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COMMISSION STAFF WORKING DOCUMENT

Demography Report 2008: *Meeting Social Needs in an Ageing Society*

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SUMMARY

Member States can tackle the challenges of demographic change by acting in five key areas. In October 2006, the Commission presented its views on the demographic challenges the EU faces and on opportunities for tackling them in the communication "The demographic future of Europe —from challenge to opportunity". The communication expressed confidence in Europe's ability to adapt to demographic change and notably population ageing, but also stressed the need to act in five key areas:

- Better support for families;
- Promoting employment;
- Reforms to raise productivity and economic performance;
- Immigration and integration of migrants;
- Sustainable public finances.

The Communication also announced that every two years, the Commission would hold a European Forum on Demography. The first Forum took place on 30-31 October 2006, the second on 24-25 November 2008. The fora are an occasion for taking stock of the latest demographic developments and reviewing how policies are responding to demographic change.

Member States face different sets of opportunities. This report presents comparative data to national policy makers. The purpose of this second report is to provide the latest facts and figures that are needed for an informed debate with the stakeholders taking part in the Forum and with the group of government experts on demography, which was involved in the conception of the present report.

As far as possible, data are provided for each Member State, allowing policy makers and stakeholders to compare their own country's situation with that of others, to understand the specificity of their country and, possibly, to identify countries that provide interesting experiences from which others can draw lessons. In so doing, the report responds to the request from Member States who want to learn from the variety of national experience across the European Union. The report focuses in particular on two issues that have received much attention following the adoption of the communication on Europe's demographic future: the modernisation of family policies² and opportunities for enhancing the contribution of older people to the economy and society³.

COM(2006) 571, adopted on 12 October 2006.

See the Communication from the Commission *Promoting solidarity between the generations*, COM(2007) 244.

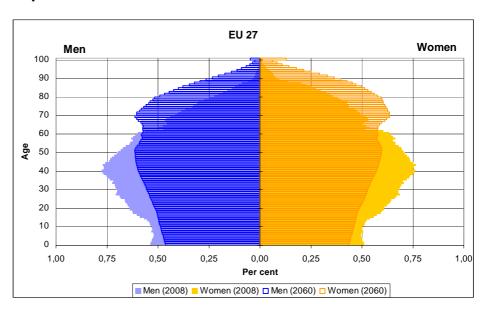
See Council Resolution of February 2007, DOC 6216/1/07.

Population pyramids' show how births, deaths and migration shape the structure of a population...

Chapter 1 looks at the latest data on the determinants of Europe's demographics, namely, births, deaths and migration, and presents the latest population projections from Eurostat. These three factors shape what are known as 'population pyramids', which show the structure of a population by sex and by age. Describing such a chart as a 'pyramid' is quite inappropriate, as far as the EU or other developed countries or regions are concerned. The pyramid shape is characteristic of countries with high birth rates, and thus rapid and unsustainable population growth, or countries with a high mortality at all ages, or a combination of both. Europe has been very successful in tackling both of these demographic challenges.

... but in advanced societies with stable populations the pyramid turns into a pillar. A desirable shape for the 'population pyramid' chart is more like a pillar, which would result from a steady renewal of a stable population, with almost all new-born children surviving into old age. The EU is coming close to such a shape, except for the bulge of the baby-boom that started in the 1950s and reached its peak 20 years later. Since then, the number of births per woman has declined significantly: women born in 1935 had on average (EU-25) 2.37 children, those born in 1945 2.11 and those born in 1955 1.94. Women born in 1965 have had 1.77 children, but their total cohort fertility rate can only be established once they reach the end of their reproductive period.

Population structure in 2008 and 2060



Source: Eurostat, EUROPOP2008 convergence scenario.

he EU fertility rate is today estimated at 1.5 children... The fertility rates of younger cohorts can only be estimated. This is done using the total period fertility rate indicator, which is based on childbearing probabilities currently observed for women of different ages, and derives from them the average final number of children women would have if they realised these probabilities during their lives. This indicator now stands at just over 1.5 children per woman, showing a slight progression between 2000-2004.

