

Perspectives on Migration Flows in Asia and Europe



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Chapter 2

The EU and Ageing Population, Implications for Migration Flows

Juan Díez-Nicolás

2.1. Introduction

Population ageing and population decline continue to be the main prospects for the European Union in the near future. No significant demographic changes have taken place during the last decade to justify a modification of the main prospects in the short run, though one must be very careful when making projections for the next 40 years, which may be considered a very distant future in demographic terms. It is well known that population forecasts tend to be less accurate the longer the period and the smaller the territory for which the forecast is made. Therefore, prospects for the EU may be summarized for the next ten years - supposing that no great changes occur in the economy or the socio-political environment - as follows: low and even negative population growth; continued below replacement levels of fertility; growing life expectancy, though gains will be increasingly smaller in relative terms; increasing ageing of the population; and declining immigration flows, in absolute and relative terms. The last prospect, declining immigration flows, will result from two sources: growing limitations to immigration through more restrictive EU legislation, and declining migration flows from less developed countries due to declining population growth rates and increasing ageing of their own populations. Once more, EU societies and governments must admit that ageing populations are not a temporary phenomenon but rather, a permanent one, for which reason societies will have to adapt themselves to a more rectangular rather than pyramidal structure of population distribution by age and sex, instead of searching for utopian alternatives to return to pyramidal (young) demographic structures. Ageing populations will have consequences, desired or undesired, on retirement age and pension systems, and on the social welfare state at large.

2.2. The population of the EU-27 within the context of world population

When the four regions of Europe (according to UN definitions) are compared with other world regions, it is evident that they show the lowest projected rates of increase for the periods 2010-2025 and 2025-2050. More specifically, only Northern Europe has a little more than an annual growth rate of 0.5 per cent, and Eastern Europe even shows negative growth. In the second period, only Northern Europe shows a very small positive rate of growth, while the rest of Europe and East Asia (outside Europe) are expected to experience negative growth between 2025 and 2050. All other world regions show positive growth rates for the two periods (apart from the already mentioned exception regarding East Asia), though the rates for the second period are expected to be lower than in the first period in all regions, without any exceptions. As a matter of fact, all non-European regions, except North America and East Asia, as well as Northern Europe, will eventually grow over 1 per cent per year between 2010 and 2025, but only three regions, Sub-Saharan Africa, Western Asia and Oceania might grow over 1 per cent between 2025 and 2050. Population will therefore decline throughout the next two twenty-five year periods only in Eastern Europe and in the European Union, and it will also decline, but only between 2025 and 2050, in Western and Southern Europe, so that probably only Northern Europe will show positive growth during the two periods, until 2050.

Table 2.1. Demographic Indicators and Projections for World Regions, 2010-2050

	Popu- lation mid 2010 Mil- lions	Projected population (Millions)		Projected annual rate of increase (%) (a)		Total Ferti- lity Rate	Life expectan- cy at birth (both sexes)	Percent of population of age		Projected percent of population in 2050 (b)	
		2025	2050	2010- 2025	2025- 2050			< 15	65 +	65 +	80 +
World	6,892	8,108	9,485	1.2	0.7	2.5	69	27	8	15.6	4.1
Northern Africa	209	262	329	1.7	1.0	3.0	69	33	4	14.1	2.6
Sub-Saharan Africa	821	1,151	1,755	2.7	2.1	5.2	52	43	3	6.9	1.1
North America	344	391	471	0.9	0.8	2.0	78	20	13	21.4	7.7
Latin America & Caribbean	585	668	729	1.0	0.4	2.3	74	29	7	16.9	4.1
Western Asia	235	295	379	1.7	1.1	3.1	72	32	5	11.3	2.4
South Central Asia	1,755	2,148	2,620	1.5	0.9	2.8	65	32	5	13.2	2.6
Southeast Asia	597	699	793	1.1	0.5	2.4	70	28	6	16.1	3.5
East Asia	1,571	1,704	1,632	0.6	-0.2	1.5	75	18	10	23.6	7.4
Northern Europe	99	109	119	0.7	0.4	1.9	79	18	16	27.2	10.4
Western Europe	189	193	190	0.1	-0.1	1.6	80	16	18	29.0	11.9
Eastern Europe	295	287	254	-0.2	-0.5	1.5	70	15	14	27.9	7.3
Southern Europe	156	159	157	0.1	-0.1	1.4	80	15	18	33.5	11.9
Oceania	37	45	58	1.4	1.2	2.5	76	24	11	18.0	5.6
EU-27	501	514	510	0.2	-0.0	1.6	79	16	17	15.6(c)	4.1(c)

Source: Population Reference Bureau, *World Population Data Sheet 2010*.

(a) Calculated by the author.

(b) United Nations, *World Population Ageing, 1950-2050*.

(c) Estimates only for the EU-15, United Nations, *World Population Ageing, 1950-2050*.

(c) Estimates only for the EU-15, United Nations, *World Population Ageing, 1950-2050*.

Fertility is declining all over the world, even in those regions that still show above replacement levels (the whole world except all of Europe and East Asia), and there are no signs of recovery especially in times of economic crisis. On the contrary, life expectancy is increasing in all places. It is above 60 years throughout the world (except in Sub-Saharan Africa), a level enjoyed only by the most developed countries 50 years ago, and it is above 80 years in two European regions, Western and Southern.

All four European regions and the European Union show the lowest proportions of youngsters - less than 15 years of age - (below 20 per cent in all cases), as well as the highest proportions of the elderly - 65 years and over - (above 13 per cent in all cases). And the four European regions are expected to reach the highest proportions of population over 65 and over 80 years of age in 2050 (above 27 per cent and above 7 respectively in the four regions and in the European Union, though East Asia will have a similar proportion to Eastern Europe regarding those of 80 years and over).

Europe, and in particular the European Union, has attained a very high demographic homogeneity which contrasts with all other regions of the world. Only North America and East Asia, and to a lesser degree Oceania (because of Australia and New Zealand), resemble the European pattern in some respects. Nevertheless, there are differences within Europe, Eastern Europe being the region that more frequently departs from the common pattern shown by the other three regions. As a consequence of this general pattern, the population of the European Union is expected to grow from 501 to 514 million between 2010 and 2025, but to drop back to 510 million in 2050. The main factors that explain those prospects are the maintenance of fertility below replacement level, a very low level of mortality (high life expectancy), that have jointly produced an increasingly ageing population¹, and a reduction in migration flows compared to those experienced between 1990 and 2010.

