

# **DEMOGRAPHIC CHANGE IN WESTERN EUROPE AND ITS IMPLICATIONS**

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**CERTIFICATE**

**Date 25 April, 2002**

This is to certify that the dissertation entitled, “**DEMOGRAPHIC CHANGE IN WESTERN EUROPE AND ITS IMPLICATIONS**”, submitted by **RANJUMONI BORAH** in partial fulfillment of the requirement for the award of the degree of **MASTER OF PHILOSOPHY** of the University, is her own work, and has not been previously submitted for the award of any other degree of this or any other University.

We, therefore, recommend that this dissertation may be placed before the examiners for evaluation.

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(Chairperson)

**PROF. B. VIVEKANANDAN**  
(Supervisor)

*Dedicated  
To  
My Parents*

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## **Preface and Acknowledgements**

One of the most significant recent developments in Europe, which will have long – term implications for many facets of people's life, is the ongoing demographic change in the region. As a result of advancements in medical care, social protection and so on, made during the past century, people of Europe have experienced substantial increase in their longevity, which has inevitably led to a major shift in the age composition of the population. Other factors which have contributed to this phenomenon have been the low level of fertility, the declining mortality of the people at older age and the growth of elderly population.

Although the demographic change has not reached at the peak level, which is expected to be at the peak by the year 2025, already, certain consequences are already manifest at the level of societal relationship. It has led to new types of families or family arrangements, like unmarried cohabiting couples and single – parent families. It has also changed the traditional care methods of the elderly. More and more elderly people are being sent to specially constructed Old Homes for care. Segregation of elderly people is taking place in a big scale all over Europe.

Demographic change is affecting the labour market, social expenditure, tax structure, pension expenditure, and income distribution. The fact that a shrinking number of employed people have to support a large number of

non-working people (which include children and the aged), is a new phenomenon which can cause much strain in the socio-economic situation of European countries. It can also affect the market potential of Europe as it could change the consumption pattern all together.

Not much study has been done in India regarding this growing new phenomenon in Europe which can have, implications for countries elsewhere. Therefore, this study has been undertaken with the following objectives:

- 1) To analyse the factors which have contributed to the demographic change in Western Europe;
- 2) To analyse the conditions of the ageing people in Europe ;
- 3) To examine its social implications and ,
- 4) To examine its economic implications.

Chapter 1 provides an overview of demographic change in Europe and the world before and after the Second World War. It also analyses the reasons of low birth rates and high life expectancy in many European countries.

Chapter 2 deals with the social consequences of the demographic change in Europe with various examples and datas. Here, a number of significant developments pertaining to family are discussed. Important among them are the trend towards late marriage, the rising proportion of single-

parent households, and the increasing propensity of marriage to end in divorce.

Chapter 3 analyses the economic consequences of ageing, with special focus on labour force, public expenditure, pension system, and private consumption. It also deals with the political consequences of demographic change.

The final Chapter contains the concluding observations.

This study has been undertaken with the help of material collected from various libraries in New Delhi. Prominent among them are the libraries of the Jawaharlal Nehru University, the European Union Delegation, the Institute of Defence Studies and Analysis and of the British Council.

During the course of this research I have accumulated a lot of help from many well wishers and friends.

I am deeply indebted to my supervisor Prof. B. Vivekanandan who has helped me in all possible ways. In his able hands, my work has found delicate moulding and it is due to his great patience with a faltering novice that this work has found completion. He gave me wide academic latitude to think freely and evolve my ideas and offered constructive and critical suggestion. Besides this his hard work, simplicity and unassuming nature and his excellent academic achievements have been a constant source of inspiration for me.

I am beholden to my parents for enabling me to undertake this research work.

I am fortunate to have brothers like Sonmoni, Raj, Jit and Jnan who have played tremendous supportive role in my career. I am grateful to my dear sister Anju and sister-in-law Darshnita too. Their unflinching support has enabled me to pursue my studies even at their cost.

I must express my thanks to the Staff of the Library of JNU, the EU Delegation Library, the British Council Library, and the Library of the Institute for Defence Studies and Analyses ,all in New Delhi, for the valuable assistance they have extended to me.

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*R. Borah*

(RANJUMONI BORAH)



## CHAPTER 1

### HISTORICAL BACKGROUND

#### Demographic Change: In the Global Context

The demographic transition, which is a shift from high to low levels of fertility and mortality, changes the age structure of a population from a young to an old age distribution. Fertility decline reduces the proportion of children, and mortality decline raises the likelihood to survive up to old ages.<sup>1</sup> The shape of the population pyramid thus changes from one with a wide base and narrow top to a steeply sloped, barn-shaped form.<sup>2</sup>

The process of demographic transition in the course of economic development, as experienced by today's industrialized countries, may briefly be explained as follows: "All nations in the modern era, which have moved from a traditional, agrarian-based economic system to a largely industrial, urbanized base, have also moved from a condition of high mortality and fertility to low mortality and fertility".<sup>3</sup>

The twentieth century has witnessed much success in many regions of

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<sup>1</sup> United Nations, Economic Commission for Europe, *Changing Population Age Structures, 1990-2015* (Geneva, United Nations Publication, 1992), p. 4.

<sup>2</sup> Ibid.

<sup>3</sup> George J. Stolnitz, "The Demographic Transition: From High to Low Birth Rates and Death Rates", Ronald Freedman, (ed.) *Population: The Vital Revolution* (New York: Doubleday and Co., 1964), p. 30.

the world in the control of death rates of those of early age. For instance, in USA, between 1960 and 1990 men's life expectancy at age 55 increased by over 16 per cent and at age 65 increased by about 18 per cent. Women's life expectancy at age 55 increased by almost 15 per cent and at age 65 increased by about 20 per cent.<sup>4</sup> In some regions, particularly the more industrialized and urbanized, increasing number of persons and proportions of the population survive into the advanced stages of life.

Ageing occurs through the complex interaction of biological, psychological and sociological processes of change over time.<sup>5</sup> It is known that an ageing society is characterized by a growing proportion of the retired to the active working population. Societies age either when fertility rates decline so that fewer children are born, or when longevity increases, or both.<sup>6</sup>

In a number of countries ageing has been essentially continuous, while in others it was temporarily interrupted by a Post-Second World War "baby

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<sup>4</sup> David A. Wise, "Retirement Against the Demographic Trend: More Older People Living Longer, Working Less, and Saving Less", *Demography* (New York), Vol. 34, no. 1, February, 1997, p. 83.

<sup>5</sup> United Nations, *The Ageing: Trends and Policies* (New York, United Nations Publications, 1975), p. 7.

<sup>6</sup> Sheetal K. Chand and Albert Jaeger, *Ageing Populations and Public Pension Schemes*, (Washington D.C, International Monetary Fund, 1996), p. 4.

boom” and war related mortality increases.<sup>7</sup> In recent years, marked declines in mortality among the elderly have emerged as an important cause of population ageing, reinforcing the efforts of the long term trend towards lower childbearing rates.<sup>8</sup>

The age structures of different populations are usually compared in terms of three broad age groups which identify persons in the working age, children under the working age and persons above the working age. These age groups are: below 15, 15 to 64 and 65 and above.<sup>9</sup> Table 1 presents the percentage distribution of the population of various countries in these broad age groups. It is evident from this Table that Japan has the lowest percentage of persons under the age of 15 (16.33 per cent), while Kenya has the highest (47.84 per cent). Sweden has the highest percentage of persons who are 65 years of age or older (17.46 per cent) while this percentage is the lowest for Kenya (3.4 per cent).

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<sup>7</sup> United Nations, *Changing Populations . . . Structures*, n. 1, p. 4.

<sup>8</sup> *Ibid*, p. 4.

<sup>9</sup> Asha A. Bhende and Tara Kanitkar, *Principles of Population Studies*, (Mumbai, Himalaya Publishing House, 2000), p. 124.

**Table 1: Percentage Distribution of population in Broad Age Groups for some Developing and Developed Countries**

Country	Year	0-14	15-64	65+	Age not stated	All ages
India	1991	37.25	58.13	4.05	0.56	100.00
Kenya	1989	47.84	48.73	3.43	-	100.00
Pakistan	1995	41.33	54.92	3.75	-	100.00
Bangladesh	1990	43.78	46.26	9.46	-	100.00
Sri Lanka	1994	35.20	60.48	4.32	-	100.00
China	1990	27.69	66.73	5.58	-	100.00
Japan	1994	16.33	69.60	14.07	-	100.00
United Kingdom	1994	19.49	64.76	15.75	-	100.00
United States	1995	21.97	65.15	12.88	-	100.00
Thailand	1994	29.99	65.74	4.27	-	100.00
Sweden	1994	18.86	63.68	17.46	-	100.00
Philippines	1995	37.36	58.76	3.88	-	100.00
Ethiopia	1995	48.18	47.15	4.67	-	100.00
More developed	1997	20.00	66.00	14.00		
Less developed		35.00	60.00	5.00	-	100.00

Source: Population Reference Bureau, *World Population Data Sheet, 1997*, Washington D.C., 1997.

It may therefore be concluded that the developing countries have high percentages of children below 15 and low percentages of elderly persons of 65 years of age or above. The percentage of the population in the working age ranges from 46.2 per cent to 66.7 per cent for the developing countries. In 1997, the developing regions, had, on an average, 35 per cent of their population below the age of 15, 5 per cent of the population was of the age 65 and above, and 60 per cent was in the working age group. It is quite clear from these figures that these countries have to bear the burden of children to a large extent. The developed countries, on the other hand, present an entirely different picture. They have small populations below the working age group (20 per cent), larger populations in the working age group (66 per cent) and a higher percentage of elderly persons (14 per cent).<sup>10</sup> As the developed countries have a much lower proportion of population consisting of dependent children, their overall dependency ratios are also of smaller values than those in developing countries.<sup>11</sup>

The shift from fertility-dominated to mortality-dominated ageing occur for three reasons. Firstly, the fertility decline usually slows down after reaching the neighbourhood of replacement level, which is a total fertility rate (TFR) of about 2.1.<sup>12</sup> Sometimes the decline continues within the below-replacement zone. Secondly, significant mortality reduction is increasingly

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<sup>10</sup> Ibid, p. 151.

<sup>11</sup> Ibid.

<sup>12</sup> United Nations, *Changing Populations*, n. 1, p. 5.

limited to old ages. In general, mortality decline contributes to the population growth of all age groups. Thirdly, the ageing of population itself amplifies effects of mortality decline on population ageing. In general, fertility reduction produces population ageing by reducing the proportion of children and mortality decline contributes to population ageing by raising the proportion of the elderly. The demographic consequences of a growing population's transition to stationary include both population ageing and population momentum. It is widely understood that fertility reductions are followed by an increase in both the absolute and relative size of the population at older ages.<sup>13</sup>

Table 2 presents the demographic situation of the world and its various regions for 1950, 1975 and 1995. This Table also gives the projected populations of the regions for 1998 and 2050. It is evident from Table 2 that world population is very unevenly distributed over its various regions. According to the estimates of 1995, most densely populated regions are Asia followed by Europe.

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<sup>13</sup> Young J. Kim and Robert Schoen, "Population Momentum Expresses Population Aging", *Demography*, Vol. 34, no. 3, August 1997, p. 421.

**Table 2: Population size, Rate of Natural Increase, Birth and Death Rates, Population Density, for 1950, 1975 and 1995 and projected population for 1998 and 2050 for major regions of the world.**

Major Regions	Mid year estimates of population (in million)			Annual rate of increase %	Birth rate per 1000	Death rate per 1000 population	Population density per square meter	Projected population (in million)	
	1950	1975	1995	1990-95	1990-95	1990-95	1995	1998	2050
World	2521	4077	5716	1.6	25	9	42	5901	8909
Africa	221	414	728	2.8	42	14	24	749	1766
Asia	1402	2406	3458	1.6	25	8	109	3585	5268
Europe	547	676	727	0.2	12	11	32	729	628
Latin America	167	320	482	1.8	26	7	23	504	809
Northern America	172	239	293	1.0	16	9	14	305	392
Oceania	13	21.4	28.5	1.5	19	8	3	30	46

Source: United Nations, Demographic Year Book 1995 (New York: United Nations Publications, 1997).

It also reflects the differential growth rates of populations of these regions. While in 1950 Europe and Northern America accounted for 28.5 per cent of the world population, their share in the world total decreased to 17.6 in 1998 and it will further decline to 11.5 per cent in 2050. Conversely, the share of Africa in the population of the world increased from 8.8 per cent in 1950 to 12.7 per cent in 1998 and is projected to reach 19.8 in 2050. The rates of natural increase of the population also indicate that vary a great deal from region to region. For instance, while the population of African and Latin American regions have increased at the rate of 2.8 per cent and 1.8 per cent per year respectively, during 1990-1995, the population of Europe has registered a growth rate of only 0.2 percent.

The rapid growth of population during the past centuries was mainly due to the decline in the death rate, resulting from the process of modernization, which involved rising standards of living, rising incomes, and advances in sanitation and in medical knowledge.<sup>14</sup> Recent successes in prolonging the life spans of laboratory animals have raised the possibility of large increase in human longevity.<sup>15</sup>

It is noteworthy that the world population has started increasing rapidly in the twentieth century, and the annual rate of growth has also increased

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<sup>14</sup> Asha A. Bhende and Tara Kanitkar, n.9, p.124.

<sup>15</sup> Joshua R. Goldstein and Wilhelm Schillog, "Longer Life and Population Growth", *Population and Development Review* (New York), vol. 25, no.4, Dec. 1999, p.741.



consistently except for the period of 1940-1950.<sup>16</sup> During the period 1900-1950, the average annual rate of world population growth was 0.8 percent. This rate rose to 1.9 per cent during 1950-1970, that is, more than twice the rate in the earlier period. It is interesting to note that during 1900-1950, the average annual rates of growth for the developed and the developing countries were identical, i.e., 0.8 per cent.<sup>17</sup> During the next twenty years, however the population in the developing countries increased rapidly, registering, on an average, annual growth rate of 2.22 per cent.<sup>18</sup> On the otherhand, the rate of growth in developed countries was also increasing, but their average rate of growth was 45 per cent lower than that in developing countries.<sup>19</sup>

During 1650-1750, the average annual rates of growth for the developed and developing regions were low and almost identical. In later years, they began to increase though, upto 1920, this increase was more in the developed regions than in the developing areas. Table 3 gives the average annual rates of population growth for the developed and developing regions. A high mark in the growth rate was recorded by the developed countries during 1850-1900 that is 1.05 per cent – after which it started declining; and from 1920 onwards, the developed regions invariably recorded

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<sup>16</sup> Asha A. Bhende and Tara Kanitkar, n.9, p.67.

<sup>17</sup> *Ibid*;

<sup>18</sup> *Ibid*;

<sup>19</sup> *Ibid*;

a lower growth rate than the developing regions. As a result of 'baby boom', the growth rate in the developed regions increased during 1950 to 1960, and afterwards had consistently declined. The growth rates in the latter have been consistently rising since 1930 upto 1970-75 after which the rates have been declining. In 1650, almost 21 per cent of the world's population lived in the developed regions. In 1920, this percentage reached its peak (nearly 34 percent). Since 1930, however, world population in the developed regions has almost consistently declined till, in 1990 only 22.80 per cent was found to live in the developed regions, while the remaining 77.20 per cent was found to inhabit the developing regions. In 1998 this percentage has further declined to 20 per cent. It is estimated that the percentage of the population in developed countries will be only 15 per cent in 2050.<sup>20</sup>

**Table 3: Average annual rates of growth for the developed and developing regions from 1650 to 1990**

Period	Average Developed Regions	Per cent Growth Developing Regions
1650-1750	0.33	0.34
1750-1800	0.62	0.47
1800-1850	0.83	0.31
1850-1900	1.05	0.53
1900-1920	0.92	0.52
1920-1930	0.91	1.11

<sup>20</sup> Ibid; p.69

1930-1940	0.85	1.28
1940-1950	0.35	1.44
1950-1960	1.35	2.32
1960-1970	1.10	2.77
1970-1975	0.88	2.53
1975-1980	0.75	2.20
1980-1985	0.67	2.21
1985-1990	0.55	2.22
1990-1995	0.49	2.20
1995-2000	0.45	2.03

Source: Donald, J. Bogue, *Principles of Demography* (New York, John Wiley and Sons, 1969), p. 49.

### **In the European Context**

During the past two centuries, western populations have undergone a similar process. The equilibrium in the composition of population in the European region is rapidly changing. Since the nineteenth century, there was a substantial increase in the population share of Europe and North America as mortality in those regions yielded to improved living standards, education, and public health care measures.<sup>21</sup> European population has multiplied fourfold; life expectancy has increased from the range of 25-35 to 75-80; the

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<sup>21</sup> Geoffrey McNicoll, "Population Weights in the International Order", *Population and Development Review*, vol. 25, no. 3, September, 1999, p. 413

average number of children per woman has declined from values generally between 30 and 40 per thousand to about 10.<sup>22</sup>

In Western European societies before the demographic transitions, significant proportions of the population did not marry and given low levels of non-marital fertility, thus remained childless. Among those who did marry, however, there was generally little recourse to deliberate birth control.<sup>23</sup> Between 1950 and 1955 the total fertility rates of Europe were 2.57 per cent which decreased between 1995-2000 to 1.42 per cent.<sup>24</sup>

The neo-classical microeconomic theory of fertility emphasizes three proximate determinants of couples' fertility choices: the relative costs of children versus other goods, the couple's income, and their preferences for children versus competing forms of consumption.<sup>25</sup>

The western fertility decline was inevitable given that child mortality was persistently falling and the economic value of children was progressively undermined by urbanization, compulsory schooling, legislation restricting the

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<sup>22</sup> Massimo Livi –Bacci, *A Concise History of World Population* (Oxford; Blackwell Publishers Ltd. ), 1997, p. 113.

<sup>23</sup> Chris Wilson, "Evolutionary Theory and Fertility Change", *Population and Development Review*, vol. 25, no. 3, September 1999, p. 538.

<sup>24</sup> Patric Heuveline, "The Global and Regional Impact of the Mortality and Fertility Transitions, 1950-2000," *Population and Development Review*, vol. 25, no. 4, December 1999, p. 697.

<sup>25</sup> Karen Oppenhem Mason, "Explaining Fertility Transitions", *Demography*, Vol. 34, no. 4, November 1997, p. 444.

exploitation of minors, and the kind of employment available in an advanced industrial system.<sup>26</sup>

The transition from high fertility and an absence of contraception to low fertility and the widespread use of contraception is a fundamental social transition that has wide ranging social and economic consequences.<sup>27</sup> Consequences include changes in population size and density, women's health, income distribution and relative wealth, and the quality of husband-wife and parent-child relationships.

Again, family planning has long been a core element of population policies and programmes and is a central component of reproductive health. In addition to allowing couples to limit the number of children they have, family planning helps lower fertility rates and slow population growth by helping women to space their pregnancies.<sup>28</sup>

Besides these factors, education also plays an important role in lowering fertility. It is a key determinant of fertility preferences and behaviour, schooling spreads western family values and, to the extent that these values emphasize small families, reduces the demand for children.<sup>29</sup> Again, the use

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<sup>26</sup> John C. Caldwell, "The Delayed Western Fertility Decline: An Examination of English-Speaking Countries", *Population and Development Review*, vol. 25, no. 3, September 1999, p. 479.

<sup>27</sup> William G. Axinn and Jennifer S. Barber, "Mass Education and Fertility Transition", *American Sociological Review* (New York), vol. 66, no. 4, August 2001, p. 481.

<sup>28</sup> Lori S. Ashford, "Improving Reproductive Health", *Population Bulletin* (Washington D.C.), vol. 56, no. 1, March 2001, p. 13.

<sup>29</sup> John C. Caldwell, *Theory of Fertility Decline* (New York, Academic Press, 1982), p. 17.

of contraceptives to delay childbearing may ultimately limit fertility.<sup>30</sup> The relationship between education and fertility—which, because of smaller family ideals and more effective fertility control, usually results in lower completed fertility for the more educated—is widely recognized. In Europe, for instance, reproductive differentials among families of the lowest and highest educational levels have tended to diminish in recent years although they are, nonetheless, still evident. Thus in 1980, completed fertility among women in Hungary with tertiary education was more than 40 per cent lower than that of women with less than eight years of schooling.<sup>31</sup> In the Netherlands, too, family size was found to decrease monotonically with the educational level of the mother, while the relationship to the father's educational level tended to fit a u-shaped curve<sup>32</sup>.

