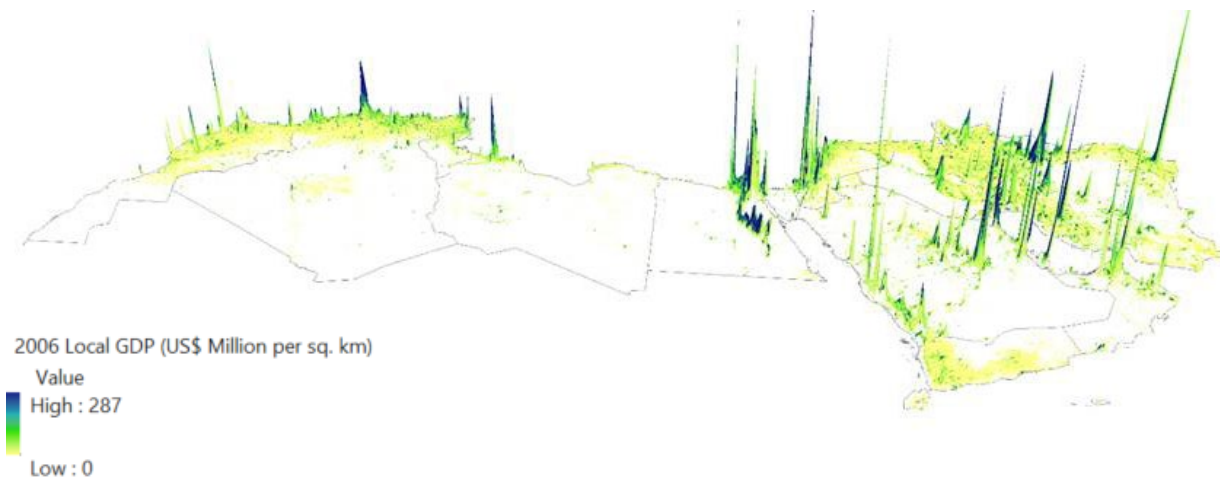
Source: United Nations, Department of Economic and Social Affairs, World Urbanization Prospects.

of the region’s population in cities of 1–5 million people has grown fastest, from 18.3 percent in 1980 to 26.5 percent in 2015 (figure 10). The share of the population living in cities with fewer than 300,000 people has been declining most.

Spatially unbalanced development. The Middle East and North Africa region’s unbalanced spatial footprint has created concomitant imbalances in economic activity and access to services. The agglomeration index, which measures the concentration of economic activities within a country, is 18.8 percentage points higher in the region than in other developing countries (Mtjiyawa, Kremer, and Whitmore 2012). While the concentration of economic activity is not in itself a problem, it

corresponds to spatial disparities in access to services and opportunity. The World Bank’s Human Opportunity Index shows that, in the MENA region, the role of geography is “overwhelming” in shaping inequality of access to services. Spatial variables—province or division and urban versus rural area of birth—consistently account for at least half of the reported variation in opportunities arising from infrastructure in most countries in the Middle East and North Africa, dominating education, wealth, and gender. For most countries in the region (with the notable exception of Morocco), the region of birth contributes more than the rural–urban divide to disparities of opportunity. Partly to respond to excessive urban primacy and spatial disparities,

FIGURE 11 GDP per mk2



Source: Ghosh et al. 2010

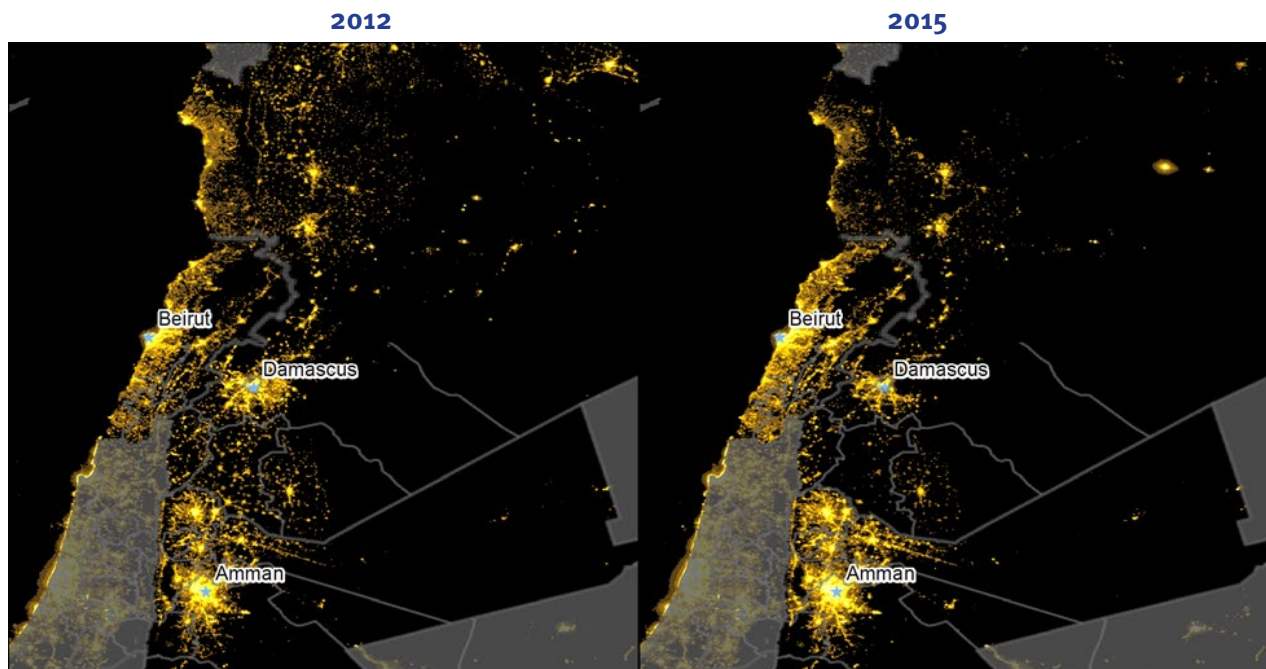
current urban policy across the region aims to diversify economies, link major urban areas, and redirect growth to secondary cities. Figure 11 shows the high concentration of GDP per square meter.

The Middle East and North Africa region faces two additional factors shaping urban and demographic developments: conflict and climate change. These phenomena can induce migratory patterns that override secular population movements and alter the region's spatial footprint.

Conflict-induced migration. Ongoing conflicts—in particular in Syria, Iraq, and the Republic of Yemen—have made the Middle East and North Africa region home to the world's largest number of forcibly displaced people. In 2016, approximately one-quarter of the world's 65.6 million forcibly displaced people lived in the region. As of September 2017, 5.1 million registered refugees from Syria lived in the neighboring countries of Egypt, Iraq, Jordan (box 4), Lebanon, and Turkey, and within Syria

there were more than 6 million internally displaced persons. Entire territories are emptying out (a process observable through nighttime light intensity; map 1). In Lebanon, the influx of registered refugees amounted to about 1 million people by 2016, implying that almost a third of the country's population are refugees. For each refugee displaced in the region, there are almost five internally displaced persons. Since global trends indicate that more than 80 percent of refugee crises last 10 years or longer, and 40 percent last 20 years longer, that the unprecedented scale and scope of urban forced displacement in the region is likely to be protracted. The greatest effect is felt in cities: about 60 percent of refugees around the world lived in urban areas in 2015, up from 42 percent in 2008 (UNHCR 2017). The pattern of urbanizing displacement is even more marked in the Middle East and North Africa region, where 80–90 percent of forcibly displaced persons reside in cities.

MAP 1 Night time satellite image of the Mashreq, 2012 and 2015

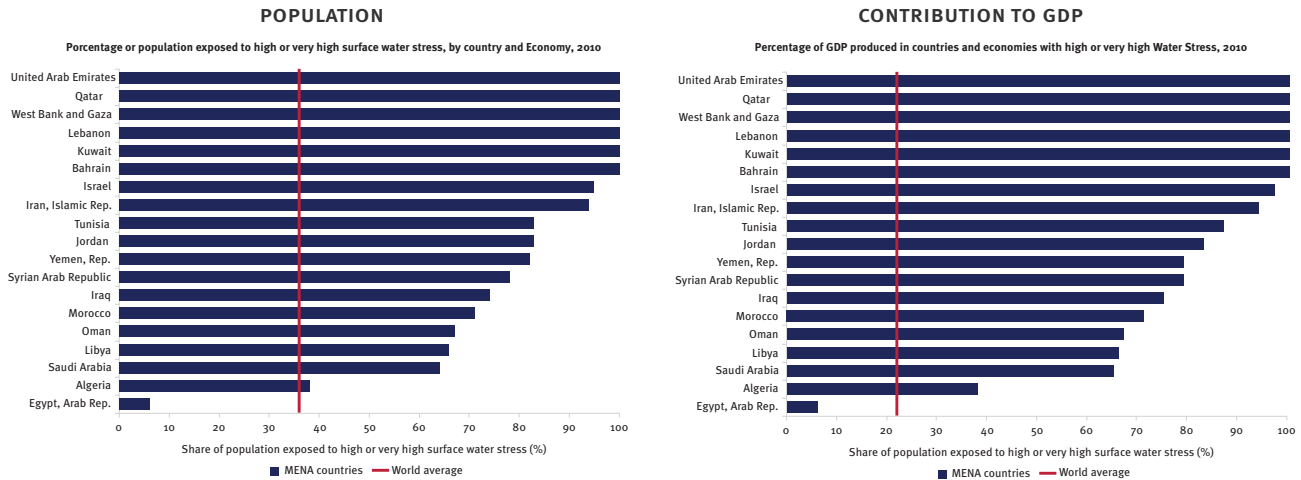


Source: Map created by World Bank Group staff based on satellite image and data processing by the U.S. National Oceanic and Atmospheric Administration's National Geophysical Data Center and Defense Meteorological Satellite Program data collected by the U.S. Air Force Weather Agency.

Note: Pictures taken at identical time of day on the same day in September.



FIGURE 12. Share of population and economic activity exposed to high or very high surface water stress in Middle East and North Africa countries



Source: World Bank (2018), based on World Resources Institute Aqeduct™ data.

Climate-induced migration. Middle East and North African countries have some of the world’s scarcest water supplies per capita and experience repeated droughts. On average, 61 percent of the population and more than 71 percent of economic activity (measured by contribution to regional GDP) are exposed to high or very high water stress (figure 12). When people cannot adjust and recover rapidly, climate events such as drought lead to increased internal migration and displacement, particularly from rural areas. Most go to urban centers. For example, by 2010, a four-year drought in Syria had driven nearly

800,000 rural villagers to makeshift camps around Aleppo, Damascus, and Homs (Sinjab 2010). Djibouti is highly vulnerable to extended multiyear droughts that result in water scarcity for livestock, irrigation, and domestic uses. Refugees entering Djibouti increased considerably during the 2011 drought, from 395 in May to 875 in August, with most citing drought as their primary reason for migration (Verner 2012). More broadly, climatic factors explain an estimated 10–20 percent of rural-to-urban migration in the Middle East and North Africa region (World Bank 2014).

III.

Key demographic trends in the largest cities

Population projections³ were run for a group of selected large cities to compare city-level with national-level trends (see Table 1).

In line with national trends, the selected cities are in advanced stages of the demographic transition due to the sharp decline in mortality, especially among children, and decline in fertility rates. However, despite declining fertility rates, city populations will continue to grow rapidly for several decades due to migration and to the legacy of high fertility rates in the past and the concomitant population momentum.

In almost all of the large cities that were analyzed, population increases are estimated to be above the national average by 2050. According to the projections, the resultant share in the working-age population (aged 15–64) is expected to peak around 2030 in Algiers, Riyadh, and Tehran, and in 2040 in Amman and Cairo. Capital cities are leading in terms of the fertility transition in the baseline year; however, towards the end of the projection periods, city and national values approach each other. Fertility rates are expected to drop below the replacement level by 2050 in all the cases analyzed except in Egypt at the national level (table 1).

TABLE 1 Key demographics in selected capital cities' Middle East and North Africa, baseline year-2050 (projections)

Country/Cities	Total Population (thousand)		Relative increase (%)	Aging Index (65+)		Total Fertility Rate (live births per woman)		
	Baseline year	2050		Baseline year	2050	Baseline year	2050	
Algeria	Algiers	3,216	4,482	39.4	21.7	92.8	2.75	2.00
	Country-wide	36,118	57,435	59.0	20.1	85.2	2.96	1.98
Iran	Tehran	12,687	20,201	59.2	30.7	80.5	1.65	1.50
	Country-wide	80,280	93,553	16.5	22.0	155.1	1.75	1.62
Saudi Arabia	Riyadh	8,002	13,103	63.7	9.1	87.4	2.30	1.81
	Country-wide	32,275	45,056	39.6	12.4	99.4	2.72	1.78
Jordan	Amman	3,785	9,672	155.5	12.9	64.5	2.60	1.53
	Country-wide	9,158	14,184	54.9	10.4	46.0	3.60	2.21
Egypt	Cairo	9,549	12,962	35.7	14.4	52.8	2.41	1.53
	Country-wide	97,552	153,435	57.3	15.4	41.6	3.38	2.36

Source: Based on data provided by National Statistics Office and international organizations such as the United Nations (Department of Economic and Social Affairs, Population Division), the World Health Organization (WHO), and the Demographic and Health Survey (DHS) Program.

Note: Baseline year: Algeria, 2010; Morocco, 2014; Jordan, 2015; Iran, Islamic Rep., and Saudi Arabia, 2016; Egypt, 2017

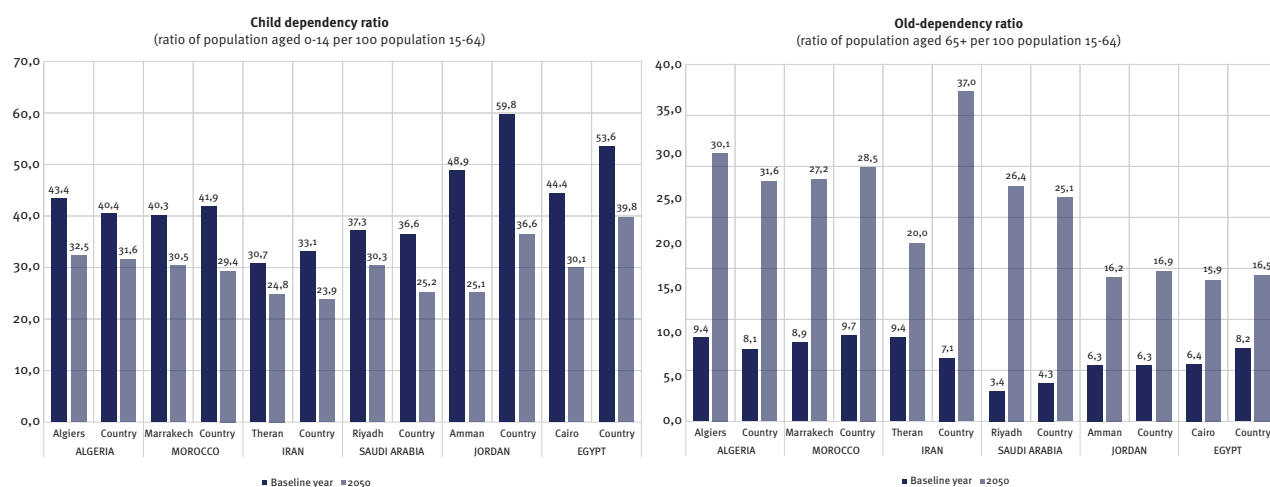
³ Projections of chosen cities were made with the components method, the usual procedure used by official statistical agencies to project national populations. Starting from the last census, the population evolution is simulated on the basis of fertility, mortality, and migration hypotheses. Future births and deaths are estimated from fertility and mortality trends in recent decades. Migration is estimated by differences between overall population growth and natural increase (births minus deaths) during the last intercensal period. When migratory balances are smooth (below 5 per thousand), they remain constant; when they exceed this limit, the trend is assumed to decrease gradually in the future. The time horizon of projections extends from the last census up to 2050.

Migration, therefore, is the main force driving population growth of almost all cities, except Algiers and Cairo.⁴ In Amman, as in Jordan more generally, population growth is clearly linked to the increased influx of migrants, especially those forcibly displaced from Syria, West Bank and Gaza, Iraq, and Libya: between 2004 and 2015, the population growth rate for non-Jordanians was 18 percent, versus 3.1 percent for Jordanians (Athamneh 2016). The projection also underscores how international labor migration shapes the age-sex structure of cities' populations. For example, in Riyadh, the

population is heavily skewed towards men (143 men per 100 women), especially among the adult population (35–59).

The projections also call attention to population ageing, which will accelerate in cities over the coming decades, in line with national trends. The increase in the old-age dependency ratio between the baseline year and 2050 is projected to be substantial for all the selected cities, especially cities such as Riyadh, where the old-age dependency ratio is expected to increase almost to eight times its baseline value (figure 13).

FIGURE 13 Child and old-age dependency ratios in selected cities and countries in the Middle East and North Africa, baseline year and 2050 (projections)



Source: At city level, based on data provided by National Statistics Office; at country level, based on data provided by the United Nations, Department of Economic and Social Affairs, Population Division 2017.