In general, many politicians and social scientists evaluate these prospects as non-desirable, on the grounds that negative population growth, below replacement fertility and increasingly ageing populations are all undesirable, because they will produce a demographic structure that may

jeopardize the payment of retirement pensions and, ultimately, endanger the whole Social Security system and the Welfare State that have characterized free market European societies in the past century². But it will be argued that, on the contrary, low or even zero growth populations, low fertility, high life expectancy, aged populations and rectangular instead of pyramidal age distributions may not only be the main characteristics of the future European population, but eventually of the total world population, and that societies should make changes in the social organization to adapt to those new demographic conditions, rather than trying to adapt the demographic structure to the traditional social organization of past centuries³.

2.3. Demographic trends in the European Union

As has been stated above, the total population of the EU will probably grow, though very little, between 2010 and 2025, and eventually it will decrease between then and 2050. When looking at the 27 individual countries it appears that only Ireland (1.8 per cent) and Luxembourg (1.3 per cent) are expected to grow over 1 per cent per year between 2010 and 2025, while 12 countries are expected to experience negative growth or zero population growth during that period. The prospects for the following period of 25 years (2025-2050) are even more extreme, as only Luxembourg (1.1 per cent) is expected to grow over 1 per cent per year, and 18 countries are expected to have negative or no growth at all. Once again it must be remembered that the forecast for 2025 is more plausible than the one for 2050, since many unforeseen events may occur in the next 40 years.

The EU population is therefore approaching the level of zero or negative population growth if present demographic trends persist. Consequently, the question to be asked is; are there any reasons to expect that present demographic trends will not persist? The answer is not easy, but since growth depends on two variables, natural growth (difference between births and deaths) and net migration (difference between immigrants and out migrants), it is obvious that some hypotheses about such trends are more plausible than others.

Table 2.2. Demographic Indicators and Projections for Member Countries of the European Union, 2010-2050

	Population Mid-2010 (Millions)	Projected population (Millions)		Projected annual rate of increase (%) (a)		Total fertility rate	Life expectancy at birth (both sexes)	Percent of population of age		Projected percent of population in 2050 (b)	
		2025	2050	2010- 2025	2025- 2050			< 15	65 +	65 +	80 +
European Union-27	501	514	510	0.2	-0.1	1.6	79	16	17		
Austria	8,4	8,9	9,5	0.4	0.4	1.6	80	16	18	34	15
Belgium	10,8	11,8	12,5	0.6	0.4	1.7	80	17	17	29	12
Bulgaria	7,5	6,9	5,9	-0.5	-1	1.6	73	14	18	30	7
Cyprus	1,1	1,1	1,1	0	0	1.5	79	18	10	23	8
Czech Rep.	10,5	10,9	10,8	0.3	-0.1	1.5	77	14	15	33	10
Denmark	5,5	5,8	5,9	0.4	0.1	1.8	79	19	17	26	10
Estonia	1,3	1,3	1,2	0	-0.5	1.6	74	15	17	27	7
Finland	5,4	5,8	6,1	0.5	0.3	1.9	80	17	17	28	11
France	63	66,1	70	0.3	0.4	2.0	81	18	17	27	10
Germany	81,6	79,7	71,5	-0.2	-0.7	1.3	80	14	20	31	13
Greece	11,3	11,7	11,5	0.2	-0.1	1.5	80	14	19	34	12
Hungary	10	9,8	9	-0.1	-0.5	1.3	74	15	16	29	8
Ireland	4,5	5,7	6,4	1.8	0.8	2.1	79	21	11	22	6
Italy	60,5	61,9	61,7	0.2	0	1.4	82	14	20	36	14
Latvia	2,2	2,1	1,8	-0.3	-1	1.3	73	14	17	28	8
Lithuania	3,3	3,1	2,7	-0.4	-0.9	1.5	72	15	16	29	9
Luxembourg	0,5	0,6	0,7	1.3	1.1	1.6	80	18	14	20	7
Malta	0,4	0,4	0,4	0	0	1.4	79	16	14	27	9
Netherlands	16,6	17,2	17,3	0.2	0	1.7	80	18	15	27	10
Poland	38,2	37,4	31,8	-0.1	-1	1.4	76	15	13	28	7
Portugal	10,7	10,9	10,7	0.1	-0.1	1.3	79	15	18	30	9
Romania	21,5	20,6	18,2	-0.3	-0.8	1.3	73	15	15	26	6
Slovakia	5,4	5,4	4,9	0	-0.6	1.4	75	15	12	29	7
Slovenia	2,1	2	1,9	-0.3	-0.3	1.5	79	14	16	35	12
Spain	47,1	48,4	49,1	0.2	0.1	1.4	81	15	17	38	13
Sweden	9,4	10,2	10,7	0.6	0.3	1.9	81	17	18	30	12
United Kingdom	62,2	68,6	77	0.7	0.8	1.9	80	18	16	27	11

Source: Population Reference Bureau, *World Population 2010*.

(a) Calculated by the author.

(b) United Nations, *World Population Ageing, 1950-2050*.

Prospects for slow and even negative population growth rates in the European Union are due to the fact that the average number of children per woman is at present below replacement level (2.1) in all countries except Ireland, but 15 countries are at present below half the rate necessary for replacement, among them some of the most populated countries in the EU (Germany, Italy, Poland, Spain). At the same time, mortality also continues to decline, so that life expectancy is increasing in all EU countries, and there are no reasons to expect a reversal of that trend, but rather its persistence. All the countries in EU-27 enjoy a life expectancy of between 72 and 82 years (12 of them over 80 years, a world record). Population ageing is a necessary consequence of present and expected trends in fertility and mortality, to the point that, according to United Nations projections, it will accelerate in all European Union countries over the next 50 years, but especially in Southern European countries⁴.