The causes of low birth rates in Europe are many. Late marriages, more women entering the labour market, high educational level among the blue-collar employees and popularization of birth control methods are all viewed as important causes.

In most present-day populations the percentage of married women using contraception is rising rapidly, and, in some settings, the level of current contraceptive use is close to 100 per cent among women exposed to

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<sup>30</sup> William G. Axinn and Barber, n. 27, p. 489.

<sup>31</sup> Alan D. Lopez and Rober L. Cliquet (eds), *Demographic Trends in the European Region: Health and Social Implications* (Copenhagen, WHO Regional Publications), 1984, p. 35.

<sup>32</sup> *Ibid*;

the risk of pregnancy. According to United Nations data, China ranks first with a value of 83 per cent (1992), followed by Great Britain (82 per cent, 1993).<sup>33</sup> A 1995-96 fertility survey in Italy shows contraceptive prevalence over 90 percent.<sup>34</sup> As a consequence the numbers of unwanted children continue to fall, and, very likely, even the number of children born to couples who are ambivalent about offspring is decreasing.

As illustrated in Table 4, these trends have led to extremely low current fertility levels that have never before been observed in large populations. A period total fertility rate of less than 1.2 was recorded in Italy (1995), Spain (1996), Czech Republic (1996), and Latvia (1996). The most spectacular fall in fertility occurred in Former East Germany, where the total fertility rate dropped from the already low level of 1.5 recorded in both 1964 and 1990, to about 0.8 observed each year during 1992-95.

**Table 4: Cohort and period total fertility rates in selected European Countries**

	Cohort data		Period data	
<i>Country</i>	<i>Year of birth</i>	<i>Total fertility</i>	<i>Year of observation</i>	<i>Total fertility</i>
West Germany	1964	1.45	1994	1.35

<sup>33</sup> Antonio Golini, "How Low Can Fertility Be? An Empirical Exploration", *Population and Development Review*, Vol. 24, no. 1, March 1998, p. 60.

<sup>34</sup> Ibid;

East Germany	1964	1.51	1994	0.77
Spain	1964	1.52	1996	1.15
Italy	1963	1.59	1995	1.17

Sources: For Italy 1995: *Eurostat* 1996; for Spain 1996: *Eurostat* 1997; for other data: council of Europe 1997

It is noteworthy that there are large regional differences in fertility levels within Europe. Extremely low levels of period total fertility are found in many subnational populations. For instance in 1994, in 24 of 95 Italian provinces, the rate was less than 1.0; the lowest value, 0.8, was observed in the province of Ferrara (population 354, 000).<sup>35</sup> In Spain, the *Period total fertility rate* in the Basque country has been less than 1.0 since 1989; it was 0.9 in 1995, and in Catalonia the rate was 1.1 in 1994.<sup>36</sup>

These levels of fertility are associated with very high values of period mean age of women at the birth of their first child. Table 5 presents data on mean age at first birth and at any birth for several European countries and for the province of Ferrara. These data indicate that a sizable proportion of women are delaying their first birth. Time trend data from the Council of Europe (1997) show a noteworthy increase in postponement of childbearing in many European countries; the period mean age of women at birth of first

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<sup>35</sup> Ibid; p. 61

<sup>36</sup> Ibid.



child rose from 24.3 years in 1970 to 28.6 in 1995 in the Netherlands (an average increase of 2 months per calendar year); from 23.8 years in 1970 to 27.9 in 1994 in France; from 22.5 in 1970 to 26.6 in 1994 in the former East Germany. Conclusions about an increase in mean age at birth of any child are less robust because of the parallel decrease in fertility. For instance, the mean age at childbearing in the Netherlands rose from 27.4 in 1970 to 30.3 in 1996, but, in the meanwhile, the period total fertility rate fell from 2.6 to 1.5; in Italy, the mean age at childbearing rose from 28.3 in 1970 to 29.6 in 1994; but fertility dropped from 2.4 to 1.2.

**Table 5: Cohort and period mean age of women at birth of first child and of all children in selected European countries.**

<i>Country or Province</i>	<i>Cohort data</i>		<i>Period data</i>		
	<i>Year of birth</i>	<i>Mean age of birth</i>	<i>Year of observation</i>	<i>Mean age at birth of</i>	
				<i>First child</i>	<i>All child</i>
West Germany	1962	27.2	1994	27.9	28.4
East Germany	-	-	1994	26.6	26.2
Spain	1960	27.6	1994	27.2	29.7
Italy	1960	27.7	1994	27.5	29.6
Switzerland	1962	28.8	1994	28.3	29.3
Netherlands	1961	29.2	1995	28.6	30.2

Ferrara province	-	-	1994	-	29.7
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Source : Council of Europe 1997

In the long term, even a very low fertility rate (e.g., one less than 1.3) seems to be unsustainable. Assuming that fertility remains constant at its present value between 1995 and 2050, population size would fall by 35 per cent in Italy and by 27 per cent in Germany, while the share of persons aged 60 and older within the total population would rise from 22 per cent to 48 per cent in Italy and from 21 per cent to 43 per cent in Germany.<sup>37</sup> By 2050 the yearly birth/death ratio would be 1 to 4.2 (185,000 births and 777,000 deaths) in Italy and 1 to 3.5 in Germany.<sup>38</sup>

### Pre-war Trends

The phenomenon of population ageing is unquestionably one of the most significant demographic features of the European region. During the nineteenth century European countries began the process of demographic transition characterized by an improvement in mortality and decline in fertility. During the seventeenth century, the population of Europe increased very gradually because of many disasters-such as cold waves, crop failures and famines, wars and rebellions and epidemics. In the eighteenth century,

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<sup>37</sup> Ibid; p. 63

<sup>38</sup> Ibid;

mortality conditions in Europe began to improve as a result of socio-economic development, which followed first the agricultural revolution and later the industrial revolution. The reduction in the death rate was partly due to the greater availability of food supplies, establishment of conditions of better law-and-order conditions and better standards of living. This reduction in the deathrate was, however, also due to advances in medical technology and reforms in the field of environmental sanitation and public health.

During the second decade of the twentieth century, the average annual growth rate was 0.89 percent, though prior to that, during the period 1900-1920, a decline had been registered over the period 1850-1900.<sup>39</sup> This decline was mainly due to the larger number of deaths during the First World War. The low growth rate of 0.75 per cent during 1930-1940 was the result of the great economic depression when people avoided getting married and having children.<sup>40</sup> In the early years of the decade 1940-1950, Europe was severely affected by the Second World War, resulting in a growth rate of 0.05 per cent per year, the lowest level reached in several centuries<sup>41</sup>. After the Second World War, following economic recovery, there was a “baby boom” in Europe, the birth rate and the population once again increasing at a high rate of growth.

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<sup>39</sup> Asha A. Bhende and Kanitkar, n. 9, p. 72.

<sup>40</sup> Ibid;

<sup>41</sup> Ibid;

There is considerable variation in the date of this demographic transition in the individual countries. With regard to the changes in fertility, the initiation of the decline spanned nearly a hundred years, based on the median date for attaining a 10 per cent decline in marital fertility during any one decade. The earliest date refers to France (1836) and the latest to Ireland (1928).<sup>42</sup> In most European countries the decline started between 1890 and 1915; it began earlier only in France, Hungary and Switzerland, and later only in Albania, Ireland, Italy, Portugal and the USSR.<sup>43</sup>

In the second half of the eighteenth century mortality began to show signs of decline; life lengthened and the hierarchical sequence of death, dictated by age, became firmly rooted. The decline in the intensity and frequency of mortality crises, of those sudden and short-term—from a few weeks to a couple of years in the case of a serious epidemic—increases of the normal death rate, constitutes the first aspect of the mortality transition. A wide range of events come under the general heading of “crisis”: the destruction of war, famine, and recurring bouts of epidemic disease.<sup>44</sup> Figure 1 provides an example of the attenuation of crises. The solid line traces the

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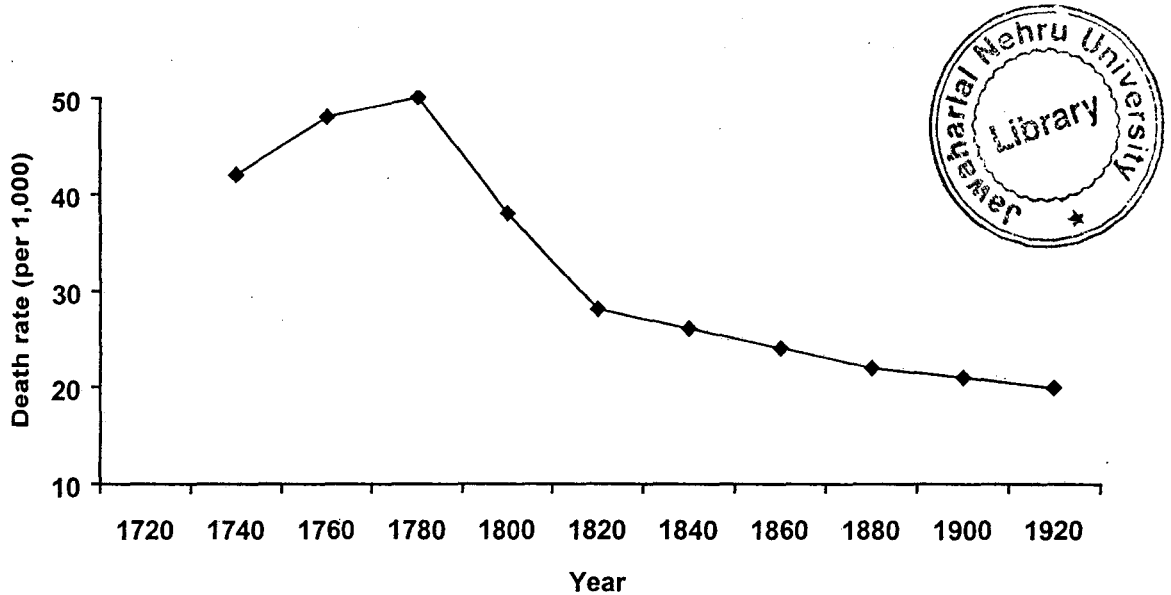
<sup>42</sup> Alan D. Lopez and Cliquet, *Demographic Trends*, n. 31, p. 93.

<sup>43</sup> *Ibid.*

<sup>44</sup> Massimo Livi-Bacci, n. 22, p. 119.

progress of the Swedish crude death rate for the period 1735-1920; the dashed lines connect the maximum and minimum values.

**Figure 1: Attenuation of mortality swings in Sweden (1735-1920)**



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Source : Massimo Livi-Bacci, *A Concise History of World Population* (Oxford, Blackwell Publishers Ltd.), 1997, p. 119.

Nonetheless, mortality declined, and not only because of the reduced frequency and severity of crises but also because of a decline in the probability of the death at the various ages during normal periods. Table 6 reports the progress of life expectancy for some of the major developed countries between the mid-eighteenth century and the present day. Initial values, which for some countries are below 30, gradually increase to about 75 in the 1980s. Some countries show noticeable improvement from the mid-

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eighteenth century; almost all make considerable progress before the impact of medical discoveries could be felt.

**Table 6: Life Expectancy in several western countries (1750-1985)**

<b>Country</b>	<b>1750</b>	<b>1800</b>	<b>1850</b>	<b>1880</b>	<b>1900</b>	<b>1930</b>	<b>1950</b>	<b>1993</b>
England	36.9	37.3	40.0	43.3	48.2	60.8	69.2	76.2
France	27.9	33.9	39.8	42.1	47.4	56.7	66.5	77.4
Sweden	37.3	36.5	43.3	48.5	54.0	63.3	71.3	78.1
Germany	-	-	-	37.9	44.4	61.3	66.6	76.2
Italy	-	-	-	35.4	42.8	54.9	65.5	77.7
The Netherlands	-	32.2	36.8	41.7	49.9	64.6	71.8	77.0
USSR	-	-	-	27.7	32.4	42.9	64.0	65.4
United States (white population)	-	-	41.7	47.2	50.8	61.7	69.4	75.7
Australia	-	-	-	49.0	55.0	65.3	69.6	77.9
Japan	-	-	-	35.1	37.7	45.9	59.1	79.4

Source : L.I. Dublin, A.J. Lotka, and M. Spiegelman, *Length of Life* (New York, Ronald Press,), 1949, pp. 61, 346-51.

Mortality transition in the developed countries has been relatively slow. For example, the date at which female life expectancy reached 50 (at which level a cohort's losses due to mortality between birth and the onset of

reproductive age is still considerable, between 20 and 25 percent, and the “waste” of reproductive potential is about 30 percent) varies between 1861 for Norway and the 1930s for Bulgaria, Portugal, and the Soviet Union. The median date for European countries is 1903.<sup>45</sup>

Gains in life expectancy accelerated until the middle of the present century. Between 1750 and 1850 England, France, and Sweden gained less than a month of life expectancy for each calendar year.<sup>46</sup> These three countries, together with the Netherlands and the United States, gained about two months per year between 1850-9 and 1880.<sup>47</sup>

There was a progressive decline of general fertility in European countries. In 1870, fertility levels varied considerably: from below 0.3 for France to about 0.5 in Eastern European countries characterized by high nuptiality and high legitimate fertility.

The point at which fertility registered 10 per cent drop relative to a previous stable level (and without subsequent increases) signified the onset of irreversible decline. This date is an important moment in the demographic transition and signals the substitution of the traditional system of fertility regulation (marriage) with a new one (contraception).

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<sup>45</sup> Ibid; p. 123.

<sup>46</sup> Ibid;

<sup>47</sup> Ibid;

It occurred first in France, in 1827, and latest in Ireland, in 1922 – almost a century apart.<sup>48</sup> For Belgium, Denmark, Great Britain, Germany, the Netherlands and Switzerland the date falls between 1880 and 1900; for Sweden, Norway, Austria, and Hungary between 1900 and 1910; and for Italy, Greece, Finland, Portugal, and Spain between 1910 and 1920.<sup>49</sup>

In general, the decline in fertility was more or less continuous, with only the First World War interrupting the process. By the second half of the 1930s in most European countries fertility was not even sufficient for replacement, and in the period prior to the Second World War zero population growth became widespread in Europe. In the European Union, the completed fertility of post-war generations has been steadily declining and is now around 1.7 children per woman, well below the reproduction level of 2.1.<sup>50</sup>

### **The Post war Trends**

It may be said that in the period following the Second World War, European fertility developed in different directions. In one group of countries – consisting mainly of the countries of Northern and Western Europe – a new trend could be observed; the number of births increased steadily compared with the very low level of the pre-war period.

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<sup>48</sup> Ibid; p. 129.

<sup>49</sup> Ibid;

<sup>50</sup> European Communities, "Fertility", *Demographic Statistics 2000* (Luxembourg, Official Publications of European Communities, 2000), p. 1.



The development has been quite different in most countries of Southern Europe. Here the change was less apparent after the Second World War. Fertility was relatively high and decreased slowly until the end of the 1970s.<sup>51</sup>

Table 7 examines the present levels and changes in fertility on the basis of crude live-birth rates. In the five-year period 1975-1979 there was a great variation in the number of live births per 1000 population in the European region. In Western Europe, crude birth rates are lower by one quarter and in Northern Europe by over one fifth compared with the overall change. Southern Europe is around the average for Europe. The difference between the maximum (USSR) and minimum (Western Europe) amounts to 6.5 births per 1000, i.e. a difference of 55 per cent.

**Table 7: Crude live-birth rates in the European Region, 1950-2000**

<b>Region and country</b>	<b>1950- 1954</b>	<b>1960- 1964</b>	<b>1975- 1979</b>	<b>1985- 1989</b>	<b>1995- 1999</b>
<b><i>Eastern Europe</i></b>					
Bulgaria	21.7	16.9	16.2	14.6	14.2
Czechoslovakia	22.0	16.3	18.3	15.2	15.4
German Democratic	16.1	17.4	13.1	12.8	11.2

<sup>51</sup> Lopez and Chiquet, n. 31, p. 94.

Republic					
Hungary	21.1	13.6	16.0	12.7	12.7
Poland	30.1	20.1	19.2	16.5	14.6
Romania	24.9	16.7	18.8	16.8	16.3
Total	23.6	17.5	17.5	15.3	14.4
<b><i>Northern Europe</i></b>					
Denmark	17.9	17.0	12.5	12.0	12.0
Finland	22.8	18.1	13.6	12.2	11.0
Iceland	27.9	26.1	18.3	16.3	14.7
Ireland	21.4	21.8	21.6	20.3	19.1
Norway	18.7	17.4	12.9	13.1	13.0
Sweden	15.5	14.5	11.5	10.2	11.2
United Kingdom	15.9	18.2	12.0	12.5	12.7
Total	16.7	17.9	12.5	12.6	12.4
<b><i>Southern Europe</i></b>					
Albania	38.2	38.9	30.3	24.8	19.2
Greece	19.4	18.1	15.6	15.9	15.1
Italy	18.3	18.8	13.3	12.7	11.8
Malta	29.3	22.6	17.9	15.9	13.8

Portugal	24.1	24.0	18.2	16.9	15.2
Spain	20.3	21.5	17.9	16.5	15.6
Yugoslavia	28.8	22.1	17.7	15.2	13.8
Total	21.2	20.7	16.1	14.9	13.8
<b><i>Western Europe</i></b>					
Austria	15.0	18.5	11.5	12.3	11.5
Belgium	16.7	17.1	12.4	12.4	11.8
France	19.5	18.0	13.8	13.4	12.7
Federal Republic of Germany	15.8	18.0	9.8	11.2	10.9
Luxembourg	14.7	16.0	11.1	10.7	9.9
Netherlands	22.1	20.9	12.6	12.6	12.4
Switzerland	17.3	18.5	11.6	11.0	10.6
Total	17.6	18.2	11.8	12.2	11.8
Europe (except USSR)	19.8	18.7	14.4	13.8	13.1
USSR	26.3	22.3	18.3	18.1	16.4
Europe Total	21.8	19.9	15.8	15.3	14.3
Algeria	51.0	50.4	47.5	45.6	35.7

Morocco	50.4	50.1	45.4	40.8	31.9
Turkey	44.9	41.0	34.9	31.3	23.8

**Source:** Alan D. Lopez and Robert L. Cliquet, *Demographic Trends in the European Region: Health and Social Implications* (Copenhagen, WHO Regional publications), 1984, p. 95.

In most western countries, the decline of completed cohort fertility has been in progress starting with women born in the 1930s, and women born around 1960s are likely to complete their fertility with values decidedly below the replacement level.<sup>52</sup> In almost all industrialized and post industrial societies, women born during the 1960s and early 1970s are experiencing lower fertility at comparable ages than women born earlier, an indication of a continuing trend. The completed cohort fertility rates of the cohorts born during the 1960s and 1970s will be lower than the rates for earlier cohorts. The parity distribution of children born to successive cohorts of women is changing in favour of childlessness and increasing proportion of women who are having only one child.<sup>53</sup> Meanwhile, the proportion of women with three or more children is declining, and even the proportion of those with two is on the decline in a number of countries. In Italy, for example, the decline in the total

cohort fertility rate has been smooth, and its rate of decline fairly rapid, though less than in other South European countries.<sup>54</sup> In Norway, on the other

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<sup>52</sup> Tomas Frejka and Gerard Calot, "Cohort Reproductive Patterns in Low-Fertility Countries", *Population and Development Review*, Vol. 27, no. 1, March 2001, p. 129.

<sup>53</sup> *Ibid.*

<sup>54</sup> *Ibid.*

hand, total cohort fertility rates (TCFR) for women born since the mid-1920s first showed an increase from 2.3 children per woman for the 1923 birth cohort to 2.6 for the 1933 cohorts.<sup>55</sup> This was followed by a gradual decline with replacement fertility being reached by women born in the late 1940s. For the cohorts that followed (1951-57), fertility, moved within a narrow band of slightly below-replacement fertility, estimated to be between 2.05 and 2.07 children per woman. Cohorts born in the late 1950s and early 1960s will apparently have TCFRs of 2.08.<sup>56</sup>

For the European countries, the transition of the last two hundred years has taken place without growth rate “explosions”, but rather by means of a gradual and in part parallel modification of mortality and fertility, so that the various populations have occupied a more limited area, generally bounded by the 0 and 1.5 per cent curves.<sup>57</sup>

Table 8 and 9 show the trend of population changes by sex and age for Europe and Western Europe during 1950-1995.

The maximum size of the older population at any point of time is determined by the number of births 65 to 75 years earlier. The large number of elderly today is due, most of all, to the high fertility of the late nineteenth century and early twentieth centuries. All Cohorts that have aged during this

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<sup>55</sup> *Ibid.*, p. 109.

