United Nations
Department of Economic and Social Affairs

Population Division

Technical Paper
No. 2013/6

Global Migration: Demographic Aspects and Its Relevance for Development

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Ronald Skeldon

United Nations • New York, 2013

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PREFACE

The Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat is responsible for providing the international community with up-to-date and scientifically objective information on population and development. The Population Division provides guidance on population and development issues to the United Nations General Assembly, the Economic and Social Council and the Commission on Population and Development and undertakes regular studies on population estimates and projections, fertility, mortality, migration, reproductive health, population policies and population and development interrelationships.

The purpose of the *Technical Paper* series is to publish substantive and methodological research on population issues carried out by experts within and outside the United Nations system. The series promotes scientific understanding of population issues among Governments, national and international organizations, research institutions and individuals engaged in social and economic planning, research and training.

The Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat organized an *Expert Group Meeting on New Trends in Migration: Demographic Aspects* at United Nations Headquarters in New York, on 3 December 2012. The meeting was convened in preparation for the forty-sixth Session of the Commission on Population and Development, which was held from 22 to 26 April 2013. Background documents prepared by experts participating in the meeting have been posted on the website of the meeting at http://www.un.org/esa/population/meetings/EGM_MigrationTrends/MigrationTrends.html.

This paper was prepared by Mr. Ronald Skeldon, Professorial Fellow in the Department of Geography at the University of Sussex. Mr. Skeldon participated in the meeting and also gave the keynote address.

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GLOBAL MIGRATION: DEMOGRAPHIC ASPECTS AND ITS RELEVANCE FOR DEVELOPMENT

Professor Ronald Skeldon[*]

A. INTRODUCTION

Along with births and deaths, migration is one of the three demographic components of population change, and it has often been described as the most difficult to measure, model and forecast. Unlike fertility and mortality, migration is not a single unique event in time and space, but can repeat itself over the lifetime of an individual. Thus, the volume and type of migration measured and analyzed depend on the definitions used to identify a migrant. Central to these definitions is the choice of the size of the spatial unit and its legal status (country, county, etc.) across whose boundary a person has to move in order to be defined as a migrant and the length of time a person has to stay in an area after moving, also to be so defined. These definitions vary by country and even within country over time and are at the root of analysts preoccupied with the measurement of migration and their long-standing requests for better and more comparative data. Much has been achieved over recent years to improve data quality and quantity but much remains to be done. At the outset of this paper it is worthwhile to reiterate the call to improve the quality and quantity of the data available to generate information on migration flows and migrant stocks that is important to guide evidence-based policy-making and public debate. This task remains one of the principal challenges in the area of population studies.

Death is a time for mourning or of celebrating a life, and a birth a time of rejoicing. Migrating across international boundaries can be empowering for some, as they pursue, for example, higher levels of education or better job opportunities, while others flee political conflicts or environmental disasters. Also, the effects of an international migrant on countries of origin and destination vary with the fear of the outsider often a characteristic that makes migration a social, political and economic issue that continues to affect the way in which migrants are often perceived by others. Rational debate on this topic is often difficult, and it is imperative that appropriate forums exist to allow Governments to discuss these issues in an informal manner. This paper sets out to: (*a*) examine recent trends in global migration within a demographic context; (*b*) dispel some common myths regarding current migration patterns and levels; (*c*) speculate on future directions, and (*d*) link population movements with development. Its regional focus will be on countries in Eastern Asia.

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B. MIGRATION, MOBILITY AND TEMPORARY AND PERMANENT MIGRANTS

Due to the nature of international migration data, migration is often conceptualized as a move from an origin to a destination, or from a place of birth to another destination across international borders. For example, measures of global bilateral flows are often based on movements from a country other than a migrant's usual residence for a period of at least a year (12 months), so that the country of destination becomes the migrant's new country of usual residence.[1] In developed countries, the idea of the migrant as a permanent, or at least long-term mover, is often institutionalized through flow data that admit people as immigrants as opposed to those who enter through a variety of non-immigrant or temporary migration channels.

Thus, migration is often seen as a permanent move rather than a complex series of backward or onward movements. The data omit return or circular migration as people who are registered in the same place as their place of birth are "non-migrants" even though they may have spent considerable time outside their place of birth. The reality may be quite different, although the data to demonstrate the case may not be so robust. Historical studies of the movement of Europeans to the United States in the nineteenth century have shown the significance of return migration. For example, it is estimated that about 40 per cent of English and Welsh migrants to the United States returned back to their home countries between 1861 and 1913, between 40 and 50 per cent of Italian migrants to the United States returned to Italy in the early twentieth century, and rates of return of migrants from Argentina and Brazil at the same time, particularly Italians, were similar (Baines, 1991; Nugent, 1992). How many of these migrants moved back-and-forth is not known. In more contemporary studies of internal migration in the developing world, a circulation between villages and towns appears to exist rather than a simple movement from rural to urban areas (Hugo, 1982; Prothero and Chapman, 1985; Skeldon, 1990).

In studies of contemporary international migration to developed countries high rates of turnover among migrants have been observed. Between 1986 and 1991, some 17 per cent of immigrants originating in China, Hong Kong Special Administrative Region who had moved to Australia had not stayed long enough at their destination to be recorded in the 1991 census and there was a particularly high attrition rate during the first year after arrival (Kee and Skeldon, 1994). This particular situation is complicated by the establishment of homes in destination areas

[1] For a definition of an "international migrant", see United Nations, Department of Economic and Social Affairs, Statistics Division (1998).

from which family members circulate back to origins on a longer or shorter-term basis, essentially establishing a bilocality of household location. Overall for Australia, where excellent data on "exits" exist, about one-fifth of all permanent migrants in the post-Second World War period subsequently left the country (Hugo, 2008). However, traditional countries of immigration such as Australia, Canada and the United States of America, where immigration is considered to be an integral part of nation-building, have turned to temporary or non-immigrant programmes in order to compete for skills and labour in an increasingly globalizing world. These non-immigrant classes of admission have expanded to surpass the permanent immigrant categories. For example, in 2010, the United States accepted 1.04 million persons under permanent immigrant categories while admitting 2.82 million temporary workers and their families.[2] Australia admitted 213,409 migrants through permanent channels in 2010-2011, while temporary entry arrivals amounted to 504,671 persons. Canada admitted 280,681 persons in its immigrant channel against 383,929 persons in non-permanent categories. These figures are not directly comparable owing to definitional differences but they do show the importance of temporary entry channels in traditional countries of immigration.

One of the concerns among policy-makers is that migrants admitted through temporary channels stay on to become permanent or long-term migrants. However, despite such concerns the "Gastarbeiter" programme in Germany has shown, for example, that 70 per cent of the 30 million foreigners who stayed for more than 30 days in Germany between 1960 and 1999 returned or moved on (Martin, 2004). Some Governments focus on those who have entered through a temporary programme for students, for example, to become more permanent migrants. Of those accepted by Australia as permanent settlers in 2010-2011, fully 40 per cent were already in the country having previously entered through a temporary channel. Hence, although clear permanent and temporary channels of entry exist, the underlying reality of population movement blurs meaningful distinction. Hence, a policy approach to migration and development, as well as to other aspects of migration, that clearly integrates both longer-term and shorter-term types of

[2] The actual total number admitted through the I-94 non-immigrant category was 46.5 million in 2010, including 35.1 million short-term visitors for pleasure and 5.2 million visitors for business. Students, exchange visitors and diplomats were other major categories in this channel of admission. See United States of America, Office of Immigration Statistics, Department of Homeland Security (2011). For Canada and Australia, see Canada, Citizenship and Immigration Canada (2010) and Australia, Department of Immigration and Citizenship (2011).

migration seems desirable, with a recent example being the European Union's Global Approach to Migration and Mobility (GAMM)[3].

