5. *Republic of Korea*

(a) *Past trends*

The total fertility rate in the Republic of Korea increased from 5.40 births per woman in 1950-1955 to 6.33 births in 1955-1960 as a result of the baby boom that followed immediately after the Korean War. However, the total fertility of the country showed a sharp decline thereafter, down to 4.28 births in 1970-1975, to 2.50 births in 1980-1985 and to 1.70 births in 1990-1995. Owing to significant declines in mortality over time, life expectancy at birth for both sexes combined increased from 47.5 years in 1950-1955 to 70.9 years in 1990-1995. The proportion of the elderly (aged 65 or older) in the total population remained between 3.0 and 4.0 per cent between 1950 and 1980 and started increasing slowly thereafter, reaching 5.6 per cent by 1995. The potential support ratio of the country dropped from 18.4 to 12.6 between 1950 and 1995.

(b) *Scenario I*

The Republic of Korea has been until recently a country of emigration. The medium variant of the United Nations *1998 Revision* assumes a net total of 450,000 emigrants from the country between 1995 and 2020 and none thereafter. Thus, it was projected that the population of the country would increase from 44.9 million in 1995 to 53.0 million in 2035, and then decline to 51.3 million in 2050 (the results of the 1998 United Nations projections are shown in the annex tables.) The working-age population of the country is projected to increase from 31.9 million in 1995 to 36.3 million in 2020, and then decrease to 30.4 million by 2050. The population aged 65 or older would continue to increase rapidly between 1995 and 2050, from 2.5 million to 12.7 million. As a result of these changes, the potential support ratio in the country would drop extremely rapidly, passing from 12.6 in 1995 to 5.7 in 2020 and to 2.4 in 2050.

(c) *Scenario II*

Scenario II assumes that the population in the Republic of Korea would change according to the fertility and mortality assumptions of the medium variant of the United Nations *1998 Revision*, but with net zero migration from 1995 through 2050. This scenario yields results very similar to those of scenario I. The total population of the country would keep growing from 44.9 million in 1995 to 53.5 million in 2035, and then decrease to 51.8 million in 2050. The size of the population aged 15-64 would peak at 36.6 million in 2020, rising from 31.9 million in 1995. Then, it would decline to 30.7 million in 2050. The population aged 65 years or older is projected to grow five-fold, from 2.5 million in 1995 to 12.8 million in 2050. As in scenario I, the potential support ratio of the country would drop extremely rapidly from 12.6 in 1995 to 2.4 in 2050.

(d) *Scenario III*

If no migration occurred after 1995, the population of the Republic of Korea would reach a maximum in 2035 at 53.5 million. In order to keep the size of the total population constant at that level thereafter, it would be necessary to have 1.5 million net immigrants between 2035 and 2050, or an average of 100,000 per year during that period. By 2050, out of a total population of 53.5 million, 1.7 million or 3.2 per cent, would be immigrants and their descendants.

(e) *Scenario IV*

In order to keep the size of the working age population (15-64 years old) constant at its maximum of 36.6 million in 2020, the Republic of Korea would need a total of 6.4 million immigrants between 2020

and 2050, or an average of 213,000 per year. By 2050, out of a total population of 60.1 million, 8.4 million, or 13.9 per cent, would be post-1995 immigrants and their descendants.

(f) *Scenario V*

Scenario V does not allow the potential support ratio to decrease below the value of 3.0. In order to do so, no immigrants would be needed until 2035, and 11.6 million immigrants would be needed between 2035 and 2050, an average of 0.8 million per year during that period. By 2050, out of a total population of 65.7 million, 14.0 million, or 21 per cent, would be post-1995 immigrants or their descendants.

(g) *Scenario VI*

In order to keep the ratio of the working-age population to the population aged 65 years or older at its 1995 level of 12.6, it would be necessary to have a total of 5.1 billion immigrants from 1995 through 2050, or an average of 94 million per year. This number is enormous because the initial level of the potential support ratio, 12.6, is relatively high. Under this scenario, the total population of the country is projected to be 6.2 billion in 2050, of which over 99 per cent would be post-1995 immigrants and their descendants.

