

EUROPEAN UNION

Past trends

The total fertility rate in the 15 countries that presently constitute the European Union was on a rising curve until 1960-65, when it attained 2.69 births per woman. Since 1995, fertility has constantly decreased, coming under the replacement level of two children per woman around 1975. By 1990-95, it stood at 1.5 births per woman. Life expectancy at birth, meanwhile, has risen from 67.0 years in 1950-1955 to 76.5 years in 1990-1995. As a consequence of these trends, the proportion of the population aged 65 or older rose from 9.5 per cent in 1950 to 15.5 per cent in 1995, and the potential support ratio (the number of persons aged 15-64 for each person aged 65 or older) fell in the same period from 7.0 to 4.3.

Scenario I

Scenario I, the medium variant of the United Nations *1998 Revision*, assumes an average net intake very close to 300 thousand migrants per year between 1995-2050, for a total of almost 16.4 migrants during the period. The medium variant projects that the total population of the 15 countries would briefly continue to grow until around 2005, by which time it would attain 376.5 million; from that point, it would start to decline at increasing speed, so that by 2050 some 331.3 million people would remain - a loss of 40.6 million persons in relation to 1995 and 45.2 million persons in relation to the projected peak level in 2005 (The results of the 1998 United Nations projections are shown in the annex tables). This loss would be equivalent to the combined present population of the seven smallest members of the European Union, namely Austria, Finland, Denmark, Ireland, Luxembourg, Sweden and Portugal (see table IV.21). The European Union population, which in 1995 was some 100 million larger than that of the United States, in 2050 would have become smaller than the United States by about 20 million.

TABLE IV.21. POPULATION OF THE MEMBER COUNTRIES OF THE EUROPEAN UNION, 1995 AND 2050, SCENARIO I

<i>Member countries as of 2000</i>	<i>Population (thousands)</i>		<i>Projected change 1995-2050</i>	
	<i>1995</i>	<i>2050 (Scenario I)</i>	<i>(thousands)</i>	<i>(per cent)</i>
Austria	8 001	7 094	- 907	- 11.3
Belgium	10 088	8 918	- 1 170	- 11.6
Denmark	5 225	4 793	- 567	- 10.9
Finland	5 108	4 898	- 210	- 4.1
France	58 020	59 883	1 863	+ 3.2
Germany	81 661	73 303	- 8 358	- 10.2
Greece	10 489	8 233	- 2 256	- 21.5
Ireland	3 609	4 710	1 101	+ 30.5
Italy	57 338	41 197	- 16 141	- 28.2
Luxembourg	407	430	23	+ 5.7
Netherlands	15 459	14 156	- 1 303	- 8.4
Portugal	9 856	8 137	- 1 719	- 17.4
Spain	39 568	30 226	- 9 342	- 23.6
Sweden	8 800	8 661	- 139	- 1.6
United Kingdom	58 308	56 667	- 1 641	- 2.8
European Union	371 937	331 307	- 40 630	- 10.9

The population aged 15-64 would register first a slight increase from 249 million in 1995 to less than 252 in 2005, but it would be followed by an accelerating decline that would bring it down to slightly under 188 million by 2050. The projected decline (61.5 million between 1995 and 2050) would thus reduce the working-age population by one quarter in relation to 1995 levels. On the other hand, the population aged 65 or older would register steady growth, rising from 58 million in 1995 to 96 million in 2050, an increase of approximately 65 per cent. As a result, the potential support ratio would decrease from 4.3 in 1995 to slightly less than 2.0 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 the 15 countries of the European Union after 1995. In this scenario, the total population would start declining already after 2000 rather than five years later, and by 2050 it would be down to approximately 311 million, which is 20 million less than in scenario I. The population aged 15-64 would immediately start declining, dropping from 249 million in 1995 to 174 million in 2050. Thus, without migration, the working age population would be cut by 30 per cent rather than by 25 per cent as in scenario I. The population aged 65 or older would increase from 58 million in 1995 to 92 million in 2050, entailing a decline of the potential support ratio to 1.9 in 2050, 0.1 less than projected in scenario I.

Scenario III

Scenario III keeps the size of the total population constant at its projected peak level of 372 million in 2000 (assuming no in-migration in the period 1995-2000). In order to keep the total population constant at that level, it would be necessary to have 47.4 million migrants between 2000 and 2050, an average of 949,000 migrants per year. By 2050, out of a total population of 372 million, 61.6 million, or 16.5 per cent, would be post-2000 immigrants or their descendants. The potential support ratio in 2050 would be 2.2, which is only 0.2 point higher than in scenario I.