C. CHANGES IN THE GLOBAL SYSTEM

The global migration system has changed over recent decades with regard to the origins and destinations, as well as the volume and types of migrants. Countries that were once origins of migration became destinations of migrants and vice versa. The shift from Europe as a major area of emigration, primarily to the Americas and Australasia, to a major area of immigration over the course of the twentieth century is perhaps the most striking recent historical example. At the beginning of the twentieth century a million migrants a year were leaving Europe mainly for Northern America (Hatton and Williamson, 2005). In 2010, the European Union absorbed 1.2 million "permanent" migrants, more than the number of permanent migrants to the United States (over one million), which represents a very significant shift in the global migration system over the last one hundred years (OECD, 2012a). That shift to net immigration was first evident in the 1950s in an area extending northwards and eastwards from France and Switzerland, then the countries of most intense immigration, including Belgium, Germany and Sweden. By the early twenty-first century most of the countries of southern and western Europe, as well as Turkey, had become areas of net immigration. Only a small number of countries extending from the Baltic Republics to the northern frontier of Greece experienced net emigration, which was mostly directed to western and southern Europe. The Russian Federation, too, had undergone the shift from emigration to immigration with the return of many ethnic Russians from the republics of the former Soviet Union. Other examples of a "turnaround" in migration have been cited from Asia in which net emigration shifted to net immigration. However, despite some of these shifts in migration trends over time, it is important to raise the following points.

First, although a trend towards increasing immigration affecting many countries may be observed, this does not mean that emigration ceases. Few developed countries keep records of those leaving and yet it is clear that emigration persists. For example, two of the significant source countries of migration, Mexico and the Philippines, had, respectively, an estimated 10.8 and 5.6 per cent of their populations living outside their national boundaries in 2013 (United

[3] For more information on the European Global Approach to Migration, see http://ec.europa.eu/dgs/home-affairs/what-we-do/policies/international-affairs/global-approach-to-migration/index_en.htm (accessed 8 February 2013).

Nations, 2013a).[4] The same source gives the stock of emigrants for the United Kingdom at 7.9 per cent of the population. Hence, many countries might be affected by immigration and emigration at the same time. This does not mean that the types of migrants from these countries are the same. Around the year 2000, the United Kingdom was estimated to have more skilled migrants outside its borders than any other country, some 1.44 million, ahead of Mexico and the Philippines with 0.92 and 1.13 million skilled migrants respectively (Docquier and Marfouk, 2006). However, second-home owners and retirees would also be included in the total stock of United Kingdom residents overseas. Less-skilled labour migrants make up a significant part of the migration from the Philippines and irregular migration is an important component of the migration from Mexico to the United States. These two types of migration are of little importance for the United Kingdom. Germany and the Republic of Korea, two other countries that have gone through the turnaround, were also among the top 10 source countries of skilled workers around the year 2000. It might be concluded that, while a transition in migration, as is the case of the demographic transition (see below), does appear to exist, it is not a simple shift from emigration to immigration but shifts, too, in composition and perhaps from migration to mobility.

Secondly, the frameworks used to analyse global migration often generate spurious results. Simple bipolar models of "developed" and "developing" or "North" and "South", while perhaps indicative of some trends, are essentially too static and freeze the "underlying reality" at a point in time. All of these categories are highly heterogeneous but particularly the developing world or the "Global South", which has been transformed and has transformed itself through what can be called "development" over recent decades. Certainly, the Republic of Korea has been reclassified into the Organisation for Economic Cooperation and Development (OECD), the group of most developed countries in the world. However, centres of global dynamism such as Malaysia, Singapore, Thailand, parts of coastal China, western India and countries of the Southern part of South America remain in the "South". Part of the problem derives from the use of the "state" as the primary spatial unit of analysis and, in both the developing and the developed world, marked intrastate regional differences exist. Ideally, subnational data are needed, particularly to separate city-regions, before more refined analysis can be attempted. Pending such data, more nuanced interpretations of such data are needed.

[4] The estimate for the Philippines is likely to be on the low side, with other sources suggesting a stock of about 7.8 per cent overseas migrants based on both irregular and regular, and land- and sea-based migrants (Battistella and Asis, 2003:39).

Thirdly, there is a need for a greater awareness that global migration trends will shift again. The emergence of Asia as a major area of destination as well as origin, and particularly the potential role of China in this regard, is fundamental to what is likely to happen. A forecast is presented in table 1 of what may be the largest economies in the world in 2050 (Pricewaterhouse Coopers, 2011: 9). Almost half of these economies in the world in 2050 are in what is today called the developing world, always keeping in mind that the developed world, too, will continue to develop in certain ways. If this forecast bears any resemblance to what actually will happen, future migration is likely to be very different from what it is today, as destinations in some parts of the developed world may not retain their attractiveness for migrants in the face of competing opportunities elsewhere.

TABLE 1. ACTUAL AND PROJECTED TOP-20 ECONOMIES RANKED BASED ON GROSS DOMESTIC PRODUCT (GDP) (AS MEASURED IN PURCHASING POWER PARITY (PPP))

	2011		*2030*		*2050*	
PPP Rank	*Country*	*GDP at PPP*	*Country*	*Projected GDP at PPP (2011 US$ billion)*	*Country*	*Projected GDP at PPP (2011 US$ billion)*
1	United States	15,094	China	30,634	China	53,856
2	China	11,347	United States	23,376	United States	37,998
3	India	4,531	India	13,716	India	34,704
4	Japan	4,381	Japan	5,842	Brazil	8,825
5	Germany	3,221	Russian Federation	5,308	Japan	8,065
6	Russian Federation	3,031	Brazil	4,685	Russian Federation	8,013
7	Brazil	2,305	Germany	4,118	Mexico	7,409
8	France	2,303	Mexico	3,662	Indonesia	6,346
9	United Kingdom	2,287	United Kingdom	3,499	Germany	5,822
10	Italy	1,979	France	3,427	France	5,714
11	Mexico	1,761	Indonesia	2,912	United Kingdom	5,598
12	Spain	1,512	Turkey	2,760	Turkey	5,032
13	Republic of Korea	1,504	Italy	2,629	Nigeria	3,964
14	Canada	1,398	Republic of Korea	2,454	Italy	3,867
15	Turkey	1,243	Spain	2,327	Spain	3,612
16	Indonesia	1,131	Canada	2,148	Canada	3,549
17	Australia	893	Saudi Arabia	1,582	Republic of Korea	3,545
18	Poland	813	Australia	1,535	Saudi Arabia	3,090
19	Argentina	720	Poland	1,415	Viet Nam	2,715
20	Saudi Arabia	686	Argentina	1,407	Argentina	2,620

Source: Pricewaterhouse Coopers, *The World in 2050. The BRICs and beyond: prospects, challenges and opportunities*. London: January 2013, p. 2.

These factors beg the bigger question whether future migration can in some way be estimated in the context of these expected changes. Given the number of unknowns, particularly in the direction of future political as well as economic development in Asia, any attempt to forecast migration futures seems likely to fail. Perhaps the most productive way forward,

however, might be through demographics and macro-level models of change through transition theory. Any such attempt to incorporate migration in this way needs to consider both internal and international population movements. Too often these are seen as entirely separate systems or at best that international migration evolves out of internal population movement. For example, rural migrants move to a city and either push the urban-born to move internationally or move on themselves to an international destination. However, while such movements can occur, the reality is more complex with international migration generating internal migrations or international migration substituting for internal migrations (Skeldon, 2006; King and Skeldon, 2010). For example, areas of intense emigration to international destinations at the local level can create labour vacuums that bring in domestic workers, as seen in the cases of Sylhet in Bangladesh or Mirpur in northern Pakistan (Gardner, 1995; Ballard, 2005). In advanced economies, where levels of urbanization are high and relatively few young people remain in the rural sector, urban-based employment and even urban growth are sustained through importing both talent and less-skilled labour from outside the country. A key question revolves around whether systematic shifts in these types of migration exist that can be linked with the overall patterns of population change, which introduces the idea of transitions.

D. LINKAGES AMONG DEMOGRAPHIC VARIABLES

The twenty-first century has been called "the age of migration" (Castles and Miller, 2009), essentially because there are more migrants in the world today than ever before — about 232 million international migrants in 2013 (United Nations, 2013a). However, as the world's population has increased to an all-time high of 7.1 billion in 2013, it might not be surprising that there are more migrants in the world as well (United Nations, 2013b). What might be more notable is that the proportion of the world's population identified as international migrants by the United Nations has not changed significantly since 1995, at around 3 per cent. In general, however, it is expected that the number of international migrants worldwide will increase in the future, with demographic factors, economic disparities and environmental change continuing to be major drivers of migration.

The demographic transition associated with declining fertility and mortality levels is causing unprecedented changes in population size, age structures and spatial distribution around the world as countries develop economically and socially. While the fertility transition from high to low fertility is assumed to apply universally, its timing and especially the pace at which it

occurs varies between countries, and for a small number of countries currently with high fertility (i.e., five children or more on average per woman) the projected declines are likely to occur at much slower pace than the average experience of all other countries in the past.