(h) *Additional considerations*

The pace of population ageing in the Republic of Korea is projected to be one of the fastest in the world. With zero immigration in the future, the proportion aged 65 or older in the total population would increase from 5.6 per cent to 24.7 per cent between 1995 and 2050. The proportion of elderly would be 24.0 per cent in 2050, only slightly smaller, if immigration kept the size of the total population constant at its maximum in 2035. Similarly, the proportion of elderly would be 22.1 per cent if the size of the working-age population remained at its maximum in 2020. Thus, under these scenarios, the impact of immigration on population ageing in the country would be minimal. Figure 17 shows, for scenarios I, II, III and IV, the population of the Republic of Korea in 2050, indicating the share that comprises post-1995 migrants and their descendants.

The number of immigrants needed to maintain the potential support ratio at its 1995 level (scenario VI) is 110 times the size of the current national population and approximately equal to the current total population of the world. This extreme result indicates that the 1995 level of the potential support ratio is transitional and will be considerably lower in the future, irrespective of migration flows.

In the absence of migration, the figures show that it would be necessary to raise the upper limit of the working-age to 67.6 years to obtain a potential support ratio of 3.0 in 2050, and to about 82 years in order to obtain in 2050 the same potential support ratio observed in 1995 in the Republic of Korea, which was 12.6 persons of working-age per each person aged 65 years or older. Increasing the activity rates of the population, if it were possible, would only be a partial palliative to the decline in the support ratio due do ageing. If the activity rates of all men and women aged 25 to 64 increased to 100 per cent by 2050, this would make up for only 8 per cent of the loss in the active support ratio resulting from the ageing of the population.

TABLE 22. POPULATION INDICATORS FOR REPUBLIC OF KOREA BY PERIOD FOR EACH SCENARIO

Scenario	*I*	*II*	*III*	*IV*	*V*	*VI **
Period	*Medium Variant*	*Medium variant with zero migration*	*Constant total population*	*Constant age group 15-64*	*Ratio 15-64/65+ not less than 3.0*	*Constant ratio 15-64/65 years or older*
			A. Average annual number of migrants (thousands)			
1995-2000	-20	0	0	0	0	*4 156*
2000-2025	-14	0	0	41	0	*15 151*
2025-2050	0	0	60	216	464	*189 975*
2000-2050	-7	0	30	129	232	*102 563*
1995-2050	-8	0	27	117	211	*93 617*
			B. Total number of migrants (thousands)			
1995-2000	-100	0	0	0	0	*20 780*
2000-2025	-350	0	0	1 034	0	*378 765*
2025-2050	0	0	1 509	5 392	11 595	*4 749 382*
2000-2050	-350	0	1 509	6 426	11 595	*5 128 147*
1995-2050	-450	0	1 509	6 426	11 595	*5 148 928*
			C. Total population (thousands)			
1950	20 357	-	-	-	-	-
1975	35 281	-	-	-	-	-
1995	44 949	-	-	-	-	-
2000	46 844	46 946	46 946	46 946	46 946	*68 768*
2025	52 533	53 020	53 020	54 119	53 020	*522 908*
2050	51 275	51 751	53 470	60 125	65 736	*6 233 275*
			D. Age group 0-14 (thousands)			
1950	8 479	-	-	-	-	-
1975	13 318	-	-	-	-	-
1995	10 540	-	-	-	-	-
2000	10 068	10 091	10 091	10 091	10 091	*15 886*
2025	8 956	9 040	9 040	9 338	9 040	*128 197*
2050	8 209	8 285	8 752	10 205	12 043	*1 571 113*
			E. Age group 15-64 (thousands)			
1950	11 257	-	-	-	-	-
1975	20 690	-	-	-	-	-
1995	31 882	-	-	-	-	-
2000	33 623	33 696	33 696	33 696	33 696	*48 998*
2025	35 557	35 886	35 886	36 649	35 886	*365 720*
2050	30 401	30 685	31 867	36 649	40 270	*4 319 740*
			F. Age group 65+ (thousands)			
1950	620	-	-	-	-	-
1975	1 273	-	-	-	-	-
1995	2 527	-	-	-	-	-
2000	3 152	3 159	3 159	3 159	3 159	*3 884*
2025	8 020	8 094	8 094	8 131	8 094	*28 990*
2050	12 665	12 781	12 851	13 270	13 423	*342 421*
			G. Potential support ratio 15-64/65+			
1950	18.16	-	-	-	-	-
1975	16.25	-	-	-	-	-
1995	12.62	-	-	-	-	-
2000	10.67	10.67	10.67	10.67	10.67	*12.62*
2025	4.43	4.43	4.43	4.51	4.34	*12.62*
2050	2.40	2.40	2.48	2.76	3.00	*12.62*