...but postponement of births could result in current fertility being underestimated.

The problem with the total period fertility indicator is that it is affected by changes in the timing of births. The mean age of women at the birth of their first child rose from 24.4 years in 1960, to 24.6 years in 1980 and 27.5 years in 2003 (EU-25). As a result, the probabilities of having a child are reduced at younger ages, which are captured by total period fertility during the shift towards a higher age. By contrast, the increase in the probability of giving birth at an older age will only materialise later, once the postponement process stops and a shift to a higher average age is completed. The total period fertility rate indicator will, as a result, underestimate the number of children women will have. Demographers have tried to correct this bias, and one such correction lead to the conclusion that actual fertility rates, adjusted for this 'tempo effect', could be almost 0.2 children per women higher than the unadjusted total period fertility rate. This is still below the replacement rate of 2.1, but would make a major difference for Europe's long-term development in terms of age structure and population size.

Europeans gained 2.5 extra life years per decade over the past 40 years; future gains will have to result from reduced mortality in old age. The second factor that determines the size of Europe's population is the number of deaths. This depends, on the one hand, on the size of cohorts reaching the end of their life span and, on the other, on mortality rates, which, in turn are used to estimate life expectancy. In 2004, the EU-27 life expectancy was 81.5 years for women and 75.2 years for men. During each of the preceding four decades, around 2.5 extra life years were gained by reducing mortality, due to progress in fighting respiratory diseases and cancer in the 1970s, and cardio-vascular diseases in more recent years. Today, there is little scope for further gains in life expectancy by reducing premature mortality (up to the age of 60) in most Member States. The vast majority of new-born children can expect to live to this age. Any further improvements in life expectancy will have to come from better health in old age.

Life expectancy is still low for men in many Central and Eastern European countries – and throughout the EU, people of lower socioeconomic status die younger. As far as life expectancy is concerned, there is, however, still a significant East-West divide in the EU, a divide that particularly concerns men, who can expect to live only to around 65-70 years in eight of the Central and East European Member States, compared to an EU-15 average of more than 76 years. In these countries, mortality among middle-aged men remains high, and this is the main factor behind the large East-West gap in life expectancy. Another important divide regarding life expectancy is found within each society: a higher socio-economic status in a society is associated with significantly lower mortality and hence higher life expectancy. These health inequalities have been identified as a major challenge to be pursued in the follow-up of the Renewed Social Agenda⁴.

The Communication from the Commission of 2 July 2008 "Renewed social agenda: Opportunities, access and solidarity in 21st century Europe" (COM(2008) 412) announced that the Commission will issue a communication on health inequalities during 2009, building on work under the Open Method of Coordination on social protection and social inclusion.

Since 2002, net migration has been historically high at 1.6 – 2 million people per year.

The third determinant of population structure is migration. EU-27 has attracted year on year around half a million migrants more than it lost over the previous 20 years. Since 2002, however, net migration into the EU has roughly tripled to between 1.6 and 2 million people per year. Only three countries, Spain, Italy and the UK, have received around three quarters of net migration into the EU over the six years up to 2007. As a result of this immigration, around 4% of EU residents were non-EU citizens at the beginning of 2007, whereas 2.1% of EU citizens were living in a country other than their country of origin. The number of foreign residents depends, however, not only on migration, but also on the rate at which migrants acquire the citizenship of their host country. In 2006, 670 000 third-country nationals became citizens of an EU Member States, about the same number as in the US.

The latest Eurostat population projections expect continued population growth up to 2060...

Assumptions about future fertility, mortality and migration are at the basis of projections of the future size and structure of the population developments. The report presents the results of the latest round of Eurostat population projections, and compares them to the previous round in 2004. Whereas the previous projection round concluded that the population of EU-27 was likely to decline by 16 million people by the year 2050, the latest projections expect an increase by 10 million people by the year 2060. Thus, the population of EU-27 would rise from 495 to almost 506 million people. The difference is mainly due to the higher migration assumption, but more optimistic fertility and life expectancy assumptions for the latest projection also contribute to the large difference between the two rounds. There are also striking differences in the results of the two projection rounds for individual countries.

