

## EUROPE

### *Past trends*

Europe today consists of 47 countries and areas, a list of which is shown on page viii. The combined population of these 47 countries was 728 million in 1995. The total fertility rate in Europe fluctuated at levels slightly below 2.6 births per women in the 1950s and early 1960s, but subsequently took a steady downward course that brought it down to 1.57 births per women by 1990-1995. Life expectancy at birth registered an uneven-paced progress until recently, rising from 66.2 years in 1950-1955 to 73.0 years in 1985-1995. Subsequently, the expectation of life declined to 72.6 years in 1990-1995 - a trend reflecting the sharp deterioration of mortality conditions observed in Eastern Europe, particularly in Russia and Ukraine. The proportion of the population aged 65 or older has risen from 8.2 per cent in 1950 to 13.9 per cent in 1995. The potential support ratio declined from 8.0 in 1950 to 4.8 in 1995.

### *Scenario I*

Scenario I, the medium variant of the United Nations *1998 Revision*, assumes an average net intake of 428,000 migrants per year between 1995-2050, for a net total of 23,530,000 migrants during the period. After a slight increase between 1995 and 2000, when the total population of Europe would reach its top level at 729 million, continuous decline is projected to set in immediately after 2000. By 2050, Europe would have lost some 100 million inhabitants and would therefore have a population of only about 628 million or 14 per cent less than in 1995. (The results of the *1998 Revision* are shown in the annex tables.) By 2050, out of this total population of 628 million, 27 million, or 4.3 per cent would be post-1995 immigrants or their descendants. Up to 2010, the population aged 15-64 would register diminishing increases; having topped at some 497 million in 2010, it will thereafter decline rapidly. By 2050, the working age population of Europe would be down to 364 million, a 25 per cent reduction in relation to the 1995 level. On the other hand, the population aged 65 or older would steadily rise from 101 million in 1995 to nearly 173 million in 2050. As a result, the potential support ratio would be severely reduced from 4.8 in 1995 to 2.1 in 2050.

### *Scenario II*

Scenario II, which is the medium variant with zero migration, uses the fertility and mortality assumptions of the medium variant of the *1998 Revision*, but without any migration to Europe after 1995. The results in this scenario show that in absence of migration, the total population would start decreasing immediately after 1995, and by 2050 it would be down to 600 million - approximately 27 million less than in scenario I, and some 127 million (or 18 per cent) down from the 1995 level. The population aged 15-64 would initially continue to rise, going from 487 million in 1995 to 493 million in 2005; thereafter it would drop steadily to reach 345 million in 2050 - a decline of almost 30 per cent in relation to 1995. The population aged 65 or older would increase from 101 million in 1995 to 169 million in 2050. While the absence of migration means considerably smaller population numbers, it would impact less on the population aging process: the potential support ratio would decline to 2.0 in 2050, which is only marginally lower than the figure (2.1) in scenario I.

### *Scenario III*

Scenario III keeps the size of the total population of Europe constant at its maximum of 728 million, and calculates the number of migrants that would be required in order to prevent the decline of the population in the face of an increasing excess of deaths over births. The calculations show that a net total of 100 million migrants would be required during the period 1995-2050 just to maintain the total population of Europe at its 1995 level. This corresponds to an average of approximately 1.8 million net migrants per year. By 2050, out of a total population of 728 million, 127 million, or close to 18 per cent, would be post-1995 immigrants or their descendants.

### *Scenario IV*

Scenario IV keeps the size of the population aged 15 to 64 constant at 492.6 million, which is the maximum level that it would reach (in 2005) in absence of migration after 1995. The calculations show that the number of migrants that would be required to prevent the decline of the working age population after that point would total 161 million over the period 2005-2050, or a net average of approximately 3.6 million migrants per year during those 45 years. This would cause the total population to grow from 728 million in 1995 to 809 million in 2050; out of these 809 million people, some 209 million or 26 per cent would be post-2005 immigrants or their descendants.