Note: Baseline year: Algeria, 2010; Morocco, 2014; Jordan, 2015; Iran, Islamic Rep., and Saudi Arabia, 2016; Egypt, 2017

⁴ Net change due to migration was obtained from the difference between overall population growth and natural increase (births minus deaths) during the last intercensal period. Net migration by age and sex was estimated based on the Census Survival Rate Method (see Arriaga 1994).

IV. Urban and demographic development challenges and policy implications

The Middle East and North Africa region is in the midst of a spatial demographic transformation. Population growth, widespread urbanization, forced displacement flows due to conflict, and high exposure to climate risk as one of world's most water-stressed regions are changing the geographical distribution of the region's inhabitants. The region is also experiencing a rapid increase in the share of its young and working-age population, which presents both opportunities and challenges.

In this context, the region's four most pressing challenges at the intersection of demographic and urbanization trends are:

How to address forced displacement due to conflict, which is largely an urban crisis. In a very short time, forced displacement due to conflict has partly overridden the region's secular urban population growth trends. Forced displacement has become part of the overall urbanization trajectory in the region and has led to rapid urban population growth. With forcibly displaced people now blending into urban populations rather than being segregated in camps, traditional programs that target internally displaced

persons or refugees have ceased to work. In this constantly evolving urban and social fabric, the location and needs of host and displaced communities are increasingly hard to distinguish. Place-based policies have a central role to play, but they pose clear challenges to local authorities for urban service delivery, and fundamentally change the equation of effective policy responses.

How to ensure job opportunities for young people in cities. The youth bulge poses enormous opportunities and massive challenges, particularly in generating sufficient employment opportunities in cities. Young people across the region face one of the highest youth unemployment rates in the world, and constitute about 51 percent of the region's unemployed (ESCWA and UNPY 2011; Youth Policy Labs 2014). The average unemployment level of young people ages 15–24 is lowest in the GCC countries (16.2 percent) and higher in the Levant (31.6 percent) and in North African countries (32.8 percent) (ASDA'A Burson-Marsteller Arab Youth Survey 2017). Youth exclusion from employment is most prominent in poor suburbs of large cities and

in smaller urban centers in lagging regions. Finding appropriate policy responses is one of the region's defining demographic and urbanization challenges.

How to address spatial inequality, given the region's unbalanced development. Some areas in the Middle East and North Africa region, historically disadvantaged by inadequate geographic or economic connectivity to their country's economic core, are home to many poor people. Reducing regional disparities has been a stated priority for many countries in the region for at least the past decade, but despite considerable intervention and public expenditure, results have been limited. Finding new and effective approaches to spatial inequality, in cities and beyond, will be key in the years ahead.

How to manage climate change–induced migration and its links to conflict. Climate change–induced migration is an increasing issue for the Middle East and North Africa. As one of the world's most water–scarce areas, the region suffers from recurring drought. Although the contribution of climate change—specifically, drought—to social unrest in the run–up to the conflict in Syria (and others) is subject to debate, policy makers will need to address climate change's link to migration and to the challenges posed by urbanization and changing demographics. Urban areas in particular will have to prepare for a sudden influx of migrants due to droughts or conflicts (or a combination thereof), and develop new strategies to manage sudden population increases. It is essential to support cities as they plan for the demographic shifts of the future.



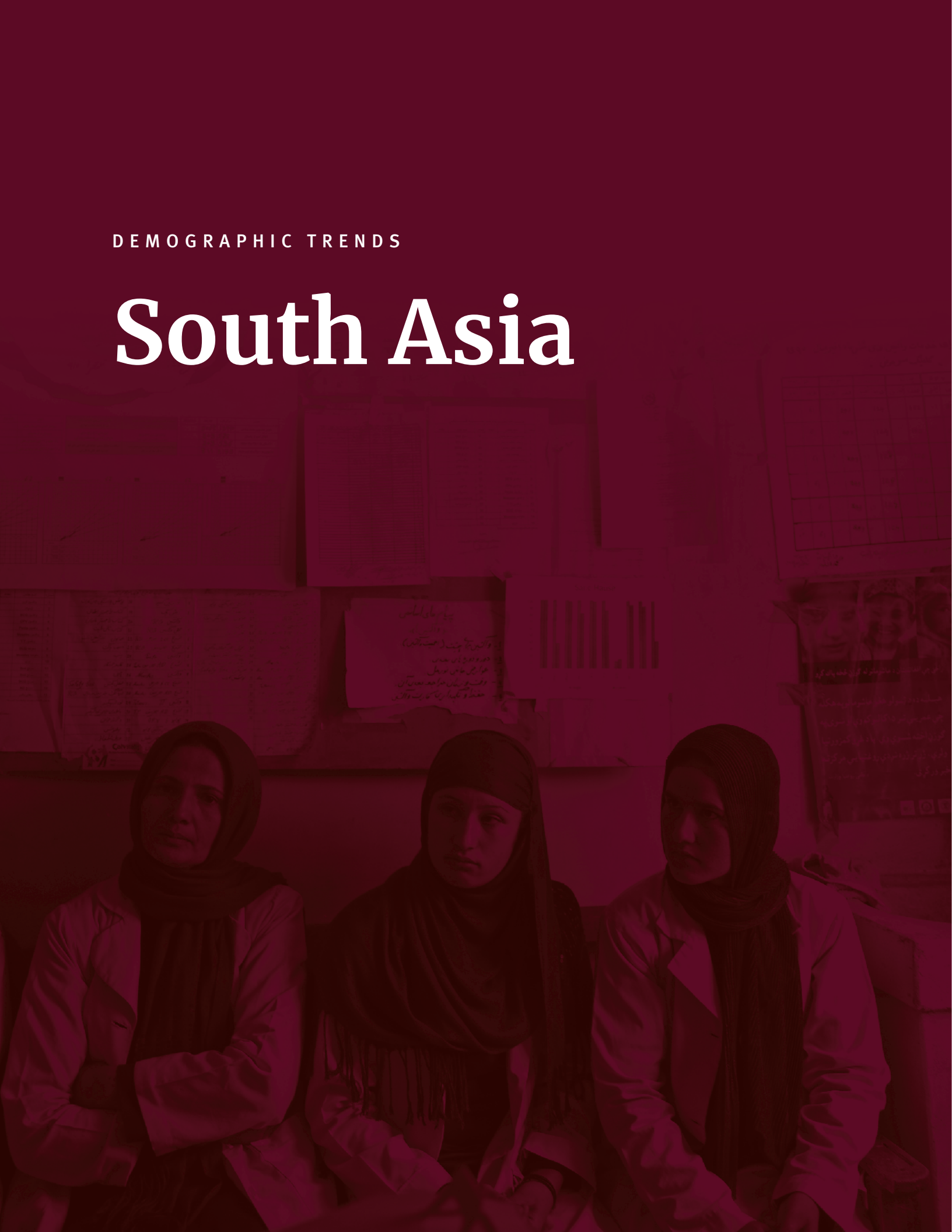
References

- Amroussia, Nada, Isabel Goicolea, and Alison Hernandez. 2016. "Reproductive Health Policy in Tunisia: Women's Right to Reproductive Health and Gender Empowerment." *Health and Human Rights* 18 (2): 183–194.
- Arriaga, Eduardo. 1994. *Population Analysis with Microcomputers, Volume I and II*. Documentation for Population Analysis System (PAS) Software. United States Census Bureau. <https://www.census.gov/data/software/pas.html>.
- ASDA'A Burson-Marsteller Arab Youth Survey. 2017. *The Middle East—A Region Divided*. A White Paper on the findings of the ASDA'A Burson-Marsteller Arab Youth Survey 2017. Dubai: ASDA'A Burson-Marsteller.
- Athamneh, Abdel Baset. 2016. "Jordanian Refugee Policy." Country profiles, Jordan, Bundeszentrale für politische Bildung (Federal Agency for Civic Education) website. Last modified September 22, 2016. <http://www.bpb.de/gesellschaft/migration/laenderprofile/234510>.
- Engelhardt, Henriette, and Florian Schulz. 2017. "Demographic developments in the Middle East and North Africa." University of Bamberg Demographic Discussion Papers No. 20/2017, University of Bamberg, Bamberg, Germany. https://www.uni-bamberg.de/fileadmin/uni/fakultaeten/sowi_lehrstuehle/bevoelkerungswissenschaft/Publikationen/DiscussionPaper/mena_2017-08-01_DDP_20-2017.pdf.
- ESCWA (United Nations Economic and Social Commission for Western Asia) and UNPY (United Nations Programme on Youth). 2011. "Regional Overview: Youth in the Arab Region." United Nations, New York.
- Hussein, Shereen, and Mohamed Ismail. 2016. "Ageing in the Middle East and North Africa: Towards a New Model of Care." PowerPoint presented at the 4th International Conference on Evidence-based Policy in Long-term Care, London School of Economics, September 6, 2016. <https://www.ilpnetwork.org/wp-content/media/2016/10/Hussein-MENA-ageing-in-ARAB-region-ILPN.pdf>.
- International Organization for Migration (IOM) Regional Office for the Middle East and North Africa. 2016. "Migration to, from and in the Middle East and North Africa: Data snapshot." International Organization for Migration. https://www.iom.int/sites/default/files/country/mena/Migration-in-the-Middle-East-and-North-Africa_Data%20Sheet_August2016.pdf.
- Ghosh, Tilottama, Rebecca L. Powell, Christopher D. Elvidge, Kimberly E. Baugh, Paul C. Sutton, and Sharolyn Anderson. 2010. "Shedding Light on the Global Distribution of Economic Activity." *The Open Geography Journal* 2010 (3): 147–160. doi:10.2174/1874923201003010147.
- Krishnan, Nandini, Gabriel Lara Ibarra, Ambar Narayan, Sailesh Tiwari, and Tara Vishwanath. 2016. *Uneven Odds, Unequal Outcomes: Inequality of Opportunity in the Middle East and North Africa*. Directions in Development. Washington, DC: World Bank. doi:10.1596/978-1-4648-0786-2.
- McKee, Musa, Martin Keulertz, Negar Habibi, Mark Mulligan, and Eckart Woertz. 2017. "Demographic and Economic Material Factors in the MENA Region." Working Papers No. 3., Mapping geopolitical shifts, regional order and domestic transformations, Middle East and North Africa Regional Architecture (MENARA), October 2017. http://www.iai.it/sites/default/files/menara_wp_3.pdf.
- McKinsey Global Institute. 2016. *Urban World: Meeting the Demographic Challenge*. San Francisco, CA: McKinsey Global Institute.

- Mtjiyawa, Abdoul' Ganiou, Alexander Kremer, and Lori Whitmore. 2012. "Does Mena's Governance Lead to Spatial Agglomeration?" *Middle East Development Journal* 4 (2): 1250010-1–1250010-23. doi:10.1142/S1793812012500101.
- Population Reference Bureau. 2008. "Fertility Declining in the Middle East and North Africa." PRB.org, January 24, 2008. <https://www.prb.org/menafertilitydecline/>.
- Puschmann, Paul, and Koen Matthijs. 2015. "The Demographic Transition in the Arab World: The dual role of marriage and family dynamics and population growth." In *Population Change in Europe, the Middle-East and North Africa: Beyond the Demographic Divide*, edited by Koenraad Matthijs, Karel Neels, Christiane Timmerman, and Jacques Haers, 119-171. Farnham, Surrey, United Kingdom: Ashgate Editors. https://www.researchgate.net/publication/271813923_The_Demographic_Transition_in_the_Arab_World_The_Dual_Role_of_Marriage_in_Family_Dynamics_and_Population_Growth.
- Shäfer, Katja. 2013. "Urbanization and urban risks in the Arab region." PowerPoint presented at the 1st Arab Region Conference for Disaster Risk Reduction, Aqaba, Jordan, March 19–21, 2013. UN-Habitat. https://www.preventionweb.net/files/31093_habitataqabaurbanresillience.pdf.
- Sinjab, Lina. 2010. "Syrian Drought Triggers Rural Exodus." *BBC*, August 29, 2010. <https://www.bbc.com/news/world-middle-east-11114261>.
- UN DESA (United Nations Department of Economic and Social Affairs). 2014. *World Urbanization Prospects: The 2014 Revision*. New York: United Nations.
- UN-Habitat (United Nations Human Settlements Programme). 2012. *The State of Arab Cities 2012: Challenges of Urban Transition*. Nairobi: UN-Habitat.
- UNHCR (United Nations High Commissioner for Refugees). 2017. *Global Trends: Forced Displacement in 2016*. Geneva: UNHCR.
- UN DESA (United Nations Department of Economic and Social Affairs) Population Division and UNICEF (United Nations International Children's Fund). 2014. "Migration Profiles: Saudi Arabia." Migration Profiles Common Set of Indicators. <https://esa.un.org/migmgprofiles/indicators/files/saudi Arabia.pdf>.
- Verner, Dorte, ed. 2012. *Adaptation to a Changing Climate in the Arab Countries: A Case for Adaptation Governance and Leadership in Building Climate Resilience*. MENA Development Report. Washington, DC: World Bank.
- World Bank. 2014. *Natural Disasters in the Middle East and North Africa: A Regional Overview*. Washington, DC: World Bank.
- World Bank. 2017. "Cities of Refuge in the Middle East: Bringing an Urban Lens to the Forced Displacement Challenge." Policy Note, World Bank, Washington, DC.
- World Bank. 2018. *Beyond Scarcity: Water Security in the Middle East and North Africa*. MENA Development Report. Washington, DC: World Bank.
- World Bank. 2019. World Development Indicators data. Online Edition. Revised January 1, 2019. <https://datacatalog.worldbank.org/>.
- Youth Policy Labs. 2014. "Middle East and North Africa: Youth Facts." YouthPolicy.org. <http://www.youthpolicy.org/mappings/regionalyouthscenes/mena/facts/>.

DEMOGRAPHIC TRENDS

South Asia



- The South Asian region includes mostly early-stage dividend countries with fertility rates below 4 births per woman and an increasing working-age share of the population.
- The combination of increasing life expectancy, falling fertility rates, and low old-age dependency ratios has created the conditions for a “youth bulge” generation in South Asia.
- South Asia has disproportionately fewer women than men, especially at birth, compared with the global average. The gender disparity could have profound effects on, among other indicators, women’s labor force participation rate and national marriage rates.
- The old-age dependency ratio (the ratio of people aged 65 and older to working age people aged 15–64) has started to rise in the region, shifting the composition of the dependent population from young to old.
- Despite the common perception, urban population growth is mainly driven by natural growth and in-situ reclassification rather than rural-to-urban migration. Congestion and weak urban management may undermine cities’ pull factors.
- Results from city-level population projections highlight the importance of fully reaping the benefits of the demographic dividend in the region’s urban centers and the urgency of preparing for and managing future urban growth.



South Asia's urban population has increased substantially since the beginning of the twenty-first century, with the region's towns and cities adding more than 130 million people. If managed well, urbanization promises greater prosperity and an economic transformation toward greater productivity and development. However, cities' failures to deal effectively with unprecedented population growth and concomitant congestion may lead to low quality of life and the concentration of poverty in South Asian urban centers. The prevalence of slums and uncontrolled urban sprawl are indicative of a lack of effective urban planning in the region.

South Asian countries have an opportunity to leverage the benefits of urbanization and the demographic dividend that the region is experiencing right now. If productively employed, a growing young and working-age population, especially in urban areas, can generate rising incomes

and prosperity. Agglomeration forces in cities can further amplify this trend. But poor livability in South Asian cities is undermining these benefits and reducing rural-to-urban migration. Gender disparities are also more pronounced in urban than in rural areas, highlighting the importance of studying more closely the demographic dynamics at play in the region's cities so that decision makers can develop effective policy responses.

This note will begin with a summary of the region's main demographic trends, focusing in particular on the youth bulge and existing gender disparities. It will then describe the main urban trends and how they interact with rapid urban population growth, pointing to the need for the region to better leverage both urbanization trends and demographic change. It will conclude with a review of the main challenges the region is facing and relevant policy questions and implications.

I. Main demographic trends

Most South Asian countries are classified as “early-dividend” countries, with fertility rates below 4 births per woman and an increasing working-age share of the population.¹ In all countries in South Asia except Sri Lanka, total population will continue to increase beyond 2050. Urban growth will drive this population expansion, as the growth of rural populations is leveling off. Rural populations have already peaked in Maldives (in 2000), and in Bangladesh and Bhutan (in 2015); they will peak in India, Pakistan, and Sri Lanka by 2030, in Nepal by 2035, and in Afghanistan by 2045.

Even as total population continues to increase, fertility rates have declined in South Asian countries (figure 1), in line with global trends. The fertility rate will fall below the replacement level of 2.1 births per woman very soon in most countries—and likely already has in Bangladesh, Bhutan, Maldives, Nepal, and Sri Lanka. India’s fertility rate will fall below the replacement level between 2025 and 2030². However, Afghanistan’s will follow much later, by 2050, and Pakistan’s by 2060.

The reason population continues to increase despite below-replacement fertility rates is that life expectancy has significantly increased and infant mortality significantly fallen in recent decades: infant mortality rates dropped by 40 percent between 1990 and 2017.³ From 1950–55 to 2010–15, life expectancy at birth increased by 40 percent or more in seven of the region’s eight countries (Sri Lanka’s increased by only 20 percent but started much higher than the others, at 54.5 years). The largest gains were in Maldives (a gain of 41.8 years), thanks in part to a major push for better maternal healthcare in the 1990s (UNFPA 2016).