...contrary to projections made four years ago. However, rapid population ageing occurs under both projections.

These differences between the two rounds of projections underline the importance of interpreting such results with caution. Nevertheless, one development is certain, namely the imminent retirement of the baby boom cohorts which will shift the balance between people of working age and retirees. Both projection rounds also yield very similar results as far as the long-term evolution of the demographic old-age dependency ratio (people aged 65+ in relation to people aged 15-64) is concerned: in 2004, a ratio of 0.53 was expected for 2050 (EU-25), and the latest projection expects a ratio of 0.50 in 2050, rising to 0.53 by 2060 (EU-27). This is to be compared to today's old-age dependency ratio, which stands at 0.25, meaning that, for every person aged 65 or over, there are four people of working age (15-64). In 2050, there will be only two people of working age for every person aged 65+. Europe is not alone in experiencing such ageing: it is a common trend across the globe and could occur at an even faster rate in emerging economies.

The reality of family life has been transformed: fewer and later marriages, more divorces, unmarried cohabitation and single parent households.

Chapter 2 describes the changing family and household patterns in the EU that need to be taken into account in the modernisation of social and, in particular, family policies. The social reality of family life has changed profoundly over recent decades. People are less likely to enter into a first marriage, and, in 2003, did so about two years later than in 1990: the average age at first marriage rose from 24.8 years to 27.4 years for women and from 27.5 to 29.8 years for men. A significant number of marriages are between partners of different nationalities: between 12% and 15% in Germany and France, around 20% in Belgium and Austria, between 25% and 30% in Estonia, Luxembourg and Cyprus. Divorce rates increased since the 1970s, more than doubling in some countries. About 20% of all marriages involve divorced persons entering into a second marriage. Unmarried cohabitation has become common place, and a large proportion of children are born outside marriage: in most Member States between 25% and 50% of all children. In spite of this 'de-institutionalisation' of family life, most children still live in couple households, married or cohabiting, which represented over 80% of households with children in 2001. Single-parent households, most of them headed by mothers, accounted for 14% of households with children.

Women are much more integrated into the labour market, but continue to shoulder most of the family responsibilities. Another major trend affecting family life in the EU is increased female labour force participation. The gap in employment rates between men and women aged 25-49 halved between 1990 and 2005 from 32 percentage points to 16. However, this labour market integration of women often takes the form of part-time employment. Marital status, childbearing and childrearing are no longer seen as an insurmountable obstacle for female employment. Indeed, countries with high levels of female employment also have higher fertility rates, suggesting that achieving a satisfactory work-life balance for women may be a key to both higher female employment and a relatively high fertility rates.

Average household size decreased from 3.3 in 1960 to 2.4 today, notably as a result of the rising number of singleperson households.

There have also been significant changes affecting the composition of households. The average household size in EU-25 declined from 3.3 persons in 1960 to 2.4 in 2003, implying a much faster growth in the number of households than in the population size. In 2005, 27.7% of all households were single-person households, almost the same proportion as family households (two or more adults with dependent children). A large number of single person households belong to people over the age of 80. Nearly 15 million people over 80 live in a private household (as opposed to an institution), and about half of them live alone.

The increasing number of older people will further increase the number single-person households.

Due to population ageing, the number of one- and two-person households can be expected to increase considerably. As the large cohorts of the baby-boom reach retirement age, more and more people belonging to these cohorts will be living in smaller households. In most European countries the number of these small households is therefore likely to increase by at least 50%, and in several countries the number

could even double between 2001 and 2050.

Policies need to adapt to the changing reality of family life; in particular, singleparent families are at a high risk of poverty. These changing family and household patterns need to be taken into account in the modernisation of social, and in particular, family policies. The need for action is exemplified by the high risk of poverty to which single-parent families are exposed: about one third of people living in single-parent families are at risk of poverty, compared to 16% of the entire population. Large families (two-adult households with three or more children), which can be considered as a more traditional target group of family policies, also face higher poverty risks at 24%, but less so than single-parent families. A quarter of women living in single-person households are also at risk of poverty.