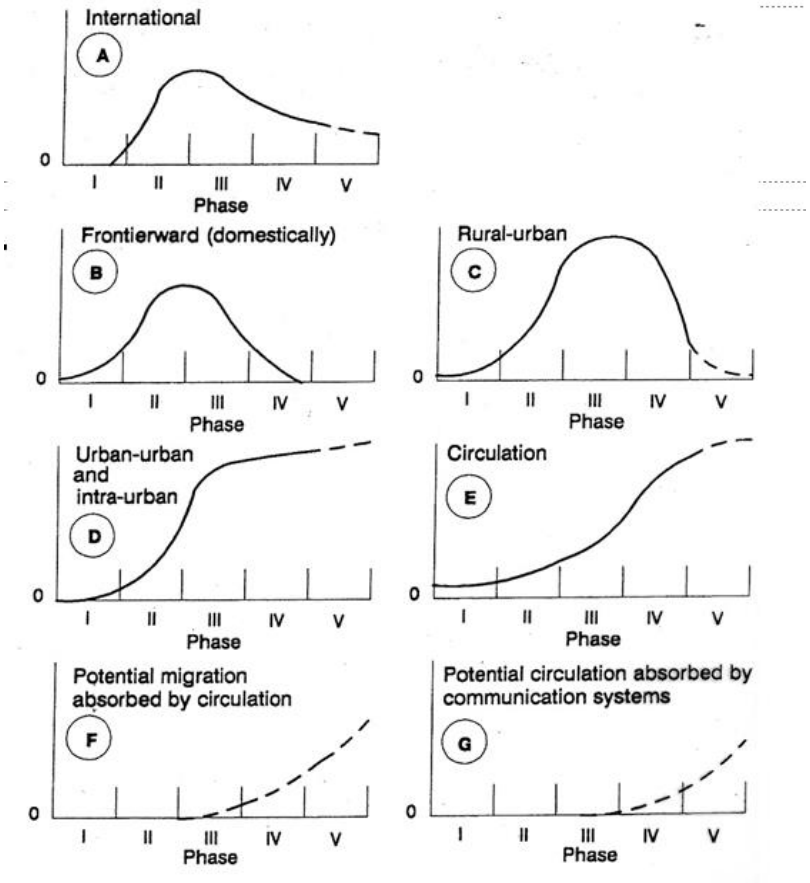
Driven initially by the decline in mortality, various pathways through the mortality and fertility transition have been observed in terms of the speed of the transition as well as the differing relative importance of factors impacting upon the two variables. Over time, and as the process itself has evolved in sometimes unexpected directions, the model of the transition has been modified to fit observations and more exact measurement techniques. The idea of a second demographic transition was introduced to explain persistent low fertility in the face of increasing mortality in the most developed parts of the world (Van de Kaa, 1987). A more recent variation has been the apparent increase in fertility in Europe with increasing levels of development (Myrskyla, Kohler and Billari, 2009). However, this increase may be more apparent than real and can be accounted for by the completion of a trend — or transition — towards the postponement of childbearing (Bongaarts and Sobotka, 2012).

These global shifts in mortality and fertility have had a profound impact on age structures, with the initial decline in mortality contributing to a rapid expansion of young age groups and the later decline in fertility bringing about an ageing of the population. One of the relatively few generalizations that can be made about migration is that the majority of those who move are young adults, a generalization that can be traced back to Ravenstein (1885), the "father" of modern migration studies, in the late nineteenth century. Hence, and as will be discussed in more detail below, the number of migrants in any population will to some extent be a function of the number of young adults in that population. This relationship is not necessarily simple, mono-causal and deterministic but the number of young adults provides an important context in which the movement takes place.

These points introduce the idea of whether migration is the "missing" dimension of the demographic transition, an idea first developed by the American geographer Wilbur Zelinsky in 1971. In this "mobility transition", he argued that there existed "definite, patterned regularities in the growth of personal mobility through space-time during recent history, and these regularities comprise an essential component of the modernization process" (Zelinsky, 1971: 229). Today, "development" would be substituted for "modernization". Zelinsky put forward the most general association of migration with the phases of the demographic transition as shown in figure I where

he identified several different types of migration, "international", "rural-urban" and "urban-urban", for example, and showed how their relative importance varied through the transition. Central to his idea was that the demographic transition itself was associated with increasing concentration of population in towns and cities. As that proportion grew, then the relative importance of rural to urban would decline while that of urban-urban and intra-urban migration would increase. Zelinsky also saw a declining international migration at advanced stages of the demographic transition. Perhaps most perceptively, Zelinsky envisaged a declining migration as technical advancements in transportation allowing people to circulate among places instead of having to move more definitively to them: what he termed potential migration absorbed by circulation. At even higher levels of development he envisaged circulation itself reducing because of technological development in communications systems that allowed people to communicate easily over great distances without moving.

Figure I. Schematic representation of the changing levels of mobility over time



Source: Wilbur Zelinsky, The hypothesis of the mobility transition, *Geographical Review*, vol. 61, No. 2, p. 233.

E. BEYOND THE MIGRATION AND DEMOGRAPHIC TRANSITIONS

Zelinsky's model was based on developed-country experience and particularly on that of the United States. It was a macro-level model that associated changes in fertility, mortality and migration, emphasizing the evolution of the processes in time, but said little about how they might interact across space. Zelinsky himself did not consider that the model could apply to specific cases at the local level. Nevertheless, subsequent work by Skeldon (1977, 1990) suggested that migration from specific origins exhibits systematic shifts in both the type and the pattern of movements not just over time but across space at the local level. However, how these shifts were related to fertility and mortality was not examined at that time.

Despite the persistent and continued interest in the concept of a demographic transition among population specialists, two aspects of the process still appear marginal. First is the incorporation of migration into the actual process itself in a more causal rather than simply associational way. For example, the ideas brought back by migrants, often subsumed under the rubric "social remittances" (Levitt 1999), may have played an important role in the "ideational shift" that is thought necessary to bring about a demand for smaller families (Cleland and Wilson, 1987). For one attempt to link international migration and fertility decline in this way, see Fargues (2011), although in many contexts, internal migration might be thought to have a much greater impact. The second aspect that seems marginal to the discussion is that the demographic transition is rarely conceptualized as a process that diffuses across space. Whether it begins in large cities and diffuses outwards through a spatial hierarchy of progressively smaller and more remote settlements and downwards through a social hierarchy in the way suggested by Skeldon (1990) for a migration transition, is largely unknown. Perhaps the principal difficulty is finding sufficient robust data at the sub-national level to allow testing of this idea.

Two variants of the transition model envisaged above already exist. The first relates to the idea of a "migration hump" in which the volume of migration is related to the onset of both development and the demographic transition. As prices begin to rise and mortality begins to fall, migration begins to rise, with increasing numbers of people with more income at their disposal, which allows them to move. After a lag, fertility decline causes the population growth to decline but increasing income encourages more to stay at home and emigration slows. Evidence for the hump is, however, elusive (see Lucas, 2005: 50-53 for a concise review), perhaps for many of the reasons of scale of analysis and robustness of the available data noted earlier.

The second variant takes a very different approach by focusing on ethnic change but overtly incorporates international migration into the idea of a transition (Coleman, 2006, 2012). Following the transition to very low fertility in the standard model, Coleman proposes a second transition, which sees the erosion of traditional values in "enlightened societies protected by welfare" (Coleman, 2012: 191) — essentially, the secularization of societies. The third proposed demographic transition sees the arrival of large numbers of immigrants to take up positions in an ageing society who change the ethnic composition and values of the host society in a universalization of diversity. This model was developed from the European experience, although the evolution of cultural diversity is much wider, even if for different reasons, in the settler societies where immigration from many different origins is a central policy and an integral part of nation-building.

While the universalization of secularization might be questioned (Kaufmann, 2010), the trend towards more diverse societies across the world because of migration does appear to be part of any transition. Concerns about multiculturalism are now emerging in Asian countries such as China, Japan and the Republic of Korea where the proportion of foreigners is still very small (see, for example, Douglass and Roberts, 2003; Lim, 2012; BBC News Magazine 26 October 2012).