The traditional pyramidal structure of the distribution of the population by age showed around 30 per cent of the population had 15 or fewer years, 5 per cent 65 and over, and around 65 per cent in the theoretical "working ages" of 16-64 years. At present, no EU-27 country (except Ireland) has 20 per cent or more of its population aged 15 or fewer years, but all of them have at least 10 per cent of their population aged 65 or over, and only 6 countries have fewer than 15 per cent of that age. Furthermore, 18 countries already show a proportion aged 65 years and over that is larger than the proportion aged 15 years or less. UN projections for 2050 show an accelerated process of population ageing, so that all countries are expected to have 20 per cent or more of their population aged 65 or over, and ten countries even 30 per cent or more, Spain (38 per cent) and Italy (36 per cent) being the two countries expected to have the most aged population in 2050. In fact, ageing of the population is expected to increase so rapidly that the focus is now addressed particularly to the proportion of the population aged 80 years and more, a proportion that is expected to be 10 per cent or more of the population in 14 of the EU-27 countries by 2050.

2.4. The components of population growth

At this point it must be pointed out that population projections based only on fertility and mortality require that present trends continue for long periods of time, as well as the assumption of a closed population, without migration flows. Both assumptions constitute a demographic exercise, and do not necessarily have to be accepted as the most likely outcomes. Besides, there are other non-demographic variables that should be considered as potential intervening variables with very important consequences.

First of all, the assumption that present trends will continue is certainly the most conservative hypothesis, and to challenge it one must present evidence to the contrary. Thus, it does not seem reasonable to expect a rise in mortality levels, unless the European Union suffers great natural or human catastrophes (wars that produce massive casualties, huge economic crises that produce mass starvation, etc.), but quite the contrary, it seems more natural to expect still more important gains in life expectancy over the next fifty years, due to the great advances that are expected in biology, medicine, genetics and other related fields. For similar reasons, a rise in fertility levels is not to be expected either. As has been shown above, all European Union countries show fertility levels that are, for the most part, significantly below replacement. Under what conditions could a rise in fertility be expected? Marriage patterns, redefined social roles for men and women in society and, consequently within the household, the incorporation of women into the labour force, new life styles and, more importantly, rising expectations with regard to standards of living and consumption patterns, all seem to go in a direction that is not favourable to rising fertility. In fact, if one accepts that most of these variables are responsible for the fall in fertility since the 80's in European countries, it would first be necessary to expect changes in those explanatory variables in order to expect a change in future fertility rates. But, on the contrary, research into attitudes towards marriage, the family and childbearing across most European countries during the past twenty years does not seem to support the expectation of rising fertility that may have any significant consequences on the structure of their populations, at least in the near future⁵. It must be added that this assertion has continued to describe the

situation between 1990 and 2010, and there are no signs of significant changes in the near future either.

The second assumption, based on the model of a closed population, must also be rejected, not only because migration flows must always be considered when discussing population growth, but because they represent at present the most important component of population growth in the majority of European Union countries. Until a few decades ago, net migration (the difference between immigrants and out migrants) represented a small proportion of the total demographic growth in any European Union country, since natural growth (the difference between births and deaths) contributed to total growth more than net migration. Certainly, births were more numerous than deaths, and the opposite was an exception until very recently, due to the significant fall in fertility. Net migration was positive in most Central and Western European countries (the more developed ones), but it was negative in Southern European countries (economically less developed) during the decade of the seventies, and positive but relatively small during the decade of the eighties. In any case, net migration, whether positive or negative, had in general less weight on the total growth of a country's population than natural growth. Seven countries had negative net migration in 1980, and only one of them had, in addition, negative natural growth: Hungary.

Net migration represented more than half of the total growth in only four of the fourteen countries that had positive net migration in 1980 (Germany, Austria, Luxembourg, and Estonia), while seven had zero growth and six had negative growth rates⁶. It must also be pointed out that the relatively high positive migration rate in some Southern European countries in 1980 (Spain, Portugal and Greece) was partly due to the return of former out migrants who, during the decades of the fifties and sixties, had migrated to more developed European countries searching for better jobs. The situation changed significantly during the following two decades. First, total population growth has generally been lower in 2010 than it was in 1980 (16 countries show lower growth rates in 2010 than in 1980). Besides, while only one country had a negative rate of growth in 1980 (Hungary), six of them show negative total population growth in 2010. Second, net migration represented more than half of the total growth in

thirteen of the eighteen countries that had positive net migration in 2010, and net migration was larger than natural growth in fourteen countries.

Table 2.3. Total Population Growth, Natural Growth and Net Migration Rates per 1,000 inhabitants in Member and Candidate Countries of the European Union, 1980 and 2010

	Population mid-2010 (Millions)	1980			2010		
		Total growth	Natural growth	Net migration	Total growth	Natural growth	Net migration
EU-27	501				0.3	0.1	0.2
Austria	8,4	0.1	-0.0	0.1	0.3	0.0	0.3
Belgium	10,8	0.1	0.1	-0.0	0.6	0.2	0.4
Bulgaria	7,5	0.3	0.3	0.0	-0.6	-0.4	-0.2
Cyprus	1,1	1.1	1.1	0.0	1.3	0.6	0.7
Czech Rep.	10,5	0.2	0.2	0.0	0.4	0.1	0.3
Denmark	5,5	0.0	0.0	0.0	0.5	0.1	0.4
Estonia	1,3	0.7	0.3	0.4	0.0	0.0	0.0
Finland	5,4	0.3	0.4	-0.1	0.5	0.2	0.3
France	63	0.6	0.5	0.1	0.5	0.4	0.1
Germany	81,6	0.3	-0.1	0.4	-0.3	-0.2	-0.1
Greece	11,3	1.2	0.6	0.5	0.4	0.1	0.3
Hungary	10	-0.0	0.0	-0.1	-0.1	-0.3	0.2
Ireland	4,5	1.2	1.2	-0.0	0.8	1.0	-0.2
Italy	60,5	0.2	0.2	0.0	0.6	0.0	0.6
Latvia	2,2	0.2	0.1	0.1	-0.6	-0.4	-0.2
Lithuania	3,3	0.5	0.5	0.1	-0.6	-0.1	-0.5
Luxembourg	0,5	0.4	0.0	0.4	2.0	0.4	1.6
Malta	0,4	1.0	0.7	0.2	0.8	0.2	0.6
Netherlands	16,6	0.8	0.5	0.4	0.5	0.3	0.2
Poland	38,2	0.9	1.0	-0.1	0.1	0.1	0.0
Portugal	10,7	1.1	0.6	0.4	0.1	-0.1	0.2
Romania	21,5	0.8	0.8	-0.1	-0.2	-0.2	0.0
Slovakia	5,4	0.8	0.9	-0.1	0.3	0.2	0.1
Slovenia	2,1	0.9	0.6	0.3	0.8	0.2	0.6
Spain	47,1	1.1	0.8	0.3	1.1	0.3	0.8
Sweden	9,4	0.2	0.1	0.1	0.9	0.2	0.7
United Kingdom	62,2	0.1	0.2	-0.1	0.6	0.4	0.2

Source: For 1980: Council of Europe, *Recent Demographic Developments in Europe 2001*. For 2010: Population Reference Bureau, *World Population 2010*.