Scenario IV

Scenario IV keeps the size of the population aged 15-64 constant at its 1995 level of 249 million (which would be the maximum level that it would have ever reached in absence of post-1995 migration). In order to keep the working age population constant at that level, it would be necessary in fact to have 79.6 million migrants between 1995 and 2050, an average of 1.4 million migrants per year. Due to irregularities in the age structure of the population, the annual number of migrants required to keep the working-age population constant would first grow rapidly and then decline. It would peak in 2025-2030, with an annual number of net migrants in excess of 2.8 million. By 2050, out of a total population of 418.5 million, post-1995 immigrants and their descendants would be 107.7 million, or 25.7 per cent. The potential support ratio in 2050 according to this scenario would be significantly higher than in scenario I, (2.4 against 2.0) but the difference is modest compared to magnitude of the drop from the level of 4.3 in 1995.

Scenario V

Scenario V keeps the potential support ratio at its 1995 value of 4.3 persons aged 15-64 for each person aged 65 or older. In order to keep the potential support ratio constant at that level, it would be necessary for the European Union to have 701 million immigrants from 1995 to 2050, an average of 12.7 million per year. Also, as under scenario IV, the irregularities in the age structure of the population would cause fluctuations in the annual number of migrants required to keep the potential support ratio constant. The peak levels would be attained in 2030-2035, with 20.3 million net immigrants per year. By 2050, out

of a total population of 1.2 billion, 918 million, or about 75 per cent, would be post-1995 immigrants or their descendants.

Discussion

According to recent national estimates, the European Union had an average annual net migration of 857,000 persons from 1990 to 1998. Thus, the number of migrants needed to prevent a decline in the total population is roughly comparable to the level of migration in the 1990s. However, in order to prevent a decline of the working-age population, the annual number of migrants would need to nearly double in relation to recent experience. Figure IV.21 shows, for scenarios I, II, III and IV, the population of the European Union in 2050, indicating the share that are post-1995 migrants and their descendants.

The number of migrants necessary annually to keep the potential support ratio constant at its 1995 level would be 15 times greater than the net migration level in the 1990s. Towards the end of the period, i.e. by 2040-2050, the net annual number of migrants required by the European Union would be equivalent to half the world's annual population growth.

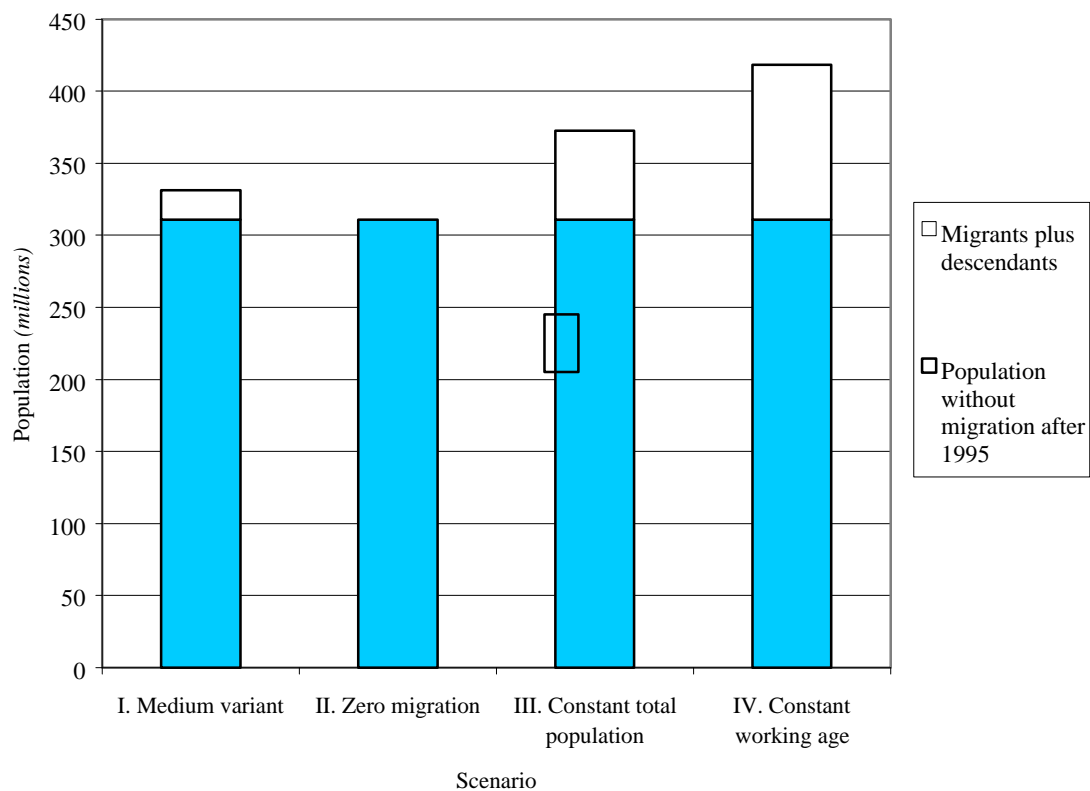
Thus, if replacement migration were to be used as the mechanism for shoring up the potential support ratio in the European Union at its present level, by 2050 the total population of the European Union would have grown to more than three times its present level. In this process, the European Union's share of world population would have more than doubled, from 6.6 per cent in 1995 to 13.8 percent 2050. In addition, three-quarters of the total population in 2050 would consist of post-1995 migrants from outside the present boundaries of the Union 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 76 years in the European Union in order to obtain in 2050 the same potential support ratio observed in 1995, i.e. 4.3 persons of working age per older person.