<sup>56</sup> *Ibid.*

<sup>57</sup> Massimo Livi-Bacci, n. 22, p. 113.

century have benefited from the reduced chances of death from infectious diseases and more of each cohort have thus lives to reach age 65. Only four out of ten of those born in 1900 could expect to survive to age 65; today more than seven out of ten newborns are expected to attain this milestone.<sup>58</sup>

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<sup>58</sup> *Changing population*, np. 1, p. 46.

**Table: 8 Population by Sex and Age for Europe, 1950-1995**

**EUROPE**

	1950			1955			1960			1965		
Age group	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females
All ages	547318	255330	291988	575404	270176	305228	604947	285567	319380	635066	301589	333478
0-4	50372	25736	24637	54843	28092	26751	57324	29290	28034	57020	29184	27836
5-9	42553	21554	21000	49901	25461	24439	54461	27869	26592	57005	29114	27891
10-14	50249	25307	24942	42434	21473	20961	49792	25378	24414	54384	27827	26557
15-19	46016	23109	22907	50001	25145	24856	42285	21320	20965	49804	25370	24433
20-24	48758	23784	24974	45660	22876	22784	49527	24852	24675	42177	21249	20927

25-29	42188	19251	22937	48167	23385	24783	44948	22447	22501	49319	24734	24584
30-34	31355	14197	17158	41759	18982	22777	47521	22971	24550	44784	22361	22423
35-39	40495	18075	22420	30667	13809	16858	41121	18585	22536	47274	22833	24441
40-44	39415	17942	21473	39954	17750	22203	30190	13523	16667	40730	18346	22384
45-49	35508	16017	19491	38336	17327	21009	39047	17229	21819	29588	13174	16414
50-54	29677	13088	16589	34137	15235	18902	37054	16573	20481	37851	16511	21341
55-59	24352	10416	13936	27966	12081	15884	32422	14210	18212	35307	15502	19805
60-64	21398	8996	12402	22349	9314	13034	25856	10868	14988	30087	12819	17268
65-69	17227	7130	10097	18736	7607	11129	19782	7926	11856	22880	9204	13676
70-74	13201	5348	7854	14166	5615	8551	15380	5944	9437	16412	6234	10178
75-79	8475	3287	5188	9376	3602	5773	10211	3816	6395	11267	4066	7201



80+	6078	2093	3986	6954	2420	4533	8025	2768	5258	9176	3058	6118
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Age Group	1970			1975			1980		
	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females
All ages	656441	312918	343523	676390	323102	353288	693260	332022	361238
0-4	52707	26965	25742	51332	26264	25068	49941	25562	24379
5-9	56673	28971	27703	52749	26949	25800	51102	26122	24980
10-14	56986	29105	27882	56476	28893	27583	52733	26939	25794
15-19	54262	27697	26564	56479	28805	27674	56130	28690	27440
20-24	49180	25012	24167	54200	27462	26738	56451	28793	27658
25-29	41628	20959	20669	49299	24990	24309	54001	27324	26677
30-34	48628	24302	24326	41232	20710	20522	49594	25001	24593
35-39	44138	22006	22132	48299	24004	24295	40112	20053	20059

40-44	46465	22319	24146	43564	21549	22015	47853	23605	24248
45-49	39688	17765	21923	45486	21673	23813	42441	20804	21637
50-54	28592	12595	15997	38847	17088	21759	44181	20830	23352
55-59	36007	15435	20572	27416	11818	15599	37543	16196	21347
60-64	32845	14016	18829	33631	14026	19605	25563	10706	14857
65-69	26827	10925	15903	29302	11921	17381	29387	11707	17680
70-74	19053	7192	11862	22237	8494	13743	24947	9513	15434
75-79	12161	4269	7892	13951	4845	9106	17120	5989	11132
80+	10601	3387	7214	11888	3611	8277	14159	4189	9971

	1985			1990			1995		
Age Group	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females
All ages	706580	338968	367612	722206	347683	374523	727912	351068	376845
0-4	49383	25275	24108	48258	24718	23540	41162	21106	20056
5-9	49608	25358	24249	49419	25269	24150	48555	24857	23698
10-14	51186	26180	25007	49913	25511	24401	49746	25425	24321
15-19	52995	27081	25914	51444	26285	25159	50221	25649	24572
20-24	56293	28634	27659	52883	26907	25976	51837	26422	25415
25-29	56231	28484	27747	56213	28462	27752	53269	27067	26202

30-34	53562	26952	26610	56558	28505	28053	56363	28453	27909
35-39	48917	24529	24389	53624	26870	26755	56416	28294	28122
40-44	39750	19726	20023	48506	24215	24290	53172	26456	26716
45-49	46480	22691	23789	39211	19372	19839	47656	23558	24098
50-54	41017	19803	21214	45267	21879	23388	38220	18628	19593
55-59	42070	19388	22683	39276	18638	20638	43227	20428	22799
60-64	35035	14672	20362	39637	17752	21885	36729	16894	19835
65-69	23059	9247	13811	31789	12833	18955	35768	15300	20468
70-74	25509	9544	15965	20316	7732	12583	27431	10442	16989
75-79	18794	6539	12255	19757	6815	12942	16068	5649	10419

80+	16691	4865	11825	20136	5920	14216	22071	6439	15632
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**Source:** Population Division, Economic and Social Affairs of the United Nations Secretariat, *Sex and Age Distribution of the World Population: the 1998 Revision*.

**Table 9: Population by Sex and Age for Western Europe, 1950-1995**

**WESTERN EUROPE**

**Estimates**

	1950			1955			1960			1965		
Age group	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females
All ages	140916	66534	74382	145640	69066	76575	151752	72252	79500	160046	76750	83296
0-4	11336	5797	5540	11827	6053	5773	12635	6466	6170	13863	7095	6768
5-9	10296	5248	5048	11263	5749	5513	11986	6125	5861	12776	6536	6240
10-14	11241	5703	5537	10408	5303	5104	11386	5810	5575	12151	6210	5940
15-19	10313	5229	5085	11239	5704	5534	10545	5374	5170	11654	5965	5689
20-24	10415	5148	5267	10300	5222	5078	11337	5789	5547	10830	5559	5270

25-29	10454	4794	5660	10365	5110	5254	10277	5226	5050	11590	5991	5598
30-34	7178	3268	3910	10418	4776	5641	10360	5108	5251	10576	5436	5140
35-39	10151	4624	5527	7114	3241	3873	10410	4767	5642	10625	5285	5340
40-44	10867	5060	5808	10054	4582	5472	7089	3221	3868	10492	4810	5682
45-49	10602	5084	5519	10677	4959	5717	9953	4508	5445	7054	3194	3860
50-54	9279	4241	5038	10266	4885	5381	10447	4808	5638	9774	4392	5382
55-59	7695	3295	4400	8807	3958	4849	9856	4608	5248	10039	4541	5499
60-64	6741	2915	3827	7132	2986	4146	8230	3595	4635	9210	4177	5033
65-69	5583	2423	3160	5968	2507	3462	6385	2575	3810	7376	3079	4297
70-74	4334	1890	2445	4574	1913	2662	4946	1982	2964	5359	2037	3322
75-79	2682	1146	1536	3106	1291	1815	3323	1313	2010	3667	1368	2299

80+	1748	671	1076	2123	825	1298	2589	976	1612	3010	1074	1936
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Age Group	1970			1975			1980		
	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females
All ages	165207	79469	85738	169156	81598	87558	170464	82254	88210
0-4	13203	6757	6446	11118	5693	5425	10013	5126	4888
5-9	13840	7076	6764	13283	6798	6485	11121	5683	5439
10-14	12814	6551	6263	14035	7178	6858	13359	6831	6528
15-19	12319	6290	6029	13107	6700	6407	14188	7259	6929
20-24	11706	5989	5717	12684	6434	6250	13293	6789	6503
25-29	11046	5698	5348	12220	6296	5924	12761	6494	6267
30-34	11704	6048	5656	11112	5755	5358	12121	6225	5896
35-39	10608	5446	5162	11683	6018	5665	10974	5642	5332



40-44	10537	5220	5317	10535	5372	5163	11506	5875	5631
45-49	10334	4707	5627	10382	5104	5278	10318	5208	5110
50-54	6774	3036	3737	10047	4523	5524	10091	4896	5194
55-59	9403	4152	5251	6585	2908	3677	9648	4259	5389
60-64	9325	4092	5233	8776	3763	5013	6199	2657	3542
65-69	8169	3533	4636	8399	3519	4880	7465	3063	4401
70-74	6077	2363	3714	6849	2763	4086	7226	2819	4407
75-79	3961	1386	2575	4525	1609	2917	5385	1983	3402
80+	3387	1123	2263	3815	1167	2649	4797	1445	3352

	1985			1990			1995		
Age Group	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females
All ages	171703	82903	88799	175963	85437	90527	180841	88262	92578
0-4	10238	5243	4995	10617	5438	5178	10273	5266	5007
5-9	9966	5099	4867	10443	5350	5093	10947	5608	5339
10-14	11180	5722	5458	10292	5276	5015	10758	5512	5246
15-19	13481	6905	6576	11363	5817	5547	10635	5454	5181
20-24	14289	7277	7012	13867	7074	6793	11944	6107	5838

25-29	13312	6771	6542	14661	7481	7180	14442	7409	7033
30-34	12723	6447	6276	13639	6940	6699	15051	7699	7352
35-39	11998	6118	5879	12864	6512	6352	13882	7063	6819
40-44	10824	5505	5319	12000	6110	5890	12971	6554	6416
45-49	11277	5701	5576	10729	5456	5273	11938	6050	5888
50-54	10002	4989	5012	11163	5614	5549	10615	5353	5262
55-59	9677	4616	5062	9688	4772	4916	10869	5392	5477
60-64	9096	3904	5192	9222	4308	4913	9243	4450	4793
65-69	5691	2340	3351	8248	3413	4835	8572	3862	4711
70-74	6886	2643	4244	5224	2037	3186	7367	2888	4479

75-79	5595	1982	3613	5495	1939	3557	4324	1559	2765
80+	5468	1642	3826	6449	1899	4550	7009	2037	4972

(\*) Including Liechtenstein and Monaco.

Source : Population Division, Department of Economic and Social Affairs of the United Nations Secretariat, *Sex and Age Distribution of the World Population: The 1998 Revision*.

## CHAPTER 2

### **Social Implications of Demographic Change in Europe- Individual, Family and Social Dimensions**

The decline in fertility levels, reinforced by continued increase in the levels of life expectancy, is producing fundamental changes in the age structure of the population of Europe. Profound changes in age structure have major multiple effects on the family, labour markets, educational systems, public expenditure and, in some countries, even the political process. In most western societies, the nuclear family system has changed dramatically during the last few decades. As a consequence, questions about the impact of family structure on the socio-economic life chances of children have become increasingly important.<sup>1</sup>

Long-term declines in fertility and mortality all over the European region have brought about slow and, at times, negative population growth and progressive population ageing. Immigration into countries of Western Europe has considerably arrested population decline but, at the same time, has hardly retarded population ageing.<sup>2</sup> The ageing process has been

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<sup>1</sup> Jan O. Jonson and Michael Gahler, "Family Dissolution, Family Reconstitution, and Children's Educational Careers : Recent Evidence for Sweden, *Demography* (New York), vol. 34, No.2, February 1997, p. 27.

<sup>2</sup> European Population Conference, 23-26 March, 1993, Geneva, Switzerland New York and Geneva, United Nations Publications, 1994), p.9

accompanied by dramatic changes in living arrangements and family relationships of the elderly and gave rise to new economic, social and emotional needs of all generations. In Western Europe, this process has put strains on the welfare state by contributing to fiscal deficits and causing a reassessment of public spending priorities.<sup>3</sup> In Eastern Europe and the Former Soviet Union, the problems of funding and maintaining programmes for the elderly are seriously complicated by the transition from the command to market economy.<sup>4</sup>

It is noteworthy that a major concern of many European countries in recent times is the steady decrease in fertility and the subsequent ageing of the population associated with the spectre of population decrease. The large proportion of elderly people in a country is perceived to have a number of negative socio-economic implications such as higher expenditure on health care infrastructure, pensions and subsidies. Similarly, the demographic change of Europe also has a profound health and social implications. With infant and child mortality already at very low levels throughout much of the European region, the principal issues of concern for the young population are related more to changes in sexual behaviour and abortion among adolescents and other aspects of psychological development. Among adults, on the other hand, the trend towards smaller family and household size,

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<sup>3</sup> Ibid.

<sup>4</sup> Ibid.

coupled with increasing divorce rates will further increase the number of adults living in isolation.<sup>5</sup>

Changes in the age composition of the population have an impact on the family as an institution and on the conditions of women. As a population ages, the size and structure of the family also get altered. Likewise, households which are the basic units within which employment, consumption and savings decisions are taken, would be both smaller in size and older in structure. Throughout the twentieth century, the average household size has been shrinking in most countries of Europe. Much of this change has been due to a mounting proportion of one-person households. In England, for instance, the proportion had grown from 7 to 17 per cent among men and from 17 to 45 per cent of older women between 1951 and 1981.<sup>6</sup>

In recent times, families increasingly get dissolved and that the prevalence of one-person household grows, with rising edges of their heads. In the Netherlands, for example, the household situations of the elderly between 1960 and 1980 had shown two trends. First was the growing number of one-person occupancies. The second was the decreasing number of elderly living in multi-person households in which they were not

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<sup>5</sup> Alan D. Lopez and R.Cliquet, *Demographic Trends in the European Region: Health and Social Implications* (Copenhagen, WHO Regional Publications), 1984, p.3

<sup>6</sup> United Nations Publications, Economic and Social Commission for Asia and the Pacific, *Added years of life in Asia, Current situations and future challenges* (New York, United Nations Publications, 1996) p. 49

spouse, household heads or child of the head (for example, in non-family household or in the case of elderly living with children). It also appears that women experience single-person housing statuses at a younger age and in larger proportions than men.<sup>7</sup>

Throughout Europe remarkable changes have taken place in the structure of households; these have greatly expanded the range of marital and household typologies. In the Netherlands, never-married men and women can live together, reside in one-person households or be heads of single-parent families.<sup>8</sup> The same holds true for older widows, widowers and divorcees. In fact, due to the industrialization and urbanization, families evolved from broader co-residential networks to a nuclear mode of father, mother and unmarried children. Wishes and expectations as to desired numbers of children also changed, bringing about decreasing birth rates; small families began to outnumber large ones. In turn, limited number of children per family have had implications for household arrangements. Housing has become less spacious and more typically adapted to nuclear family needs. As this is happening, the aged have less chance of living with their own family because of space limitations. Aged family members cannot be housed with their relatives, homes for the aged become more than just an

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<sup>7</sup> Lopez and Cliquet, *Demographic Trends*, n. 5, p. 16

<sup>8</sup> T. Van Der Wijst and F. Van Poppel, "Living Conditions of the Elderly in the Netherlands: Selected Aspects", in George J. Stolnitz (ed). *Social Aspects and Country Reviews of Population Ageing* (New York and Geneva, United Nations Publications, 1994), p. 130.



attempt to improve assistance to the elderly and special homes for the elderly become indispensable.<sup>9</sup>

The elderly (as well as young adult) preferences clearly favour household independence. Most older people wish to retain autonomous lifestyles so long as possible by remaining in their own home. True, increased desires to live independently does not mean that living with children does not occur anywhere in significant numbers. A very high frequency of living together is found in Japan, where a social structure, very different from those of western countries, favour co-residence of successive generations.<sup>10</sup> Typically, two out of three elderly persons in that country are still found in the same homes as their children, though socio-economic and demographic shifts are tending to bring about major changes in family structures. In western industrialized countries, where much lower percentages of such co-residences are found, significant numbers of elderly forming common households with children are again by no means rare. Thus, in the Netherlands, for instance, 17 per cent of aged men and 13 per cent of such women were found to live with their children in the 1970s.<sup>11</sup> On the other hand, the percentage of three-generation family residences in the Former Federal Republic of Germany in 1980 was approximately 10 to 12 per cent. In

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<sup>9</sup> G.Dooghe, "Social and Health Aspects", in George J. Stolnitz ( ed), *Social Aspects and Country Reviews of Population Ageing* (New York and Geneva, United Nations Publications, 1994), p. 10.

<sup>10</sup> *Ibid*, p. 17

<sup>11</sup> *Ibid*, p. 18

Yugoslavia, the dominant housing situation remains one involving extended families, in which the elderly are accommodated together with their children. No less than 45 per cent of the elderly live with their spouse and children or with their children only.<sup>12</sup> It is also noteworthy that living together with an unmarried child in Belgium is more frequent than living with one who is married, and also more frequent with daughters than with sons. In Austria, in 1980, approximately one-fourth of the population over 60 shared a household with at least one adult-child and almost one-third of all elderly having children did the same. In addition, 12 per cent of those having children lived in the same house though not in the same household. Altogether, 43 per cent of all Austrians over 60 with children lived with them in either the same house or household. In Hungary, about one third of the aged lived in a common household with one of their children. At the same time, the proportion of elderly living with children have typically been decreasing. Denmark witnessed a decline of such proportions from 21 per cent in 1962 to 11 in 1977. In Belgium the proportion of elderly persons living with children dropped from 25 per cent in 1975 to 18 per cent a decade later. A clear downtrend is again found in Great Britain, where at the beginning of the 1960s 33 per cent of all aged persons were living with one of their children and by 1980 the figure was only 8 percent.<sup>13</sup>

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<sup>12</sup> Ibid.

<sup>13</sup> Ibid.

Living with a child occurs more often when an elderly parent is regarded as relatively helpless. This is especially the case when the parent is widowed, largely limited in degrees of daily functioning and of advanced age. Among the non-institutionalized elderly in the Netherlands, 23 per cent of the women over 80 were living with one of their children in the 1980s. In Great Britain, the percentage of elderly living with children has been found to be only 5 among those 65-74, 11 among those 75-84 and 22 among those over 85.

Again, a substantial number of elderly in Europe live alone, although the proportion varies by countries. In Belgium, for example, the proportion of elderly over 65 who lived alone rose from 22 per cent in 1961 to 41 in 1988. Countries which have oscillated between these extremes included France, with 32 per cent, and Great Britain, Norway and Denmark, each with 35 percent. Consistently throughout Europe, females are much more likely to be living alone than are males. In West Germany, only 16 per cent of men over 60 lived alone during the early 1980s, compared to 53 per cent among females. On the other hand, in France, it is 16 per cent for males and 43 for females, in Belgium it is 24 and 51, and in great Britain, it is 20 against 45.<sup>14</sup> The increase in the proportion of elderly women who live alone both in North America and Europe represents one of the more profound changes in the lives of the aged. In the United States, for example, prior to 1940 roughly

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<sup>14</sup> Ibid, p. 22.

half of unmarried women older than 64 lived with family members, but between 1940 and 1990 the proportion fell to 15 percent.<sup>15</sup> The rise in independent living among the elderly in the United States in the twentieth century was probably produced by parallel changes in many spheres of society and family life. It is nearly impossible, however, to specify the exact mechanisms that result in changed residential preferences. As more people come to live in cities, it is likely that sharing a household with elderly parents becomes more difficult than co-residence in rural areas.<sup>16</sup> As fertility declines, a woman has fewer children who might be available to care for her in old age.<sup>17</sup> Again, adaptations to widowhood can in a sense be defined by the psychological adjustments that need to be made to the fact being alone. Theoretically, therefore, living with a child could be expected to favour such adjustments and, if so, would imply that the elderly who were widowed would be more likely to live with a child than the married elderly. This was the case in Belgium during the 1980s when 28 per cent of its widowed elderly lived with a child compared to 15 per cent of its married elderly.<sup>18</sup> The fractions of elderly living with a child have also been found to be highest among those widowed in other countries, as in Denmark and Great Britain; moreover, the probability of living with children has been found to increase with prolonged

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<sup>15</sup> Dora L. Costa, "A House of Her Own: Old Age Assistance and the Living Arrangements of Older Nonmarried Women", *Journal of Public Economics* (New York), vol. 72, no. 1, April 1999, p. 39.

<sup>16</sup> Ellen A. Kramarow, "The Elderly Who Live Alone in the United States: Historical Perspectives on Household Change", *Demography*, Vol. 32, no. 3, August 1995, p. 349.