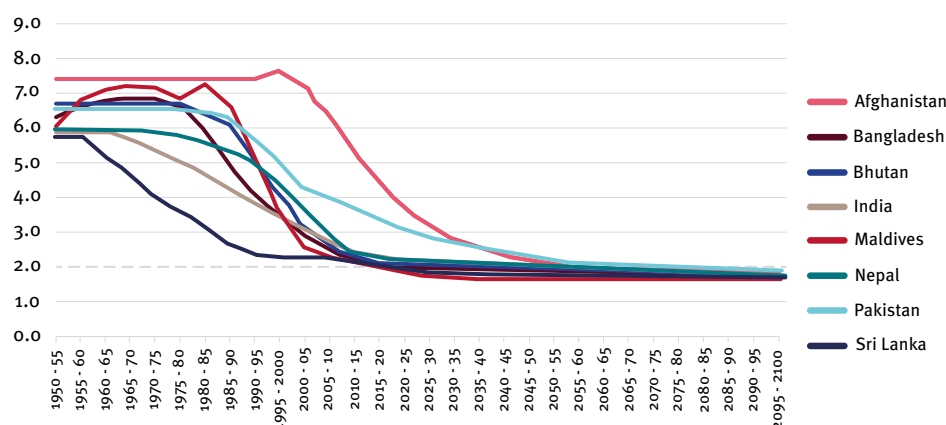
The youth bulge

The combination of reduced infant mortality and falling fertility rates has created the conditions for a “youth bulge” in South Asia. The youth bulge phenomenon can be found globally, and typically occurs when “a country achieves success in reducing infant mortality, but mothers still have a high fertility rate” (Lin 2012). Once it reaches working age, if the

1 Only Afghanistan is a “pre-dividend” country, with more than 4 births per woman and a high dependency ratio (though it is expected to decline as young people age). Sri Lanka is a “late-dividend” country, with fertility rates close to or above replacement levels and a shrinking working-age share of the population.

2 Note that national census figures may vary from the UN’s 2017 World Population Prospects projections. For example, per the Census of India 2011, the country reached replacement rates in 2019 (MOHFW 2020). In this chapter, UN WPP figures are used when comparing between countries in South Asia.

3 From 91.7 per 1,000 live births in 1990 to 36.4 in 2017, according to estimates developed by the UN Inter-agency Group for Child Mortality Estimation (UNICEF, WHO, World Bank, UN DESA Population Division) at childmortality.org.

FIGURE 1 Fertility rates are declining in all South Asian countries, 1950-2100


Source: Author's calculations based on UN DESA 2017.

large generation can be absorbed by the labor market, income per capita should rise, other things being equal; the youth bulge will become a demographic dividend. However, if young people are unable to find productive employment, the youth bulge phenomenon can fuel political and social instability.

In past decades, the population structure of the South Asia region has been a pyramid shape: it was heavily skewed toward the young population, with the 0–4 age range the largest group. This has changed with falling fertility rates and increasing life expectancy, generating a bulging generation in the middle. This population cohort, born between 2006 and 2010, will remain the largest for the next 40–50 years, even as its members graduate into higher age bands, because each generation born after it will be smaller. For example, in 2015, the largest cohort was ages 5–9; in 2050, that same cohort, then aged 40–44, will still be the largest.

The degree and specific generation of the demographic bulge vary across countries. Figure 2

highlights the estimated year when each country will see the largest group of 20- to 24-year-olds. This year is important because it marks the age when the most young people aim to enter the workforce at once.

As the figure shows, the youth bulge was most dramatic in Maldives in 2010. A moderate youth bulge occurred in Sri Lanka in 2005 and in Bhutan in 2010, and will occur in Nepal in 2025 and in Sri Lanka (again) in 2030. Smoother transitions should occur in Bangladesh in 2025, India in 2030, Afghanistan in 2060, and Pakistan in 2065.

Productive opportunities that could absorb the increasing young and working-age population in South Asia are limited. Youth unemployment rates are already four times greater than those of adults in the region. In the next five years, around 2.1 million young people in the region are set to enter the labor force. This is likely to exacerbate the existing unavailability of productive jobs in the region (ILO 2015).

BOX 1 Youth unemployment leads to social and political unrest in Bangladesh

In April 2018, students blockaded roads in Dhaka for several days to protest the quota system for public-sector jobs. Among youth with a tertiary education, the unemployment rate had increased more than elevenfold in under a decade, from less than 3 percent in 2010 to 34 percent in 2017. In the same period, the number of unemployed graduates increased twelvefold, and the workforce is expected to continue outgrowing job creation. Bangladesh will have to generate strong employment demand for new labor entrants, especially by transforming the basis of its economy from agriculture to manufacturing to, eventually, the service sector.

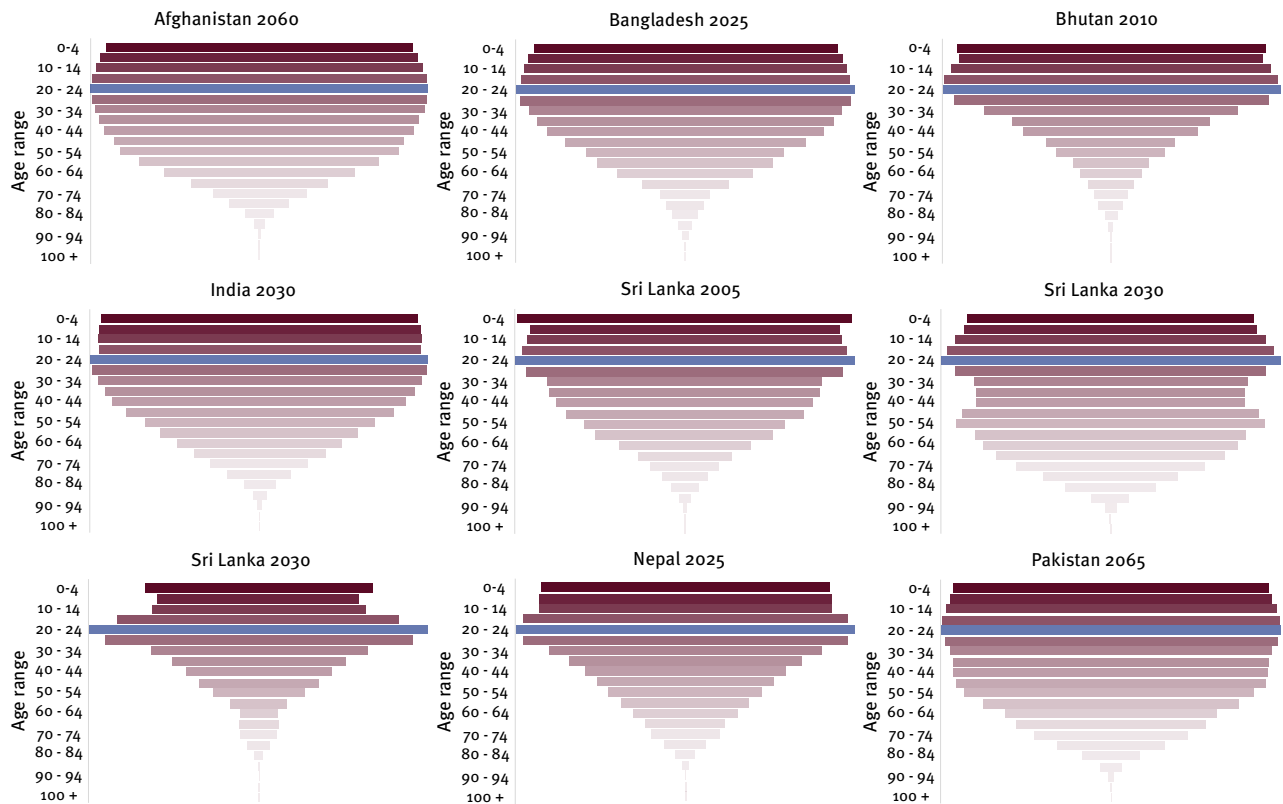


Cities in South Asia will feel the effects of the youth bulge more than rural areas.

The main factors contributing to a youth bulge are more pronounced in urban areas: increasing life expectancy, falling fertility rates, and declining dependency ratios. Urbanization is correlated with increased life expectancy, though the relationship is somewhat mitigated by risks more prevalent in urban areas, such as communicable and chronic diseases (Eckert and Kohler 2014). Fertility rates have been consistently lower in urban areas than in rural areas, and they are falling faster among urban women in some countries, including Bangladesh (UN DESA 2002). And the child dependency ratio is consistently lower in urban areas than in rural areas—36.8 percent in urban areas in South Asia in 2005, compared with 43.4 percent in rural areas (Anríquez and Stloukal 2008).

The risks related to a bulging young population unable to find productive employment are especially pronounced in fragile and conflict-affected countries, where youth-bulge effects could interact with high levels of urbanization fueled by internal migration and displacement. For example, unemployment in urban areas remains a major challenge amongst youth in Afghanistan. About two-thirds of the population is below 25, and about one in four—many of them displaced—reside in ‘informal settlements’ on the peripheries of cities. Demographic and socioeconomic trends, compounded by the lack of economic safety nets, increase the risk of further conflict. In a study of urban displaced youth conducted in three important urban centers in Afghanistan in 2013, it was found that only 9 percent of respondents were permanently employed (Schmeidl and Bose 2016).

FIGURE 2. The youth bulge will occur in every South Asian country but will age into the workforce at different times.



Source: Author’s calculations based on United Nations Population Division (2017).

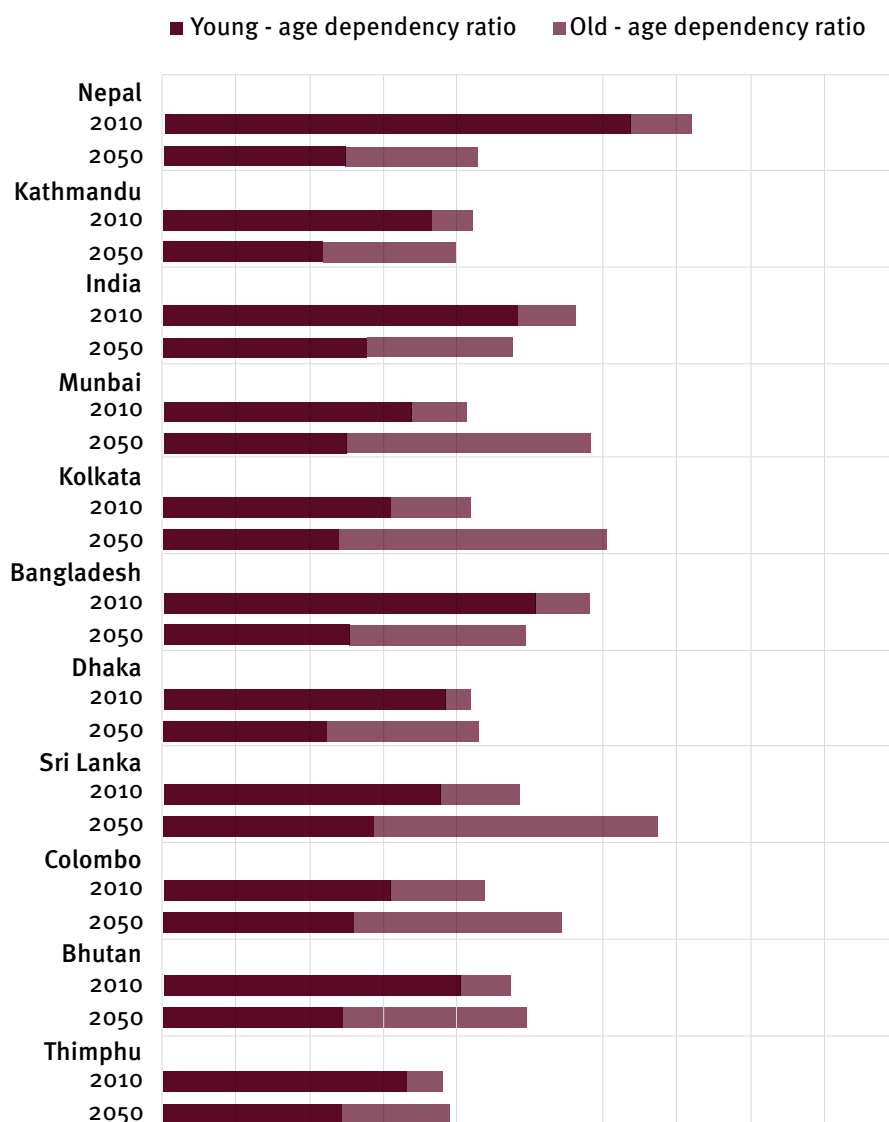
Note: Red bar indicates the largest generation in absolute numbers, representing the youth bulge.

Aging

Aging is not an immediate concern for the region, but may emerge as an important issue after 2050, when the largest generation reaches age 65 (figure 3). The vast majority of the dependent population in South Asia are children, so total dependency ratios have declined over the past two decades as young people entered the workforce. On the other hand, since the 1960s, the old-age dependency ratio (the ratio of people aged 65 and older to working-age

people between 15 and 64) has started to rise, shifting the composition of the dependent population from young to old. In India, for example, total dependency and old-age dependency ratios will both increase in Mumbai and Kolkata, even as total dependency shrinks nation-wide. Both Sri Lanka and Bhutan will see their total dependency and old-age dependency ratios increase nationally and in their largest cities, but to different degrees.

FIGURE 3 Aging may emerge as a challenge by 2050 in some South Asian cities



Source: Author's calculations based on UN DESA 2017.

Note: Young-age dependency ratio is the ratio of population aged 0 to 15 per 100 population aged 15–64. Old-age dependency ratio is the ratio of population aged 65+ per 100 population aged 15–64.



II. Missing women

The demographic phenomenon of “missing women”—disproportionately fewer women than men, especially at birth, compared with the global average—appears across Asia. For all countries in South Asia, the sex ratio (women per 100 men) has consistently been slightly lower in the youngest age cohorts. The trend has become more pronounced in recent decades in Afghanistan, Bhutan, Maldives, and India (figure 4). Some of the underlying causes may include the availability of sex-selective abortions and neglect of young girls (Guilmoto 2007). In older cohorts, the ratio evens out, and eventually women predominate slightly because their life expectancy is higher than men’s.

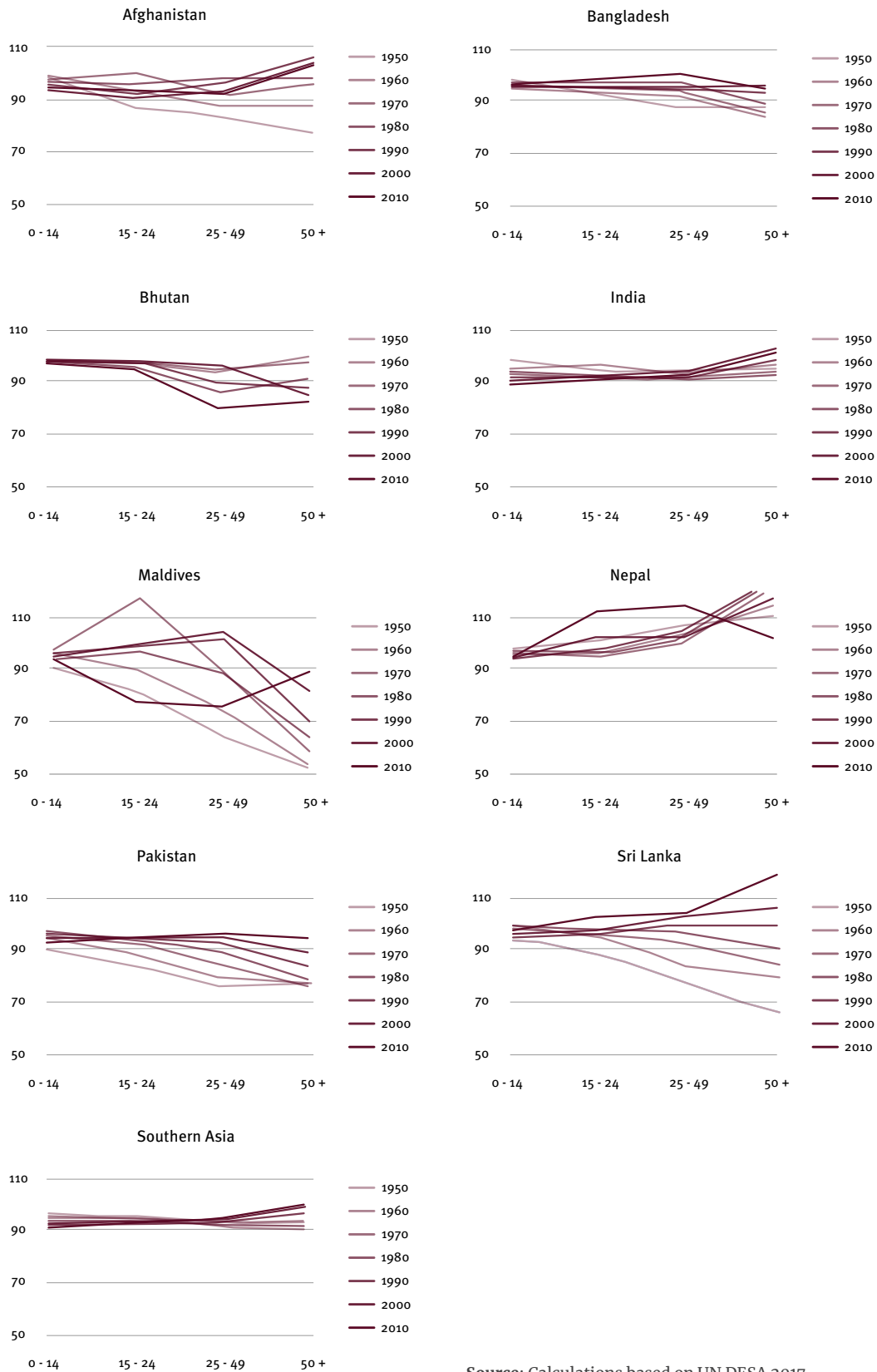
However, the regional trend conceals significant variation across countries. Afghanistan and India mirror the regional trend, where the gender imbalance has worsened slightly for the youngest cohorts but improved for women above age 50, who outnumber men. In Bangladesh and Pakistan, the historically wide gender survival gap, favoring men at all ages, largely disappeared by 2010. Nepal has reversed its gender disparity in survival and now counts far more women than men in the 15–49 group but far fewer women than men above age 50. Sri Lanka’s sex ratio above age 50 completely reversed between 1950 and 2010, from heavily

favoring men to favoring women. Bhutan’s gender gap in survival is negligible for children and youth (under age 14) but diverges quickly for ages 25 and older. Maldives made progress through 2000 in improving the ratio of women to men under age 50, but the gains were completely lost by 2010; in the 15–50 age group, women are now outnumbered by men by at least 25 percent.

