

2. Germany

(a) Past trends

While the total fertility rate increased steadily from 2.16 to 2.49 children per woman between 1950-1955 and 1960-1965, Germany experienced a continuous decline afterwards, to 1.30 children per woman in 1990-1995. As in other countries in Western Europe, life expectancy increased during the entire period between 1950 and 1995. It reached 76 years for both sexes during the interval of 1990-1995, up from 67.5 years for 1950-1955. One of the results of increased life expectancy and low fertility rates is the process of population ageing. The proportion of the population aged 65 years or older increased from 9.7 per cent in 1950 to 15.5 per cent in 1995. The potential support ratio declined from 6.9 persons aged 15-64 years for one person aged 65 years or over in 1950 to 4.4 persons in 1995.

(b) Scenario I

Scenario I, the medium variant of the United Nations *1998 Revision*, assumes a net total of 11.4 million migrants between 1995 and 2050. For the years 1995-2005 it estimates 240,000 migrants per year and for the period between 2005 and 2050 a net migration of 200,000 persons per annum. For the overall population of Germany the medium variant projects an increase from 81.7 million in 1995 to 82.4 million in 2005. Thereafter, the population would continuously decline to 73.3 million in 2050 (the results of the 1998 United Nations projections are shown in the annex tables). The population aged 15-64 years would increase slightly from 55.8 million in 1995 to 56.0 million in 2000; between 2000 and 2050 it would decrease continuously to 42.7 million. The share of the elderly (65 years and above) would increase from 12.6 million in 1995 (15.5 per cent) to 20.8 million in 2050 (28.4 per cent). Consequently, the potential support ratio would be halved, decreasing from 4.4 in 1995 to 2.1 in 2050.

(c) Scenario II

Scenario II is based on the fertility and mortality assumptions of the medium variant of the *1998 Revision* of the United Nations, but without any migration to Germany after 1995. Compared to scenario I, the total population would decrease much faster, from 81.7 million in 1995 to 58.8 million in 2050, a 28 per cent decrease for the total population. The population aged 15-64 years would decrease even faster: from 55.8 million to 32.7 million, a 41 per cent loss. In the absence of any migration, the population aged 65 or older would increase to 18.7 million by the year 2050. As a result, the potential support ratio in scenario II would decrease from 4.4 in 1995 to 1.8 in 2050.

(d) Scenario III

Scenario III assumes a constant total population between 1995 and 2050 (81.7 million). Keeping the population at such a level would require substantially higher immigration to Germany than anticipated by the United Nations *1998 Revision*. Between 1995-2050, a total of 17.8 million net migrants would be needed, an average of 324,000 per year. Such a migration flow would result in a population 15-64 of 48.4 million, and the group of 65 years or older would increase to 21.4 million in 2050. The potential support ratio would decline from 4.4 to 2.3 in 2050. In 2050, out of a population of 82 million people, 23 million (28 per cent) would be post-1995 migrants or their descendants.

(e) *Scenario IV*

Scenario IV keeps the size of the population aged 15-64 years constant at the 1995 level of 55.8 million until the year 2050. This would require a total of 25.2 million migrants between 1995 and 2050, an average of 458,000 per year. The total population of Germany would increase to 92 million in 2050, of which 33 million (36 per cent) would be post-1995 migrants and their descendants. The potential support ratio would be 2.4 in 2050.

(f) *Scenario V*

Scenario V does not allow the potential support ratio to decrease below the value of 3.0. In order to achieve this, no immigrants would be needed until 2015, and 40.5 million immigrants would be needed between 2015 and 2035, an average of 2.0 million per year during that period. By 2050, out of a total population of 113.2 million, 54.4 million, or 48 per cent, would be post-1995 immigrants or their descendants.

(g) *Scenario VI*

Scenario VI keeps the potential support ratio constant at its 1995 level of 4.4 until 2050. The total of immigrants needed between 1995 and 2050 to keep this ratio constant would be 188.5 million, which is an average of 3.4 million migrants per year. In 2050 the total population would be 299 million, of which 80 per cent would be post-1995 migrants and their descendants.