Some general conclusions can be arrived at this time. First, population growth has decreased in most European Union countries during the past thirty years, and will probably continue to decrease during the next forty years. Second, natural growth was the main component of population growth three decades ago, but net migration is at present the most important component of growth. Third, immigration more and more often compensates for the low or even negative rate of natural increase in most EU-27 countries. Immigration is compensating or supplementing natural low or negative population growth [United Nation, 2001a], and not only through the direct effect of immigrants themselves, but through their contribution to the fertility rate, since immigrants are for the most part young adults who are in their childbearing years, and also because they generally come from countries where fertility rates are higher. Therefore, population projections that assume the continuation of present demographic trends in the European Union may be underestimating greatly the population that will be reached in 2025 and 2050, because they do not take the double effect of immigration into account. Though significant increases in fertility rates are not to be expected in the native receiving populations, the double contribution of immigration, through the increase in population numbers themselves, and through their contribution to fertility, may result in larger populations than those that are usually projected.

Table 2.4. Migrant stock, per cent of migrants over total population, and rate of growth (% over 100 migrants in 2005) of migrant population 2005-2010.

	Migrant stock 2010 (thousands)	% migrants over total population 2010	Rate of growth (%) of migrant population 2005-2010
EU-27	46,912		
Austria	1,310	15.6	2.5
Belgium	975	9.1	2.0
Bulgaria	107	1.4	0.6
Cyprus	154	17.5	5.7
Czech Rep.	453	4.4	0.0
Denmark	484	8.8	2.8
Estonia	182	13.6	-2.0
Finland	226	4.2	5.5
France	6,685	10.7	0.6
Germany	10,758	13.1	0.3
Greece	1,133	10.1	3.0
Hungary	368	3.7	2.0
Ireland	899	19.6	7.5
Italy	4,463	7.4	7.5
Latvia	335	15.0	-2.5
Lithuania	129	4.0	-5.0
Luxembourg	173	35.2	2.1
Malta	15	3.8	5.6
Netherlands	1,753	10.5	0.2
Poland	827	2.2	0.0
Portugal	919	8.6	3.7
Romania	133	0.6	-0.1
Slovakia	131	2.4	1.0
Slovenia	164	8.1	-0.4
Spain	6,378	14.1	6.5
Sweden	1,306	14.1	3.2
United Kingdom	6,452	10.4	2.0

Source: United Nations, International Migration 2009.

The total number of migrants in the EU-27 approached 50 million in 2010, with Germany, France, the United Kingdom and Spain leading the ranking of larger migrant stocks. But there is great variation regarding the relative weight of migrant populations over the total population of the country, from less than 3 per cent in Slovakia, Poland, Bulgaria and

Romania, to more than 15 per cent in Latvia, Austria, Cyprus, Ireland and Luxembourg. And, more importantly for projections, the growth rate of migrant stocks during the last five years has varied from negative rates in the three Baltic States (Estonia, Latvia and Lithuania), Romania and Slovenia, to positive rates of over 5 per cent in Finland, Italy, Malta, Cyprus, Spain and Ireland.

One should not forget, however, that European countries are not the countries with the largest stock of migrant populations, nor with the largest rates of net immigration. Thus, there are only four EU-27 countries among the ten with the largest number of international migrants (USA 42.8 million, the Russian Federation 12.3 million, Germany 10.8 million, and Saudi Arabia, Canada, France, the United Kingdom, Spain, India and Ukraine, all of them with between 5 and 10 million). But there is not one single EU-27 country among the 10 with the largest percentage of international migrants over total population (Qatar 87 per cent, United Arab Emirates 70 per cent, Kuwait 69 per cent, and Jordan, the Occupied Palestinian Territory, Singapore, Israel, China-Hong Kong SAR, Oman and Saudi Arabia, all with between 50 per cent and 25 per cent). And only three EU-27 countries among the ten with the largest average annual rate of change (Ecuador 23.2 per cent, Qatar 12.1 per cent, Syrian Arab Republic 10.2 per cent, Iceland 10.0 per cent, and Mauritania, South Africa, Italy, Ireland, Botswana and Spain, all with between 6 per cent and 9 per cent.

2.5 Implications of present and expected population trends in the European Union

Population projections seem, therefore, to be underestimating the future growth of EU-27 countries, mainly because they have generally not taken into account the role of migration in-flows [Martin and Widgren, 2002]. But, even if it were true that European populations will not grow, or that they will decrease within the next fifty years, it is not clear why that should be a matter of concern. There is no empirical evidence that population size or population growth rates are positively correlated with economic wealth (GNP) or social well-being (HDI). In fact, one could even argue in favour of the opposite relationship, that is, that high economic and social development leads to low population growth rates⁷.

Besides, from a global perspective, the real problem in world population today does not seem to be the lack of growth, but rather the maintenance of still high population growth rates that have characterized world population since the end of World War II. Even with the present growth rate (1.2 per cent per year) world population would double in less than 70 years, with however, great differences between the more and the less developed regions, the latter growing sixteen times as rapidly as the former, since the more developed countries (which include the European Union) have reached almost zero population growth. Therefore, decreasing world population growth rates may even be beneficial, since population pressure on natural resources will be lessened. And, as has been happening since the beginning of the agricultural and industrial revolutions, the more developed countries are usually the first ones to initiate new demographic trends, which are followed afterwards by the less developed countries. Thus, the second demographic transition, characterized by fertility levels below replacement and close to zero or even negative population growth, first started in the European countries during the decade of the 80's, but is being followed more or less intensively by practically all countries in the world at present. The total fertility rate in less developed countries is still above 3 children per woman, but it used to be 5 or even more children per woman only a few decades ago, and consequently population growth rates have also decreased dramatically in the majority of the less developed countries. It must not be forgotten, in this respect, that for the past fifty years the less developed countries have benefited from a very rapid decline in mortality rates that would have caused higher growth rates had it not been for the decline in fertility.