The relative scarcity of women of marriage and child-bearing age may reinforce women’s traditional role as caretakers and homemakers, withdrawing them temporarily or permanently from the workforce. South Asia already has one of the lowest female labor force participation rates in the world—30 percent in 2017, behind only the Middle East and North Africa.⁴ A study in India showed that, even as women’s education and prosperity increased from the 1980s to the 2010s, and the onus of *childbearing* was reduced, women’s labor-force participation rate remained stagnant because of the increasing burden of *childrearing*. (Das and Zumbyté 2017). The study elaborated that growing emphasis has been placed on the quality of *childrearing*, yet resources for women have shrunk as family structures changed. Importantly, a deficit of women can produce profound knock-on effects in marriage rates, class-based tensions, gender-based violence, political engagement, and sex trafficking (Guilmoto 2007).

⁴ Based on World Development Indicators data for International Bank for Reconstruction and Development and International Development Association countries.

FIGURE 4. Sex ratio by age group in South Asian countries (women per 100 men)



Source: Calculations based on UN DESA 2017

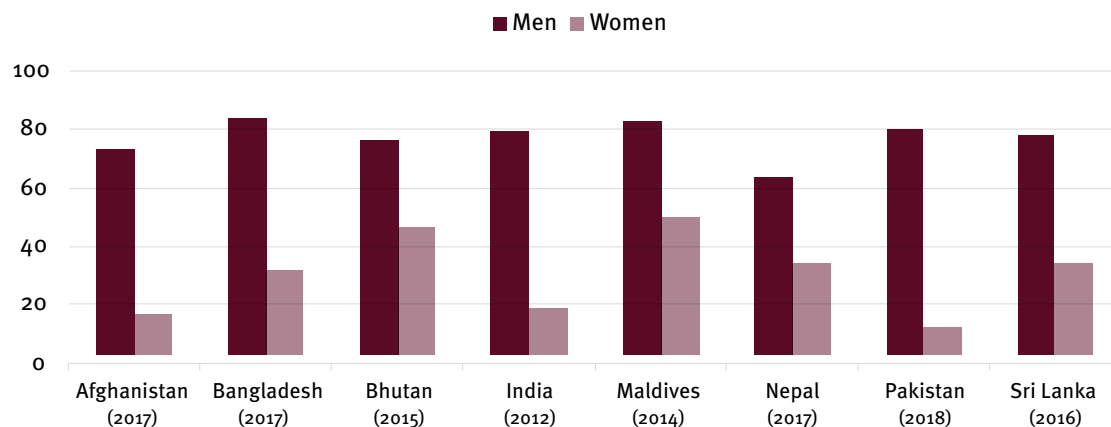
As with the youth bulge, the impacts of the missing women phenomenon are more pronounced in urban areas than in rural areas in South Asia.

Female labor force participation rates among those aged 15 to 64 are lower in urban areas than in rural areas for all countries in South Asia (ILO 2019). While men's labor force participation across South Asian countries is around 80 percent (Pande 2017), South Asia—with the exception of Nepal—has one of the lowest female labor force participation rates (FLFPR) in the world (figure 5). Only 30 percent of women were in the labor force in 2017; the rate was lower only the Middle East and North Africa region.⁵ The disparities are largest in Pakistan (12 percent of women versus 80 percent of men) and Afghanistan (17 percent versus 74 percent) (ILO 2019).

Due in part to changes in the structure of employment (i.e., a decline in agriculture's employment share), the FLFPR has been declining. For example, in urban areas of India, the FLFPR has stalled since the late 1980s, despite rising wages and education levels. On the supply side, men's increasing

education and income levels have reduced the FLFPR; on the demand side, most employment growth occurred in male-dominated construction and low-skilled services, and growth in manufacturing and white-collar services has not been enough to absorb the working-age population of women (Klasen and Pieters 2015). However, female employment is responsive to policy change, as suggested by a recent study conducted by Das et al. 2019 in three cities in Madhya Pradesh, India. The study notes that benefits like paid maternity leave, childcare, and transportation would raise the likelihood of women's employment, but small businesses and micro-firms are often not able to afford these incentives. Thus, fiscal and other incentives could encourage firms to hire more women. The World Bank's 2019 World Development Report on The Changing Nature of Work offers further recommendations for increasing women's employment opportunities, such as removing legal restrictions on women's work in specific fields, providing equitable paternal leave for both men and women, and job placement support.

FIGURE 5. Female labor force participation rates in urban areas are far below that of males in all South Asian countries



Source: ILO 2019.

⁵ Based on World Development Indicators data for International Bank for Reconstruction and Development and International Development Association countries.

III.

Main urban trends

Limited rural-to-urban migration

Although South Asia is not highly urbanized, the region's urban population has increased steeply since the start of the millennium and continues to grow (Ellis and Roberts 2016). The region is only one-third urban, less than any other region in the world⁶ (UN DESA 2014). South Asia's urban population is growing by more than 2.5 percent—or approximately 14 million people—a year. The growth rate will not peak until 2035, by which time urban areas will be adding nearly 17 million people a year. However, these estimates may substantially understate the level and rate of urbanization in South Asia. Based on the Agglomeration Index (AI), South Asia is slightly more than half urban, ahead of Sub-Saharan Africa and the East Asia and Pacific region.⁸

In general, national urban population growth can be disaggregated into three sources: natural population growth in existing urban areas, in-situ reclassification of rural settlements to urban settlements, and physical migration of people from rural areas

to urban areas. Globally, about half of urbanization growth is attributed to rural-to-urban migration and reclassification (World Bank and IMF 2016).

A common perception among city leaders in South Asia is that rural-to-urban migration is the most important factor in their cities' growth. Mumbai famously implemented an extremely tight restriction on buildable land in 1964, and restricted it further in 1991, in an attempt to discourage people from moving to the city (Kantak and Oak 2012). Today, in Dhaka, government and civic leaders regularly call for building up secondary cities and moving government functions to stem the flow of migrants.

In reality, geographic mobility appears generally low in South Asia. For example, whereas in the United States, 9 percent of people lived in a different state five years ago, and 40 percent were born in a different state (Ellis and Roberts 2016), in India, just 1.1 percent lived in a different state five years before the 2011 census, and 4.4 percent were born in a different state (MOHA 2011). In Bangladesh, the 2011 census indicated that

⁶ Sub-Saharan Africa is 37.6 percent urban.

⁷ Originally developed for World Bank (2008), the Agglomeration Index (AI) provides a more consistent basis for comparing urbanization across countries and regions by adopting a uniform definition of urban areas.

only 10 percent of the population lived outside the administrative district in which they were born, and that, of those internal migrants, 44 percent had moved from a rural to an urban area, 43 percent had moved from one rural area to another, and 9 percent had moved between cities (Etzold 2015). Compare this to China, where 56 percent of the urban growth from 2000 to 2010 was attributed to rural-to-urban migration (World Bank and DRC 2014).

On the other hand, in some South Asian countries, reclassification accounts for more urban growth than does migration. In India, migration has consistently accounted for only 20 to 25 percent of urban population growth since the 1970s; in the most recent intercensal period, natural increase accounted for 44 percent of urban population growth and reclassification for 30 percent (Pradhan 2013). Though recent data are lacking for Pakistan, from 1981 to 1998, migration accounted for only 26 percent of urban population growth (Karim and Nasar 2003). Similarly, in Nepal during the 1990s, migration accounted for less than one-third of urban population growth (Muzzini and Aparicio 2013a). In Afghanistan, a special case due to conflict, urban-to-rural migration from 2002–03 to 2007–08 was nearly five times more prevalent among respondents than rural-to-urban migration (14 percent compared with 3 percent) (ICON-INSTITUTE Consulting Group 2008). However, most Afghans returning from outside the country in that time settled in Kabul (IOM 2014).

Since the population growth of South Asian cities is driven by natural increase and reclassification rather than internal migration, the hierarchy of urban spaces within each country has remained relatively stable over time. This means that megacities of today are likely to remain the megacities of the future, and the same may hold true for large, medium, and small urban settlements. Even as these cities continue to grow in population, their relative sizes are

likely to remain the same (Ellis and Roberts 2016). With the exception of India, all South Asian countries are characterized by a primary city, with a population at least twice that of the next biggest city (Kabul, Karachi, Dhaka, Thimphu, Kathmandu, and Male.) The strong primacy of these cities in their respective countries is expected to endure, and the challenges they face today will only become more pressing.

Congestion and low livability in South Asian cities

Poor livability in South Asia's cities might explain the lower-than-expected rates of rural-to-urban migration and the generally slow pace of urbanization compared to other regions (Jedwab and Vollrath 2015).⁸ Weak pull factors of major cities can slow a country's demographic transition toward a modern economy.

Agglomeration economies can lead to job creation, particularly in the manufacturing and service sectors in urban areas. On the other hand, congestion forces arising from inadequate urban infrastructure, services, land, housing markets, and environment work against agglomeration economies: they stall city growth and urbanization, stifle productivity and real wage growth, and slow the demographic transition toward a modern economy. Congestion pressures from poorly managed growth in megacities like Dhaka and Karachi may attenuate the ability of countries like Bangladesh and Pakistan to fully reap the benefits of urbanization and agglomeration economies.⁹ One survey in Bangalore, India, found that, for migrants from rural areas, the majority reasons cited for migrating related to better job opportunities and higher expected incomes (Sridhar et al. 2012). While push factors from rural areas remain influential in the decision to migrate, pull factors to urban areas become less of a draw when the expected economic benefits are canceled out by higher cost of living, longer and costlier commutes, and unreliable public services.

⁸ Despite being at an early stage of urbanization (30 percent), South Asia's urban population growth rate is only 3 percent a year and falling. For comparison, at the same stage of urbanization, the urban population growth rates in Sub-Saharan Africa, East Asia, Europe and Central Asia, and the Middle East and North Africa were all 4 percent and above. ⁹ "Agglomeration economies" refers to gains that come out of people and firms moving close to one another in cities and around industrial clusters (Glaeser 2010).

Many urban governments are not prepared to meet the surging demand for land, jobs, transportation, housing, basic services, and resilient infrastructure. An estimated 130 million urban residents in the re-gion live in informal settlements characterized by poor-quality housing, lack of access to services, and exposure to natural hazards. Population growth also faster on the peripheries of major cities, in areas beyond municipal boundaries, exacerbating urban sprawl in the region. The uncontrolled spillover of cities across their boundaries reflects their lack of capacity to manage urban growth and creates new challenges for the delivery of basic services, which become costlier and more difficult to provide in sprawling regions of the city. As a case in point, access to improved sanitation fell from 61 percent to 10 percent over the past two decades in the region’s urban areas (Ellis and Roberts 2016). Road surface increased only 5 percent from 1995 to 2005 in Dhaka, while population increased 50 percent and traffic more than doubled.

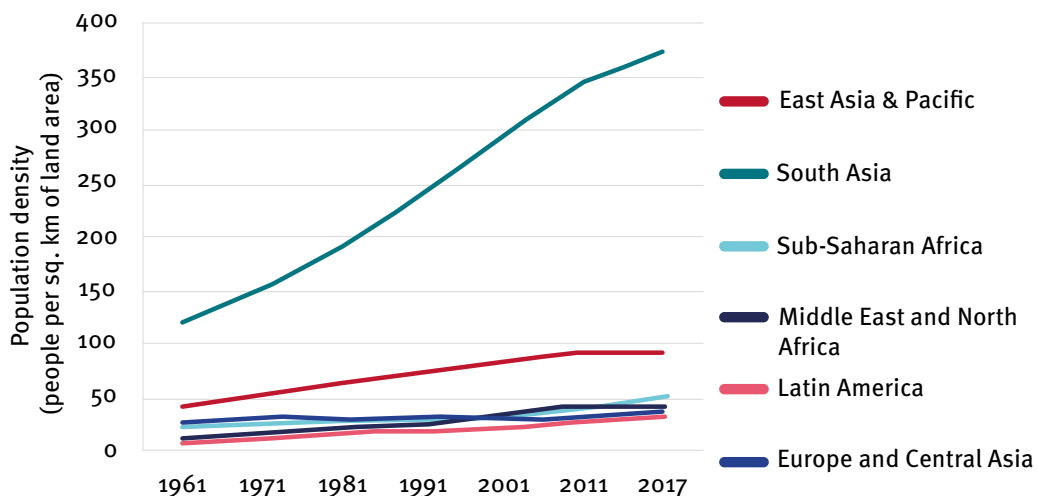
Providing services will only become more challenging as cities increase in area, diversity, and population. However, physical investment in infrastructure alone will not suffice. Policy makers must also proactively tackle dimensions of social exclusion to ensure that population growth

is accompanied by economic growth and prosperity. Cities must create the necessary incentives for women and youth to productively participate in the labor force. Fiscal and other incentives, for instance, could encourage firms to hire more women.

To leverage the demographic dividend, government, educational institutes, industry associations, and the private sector will need to collaboratively work on making skilled jobs in urban areas more attainable for women and young people.

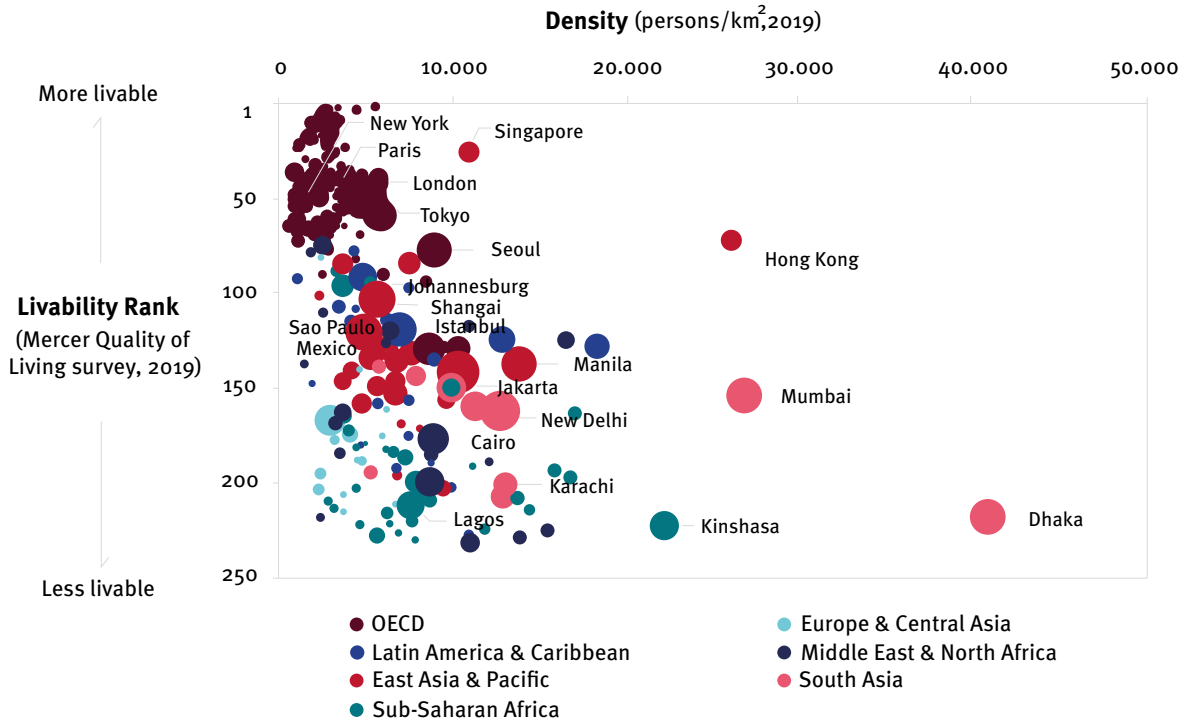
South Asia’s largest cities are some of the least livable places in the world (figures 6 and 7). Dhaka is an extreme case, ranking 217th out of 233 cities by the Mercer Quality of Living index in 2019. Its peer cities are similarly fast-growing megacities in Africa (Lagos, Kinshasa) and places devastated by protracted conflict (Tripoli, Baghdad). Dhaka is also an extraordinary dense city, with an average of 40,000 inhabitants per square kilometer. However, the data show that high density does not necessarily need to go hand in hand with reduced quality of life. Hong Kong and Mumbai have roughly the same density as Dhaka but are ranked 71 and 154, respectively, in terms of livability. The difference in outcomes appears to be strongly linked with the capacity of local governments to manage growth, including through well-functioning land markets.