### *Scenario V*

Scenario V keeps the potential support ratio at its 1995 value of 4.8 persons aged 15-64 years for each person aged 65 years or older. In order to keep the potential support ratio constant at that level, it would be necessary to have almost 1.4 billion immigrants from 1995 to 2050, an average of 25.2 million a year. By 2050, the population of Europe would have grown to 2.3 billion out of which 1.7 billion or almost three quarters would be post-1995 immigrants or their descendants.

### *Discussion*

United Nations estimates of the average net total number of migrants in Europe around 1997 are in the region of 950 thousand per year. This level would be about half the long-term average net number of migrants required to prevent the total population from declining; one third of the number required to prevent the working-age population from declining; and about 4 per cent of the number required to keep up the potential support ratio at its 1995 level. Figure IV.20 shows, for scenarios I, II, III and IV, the population of Europe in 2050, indicating the share that are post-1995 migrants and their descendants.

In absence of migration, the calculations in this report indicate that the upper limit of the working age would need to be raised to about 75 years in Europe in order to obtain in 2050 the same potential support ratio observed in 1995, i.e. 4.8 persons of working age per older person.

TABLE IV.20. POPULATION INDICATORS FOR EUROPE BY PERIOD FOR EACH SCENARIO

<i>Scenario</i>	<i>I</i>	<i>II</i>	<i>III</i>	<i>IV</i>	<i>V</i>
<i>Period</i>	<i>Medium variant</i>	<i>Medium variant with zero migration</i>	<i>Constant total population</i>	<i>Constant age group 15-64</i>	<i>Constant ratio 15-64/65 years or older</i>
<i>A. Average annual number of migrants (thousands)</i>					
1995-2000	950	0	854	0	5 844
2000-2025	486	0	1 323	2 696	17 246
2025-2050	265	0	2 511	3 758	37 031
2000-2050	376	0	1 917	3 227	27 139
1995-2050	428	0	1 821	2 934	25 203
<i>B. Total number of migrants (thousands)</i>					
1995-2000	4 750	0	4 270	0	29 220
2000-2025	12 162	0	33 081	67 393	431 153
2025-2050	6 617	0	62 787	93 953	925 779
2000-2050	18 779	0	95 869	161 346	1 356 932
1995-2050	23 530	0	100 137	161 346	1 386 151
<i>C. Total population (thousands)</i>					
1950	547 318	-	-	-	-
1975	676 390	-	-	-	-
1995	727 912	-	-	-	-
2000	728 887	723 482	727 912	723 482	753 810
2025	702 335	684 055	727 912	759 766	1 212 912
2050	627 691	600 464	727 912	809 399	2 346 459
<i>D. Age group 0-14 (thousands)</i>					
1950	143 174	-	-	-	-
1975	160 557	-	-	-	-
1995	139 464	-	-	-	-
2000	127 346	125 509	126 643	125 509	133 272
2025	103 212	100 408	110 158	119 218	223 700
2050	90 430	86 378	112 731	129 140	456 670
<i>E. Age group 15-64 (thousands)</i>					
1950	359 162	-	-	-	-
1975	438 455	-	-	-	-
1995	487 110	-	-	-	-
2000	494 102	492 142	495 287	492 142	513 673
2025	451 599	438 874	470 673	492 555	818 857
2050	364 277	345 100	432 959	492 555	1 564 343
<i>F. Age group 65+ (thousands)</i>					
1950	44 981	-	-	-	-
1975	77 377	-	-	-	-
1995	101 338	-	-	-	-
2000	107 439	105 831	105 982	105 831	106 865
2025	147 524	144 774	147 081	147 993	170 355
2050	172 985	168 986	182 222	187 704	325 446
<i>G. Potential support ratio 15-64/65+</i>					
1950	7.98	-	-	-	-
1975	5.67	-	-	-	-
1995	4.80	-	-	-	-
2000	4.60	4.65	4.67	4.65	4.81
2025	3.06	3.03	3.20	3.33	4.81
2050	2.11	2.04	2.38	2.62	4.81