<sup>17</sup> *Ibid.*

<sup>18</sup> G. Dooghe, "Social and Health..", n. 9, p. 30.

widowhood. In Great Britain, for instance, the elderly who were widowed for 15 years or more have been observed to be living with a child twice as often as those widowed less than five years, though most of the widowed, about two out of three, lived alone.<sup>19</sup> In Norway, for example, between 1960 and 1980 it became less and less common for elderly parents to live together with their adult children. The share of the elderly population (aged 65 and over) living at home and living with or in the house of their children was 26.9 per cent in 1960, 18.5 per cent in 1970 and 13.8 per cent in 1980.<sup>20</sup>

Again, throughout Europe, the living arrangements of the elderly are also changing. On the one hand, the changes in living arrangements of the elderly, e.g. children leaving home, divorce and remarriage at older age, etc., are the direct outcome of these individual choices and decisions about joint or separate living. On the other hand, older people's living arrangements for their part affect diverse social and contextual characteristics. They have an impact on the demand for housing and housing services as well as on the size and type of demand for social services and care giving for older persons.<sup>21</sup> The living arrangements of older people are, therefore, of

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<sup>19</sup> Ibid.

<sup>20</sup> Lars Gulbrandsen and Asmund Langsether, "The Elderly: Asset Management, Generational Relations and Independence", Paper Presented at the 5<sup>th</sup> Conference of the European Sociological Association, in the Research Network on Ageing in Europe, Helsinki, 28-31 August 2001.

<sup>21</sup> Veerle Andenaert, "Living Arrangements and Care for the Elderly", Paper Presented at the ESA-Conference, 'Visions and Divisions', Ageing in Europe, Helsinki, 28 August -2 September 2001.

interest for several reasons.<sup>22</sup> First, living arrangements may influence the material and psychological well being and health of the older generation. A second major reason for policy concern is the potential shift between public and private (family-based) support for older persons. Traditionally most, though certainly not all, family support was delivered within a co-resident family unit, the household. A decline in such arrangements is likely to coincide with a rising demand for public provision of some of the services formerly provided by family members. Finally, there is a broader scientific interest : 1) in understanding major shifts in family and household composition over time and place; and 2) in trying to understand how family relationships may be affected by economic and other social changes in the course of development.

One of the many ways to deal with living together of people is the household. The household keeps playing an important role in supplying the family with essential goods as food, personal care, emotional support and companionship. This applies even for the elderly, since they spend much of their time at home. The presence of resources in their household- e.g. a partner, sibling, a child- has an important impact on the demand for informal and professional care from outside the nuclear family. The bulk of informal care within the household is provided first by elderly people to their spouses

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<sup>22</sup> A. Palloni, *Draft Report on the Technical Meeting on Population Ageing and Living Arrangements of Older Persons : Critical Issues and Policy Responses* (New York, United Nations Publications, 2000)

and second by children to their parents, most of it in a co-residential setting.<sup>23</sup> The primary caregiver for frail elderly is often the spouse. However, they may be old and frail themselves. Other members of the household (especially the children) are an important source of help and care as well. According to J.A Caole and M.E. Hoover, "children contribute at an early age.. and are the traditional source of security in the old age of parents."<sup>24</sup>

In most European countries, the availability of partners has increased, whereas also the proportion of single elderly has grown. The proportion of elderly living in two or three generation households has fallen, as well as the proportion of elderly living in supported households.<sup>25</sup> It is notable that living together with more than one generation has become a marginal phenomenon. Only 7 per cent of the German elderly live together with children.<sup>26</sup> Although they do not live together, there is a close tie and frequent contact between most of the elderly and their children. The growing financial independence of children as well as the elderly may be an explanation for the decrease in co-residence of elderly with their children.

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<sup>23</sup> S.Arber and J. Ginn, *Gender and Later Life : A Sociological Analysis of Resources and Constraints* (London: Sage Publications, 1991), p. 14.

<sup>24</sup> Dr. B.H. Joshi, *Changing Demographic Structure of India* (Jaipur, Raj Publishing House, 2000), p. 25.

<sup>25</sup> K. Glaser, E. Grundy and K. Lynch , "Transition to Supported Environments in England and Wales: the Changing Balance between Family and Institutional Care", Paper Presented at the Conference on the Status of the Older Population: Prelude to the 21<sup>st</sup> Century, Sion, Switzerland, 1999.

<sup>26</sup> Veerle Andenaert, *Living Arrangements*. N. 21, p. 79.

Thus, rather than neglect and disability, the living arrangements of today's elderly reflect the impact of social security. Due to the improving pension systems, housing, sheltered accommodation and the provision of individual care services, residential autonomy for the elderly has become a valuable option in west-European countries. The general idea is that the elderly want to stay independent as long as possible. Many older people in Europe prefer living independently either as a couple, or alone than living with their children, wishing not to become a burden to their children.<sup>27</sup> In the European Union (EU), for example, 83 per cent of elderly people (older persons aged 65 and over) either live alone or with a partner. In Ireland, the proportion is as low as 69 percent, in Denmark and Sweden as high as 94-96 percent.<sup>28</sup> The rest live with relatives, friends or reside in homes or institutions. Throughout the Union, the rise in the numbers of elderly people has considerable implications, in particular, for housing policy.

Table 1 focuses on i) households of one person aged 65 and over (referred to as elderly persons living alone) and, ii) households composed of two adults (referred to as elderly couples), at least one of whom is aged 65 years or more. Excluded are all those older persons who are living with children, other relatives or friends and those living in old homes or institutions.

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<sup>27</sup> J. Gierveld, de Valk, H. and M. Blommesteijn, "Living Arrangements of Older Persons and Family Support in more Developed Countries", Paper Presented at the Technical Meeting on Population Ageing and Living Arrangements of Older Persons : Critical Issues and Policy Responses (New York, 2000).

<sup>28</sup> Peter Whitten and Emmanuel Kailis, "Housing Conditions of the Elderly in the EU", *Statistics in Focus* (Luxembourg: Official Publication of European Communities, 1999), p. 2.



**Table 1: Distribution of the population aged 65 and over (%), EU-15, 1995**

	EU-15	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	L
Living with a partner	51	48	48	49	56	57	54	40	49	48	53	46	56	45	53	
Living alone	32	32	46	39	23	16	33	29	27	27	34	32	19	40	43	
Living in a collective household	4	4	5	4	6	2	4	9	6	4	8	4	2	5	2	
Other	13	16	1	9	16	25	9	22	17	21	4	17	23	11	2	
Total population	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	

Source : Eurostat- Demographic Statistics

Again, EU- wide, 53 per cent of all households live in a single-family house (as opposed to a flat). Elderly couples are more likely to live in this type of accommodation (61 per cent). For older persons living alone, the figure is much lower (45 per cent ) but still considerably higher than younger people living on their own (32 percent). As with younger households, the choice of accommodation for the elderly varies considerably from one Member State to another. The percentage of elderly couples living in a

single family house ranges from 33 per cent in Italy to 95 per cent in Ireland.<sup>29</sup>

In general, elderly couples have a greater tendency than older people on their own to live in single-family houses. However, differences are minimal in Spain, Ireland and Portugal (Figure1).

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<sup>29</sup> Ibid.

**Figure 1 : Percentage of elderly households living in a single-family house, 1995 ( value in %)**



Again, social and demographic factors also affect the structural framework of present-day intergenerational relationships. One outcome is that, although people often marry later nowadays, thereby tending to postpone the birth of a first child, relatively shorter intervals between generations can also affect elderly family compositions and structures. Two especially important outcomes of these facts have been the growing prevalence of both four-generation and ageing families. In the United States, for example, more than a third of the aged are members of a four-generation

family; in this case the aged have fewer descendants on whom to rely in case of need.<sup>30</sup>

In East European countries, while roughly half of married older couples have been found to live apart from children and relatives, a substantial proportion share a dwelling with married offspring. Of those previously married, most share homes with married children.<sup>31</sup>

In western Europe, as well as in some east European countries, roughly one out of ten unmarried upper-age individuals lives with a relative, mostly a single person or previously widowed brother or sister. It is noteworthy that, even in the case of childless elderly, non-relatives such as friends have rarely been household members.<sup>32</sup>

Choices of living arrangements can have a significant bearing upon intergenerational family ties and support activities. Older couples living alone can continue to maintain considerable independence in the face of infirmities, by nursing one another or by reallocating household chores. Outside assistance networks need to be called upon or increased only when the functional capacity of intra-household support possibilities decline significantly. Although living alone need not denote lesser degree of kinship

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<sup>30</sup> Mattie Schrage- Dijkstra, "The Changing Family and Ageing", in George J. Stolnitz (ed), *Social Aspects and Country Reviews of Population Ageing* (New York and Geneva: United Nations Publications; 1994), p. 41

<sup>31</sup> *Ibid.*, p. 42.

<sup>32</sup> *Ibid.*

contacts when compared with co-residence with kin, it is likely to imply fundamentally different relational characteristics. In particular, death of a spouse creates immediate changes in the social roles of the surviving partner.

Over recent decades the proportion of the adult population that is married has declined markedly in many European countries. Table 2 gives these proportions for 1960 and 1985 in selected European countries. This decline was most significant in Sweden, where the proportion of married women declined from more than 60 per cent in 1960 to only 48 per cent in 1985.<sup>33</sup> The decline for men was of similar magnitude. It is mostly attributable to increases in the proportion never married and divorced.

This pattern is similar in the other Scandinavian countries and in the UK. In the FRG the decline in the proportion married was much stronger for men than for women, which is largely explained by a significant increase in the never-married male population. Of the countries listed in Table 2, Italy registers a slight increase between 1960 and 1985 which is due to the fact that in Italy, the decline in marriage rates started later than in other countries and had not yet had much effect by 1985.

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<sup>33</sup> Wolfgang Lutz, *The Future Population of the World: What Can We Assume Today* (London: Earthscan publications Ltd., 1994), p. 268.

**Table 2: Distribution of the population above age 15 by marital status in selected European countries: 1960 and 1985**

	Women				Men			
Country	Never married	Married	Divorced	Widowed	Never married	Married	Divorced	Widowed
France								
1960	20.7	60.3	2.5	16.6	27.3	66.4	1.9	4.3
1985	24.5	56.6	4.6	14.3	31.5	61.9	3.6	3.1
FRG								
1960	22.7	57.7	2.6	17.0	26.8	67.9	1.5	3.9
1985	24.4	54.3	4.4	16.9	33.5	59.8	3.5	3.2
Hungary								
1960	17.3	64.4	2.6	15.7	23.7	71.5	1.4	3.4
1985	14.2	61.5	6.9	17.4	23.1	68.0	5.0	3.8
Italy								
1960	29.1	48.0	0.0	12.9	34.4	62.1	0.0	3.5
1985	24.5	61.1	0.4	14.0	30.8	65.8	0.3	3.1
Netherlands								
1960	26.9	63.0	1.3	8.8	30.7	64.9	0.8	3.6
1985	26.4	57.6	4.8	11.2	33.5	60.0	3.9	2.6
Sweden								
1960	26.2	60.7	3.0	10.1	31.6	61.9	2.3	4.3

1985	30.0	48.4	8.7	12.9	38.7	50.4	7.3	3.5
UK								
1960	21.9	63.6	0.9	13.6	25.6	70.0	0.6	3.9
1985	24.0	56.4	5.7	13.9	31.4	60.2	4.8	3.5

Source : Ch. Prinz, *Patterns of Marriage and Cohabitation in Europe, with Emphasis on Sweden*, POPNET 24, International Institute for Applied Systems Analysis, Luxembourg, Austria, 1994.

This table clearly shows that the proportion married is a cumulative indicator which is largely determined by past trends; trends in contemporary marriage behaviour are well described by age-specific marriage rates. An analysis of such rates in the industrialized countries since the 1960s makes it apparent that men and women have changed their behaviour toward later marriage and lower probabilities of marriage.

Again, around 1960, the mean age at first marriage for men and women in Southern and Northern Europe was higher than that for Western and Eastern Europe. For example, the mean age at marriage was 28.8 years (Spain) and 27.3 years (Sweden) for men and 26.0 years (Spain) and 24.3 years (Sweden) for women.<sup>34</sup> Conversely, the mean age at marriage was, for example, 25.8 years (FRG) and 23.9 years (GDR) for men, and 23.4 years (Belgium) and 21.8 years (Bulgaria) for women.<sup>35</sup>

<sup>34</sup> Lopez and Cliquet, *Demographic Trends ...*, n. 5, p. 73.

<sup>35</sup> Ibid.

The age difference between men and women at their first marriage was evident in all European countries. In Denmark, Greece, Hungary, Ireland, Italy and Sweden, men were on average three to four years older than their wives at the time of first marriage. In Austria, Belgium, France, the FRG, the Netherlands, Poland, Portugal, Spain and the UK the age difference was between two and three years. The age difference in the GDR was particularly narrow at 1.4 years.

While the age difference in Greece was four years on average, in Portugal it was 2.1 years. In western Europe the differences were relatively narrow, varying between 2.2 years in the FRG and 2.7 years in Austria.<sup>36</sup> Table 3 shows these trends clearly.

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<sup>36</sup> *ibid.*



**Table 3: Percentage changes in average age of marriage for the countries of Europe, in different periods between 1960 and 1980.**

Country	Change from/to	Average age of marriage			
		Total		First marriage	
		Male	Female	Male	Female
<b>Eastern Europe</b>					
Bulgaria	1967/1974	-1.1	+0.4	-0.4	+0.9
Czechoslovakia	1966/1977	-0.4	+2.5	-0.8	+1.4
German Democratic Republic	1960/1978	-4.0	-4.8	-2.5	-5.3
Hungary	1960/1978	-6.9	-3.6	-6.7	-3.7
Poland	1962/1975	-5.7	-3.6	-6.1	-4.2
Romania	1967/1974	-3.6	-2.9	-2.0	0
<b>Northern Europe</b>					
Denmark	1960/1978	+6.7	+10.5	+4.2	+6.6
Finland	1965/1978	+4.1	+4.5	+3.6	+4.3
Iceland	1967/1975	-0.4	+1.7	-1.2	+0.4
Ireland	1960/1975	-12.6	-9.2	-12.1	-8.1
Norway	1960/1978	-3.8	-1.6	-4.8	-3.7
Sweden	1960/1978	+7.2	+8.9	+4.0	+6.2

<b>United Kingdom</b>	<b>1960/1978</b>	<b>+3.9</b>	<b>+5.5</b>	<b>-1.9</b>	<b>-1.7</b>
<b>Southern Europe<sup>a</sup></b>					
<b>Greece</b>	<b>1960/1977</b>	<b>-2.8</b>	<b>-8.1</b>	<b>-2.8</b>	<b>-8.2</b>
<b>Italy</b>	<b>1960/1977</b>	<b>-4.8</b>	<b>-3.2</b>	<b>-5.2</b>	<b>-3.6</b>
<b>Malta</b>	<b>1967/1978</b>	<b>+1.5</b>	<b>+2.1</b>	<b>+0.8</b>	<b>+2.1</b>
<b>Portugal</b>	<b>1960/1978</b>	<b>-0.7</b>	<b>-2.4</b>	<b>-4.5</b>	<b>-4.4</b>
<b>Spain</b>	<b>1960/1975</b>	<b>-8.2</b>	<b>-8.4</b>	<b>-8.3</b>	<b>-8.4</b>
<b>Yugoslavia</b>	<b>1966/1977</b>	<b>-1.1</b>	<b>-1.6</b>	<b>0</b>	<b>+0.9</b>
<b>Western Europe</b>					
<b>Austria</b>	<b>1961/1978</b>	<b>-2.7</b>	<b>-2.3</b>	<b>-2.7</b>	<b>-3.0</b>
<b>Belgium</b>	<b>1960/1977</b>	<b>-5.4</b>	<b>-5.6</b>	<b>-5.4</b>	<b>-6.0</b>
<b>France</b>	<b>1960/1977</b>	<b>-4.6</b>	<b>-3.6</b>	<b>-4.6</b>	<b>-3.4</b>
<b>Federal Republic of Germany</b>	<b>1960/1978</b>	<b>+1.4</b>	<b>+1.2</b>	<b>0</b>	<b>-2.5</b>
<b>Luxembourg</b>	<b>1966/1975</b>	<b>-1.1</b>	<b>+0.4</b>	<b>-1.9</b>	<b>-1.7</b>
<b>Netherlands</b>	<b>1960/1978</b>	<b>-4.2</b>	<b>-4.7</b>	<b>-5.6</b>	<b>-6.1</b>
<b>Switzerland</b>	<b>1966/1978</b>	<b>+2.8</b>	<b>+3.8</b>	<b>+3.0</b>	<b>+3.7</b>
<b>USSR</b>	<b>1966/1975</b>	<b>-2.6</b>	<b>-6.0</b>	<b>-6.2</b>	<b>-9.6</b>

<sup>a</sup> Excluding Albania, for which no data are available.

Source : Alan D. Lopez and R.L. Cliquet (eds.), *Demographic Trends in the European Region: Health and Social Implications* (Copenhagen, WHO Regional Publications), 1984.

In most European countries, this table shows that the mean age of marriage has fallen during the period under consideration, particularly in the Netherlands where the reduction was 5.6 years for men and 6.1 years for women. This trend was most homogeneous in western Europe, and on a similar scale for both men and women. Only in Switzerland has the mean age at marriage, for both men and women, increased. In Eastern Europe the mean age at marriage for men fell in all countries; for women it also fell in the GDR, Hungary and Poland but rose slightly in Bulgaria and Czechoslovakia. The trend was less homogeneous in Northern and Southern Europe, but there too a general fall in the mean age of marriage for both men and women was evident. Again Table 4 presents number of marriage and crude marriage rates for western European countries during 1995-1999. Marriage statistics in this Table, include both first marriages and remarriages after divorce, widowhood or annulment. These statistic refers to the number of marriages performed, and not to the number of persons marrying.

**Table 4: Marriages and Crude Marriage Rates : 1995-1999**

**Western Europe**

Counties	Number					Rate				
	1995	1996	1997	1998	1999	1995	1996	1997	1998	1999
Austria	42946	42298	41394	39143	39184	5.3	5.2	5.1	4.8	4.8
Belgium	51402	50552	47759	44393	72994	5.1	5.0	4.7	4.3	7.2
France	254651	280072	284300	282100	285400	4.4	4.8	4.9	4.8	4.8
Former Republic of Germany	430534	427297	422776	416821	430585	5.3	5.2	5.2	5.1	5.2
Luxembourg	2079	2105	2007	2040	2090	5.1	5.1	4.8	4.8	4.9
Netherlands	81469	85140	85059	86956	88970	5.3	5.5	5.4	5.5	5.6
Switzerland	40820	40649	37575	38683	34934	5.8	5.7	5.3	5.4	4.9

Source : *Demographic Year Book 1999* (New York : United Nations Publications, 2001)

Table 5 gives data on the evolution of nonmarital unions in Europe between 1960 and 1985. It shows for Sweden that despite a 20 per cent decline in proportions married, the proportion of women living in unions (marriages and consensual unions) remained virtually unchanged. Not surprisingly this trend toward nonmarital unions is strongest for younger

couples. In Sweden of all women aged 20-24 and living together with a man, only 23 per cent were married. This trend toward non-marital unions was less extreme in other European countries but still went in the same direction. In all countries a decline in proportions married was associated with an increase in non marital unions. Of the countries listed, only Hungary and Italy stand out with very low proportions of women living in non marital unions in 1985.

**Table 5: Evolution of Non marital Unions in Europe**

Country	Changes 1960 to 1985		Proportion of consensual unions in percentage points among all unions by age of woman of women living in (in %) ca. 1985		
	Marriage	All unions	20-24	25-29	30-34
Austria	-3.0	1.6	25.8	8.2	3.5
Finland	-7.0	5.0	49.7	23.9	11.6
France	-4.6	4.6	35.8	14.0	10.1
Germany	-6.1	-1.5	30.0 <sup>a</sup>	6.2 <sup>a</sup>	6.2 <sup>a</sup>
Hungary	-2.8	0.1	3.3	2.4	2.7
Italy	4.4	5.9	2.1	1.8	1.6

Netherlands	-9.1	-1.7	36.3	15.9	6.7
Norway	-9.8	1.1	47.0	23.0	12.0
Sweden	-20.3	-0.4	77.1	48.1	29.6
UK	-11.3	-5.4	29.0	12.8	6.8

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<sup>a</sup> Data only given for 15-24 and 25-34 age groups.