FIGURE 6. Population Density by Region, 1961-2017



Source: Derived from Food and Agriculture Organization and World Bank population estimates.

FIGURE 7 South Asian cities are dense but not livable.



Source: Mercer 2019 and Demographia 2019.



IV. Key demographic trends at the city level

Population projections¹⁰ for a group of selected cities illustrate the relationship between city-level and national trends. As is the case at the national level, the selected cities have gone through the demographic transition at varying paces. For example, fertility decline, a major component of the transition, has occurred throughout the region, but its time of initiation and pace has differed from one city to another. In the baseline year, the cities are all ahead of the rest of their respective nations in their fertility transition. Total fertility rates are projected to decline over the next few decades, and in 2050, city- and country-level values are expected to

converge, at fertility rates well below replacement levels (table 1).

Despite declining fertility rates, the population of these cities will continue to grow rapidly for several decades due to “population momentum.” As younger cohorts (below age 15) that are relatively larger in size enter the reproductive age group (15–49), there will be a greater number of births overall, even if there are fewer births per woman. South Asia’s young population gives an unprecedented momentum to its population growth. Table 1 also shows that population growth in cities is greater than at the national level (except in India).

TABLE 1 Key demographics in selected capital cities’ South Asia, baseline year and 2050 (projections)

Country/Cities	Total population (thousand)		Relative increase (%)	Total Fertility Rate (live births per woman)		
	Baseline year	2050		Baseline year	2050	
India	Mumbai Municipal Corporation	12,769	15,374	20.4%	1.8	1.8
	Kolkata Metropolitan Region	14,594	15,718	7.7%	1.7	1.7
	Country	1,247,236	1,658,978	33.0%	2.4	1.9
Bhutan	Thimphu Municipality	116	219	89.4%	1.7	1.5
	Country	808	994	23.1%	2.2	1.6
Sri Lanka	Colombo District (Urban Population)	1,825	3,431	88.0%	1.8	1.6
	Country	20,425	20,792	1.8%	2.1	1.8
Bangladesh	Dhaka Metropolitan Area	9,621	15,687	63.1%	1.9	1.5
	Country	153,912	201,927	31.2%	2.2	1.7
Nepal	Kathmandu District	1,778	4,117	131.5%	1.6	1.5
	Country	27,327	36,107	32.1%	2.3	1.7

¹⁰ Projections of chosen cities were made with the components method, the usual procedure used by official statistical agencies to project national populations. Starting from the last census, the population evolution is simulated on the basis of fertility, mortality, and migration hypotheses. Future births and deaths are estimated from fertility and mortality trends in recent decades. Migration is estimated by differences between overall population growth and natural increase (births minus deaths) during the last intercensal period. When migratory balances are smooth (below 5 per thousand), they remain constant; when they exceed this limit, the trend is assumed to decrease gradually in the future. The time horizon of projections extends from last census up to 2050. The cities for the projection were selected on the basis of their regional representativeness, their specific demographic profile (fertility, mortality, migration, age-sex population structure, and population growth) and data availability. Based on the results of the projections, future trends in demographic dynamics of selected cities, especially the magnitude and age-sex population structure, are explored. Results from city-level projections illustrate implications of future demographic changes in cities.

	Population aged 0 to 14 (thousand)		Population aged 15 to 64 (thousand)		Population aged 65+ (thousand)		Aging Index*	
	Baseline year	2050	Baseline year	2050	Baseline year	2050	Baseline year	2050
Mumbai Municipal Corp.	3,052	2,428	9,024	9,721	693	3,226	22.7	132.9
Kolkata Metro. Region	3,189	2,347	10,287	9,798	1,118	3,574	35.1	152.3
Thimphu Municip.	28	39	84	158	4	23	14.7	60.0
Colombo District (Urban Population)	393	579	1,269	2,224	163	628	41.6	108.4
Dhaka Metro. Area	2,602	2,445	6,778	10,968	241	2,274	9.3	93.0
Kathmandu District	457	642	1,251	2,944	70	531	15.3	82.7

Note: The Aging Index refers to the number of elders (aged 65 years or over) per 100 persons younger than 15 in a specific population. This index increases as the population ages.

Source: Based on data provided by the National Statistics Office and international organizations such as the United Nations (Department of Economic and Social Affairs, Population Division), the World Health Organization (WHO), and the Demographic and Health Survey (DHS) Program.

Note: Baseline year: India, Bangladesh, and Nepal, 2011; Sri Lanka, 2012; Bhutan, 2017

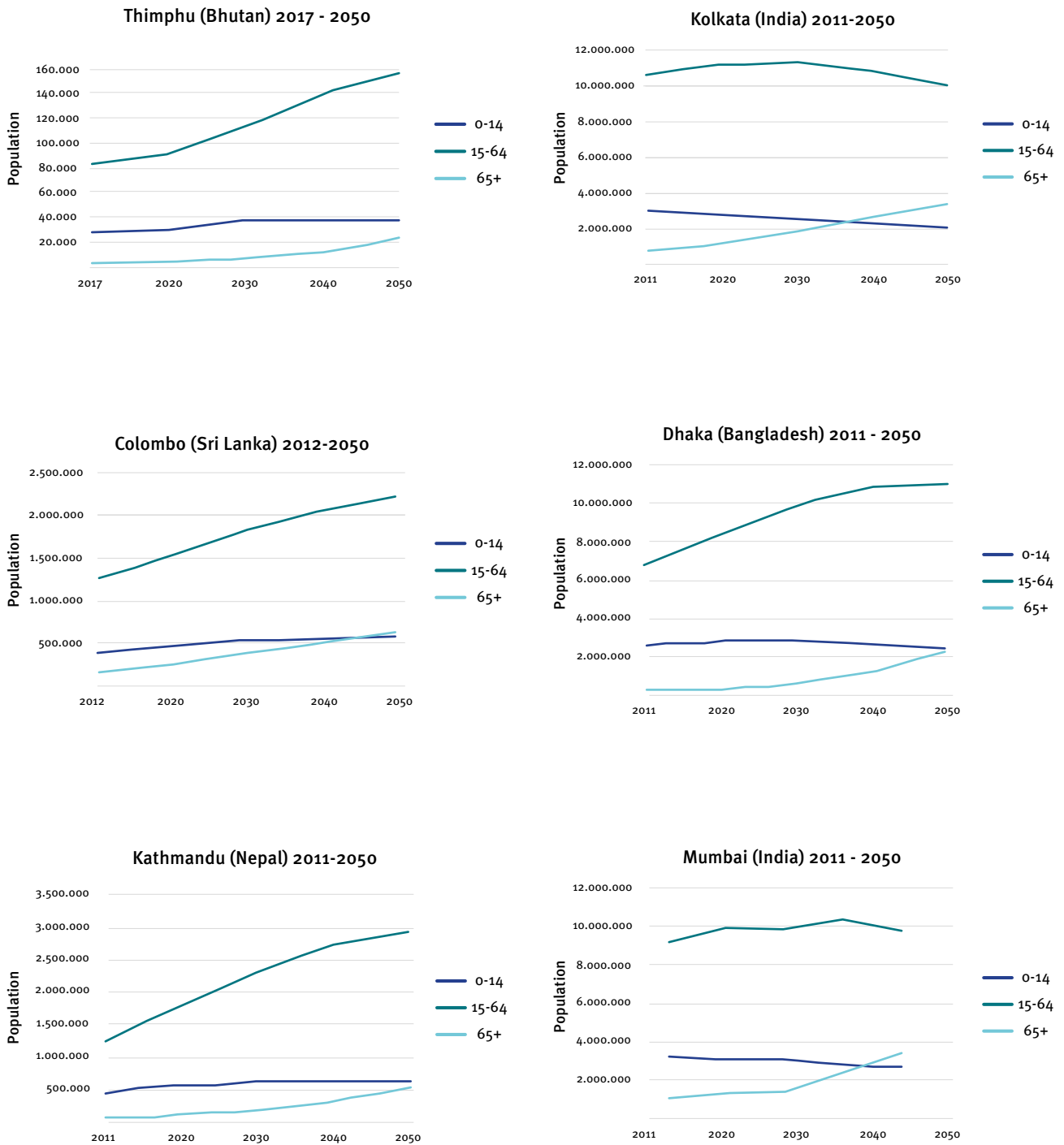
The region's cities benefit from a large working-age population that could be a source of productivity and growth in the region. Figure 8 shows the total youth population (aged 0–14), working-age population (aged 15–64) and elderly population (aged 65+) in six major cities in South Asia (Thimphu, Kolkata, Mumbai, Colombo, Dhaka, and Kathmandu). In nearly all those cities, the size of the working-age population is expected to remain stable or grow substantially through 2050. (The exception is Kolkata, where the 15-to-64 cohort will peak around 11 million by 2030.) However, in all cases, as the population over 65 starts to increase as well, the working-age population as a share of the total population will peak and begin to decline. This tipping point has already occurred in Colombo and is expected to occur in Mumbai and Kolkata by 2020, in Dhaka by 2030, and in Thimphu and Kathmandu by 2040. Nevertheless, in all cities, the share of the working population will still remain high—between

65 and 75 percent—through 2050. This opens a demographic window of opportunity in these cities. Leveraging this opportunity will be critical to South Asia's success.

As table 1 demonstrates, for most cities, the relative increase in population will be higher than the national-level increase. These city-level population projection results therefore highlight not only the importance of fully reaping the benefits of the demographic dividend in the region's urban centers, but also the urgency of preparing for and addressing population increases in cities.

Figures 9 and 10 also illustrate the reduction in child dependency ratios in all cities and countries analyzed, and the related increase in old-age dependency ratios between 2010 and 2050, highlighting the shift towards societies with a growing proportion of elderly.

FIGURE 8 Population of youth, working-age population and elderly population in 6 major cities in South Asia



Source: Based on data provided by National Statistics Office and international organizations such as United Nations (Department of Economic and Social Affairs, Population Division), World Health Organization (WHO), and the Demographic and Health Survey (DHS) Program.

FIGURE 9 Reduction of child dependency ratio

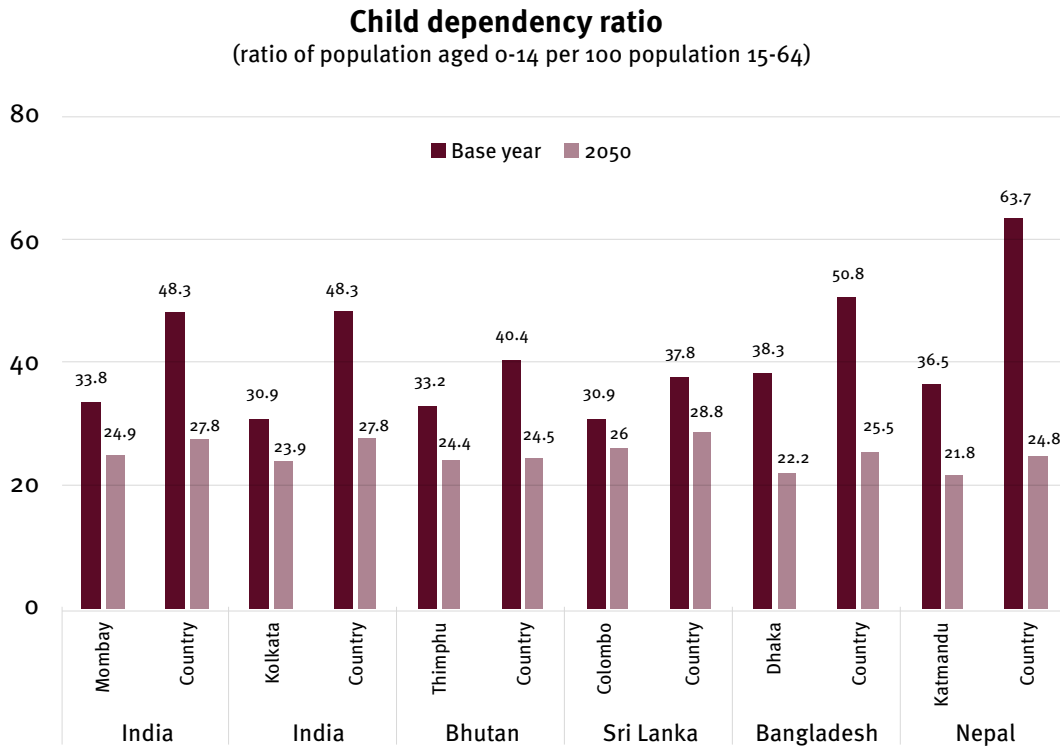
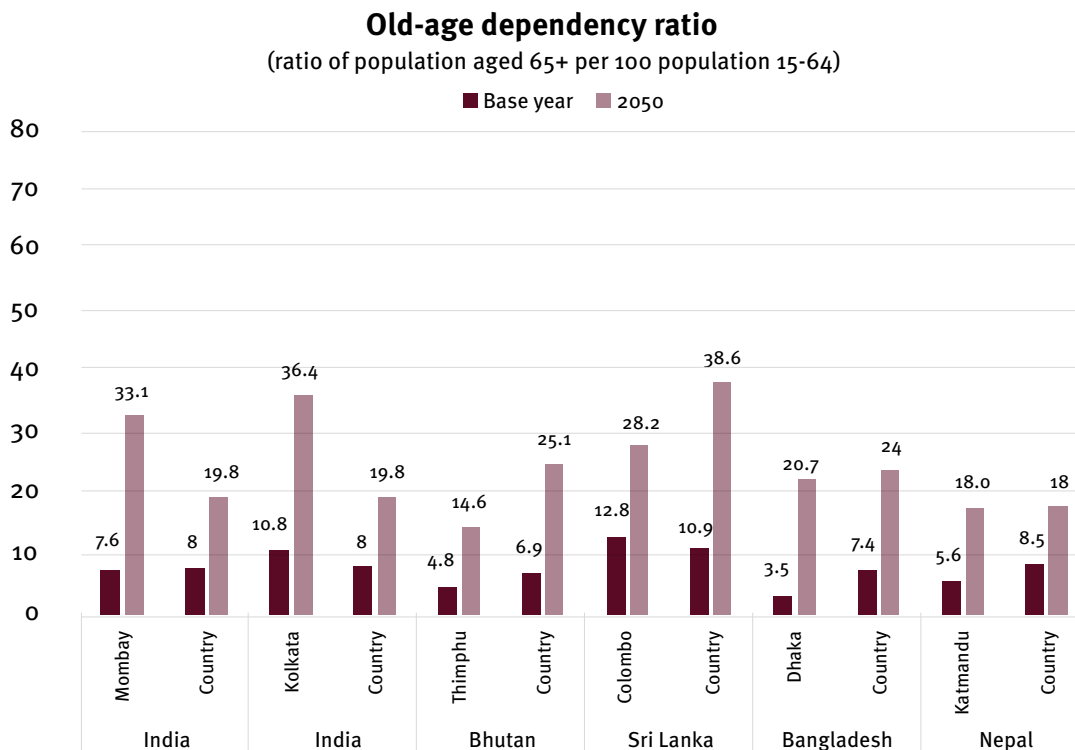


FIGURE 10 Increase in old-age dependency ratio





V. Conclusion

South Asia will continue its rapid pace of urban growth for several decades. If managed effectively, urbanization and demographic change in the region present immense opportunities to advance economic development.

As South Asia's cities become larger and more economically important, proactive and effective urban management is urgently needed. However, most countries' local governance systems struggle with unclear or overlapping institutional roles, limited formal functional and revenue roles, and insufficient autonomy to make independent decisions on important matters.

Demographic trends will interact with and amplify the challenges of rapid urbanization. There exists an opportunity to further investigate the issues and challenges at the intersection of demographic trends and urbanization in the region. To date,

policy dialogue about the urban sector has not substantively examined the issues of high and sudden youth unemployment, diminishing gender equality and limited opportunities for women, and the role of natural increase in urban growth. The sheer investment needs for basic infrastructure and fundamental urban management are simply too great to allow a nuanced discussion.

For these reasons, it is imperative for South Asian countries to continue working to strengthen the mechanisms of good urban governance and urban management, and to empower local governments. These issues lie at the heart of nearly all challenges in service delivery, affordability, social inclusion, and resilience. Sustained support in these areas will help create space in the policy sphere in the near future for those institutions to begin addressing the important interactions between urbanization and demographic change.