Table 2.5. Total Fertility Rates in European Union Member and Candidate Countries, 1970-2010

	Total Fertility Rate (number of children per woman)								
	1970	1975	1980	1985	1990	1995	2000	2005a	2010b
EU-27									1.6
Austria	2.29	1.83	1.65	1.47	1.45	1.40	1.34	1.4	1.6
Belgium	2.25	1.74	1.68	1.51	1.62	1.55	1.66	1.6	1.7
Bulgaria	2.17	2.22	2.05	1.98	1.82	1.23	1.26	1.3	1.6
Cyprus	2.54	2.01	2.46	2.38	2.42	2.13	1.83	1.6	1.5
Czech Rep.	1.90	2.40	2.10	1.96	1.90	1.28	1.14	1.2	1.5
Denmark	1.95	1.92	1.55	1.45	1.67	1.80	1.77	1.8	1.8
Estonia	2.16	2.04	2.02	2.12	2.04	1.32	1.39	1.5	1.6
Finland	1.83	1.68	1.63	1.64	1.78	1.81	1.73	1.8	1.9
France	2.47	1.93	1.95	1.81	1.78	1.71	1.89	1.9	2.0
Germany	2.03	1.48	1.56	1.37	1.45	1.25	1.36	1.3	1.3
Greece	2.43	2.32	2.22	1.67	1.39	1.32	1.29	1.3	1.5
Hungary	1.98	2.35	1.91	1.85	1.87	1.57	1.32	1.3	1.3
Ireland	3.97	3.43	3.24	2.48	2.11	1.84	1.89	2.0	2.1
Italy	2.38	2.17	1.64	1.42	1.33	1.20	1.23	1.3	1.4
Latvia	2.02	1.96	1.90	2.09	2.01	1.26	1.24	1.3	1.3
Lithuania	2.39	2.18	1.99	2.09	2.02	1.49	1.27	1.3	1.5
Luxembourg	1.98	1.55	1.49	1.38	1.60	1.69	1.79	1.6	1.6
Malta	...	2.17	1.98	1.99	2.05	1.83	1.67	1.5	1.4
Netherlands	2.57	1.66	1.60	1.51	1.62	1.53	1.72	1.7	1.7
Poland	2.26	2.26	2.26	2.32	2.05	1.62	1.34	1.2	1.4
Portugal	2.84	2.63	2.20	1.72	1.57	1.40	1.52	1.4	1.3
Romania	2.89	2.60	2.43	2.32	1.84	1.34	1.31	1.3	1.3
Slovakia	2.41	2.53	2.31	2.26	2.09	1.52	1.29	1.2	1.4
Slovenia	2.12	2.17	2.10	1.71	1.46	1.29	1.26	1.2	1.5
Spain	2.86	2.79	2.20	1.64	1.36	1.18	1.24	1.3	1.4
Sweden	1.92	1.77	1.68	1.74	2.13	1.73	1.54	1.7	1.9
United Kingdom	2.43	1.81	1.89	1.79	1.83	1.71	1.65	1.7	1.9

Source: Council of Europe, *Recent Demographic Developments in Europe 2001* [Council of Europe, 2002].

a Population Reference Bureau, World Population Data Sheet 2005.

b Population Reference Bureau, World Population Data Sheet 2010.

If it is accepted that low, zero or even negative population growth rates are preferable to high rates of growth, the conclusion must be that this can only be achieved through low fertility, because rising mortality levels are not a desirable social goal in any society. The problem today seems to be that while the developed countries (in particular European countries) have

almost achieved zero population growth, the less developed countries still have a high rate of growth that will lead them to double their population in only thirty five to forty years, though all signs point in the direction that population growth is falling in most of these countries due to falling fertility rates that seem to be adjusting themselves to the falling mortality rates of previous and futures decades. On the other hand, the majority of the less developed countries are also reducing their population growth through negative net migration.

Some politicians and social scientists express a second area of concern regarding the possibility of population decline in the European population within the next fifty years that refers to fertility. Before 1970 no country in the European Union had a fertility level below replacement. Even in 1970 only four countries had already trespassed that level downwards (Luxembourg, Denmark, Sweden and Finland), but by 1985 fertility in all fifteen countries except Ireland was already below the replacement level of 2.1 children per woman. And that situation, including Ireland since 1995, has been maintained since then, that is, no European Union country has returned to the level of replacement fertility (except Ireland). However, there seems to be a certain recovery of fertility in most EU-27 countries since 2000, somehow coincidental with the increase in migration in most of these countries too, though the recovery is so small that it has not implied gains of more than three or four decimal points or the achievement of the replacement level. The highest fertility rates in 2010 are those of Ireland and France (2.1 and 2.0 respectively), but nineteen countries show rates of 1.6 or below.

Unemployment among young men and women, increased female participation in the labour force and access to housing facilities, have often been cited as the main causes for the fall in fertility since 1970. However, empirical evidence has not supported these supposed relationships at the country or the individual levels of analysis with sufficient reliability, even when a cross-sectional or a longitudinal analysis is performed. Rather, it seems that new cultural values and life styles are responsible for delaying the emancipation of youngsters, the age at which they construct couples and families (if at all), the age at which they have their children, and consequently, the number and spacing of their children (if any)⁸. Therefore, unless the values and life styles that have caused the fall in fertility change,

it seems difficult to foresee that fertility will increase significantly in the near future. It does not seem to be coincidental that some of the lowest fertility rates seem to be found in Southern and Eastern European countries, that is, those that have arrived later at mass consumption and have experienced more recently great economic, social and political change in a short period of time.

A decline in fertility, combined with a very low and still declining mortality, is responsible for the ageing of the population, a process that has taken place first in the countries of the European Union and other developed countries, but which is being followed by all other countries in the world at a more rapid pace than forecast by the UN. Therefore, population ageing does not seem to be a temporary process, but one that will probably last for a long and unpredictable period of time.