(h) *Additional considerations*

Net migration in the years 1990-1992 was close to 680,000 individuals per annum. That number decreased between 1993-1998 to about 270,000 persons per year. The net number of migrants needed to keep the total population constant (324,000 per year), or to keep the age group 15-64 year constant (458,000 per year), is within the range of the experience of the past decade. However, to maintain the current potential support ratio of 4.4 would require an influx of 3.4 million migrants per year. This number would be more than ten times the yearly amount of migrants entering Germany during 1993-1998.

Figure 11 shows, for scenarios I, II, III and IV, the population of Germany in 2050, indicating the share that is made up of post-1995 migrants and their descendants. By the end of 1997, foreigners accounted for almost 9 per cent of the total population in Germany. This should be compared to the proportion of post-1995 migrants and their descendants by the year 2050: 20 per cent in scenario I; 28 per cent in scenario III; 36 per cent in scenario IV; and 80 per cent in scenario VI.

In the absence of migration, the figures show that it would be necessary to raise the upper limit of the working-age to 72.4 years to obtain a potential support ratio of 3.0 in 2050, and to about 77 years in order to obtain in 2050 the same potential support ratio observed in Germany in 1995, which was 4.4 persons of working-age per each older person past working age. Increasing the activity rates of the population, if it were possible, would only be a partial palliative to the decline in support ratio due to ageing. If the activity rates of all men and women aged 25 to 64 were to increase to 100 per cent by 2050, this would make up for only 24 per cent of the loss in the active support ratio resulting from the ageing of the population.

TABLE 19. POPULATION INDICATORS FOR GERMANY 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
<i>A. Average annual number of migrants (thousands)</i>						
1995-2000	240	0	130	176	0	1 398
2000-2025	208	0	279	473	631	2 273
2025-2050	200	0	408	501	988	4 988
2000-2050	204	0	344	487	810	3 630
1995-2050	207	0	324	458	736	3 427
<i>B. Total number of migrants (thousands)</i>						
1995-2000	1 200	0	650	880	0	6 990
2000-2025	5 200	0	6 978	11 816	15 781	56 816
2025-2050	5 000	0	10 209	12 514	24 701	124 692
2000-2050	10 200	0	17 187	24 330	40 481	181 508
1995-2050	11 400	0	17 838	25 209	40 481	188 497
<i>C. Total population (thousands)</i>						
1950	68 376	-	-	-	-	-
1975	78 679	-	-	-	-	-
1995	81 661	-	-	-	-	-
2000	82 220	80 985	81 661	81 898	80 985	88 241
2025	80 238	72 643	81 661	87 451	89 661	148 307
2050	73 303	58 812	81 661	92 022	113 181	299 272
<i>D. Age group 0-14 (thousands)</i>						
1950	15 854	-	-	-	-	-
1975	16 932	-	-	-	-	-
1995	13 264	-	-	-	-	-
2000	12 751	12 468	12 640	12 700	12 468	14 315
2025	10 704	9 248	11 219	12 543	13 623	25 244
2050	9 803	7 379	11 807	13 398	17 264	54 694
<i>E. Age group 15-64 (thousands)</i>						
1950	45 877	-	-	-	-	-
1975	50 073	-	-	-	-	-
1995	55 763	-	-	-	-	-
2000	56 025	55 114	55 595	55 763	55 114	60 271
2025	50 773	45 042	51 588	55 763	57 029	100 331
2050	42 706	32 744	48 426	55 763	72 667	199 400
<i>F. Age group 65+ (thousands)</i>						
1950	6 645	-	-	-	-	-
1975	11 674	-	-	-	-	-
1995	12 634	-	-	-	-	-
2000	13 444	13 403	13 427	13 435	13 403	13 656
2025	18 762	18 354	18 854	19 144	19 010	22 732
2050	20 794	18 689	21 428	22 861	23 250	45 178
<i>G. Potential support ratio 15-64/65+</i>						
1950	6.90	-	-	-	-	-
1975	4.29	-	-	-	-	-
1995	4.41	-	-	-	-	-
2000	4.17	4.11	4.14	4.15	4.11	4.41
2025	2.71	2.45	2.74	2.91	3.00	4.41
2050	2.05	1.75	2.26	2.44	3.13	4.41

* Scenario VI is considered to be demographically unrealistic.