TABLE IV.22. POPULATION INDICATORS FOR EUROPEAN UNION BY PERIOD FOR EACH SCENARIO

Scenario	I	II	III	IV	V
Period	Medium variant	Medium variant with zero migration	Constant total population	Constant age group 15-64	Constant ratio 15-64/65 years or older
<i>A. Average annual number of migrants (thousands)</i>					
1995-2000	574	0	0	46	5 302
2000-2025	330	0	612	1 380	8 556
2025-2050	210	0	1 287	1 795	18 404
2000-2050	270	0	949	1 588	13 480
1995-2050	297	0	863	1 447	12 736
<i>B. Total number of migrants (thousands)</i>					
1995-2000	2 870	0	0	230	26 510
2000-2025	8 239	0	15 290	34 502	213 911
2025-2050	5 250	0	32 166	44 874	460 088
2000-2050	13 489	0	47 456	79 375	673 999
1995-2050	16 361	0	47 456	79 605	700 506
<i>C. Total population (thousands)</i>					
1950	296 151	-	-	-	-
1975	349 313	-	-	-	-
1995	371 937	-	-	-	-
2000	375 276	372 440	372 440	372 680	400 089
2025	367 342	354 500	372 440	394 551	641 056
2050	331 307	310 839	372 440	418 509	1 228 341
<i>D. Age group 0-14 (thousands)</i>					
1950	72 524	-	-	-	-
1975	82 958	-	-	-	-
1995	64 740	-	-	-	-
2000	62 380	61 879	61 879	61 941	69 006
2025	52 926	50 320	54 641	60 204	116 157
2050	47 856	44 130	57 445	65 846	237 981
<i>E. Age group 15-64 (thousands)</i>					
1950	195 578	-	-	-	-
1975	220 708	-	-	-	-
1995	249 382	-	-	-	-
2000	251 299	249 213	249 213	249 382	268 773
2025	230 090	221 083	233 826	249 382	426 112
2050	187 851	174 470	216 929	249 382	803 974
<i>F. Age group 65+ (thousands)</i>					
1950	28 049	-	-	-	-
1975	45 647	-	-	-	-
1995	57 815	-	-	-	-
2000	61 596	61 349	61 349	61 357	62 310
2025	84 326	83 096	83 973	84 964	98 786
2050	95 600	92 240	98 067	103 280	186 386
<i>G. Potential support ratio 15-64/65+</i>					
1950	6.97	-	-	-	-
1975	4.84	-	-	-	-
1995	4.31	-	-	-	-
2000	4.08	4.06	4.06	4.06	4.31
2025	2.73	2.66	2.78	2.94	4.31
2050	1.96	1.89	2.21	2.41	4.31

Figure IV.21. Population of the European Union in 2050, indicating those who are post-1995 migrants and their descendants, by scenario



EUROPEAN UNION

Figure IV.22. Age-sex structures by scenario for 2000, 2025 and 2050
(Population in millions)