Source : Prinz, 1994

It may be noteworthy that stresses and other emotionally arousing events outside the family (e.g., work) and inside the family affect individuals and family relationships through the spillover of tension. Stressors from outside and inside the family raise demands for adaptation in parents, which may lead to marital tension. This tension then may lead to negative interactions with children.<sup>37</sup>

The other significant trend over recent decades was the increase in divorce rates that could be observed in all industrialized countries. The emotional upheaval and disturbed social relations in a family during the

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<sup>37</sup> David M. Almedia, Elaine Wethington, Amy L. Chandler, "Daily Transmission of Tensions Between Marital Dyads and Parent-child Dyads," *Journal of Marriage and the Family* (USA), vol. 61, no. 1, 1999, p. 50.

process of divorce negatively affect children, causing stress, depression, and/or behavioural problems, which may lower school achievements.<sup>38</sup>

Sweden, for example, has a reputation as a forerunner in the development of postnuclear family structures, though the divorce rate (10.7 per 1,000 married women in 1988) is not dramatically different from other countries.<sup>39</sup> Consensual unions are common in Sweden, however, statistics on marital disruptions underestimate the proportion of children who have experienced a family dissolution. Again, between 1950 and 1990, divorce rates were by far the highest in the USA. Between 1965 and 1980 the rate more than doubled. In one year approximately 5 out of 1,000 inhabitants in the USA (including children) experience a divorce. Currently about every second marriage ends in divorce in the USA. In Europe this proportion ranges from about 1 out of 10 marriages in Southern Europe to 3 out of 10 in Central Europe, and about 4 out of 10 in Scandinavia and the UK. Table 6 shows the age-specific divorce rates in the four sub-regions of Europe. In 1960, the age-specific divorce rates in these four sub-regions of Europe were considerably different. As a rule, the lowest were to be in Southern Europe and the highest in Eastern Europe. In Eastern Europe, nearly all age-specific divorce rates were greater than 2 per cent (except for age groups over 55 years) and, among the age groups between 20 and 45 years, the

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<sup>38</sup> Jan O. Jonson and Michael Gahler, "Family Dissolution", *Demography*, no. 1, p. 277.

<sup>39</sup> *Ibid*, p. 278

rates varied between 2 per cent and 11 per cent. In Northern Europe, divorce rates in the same age groups reached on average lower values than in Eastern Europe: between 2 per cent and 8 percent. In the countries of Western Europe the rates were considerably lower than in Northern and Eastern Europe, reaching rates between 2 per cent and 5 percent. In Western European countries, for example, in Switzerland, the divorce rate for men aged between 20 and 30 years practically doubled and almost tripled in Belgium, France and the Netherlands, and even quadrupled in Luxembourg. The increase for women of the same age range in these countries was not so great. Among men and women in the higher age groups too, the divorce rate has been rising noticeably in the countries of Europe.



**Table 6: Percentage changes in age-related divorce rates for the countries of Europe, in different periods between 1960 and 1980<sup>a</sup>**

Country	Change from/to	Males				Females			
		20-29 yrs	30-44 yrs	45-54 yrs	55+ yrs	20-29 yrs	30-44 yrs	45-54 yrs	55+ yrs
<b>Eastern Europe</b>									
Bulgaria	1961/1979	+34.6	+54.3 <sup>b</sup>	22.2 <sup>c</sup>	-23.1 <sup>d</sup>	+36.1	+48.7 <sup>b</sup>	+25.0 <sup>c</sup>	-14.3 <sup>d</sup>
Czechoslovakia	1961/1978	+100.0	+63.5	+51.4	+40.0	+83.8	+63.6	+63.6	+50.0
German Democratic Republic	1964/1979	+30.0 <sup>e</sup>	+70.0	+17.9	-28.6	+44.8 <sup>e</sup>	+92.5	+29.2	-33.3
Hungary	1960/1979	+66.7	45.9 <sup>b</sup>	+35.1 <sup>c</sup>	+13.0 <sup>d</sup>	+65.2	+57.4 <sup>b</sup>	+42.5 <sup>c</sup>	0 <sup>d</sup>
Poland	1960/1976	+50.0	+130.8 <sup>b</sup>	115.8 <sup>c</sup>	+87.5 <sup>d</sup>	+78.6	+160.0 <sup>b</sup>	+153.8 <sup>c</sup>	+100.0 <sup>d</sup>
Romania	1964/1974	-70.7	-37.8	-47.1	-95.0	-54.0	-40.3	-38.1	-60.0
<b>Northern Europe</b>									
Denmark	1960/1978	+28.1	+83.3	+63.4	+64.3	+40.5	+95.3	+66.7	+57.1
England & Wales	1961/1977	+525.0	+369.0	+355.6 <sup>f</sup>	+314.3 <sup>d</sup>	+411.1	+374.1	+346.7 <sup>f</sup>	+325.0 <sup>d</sup>

<b>Finland</b>	<b>1960/1979</b>	<b>+87.1</b>	<b>+156.1</b>	<b>+106.9</b>	<b>+88.9</b>	<b>+115.0</b>	<b>+170.3</b>	<b>+109.5</b>	<b>+80.0</b>
<b>Iceland</b>	<b>1961/1975</b>	<b>+128.9</b>	<b>+82.7</b>	<b>+116.7</b>	<b>-20.0</b>	<b>+89.3</b>	<b>+126.2</b>	<b>+86.7</b>	<b>-50.0</b>
<b>Norway</b>	<b>1960/1978</b>	<b>+117.4</b>	<b>+174.2</b>	<b>+125.0</b>	<b>+42.9</b>	<b>+116.7</b>	<b>+170.0</b>	<b>+93.8</b>	<b>+25.0</b>
<b>Sweden</b>	<b>1960/1979</b>	<b>+40.5</b>	<b>+110.2</b>	<b>+142.9</b>	<b>+90.0</b>	<b>+48.3</b>	<b>+131.6</b>	<b>+125.0</b>	<b>+100.0</b>
<b>Southern Europe</b>									
<b>Greece</b>	<b>1969/1975</b>	<b>+0.2</b>	<b>+400.0</b>	<b>+100.0</b>	<b>-10.8</b>	<b>+0.5</b>	<b>+300.0</b>	<b>0</b>	<b>-12.5</b>
<b>Italy</b>	<b>1971/1973</b>	<b>100.0</b>	<b>100.0<sup>b</sup></b>	<b>0<sup>c</sup></b>	<b>-231<sup>d</sup></b>	<b>+150.0</b>	<b>+44.4<sup>b</sup></b>	<b>-5.9<sup>c</sup></b>	<b>-25.0<sup>d</sup></b>
<b>Portugal</b>	<b>1960/1975</b>	<b>+300.0</b>	<b>+100.0</b>	<b>+40.0</b>	<b>+100.0</b>	<b>+150.0</b>	<b>+75.0</b>	<b>+50.0</b>	<b>+100.0</b>
<b>Western Europe</b>									
<b>Austria</b>	<b>1960/1979</b>	<b>+53.2</b>	<b>+37.5</b>	<b>+8.6</b>	<b>+66.7</b>	<b>+55.2</b>	<b>+51.0</b>	<b>+25.0</b>	<b>+166.7</b>
<b>Belgium</b>	<b>1961/1978</b>	<b>+207.1</b>	<b>+183.9<sup>g</sup></b>	<b>+139.1<sup>h</sup></b>	<b>+150.0<sup>d</sup></b>	<b>+170.8</b>	<b>+174.2<sup>g</sup></b>	<b>+135.0<sup>h</sup></b>	<b>+166.7<sup>d</sup></b>
<b>France</b>	<b>1962/1977</b>	<b>+214.3</b>	<b>+84.8</b>	<b>+40.0</b>	<b>+50.0</b>	<b>+152.0</b>	<b>+80.6</b>	<b>+40.0</b>	<b>+66.7</b>
<b>Federal republic of Germany</b>	<b>1961/1979</b>	<b>+76.7</b>	<b>+23.4</b>	<b>+7.7</b>	<b>+25.0</b>	<b>+80.0</b>	<b>+37.8</b>	<b>+33.3</b>	<b>+66.7</b>
<b>Luxembourg</b>	<b>1960/1978</b>	<b>+336.4</b>	<b>+220.0</b>	<b>+55.6</b>	<b>+55.6</b>	<b>+310.0</b>	<b>+183.3</b>	<b>+60.0</b>	<b>+60.0</b>
<b>Netherlands</b>	<b>1960/1978</b>	<b>+230.8</b>	<b>+185.2<sup>b</sup></b>	<b>+159.1<sup>c</sup></b>	<b>+211.1<sup>d</sup></b>	<b>+200.0</b>	<b>+200.0<sup>b</sup></b>	<b>+172.2<sup>c</sup></b>	<b>+216.7<sup>d</sup></b>

Switzerland	1960/1979	+123.8	+95.6	+57.1	+37.5	+102.9	+95.2	+36.4	+25.0
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<sup>a</sup> Excluding Albania, Ireland, Malta, Spain and the USSR, for which no data are available.

<sup>b</sup> 30-40 years

<sup>c</sup> 40-50 years.

<sup>d</sup> 50 years and over.

<sup>e</sup> As from 18 years

<sup>f</sup> 45-50 years

<sup>g</sup> 30-35 years

<sup>h</sup> 35-50 years

source : Lopez and Cliquet, *Demographic Trends in the European Region: Health and Social Implications* (Copenhagen, WHO Regional Publications), 1984, pp. 82 and 83.

Table 6 shows that the countries with particularly marked increases in their divorce rates were primarily those which, in 1960, displayed relatively low divorce rates. The link between the two facts is particularly striking among the Western European countries mentioned above and in Southern Europe. The reverse is true for the Eastern European countries, where, on average, the highest divorce rates were found at the beginning of the period under consideration, particularly in the GDR, Hungary and Romania. In Europe as a whole, there has been a tendency for age-related divorce rates to level off in relation to one another. This may indicate that the changes in divorce behaviour started at different points in time, and that these changes proceeded in different ways. It seems, however, that with respect to the pattern of divorce behaviour—a fairly uniform situation has now been reached in Europe.

In terms of family and household numbers and patterns, the basic result of divorce is more and more one-parent and single-person households, with more and more people experiencing a change of household during their life. The possibility of remarriage must also be borne in mind, so that dissolution of marriage may lead to the formation of new families and households. Naturally, the same is also true for marriages that end with the death of one of the partners. The probability of remarriage depends on the age and sex of the surviving partner. All other circumstances being equal, rising divorce rates, accompanied by lower age at divorce, mean that the

probability of remarriage and the possibility for the reconstitution of a family have increased. Besides these Table 7 shows the number of divorces and crude divorce rates for Western European countries for the years of 1995-1999. These statistics refer to the number of divorces granted, and not to the number of persons divorcing.

**Table 7: Divorces and Crude Divorce Rates : 1995-1999**

Western Europe	Number					Rate				
	1995	1996	1997	1998	1999	1995	1996	1997	1998	1999
Austria	18204	18079	18027	17884	14608	2.26	2.24	2.23	2.21	0.61
Belgium	34983	28402	26748	26503	47254	3.45	2.80	2.63	2.59	4.65
France	119189	117382	116158	13848	23657	2.05	2.01	1.98	2.69	2.30
Former Republic of Germany	169425	175550	187802	13848	23657	2.07	2.14	2.29	2.69	2.30

Luxembourg	727	817	1001	11752	11390	1.77	1.97	2.38	3.17	3.08
Netherlands	34170	34871	33740	32459	31000	2.21	2.25	2.16	2.07	1.96
Switzerland	15703	16172	21009	17868	532533	2.23	2.29	2.37	2.51	3.66

Source : *Demographic Year Book 1999* (New York: United Nations Publications, 2001)

The reduction in the number of births leads- given no change in the frequency of marriage and divorce, -first and foremost to a reduction in the number of children per family and also to a probable increase in the number of childless families. Very few European men and women find a childless family ideal; the proportion is highest in West Germany with 7 per cent and Belgium with 5 per cent.<sup>40</sup> Number of divorces and crude divorce rates for Western European countries for the years of 1995-1999. These statistics refer to the number of divorces granted, and not to the number of persons divorcing.

In all countries there is a clear majority for the two-child family. Table 8 shows the ideal number of children in a family for 12 countries of the European community. In the UK, the Netherlands and Denmark, we see that up to two-thirds of the population thinks that two children are desirable.

**Table 8: Ideal Number of Children in a Family**

Country	Number of children (in %)					Mean
	0	1	2	3	4 or more	
Belgium	5	18	52	21	3	2.01
Denmark	3	9	65	20	4	2.13
Germany, West	7	14	58	18	3	1.97
Greece	2	13	42	33	11	2.42
France	3	19	47	28	4	2.13
Ireland	2	9	33	30	27	2.79
Italy	2	9	61	24	4	2.20

<sup>40</sup> Lutz, *The Future*, n. 33, pp. 267-277.



Luxemb- ourg	3	21	56	19	3	1.99
Netherl- ands	3	5	65	22	5	2.23
Portugal	3	21	55	16	4	2.01
Spain	4	22	55	15	3	1.94
UK	2	10	67	15	6	2.14
EC12	4	14	57	21	4	2.10

Source : Eurobarometer, 1991

About one-fifth thinks that three children are ideal. This Table also shows that the proportion wanting three children is 30 per cent or higher only in Ireland and Greece. In the UK and Spain it is as low as 15 per cent. Again, with the exception at Ireland and Greece, the proportion mentioning four or more children is extremely small. The mean family size is lowest in Spain, Portugal, and Belgium.

It is noteworthy that the decrease in fertility is merely the consequence of the decrease in women with more than one child, the number of elderly with children does not substantially change<sup>41</sup>. However, when the decrease in fertility can be attributed to the elderly having lesser (or none at all) children the decline in fertility has undeniable consequences for the proportion invalid elderly with one or without children. Having only one child is probably not sufficient to provide the full array of choices for older persons, as would a large number of children. Parents with more children have a higher

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<sup>41</sup> Veerle Andenaert, *Living Arrangements*. . . , n. 21, p. 82.

probability of co-residence at later life, especially in the case of the presence of an unmarried child.<sup>42</sup> Thus, elderly having only one child have very limited options at once. Because of their reduced informal kin network, the elderly mostly have to rely on professional care and services.

Childlessness entails substantial limitations on access to family support in old age. In Canada, for example, the fraction of ever-married women over 65 who were reported as never having had children was 12.8 per cent in 1941, fell to 9.0 per cent in 1961 and rose again to 14.9 per cent in 1971 before dipping to 14.5 per cent in 1981.<sup>43</sup> In Australia, 18 per cent or more women born between 1896 and 1911 were childless. These cohorts reached 65 between 1961 and 1976 and comprised a relatively large fraction of the frail elderly relying on the support of others in the 1980s.<sup>44</sup> It is found that there is a strong association between childlessness and the probability of social isolation in old age.<sup>45</sup> Compared to the elderly with living children, the childless were more likely to live alone and, if living alone, were less likely to have had a social contact in the preceding day or two. Among older individuals with one or more children, however, the number of offspring appeared to have only minor effects on either indicator of social isolation.

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<sup>42</sup> Ibid.

<sup>43</sup> J. Rempel, "Childless Elderly: What Are They Missing", *Journal of Marriage and the Family*, vol. 47, no. 1, 1985, p. 345.

<sup>44</sup> Mattie Schrage – Dijkstra, *The Changing Family*. . . , n. 30, p. 51.

<sup>45</sup> C.A. Bachrach, "Childlessness and Social Isolation Among the Elderly", *Journal of Marriage and the Family*, vol. 42, no. 1, 1980, . 631.

It can not be denied that family is the main source of help to older people in need of emotional support or concrete assistance, in particular over long periods of time. According to a number of studies the word "family" in the context of caregiving to the elderly most often refers in fact to women in the family.<sup>46</sup> Elderly wives (perhaps helped by daughters) are the caregivers for disabled husbands, while adult daughters (and to a lesser extent daughters-in-law) usually assume responsibilities for widowed older people. Women predominate among those who share their homes when elderly family members cannot manage on their own, and the people (other than spouses) to whom most elderly turn for help in a health crisis are middle aged females, mostly married daughters.<sup>47</sup> But as a consequence of small family norms, most women in the industrialized countries of the European region have completed their childbearing by their early thirties and are then ready to re-enter the work force. Changes in the family which began to emerge in the early Post-Second World War decades and have subsequently become widespread throughout Europe, such as new patterns of nuptiality, divorce, cohabitation and female-headed, single-parent families, have further transformed the social roles of women. In many countries, paid employment of women has become essential to the financial well-being of their families.

Again, the rising and increasingly permanent participation of females in

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<sup>46</sup> Mattie Schrage-Dijkstra, n. 30, p. 52.

<sup>47</sup> Ibid.

the labour force can have important impact on their potential desire or availability to serve as caregivers for the elderly in addition to satisfying their obligations as wives, housekeepers, mothers, grandmothers and daughters.<sup>48</sup> In fact, increased longevity and the ageing of populations lead to a growth also in the number of older people in need of care. The family has been, and still is, the dominant party in elder care in most welfare states.<sup>49</sup> But increasing labour participation rates among women (daughters), reduced fertility rates and more unstable families, indicate that fewer family members will be available as caregivers. Ideological changes, where family oriented values are being confronted with more individualistic ones, may add to this by making self-realisation more important than the duty to care.<sup>50</sup> A growing preference for services over family care among elders may also add pressure to the welfare state.

The social implications of changes in fertility and family formation patterns are likely to become increasingly pressing in the future. Similarly, the rapidly evolving changes in family formation, in social norms governing behaviour, and in underlying demographic phenomena will continue to alter the social and demographic fabric of society.

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<sup>48</sup> R. Stafford, "The Division of Labour Among Cohabiting and Married Couples", *Journal of Marriage and the Family*, vol. 39, no. 1, 1977, p. 45.

<sup>49</sup> Katharina Herlofson & Svein Olav Daatland, "The Limits of Intergenerational Responsibility: Values and Preferences Towards Elder Care in a Comparative Perspective", Paper presented at the 5<sup>th</sup> Conference of the European Sociological Association, Helsinki, August 28 – September 1, 2001.

<sup>50</sup> Ibid.

It is to the needs of these emerging groups, prominent among whom are the elderly, that the health and social services must increasingly be directed where, as is often the case, the interrelationship between demographic phenomena and health is poorly understood, more intensive investigation must be pursued in order to provide a more informed basis for future health and social planning.

## CHAPTER 3

### ECONOMIC AND POLITICAL IMPLICATIONS

The momentum and complexity of demographic change in Europe has major implications for long-term economic planning. With a gradual ageing of the population, and a concomitant increase in the proportion of the population in the retirement years, will come increased pressures on various public funded services. These pressures will concern both the ability of the service, such as health care, retirement living and income maintenance to meet the needs of an ageing population, and the capability of public funds, where necessary, to meet the costs of these services.<sup>1</sup>

Population ageing, according to all estimates, is a fate common to all developed countries. The changes in the age structure of the population, with age-specific social benefits remaining the same, will have an impact on the pattern of social expenses in all its elements. Expenditures with respect to natality child care, child allowances and education will decrease as the number of youngsters will decrease, while costs of pension benefits will rise with an increasing number of elderly.<sup>2</sup>

Higher numbers of old people automatically lead to increased

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<sup>1</sup> United Nations, *Changing Population Age Structures, 1990-2015* (Geneva, United Nations Publications, 1992), p.169.

<sup>2</sup> Sheetal K. Chand and Albert Jaeger, *Ageing Populations and Public Pension Schemes* (Washington D.C., International monetary Fund, 1996), p. 5.

demands for medical care, pensions, and various services and facilities for the aged. At present, the age profile of western populations is bulging in the centre as the bumper postwar baby-boom generation becomes middle-aged.

But within twenty years, the boomer bulge will have moved into the older age brackets. The swelling number retired people will put economies under severe pressure, undermining pension systems and stock markets alike. The long journey from post-baby boom threatens to terminate in economic bust.

The system of social security, especially the level of receipts and expenditure, is being determined by many factors including both demographic and non-demographic ones. Demographic shifts in age structure of a population in the sense of rejuvenation or an ageing process cause change in the income and expense structure of social security. Also, non-demographic factors such as the development of employment, the level of unemployment, the policy related to the categories of beneficiaries and the amount of benefits are not unimportant with respect to the functioning and viability of the system.