F. INTERNAL MIGRATION AND THE DEVELOPED AND DEVELOPING WORLD

Both Japan and the Republic of Korea have exceedingly detailed information on internal migration from systems of household registration, together with basic population and urbanization data (tables 2 and 3). In terms of a transition to low fertility, Japan was several decades ahead of the Republic of Korea first falling below-replacement level fertility in the early 1960s. The Republic of Korea, however, did not achieve this level until the mid-1980s. However, the fall in fertility has been much steeper in the case of that latter country. The number of internal migrants in Japan has been declining since at least the 1970s while in the Republic of Korea it was rising until the early 1990s, before falling. Japan saw a 38 per cent decline in the total number of internal migrants from 1970 to 2010, while the Republic of Korea saw a 14 per cent decline from 1990 to 2010.

TABLE 2. JAPAN, BASIC POPULATION DATA, 1970-2050

Year	Total population (thousands)	Population 20-34 years (thousands)	Proportion of population 20-34 years	Total fertility rate (children per woman)	Internal migrations		Proportion urban
					Intra-prefectural (thousands)	Inter-prefectural (thousands)	
1970	103,708	28,059	27.1	2.13	4,038	4,245	71.9
1980	115,912	27,503	23.7	1.75	3,711	3,356	76.2
1990	122,249	24,426	20.0	1.48	3,350	3,168	77.3
2000	125,715	26,862	21.4	1.30	3,333	2,813	78.6
2005	126,979	25,810	20.3	1.34	3,000	2,848	86.0
2010	127,353	22,559	17.7	1.41	2,752	2,332	90.5
2025	123,256	17,866	14.5	1.58			96.3
2050	108,329	15,037	13.9	1.72			97.6

Sources: United Nations, Department of Economic and Social Affairs, Population Division (2012) and (2013b). Data on annual number of internal migrants are from the relevant Statistical Yearbook of Japan. Tokyo, National Statistical Office. The total fertility-rate is measured over five-year periods.

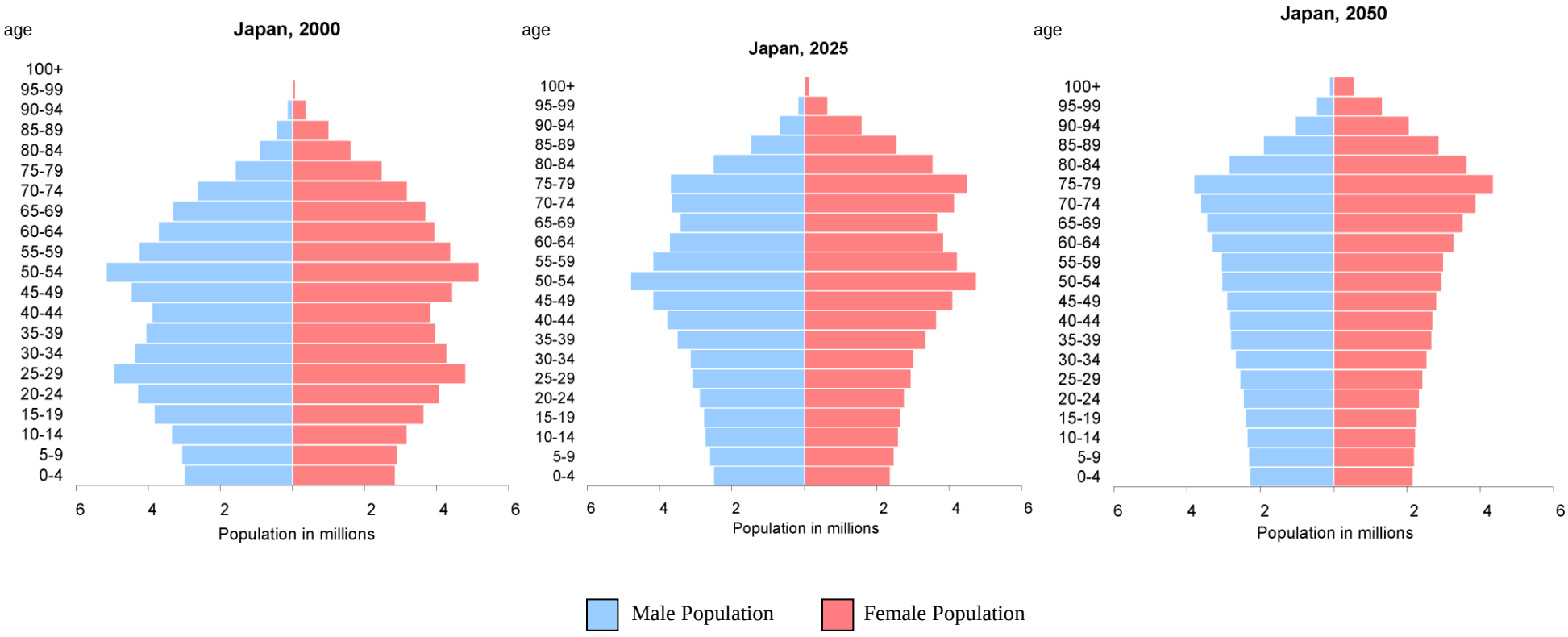
TABLE 3. REPUBLIC OF KOREA, BASIC POPULATION DATA, 1970-2050

Year	Total population (thousands)	Population 20-34 years (thousands)	Proportion of population 20-34 years	Total fertility rate (children per woman)	Internal migrations		Proportion urban
					Intra-prefectural (thousands)	Inter-prefectural (thousands)	
1970	31,437	6,916	22.0	4.28			40.7
1980	37,451	9,658	25.8	2.23	5,653	2,606	56.7
1990	42,972	12,739	29.6	1.70	6,228	3,231	73.8
2000	45,977	12,034	26.2	1.22	6,163	2,845	79.6
2005	47,033	11,429	24.3	1.23	5,980	2,815	81.3
2010	48,454	10,623	21.9	1.32	5,564	2,662	82.9
2025	51,602	9,324	18.1	1.52			86.3
2050	51,034	7,364	14.4	1.68			89.6

Sources: United Nations, Department of Economic and Social Affairs, Population Division (2012) and (2013b). Data on annual number of internal migrants are from the relevant Statistical Yearbook of Korea, Seoul, National Statistical Office. The total fertility-rate is measured over five-year periods.

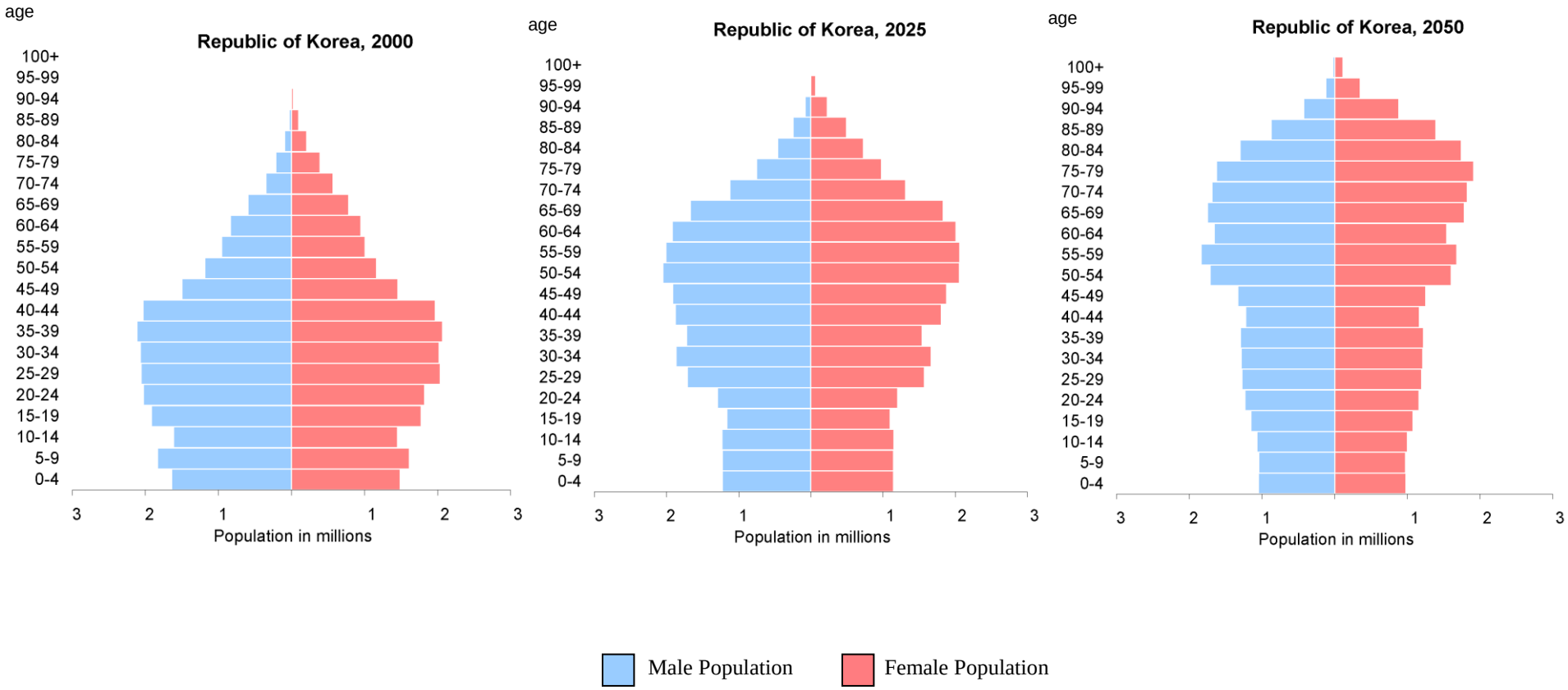
The number of young adults in the population, defined as those between the ages of 20 and 34 years, declined in Japan by 20 per cent from 1970 to 2010 while those in the Republic of Korea declined by 17 per cent from 1990 to 2010 (United Nations, 2013b). The essential point is that in the developed world where the distribution of the population in urban areas approaches about three-quarters of the population, the number of internal migrants declines. The transition to a markedly aged society by 2050 is clear but so, too, is the depth and, in the case of the Republic of Korea, the diffusion of rural depopulation, which spreads throughout the rural sector over time (figures II and III).