References

- Ahasan, Nazmul. 2018. "The Quota Movement Signals an Underlying Discontent." *The Daily Star*, April 26, 2018. <https://www.thedailystar.net/opinion/society/the-quota-movement-signals-underlying-discontent-1567678>.
- Anríquez, Gustavo, and Libor Stloukal. 2008. "Rural Population Change in Developing Countries: Lessons for Policymaking." *European View* 7 (2): 309–17. doi:10.1007/s12290-008-0045-7. <https://journals.sagepub.com/doi/full/10.1007/s12290-008-0045-7>
- Bakrania, Shivit. 2015. "Urbanisation and urban growth in Nepal." Helpdesk Research Report, Applied Knowledge Services, GSDRC. <http://www.gsdr.org/wp-content/uploads/2015/11/HDQ1294.pdf>.
- Brecht, Henrike, Uwe Deichmann, and Hyoung Gun Wang. 2013. A Global Urban Risk Index. Policy Research Working Paper, World Bank, Washington, DC. doi: 10.1596/1813-9450-6506.
- Calì, Massimiliano, and Carlo Menon. 2013. "Does Urbanization Affect Rural Poverty? Evidence from Indian Districts." *World Bank Economic Review* 27 (2): 171–201.
- Das, Maitreyi Bordia, and Ieva Žumbytė. 2017. "The Motherhood Penalty and Female Employment in Urban India (English)." Policy Research Working Paper, No. 8004, World Bank Group, Washington, DC.
- Das, Maitreyi Bordia, Soumya Kapoor Mehta, Ieva Žumbytė, Sanjeev Sasmal, and Sangeeta Goyal. 2019. "Does Culture Matter or Firm? Demand for Female Labor in Three Indian Cities." Policy Research Working Paper, No. 8736, World Bank Group, Washington, DC.
- Demographia. 2019. Demographia World Urban Areas. 15th Annual Edition: 2019. <http://www.demographia.com/db-worldua.pdf> Eckert, Sophie, and Stefan Kohler. 2014. "Urbanization and Health in Developing Countries: A Systematic Review." *World Health and Population* 15 (1): 7–20. doi:10.12927/whp.2014.23722.
- Ellis, Peter, and Mark Roberts. 2016. *Leveraging Urbanization in South Asia: Managing Spatial Transformation for Prosperity and Livability*. South Asia Development Matters. Washington, DC: World Bank.
- Etzold, Benjamin. 2015. "Urbanization, Migration Systems within Bangladesh and Translocal Social Spaces Country profiles, Bangladesh, Bundeszentrale für politische Bildung (Federal Agency for Civic Education) website. Last modified November 30, 2015. <http://www.bpb.de/gesellschaft/migration/laenderprofile/216108/urbanization-migration-systems-within-bangladesh-and-translocal-social-spaces>.
- Fafchamps, Marcel, and Forhad Shilpi. 2005. "Cities and Specialisation: Evidence from South Asia." *Economic Journal* 115 (503): 477–504.
- Glaeser, Edward L., ed. 2010. *Agglomeration Economics*. Chicago: University of Chicago Press.
- Glaeser, Edward. 2011. *Triumph of the City: How Our Greatest Invention Makes Us Richer, Smarter, Greener, Healthier, and Happier*. New York: Penguin Books.
- Graeme, Hugo, and Lakshman Dissanayake. 2014. "The Process of Sri Lankan Migration to Australia Focusing on Irregular Migrants Seeking Asylum." Irregular Migration Research Programme Occasional Paper Series, No. 10|2014, Australian Government, Department of Immigration and Border Protection, Canberra.

- Guilmoto, Christophe Z. 2007. "Sex-Ratio Imbalance in Asia: Trends, Consequences and Policy Responses." Working paper, LPED/IRD, Paris.
- Hesketh, Therese, and Zhu Wei Xing. 2006. "Abnormal Sex Ratios in Human Populations: Causes and Consequences." *Proceedings of the National Academy of Sciences* 103 (36): 13271–13275. doi:10.1073/pnas.0602203103.
- Hudson, Valerie M., and Andrea M. den Boer. 2004. *Bare Branches: The Security Implications of Asia's Surplus Male Population*. Cambridge, MA: MIT Press.
- ICON-INSTITUTE Consulting Group. 2008. *Afghanistan's 2007/8 National Risk and Vulnerability Assessment*. Cologne, Germany: ICON-INSTITUTE.
- ILO (International Labor Organization). 2015. *Global Wage Report 2014/15: Wages and income inequality*. Geneva: ILO (International Labor Organization).
- ILO (International Labor Organization). 2015. *World Employment and Social Outlook: Trends 2015*. Geneva: ILO.
- ILO (International Labor Organization). 2019. "Labor force participation rate by sex, age and rural / urban areas (%)." *ILOSTAT Database*. Accessed May 8, 2019. <http://www.ilo.org/ilostat/>.
- ILO (International Labor Organization) and ILS (International Institute for Labour Studies). 2013. *World of Work Report 2013: Repairing the Economic and Social Fabric*. Geneva: ILS, ILO (International Labour Organization).
- IOM (International Organization for Migration). 2014. *Afghanistan Migration Profile*. Kabul: International Organization for Migration Afghanistan. http://afghanistan.iom.int/sites/default/files/Reports/afghanistan_migration_profile.pdf.
- Jedwab, Remi, and Dietrich Vollrath. 2015. "The Mortality Transition, Malthusian Dynamics, and the Rise of Poor Mega-Cities." Working Paper 16, New York University, Marron Institute of Urban Management, New York.
- Kantak, Abhay, and Gayatree Oak. 2012. "Why Mumbai Hasn't Risen Above Itself." *Financial Express*, September 21, 2012. <https://www.financialexpress.com/archive/why-mumbai-hasnt-risen-above-itself/1005521/>.
- Karim, M. S., and A. Nasar. 2003. "Migration Patterns and Differentials in Pakistan: Based on the Analysis of the 1998 Census Data." In *Population of Pakistan: An Analysis of 1998 Population and Housing Census*, edited by A. R. Kemal, M. Irfan, and N. Mahmood, 173–80. Islamabad: Pakistan Institute of Development Economics.
- Klasen, Stephan, and Jenneke Pieters. 2015. "What Explains the Stagnation of Female Labor Force Participation in Urban India?" *World Bank Economic Review* 29 (3): 449 – 478.
- Lei, Lei, Sonalde Desai, and Reeve Vanneman 2017. "Village Transportation Infrastructure and Women's Non-agricultural Employment in India: The Conditioning Role of Community Gender Context." Working Paper 2017-2, India Human Development Survey, The University of Maryland, College Park, Maryland.
- Lin, Justin Yifu. 2012. "Youth Bulge: A Demographic Dividend or a Demographic Bomb in Developing Countries?" World Bank Blogs, January 5, 2012. <https://blogs.worldbank.org/developmenttalk/youth-bulge-a-demographic-dividend-or-a-demographic-bomb-in-developing-countries>.
- Pande, Rohini. 2017. "Get the policies right first: How to get India's women into the workforce?" *Business Standard*, March 17, 2017. https://www.business-standard.com/article/opinion/rohini-pande-getting-india-s-women-into-the-workforce-117031601398_1.html.
- Mercer. 2019. "2019 city ranking." *Quality of living city ranking*. <https://mobilityexchange.mercer.com/Insights/quality-of-living-rankings>.
- Muzzini, Elisa, and Gabriela Aparicio. 2013a. *Urban Growth and Spatial Transition in Nepal: An Initial Assessment*. Washington, DC: World Bank.
- Muzzini, Elisa, and Gabriela Aparicio. 2013b. *Bangladesh: The Path to Middle-Income Status from an Urban Perspective*. Washington, DC: World Bank.

- MOHA (Ministry of Home Affairs). 2011. "Data on Migration." 2011 Census of India. Office of the Registrar General and Census Commissioner. New Delhi: Government of India. <https://censusindia.gov.in/2011census/migration.html>
- MOHFW (Ministry of Health and Family Welfare). 2020. "Report of the Technical Group on Population Projections." Census of India 2011. https://main.mohfw.gov.in/sites/default/files/Population%20Projection%20Report%202011-2036%20-%20upload_compressed_o.pdf
- Perera, E. L. Sunethra J. 2017. "Fertility transition in Sri Lanka: Is it a temporary phenomenon?" Abstract. *Journal of Biosocial Science* 49 (S1): S116–S130.
- Pradhan, Kanhu Charan. 2013. "Unacknowledged Urbanisation: The New Census Towns of India." Paper 41035, Munich Personal PePec Archive. https://mpa.ub.uni-muenchen.de/41035/2/Unacknowledged_Urbanisation.pdf.
- Schmeidl, Susanne, and Srinjoy Bose. 2016. "Youth Interrupted: The Consequences of Urban Displacement for Young Men and Women in Afghanistan." *Journal of Peacebuilding & Development* 1 (3): 68–82.
- Spence, Michael, Patricia Clarke Annez, and Robert M. Buckley, eds. 2009. *Urbanization and Growth: Commission on Growth and Development*. Washington, D.C.: World Bank.
- Sridhar, Kala Seetharam, A. Venugopala Reddy, and Pavan Srinath. 2013. "Is it Push or Pull? Recent Evidence from Migration into Bangalore, India." *Journal of International Migration and Integration* 14, 287-306 (2013).
- Srivastava, Ravi, and Arvind Kumar Pandey. 2017. "Internal and International Migration in South Asia: Drivers, Interlinkage and Policy Issues." Discussion Paper, United Nations Educational, Scientific and Cultural Organization (UNESCO), New Delhi. <http://unesdoc.unesco.org/images/0024/002494/249459E.pdf>.
- UN DESA (United Nations Department of Economic and Social Affairs), Population Division. 2002. "Fertility Levels and Trends in Countries with Intermediate Levels of Fertility." Background paper, Expert Group Meeting on Completing the Fertility Transition, March 11–14, 2002, New York.
- UN DESA (United Nations Department of Economic and Social Affairs), Population Division. 2014. *World Urbanization Prospects New York: United Nations*.
- UN DESA (United Nations Department of Economic and Social Affairs), Population Division. 2017. *World Population Prospects: The 2017 Revision*. New York: United Nations.
- UNFPA (United Nations Population Fund). 2016. "Stunning Plunge in Maternal Deaths Recorded in the Maldives." UNFPA.org, October 12, 2016. <https://www.unfpa.org/news/stunning-plunge-maternal-deaths-recorded-maldives>
- World Bank. 2008. *Sri Lanka: Addressing the Needs of an Aging Population*. Washington, DC: World Bank
- World Bank. 2017. *World Development Indicators*. World Bank Open Data. <https://data.worldbank.org/indicator/EN.POP.DNST?locations=ES>.
- World Bank. 2018. "Gender Assessment Report (Draft)." Dhaka Urban Upgrading Project, World Bank, Washington, DC.
- World Bank. 2019. *World Development Report 2019: The Changing Nature of Work*. Washington, DC: World Bank.
- World Bank and DRC (Development Research Center of the State Council, The People's Republic of China). 2014. *Urban China: Toward Efficient, Inclusive, and Sustainable Urbanization*. Washington, D.C.: World Bank.
- World Bank and IMF (International Monetary Fund). 2016. *Global Monitoring Report 2015/2016: Development Goals in an Era of Demographic Change*. Washington, DC: World Bank

Demographic Trends Planning for greater prosperity and well-being in cities

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By 2050, many regions and cities will have undergone a profound change. In the coming decades, we will observe paradigmatic shifts in populations' median age and composition, and see fundamental differences in where and how people live and work. We will have to understand the diverse and often contrasting patterns of population growth, migration, and urbanization across countries and cities if we are to proactively and effectively plan for demographic transitions, urban development, and public services. These demographic transitions – and transformations – will offer both opportunities and challenges, ones that will require that governments, communities, and cities engage with businesses, investors, and citizens. Only with broad engagement across all policy areas will we be able to understand these diverse patterns and concomitant issues, tackle inequalities, and address opportunities for better health, well-being, and prosperity.

Alongside long-term and structural trends in demographics and urbanization, the COVID-19 pandemic presents both immediate and longer-term challenges for societies and economies worldwide. This is particularly the case for cities. Given the many uncertainties, overcoming the challenges of the pandemic will require collaboration and innovation to enable people to thrive in cohesive urban environments.

The regional demographic analyses have demonstrated several major demographic and urbanization trends – some regionally specific, others global in scope. The first part of this discussion offers some cross-regional reflections on these trends. Part II explores the emerging impact of COVID-19 on demographic shifts and urbanization. Part III notes some considerations relevant to the future trajectories of populations and cities.



PART I

Planning for Demographic Transitions

The demographic dividend: responding to diverse contexts and characteristics

Across the globe, regions and cities are growing more slowly or even shrinking, and populations are aging – but at varying speeds. Some countries are still reaping, or are about to enjoy, the demographic “dividend” that comes from having a higher proportion of working age adults (World Bank Group 2016). To benefit effectively from this demographic shift, these “early-dividend” economies must implement policies and incentives that will drive and sustain economic growth. As fertility rates continue to fall and populations age out of the working cohort, these economies will eventually lose this window of opportunity. Late- or post-dividend countries that are farther through this demographic transition already have a rising old-age dependency ratio. Their challenge now lies in supporting a growing older population with a shrinking labor force, and in making cities into productive, livable, attractive, and accessible spaces for their changing populations.

It is crucial that we appreciate how these demographic characteristics differ across regions and countries, and between urban and rural areas. The regional analyses demonstrate that different demographic contexts present governments with vastly different challenges and opportunities; understanding them is key to designing policies and investments that promote shared prosperity and well-being for all.

- In the Middle East and North Africa region, for instance, population growth and high fertility rates have created a “youth bulge” – and the highest youth unemployment rate in the world. In 2018, 26 percent of youth were unemployed, and the labor force is set to grow by 300 million over the next two decades (Saliola 2019). Similarly, in Sub-Saharan Africa, the labor force is increasing faster than the population of those it will support, offering a considerable demographic dividend; but this large working-age population requires a correspondingly large

demand for labor and economic opportunity. The risks that arise when a youth bulge exists in a context of insufficient jobs and services are heightened in urban areas of fragile and conflict-affected countries.

- In late- or post-dividend regions, policymakers are faced with the challenge of shrinking work forces and declining cities that may no longer meet the needs of their residents. Governments must revitalize and reimagine urban areas while providing large aging populations with adequate opportunities as well as financial and social support.
- Some regions demonstrate a mix of these characteristics. Cities in the Latin America and Caribbean region, which has undergone rapid urbanization, remain young, but falling fertility rates mean that an aging and shrinking urban population – and an attendant decline in the demographic dividend – is on the horizon. Policymakers must manage the last stage of intense, short-term expansion while keeping in mind longer-term projections. Planners will have to develop compact cities using universal design principles that can mitigate the pressures of urban expansion but subsequently transition to functional urban environments as the population ages and declines.

Cities around the world are faced with growing older populations. For some late-dividend cities – for instance, in East Asia and the Pacific and in Latin America and the Caribbean – demographic projections predict that a shrinking working-age population will be coupled with rapid aging of the population overall.

- City governments will have to address the impact of changing demography on economic growth and opportunities, productivity, and urban life, as well as fiscal pressures related to health care and social protection (especially

in the Latin America and Caribbean region). Policy- and decision-making processes must take into account changing lifestyles, aspirations, and consumer spending patterns for older adults (Accius and Suh 2019), and opportunities for lifelong learning and work (OECD 2019; UN 2020a; also see VOICE Global). A better understanding of the capabilities and contributions of older populations will help cities become more productive, attractive, and accessible. These trends will also require that municipal leaders focus on attracting productive migrants.

- At the same time, leaders of late- or post-dividend cities – and countries – will have the opportunity to better understand the economic and social contributions of those in mid- to later life, and to challenge assumptions about dependencies and individual needs. Governments must recognize that older adults provide important contributions to the economy and society that are not fully captured by indicators that emphasize dependency. These could include, for example, contributions from older adults who are actively involved in multiple roles, including in paid and unpaid work, civic and voluntary activity in local communities, and vital caregiving for parents, partners, adult children, and grandchildren.

Although population patterns are projected to change in different ways across regions, countries, and cities, demographic trends are linked to several cross-cutting factors: urbanization and urban growth, migration, gender disparities, and aging. As described in the foregoing demographic analyses, these factors drive the direction and speed of demographic change in diverse ways from region to region. However, they are highly interconnected. Below, we examine and explore the implications of some of the interactions between these factors and the world's changing demographics.

Urbanization: the disparate experiences of cities

In cities around the world, both the pace and the direction of demographic transitions vary widely. The regional analyses provide a rich account of these diverse demographic and urbanization trends. Some of this diversity stems from long-standing structural and urbanization processes and histories; other differences are due to current-day challenges and crises, such as inequality and poverty, conflict, and climate change.

Even within countries, urbanization patterns are not the same for all cities. In some countries in the Middle East and North Africa and South Asia, for instance, certain **secondary cities have grown faster than the largest cities.** Secondary cities are also on the rise in East Asia and Pacific region, where they are absorbing migration from surrounding areas. Urbanization is also shifting towards small and intermediate cities in sub-Saharan Africa and in the Latin American and Caribbean region. In eastern Europe, cities are generally shrinking as a result of low and declining fertility rates, emigration (particularly of the younger population), and low or decreasing gains in life expectancy. But the regional analysis also shows diverse spatial patterns – with growth and decline varying between capitals and other urban centers – and different speeds of urban demographic transformation. Even with eastern Europe’s experience of shrinking cities, some national and local governments have yet to acknowledge the scale of the demographic change that cities face, understand its implications (including the needs of a growing older population in terms of city infrastructure), and shape policies to deal with them.

There are also diverse patterns of growth and decline within cities. The peripheries of some cities are home to fast-growing unplanned and informal settlements (e.g., in the Middle East and North Africa). Other cities’ peripheries are expanding as people relocate from the city center, a trend that may well be exacerbated by COVID-related lifestyle changes. As

city centers lose residents to the benefit of the urban peripheries, an older population is left behind – with important implications for planning livable, sustainable cities, and for the role of the urban core.