The first thing that should be said in this respect is that population ageing must not be considered a social problem. It would be ironic to label as a problem one of the most important successes in the history of mankind: making it possible for the great majority of human beings to postpone death until what continues to be the threshold of human life, one hundred years. Life expectancy at birth was around thirty-five years for most populations in the world until the beginning of the last century, and in more developed countries until the middle of the nineteenth century. Today there is not one single country in the world with such a low life expectancy at birth. All countries have a life expectancy at birth of 40 or more years. On the contrary, more than 80 per cent of each cohort in developed countries can expect to survive till the age of 70, and more than half can expect to reach the age of 80. This great and unprecedented historic success cannot be turned into a "problem". The real problem is that society has not yet assimilated this new fact, and has not produced the social reorganization necessary to cope with this new situation.

Interactions between population, environment (resources), technology (material culture) and social organization (non-material culture), including belief and value systems, have been explained by the social ecosystem paradigm⁹. According to this theoretical model, human populations adapt to (and survive in) their environment through culture, something that makes this adaptation process totally different from what is found in other biotic

but non-human populations (plants and animals). Significant changes in any of the four elements of the social ecosystem may have repercussions in the other three elements, and change is an immanent trait of human ecosystems, because the equilibrium among the four elements is always unstable, never complete, so that tensions and conflicts in their interactive processes make conflict and change ever present to a greater or lesser degree. Changes in value systems and life styles (non-material culture), as has been argued above, may probably explain the low fertility of more developed countries and the present process of falling fertility in developing countries. For the same reason, it is argued here, changes in the population structure must bring changes in the social organization of more developed societies¹⁰.

The only possible ways to avoid population ageing in the European Union, and to that effect, in any country in the world, are threefold: to increase mortality, to increase fertility, or to increase positive net migration. When considering the total world population, needless to say, the third alternative is not viable. Certainly, if mortality increases, the proportion of each cohort arriving at old age would decrease, and would produce a pyramidal shape of the population, as in pre-industrial times. But it does not seem plausible that any government would want to implement a policy to increase mortality. On the contrary, efforts to increase life expectancy even beyond the traditional threshold of 100 years of age will most likely continue. Therefore, at the world level there is no other alternative than to increase fertility, so that new in-coming cohorts will be larger than the preceding ones, in such a way that, though most of the population in each cohort will reach high ages, the numbers in younger cohorts will always be larger than in the older ones, thus producing a pyramidal distribution. But, as it may be easily demonstrated, this alternative requires that the number of births in each cohort continue to increase indefinitely, because whenever the number of births in two successive cohorts is the same, a rectangular rather than a pyramidal shape will result. Besides, there is no evidence whatsoever that fertility may return to replacement levels in the more developed countries, and more specifically in European Union countries. On the contrary, empirical evidence seems to support the hypothesis that fertility will remain below 2.1 children per woman and, furthermore, that all countries will tend more or less rapidly towards fertility levels that stay

around or below replacement. Small increases in fertility may be expected, as have occurred since 2000, due to immigration, because migrants are generally in reproductive ages and come from high fertility cultural traditions. But the flows of migrants towards the more developed countries, though providing a contribution to delaying population ageing in the receiving countries, will contribute to the ageing of the populations of origin, since the weight of the young and old age groups will increase at the expense of diminishing the middle age groups. The temporary character of net immigration as an alternative to ageing is also due to the fact that immigrants will also age eventually, so that if population ageing is to be avoided, a continuous current of net immigration must be maintained indefinitely. (Needless to say, net immigration occurs for reasons other than to avoid ageing of the population in developed countries, though some politicians often use that explanation. Net immigration is more a consequence of economic, not purely demographic, factors).

In other words, to avoid the process of population ageing, European Union countries should increase their fertility rates indefinitely and/or increase their net immigration also indefinitely. If increases are only temporary, the process of ageing will recur. Besides, increases in fertility will produce higher population growth rates, a scenario that is not free from criticism and problems, especially at the world level. Consequently, and not considering the alternative of rising mortality, the only alternative which is left is to admit that populations will tend to age, and that implies making the necessary changes in social organization to take into account this new demographic situation, characterized by low fertility, low mortality, low or even negative growth and an age distribution that will be more similar in shape to a rectangle than to a pyramid.

2. 6. Population ageing, retirement age and retirement pensions

The effect of present demographic trends on the potentially active population is not really a threat, because that segment of the population will not diminish significantly. The greatest changes are taking and will take place, when comparing the young and the old age groups, as has been shown before. But even the apparent decrease in the potentially active population may be solved by intelligent social responses, that is, adaptive

changes in social organization. Most of the fears derived from low fertility refer to the presumption that smaller cohorts will eventually imply that the number of contributors to Social Security will be fewer than the number of retired persons entitled to receive a pension, and that this situation will lead to the bankrupting of Social Security systems. This argument has led many social scientists and politicians to support rising fertility rates. However, this response loses sight of the desired goal. The goal is to have more contributors to Social Security than pensioners, and therefore one must promote measures to increase contributors, not necessarily to increase births. Increasing births will only affect the number of contributors to Social Security after about thirty years, when newborns reach the age of entering the labour force, and therefore is a long-term response. But there are other short-term measures that may help to increase the number of contributors to Social Security systems such as policies to reduce unemployment among the young, facilitating women's access to the labour force (through family support policies), or increasing the number of immigrants admitted into the country. More specifically, there is one measure that may have immediate and profound effects: putting back the age of retirement, or even better, making retirement voluntary, and making retirement pensions dependent on the total time that a person has contributed to Social Security (something that is compatible with a minimum pension for everybody, regardless of whether they have contributed or not to Social Security)¹¹.

When life expectancy at birth was 60 years (only a few decades ago), it seemed reasonable to establish retirement age at 65 years, because only about 5-7 per cent of the population survived to that age and even surpassed it. In those times, people entered the labour force at around 20 years of age and retired at 65 years, so that over an average life span of 60 years, individuals were self-sufficient for about three quarters of their life. At present, when youngsters enter the labour force at around 30, and when due to early retirement or long-term unemployment many individuals really retire at 55 years, and with an average life expectancy of 80 years, they are self-sufficient only during one third of their life, the rest of the time being dependent on their families or on society. Individuals have a right to retire from active work, and to receive a pension that will help them to live decently, but a right cannot and should not be transformed into an

obligation. Individuals reach not only 65 years of age, but also even 70 and 75 years, in much better physical and mental conditions than ever before, and therefore they should have the right to decide when they want to retire, because retirement means, no matter how high pensions might be, a loss of income, a loss of social and self prestige, and a loss of power. On the contrary, if the retirement age is postponed the same number of years as the average age of entry into the labour force has been postponed, that is, around ten years, then the proportion of the population that may be considered old, that is, 75 years or more (about 25 per cent in developed countries) will be similar to the proportion 65 years and over at present. It is a question of adjusting the retirement age to the age of entry into the labour force, and of accommodating it to the new life expectancy.