Figure II. Population pyramids for Japan 2000, 2025 and 2050



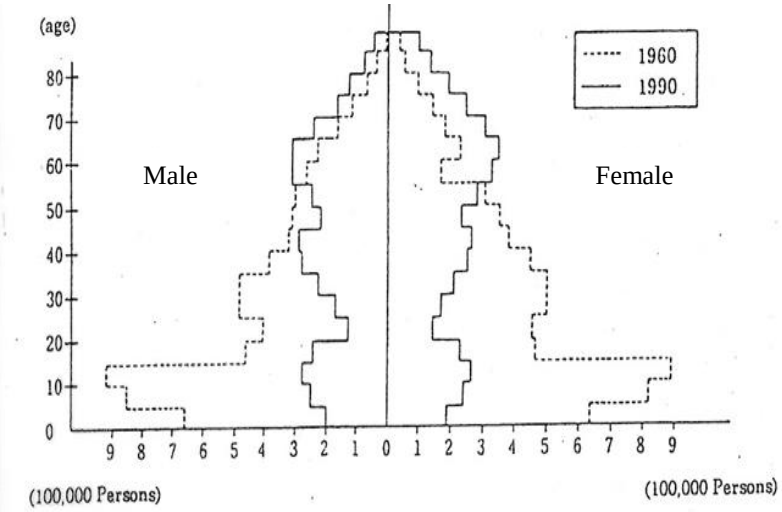
Source: United Nations, Department of Economic and Social Affairs, Population Division (2013b).

Figure III. Population pyramids for the Republic of Korea 2000, 2025 and 2050



Source: United Nations, Department of Economic and Social Affairs, Population Division (2013b).

Figure IV. Population pyramid of severely depopulated rural areas in Japan, 1960 and1990



Source: Government of Japan, *Kaso taisaku no genkyo* (Tokyo, 1995), p. 38.

The demographic profiles of severely rural areas that are experiencing a decline in total population are given in figure IV. These graphs show that these areas have lost their reproductive capacity through emigration. This demographic transition was clearly brought about by the economic development of these countries. In the mid-1970s, the Republic of Korea was still a poor country with a GNP per capita only around US$ 670 compared with Japan's US$ 4,910 (World Bank, 1978) and less than half its population living in urban areas. By 2011, Japan had reached a GNP per capita at Purchasing Power Parity (PPP) of US$ 32,195 compared with the Republic of Korea at US$ 28,230 (UNDP, 2011).

The internal migration in the largest economy of the world, the United States, has also showed a long-term decline in its domestic migration rate (Frey, 2009). This is despite the fact that the United States is not ageing as quickly as most other developed economies, with a total fertility rate of about 2.04 to 2.06 children per woman in the first decade of the twenty-first century, as well as absorbing over one million legal immigrants a year. The proportion of the population in the 20-34 age group increased from 20.5 in 1970 to 25.9 per cent in 1980 followed by a continuous decline to 20.5 per cent in 2010 (table 4). Demographics are clearly not the only factor influencing migration propensities, but the nature and situation of the housing market, the mix of industries and the re-concentration of population in urban centres after a period of counterurbanization are very likely to have played a role.

TABLE 4. UNITED STATES OF AMERICA, BASIC POPULATION DATA, 1970-2050

Year	*Total population (thousands)*	*Population 20-34 years (thousands)*	*Percentage of population 20-34 years*	*Total fertility rate (children per woman)*	*Percentage urban*
1970	209,891	43,145	20.6	2.02	73.6
1980	230,176	59,551	25.9	1.80	73.7
1990	254,507	63,471	24.9	2.03	75.3
2000	284,594	59,832	21.0	2.04	79.1
2005	298,166	61,136	20.5	2.06	80.7
2010	312,247	63,669	20.4	1.97	82.1
2025	350,626	68,830	19.6	1.98	85.2
2050	400,853	75,337	18.8	1.99	88.9

Sources: United Nations, Department of Economic and Social Affairs, Population Division (2012) and (2013b). The total fertility-rate is measured over five-year periods.

Although the evidence for a slowing of internal migration in the most developed economies seems apparent, such a pattern will still be exceptional across the world. In sub-Saharan Africa, the process of urbanization is still rapid. In 1970, less than one fifth of the population lived in towns and cities, a proportion that had reached 36.3 per cent by 2010 and was projected to rise to 38.4 per cent in 2015 and 45.7 in 2030 (United Nations, 2012) (table 5). It seems probable that there will be periods of slowdown, or even reversal along the way (Beauchemin, 2011; Potts, 2009), but the future path seems to be one of population redistribution towards cities and increasing internal migrations. This migration towards urban areas is likely to occur despite the intentions of Governments to reduce or limit these movements. The proportion of Governments in the least developed world that wished to lower the number of migrants into urban agglomerations increased from 27 per cent in 1986 to 78 per cent in 2011 while the proportion of Governments in that category that considered that no intervention was required declined from 73 to 22 per cent over the same period (United Nations, 2013c). This tension between Government wishes as expressed in policy, and in outcome on the ground, is a "gap" that has also been observed in international migration policy and is likely to increase in the future (Cornelius and Tsuda, 2004).

TABLE 5. LEVEL OF URBANIZATION BY MAJOR AREAS, 1970-2015

Region	*1970*	*1980*	*1990*	*2000*	*2010*	*2015*
World	36.6	39.4	43.0	46.7	51.6	53.9
Africa	23.5	27.8	32.0	35.6	39.2	41.1
Sub-Saharan Africa	19.5	23.9	28.2	32.2	36.3	38.4
Asia	23.7	27.1	32.3	37.4	44.4	47.6
Europe	62.8	67.3	69.8	70.8	72.7	73.8
Latin America and the Caribbean	57.1	64.3	70.3	75.5	78.8	80.2
Northern America	73.8	73.9	75.4	79.1	82.0	83.1
Oceania	71.2	71.3	70.7	70.4	70.7	70.8

Source: United Nations, Department of Economic and Social Affairs, Population Division (2012).

The future situation for Latin America and the Caribbean, however, may not be so clear with that major area already being highly urban but only in the first decade of the twenty-first century having attained below-replacement fertility. Hence, the cohorts with the highest propensity to migrate will continue to increase in Latin America for some years to come. Whether this will be reflected in increasing urban-to-urban migration or whether these young people will be trapped in marginal positions in poor urban neighbourhoods will present a challenge for national and urban planners in that region over the immediate future.