Aging tends to be more pronounced in cities, shifting the balance from younger to older people. The pace of this demographic transition is most striking in younger cities (for example, Manaus in Brazil, Riyadh in Saudi Arabia, or Maputo in Mozambique). In these cities, the aging trend is rapid, especially when compared to the (much more gradual) world-wide average pace of demographic transitions. Our analysis predicts that the old-age dependency ratio through 2050 will be substantial for the majority of the cities in all of the regions we examined. Africa is notable as the youngest region in the world, but its elderly population is expected to grow at the fastest rate (though the overall share of older persons will remain small). East Asia is aging more rapidly than any other region in history.

But cities’ declining populations do not necessarily equate to worse economic performance. The challenges of aging and shrinking populations also offer opportunities in terms of economy and urban planning. Some of Eastern Europe’s declining cities – in Ukraine, for instance – are performing as well as growing cities, or even better. Additionally, findings from the Latin America and Caribbean region suggest that decelerated or declining urban growth, if managed well, could help cities recover from the effects of previous rapid urbanization.

- Since late- or post-dividend economies can sometimes be associated with slower growth (World Bank Group 2016), further investigation into these examples could provide valuable lessons on alternative models of development for shrinking cities. It would also build our understanding of how shrinking cities are impacting residents across different demographic groups (for example, Franklin 2019 on US cities).

Migration: interconnected global challenges

Migration can lead to population growth in some cities and population decline (and aging) in others (for instance, in Eastern Europe and Central Asia). The regional analyses show that migration – international and internal, as both a factor determining urban growth and a component of demographic analysis – is shaping urbanization in diverse ways, and that migration patterns vary from city to city.

Migration and changes in demography are intertwined with global challenges, such as climate change, conflict, and poverty. These combined factors are complex, uncertain, and interconnected across people and places. Population movements can change existing territorial settlement patterns very quickly, overriding underlying, more secular, demographic and urbanization trends, as is the case in the Middle East and North Africa. In order to make demographic projections, predict population movements, and understand growing inequalities, we will depend ever more on research concerning changing climatic conditions and affected regions (for example, Xu et al. 2020; Rigaud et al. 2018).

Migration also intersects with aging trends in both origin and destination areas, and must inform differentiated policy recommendations accordingly. The analysis of the East Asia and Pacific region shows that when migrants move from rural to urban areas, they may leave behind older family members, with grandparents sometimes caring for younger children. Migrants may then maintain dual households in origin and destination areas, which can have implications for the distribution of infrastructure services and provision in these places.

Gender disparities: the experiences of women

Gender disparities persist throughout women's lifetimes in all regions. The analyses have indicated instances of excess female mortality after birth; the phenomenon of “missing women” and deficits

of women that, in some areas, have been associated with increased violence and sex trafficking; diverse migration and mobility patterns between men and women (including population distribution skews due to migrant labor); and differences in life expectancy and greater prevalence of widowhood amongst older women. Not all these disparities can be found in every region, but, when combined, these demographic datapoints reveal a more complete picture of the ways in which women are disadvantaged throughout their lifetimes. Tracking these patterns is critical, because pursuing gender equality earlier in women's lives leads to better and more equitable outcomes later on (WHO 2020b). For instance, having a more equitable and supported workforce – say, one with pensions – can improve the older women's economic status and access to services.

Although in many cases cities offer greater opportunities to women, gender disparities can also be more pronounced in urban areas. In some areas, urban populations display more conspicuous gender imbalances. The analysis of South Asia, for instance, indicates that the female labor force participation rate is lower in urban than in rural areas across the region, and is even declining.

Some of the lowest female labor participation rates in the world can be found in South Asia and in the Middle East and North Africa. The regional analysis of South Asia discusses factors that reinforce women's traditional roles and contribute to changing family structures; but it also points to a change in employment structure that has increased men's incomes and education alongside employment growth in male-dominated industries. Future research may find it useful to consider not only male migrant-worker patterns and flows (e.g., to Gulf Cooperation Council Countries in the Middle East and North Africa) but also the movements – and challenges (ILO, n.d.) – of migrant domestic workers, of which around 74 percent (or 8.5 million) are women (ILO 2015).

Population aging: longevity economies

Aging is projected to increase in all regions, offering governments an opportunity to reimagine the provision of fundamental services and policies. With a clear understanding of demographic trends, cities and regions can anticipate the shift toward an older population with forward-looking policies – from the provision of services to the planning of infrastructure, from the design of urban spaces to the structure of their economic markets.

The world population is living both longer and healthier lives, although inequalities persist (WHO 2020a). Life expectancy and healthy life expectancy have both increased by over 8 percent globally between 2000 and 2016, but remain profoundly influenced by income (WHO 2020a). Low- and lower-middle-income countries continue to suffer from the poorest overall health outcomes, lagging far behind the global average (WHO 2020a). The gains reflected in the global statistics were primarily due to progress in reducing child mortality and fighting infectious diseases – the same forces that, along with falling fertility rates and rising education levels, are driving the population aging trend. Governments must be poised to capitalize on the urban-planning and economic opportunities afforded by these shifting demographic patterns.

Longevity economies represent a significant emerging market opportunity for business, consumers, and older workers. They afford opportunities for extended work patterns and lifelong learning in all sectors, and create markets for products and services that meet the needs of older populations. In the United States in 2018, for instance, the overall contribution of the 50-and-older cohort's economic and unpaid activities was \$9 trillion, and this group accounted for 56 cents of every dollar spent in the economy (\$7.6 trillion) (Accius and Suh 2019). Similarly, in Japan, the over-55s accounted for 67 percent of consumer spending (BCG 2011).

Appropriate policies are needed to sustain economic growth and benefit from population aging. Work can contribute to individual well-being and provide a sense of purpose in all stages of life; however, across the OECD countries, older workers comprise an increasing share of total unemployment (OECD 2019). Having a large proportion of retirees could widen inequalities in later life as disparities in employment, earnings, and health continue to build up over people's lifetimes. It will also likely have consequences for economic prosperity and public finance. An AARP study (Accius and Suh 2020) estimated that, in 2018, the US economy missed out on an additional \$850 billion in GDP that could have been generated if employers addressed age discrimination through better hiring practices and workplace-retention initiatives. To maintain economic growth, governments must develop policies that help extend working lives and make better use of older workers' knowledge and skills in quality jobs that also generate inclusive growth and higher well-being (OECD 2019).

Ensuring shared prosperity and well-being throughout demographic transitions

Demographic trends have implications that affect not only urbanization and urban growth, but the social well-being of urban populations. Shifts in demographics and urban patterns can change the way that populations experience disparities or face barriers to economic or social participation. By connecting demographic findings with work on understanding and measuring well-being (for example, by the [OECD1](#)), we can better understand the impact of these trends on individuals and communities.

As demographics shift, governments have a chance to engage with citizens and communities to collate and interpret data and citizen insights. Demographic trends are offering municipal, local,

regional, and national governments new opportunities and new methods for improving people's lives. As we saw in the analysis of the Eastern Europe and Central Asia region, the needs of populations inevitably change as they grow older. Regions and cities will have to rethink the way they plan and how they provide infrastructure and services. This offers a valuable opportunity for cities to bring together demographic data and citizen insights to understand and address uneven patterns of growth and prosperity through urban policy and planning.

New technologies are allowing cities to build up a more granular picture of urban-planning issues, such as spatial inequalities across the city. Rapid growth and urban sprawl – for example, to accommodate a rapid increase in the migrant population (e.g., in the Middle East and North Africa region) – has created a demand for geo-mapping tools and sensing technologies, which can help capture spatial changes in the wider city. Advanced tools have offered us a more comprehensive, more precise picture of spatially distributed urban poverty trends by combining the results of household surveys, rapid monitoring surveys, satellite imagery, and other big

data. City leaders can meaningfully enrich and complement this knowledge by considering it alongside city-level demographic projections.

Planning principles that make cities more livable for an aging population can improve quality of life for all urban residents. Solutions like universal design (making the built environment usable for everyone without need for adaptation or specialized accommodation) allow city governments to create urban areas that remain livable and accessible not only for an older population but for all people, including parents with strollers, pregnant women, and children, as well as for people with disabilities. Universal design is inclusive, flexible, and cost-effective, though it necessitates that urban planners think ahead: incorporating universal design into a project from the beginning only demands additional investments of 1 percent, but its cost becomes a major factor if it is only included after the design stage (Snider and Takeda 2008). By planning solutions for a healthy and aging population in advance, cities can take advantage of the opportunities afforded by the demographic shift, enhancing access to essential services and expanding economic opportunity for everyone.





PART II

Cities and COVID-19: Learning to Adapt

The emerging impacts of COVID-19

The COVID-19 virus emerged in late 2019 and spread rapidly between and within countries. Amid great uncertainty, the situation continues to unfold, with impacts remaining uneven across people and places. As the signs of a global economic crisis emerge alongside the health crisis, the pandemic's effects on populations, communities, and economies require urgent attention. With cities and regions recovering at different rates, governments are preparing for the economic recovery as well, and considering what a “post-pandemic” city (Batty 2020) or “new normal” will look like for highly connected and dense urban spaces.

Researchers are still exploring the role of urban environments in the pandemic, as well as the longer-term impacts of COVID-19 on cities, in both developed and emerging economies (see, for

example, Wahba et al. 2020; Lall and Wahba 2020; Nathan 2020). One critical line of inquiry has sought to determine the role of urban density in the transmission of COVID-19. Emerging evidence suggests that areas with dense populations are more likely to have an early outbreak of COVID-19, but not more likely to have a severe outbreak (Carozzi, Provenzano, and Roth 2020). Cities are also providing evidence on factors that contribute to infections, such as the socio-economic characteristics of lower-income neighborhoods, and how people live and move around (Lall and Wahba 2020; Hamidi, Sabouri, and Ewing 2020). Physical distancing, for instance, is difficult in crowded urban environments, and the effects of transmission in an urban area can extend beyond the city's boundaries. In some rural areas in developing countries, such as in rural India (Pradhan and Chowdhury 2020), there have been new cases of COVID-19 as rural-to-urban

migrants who have lost jobs in cities have returned to their areas of origin. The ways in which patterns of urbanization and migration bear on the COVID-19 situation are only beginning to emerge, but it is clear that these patterns may be significantly affected by the consequences of the pandemic.

Current and projected demographic patterns, too, are a key factor affecting COVID-19, and it is critical that we have a solid grasp of population distribution and projected change. The available evidence shows that the COVID-19 virus does not affect all population groups equally. Higher risk factors can include older age, certain ethnicities, male sex, underlying health conditions, socioeconomic marginalization and poverty, and some occupations (CDC 2020; Wenham, Smith, and Morgan 2020). Those with the greatest risk for severe illness from COVID-19 are people aged 85 or older (UN 2020d) and people with underlying health conditions.

Though men are more likely to contract and die from the virus, women are more severely affected than men by COVID-19 in other ways. They have less access to necessary information and more difficulty accessing medical care in some countries (while being less likely to have health insurance); they also bear the brunt of the pandemic's mental and emotional effects, contending with increases in unpaid care and domestic work, and suffering a dramatic increase gender-based violence during the lockdown (UN Women 2020). Domestic violence has seen a significant upswing as a result of social confinement measures, and incidences of sexual violence and rape are on the rise (OHCHR 2020). Economically, women's lives have and will continue to be disproportionately affected by the pandemic (UN 2020b). Women are more likely to have less earnings and savings, be employed in the informal sector, and hold less secure jobs. An analysis of OECD countries (Queisser, Adema, and Clarke 2020) also points out that women are overrepresented in

service industries, which are impacted by physical distancing, as well as in healthcare as essential workers, and notes the increased burden of unpaid care resulting from the crisis (UN 2020b). In some countries in South Asia, female workers – in both informal and formal employment – are more likely than men to suffer a reduction in their work hours (UN Women 2020).

The COVID-19 crisis has also disrupted international labor markets, leading to growing unemployment and particularly affecting migrant workers (World Bank 2020). Workers in the informal sector, where migrants are overrepresented, are some of the most affected (IOM 2020). The international focus so far has been on helping migrants reintegrate into their home countries where possible, recognizing that this represents an opportunity for returning migrants to help their home economies to rebuild stronger as they emerge from the pandemic (ILO 2020).

The emerging picture on COVID-19 in developing countries is complex and nuanced, with death rates comparably low at the onset of the global crisis, but rates of infection rising fast (Lunn and Brian 2020). There are been innovative responses to COVID-19 in some African nations (Lunn and Brian 2020), but fundamental questions remain about how poorer and less industrialized countries can respond to the pandemic and economic crisis to meet the needs of their populations. In particular, developing economies frequently employ large populations of informal workers, who often have no savings and rely on their daily income for survival. Lockdowns that prohibit these workers from reaching their place of employment would jeopardize their survival and are therefore nearly impossible for governments to implement. The global recession is particularly concerning for the developing world, with the immediate threat being that of deepening poverty (Elliott 2020).

Ageism and the COVID-19 pandemic

As the populations of all regions increasingly skew older, countries and cities have to consider how they better address the needs of older generations. The pandemic has provided a clear opportunity for them to do so, bringing these issues into sharp focus. Some older people and those with underlying medical conditions have a higher risk of serious illness and death from COVID-19, and often chronic health conditions are more prevalent in older age (UN 2020a), making the elderly cohort one of the most vulnerable to the virus.

However, there are concerns that COVID-19 is exacerbating entrenched ageism against older people and stoking intergenerational resentment as countries take measures to restrict the movement of people (UN 2020a). Observers fear that the unfolding pandemic-related economic crisis could put further pressure on principles of social justice, cohesion, and solidarity between generations (AGE Platform Europe 2020), particularly when older adults are seen as vulnerable, a burden, or a risk to others (BSG 2020). On the other hand, individual and collective responses to the pandemic have included acts of community solidarity between generations, both in person and digitally (Broom 2020). These acts, which have come in many different forms, have mobilized community groups of volunteers to deliver supplies to older people and to other vulnerable groups that have been advised to stay indoors to minimize the risk of infection.

For many, the internet and digital technologies have been critical connections to family and friends, and have provided crucial access to services online. While the pandemic has accelerated some older people's adoption of digital technology and development of digital skills, many older persons across the world have limited or no access to digital technologies, or lack the skills to exploit them. The pandemic therefore risks reinforcing inequalities by exacerbating the digital divide that already exists between different age groups and different socioeconomic groups (UN 2020a).

As the old-age dependency ratio grows in most regions of the world, and late- and post-dividend countries and regions search for solutions around caregiving, governments can learn critical lessons from the current crisis. COVID-19 has highlighted the role of formal and informal caregivers, demonstrated some of the challenges in caring for vulnerable people during a pandemic, and shown how interconnected networks of friends and relatives can deliver care in a crisis. Discussions around care are particularly relevant to planning for demographic and urban trends, and for thinking about how citizens will access the care they need in changing cities. As decision-makers plan for the future of urban areas, the key questions they must consider include where people will reside, how they can be supported to live independently, and how remote care using technologies can be best utilized.





PART III

Future Considerations

This discussion and the foregoing analyses of regional demographic trends have given us some introductory insights into the varying – and sometimes contrasting – demographic patterns in cities around the world. Together, they begin to form a global picture of several major cross-regional themes as the world’s demographics start to shift. Further research will allow us to zoom in on the demographic transitions taking place in specific regions and cities, gather and analyze better data, and make policy and investment decisions based on a clear understanding of how populations will change in the future.

Demographic trends and projections must be a key consideration in decision-making about urban design, and must inform urban planning and infrastructure provision. But the context of demographic changes, and the decision-making processes to which they pertain, are different for advanced and emerging economies – and will be different again for cities that do not even exist today. Governments must incorporate forward-looking demographic analysis as they make urban planning, infrastructure, and design decisions to meet the needs of urban citizens both now and in the future.

The impacts of the COVID-19 pandemic are far-reaching, and will affect both urban and demographic trends in ways we are only beginning to understand. The pandemic may change cities profoundly, and its effects are still uncertain. Future research is needed on the intersection of COVID-19 and current and long-term demographic and urbanization trends. Among other questions, we must explore how cities in the advanced demographic transition stage can find sustainable forms of urban development and manage infrastructure, the housing market, taxes, and land-use planning.

Cities are changing fast, not just due to demographic shifts and urbanization trends, but to global challenges and new crises. The COVID-19 pandemic, climate change, poverty, migration, and conflict are fundamentally restructuring how and where people live – and what risks cities now face. As populations change, climate and disaster risks rise, and new threats emerge, we must reimagine what it means to build livable, sustainable cities.