What is needed then, is for societies to make the necessary changes in their organization to give those individuals of over 60 years of age a social role to play, a role that cannot be that of waiting patiently to die, a role that must be the same as the one they had until they reached the age of 60, neither better nor worse. This is the real challenge of EU-27 at present, and the challenge that developing societies will have to face in a not very distant future. A challenge that implies making changes in the social organization, and one that does not necessarily require changes in fertility, mortality or even migration but, on the contrary, one that respects individuals' decisions regarding the number of children they want to have, promotes new gains in life expectancy, and does not require massive population redistributions due to a scarcity of living opportunities in some places and the abundance of those opportunities in other places.

Table 2.6. Average exit age from the labour force

	2005	2006	2007	2008
EU (27 countries)	61(e)	61,2(e)	61,2(e)	61,4(e)
Austria	59,9(b)	61	60,9	: (i)
Belgium	60,6	: (i)	61,6	: (i)
Bulgaria	60,2	64,1	: (i)	: (i)
Cyprus	: (i)	: (i)	63,5	: (i)
Czech Republic	60,6	60,4	60,7	60,6
Denmark	61	61,9	60,6	61,3
Estonia	61,7	62,6	62,5	62,1
Finland	61,7	62,4	61,6	: (i)
France	59	59	59,4	59,3
Germany	: (i)	61,9	62	61,7
Greece	61,7	61,1	61	61,4
Hungary	59,8	: (i)	: (i)	: (i)
Ireland	64,1	64,1	: (i)	: (i)
Italy	59,7(b)	60,2	60,4	60,8
Latvia	62,1	62,7	63,3	62,7
Lithuania	60	59,9	: (i)	: (i)
Luxembourg	59,4	: (i)	: (i)	: (i)
Malta	58,8	58,5	: (i)	59,8
Netherlands	61,5	62,1	63,9	63,2
Poland	59,5	: (i)	59,3	: (i)
Portugal	63,1	: (i)	62,6	: (i)
Romania	63	64,3	: (i)	: (i)
Slovakia	59,2	: (i)	58,7	: (i)
Slovenia	58,5	59,8	: (i)	: (i)
Spain	62,4	62	62,1	62,6
Sweden	63,6	63,6	63,9	63,8
United Kingdom	62,6	63,2	62,6	63,1

: = Not available e = Estimated value i = See explanatory text b = Break in series
 Source of Data: Eurostat, at

http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/Annexes/lfsi_exi_a_sm1_an2.htm

The present average age of retirement in EU-27 countries is only a little over 60 years of age, (though the official age of retirement is generally a few years higher), but most countries are currently considering the postponement of the retirement age¹². France has just passed a law postponing it to the age of 62 years (a measure that has caused a backlash from society resulting in strikes and public demonstrations by young people as well as union confrontation with the Government), Germany to 67 years while Spain is discussing postponing it to 67 years also, and the public

debate in most countries is also considering enlarging the number of years of contribution to Social Security in order to have the right to the full retirement pension or, alternatively, to base the retirement pension on the total number of years that the person has contributed to Social Security. Sooner or later most countries will come to the conclusion that the best solution is to have voluntary rather than compulsory retirement, provided the person can really perform their job properly, and to base the retirement pension on the total time the person has contributed to Social Security.

In fact, the real problem that EU-27 countries are facing is that of coping with the growing cost of pensions because of the growing number of pensioners. When politicians and experts refer to population ageing as "a social problem" they really mean the economic problem created by the growing number of pensioners¹³, but they seem not to have faced up to the fact that the solution is not to limit that number (something that could only be achieved by increasing mortality) or to increase fertility (a solution that will take at least 30 years and jobs for the added births), but to increase the number of years that a person works and contributes to Social Security, and that may be achieved by postponing compulsory retirement till 70 or 75 years of age (a solution that will cause social rejection, as has already been experienced in several countries that have tried much more modest ages, like 62 or 67), by increasing the number of years contributed to Social Security (which will also cause social rejection), or by allowing voluntary retirement and establishing the amount of the pension on the total time contributed to Social Security.