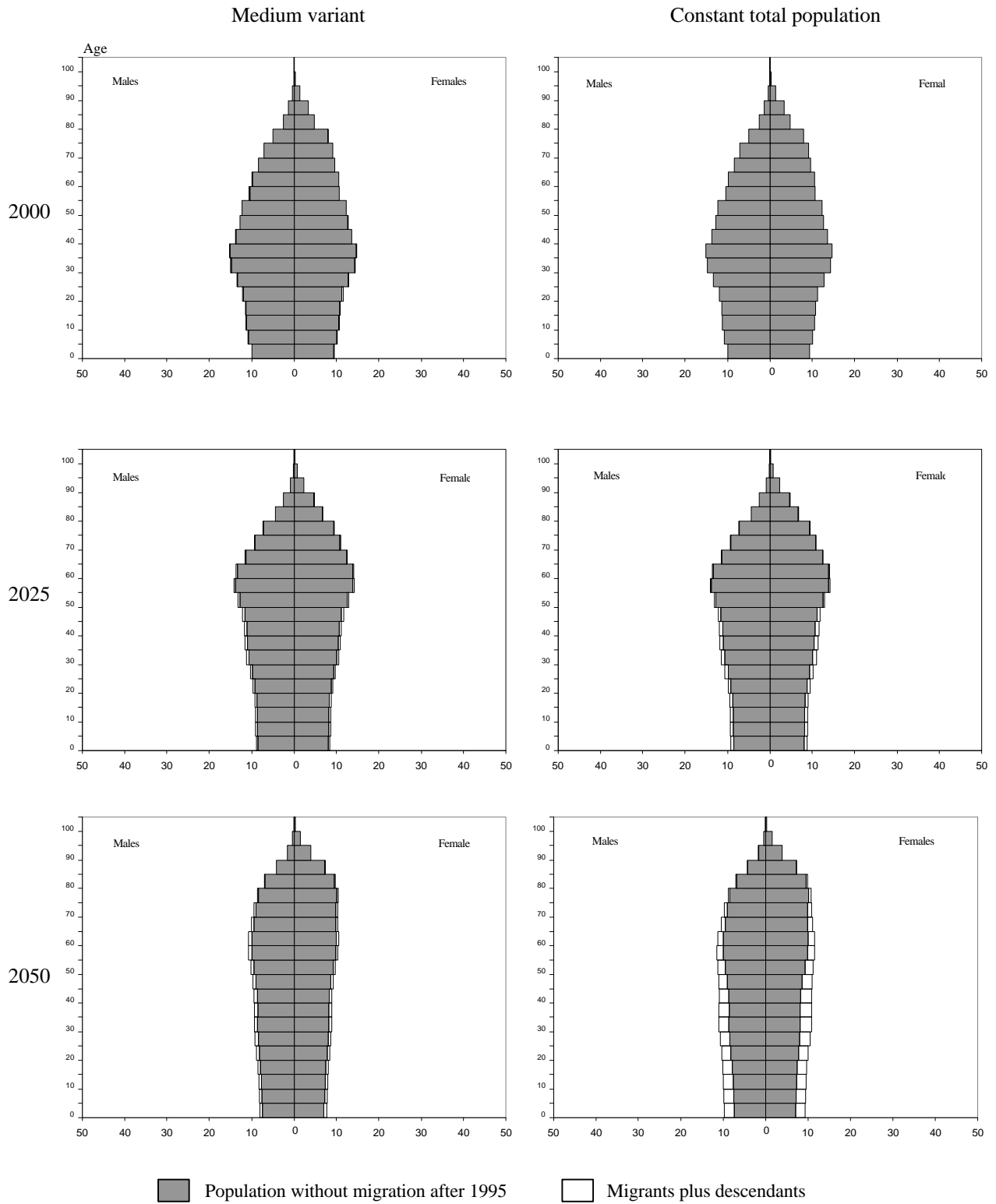
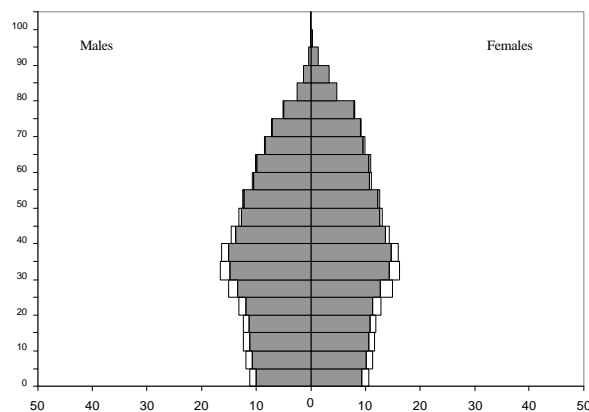
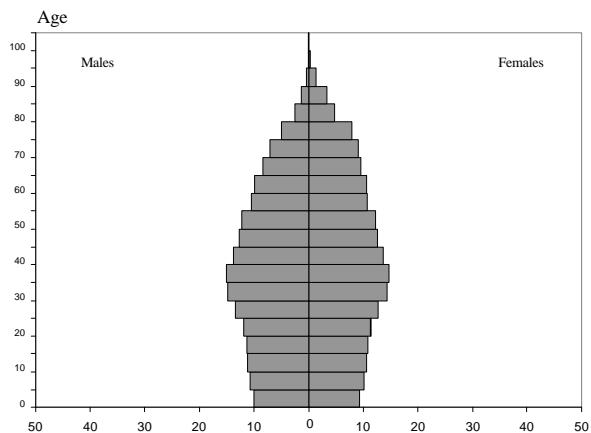