Not only does the lack of demographic balance between age groups create a serious problem in financing social security system, but demographic changes such as the increasing number of divorces, of people living alone

and of one-parent families (in short-destabilization of the family structure) also influence social security.<sup>3</sup>

### **PAY-AS-YOU-GO SCHEME FOR THE RETIREE**

In the industrialized countries, public schemes for providing for the retired are predominantly of a Pay-as-you-go (PAYG) type, whose coverage is typically comprehensive, but which are frequently supplemented by funded schemes, mostly operated by the private sectors.<sup>4</sup> A standard PAYG system levies pay-roll taxes on the working population, while paying benefits to the retired, but usually without the close person-based relationship between individual contributions and benefits that characterizes fully funded schemes. In the early stages of a PAYG system, low contribution rates are sufficient to cover benefits of a relatively small number of beneficiaries, but as the scheme matures, benefits paid out tend to exceed contributions, requiring increases in payroll taxes or budget transfers. However, considerable additional fiscal stress is likely to emerge under a PAYG system as the proportion of the retired elderly rises. And if, as is typically the case, the PAYG scheme also involves various redistributive elements, there is further potential for fiscal stress, especially as the population ages. A failure to address the resulting fiscal stresses, coming on top of an already burdensome fiscal situation, could inflict serious macro-economic and structural damage, both on the

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<sup>3</sup> United Nations, *Changing Populations*, . . . n. 1, p. 125.

<sup>4</sup> Chand and Jaeger, *Ageing Populations* . . . , n. 2, p. 1.



domestic economy and, in the case of large industrial countries through international linkages, on the world economy.

Again, the main pillar of the old-age security system in most industrial countries is a mandatory public pension plan, which, however, is often complemented by private pension schemes. Mandatory public pension plans are generally based on the defined-benefit principle, according to which the benefit received by the individual is specified in advance, usually as a function of the person's earnings history and the number of contribution years.<sup>5</sup> Pension plans can alternatively be based on the defined-contribution principle, according to which the annual contribution paid by the individual is specified, usually as a proportion of gross salary, and benefits depend on accumulated contributions and the realized rate of return on their past investments. In Germany, for example, contribution rates from workers and employers are already extremely high—a fifth of relevant income and yet the public pensions budget is heavily on deficit, requiring substantial tax subsidies.<sup>6</sup>

Public pension expenditures in the major industrial countries and Sweden have increased sharply since 1960, reflecting the rise in the elderly dependency ratios, depicted in Figure 1, an increase in the generosity of per capita pensions, and the maturation of public pension schemes. In fact,

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<sup>5</sup> *Ibid*, p. 5.

<sup>6</sup> Paul Wallace, *Agequake*, (London, Nicholas Brealey Publishing, 1999), p. 149.

demographic ageing decreases economic potential by reducing labour productivity and increasing dependency rates. In Poland, for instance, in 1989-2030 the proportion of people aged 18-44 in the total number of working-age population will drop by ten percentage points, i.e. from 72 to 62 percent.<sup>7</sup> Similarly, the shift to larger numbers of elderly and the fall in the numbers of the very young will increase the costs of dependency because the elderly are more costly,<sup>8</sup> they make more demands on expensive services than the young. Also the services to old and young are not easily substitutable for one another. Again, the aged people will necessarily make heavier demands on health and social services; that people who die in their nineties experience a longer period of dependency and illness before death than those who die in their seventies.<sup>9</sup>

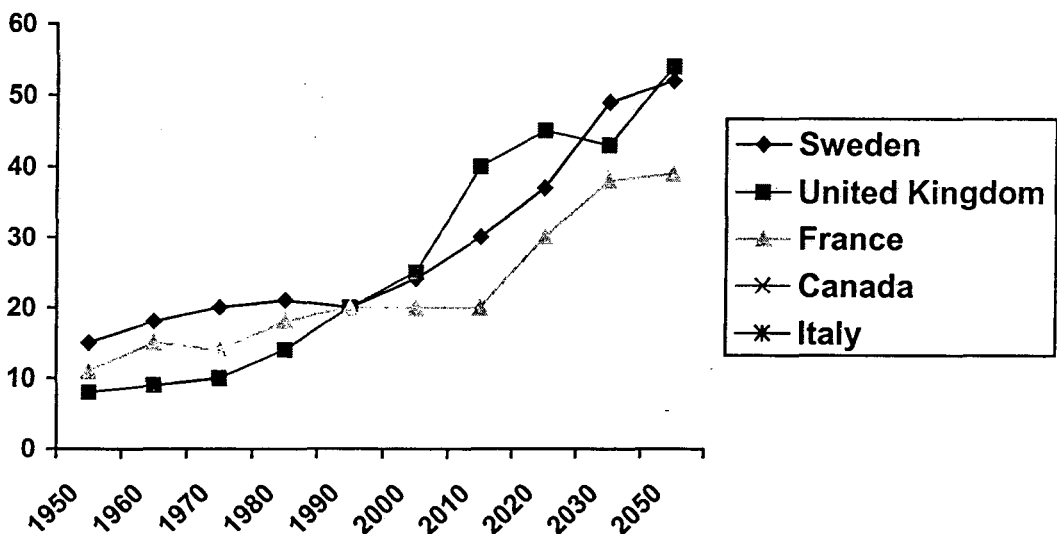
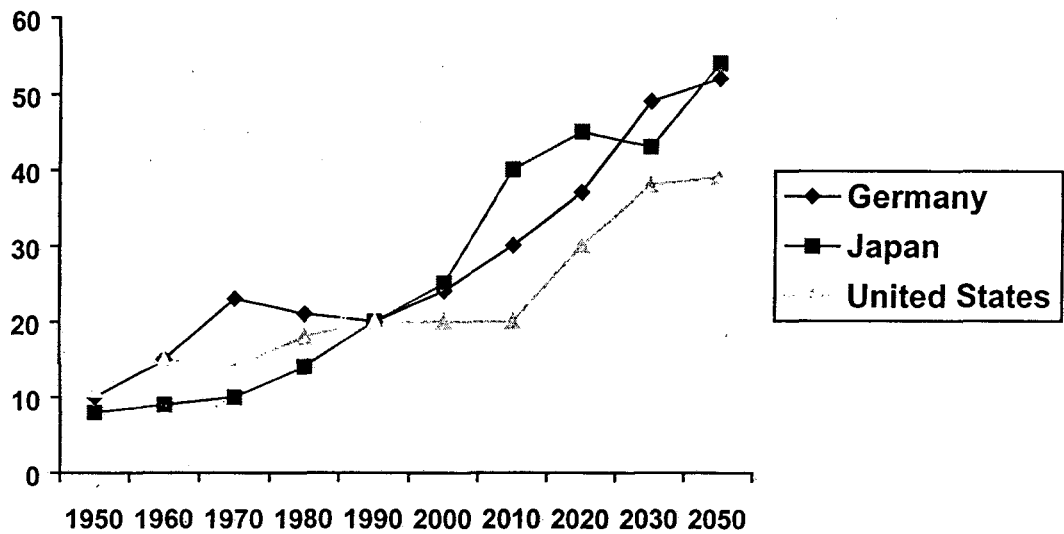
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<sup>7</sup> United Nations, *Changing Population . . .*, n. 1, p. 183.

<sup>8</sup> Heather Joshi, *The Changing Population of Britain* (Oxford, Basil Blackwell Ltd., 1989), p. 62.

<sup>9</sup> *Ibid*, p. 63.

**Figure 1: Elderly Dependency Ratios (in percent)**



Source : Sheetal K. Chand and Albert Jaeger, *Ageing Populations and Public Pension Schemes* (Washington D.C., International Monetary Fund, 1996).

## Public Pension Expenditure & its Effects

At the same time, estimates of total public pension expenditures at the beginning of the 1990s indicate that public pension expenditures (as a percent of GDP) vary widely across the countries, being significantly higher in the selected 'continental European countries than in the other countries. Table 1 shows it very clearly. In addition, public pension systems often comprise a wide range of different pension schemes including pension plans for civil servants and particular professions (Miners, Agricultural workers).

**Table 1: Public Pension Expenditure (In percent of GDP)**

Country	Public pension expenditure in 1990 <sup>1</sup>	Of which :	
		Covered by projections of this study	Not covered by projections of this study
United States	6.9	4.5	2.4
Japan	5.7	5.0	0.7
Germany <sup>2</sup>	12.3	8.9	3.4
France <sup>2</sup>	13.3	11.9	1.4
Italy	14.2	13.9	0.3
United Kingdom	6.4	4.2	2.2

Canada	6.0	3.8	2.2
Sweden	11.3	7.0	4.3

Sources : OECD; and IMF staff estimates.

1. Defined as spending by all public sector pension schemes including civil service pensions and schemes for specific professions (miners, agricultural workers)

2. 1992

Table 2 summarizes selected characteristics of the main public pension schemes in the major industrial countries and Sweden. As regards financing, pension plans can be classified into fully funded, partially funded, or PAYG schemes. In a fully funded scheme, the contribution rate is chosen so as to accumulate a stock of capital that, at any point in time, should equal the present discounted value of future benefits minus future contributions of those currently in the scheme. In a PAYG scheme, benefits accruing to the current beneficiaries are financed by current contributions or budget transfers. A partially funded scheme combines features of a fully funded and a PAYG scheme (but where reserves do not fully meet the aforementioned financial condition). Public pension schemes in many European and industrial countries, including Germany, France, Italy, the United Kingdom, and Canada, are financed on a PAYG basis, whereas the US, Japan and

Sweden have adopted partially funded schemes.<sup>10</sup> Systems financed exclusively or partially on a PAYG basis are particularly vulnerable to population ageing.

The main financing source of public pension schemes is social security contributions levied on gross wage earning, at statutory rates ranging from 5 percent in Canada to over 27 per cent in Italy. It is noteworthy that eligibility for pension benefits is typically determined by a statutory retirement age and a minimum contribution period. The US, Germany, Canada and Sweden have statutory retirement ages of 65 years for both sexes, while the other countries maintain differentiated statutory retirement ages for men and women. At the same time, most public pension schemes contain provisions for early retirement, implying that effective retirement ages are often significantly below statutory ones. Some countries, including the United States and Germany, allow for flexible retirement.

**Table 2 : Public Pension Schemes**

Country	Financing	Retirement Ages <sup>2</sup> (Men/Women)	Contribution period for full pension	Benefit accrual factor <sup>3</sup>	Assessed earnings	Maximum replacement rate	Indexation benefits
United States	PF	65/65	35	4	Career	41.0	Prices
Japan	PF	60/55	40	0.75	Career	30.0	Net wages

<sup>10</sup> Chand and Jaeger, *Ageing Populations*, n. 2, pp. 5-6.

Germany	PAYG	65/65	40	1.50	Career	60.0	Net wages
France <sup>5</sup>	PAYG	60/60	38	1.75	Best 12 years	50.0	Prices/Gross wages
Italy	PAYG	62/57	40	2.00	Last 5 years	80.0	Prices
United Kingdom	PAYG	65/60	50	0.40	Career	20.0	Prices
Canada <sup>6</sup>	PAYG	65/65	40	0.50	Career	25.0	Prices
Sweden <sup>6</sup>	PF	65/65	30	7	Best 15 years	60.0	Prices

Sources : IMF staff estimates, 1993.

1. PAYG = Pay-As-You-Go. PF= Partially funded
2. Statutory retirement ages as of 1995.
3. Benefit accrual factor per year of contributions, in percent of assessed earnings.
4. Benefit accrual factor increases as assessed earnings decline.
5. The basic scheme is indexed to prices, while the earnings-related schemes are indexed to gross wages.
6. For earnings-related scheme only.
7. Benefit accrual factor declines as number of contribution years increases.

There is a long-term fiscal impact of a public pension system. In a public pension, defined-benefit system, pensions to the retired elderly are almost wholly financed from the contributions paid by the working population, usually expressed as a proportion of total wages. By definition, in a full

fledged PAYG system, the two determinants of the equilibrium average contribution rate needed to provide for pension payments. But the downswing of the demographic rollercoaster will open up a cavernous gap between contributions and payments in most state pension systems in the state. In America, for example, expected retirement payments from social security are equivalent to two-thirds of the total assets of households headed by 50-year olds.<sup>11</sup>

Demographic factors and employment conditions, together with the prescribed retirement ages, determine the overall size of the support ratio. An ageing population, with the share of the increasing number of elderly will decrease the support ratio. Again, an increase in contribution rates could be sufficiently distortive so as to lower the supply of labour, thereby increasing the system dependency ratio; in a similar vein, increased pension expenditure could crowd out private capital accumulation and make it more difficult for the economy to support a larger aged population.

Table 3 lists the main macro-economic projections. Among the features of note in the table are ; (1) for most countries, employment growth is projected to be negative as a consequence of ageing, and even for the US and Canada, employment growth, which is boosted by immigration, is projected to be low; (2) these employment projections constrain real GDP

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<sup>11</sup> Paul Wallace, *Agequake*, , n. 6, p. 149.



growth to be low, despite assuming a relatively high rate of multi-factor productivity growth and some capital deepening; and (3) the real interest rate is projected to be substantially higher than the projected real GDP growth rate, indicating that the projected long-run growth path is dynamically efficient, but also that fiscal accounts will have to exhibit sizeable primary surpluses for public debt ratios to be sustainable.

**Table 3: Projections of Averages of Macroeconomic Variables, 1995-2050 (in percent)**

	<b>Employment Growth</b>	<b>Real GDP Growth</b>	<b>Real Interest Rate</b>	<b>Inflation Rate</b>
Major industrial countries	-0.1	1.4	3.5	3.0
United States	0.3	1.7	3.5	3.0
Japan	-0.6	1.1	3.5	3.0
Germany	-0.8	1.1	3.5	3.0
France	-0.2	1.3	3.5	3.0
Italy	-0.6	0.8	3.5	3.0
United Kingdom	-0.1	1.4	3.5	3.0
Canada	0.1	1.6	3.5	3.0
Sweden	-	1.3	3.5	3.0

Source : IMF staff estimates.

Ageing also affects the public pension expenditures. Table 4 shows projected levels of pension expenditures as a percentage as GDP. This

Table presents the balance in each of these years between the flows of expenditures and revenues (including interest on net assets) from contributions, including any budgetary support provided at the levels established at the start of the projection period as a fixed percentage of GDP. As shown in Table 4, these annual flows will have implications for the net asset position of the (implicit) reserve funds associated with the pension arrangements.

**Table 4: Baseline projections of Pension Expenditure, Balances, and Net Asset Positions of Public Pension Funds (In percent of GDP)**

Country	1995	2000	2010	2030	2050
<b>Major industrial countries</b>					
Pension expenditure	6.7	6.9	7.0	10.7	11.4
Balance	0.5	0.2	-0.3	-6.6	-15.5
Net assets	8.3	5.6	-1.1	-61.6	-209.7
<b>United States</b>					
Pension expenditure	4.4	4.3	4.2	7.4	7.7
Balance	0.8	1.1	1.7	-2.2	-7.2
Net assets	7.0	9.5	17.2	3.0	-66.7
<b>Japan</b>					
Pension expenditure	5.7	6.5	7.5	8.9	10.7
Balance	1.1	-0.4	-4.1	-10.9	-23.4

Net assets	26.5	13.9	-17.1	-144	-399.2
<b>Germany</b>					
Pension expenditure	10.0	11.1	11.0	18.4	18.7
Balance	0.2	-0.9	-1.3	-14.9	-34.7
Net assets	1.1	-0.1	-8.8	-115.6	-431.3
<b>France</b>					
Pension expenditure	12.5	12.0	12.6	19.4	21.3
Balance	-0.5	-	-0.4	-13.2	-31.5
Net assets	-0.5	-1.2	0.6	-100.4	-369.6
<b>Italy</b>					
Pension expenditure	16.0	17.1	15.2	23.3	25.7
Balance	-	-1.1	-1.1	-8.8	-18.4
Net assets	-	-16.9	-29.9	-186.8	-338.2
<b>United Kingdom</b>					
Pension expenditure	4.4	4.3	4.6	4.7	3.4
Balance	-0.2	-0.2	-0.7	-1.1	-0.2
Net assets	-0.2	-	-4.3	-10.5	-14.5
<b>Canada</b>					
Pension expenditure	4.4	4.5	4.9	7.5	7.1
Balance	-0.2	-0.5	-1.4	-7.6	-14.7
Net assets	7.0	4.0	-5.1	-67.3	-188.8
<b>Sweden</b>					
Pension expenditure	8.5	8.2	8.1	9.2	7.4

Balance	-0.2	-0.2	-0.7	-1.1	-0.2
Net assets	-0.2	-	-4.3	-10.5	-14.5
<b>Canada</b>					
Pension expenditure	4.4	4.5	4.9	7.5	7.1
Balance	-0.2	-0.5	-1.4	-7.6	-14.7
Net assets	7.0	4.0	-5.1	-67.3	-188.8
<b>Sweden</b>					
Pension expenditure	8.5	8.2	8.1	9.2	7.4
Balance	1.3	0.4	0.2	-3.0	-3.8
Net assets	25.8	21.9	18.3	-16.3	-56.7

Source: IMF staff estimates

For the US, Japan and Sweden, these are explicit reserve funds; for the other countries, these reserves are implicitly attributed by the assumed methodology.

Over the projection period, the deteriorating balances overturn a positive net asset position in 1995 for several countries, resulting in a growing stock of accumulated net liabilities. The need to meet the debt-service charges on the accumulated liabilities further aggravates the pension fund balances. While noteworthy for most countries in the sample, it is especially

marked for Japan, Germany, France and Italy, for whom the negative net asset position reaches a multiple of three to four times GDP in 2050. The UK and Sweden, for instance, show the least deterioration because of relatively moderate decreases of support ratios. Again, with the exception of the US, France and Sweden, all the listed countries would have a negative net asset position by 2010. Subsequently, the US, France and Sweden also begin to show negative net asset positions. In the year 2050, even though there is some reversal in elderly dependency ratios, the earlier build up in the negative net asset positions would become a dominant factor that would contribute to a worsening of pension fund balances and thus a further deterioration in the net asset positions.

The deterioration in pension fund balances and the associated increase in net liabilities aggravates the fiscal position of most major industrial and European countries. Table 5 shows the net public debt position of the major industrial and European countries at the end of 1994, which ranges from about 33 per cent of GDP for Japan to almost 113 percent of GDP for Italy. The estimated net pension liabilities range from a low of nearly 5 per cent of GDP for the UK to about 110 per cent of GDP for Japan, Germany and France. When added to the end-1994 net public debt positions, the resulting combined net debt position is much worse, exceeding 100 per cent of GDP for all countries except the UK and Sweden.

**Table 5: Net Pension Liabilities and Sustainability of Fiscal Stance**

*(In per cent of GDP)*

	Net Public Debts at End 1994	Net Pension Liability 1995-2050	Combined Net Debt Liability	Primary Balance 1995	Stabilize Net Public Debt in 1995	Stabilize Net Public Debt And Prevent Build up of Pension Debt	Adjustment Needed in Primary Balance for Fiscal Sustainability
	1	2	3	4	5	6	7
Major industrial countries	57.2	60.0	117.2	0.7	1.0	2.9	2.2
United States	63.3	25.7	89.0	0.4	1.1	1.9	1.5
Japan	33.2	106.8	140.0	-0.2	0.3	3.6	3.8
Germany	52.5	110.7	163.2	2.4	1.1	4.5	2.1
France	42.4	113.6	156.0	-0.3	0.7	4.0	4.3
Italy	112.9	75.5	188.4	3.3	2.1	4.6	1.3
United Kingdom	37.7	4.6	42.3	0.4	0.7	0.8	0.4
Canada	71.6	67.8	139.4	0.2	2.7	4.7	4.5
Sweden	54.5	20.4	74.9	-5.1	0.1	1.0	6.1

Source: IMF Staff estimates

Interestingly, lower GDP growth has a beneficial effect on net pension liabilities and contribution gaps for those countries for whom pension arrangements involve full or partial Indexation of benefits to nominal wages, such as Japan, Germany, and France (the former two to net wages, the latter, for earnings related pensions, to gross pensions). For example, in the case of Germany, the estimated net pension liability declines by 40 percentage points. For the US, the reduction in GDP growth has only a small (negative) effect on the net pension liability.

It is noteworthy that advanced ageing among the elderly themselves can accelerate average beneficiary needs for publicly provided social services. In Belgium, for example, medical outlays for elderly males, 65 years and above were triple those for men 15-39. In Sweden, social expenditures for a 65 year old were over five times those per capita 15-64. In the Netherlands, 1981 health care outlays per person for those over 80 were 2.6 times those for the 20-44 group. Also in that country, the proportion of families receiving formal family assistance accelerated upward from 1.8 per cent for the 60-64 group to 24.6 per cent for those 80 and above during the early 1980s. Again, in the US, the number of medical operations for the 60-74 age group was double that for the 25-34 group. In France, where 18 per cent of

the population is over 60, health costs account for no less than 30 per cent of the total such costs for all ages.<sup>12</sup>

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<sup>12</sup> G. Dooghe, "Social and Health Aspects" in George J. Stolnitz (ed.), *Social Aspects and Country Reviews of Population Ageing* (New York and Geneva, United Nations Publications, 1994), pp. 35-36.