Cash benefits dominate social protection spending for families and children, but childcare services could play a major role in protecting families against poverty, allowing them to have a second income.

A key question is how best to support families. The financial situation of families – and the risk of poverty they are exposed to – depends on the combination of incomes that parents can earn and the benefits they receive. Benefits may go a long way towards covering the costs of children, but would have to be very high to replace a second income in a two-adult household. Indeed, only about 7% of households with dependent children were at risk of poverty in 2005 when both adult household members were in employment, compared to 16% of people at risk of poverty in the population as a whole. The availability of affordable childcare can therefore have a major impact on the financial situation of families. Social protection spending on families and children – 2.1% of EU-27 GDP in 2005 – remains, however, strongly geared towards cash benefits: three quarters of this amount is used for cash benefits such as child allowances and one quarter for services. There are major differences between countries in the split between benefits and services in kind, and also in the use of formal childcare, particularly for children below the age of three.

Countries with high levels of female labour force participation and good childcare provision also tend to have higher fertility rates. The effectiveness of family policies can be assessed by looking at poverty risks for different family types or by looking at fertility rates which could be seen as an indicator of whether people feel able to realise their desire to have children. Fertility rates appear not to be correlated to the generosity of cash benefits, but they are positively correlated to the availability of childcare for the youngest children and to female employment rate: countries with a high level of childcare provision and high levels of female labour force participation also tend to have higher fertility rates. A reorientation of family support towards measures that facilitate the reconciliation of work and family life thus seems to be desirable both from the point of view of reducing poverty risks and raising fertility rates. In addition, it boosts employment and enhances the EU's ability to cope with the needs of an ageing population. The EU promotes better policies in the Member States by implementing the roadmap for gender equality, through the open method of coordination in the area of social protection and social inclusion and through the establishment of a European Alliance for Families.

The baby-boom started 60 years ago; today, these cohorts start retiring in large numbers. Chapter 3 looks at opportunities and needs in an ageing society, focussing in particular on the ageing baby-boomers and their potential for contributing to the economy and society. The importance of such an analysis was highlighted in the Commission's Renewed Social Agenda of July 2008. The EU population pyramid clearly shows an increase in cohort sizes just after the end of World War II, marking the start of the baby boom. This was 60 years ago – and the first of these large cohorts born over a period of 20-30 years are now beginning to retire. This marks a turning point in the demographic development of the European Union, and ageing is no longer something that will happen at some point in the distant future. Over the past decade, both the population of working age (20-59 years) and the population aged 60 years and above had been growing by 1 to 1.5 million people per year on average. From now on, the population aged 60 years and above will be growing by 2 million people every year for the next 25 years. The growth of the working-age population is slowing down fast and will stop altogether in about 6 years; from then on, this segment of the population will be shrinking by 1 to 1.5 million people each year.

Employment rates at 60 are ten percentage points higher than in 2000, but there is still much room for improvement.

In 2007, around 50% of men and 40% of women were still in employment at the age of 60. These rates are low, indicating that the ageing baby-boomers constitute a major potential for increasing Europe's labour force. Nevertheless, this represents an increase by 10 percentage points compared to the year 2000 and shows that the trend towards earlier retirement has been reversed. It is also one of the clearest indications that the Lisbon strategy, which aims among other things at promoting employment of older persons, is working. Employment after the age of 65, the typical statutory retirement age in many Member States, is very rare: only about 13% of men aged 65-69 years and 7% of women are still in employment. Part-time working could be a good way of achieving a gradual transition from work to retirement, but only about 11% of men aged 55-64 work part time and 38% of women. Thus, for men, the typical transition still seems to be from full-time employment to full-time retirement, whereas for many women in this age class part-time working may have been a way back into the labour market when their children required less time. By contrast, after the age of 65, part-time work is a very common form of employment for the few women and men who are still on the labour market: 47% of employed men and 61% of women aged 65+ worked part-time in 2007.

Future cohorts of older workers will be better educated and have better ICT skills, thus raising their chances of staying in employment...