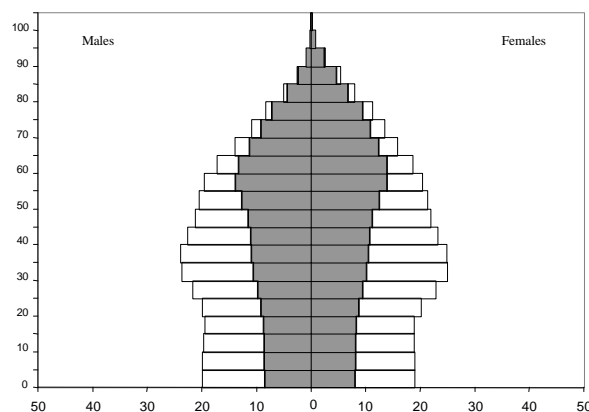
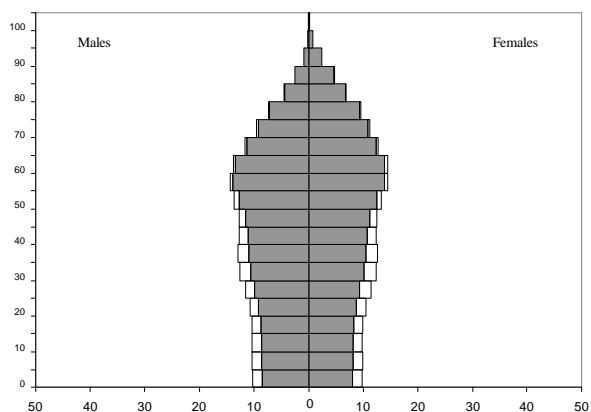
Figure IV.22 (continued)

Constant
age group 15-64

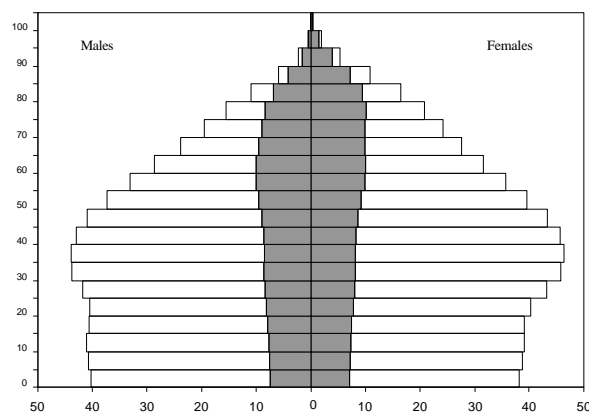
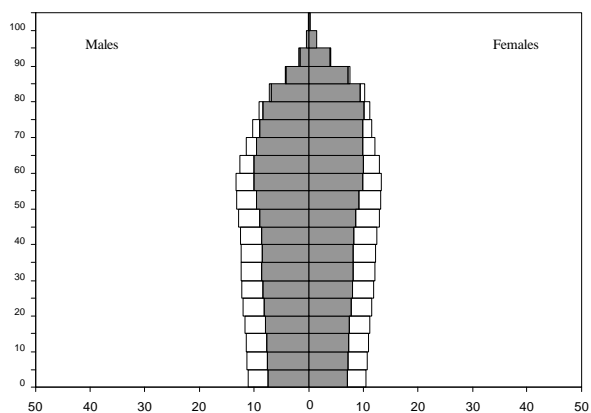
Constant ratio
15-64/65 years or older



2000



2025



2050