At the global level, however, much depends on what will happen in China, still the "demographic giant" of the world and with an economy projected soon to overtake that of the United States (table 6). The implementation of the economic reforms from the end of the 1970s resulted in the "largest peacetime movement of people in history" (Murphy, 2002: 1). By 2010 this had generated a stock of migrants in excess of 229 million, 200 million of whom had moved without seeking permission to move to another place of registration. This migration was both caused by and contributed to China's high rates of economic growth of 10 per cent per annum. However, given China's sharp decline in fertility, the declining proportion of population in the 20-34 age group since 1990 and rapid urbanization, it is pertinent to speculate whether it will follow a pattern similar to that of its neighbours towards decreasing numbers of internal migrants. If so, China, like Japan and the Republic of Korea will see the emergence of labour shortages and pressures to import labour to meet these shortages. Some two million job vacancies were already reported in the southeast coastal region in 2004 leading to upward pressure on wages and China, too, may move towards a country of immigration (Wang et al., 2005; Pieke, 2012; Skeldon, 2011).

TABLE 6. CHINA, BASIC POPULATION DATA, 1970-2050

Year	*Total population (thousands)*	*Population 20-34 years (thousands)*	*Percentage of population 20-34 years*	*Total fertility rate (children per woman)*	*Percentage urban*
1970	814,378	165,509	20.3	4.77	17.4
1980	984,016	239,523	24.3	2.69	19.4
1990	1,165,429	316,804	27.2	2.05	26.4
2000	1,280,429	339,549	26.5	1.55	35.9
2005	1,318,177	320,213	24.3	1.63	42.5
2010	1,359,821	333,168	24.5	1.66	49.2
2025	1,448,984	265,892	18.4	1.74	65.4
2050	1,384,977	227,539	16.4	1.81	77.3

Sources: United Nations, Department of Economic and Social Affairs, Population Division (2012) and (2013b). The total fertility-rate is measured over five-year periods.

G. INTERNATIONAL MIGRATION IN THE CONTEXT OF SHIFTS IN POPULATION STRUCTURE AND INTERNAL MIGRATION

Migrants tend to move from areas of higher fertility to areas of lower fertility but as this often represents a flow from relatively poorer to relatively richer areas, little more than a very general statement can be made regarding the relationship between changing mortality and fertility levels and changes in migration. International migrants are highly selective with regard to education and skills. For example, highly skilled migrants represent an important component of international flows and their movement primarily tends to take place between more developed countries and from a relatively small number of middle-income or rapidly developing economies, such as China and India, to a small number of more developed countries. Nevertheless, a solution to the ageing of populations in the developed world is often seen to focus on encouraging the immigration of workers who will not only fill vacancies in the labour force but also contribute to the tax revenue to support the increasing number of retired people.

However, international migration cannot reverse long-term trends in population decline due to ageing populations. As has been shown, the number of migrants has to be very large in order to keep the number of workers to dependants at a constant ratio and at an assumed favourable level (United Nations, 2001). For example, according to the 2001 United Nations study, in order to keep the working population of the Republic of Korea constant at its maximum level of 36.6 million projected for 2020, some 6.4 million immigrants would be needed between 2020 and 2050, or 213,000 per year. Given the country's immigration experience and uncertainty about the source for so many migrants, this scenario seems implausible. Migrants can help to

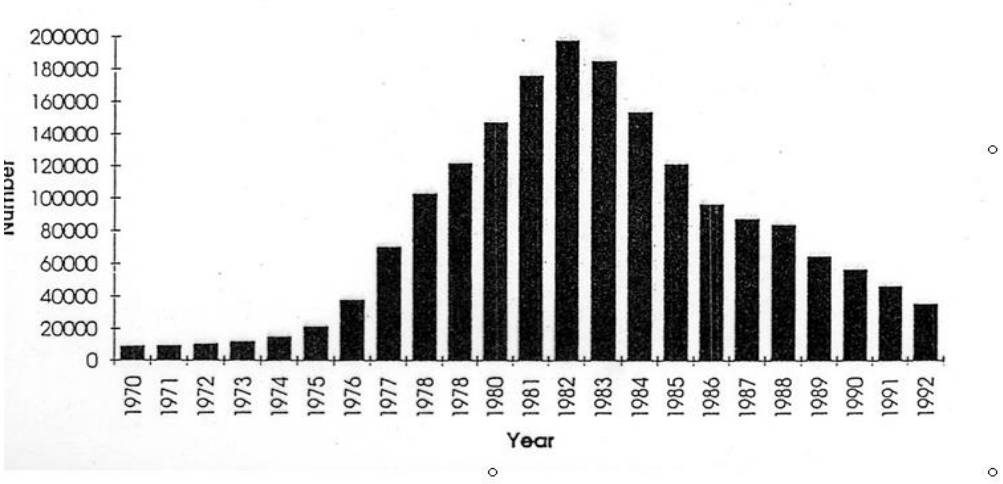
alleviate skill shortages at all levels but they cannot reverse long-term trends in population ageing (see also OECD, 2012b).

Areas of low fertility will not have the "surplus" populations available to migrate and, as observed above, areas such as Europe that were once net areas of emigration have become areas of net immigration as they progress through the demographic transition. However, although the net balance may shift, emigration does not cease: it shifts in composition given the changing skill levels of the origin population. When the educational level of the origin population rises so, too, do the educational and skill levels of any emigrants. Through the demographic transition there is a resultant shift from quantity to quality among the emigrant populations. Hence, it is hardly surprising that developed countries tend to dominate the global flows of the highly skilled and that many of those from the developing world who participate in these skilled flows have themselves been trained in the developed world. Nevertheless, centres of academic excellence are emerging in the developing world, particularly China, where more than 292,000 foreign students were studying in 2011[5]. Conversely, some 339,000 Chinese students were studying overseas. Part of the shift in the nature of emigration is a shift from longer-term to shorter-term movements with the rise in the number of international tourists which grew from around 25 million per annum in 1950 to 166 million in 1970 and to 983 million in 2011.[6] It seems that there is a progression from an "age of migration" to an "age of mobility".

Certain types of international migration can be associated with the progression through a demographic transition, although, like the transition itself, these changes are related to underlying changes in the economy. Temporary labour migration from the Republic of Korea grew rapidly from a few thousand in the early 1970s to almost 200,000 a year in 1982, to drop once again to a few thousand by the 1990s (figure V). This period coincided with countries in the Gulf region embarking upon a construction boom with the rapid increase of oil prices, and the Republic of Korea was able to respond with a rapidly expanding labour force and an economy that had just moved into a period of broad-based self-sustaining industries. As fertility decline intensified in the Republic of Korea through the 1990s, labour force growth began to slow, education levels increased and its industrial base matured, emigration became a less attractive option and the phase of temporary labour migration from the country ended.

[5] For the data, see Institute of International Education (2012). Open Doors, Project-Atlas of Student Mobility, New York, Institute of International Education. Available from http://www.iie.org/Research-and-Publications/Project-Atlas (accessed 15 November 2012).
[6] Data on tourists from the World Tourism Organization are available from http://www.unwto.org/facts/menu.html (accessed 12 November 2012).

Figure V. Republic of Korea: annual outflow of migrant workers, 1970-1992



Source: Drawn from data published by the International Labour Organization, Regional Office for Asia and the Pacific, Bangkok, and cited in R. Skeldon, *Migration and Development: A Global Interpretation*, London, Longman, 1997, table 2, page 102.