** Scenario VI is considered to be demographically unrealistic.*

Figure 16. Age-sex structures by scenario for 2000, 2025 and 2050
(*Population in millions*)

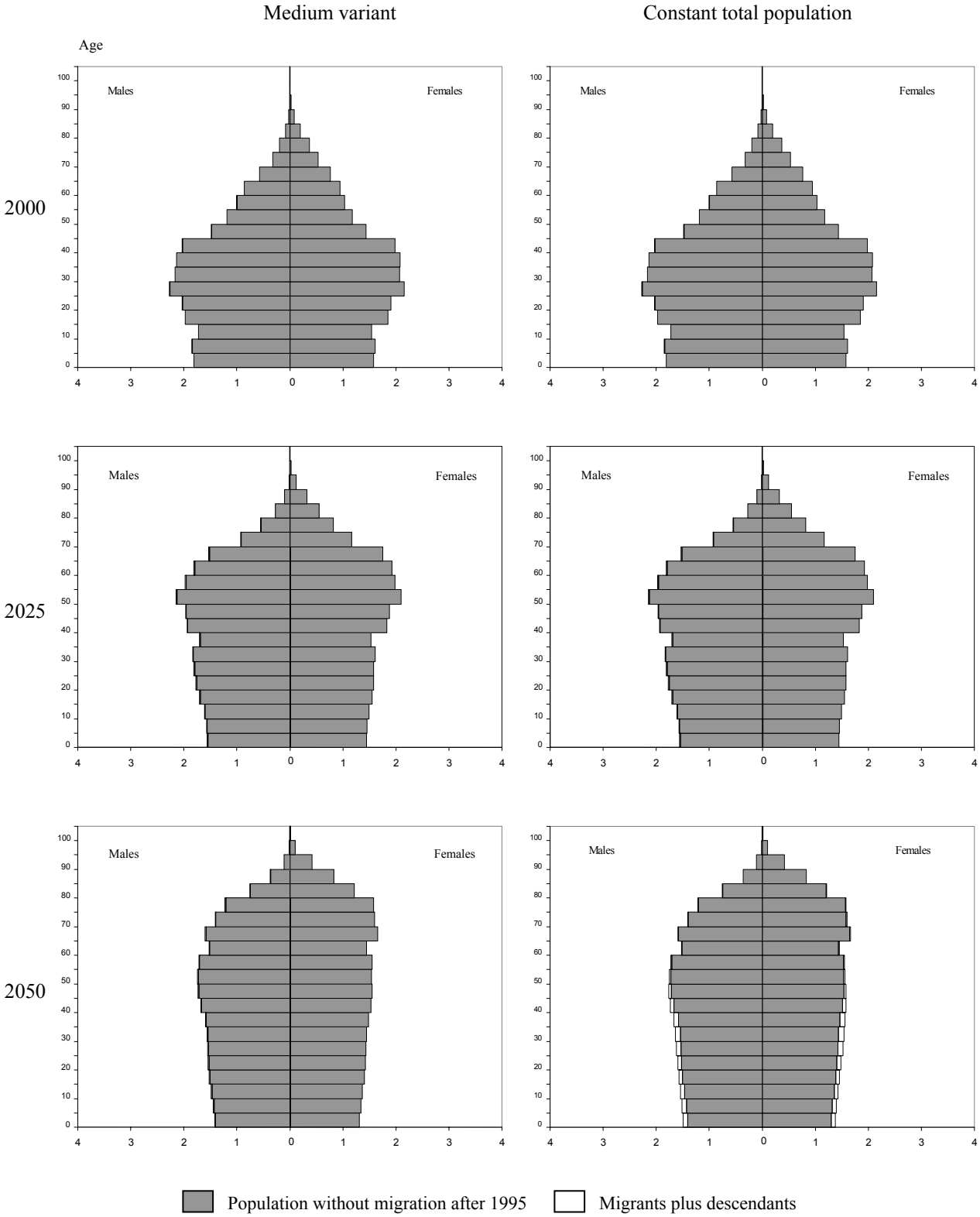
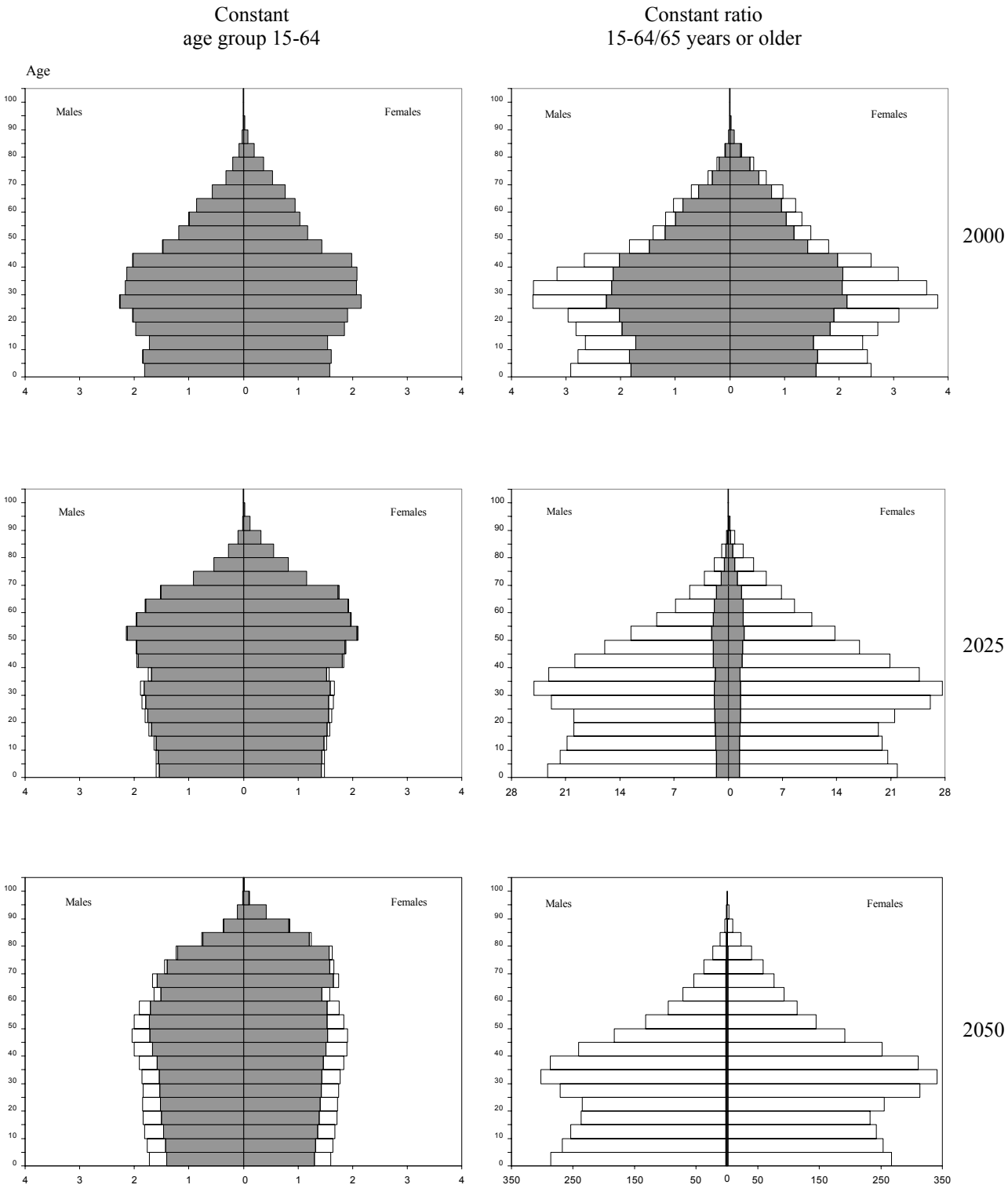