## **Shrinking scenery of labour force participation**

The issue of how the burden of supporting the aged is to be distributed may become particularly contentious as the proportion of the working population declines, while, at the same time, the political strength at the elderly increases. Due to the ageing of the working population there is the problem of discordance between labour productivity and remuneration. The curve of labour productivity rises up to a certain age and then falls again. The relative costs per product unit of elderly workers are higher than those of younger workers. Again, the global labour productivity decreases with an ageing of working population, while costs of wages rise. Therefore, it may be said that nowhere will the agequake strike harder than in the work place. Across the western world, workers are growing older. The process is gradual but inexorable. In the European Union (EU), in 1995, 40 and 50-year-olds constituted 45 per cent of the prime working-age population (defined as 20-59). But by 2015, they will comprise 55 per cent.<sup>13</sup>

Over the next 10 years, there will be a variety of aging trends like youth deficits, shrinking middles and bulging older age groups. Italy, for example, faces the most acute youth deficit.<sup>14</sup> Between 2000 and 2010, the number of 20-34-year-olds in the labour force will drop by a quarter. A similar shift lies ahead for many European countries. Falling numbers of young Germans

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<sup>13</sup> Wallace, *Agequake*, n. 6, p. 129.

<sup>14</sup> *Ibid*;

have pushed the ratio up in the 1990s even before the delayed effects of the baby boom are felt. By 2010, there will be almost three German workers aged 45-49 for every two in their late twenties. In the UK, too, 45-49-year-old workers will exceed 25-29-year-olds by a quarter in 2010.<sup>15</sup>

Yet in many European countries still fewer older men now work.

In 1997, only 48 per cent of 55-64-year-old men in the EU still had jobs, compared with 59 per cent in the UK and 66 per cent in the US. In France and Finland, even more men have been thrown overboard: only about a third of 55-64-year-olds are employed.<sup>16</sup> In Belgium, for instance, the ratio of the active population aged 20-59 to the non-active population aged 60 years and over still amounted to 2.76 in 1988.<sup>17</sup> For the year 2040 one expects this proportion to be only 1.7. In order to maintain the ratio around the current average of 2.76 the age at pension should be gradually increased to 68 years in the year 2040.

There was a positive impact of population ageing upon the size of the labour force. Due to cohort effects, the 25-44 age group (with high labour force participation rates) increased and pushed the overall participation rate up. Again, the expansion of the male labour force since the seventies was solely – if at all – due to age effects, whereas the age-specific labour force

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<sup>15</sup> Ibid, p. 131.

<sup>16</sup> Ibid, p. 132.

<sup>17</sup> United Nations, *Changing Population . . .*, n. 1, p. 129.

participation rates (LFPR) had been decreasing due to prolonged education and training, earlier retirement and changes in the economic structure. The female labour force, on the other hand, was expanding due to an extraordinary rise in participation rates, combined with positive age effects. Married women, in particular, increasingly remained in the labour force or re-entered it. The convergence of female and male labour force participation was further favoured by structural changes: a decrease of male participation occurring mainly in the industrial branches of the economy, while women became more willing and able to participate in the rapidly growing service sector. In Canada, for instance, the male and female labour force grew at very different rates. During 1961-86, the male labour force grew at a rate of 1.88 per cent per annum, while the female labour force grew at 4.76 per cent per annum which is more than two-and-a-half times the male rate. As a result, the female labour force which contributed 27.3 per cent of the total labour force in 1961 increased its share to 43.0 per cent by 1986.<sup>18</sup> On the other hand, in Great Britain, LFPR have declined slowly for men, but have increased fairly rapidly for women.<sup>19</sup> The male labour force of Canada was 58.4 per cent of the total male population in 1951. In 1961, the crude labour force rate declined to 51.3 per cent. The decline was due to the negative age effect (-3.32 percentage points) and the negative rate effect (-3.8 percentage points). Between 1971 and 1981, the age effect was positive in line with the sharply rising median age as

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<sup>18</sup> Ibid, p. 221.

<sup>19</sup> Ibid, p. 244.

in Sweden (38.9 years), in the FRG (38.5 years) in France (34.7 years) and in the UK (35.9 years).<sup>20</sup>

This increase, combined with the rate effect which also turned positive, moved up the male labour force rate to 59.3 per cent at the start of the 1980s. In the USA, the male labour force also declined between 1950 and 1960, due to the negative age effect. The age effect dramatically changed between 1970 and 1980, with a positive contribution of 6.0 percentage points, that moved up the crude labour force rate to 56.9 per cent in 1980. The rate effect was negative upon the labour force in the USA in the seventies.

The significant impact of changing age structure and population ageing was observed in the increasing numbers of females entering in the labour force. Japan, for example, had the highest participation of women at 36.1 per cent at the start of the 1960s, compared to 19.7 per cent in Canada and 24.7 per cent in the USA. In Italy, too, over the last decade, female labour force participation increased by more than one-third.<sup>21</sup>

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<sup>20</sup> Ibid, p. 199.

<sup>21</sup> Lutz, *The Future Population of the World: What Can We Assume Today* (London: Earthscan Publications Ltd., 1994), p 286.

## Relationship between income and labour growth

Again, there is a negative relationship between income and labour force participation.<sup>22</sup> Table 6 contains a listing of LFPR for workers aged 65 and above by geographic region and sub-region. Examination of these data generally supports the finding that regions composed of countries with low average income tend to have higher rates of labour force participation. For men, the inverse relationship of income and LFP rates holds, except for Europe having slightly lower LFP rates than North America. For women, Africa has the highest average LFP rate and the lowest average income.

**Table 6: Labor force participation rates for age 65 and older and per capita income by region**

Region	N	Income	Men	Women
Africa	45	\$705	64.6	33.8
East	14	419	71.8	44.0
Middle	7	949	67.6	38.5
North	4	1342	29.2	8.6

<sup>22</sup> Robert L. Clark, E. Anne York and Richard Anker, "Economic Development and Labour Force Participation of Older Persons", *Population Research and Policy Review*, (Netherlands), Vol. 18, No. 5, October, 1999, pp. 416-417.

South	5	1524	49.7	17.3
West	15	415	70.8	34.3
Asia	29	\$4994	42.9	14.1
East	4	10885	32.9	12.1
Southcentral	7	614	57.4	20.4
Southeast	7	2548	45.2	21.7
West	11	7196	35.9	5.8
Europe	26	\$14004	11.0	4.7
Eastern/central	7	2527	14.9	7.9
North	7	20369	14.9	5.9
South	5	9162	10.1	3.4
West	7	22576	3.8	1.3
Latin America & Caribbean	27	\$2319	44.3	10.9
Caribbean	7	4326	40.8	14.0
Central America	8	1405	52.6	10.6

South America	12	1758	40.7	9.4
North America	2	\$21060	13.5	6.2
Oceania	5	\$6578	36.7	21.2

**Source:** Robert L. Clark, E. Anne York and Richard Anker, "Economic Development and Labour Force Participation of Older Persons", Population Research and Policy Review, 1999, p. 418.

When comparing subregions, exceptions to the hypothesis of the inverse relationship between income and LFP rates are evident. For example, Northern Africa has lower average income than Southern Africa, but Southern Africa has much higher average LFP rates for men and for women. Southeast Asia and Eastern/Central Europe have similar average income levels. The Eastern/Central Europe has LFP rates that are about a third of those in southeast Asia. In fact, the LFP rates for Eastern Europe are much lower than the LFP rates for many of the subregions that have higher average income levels.

Again, it is noteworthy that low or negative population growth affects the economic development of a country. In fact, there is a correlation between population and per capita economic growth. "Populations that have experienced a rapid rate of increase in per capita income generally have lower mortality and lower fertility than those where per capita income has

grown more slowly.<sup>23</sup> In the US, for example, has over the past one hundred years had a real rate of economic growth of 3.3 per cent per year, while its population growth rate was 1.5 per cent per year.<sup>24</sup> This produced a 1.8 per cent annual growth in per-capita income. For Germany, growth averaged 3 per cent per year over the past century, while the population growth rate averaged 1 per cent, resulting in a 2 per cent rise each year in its standard of living.

There has been remarkably little work on the implications of the simultaneity of income and saving when age structure changes. A growth enhancing effect of baby boomers reaching middle age will feed back into increased saving, in turn boosting growth further. Even modest increases in saving by direct age structure effects will be further magnified by this feedback loop and reinforced for middle aged groups by the productivity effect.

There are empirical evidence of pervasive macro effects from the age distribution on labour supply and demand, asset demands, even the demand for money, inflation, housing, migration and so forth. The relation between investment and growth is probably simultaneous through the relation to saving and lagged saving, and also by other mechanisms. Thus, simultaneity

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<sup>23</sup> Allen C. Kelly and Robert M. Schmidt, "Aggregate Population and Economic Growth Correlations: The Role of the Components of Demographic Change", *Demography*, (New York), vol. 32, No. 4, 1995, p. 545.

<sup>24</sup> European Population Conference, 23-26 March 1993, Geneva, Switzerland, Vol. 1 (New York and Geneva, 1994), p. 243.



bias might affect the estimates in the control regressions both in the saving and the growth equation. In fact, the fertile, family-raising prime age group have the main positive influence on saving while they tend to have a negative effect on growth. The middle-aged group, 50-64 years old, exercises the main positive influence on growth while retirees have a negative influence.<sup>25</sup> Furthermore, the age effects on growth explain substantial parts of the growth variation that generates a positive effect on saving in the next period. Therefore, it can be expected that baby boomers entering middle age brackets to boost both growth and saving with a one-period delay of the growth effect and the full effects distributed over several periods.

### **Ageing and consumption level**

Again, changing age distributions may affect both total levels of consumption and its commodity patterns. Changing age distributions would have only modest impacts if consumption levels among the young and elderly population sectors are not highly dissimilar. In fact, the factors which were believed to have the most far-reaching effects on consumption patterns were household trends and ageing. Ageing could be expected to raise consumption levels for housing, medical care and household services. In the EU, for example, consumption expenditures of elderly households owning their accommodation are almost twenty five per cent higher than their tenant

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<sup>25</sup> Thomas Lindh, "Age Structure and Economic Policy: The Case of Saving and Growth", *Population Research and Policy Review*, vol. 18, No. 3, June 1999, pp. 267-268.

counterparts.<sup>26</sup> EU-wide, nearly one third of elderly household's consumption is taken up by housing; for the younger households, it is just a quarter of the budget. Consumption expenditure on food are in second place with almost a fifth of the budget. Transport expenditures take nearly one tenth of the budget.

Again, EU-wide, an elderly household's consumption expenditure is about eleven thousand Purchasing Power Standard (PPS) per adult equivalent (Table 7). This figure is about fifteen per cent lower than for the 'younger' households. Compared to households with a reference person aged 45-64 years, the difference is almost 20 per cent; the gap is particularly wide in Portugal (34 percent) and the UK, Finland, Ireland, Greece and Denmark (around 25 per cent). In Belgium, the elderly households almost have the same level of expenditures as the 45-64 years counterparts.

**Table 7: Consumer expenditure of households by age of the reference person per adult equivalent (PPS), 1994<sup>1</sup>**

	Age of reference person				
	<b>18-44</b>	<b>45-64</b>	<b>≥65</b>	<b>Total (4)</b>	<b>Difference between (3) and (2) in</b>
	<b>Years</b>	<b>years</b>	<b>years</b>		
	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>		

<sup>26</sup> Harry Bierings, "Consumption of the Elderly in the EU", *Statistics in focus* (Luxembourg, Official Publications of European Communities, 2000), p. 1.

					percent
Portugal	9900	9200	6100	8400	-34
Greece	10800	9900	7500	9600	-24
Spain	10500	10000	8400	9700	-16
Finland	10500	11200	8400	10300	-25
Ireland	11700	12100	9100	11200	-25
United Kingdom	12900	14200	10300	12700	-28
Italy	13500	13200	10700	12800	-19
Sweden	11600	13300	10800	12000	-19
Denmark	12600	14300	11000	12800	-23
Netherlan ds	12900	14300	11700	13000	-19
Germany	12800	14700	12300	13300	-16
France	13400	15100	12600	13700	-16
Austria	13900	14800	12800	14000	-14

Belgium	13900	14400	13800	14000	-4
Luxemb- ourg	23400	24000	21300	23300	-12
EU15	12700	13700	11100	12600	-19
Norway	12000	12300	8300	11400	-32
Iceland	13400	15100	14300	14000	-5

1. The ordering of the countries in the table is based on the level of expenditures of the elderly households (grey column)

**Source:** Eurostate-Household Budget Surveys

In the Union, consumption expenditure of a one adult elderly household is ten and a half thousand PPS. The more than one adult elderly households consume almost twelve thousand PPS per adult equivalent, which is about ten per cent more than the one adult counterparts (Table 8).

**Table 8: Consumer expenditure of one adult and more than one adult households by age of the reference person, per adult equivalent, 1994(PPS)**

	1 adult	> 1 adults	
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	18-64 years	>= 65 years	Total	18-64 years	>= 65 years	Total	Total
Portugal	10700	5400	7300	9400	6400	8600	8400
Greece	11800	6800	9700	10000	7900	9500	9600
Spain	11200	8700	9600	10800	7900	10100	9700
Finland	9700	7800	9100	11400	9400	11100	10300
Ireland	10700	8200	9700	11400	9400	11100	10300
United Kingdom	12200	9700	11300	13900	11000	13400	12700
Italy	16200	10600	13400	13600	11200	13000	12800
Sweden	11700	10300	11500	12700	11000	12400	12000
Denmark	11900	10900	11600	14100	11300	13700	12800
Netherlands	12700	11100	12200	13700	12300	13500	12800
Germany	13200	11400	12500	13900	13600	13900	13300
France	13800	11500	12900	14300	13700	14200	13700
Austria	15400	12100	14000	14900	13500	14600	14000

Belgium	14200	14200	14200	14100	13300	14000	14000
Luxembourg	26400	20900	24800	22700	21700	22500	23300
EU-14	13200	10500	12000	13400	11800	13100	12600
Norway	11900	8000	11000	12300	8600	11700	11400
Iceland	14400	12900	14200	13800	15500	13900	14000

Source: Eurostat-Household Budget Surveys

Germany and France stand out with a larger difference of more than two thousand PPS. Spain and Belgium are countries with a positive balance for one adult households. Among the younger households, the expenditure gap between one adult and more than one adult households is very small for the EU as a whole. In Luxembourg, Italy and Greece, one adult households (varying between four and two thousand PPS more). In general, however, the combined effect of economies of scale and an additional income source of the other adult(s) in the household contributes to the higher consumption expenditures of more than one adult households.

Beyond all this, the elderly are not seldom ignored as consumers. Advertisements typically imply that youth is the most attractive period of life and marketing of commodities is still typically addressed to the young. In a modern society, youth is given a privileged status while ageing is considered

unattractive. Already in a producer socially older people were defined outside the sphere of production into the sphere of leisure and consuming. Yet, older people i.e. here the retired people have only seldom regarded significant as consumers. According to Chris Phillipson the postmodern setting and its ideal of consumption has depended the marginalization of groups such as the old. As a consequence, in a consumer society older people have been marginalized both as producers and consumers.<sup>27</sup> It is indicative that advertised representations of older individuals are especially frequent during election campaigns, when political parties are attempting to attract elderly voters.<sup>28</sup>

### **Political Implications**

Demographic change in any country also has a great political implication. The elderly could have more power in the future as they will be a larger share of the eighteen and older population. If the 60-64-year-olds additionally are considered part of an "elderly voting bloc"<sup>29</sup> then the 60 and older would be at least 35% of the voting age population in 2030. The potential growth in their political influence is accentuated by the fact that the elderly have been the most likely to vote.

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<sup>27</sup> Paula Rantamaa, "Youth is Everywhere, Old Age is Nowhere – Fact or Myth?" Paper for the 5<sup>th</sup> Conference of the European Sociological Association "Visions and Divisions, Challenges to European Sociology", August 28 – September 1, 2001, Helsinki.

<sup>28</sup> G. Dooghe, "Social and Health. ..." n. 12, p. 12.

<sup>29</sup> United Nations, *Changing Population...*, n.1, p.189.

It may be noteworthy that so large a share of the budget is spent on the elderly. It is at least possible that if the future elderly choose to vote according to their age groups narrowly-defined economic self-interest, then there will be relatively fewer federal economic resources available for other social purposes. Such a possibility will be heavily affected by the future trend in federal expenditures on such items as national defense or servicing the national debt. It is also dependent on the extent to which future social security resources are used to meet the deficits in other spending programs.

There are a number of socio-demographic trends at work which suggest that the elderly population might have to use their increased political power to maintain their current level of federal support.<sup>30</sup> Among these are the following:-

- a) Since the elderly will be a larger share of the future adult population, there will be relatively fewer workers per retiree in the future. Some suggest that these workers may be reluctant to pay the extra taxes necessary to maintain the current benefit levels of the elderly;
- b) In many ways, younger workers are no longer significantly better off than older workers in terms of trends in home ownership rates, income, education, and the like. It may be that they will resist the rise in their tax burden (and the consequent education in their standard of living) which

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<sup>30</sup> Ibid, p.190



would be necessary to maintain current support levels for those relatively advantaged older workers when they retire.

### **Measures taken by the government**

During the periods of recession and enhanced unemployment in recent decades, governments in Europe have often adopted measures to encourage older employees to leave the labour force in advance of their retirement age. In France, for example, “solidarity” contracts between the national government and enterprises have created the possibility of a 50 per cent reduction of working hours for labour force members between the ages 55 and 60, in return for which such individuals can receive half of their previous earnings plus a further 30 per cent partially financed by unemployment insurance funds. Enterprises are expected to hire one unemployed person for every two partial pensioners. In Sweden, a progressive or partial retirement scheme exists which allows men and women over the age of 60 to reduce progressively their working times while receiving a proportion of their declining wage income in the form of partial pensions.<sup>31</sup> In Belgium, analogous “flowing out” systems have been similarly developed to make early retirement easier.<sup>32</sup>

Governmental policies regarding the aged are, as yet, uncoordinated in

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<sup>31</sup> *Ibid*, p. 32.

<sup>32</sup> *Ibid*.

the Netherlands, although first impulses which could lead to integrated interventions were fortunately found as far back as a decade ago. In 1982, the Minister of the then Ministry of Culture, Recreation and Social Work installed a Steering Group for Research on the Aged (SOOM) whose task was to execute, evaluate and readjust, if necessary, a coherent approach to developing a research programme on ageing issues.<sup>33</sup> A 1985 report to the Ministers of Employment and Social Security and of Welfare, Health and Cultural Affairs, contained recommendations on how problems related to population ageing could best be met and resolved. Political parties have also become involved with ageing developments. In 1985 the Labour Party of the Netherlands published a report containing a working plan on how national policies should respond to the consequences of the country's changing age structure. It is to be hoped that these signs of advance in coping with ageing issues will lead to integrated policies aimed at giving the elderly the opportunities they need and deserve for enjoying old age in a dignified manner.

The needs of the elderly at any point in time are not fixed but are malleable in response to policy and environmental changes. It is essential to work with a more complex picture of who the elderly are and of their role in society than the simple, depressing picture of a costly burden.

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<sup>33</sup> T. Van der Wijst and F. Van Poppel, "Living Conditions of the Elderly in the Netherlands: Selected Aspects" in George J. Stolnitz (ed.), *Social Aspects and Country Reviews of Population Ageing* (New York and Geneva, United Nations Publications, 1994), p. 196.

## CHAPTER 4

### CONCLUSION

The general picture that emerges from the preceding three chapters clearly shows that Europe is currently in the midst of a significant demographic transformation. The peak has not yet reached, but the equilibrium in the composition of population in the region is rapidly changing. As more and more people are added constantly to a growing constituency of the aged, complemented by low birth rates, European countries are faced with a tremendous problem of readjustment which can have far-reaching implications for social, political, economic and cultural facets of life in Europe. It can have immediate effects on the European labour market, social relations, family situations, inter-generational relationships, pension system, education, health care and caring services.