GERMANY

Figure 10. Age-sex structures by scenario for 2000, 2025 and 2050
(Population in millions)

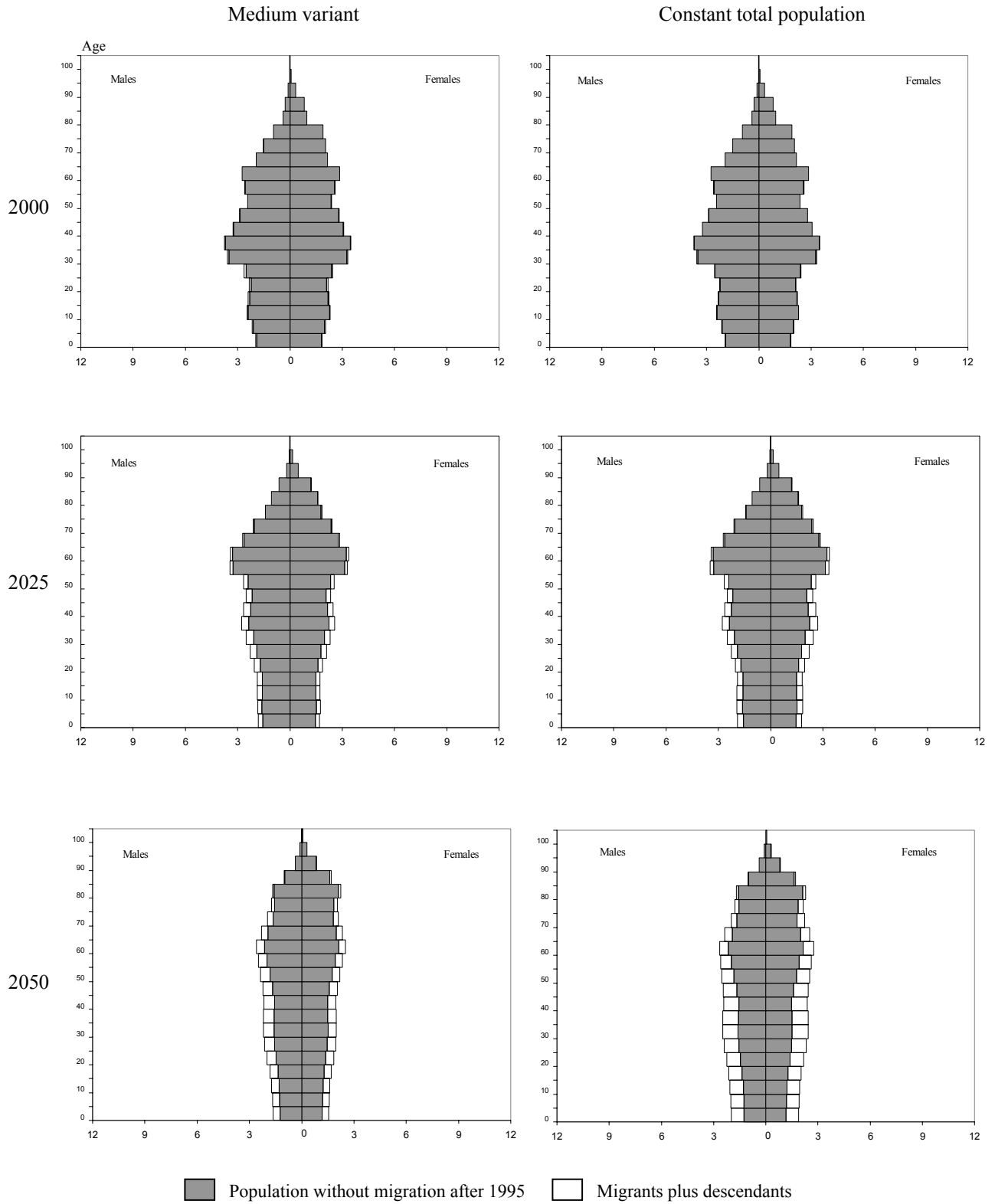


Figure 10 (continued)