Education and skills, and in particular digital literacy, remain an obstacle to increased labour force participation of people in their fifties and sixties. However, the situation can be expected to improve as future cohorts entering this age class are characterised by a higher level of educational attainment and much greater familiarity with computers and the internet. In 2007, 57% of people aged 55-64 had never used the

internet; in the age group 45-54, the proportion was 39% and for people aged 35-44 it was 28%. A much smaller proportion of people have also reached a lower level of educational attainment in the younger cohorts than in the older ones. The increase in the level of educational attainment is particularly strong for women: 34% of women aged 25-29 have tertiary education, more than twice the proportion for women aged 55-59 (16%); for men, the progression is much less pronounced: from 21% in the age group 55-59 to 25% in the age group 25-29.

...but caring obligations and poor incentives in tax-benefit systems could remain obstacles to the employment of older workers.

While higher levels of educational attainment can be expected to allow more workers to stay longer on the labour market, further analysis is required on the health status of older workers and to ascertain whether enough is being done to update skills of ageing workers in accordance with current needs in the labour market. Moreover, caring obligations towards grandchildren or dependent adults could represent an obstacle to increased employment, particularly of women in their fifties and sixties: at this age, they may be expected to care for grandchildren and their ageing parents. Finally, tax and benefit systems will have to provide incentives for staying longer on the labour market. All these issues will be given further attention, notably within the framework of the Lisbon Strategy and the Open Method of Coordination on social protection and social inclusion.

Even after retirement, older people can make a major contribution to society...

The ageing baby-boomers not only have the potential of making a major contribution to the economy through their participation in the labour force, but older people also engage in a wide range of social activities, organised by religious, political, trade union, charitable or recreational organisations, or informally by helping relatives and other people in the community. According to a special module on participation in the European Survey on Income and Living Conditions (EU-SILC), people over the age of 65 tend to be more active in church and religious activities than people under the age of 65, and less active in political, trade union and recreational organisations. However, the proportion of older people participating in such activities is not very high: around one quarter in church and religious activities, 3% in political parties and trade unions and around 20% in recreational groups and organisations.

...by looking after grandchildren or other relatives in need or as volunteers in their communities. The Survey on Health and Retirement in Europe (SHARE) covers fewer countries, but provides a more detailed picture of social participation of people over the age of 50. About two in five grandparents in the countries covered by SHARE provide care to their grandchildren, one in five grandfathers and almost one in four grandmothers almost weekly or more often. There are huge differences across countries as far as activities such as volunteering, informal helping, caring for other adults and other social activities in clubs, political or community organisations are concerned. Older people are most likely to be involved in these activities in the Netherlands, Sweden and Denmark, whereas participation levels are lowest in the Southern and Central European countries taking part in the Survey.

There are major differences in the social activities of older workers across countries – more so than across socioeconomic groups in a given country. These cultural differences across Member States appear more important than personal characteristics which, however, are also strong determinants of social involvement of the over fifties. Men tend to be slightly more involved than women in most activities apart from caring; the highly educated are much more involved than those with a low level of education; and participation generally declines with age, although, in some countries with a high level of volunteering, people aged 65-74 are more active than people aged 50-64. The fact that there such large cross-country differences suggests that, in countries with low levels of participation, any policy attempts to promote a greater active involvement of older people in society may need to foster first of all a strong culture of social participation.

Rapid ageing requires adequate policy responses: opportunities to stay active on the labour market and in society; access to goods and services that preserve older people's autonomy; solidarity with the dependent and protection of their dignity.

The ageing of the baby-boomers has a number of policy implications. The need to promote the employment of older workers has already been recognised within the Lisbon Strategy. In various Member States, policy makers are also trying to promote voluntary work by older people. Apart from creating opportunities for the active participation of older people, policy makers will have to develop policies aimed at preserving the autonomy of older people. This comprises financial autonomy as well as physical autonomy thanks to adapted housing, transport and access to services that allow older people to stay in their own homes for as long as possible. For those older people who have become highly dependent on the help of others, a coordinated offer of health and long-term care services must be developed.