**EUROPE**

**Figure IV.19. Age-sex structures by scenario for 2000, 2025 and 2050**  
(Population in millions)

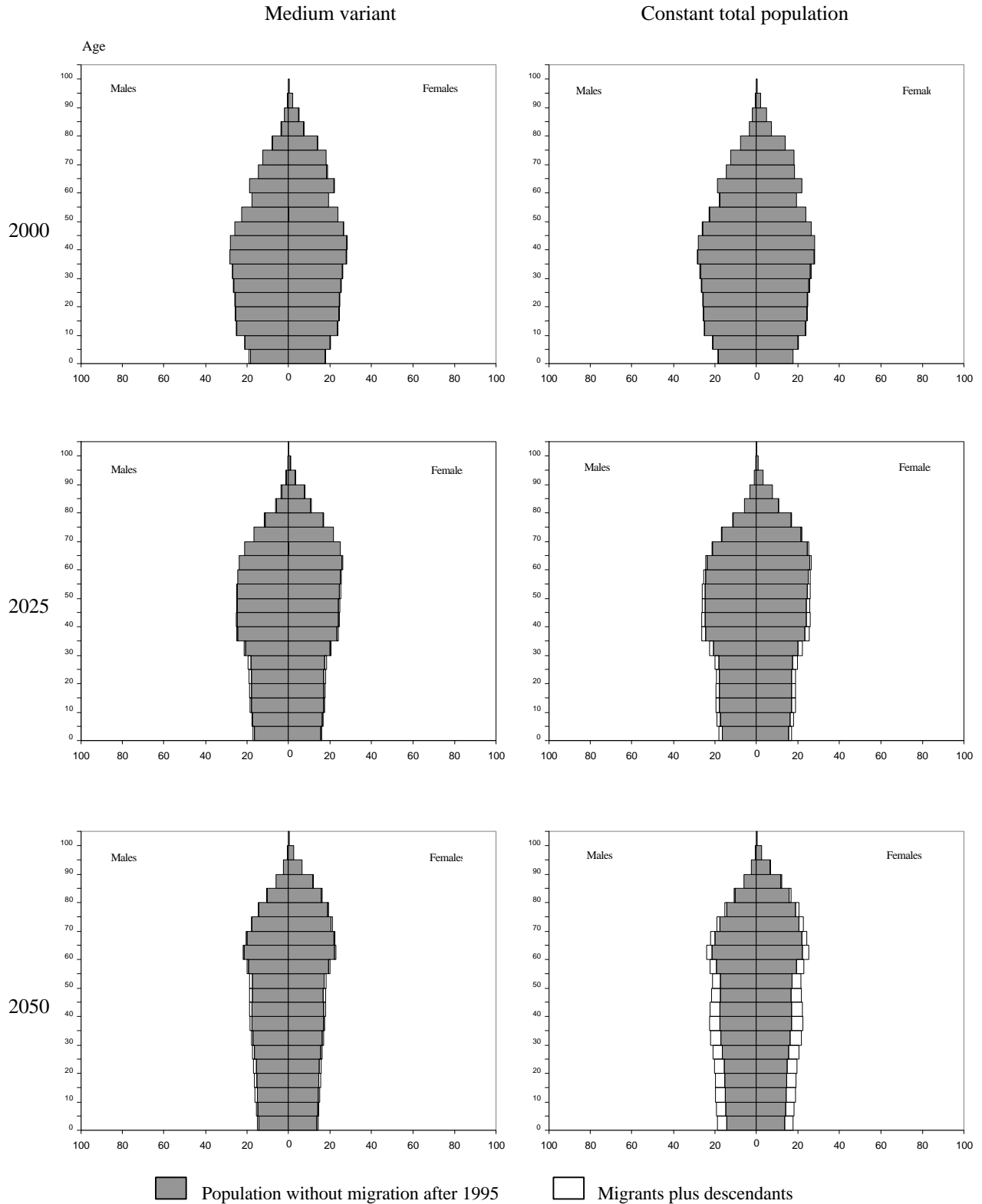
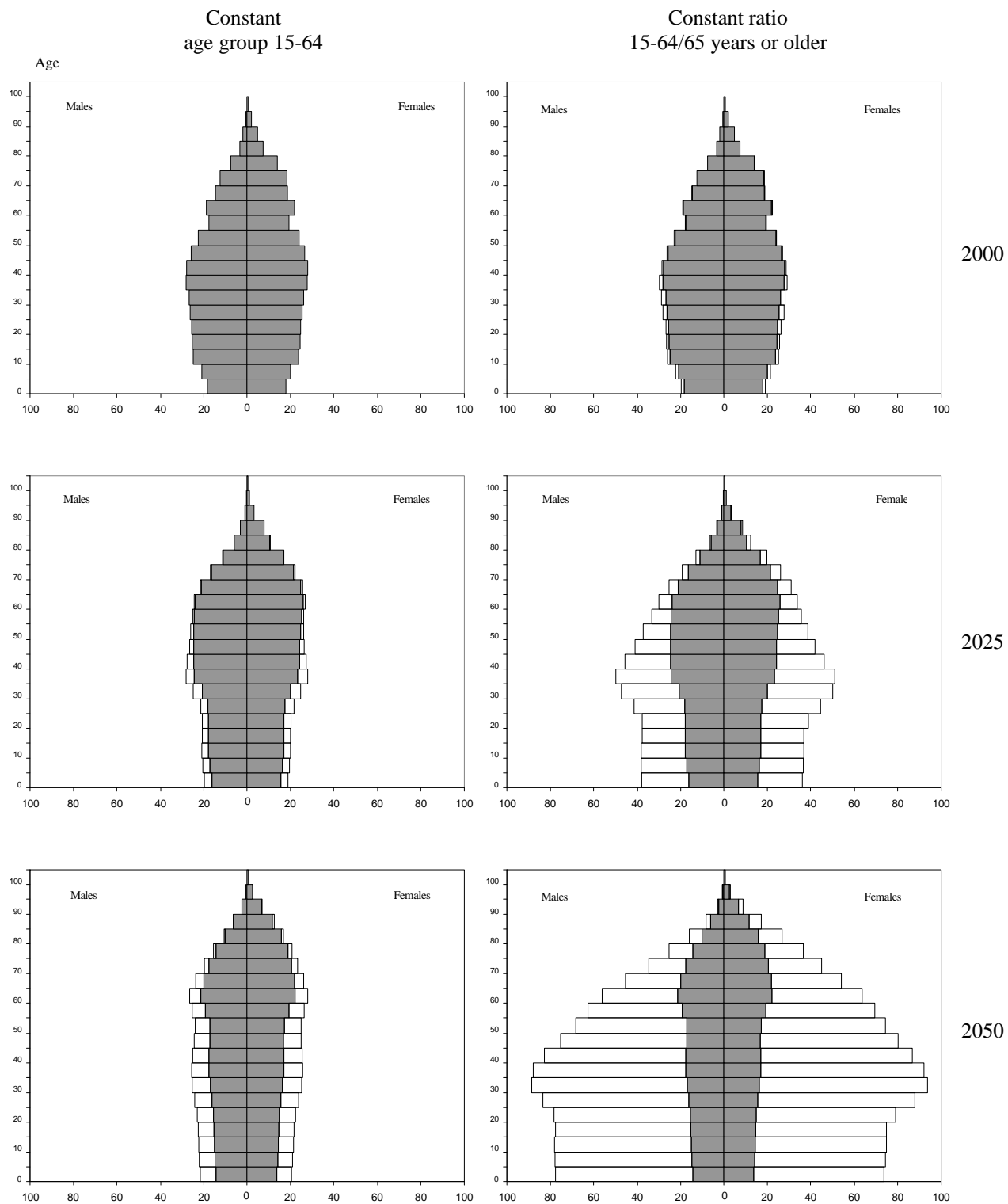


Figure IV.19 (continued)



**Figure IV.20. Population of Europe in 2050, indicating those who are post-1995 migrants and their descendants, by scenario**