Japan had no equivalent phase of labour migration. However, it experienced a period of net emigration, mainly to South America and particularly Brazil, which dated from the early years of the twentieth century, peaking in the late 1920s and early 1930s and continuing in the late 1950s after the Second World War. Few people migrated after the 1970s. Japan was already a low-fertility country in the 1980s with a highly educated population experiencing a rapidly growing economy while demand for labour grew in Gulf countries. Yet, in the twenty-first century, both Japan and the Republic of Korea have seen increasing immigration, of both less-skilled labour and other types of migrants. These patterns might give the impression that in East Asia, too, a transition from net emigration to net immigration exists as in Europe: a "turnaround" in migration (Abella, 1994). However, the evidence is mixed. First, although immigration to both Japan and the Republic of Korea has increased, it is still very small. The number of registered foreigners in Japan increased from 708,458 people in 1970 and 1,686,444 people in 2000 to 2,186,121 people in 2009.[7] The latter figure represented less than 2 per cent of the total population. The 1,158,866 registered foreigners in the Republic of Korea in 2008 represented 2.2 per cent of the population (DeWind, et al 2012: 379). For Japan, annual arrival and departure figures for both foreigners and Japanese show no clear pattern from 2000 to 2009, although they were generally balanced. Annual flows of Korean emigrants to Australia, Canada and the United

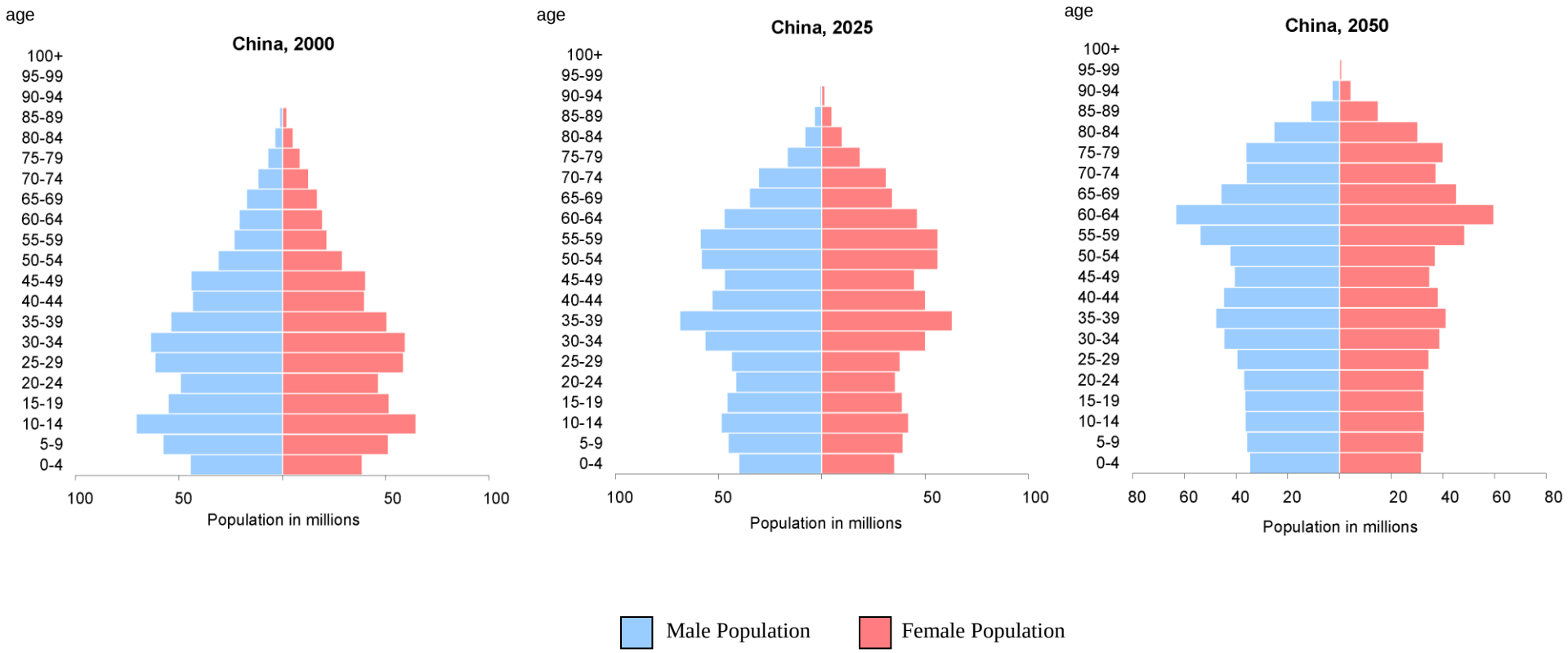
[7] The figures are from the relevant annual volumes of the *Japan Statistical Yearbook*, Tokyo, Statistics Bureau, Statistical Research and Training Institute, Ministry of Internal Affairs and Communications

States increased over the last decade compared with the decade of the 1990s. Although permanent emigration from Japan appears to be very small, less permanent forms such as migration for business-related reasons, intracorporate transferees and student migration appear to be more important, similar to most highly developed economies and brought about by Japan's role in the global economy. Korean emigration has not stopped and no marked slowdown in international migration consequent upon changing age structures that might parallel the pattern of internal migration can be observed.

Hence, despite the slowing in labour force growth in countries located in East Asia, no massive immigration has yet occurred in the region even though clear evidence of an increase in the immigration of labour does exist. Given the population pyramids of both Japan and the Republic of Korea (figures II and III) one might expect a slowing of emigration and an increase in immigration, particularly as the countries compete in a global economy. However, as Seol and Skrentny (2009) argue, despite increases in labour migration, institutions that would strongly support family reunification that will lead to a more permanent settlement of migrants are missing in East Asia.

The demographic evidence from East Asia does suggest that it should embark upon a third demographic transition to a more multi-ethnic society according to the "Coleman model" (2012). Much, however, will depend upon what happens in China. Its age and sex profile, too (figure VI) appears to follow, albeit with a time lag, the profiles of its two close neighbours. Immigration has begun with, according to the 2010 census, a stock of migrants from Hong Kong and Macao (Special Administrative Regions of China) of 426,000 and a stock of 593,800 other foreigners; numbers very small compared with the national population. However, it appears likely that there are substantial numbers of irregular migrants, such as workers from Viet Nam moving into low-paying jobs in southern China and also merchants from African countries in the coastal region, particularly in Guangdong province (Pieke, 2012). However, Chinese are still numerically important in the immigration flows to Australia, Canada, the United States and to several countries in Europe, and they dominate the international flows of students. Nevertheless, an East Asia that is a destination for migrants from around the world is also emerging and that ultimately may be the more decisive trend, brought about not only by its economic growth but also the consequent demographic shifts in mortality and fertility and increasing demand for labour in certain sectors of the economy due to an ageing population.

Figure VI. Population pyramids for China, 2000, 2025 and 2050



Source: United Nations, Department of Economic and Social Affairs, Population Division (2013b).

H. MIGRATION AND DEVELOPMENT: TOWARDS A GLOBAL FUTURE

If the future structure of the global economy follows the models of Pricewaterhouse Coopers or the OECD to the middle of the twenty-first century, patterns, volumes and compositions of migration are likely to be very different from those at present (Pricewaterhouse Coopers, 2011; OECD, 2012b). Economic and social differences among countries are likely to decrease as economies across the world begin to converge, with the greater share of growth over the next 50 years occurring not in the present developed world but in East and South Asia. Demographic shifts will be an integral part of this transformation as these developed areas see slowing labour force growth, ageing and even declining populations that will lead to pressures to import workers at several skill levels. Most developed economies need and want skilled workers and need but do not want unskilled migrants. Yet these two systems are closely linked as skilled workers generate increased demand for low-skilled workers employed in the service economy.

While the forecasting of future trends is fraught with uncertainty, a consensus exists that the areas of sustained economic dynamism will be in Asia. Yet, global migration will not simply readjust towards these growth areas, although that will certainly be part of future change. Migration to the present developed world in Europe and Northern America may also shift, or even slow down. The recent large wave of migrants to the United States, in particular from Mexico, which accounted for some 12 million migrants, appeared to have stopped or even to have reversed by 2010 (Passel et al., 2012).

The recent financial and economic crisis has affected these flows from Mexico to the United States. In addition, fertility in Mexico has declined from 6.5 children per woman in 1970-75 to 2.2 children per woman in 2010-15 (United Nations, 2013b). Gross national income per capita in Mexico in 2011 was US$ 13,245, some 75 per cent higher than that of China (UNDP, 2011: table 1) and around 2008, the income per capita for Mexico City was US$ 16,400 compared with US$ 6,900 for Shanghai (Furniss, 2008). Population growth has declined from almost 3 per cent per annum in the early 1970s to 1.14 per cent in 2010. However, given the economic growth in Mexico, Mexico City and other urban parts of the country have become destinations not just for internal migrants who might have intended to move to the United States but also for migrants from other parts of Central America.

Among other factors influencing future migration trends will be return migration. The international migrations to Australia, Europe and Northern America from the developing world were relatively recent, dating from changes to immigration laws in the 1960s. As pensions will last longer in lower cost economies, a return migration of these migrants might be expected. However, few emigration data exist for developed economies, with the exceptions of Australia and New Zealand (as well as Japan and the Republic of Korea), and this return migration of natives of developing countries — but citizens of the developed world — has become one of the "invisible" flows that are likely to become more important in the future.