Future considerations for research and discussion should include:

1. **Planning for the quality, not just the quantity, of future urban populations' lives.** Projected urban trends of growth or decline do not exist in a vacuum, and we cannot plan for them without also examining their relationship with social and health issues. As demographic and spatial distributions change, we need to consider healthy life expectancy, dependency needs, and other social trends alongside urbanization trends in order to make policy decisions that protect the well-being of future urban residents. This could include looking at data on non-communicable diseases (NCDs) alongside demographic projections and socio-economic and spatial inequalities; or exploring what the shift in dependency from younger to older persons will mean for the working-age population – especially in cities and countries (such as in the East Asia and Pacific region) where the older populations depend more on their families for financial support and care, and where there is greater incidence of co-residence with older family members.
2. **Developing a life-long approach to urban planning and infrastructure to support healthy aging and active living for all cohorts of the population, now and in their later life.** Cities will not grow indefinitely. We must make decisions now about what and how much infrastructure we will need as larger population cohorts age. A population cohort does not suddenly begin aging at the end of its productive working years, or at age 65; rather, aging is a lifelong process that is affected by lifestyle at every stage of a person's development. The environments people live in shape their lifestyle, and therefore their health. Environments that encourage current populations to live well and age well throughout their lifetimes can help to prevent or delay the onset of health conditions and diseases, and mitigate some of the challenges associated with population aging. Creating such environments requires that we understand and consider the role of green infrastructure and social infrastructure – such as community hubs, libraries, and doctors' offices (e.g., [Yarker 2019](#)) – as part of overall urban infrastructure planning.
3. **Collaborating across sectors and regions to address complex, interconnected challenges such as poverty, conflict, and climate change – especially in the context of COVID-19.** The pandemic has exacerbated regional divides and deep inequalities in income, employment, and health. These legacies of inequality and poverty, and the scale of the crisis, highlight the urgent need for cross-sector collaboration and investment – for example, in transport, digital connectivity, housing, health and lifestyle, disease prevention, education, care, and labor skills. Cities will need strong economic foundations to recover, and to deliver inclusive growth and improve the well-being of their changing populations.
4. **Examining how longevity economies can be effective in both advanced and emerging economies, and how they can help enhance well-being and address inequalities.** Longevity economies aim to meet the needs and consumer demands of an increasingly older population, and to increase their labor force participation. The foregoing analyses of pre- and early-dividend regions discussed the importance of preparing for a “youth bulge” in terms of skills, education, and economic opportunities; the same principle applies for late- and post-dividend regions and cities preparing for an “older population bulge.” Some promising work in this area is already underway, including that of the international [Wellbeing Economy Alliance](#) and the [Foundational Economy](#), with a focus on quality universal basic services for all as a route to well-being and economic prosperity.

5. **Exploring how to plan cities at the intersection of aging populations and climate change.** The “megatrends” of urbanization, demographic change, and climate change are mutually reinforcing. As the climate changes, hundreds of millions of people will migrate away from farmland that has failed due to drought or flooding. Rising seas alone will likely uproot 150 million people (Lustgarten 2020). The resulting displacement and migration will change the demographic makeup of both origin and destination areas. Little research has been done on the future of climate migration, but the world is already seeing its effects. Approximately 8.5 million people in Southeast Asia, for instance, have left the region, and soon 17 to 36 million more may be forced from their homes (Rigaud et al. 2018).

Migrants fleeing drought, crop failure, and food insecurity will move to cities, driving massive, potentially overwhelming urbanization (Lustgarten 2020). In sub-Saharan Africa, South Asia, and Latin American and the Caribbean alone, up to 143 million people will be displaced within their own borders, and most of them will move to nearby towns and cities (Rigaud et al. 2018). San Salvador’s population, for instance, has grown by more than a third since 2000; Addis

Ababa’s has doubled, and will nearly do so again in the next 15 years (Lustgarten 2020). If this growth is not well managed, overcrowding and expanding slums may fuel social and political instability, and will make residents vulnerable to natural disasters – which will become more frequent and more severe as a result of climate change, threatening infrastructure and services in dense urban areas. Meanwhile, the influx of climate migrants could strain urban infrastructure and resources, including food importation, sanitation, and electricity supply.

However, in-migration can also bring enormous opportunity to post-dividend cities with an aging work force in the midst of demographic decline. Cities must carefully consider urban planning and infrastructure investments in the context of changing populations as well as a changing climate and its effects – demographic, social, and political. Though the challenges will devolve especially onto cities, so too will the opportunities to capitalize on potential growth if urban environments, economies, and service provision is planned well. Further research must be concerned with how to design and build resilient cities for a future equally full of change and opportunity.

References

- Accius, Jean, and Joo Yeoun Suh. 2019. *The Longevity Economy Outlook: How People Ages 50 and Older Are Fueling Economic Growth, Stimulating Jobs, and Creating Opportunities for All*. Washington, DC: AARP Thought Leadership. <https://doi.org/10.26419/int.00042.001>.
- Accius, Jean, and Joo Yeoun Suh. 2020. *The Economic Impact of Age Discrimination: How Discriminating Against Older Workers Could Cost the U.S. Economy \$850 Billion*. Washington, DC: AARP Thought Leadership. <https://doi.org/10.26419/int.00042.003>.
- Academy of Medical Sciences. 2018. *Multimorbidity: A priority for global health research*. London: The Academy of Medical Sciences. <https://acmedsci.ac.uk/file-download/82222577>.
- AGE Platform Europe. 2020. "Recovery from the COVID-19 crisis: Do not repeat the errors of the 2008 Great Depression." AGE Platform Europe Working Paper, Brussels, June 2020. https://www.age-platform.eu/sites/default/files/Recovery_from_COVID-19_crisis-AGE_Working_Paper-Jun20.pdf.
- Batty, Michael. 2020. "The Coronavirus crisis: What will the post-pandemic city look like?" *Environment and Planning B: Urban Analytics and City Science* 47 (4): 547–552. <https://doi.org/10.1177/2399808320926912>.
- BCG (Boston Consulting Group). 2011. *Global Ageing: How companies can adapt to the new reality*. Boston: The Boston Consulting Group, Inc. <https://mkt-bcg-com-public-images.s3.amazonaws.com/public-pdfs/legacy-documents/file93352.pdf>.
- Beard, John R., Alana Officer, Islene Araujo de Carvalho, Ritu Sadana, Anne Margriet Pot, Jean-Pierre Michel, Peter Lloyd-Sherlock, JoAnne E. Epping-Jordan, G. M. E. E. (Geeske) Peeters, Wahyu Retno Mahanani, Jotheeswaran Amuthavalli Thiyagarajan, and Somnath Chatterji. 2015. "The World report on ageing and health: a policy framework for healthy ageing." *The Lancet* 387 (10033): 2145–2154. [https://doi.org/10.1016/S0140-6736\(15\)00516-4](https://doi.org/10.1016/S0140-6736(15)00516-4).
- Broom, Douglas. 2020. "A pandemic of solidarity? This is how people are supporting one another as coronavirus spreads." *World Economic Forum*, March 16, 2020, updated April 3, 2020. <https://www.weforum.org/agenda/2020/03/covid-19-coronavirus-solidarity-help-pandemic/>.
- BSG (British Society of Gerontology). 2020. "BSG Statement on COVID-19: 20 March 2020." *BritishGerontology.org*. Published March 20, 2020. <https://www.britishgerontology.org/publications/bsg-statements-on-covid-19/statement-one>.
- Carozzi, Felipe, Sandro Provenzano, and Sefi Roth. 2020. "Urban Density and COVID-19." CEP Discussion Paper No. 1711, Center for Economic Performance, London School of Economics, London, August 2020. <https://cep.lse.ac.uk/new/publications/abstract.asp?index=7234>.
- CDC (Centers for Disease Control and Prevention). 2020. "Assessing Risk Factors for Severe COVID-19 Illness." *Coronavirus Disease 2019 (COVID-19)*. Last modified August 10, 2020. <https://www.cdc.gov/coronavirus/2019-ncov/covid-data/investigations-discovery/assessing-risk-factors.html>.
- Elliott, Larry. 2020. "World Bank: COVID-19 pushes poorer nations 'from recession to depression.'" *The Guardian*, August 19, 2020. <https://www.theguardian.com/business/2020/aug/19/world-bank-calls-for-greater-debt-relief-for-poorer-countries-in-wake-of-covid-19>.

- Foresight Mental Capital and Wellbeing Project. 2008. *Mental Capital and Wellbeing: Making the most of ourselves in the 21st century – Executive summary*. London: The Government Office for Science. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/292453/mental-capital-wellbeing-summary.pdf.
- Franklin, Rachel S. 2019. “The demographic burden of population loss in US cities, 2000–2010.” *Journal of Geographical Systems*, July 2019. <https://doi.org/10.1007/s10109-019-00303-4>.
- Hamidi, Shima, Sadegh Sabouri, and Reid Ewing. 2020. “Does Density Aggravate the COVID-19 Pandemic?” *Journal of the American Planning Association*, June 2020. <https://doi.org/10.1080/01944363.2020.1777891>.
- ILO (International Labour Organization). 2015. *ILO Global Estimates on Migrant Workers: Results and Methodology*. Special focus on migrant domestic workers. Labour Migration Branch, Conditions of Work and Equality and Department of Statistics, International Labour Office. Geneva: International Labour Organization. https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_436343.pdf.
- ILO (International Labour Organization). 2020. “ILO warns of COVID-19 migrant ‘crisis within a crisis.’” ILO Newsroom. Published June 24, 2020. https://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS_748992/lang--en/index.htm.
- ILO (International Labour Organization). n.d. “Migrant Domestic Workers.” ILO.org, The Care Economy. Accessed August 27, 2020. <https://www.ilo.org/global/topics/care-economy/migrant-domestic-workers/lang--en/index.htm>.
- Lall, Somik, and Sameh Wahba. 2020. “No Urban Myth: Building Inclusive and Sustainable Cities in the Pandemic Recovery.” *The World Bank*, June 18, 2020. <https://www.worldbank.org/en/news/immersive-story/2020/06/18/no-urban-myth-building-inclusive-and-sustainable-cities-in-the-pandemic-recovery>.
- Lunn, Jon, and Philip Brian. 2020. “Coronavirus in developing countries: Mapping national policy responses.” House of Commons Library, June 29, 2020. <https://commonslibrary.parliament.uk/world-affairs/coronavirus-in-developing-countries/>.
- Lustgarten, Abrahm. 2020. “The Great Climate Migration Has Begun.” *The New York Times Magazine*, July 23, 2020. <https://www.nytimes.com/interactive/2020/07/23/magazine/climate-migration.html>
- Marmot, Michael, Jessica Allen, Tammy Boyce, Peter Goldblatt, and Joana Morrison. 2020. *Health Equity in England: The Marmot Review 10 Years On*. London: Institute of Health Equity. <https://www.health.org.uk/publications/reports/the-marmot-review-10-years-on>.
- Nathan, Max. 2020. “The city and the virus.” *Medium*, May 14, 2020. <https://medium.com/@maxnathan/the-city-and-the-virus-db8f4a68e404>.
- OECD. 2019. *Working Better with Age*. Ageing and Employment Policies series. Paris: OECD Publishing. <https://doi.org/10.1787/c4d4f66a-en>.
- OHCHR (Office of the High Commissioner for Human Rights – UN Human Rights). 2020. “Joint statement by the Special Rapporteur and the EDVAW Platform of women’s rights mechanisms on Covid-19 and the increase in violence and discrimination against women.” Press statement, July 14, 2020. <https://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=26083&LangID=E>
- Pradhan, Bibhudatta, and Abhijit Roy Chowdhury. 2020. “New Virus Hotspots Are Emerging in Rural Villages Across India.” *Bloomberg News*, June 21, 2020. <https://www.bloomberg.com/news/articles/2020-06-21/new-virus-hotspots-are-emerging-in-rural-villages-across-india>.
- Queisser, Monika, Willem Adema, and Chris Clarke. 2020. “COVID-19, employment and women in OECD countries.” *VoxEU, CEPR*, April 22, 2020. <https://voxeu.org/article/covid-19-employment-and-women-oecd-countries>

- Rigaud, Kanta Kumari, Alex de Sherbinin, Bryan Jones, Jonas Bergmann, Viviane Clement, Kayly Ober, Jacob Schewe, Susana Adamo, Brent McCusker, Silke Heuser, and Amelia Midgley. 2018. *Groundswell: Preparing for Internal Climate Migration*. Washington, DC: The World Bank. https://openknowledge.worldbank.org/bitstream/handle/10986/29461/WBG_ClimateChange_Final.pdf.
- Saliola, Federica. 2019. "A new era of work in the Middle East and North Africa: What is to be done?" *Jobs and Development, World Bank Blogs, December 2, 2019*. <https://blogs.worldbank.org/jobs/new-era-work-middle-east-and-north-africa-what-be-done>
- Snider, Harold, and Nazumi Takeda. 2008. "Design for All: Implications for Bank Operations." Disability and Development, Social Protection and Labor, Human Development Network, Social Development Department and Urban Development, Sustainable Development Network Working Paper, The World Bank, Washington, DC, October 2008. <http://documents1.worldbank.org/curated/en/934421520577312644/pdf/124045-WP-Design-for-all-PUBLIC.pdf>
- UN (United Nations). 2020a. *Policy Brief: The Impact of COVID-19 on Older Persons*. New York: United Nations. <https://unsdg.un.org/sites/default/files/2020-05/Policy-Brief-The-Impact-of-COVID-19-on-Older-Persons.pdf>.
- UN (United Nations). 2020b. *Policy Brief: The Impact of COVID-19 on Women*. New York: United Nations. <https://www.un.org/sexualviolenceinconflict/wp-content/uploads/2020/06/report/policy-brief-the-impact-of-covid-19-on-women/policy-brief-the-impact-of-covid-19-on-women-en-1.pdf>.
- UN (United Nations). 2020c. "Statement of Support to the UN Secretary General's Policy Brief on The Impact of COVID-19 on Older Persons." United Nations, May 12, 2020. https://www.un.org/development/desa/ageing/wp-content/uploads/sites/24/2020/05/ENG_final_-with-countries.pdf.
- UN (United Nations). 2020d. "Issue Brief: Older Persons and COVID-19 – A Defining Moment for Informed, Inclusive and Targeted Response." United Nations Department of Economic and Social Affairs. New York: United Nations. <https://www.un.org/development/desa/ageing/wp-content/uploads/sites/24/2020/04/POLICY-BRIEF-ON-COVID19-AND-OLDER-PERSONS.pdf>.
- UN Women. 2020. "Surveys show that COVID-19 has gendered effects in Asia and the Pacific." Gender and COVID-19, UN Women Data, April 29, 2020. <https://data.unwomen.org/resources/surveys-show-covid-19-has-gendered-effects-asia-and-pacific>
- IOM (International Organization for Migration). 2020. "COVID-19 Analytical Snapshot #49: Impacts on migrants in informal economies." Grand-Saconnex, Switzerland: International Organization for Migration. https://www.iom.int/sites/default/files/documents/covid-19_analytical_snapshot_49_-_migrants_in_informal_economies.pdf.
- VOICE Global (Valuing Our Intellectual Capital and Experience Global). n.d. VOICE homepage. Accessed August 27, 2020. <https://www.voice-global.org/>
- Wahba, Sameh, Maimunah Mohd Sharif, Mami Mizutori, and Lauren Sorkin. 2020. "Cities are on the front lines of COVID-19." *Sustainable Cities, World Bank Blogs, May 12, 2020*. <https://blogs.worldbank.org/sustainablecities/cities-are-front-lines-covid-19>.**
- Wenham, Clare, Julia Smith, and Rosemary Morgan. 2020. "COVID-19: the gendered impacts of the outbreak." *The Lancet* 395 (10227): 846–848. [https://doi.org/10.1016/S0140-6736\(20\)30526-2](https://doi.org/10.1016/S0140-6736(20)30526-2).
- WHO (World Health Organization). 2020a. *World Health Statistics 2020: Monitoring Health for the SDGs, sustainable development goals*. Geneva: World Health Organization. <https://apps.who.int/iris/bitstream/handle/10665/332070/9789240005105-eng.pdf>.
- WHO (World Health Organization). 2020b. "Decade of Healthy Ageing 2020-2030." Proposal document, World Health Organization, Geneva, August 2020. <https://www.who.int/docs/default-source/decade-of-healthy-ageing/final-decade-proposal/decade-proposal-final-apr2020-en.pdf>.

- WHO (World Health Organization). 2020c. “Weekly operational update on COVID-19: July 17-24.” WHO Department of Communications, Health Emergencies Preparedness and Response, Strategic Health Operations, July 25, 2020. <https://www.who.int/publications/m/item/weekly-update-on-covid-19---24-july-2020>.
- WHO (World Health Organization). 2020d. “Statement – Older people are at highest risk from COVID-19, but all must act to prevent community spread.” Statement delivered by Hans Henri P. Kluge, Copenhagen, April 2, 2020. <https://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/statements/statement-older-people-are-at-highest-risk-from-covid-19,-but-all-must-act-to-prevent-community-spread>.
- World Bank. 2020. *Global Economic Prospects, June 2020*. Washington, DC: World Bank. <https://doi.org/10.1596/978-1-4648-1553-9>.
- World Bank Group. 2016. *Global Monitoring Report 2015/2016: Development Goals in an Era of Demographic Change*. Washington, DC: World Bank. <https://doi.org/10.1596/978-1-4648-0669-8>.
- Xu, Chi, Timothy A. Kohler, Timothy M. Lenton, Jens-Christian Svenning, and Marten Scheffer. 2020. “Future of the human climate niche.” *PNAS (Proceedings of the National Academy of Sciences of the United States of America)* 117 (21): 11350–11355. <https://doi.org/10.1073/pnas.1910114117>.
- Yarker, Sophie. 2019. *Social Infrastructure: How shared spaces make communities work*. Manchester: Manchester University. <https://www.ambitionforageing.org.uk/sites/default/files/Social%20Infrastructure%20Report.pdf>.