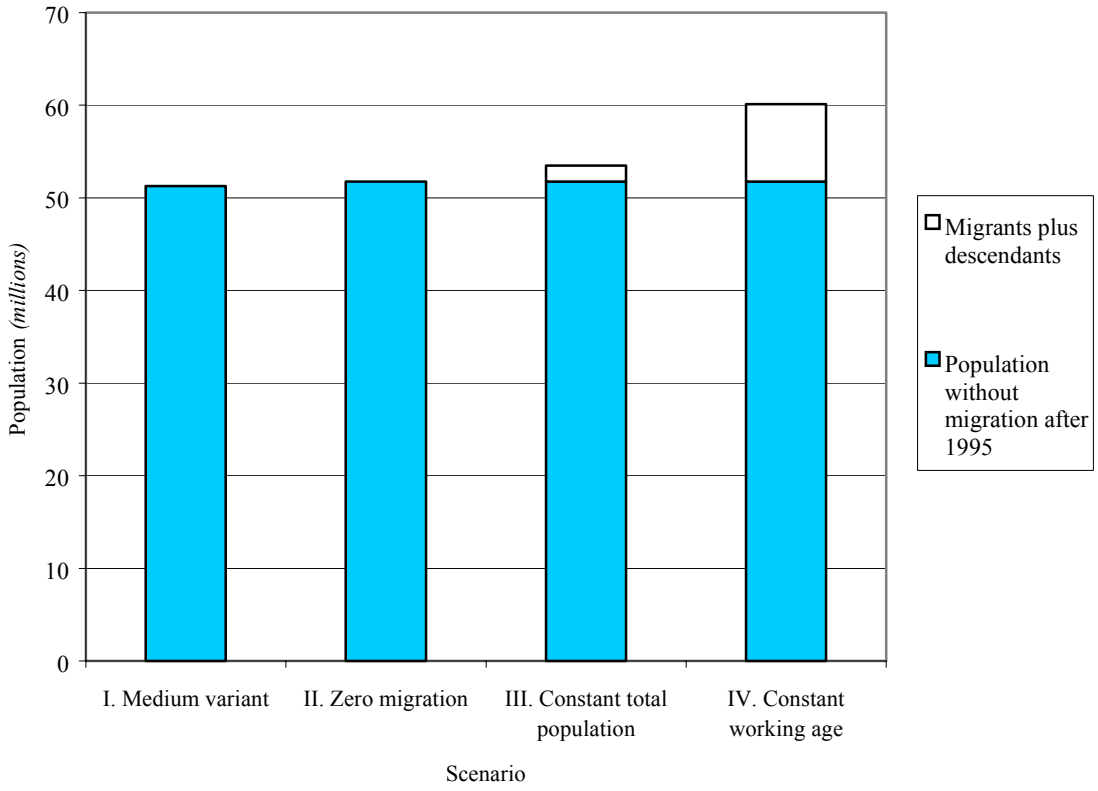


Figure 16 (continued)



NOTE: For the constant ratio scenario, the age-sex structures in 2025 and 2050 have different scales from the other scenarios.

Figure 17. Population of the Republic of Korea in 2050, indicating those who are post-1995 migrants and their descendants, by scenario



NOTE: The population in scenario I is slightly smaller than in scenario II because of net out migration.