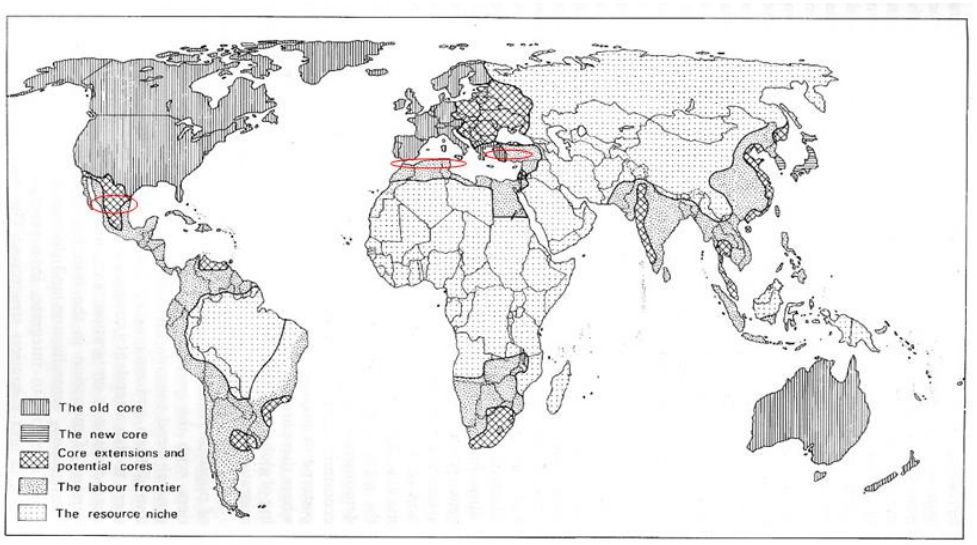
The dynamic growth centres of East Asia and the extension of their activities into neighbouring areas will account for much of the change in the global migration system over the intermediate future. Outlying areas in southern and western Africa, southern Brazil and western India based on oil and gas finds are also likely to see the emergence of major centres of both immigration and emigration. However, it is also on the margins of the developed world that the expansion of the "developed world" is occurring, not just in Mexico but also along the eastern fringes of Europe and into Turkey, including Northern Africa. These areas, where a fertility transition is already advanced or advancing will most likely absorb migrants and see a transition towards immigration and not just emigration to their more developed neighbours. The diffusion of this migration/demographic and economic transition will not be a linear or progressive sequence. It can "jump" to areas of favoured location and governance and may, at times, regress. This process can perhaps be mapped into a series of migration-development regions as proposed by Skeldon (1997) (figure VII).

In this way migration is neither seen as "good" or "bad" for development but as an integral part of the process, responding to economic conditions but then reinforcing and initiating change in an iterative way. The future debate on migration and development might better be framed as "development and migration" to give precedence to the broader shifts in economy and society that are likely to affect migration.

One of the future challenges in studying the future course of migration clearly revolves around the impact of global environmental change on migration. However, the uncertainty of its impact on migration is too great to make informed forecasts. It is not certain which areas within a country will become wetter and which will become drier or which will become colder and which warmer, let alone how these changes will affect migration. A difference between slow-onset

change such as rises in mean sea levels, and short, sharp shocks such as those brought about by extreme climatic events is likely to emerge. However, the longer-term impact of, for example, salination caused by short-term shocks, may blur any clear distinction between the slow-onset and extreme-event changes. Perhaps one of the most important conclusions to be drawn, however, is that the estimates of hundreds of millions of people being displaced globally are based more on "scaremongering" than rational analysis. One of the most comprehensive assessments of the available evidence is contained in the Foresight report (Government Office of Science, United Kingdom, 2011), which emphasizes that the majority of resulting movement is likely to be short-distance and short-term. The impacts will be more clearly seen on internal rather than international migration to the most developed parts of the world.

Figure VII. A schematic representation of migration and development regions with areas of potential transitions identified



Source: Modified from Ronald Skeldon, *Migration and Development: A Global Perspective*. London, Longman, 1997, p. 51.

I. CONCLUSION

This paper began with an examination of some of the common myths or ideas about migration: (*a*) that migration is a simple movement from an origin to a destination; (*b*) that there is a clear distinction between permanent and temporary migration, and (*c*) that the current patterns of migration are likely to persist. The paper questioned the application of the simple division of the global migration system into a "Global North" and "Global South" as a useful way

of framing current migration flows. The global economy is dynamic with major changes in the location of global production and consumption that blurs any simple binary division into a richer "North" or poorer "South." Future migration will evolve to reflect those changes towards a more diverse world.

The current debate on international migration and development has focused primarily on how migrants can impact upon the development of countries of origin and destination through transnational flows of capital and skills. The extent to which these flows of remittances and talent have positive and negative consequences on development is still contested. Nevertheless, the debate needs to move on to consider the likely impact of expected new patterns of development on global migration. It is highly deceptive to apply the term "South-South " migration to movements towards centres of dynamism not just in East Asia but in parts of Africa and Latin America where those centres are coming to challenge the position of economies in the so-called "North". This process is likely to be irregular, with periods of standstill and even reversal, but ultimately will bring about a transformation in the global economy and in the resultant patterns of migration.

In order to introduce the converse relationship of development and migration, the paper examined the ideas of a migration transition that could be incorporated into the more widely recognized model of a demographic transition. Shifts in internal and international migration are presented with reference to countries in East Asia. The demographic factors impacting on changing age distributions are shown to be important for internal migrations, although other factors need to be included, and especially for international migration. As the nature of an economy shifts from agriculture to industry, and industry shifts from labour to capital intensive, the volume, direction and composition of migration flows shift, too; not necessarily in any simple linear or pre-determined manner but certainly in tandem with structural changes in society, economy and policy that are generally considered under the rubric "development." Transition models of migration form a useful framework in which to consider shifts in the spatial and temporal patterns of migration as well as the links between internal and international migrations (Skeldon, 2012). This paper considered emerging destinations and origins of migration and focused on East Asia but also on current peripheral areas of the developed world and highlighted new nuclei within the developing world. A broader attempt to link migration and development at the macro level and take these ideas forward in a research agenda is contained in DeWind and Ergun (2013).

Future shifts in migration will be affected by the observed convergence in economies with the evolution of a much more poly-centred economy and global migration system. Distinct regional systems are likely to emerge that account for the majority of migrants but held together by a global system of migrants for whom a global market for their skills exists. As societies become more highly urbanized and populations age, a trend may emerge towards a decline in migration, in terms of longer-term movements, but towards a rise in shorter-term mobility. People will become less migratory but more mobile, paradoxical though that might seem. Mobility will be highly complex in terms of types of movers as well as countries of origin and destination and the impact of environmental change on migration will be felt primarily at the local and regional levels. Tourists will be but one type of mover with a profound impact on local and global development. Students, people moving for medical reasons, as well as those moving to undertake short-term skilled and less skilled work all fall into these categories of mobility, which increasingly come under the term "circular migration" or "circulation" (Skeldon, 2012a). Managing and monitoring such systems of mobility will continue to present major challenges to policymakers and analysts alike, not least because of a continued lack of timely and accurate data on population movements both long-term and short-term. The paper stressed that despite some progress, there is an urgent need to improve the collection and dissemination of timely and comparable data on migration, both internal and international.

This paper has focused on those population movements that are likely to result from the changes in the pattern of future economic development. These movements will be far greater in number and will have a more pronounced development impact than any other types of migration, such as forced movement and, perhaps most specifically, those displaced by environmental change. Migrants are often moving towards areas of greater environmental risk in urban areas, for example, although that risk could be at least be mitigated through more effective urban planning and implementation of building codes. It is difficult to envisage a reversal of this process. Nevertheless, global environmental change is indeed another factor that policymakers will have to incorporate into attempts to manage migration even if those movements are most likely to be short distance and short term (Government Office of Science, United Kingdom, 2011). As this paper pointed out, however, the greatest need is to take into consideration the long-term shifts in mobility that the dynamics of population change imply. Successful policy is more likely to result from planning for such expected global shifts in migration than from trying to regulate or reverse them.

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