Constant age group 15-64

Constant ratio 15-64/65 years or older

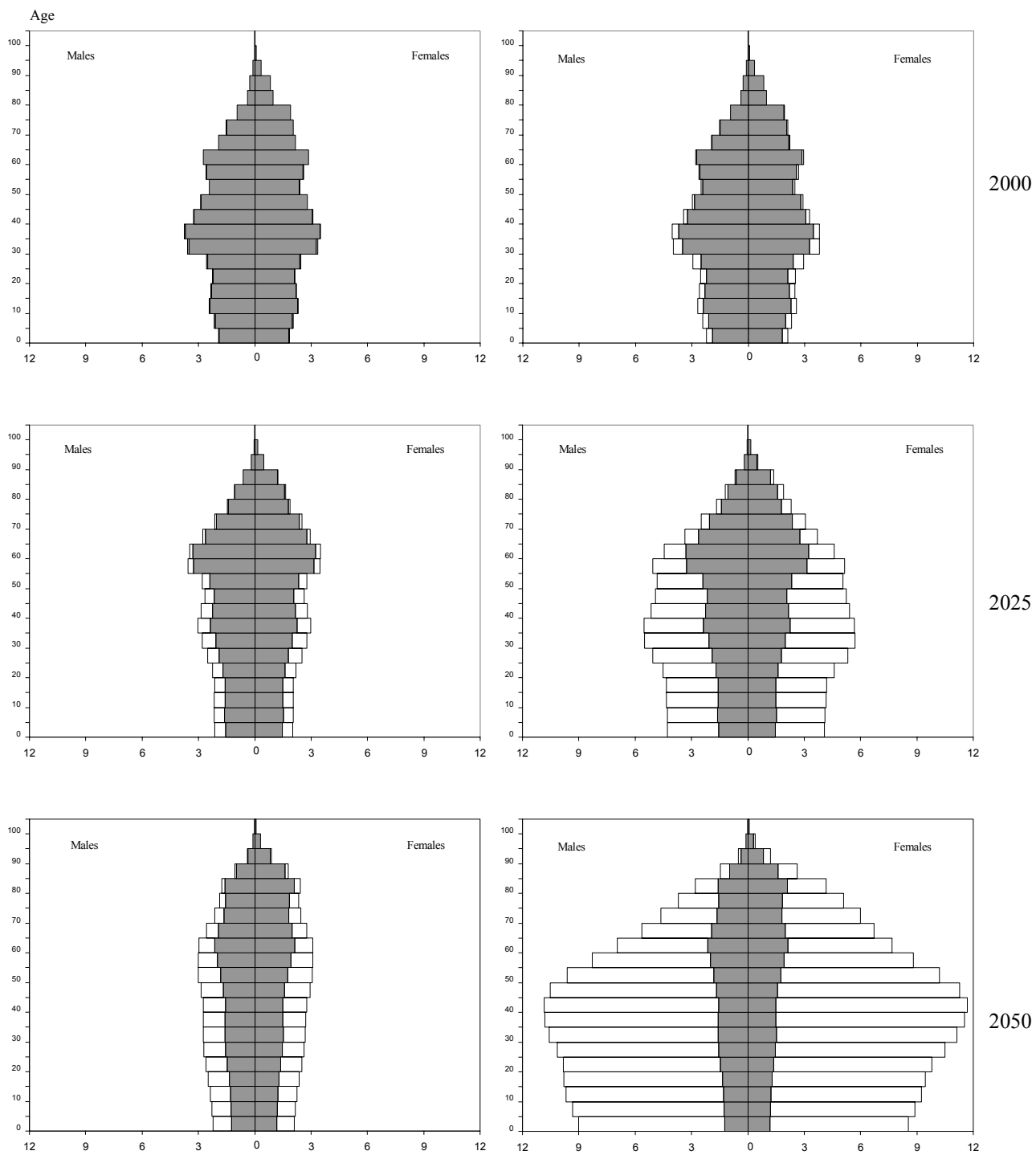


Figure 11. Population of Germany in 2050, indicating those who are post-1995 migrants and their descendants, by scenario