Table 2.7. Expenditure on pensions as a per cent of GDP

geotime	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
EU (27 countries)	:	:	:	:	:	:	:	:	:	12.2	12(p)	11.8(p)
Austria	14.4	14.4	14.3	14.4	14.3	14.5	14.6	14.8	14.5	14.3	14.1	13.8
Belgium	11.9	11.6	11.5	11.3	10.9	11.1	11.2	11.3	11.1	11.1	11	10.7
Bulgaria	:	:	:	:	:	:	:	:	:	8	7.6	7.3
Cyprus	:	:	:	:	5.8	5.8	6.5	6.8	6.6	6.8	6.8	6.8(p)
Czech Republic	7.5	8.3	8.3	8.5	8.5	8.5	8.8	8.7	8.3	8.4	8.3	8.2
Denmark	11.4	11.1	11	10.8	10.5	10.6	10.7	11.1	11	11	10.7	10.8
Estonia	:	:	:	:	6.6	5.9	5.9	5.9	6	5.9	6	5.9
Finland	12.7	12	11.2	11	10.6	10.6	10.9	11.2	11.2	11.2	11	10.8
France	13.5	13.5	13.4	13.4	12.9	12.9	13	13.1	13.1	13.2	13.2	13.3(p)
Germany	12.7	12.8	12.8	12.8	13	13.1	13.3	13.5	13.4	13.3	12.9	12.4(p)
Greece	10.4	10.5	11.1	11.3	11.1	11.9	11.8	11.5	11.7	12.1	12	12.1
Hungary	:	:	:	8.9	8.5	8.6	8.9	9.2	9.3	9.8	10	10.4
Ireland	4.7	4.3	4	3.8	3.6	3.7	5	4.9	5	5	5	5.2
Italy	14.5	15	14.5	14.9	14.4	14.3	14.6	14.7	14.6	14.7	14.6(p)	14.6(p)
Latvia	:	9.5	10.2	10.8	9.5	8.6	8.2	7.5	6.8	6.3	6.1	5.3(p)
Lithuania	6.5	6.6	7.2	8.1	7.8	7.3	7	6.8	6.7	6.5	6.3	6.6(p)
Luxembourg	11	11.3	10.9	10.1	9.4	9.8	10	10.1	9.9	9.6	8.6	8.2
Malta	8.1	8.1	8.3	8.4	8	8.9	8.6	8.9	9.1	9.2	9.1	9.1
Netherlands	13.8	13.4	12.8	12.8	12.5	12.4	12.7	12.8	12.8	12.5	12.3	12.1(p)
Poland	:	:	:	:	12.6	13.6	13.7	13.8	13.3	12.7	12.5	11.6
Portugal	9.9	9.9	10	10.1	10.5	10.9	11.3	11.8	12.3	12.7	13	13.1
Romania	:	:	:	:	6.1	6.2	6.7	6	6.2	6.2	6	6.4
Slovakia	7.2	7.2	7.4	7.5	7.5	7.4	7.4	7.3	7.4	7.5	7.3	7.3(p)
Slovenia	10.9	10.9	10.9	10.9	11.1	11.2	11.3	10.8	10.5	10.3	10.3	9.7(p)
Spain	10.3	10.1	9.9	9.6	9.6	9.4	9.3	9.2	9.1	9.1	9(p)	9(p)
Sweden	12.5	12.3	12.1	11.8	11.3	11.4	11.6	12.3	12.3	12.4	12	11.8(p)
United Kingdom	11.6	11.7	11.2	11.3	11.9	11.5	10.8	10.6	10.6	10.8	10.8	10.5(p)

: = Not available p = Provisional value

Source of Data: Eurostat , at

<http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=0&language=en&pcode=>

The economic dimension of the present pension system, at a time of ageing population and financial-economic crisis is best demonstrated by the relative weight of the expenditure on pensions as a percentage of the GDP. Italy, with one of the most aged populations, has the largest expenditure on pensions: 14.6 per cent of its GDP, followed by Austria, France, Portugal,

Germany, Greece and the Netherlands, all over 12 per cent of their GDP, while the smallest expenditures are those of Ireland, Latvia and Estonia (all three below 6 per cent), and Romania, Lithuania, Cyprus, Bulgaria and Slovakia (6 per cent to 8 per cent of their GDP). When GDP has decreased in many countries, as has happened since 2008, the increase in the relative weight of pensions on GDP creates additional problems for countries in the EU-27.

The cost of pensions is at the centre of the public debate in Europe¹⁴, but two main ideas are finding their way through in most countries: first, that it is necessary to postpone the age of retirement, and second, that pensions should be proportional to the contribution made by the pensioner to the Social Security system. Some estimates from private insurance companies¹⁵ suggest that the deficits which governments will incur in the next few decades are true threats to sustainability. The main conclusion for European governments in this study is that the “retirement pensions’ deficit is high and will continue to grow unless some measures are taken. There is no single factor for eliminating the deficit in pensions completely. Governments should combine different measures, such as postponing the retirement age or incentivize higher complementary savings, especially in middle income groups.”

Some voices are asking whether or not immigration will increase in the case that the crisis ends in the next few years, since demand for jobs will increase and the population will not grow enough to provide the necessary labour force. As has been said, immigration in EU countries has declined because of the financial-economic crisis, and signs of xenophobia and rejection of foreign migrants are increasing in many EU countries. If, and when economic growth is recovered, it is very likely that governments will stimulate the employment of nationals (protectionist attitudes have been shown by different international social survey comparative projects such as the International Social Survey Program (ISSP), World Values Survey (WVS) or European Social Survey (ESS), among others.), since they have very high unemployment rates among youth, women, and the elderly. Therefore, even if there is new economic growth, most EU countries will probably favour creating jobs within those groups where unemployment is higher, so that stimulating immigration will probably not be the main goal of governments for some time. And national workers will be much more

likely to accept jobs not only because they remember and have experienced unemployment, but also because of the likely reforms in retirement and pension systems.

2.7. Conclusions

This paper argues that population trends in the enlarged European Union will continue to be characterized by high and even increasing life expectancy, below replacement fertility, close to zero population growth and, consequently, increasing ageing of the population. In order to reverse these trends, if that was considered necessary, and ruling out a rise in mortality, only a significant increase in fertility would produce a younger population, at the cost of high rates of population growth, which might not be convenient from a world or European perspective due to its impact on natural resources and on the environment.

In recent years the European Union has received an increasing number of immigrants, and it seems likely that it will continue to do so for the next few decades. However, this demographic input has not had, and is not likely to have, a significant impact on the structure of the receiving population, though it may slightly increase the younger adult age-groups and the labour force, and even the rate of fertility. But immigration flows will not alter significantly the fact that European populations will continue to age (among other things because immigrants will also age). Besides, the recent financial and economic crisis that started in 2007-2008 has had a greater impact on the economies of more developed countries, such as the EU-27, an impact that has caused a reduction in immigration flows because of increasing unemployment and lack of jobs in the receiving countries. And, in any case, reduction of mortality and fertility in the countries of origin of migration flows is causing population ageing and a reduction in demographic growth in those countries, so that a reduction in migration flows from less developed countries is to be expected in the short term.

Therefore, unless European societies are prepared to accept and/or promote a rise in mortality (something that is unthinkable), their populations will continue to have close to zero or even negative population growth, and they will continue to age, so that the shape of their age

distributions will approximate a rectangle rather than a pyramid, meaning that most of the individuals in each cohort will survive to 100 years of age. But, as individuals reach higher ages in much better physical and mental condition, European societies should probably consider the need to make structural changes that postpone the retirement age to 75 years of age, or even better, to make retirement voluntary, a measure that would reduce the weight of the dependent older population to a proportion similar to the present one with the retirement age at 65 years. In brief, social rather than demographic changes are needed to adapt to the present and expected population trends in the European Union. As for net immigration flows, they will probably continue and even increase in the very short term, but their demographic impact on fertility or the age structure will not significantly alter present and expected population trends, and they will decrease in one or two decades as a result of the ageing of their own populations.

Notes

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