It may be noted that Europe had experienced a baby boom era in immediate aftermath of the Second World War. It went on from the 1950s to mid-1960s when educational facilities for the newborn children had to be organised in a big way, with large classes and classrooms<sup>1</sup>. But this situation had changed subsequently. From its peak point in mid 1960s, the birth rate began to climb down systematically from 1970s and the size of the classes of

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<sup>1</sup> Prof. Anita Bose, " *Demographic Changes in Germany: Its Socio-Economic Implications*", Seminar Presented in the School of International Studies, Jawaharlal Nehru University, 2<sup>nd</sup> March, 2000, Proceedings .

children also began to shrink simultaneously<sup>2</sup>. However, it is this baby boom generation, which is now swelling the aging population and causing demographic change in Europe.

The impact of two World Wars on the population pyramids is evident for the countries of Western Europe. In both Belgium and Luxembourg, for example, the indentations at ages 35-39 and 60-64 years reflect the lower fertility of couples during the First and Second World Wars, respectively<sup>3</sup>.

The phenomenon of population ageing is unquestionably one of the most significant demographic features of the European region. The characteristics and extent of the trend have, of course, varied from one country to another reflecting earlier demographic history. It is also noteworthy that one of the most important changes in the age distribution during the last century has been the increase, both in absolute numbers and as a proportion of the population, of the elderly. In Great Britain, for instance, the number of persons of pensionable age (men aged 65 and over and women aged 60 and over) has risen by over 40 per cent from 6.7 million in 1951 to 9.4 million in 1976<sup>4</sup>. As a proportion of the total population this group has increased from nearly 14 per cent to over 17 per cent. The population of pensionable age itself has become older. In 1951, just over one half of them were under the

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<sup>2</sup> Ibid. De

<sup>3</sup> Alan D. Lopez and Robert L. Cliquet (Eds), *Demographic Trends in the European Region: Health and Social Implications* (Copenhagen, WHO Regional Publications), 1984, p.11

<sup>4</sup> Ibid, p.13

age of 70<sup>5</sup>. By 1976 this proportion had fallen to just under 47 per cent. There had been a corresponding increase in the number and proportion of the very old (defined here as meaning the population aged 85 and over). This section of the population makes particularly heavy demands on the medical and social services, and numbers in this group has risen by 133 per cent during 1980s, from 221,000 in 1951 to 516,000 in 1976<sup>6</sup>. During the same period the number of people, aged 75-84, has risen in most of the European countries. This rise has been brought about partly through the fall in mortality, but mainly due to those aged 75-84 in 1976 (i.e. those born before 1901) are the survivors of the larger birth cohorts than was the case for the preceding generations.

Reasons for this ongoing demographic change in Europe are many. But most important among them are the enhanced life expectancy and the low birth rates. Owing to tremendous advancements in health care in Europe, the infant mortality rate in the region has been drastically cut down from an average of 25 per cent in the turn of the 20th century to 0.2 per cent by the turn of the 21st century<sup>7</sup>. The mortality rate at the later stages of life also had undergone similar change. As a result, the life expectancy has been enhanced everywhere in Europe- for example, in Germany 76 for men and 82

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<sup>5</sup> Ibid.

<sup>6</sup> Ibid.

<sup>7</sup> Prof. Anita Bose, "Demographic Changes..."n.1.

for women<sup>8</sup>. Therefore, the declining death rates and birth rates have cumulatively contributed to the present demographic change in Europe. To a great extent today deaths take place mainly at the higher stage in life.

The causes of low birth rates are also many. Late marriages, more women entering the labour market, high educational level among the blue-collar employees and popularization of birth control methods are all viewed as important causes. The steady decline in global birth rates is not only because of the “population bomb” that couples are encouraged to have fewer children- the “one -child” norm adopted by China has been enforced punitively. Changes in gender relations (especially the ideology of gender equality) and several culturally tolerated alternatives to traditional institutions of family and marriage (such as cohabitation, gay families, staying single) too have contributed to decreasing fertility. It is observed that many married professional women prefer to remain childless. Pregnancy and child -rearing is often interpreted by them as an onerous burden thwarts that upward career and professional mobility.

We have already found that European countries are facing a wide range of population change which will have repercussions on many aspects of life. Demographic changes affect individuals, communities and nations. Delaying or abandoning marriage altogether, living in short-term relationships,

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<sup>8</sup> Ibid.

choosing to have one or no children, living in the expectation of long life: all have wide social impacts. However, at the social level, the demographic change has caused new problems. The society has to reorganise itself to meet the requirements of the older people in a significant way. This had its impact on the family circumstances, in the intergenerational relationships and so on. In the social expenditure, more allocations had to be made for the upkeep of the aged population. Provisions have to be made for the establishment of more old homes and care services for the aged. The problems of the aged people have become a focal point of social debate in Europe. The impact of ageing is expected to hit the peak by 2025<sup>9</sup>.

Another major effect of ageing is on the family. The mortality rate changes the family set up as well. From a traditional two or three generations, one moves to a family of four or five generations, leading to migration and breakup of families to nuclear families, and people move out from joint families. It may cause stresses and strains in the family and it has been found that most of the nuclear families of aged people have become consumer units than production units. It is known that the family has always been the focus for much social interaction, and it plays an important role in the socialization of the young and the care of the elderly.

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<sup>9</sup> Ibid.

The consequences of the demographic changes are far reaching. It has been found that divorce has become the greatest source of single parent families, and this has significant implications for the incidence of poverty and the working of the welfare benefit system. Divorce is also a prime reason for movements out of the owner-occupied sector of the housing market. The ramification for the family networks and childcare are also considerable.

It is noteworthy that changing pattern of family formation and dissolution are likely to affect other demographic behaviour in many ways. Thus, to the extent that childbearing largely occurs within marriage, a falling marriage rate, a higher mean age at marriage and an increase in marital disruption are factors that themselves can lead to lower fertility rates. Furthermore, marital status has repeatedly been found to be closely related to the propensity to migrate, and it also appears to exert some impact on individual morbidity and survival chances. Consequently the pattern of family formation is an important aspect of population development with wide-ranging socio-economic and health implications. The changes in marital status also have taken place in the period 1960 to 1980<sup>10</sup>. In most of the countries of Northern and Western Europe, there has been a decline in the proportion of currently married people and a consistent upward trend in divorce. In both the Netherlands and Great Britain, marriage rates reached a maximum in 1970, but declined sharply for

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<sup>10</sup> Lopez and Cliquet, "*Demographic trends....*", n.3, p15.



both sexes thereafter<sup>11</sup>. Interestingly, the decline in marriage rates in great Britain indicate that it was entirely caused by a lower incidence of first marriages, since remarriage rates, in contrast, have risen since 1970. In Belgium the same sort of pattern can be observed, with a large fall in first marriages since the who went on to early 1970s<sup>12</sup>. This has been somewhat counterbalanced by an increase in the number of remarriages. During the 1970's there was a consistent increase in the number marry a second time, with the result that the Belgian remarriage rate increased by about 22 per cent by 1978<sup>13</sup>.

Concurrent with these developments, the frequency of divorce shows a marked upward trend in most European countries. It is also of interest to note that in several of these countries there are now fewer marriages contracted each year than are dissolved by divorce or death. This has been the case, for instance in Norway since 1978. Changes in marital frequency and in the average age at marriage, the growing acceptance of other forms of cohabitation and the increasing propensity for marriage to end in divorce all have implications for family formation and composition. Moreover, changes in family norms and in the role of women, together with the widespread use of contraception, have severely reduced average family size in most countries. In Sweden, since 1960 there has been a marked increase in the proportion of

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<sup>11</sup> Ibid .

<sup>12</sup> Ibid.

<sup>13</sup> Ibid.

single-person households (from 20 per cent to 30 per cent) and a corresponding decline in those with five or more persons (from 13 per cent to 7 per cent)<sup>14</sup>. At the same time, the proportion of single-parent families and families with children born to other parents has grown considerably.

It has been found that the sharp rise in single-person households is largely a characteristic of the increasing longevity of the elderly, coupled with an apparently greater unwillingness of children to take a surviving parent into their home. A number of changes in the demographic phenomena, including smaller families, the desire to leave home at an earlier age, an increase in divorce, greater regional mobility of individuals, and the considerable discrepancy between male and female survival, point to the presence of markedly higher numbers of single people- both young and old- in the future population. The implications of this development for the health and social services are considerable. To begin with, it would appear reasonable to assume that single people will make greater demands on professional services, as family support mechanisms become less viable. The presence of more single people may lead to a decrease in the number available to care for sick and elderly relatives in their homes. Another aspect to this problem of dependency is that with the decline in mortality at the older ages, the likelihood of having an elderly relative to care for has increased. At the same time, the middle-aged, who would be called upon to do so, are fewer in

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<sup>14</sup> Ibid,p.23

number because they belong to smaller birth cohorts. As a result, the period during which a couple has dependent relatives to care for is likely to be longer in future.

Again, the implications of rising divorce rates extend, of course, beyond demographic considerations. Where one or more children were born to the marriage, the parent with custody (normally the mother) will often require day-care facilities for the children, thus increasing the need for kindergartens and other such facilities. Marital dissolution often exposes the children to new or greater psychological problems, and these may well necessitate a reorientation of specialized health and social services to cope with them. Therefore, the social implications of changes in fertility and family formation patterns are likely to become increasingly pressing in the future.

Besides this, we have seen that the social networks and the cultural activities of the elderly have undergone marked changes during recent decades. A new social role of pensioner has developed, and on a macro-social level the formation of a sub-culture of the elderly can be seen with their own clubs, associations and the political organization. Some features of this restructuring of the social networks of the elderly may be antagonistic towards the rest of the society if the elderly feel that their justified demands are not met. It may be said that about one quarter to one third of old people feel loneliness and anomie, and are socially isolated or have too little communication and contacts. The majority of the elderly can, however,

maintain social activities and interest at the same level as before. With advancing age official social participation and activities outside the home seem to decrease, and unofficial participation and activities at home appear to increase. The elderly who belong to the higher social classes and are more educated are more involved in social activities and cultural interests than others.

The situation of the elderly in most of the European countries is continuously changing. People born at the beginning of the century have witnessed considerable economic and social progress which has reduced poverty, and in many other ways improved living conditions. One positive consequence of the changing age structure has been an increase in the research effort devoted to the solution of the problems of the aged. Several aspects of the situation of the elderly have been investigated in most of the European countries. The most common questions that have been analysed deal with housing conditions, income maintenance, social integration, health status, need for services, and overall satisfaction with life. On the basis of such research, it has been possible to identify "risk groups" which have then received greater attention from the various service systems.

It has been found that unlike in the past, childcare and old-age care, which were earlier done generally in the family, are done now-a-days by institutional care. As a result, old-age care centres have come up all over Europe. In some European countries like Germany and the Netherlands, they

have introduced a Collective Old Care Insurance System for health care, nursing care and for the chronic diseases associated with old age<sup>15</sup> Yet, a large constituency of old people in society will pose a potential challenge to the welfare state system of Europe.

The ageing process has been accompanied by dramatic changes in living arrangement and family relationship of the elderly and gives rise to new economic, social and emotional needs of all generations. In Western Europe and North America, this process has put strains on the welfare states by contributing to fiscal deficits and causing a reassessment of public spending priorities. In Eastern Europe and the former Soviet Union, the problems of funding and maintaining programmes for the elderly are seriously complicated by the transition from the command to market economy.

On the public policy side, the demographic change will have effects on pension and education. As life expectancy has increased larger allocation will have to be made for payment of pension, and that too for a longer period. Therefore, there will be a significant increase in the pension expenditure in the future. This will become an important problem particularly when the resources for the maintenance of a large number of ageing/non working populations have to come from an increasingly smaller number of active working populations. In place of small share of population retiring in the past,

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<sup>15</sup>Prof.Anita Bose,"*Demographic Changes*,"n.1

one finds a small share of population in active labour force today, indicating the major change that is taking place in the labour market.

It may be noteworthy that the main challenges arising from continued ageing include, particularly in countries in transition, the maintenance of public and private programmes to support the elderly in retirement, the provision of adequate health care services for the elderly; the sustenance of the upward trends of labour productivity in the face of the ageing and possible to shrinkage of the labour force, and the promotion and support of social programmes that increase social integration and emotional well being of the elderly. During the early decades of this century, working age populations in most developed countries will shrink. Today the ratio of working tax payers to non-working pensioners in the developed world is around 3:1.<sup>16</sup> By 2030 in the absence of any reform, this ratio will fall to 1.5:1; and in some countries, such as Germany and Italy, it will drop all the way down to 1:1 or even lower<sup>17</sup>.

It has been found that the growth of a population in the last half of the 19th century was responsible for about 40 per cent of the total volume of capital formation in Western Europe and about 60 per cent of the capital formation in the United States. Moreover, in a declining economy demand for

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<sup>16</sup> Peter G Peterson, "Gray Dawn: The Global Ageing Crisis", *Foreign Affairs* (New York), vol. 78, no. 1, Jan- Feb 1999, p 44.

<sup>17</sup> *Ibid.*

labour will also decline, leading to a reduction in government tax revenue. The financial problems of the state are further aggravated by the elderly's health and care needs.

In the short run, the demographic change will have two important effects. First, slowing population growth will permit a smaller share of national output to be devoted to investment in plants, equipment and housing. Second, the share of the population that is working will rise, largely as a result of the relative fall in the population of children. These positive effects of demographic change may be reinforced by increased foreign capital inflows and acculturating technological change as firms respond to an increasing scarcity of labour. It has been found that as a result of the increased numbers in old age, their longer lives, and their longer periods of retirement, there have been many socio-economic changes in the care of the elderly. This has generally led to dramatic changes in family and household patterns. With more frequent separate residences for the old, the growth in the number of the old age and nursing homes to care for the old, and the greatly increased expenditures on their medical and health care. These have caused, directly or indirectly, some transfer of income from younger to older individuals, and this, with the greater overall wealth now held by households headed by older persons, has meant a quite different meaning for old age now than in the past.

It is well known that the long run outlook for the federal budget is for large and increasing deficits, mainly due to projections of steeply rising per capita healthcare expenditures and of increases in relative size of the elderly population. When mortality declines and survival probabilities increase, the present values of expected consumption and expected earnings are altered, so in general the life-cycle budget constraint will no longer be satisfactory unless adjustment are made to consumption and labour supply.

It is noteworthy that the existing system of financing the consumption and health care of the aged is based on taxing the current working population and transferring the receipts to retirees as Social Security Pensions and health benefits in the medicare and medical programs. Today, the retirement and disability programmes are financed by a of pay roll tax that exceeds 12 per cent of covered wages and salaries, a bigger tax burden on most households than the personal income tax.<sup>18</sup> In addition, the medicare programme of health benefits for the aged, plus the part of the means-tested medical aid benefits that is for the aged (primarily for nursing home care), costs as much as the social security pensions. Together these programmes for the aged cost 10 per cent of Gross Domestic Product (GDP), about 25 per cent more than the entire revenue from the personal income tax.<sup>19</sup>

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<sup>18</sup> Martin Feldstein, "A New Era of Social Security," *The Public Interest* (Washington D .C), vol.130, no.4, Winter 1998, p 103

<sup>19</sup> Ibid.



Therefore, demographic changes in Europe can have potential impact on the market pattern and the consumption levels in Europe. It can be said that it will adversely affect the market potential of Europe, as the consumption levels of the aged people are much lower than that of the younger people. As a result, the demand level of many consumer products may shrink progressively. However, advertisement have started appearing in newspapers to promote products for the middle aged and the aged ones, indicating that the aged people, being rich as well as a potential consumer market, is being recognised in the promotional advertisements. Older adults are not always the direct purchasers of goods and services, and they are certainly under-represented in the communities driving industrial innovation (engineering, design, business). These factors prevent existing innovation systems from addressing adequately the challenges and opportunities posed by population ageing. Older adults constitute a heterogeneous market, not only in terms of health care requirements but also in terms of socio-economic needs, rising aspirations and perceptions of quality of life.

The demographic change not only touches the socio-economic life of the European people but it also influences the political outlook of the people. The elderly today is a very significant constituency for the governments and also for the political parties. They gain more political power as they constitute a larger share of the voting population.

The governments of many European countries have taken certain measures to reduce the challenges posed by the demographic transition. Among the countries that viewed their rate of population growth as satisfactory, some countries, such as Italy, abstain from formulating any specific policy with regard to demographic trends. According to the 1991 census, Italy has had a population growth rate approaching zero. The population growth rate was estimated at 0.2 per cent per annum for the period 1985 -1990;<sup>20</sup> national data show that if those fertility levels were to continue, the population could soon begin to decline. Low fertility coupled with a declining mortality rate has affected the age structure of the population, which is currently one of the oldest in the world. An additional feature of the age structure is the expected decline in the size of the working –age population in the succeeding years. In its response to the United Nations Seventh Population Inquiry, the Government of Italy stated that it had no specific policy to counter those trends although the rapid ageing of the population was considered a source of some concern.<sup>21</sup>

France has also been affected by the decline in fertility and population growth found in the majority of European countries. The Government reported that, during the 1990's, the country had experienced an annual rate of population growth of 0.5 per cent, coupled with a rapidly ageing population<sup>22</sup>.

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<sup>20</sup> *World Population Monitoring 1993* (New York, United Nations Publications, 1996), p 59

<sup>21</sup> *Ibid.*

<sup>22</sup> *Ibid.*, p. 60

The Government was concerned by the fact that the fertility was below replacement level and had consequently adopted a policy directed to promoting larger families and to reconciling professional and family life.

In its response to the United Nations Seventh Population Inquiry, the Government of the Netherlands noted that it had not adopted any measures to influence the size, growth rate or structure of its population. It recognizes, however, that there was an implicit connection between measures taken within the framework concerning equal opportunities and population growth. In fact, a policy was pursued that encouraged both women and men to combine parenthood and work. However, the Government did not intend to impose measures that would influence decisions on whether to have children. The Government also reported that the ageing of population was creating problems of cost containment in the healthcare sector, was increasing the burden on the social security system and was changing the proportion of employed to non-employed groups in the population; however, it had not adopted a policy directed to influencing the ageing trend.

In the European Employment Strategy, the European Union has set out to combat unemployment and "to bring about a significant increase in the employment rate of Europe on a lasting basis." The low employment rate of older workers has been identified as an important factor and member states have been invited to develop measures aimed at maintaining workers' capacities, promoting life-long learning and flexible working arrangements, as well as a reviewing tax and benefit schemes to improve incentives to take up

job offers training opportunities. Again, in its work programme for 1999, the European Commission undertook to develop policies to further modernise and improve social protection. Adapting to the ageing challenge is one of the important issues to be addressed in this process. Particular attention is expected to be paid to ways and means to reverse the trend towards early retirement, to explore new forms of gradual retirement and to make pension schemes more sustainable and flexible. Regarding the health policies, old-age care and research instruments, the Commission will give special attention to medical and social research related to ageing. Health aspects of ageing are also a central concern in preparations for the development of new public health instruments at community level. Furthermore, the Commission would support the Member States in their efforts to develop adequate responses to ageing in health and care through studies of how different systems are working.

The magnitude of the demographic changes in Europe at the dawn of the 21st century would force the European Union to rethink to change the outmoded practices and institutions. An active society for all ages requires a strategy, which both enables and motivates older people to stay involved in working and in social life. The growing number of retired people constitutes a wealth of under-utilised experience and talent. The Commission is committed to stimulating a debate on the societal aspects of demographic change, while promoting, at all times, a Europe for all Ages, that is a strong sense of intergenerational solidarity as well as intergenerational equity. During 1999,

the International Year of Older Persons, the Commission had supported a series of studies and conferences on the various aspects of active ageing to support the Member States in their search for good strategies.

The fertility waves, which began after a long secular decline in fertility, have reverberated through the age distribution over time, producing repercussions for education, labour force entry, unemployment, the relative earnings of different age groups, housing demand, social services provision and the state pension system. Intimately associated with these waves has been the trend in the women's lifetime participation in paid employment. This trend is also influencing changes in marriage, divorce and family formation patterns. Therefore, in this new demographic situation, characterised by the presence of a high proportion of the elderly in the population, and in some cases by declining population size, is causing increasing concern among a number of policy makers.

In conclusion, we can say that we should conceive of the elderly as a resource not as a burden. In the short run it may be more realistic to build upon the commitment of formal and informal voluntary service, which already exists among the elderly. The fit "young elderly" are already an important resource for caring for the very old and more may become so. This radical demographic change should be tackled intelligently and transform it into a positive force for development of happiness in society by finding appropriate productive roles for the ageing population.

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