Member States can prepare for demographic change by acting in five key areas. The fourth chapter presents information on the preparedness of the EU and its Member States for demographic change. This is done using some key indicators relating to each of the five policy areas in which Member States can take action to tackle the challenges of demographic change. These indicators are also presented in country sheets which show at a glance where a given Member State stands with regard to demographic challenges and policy responses, comparing it to the EU average and the best performing countries.

They can create better conditions for families and mothers in particular, thus contributing to higher fertility rates while at the same time offering better opportunities to women.

With a view to identifying the conditions needed for Europe's demographic renewal, the chapter illustrates the diversity of Member States with regard to their spending on family benefits (also discussed in chapter 3). It also shows that, in 2006, a majority of Member States still fell short of the targets set by the European Council in Barcelona, namely to ensure access to formal childcare for one third of children under the age of three and for 90% of children aged 3-6. Among the countries with the lowest levels of childcare provision are most Central and Eastern European countries. Almost 90% of men with children under the age of six are in employment, compared to less than 60% of women. Moreover, a significant proportion – nearly one third – of all

women, are working part-time. Women's disproportionate career sacrifices (relative to men's) for the needs of their families also show up in the large gender pay gap: women earn 15% less per hour worked than men.

Member States can raise labour force participation, thus creating a better balance between the active and the retired.

A society's ability to cope with an ageing population does not depend directly on the old-age dependency ratio, i.e. the number of people over 65 in relation to people aged 15-64 ('working-age population'). The key question is how many inactive people and people with expensive health and long-term care needs have to be supported by the active population, which is much smaller than the total population aged 15-64. Just under two-thirds (65.4% in 2007) of the working-age population are actually in employment, several percentage points below the target set within the Lisbon Strategy for the year 2010. Progress towards this target has been slow: just over three percentage points since the target was set in 2000, meaning that, so far, less than half of the gap between the starting position and the target has been bridged.

In about ten years, the potential for further employment growth will be exhausted; productivity will become the main engine of growth... While there is still good potential for increasing employment through increased labour force participation, notably of women and older workers, it can be expected that within about one decade, the decline of the working-age population will be such – notably due to the retirement of the baby-boomers – that rising employment rates will no longer be sufficient to compensate for this decline. From then on, the source of economic growth will have to be increases in productivity, which need to be achieved through investment in human and physical capital and in innovation. The chapter provides some indications on how well Europe's human potential is used. Labour productivity per hour worked is a key indicator in this regard. Between 2003 and 2007, it grew by between 1 and 1.7% annually. The fastest progress took place in the new Member States, which are catching up with the EU average, albeit from a very low level.

...but this requires more investment in human capital... Productivity growth depends notably on the level of educational attainment. 13% of women aged 18-24 and 17% of men have only attained lower secondary education or less and are defined as early school leavers. This represents a modest improvement compared to the beginning of this decade, but remains far off the target set for 2010, namely to bring this proportion down to 10% at most. Southern European countries are facing particularly strong challenges in this regard, whereas the Central and Eastern European countries tend to be among the best performers, which is also reflected in a high proportion of young people completing at least upper secondary education. However, these results are not clearly correlated to public spending on education.

...and innovation. In both areas, there is considerable scope for improvement. Finally, future productivity growth also depends on technological progress which depends on universities educating graduates capable of engaging in research and on devoting money to research and development. The number of university graduates relative to the population in their age class differs widely across Member States. It is

about two-and-a-half times higher in the UK, Denmark and the Netherlands than in Germany and Austria. The new Member States are spread out across the country ranking. With regard to the proportion of GDP devoted to research and development, the new Member States are trailing far behind. Most of them spend less than 1% on R&D, compared to the EU-27 level of 1.84% in 2006. This is far below the target set for 2010 of 3% of GDP. Moreover, the level of R&D spending has not risen since the beginning of the decade.

Immigration can alleviate labour market shortages, but Member States differ in their capacity to integrate immigrants in their labour markets.

Immigration can help alleviate labour market shortages due to a declining working-age population. The EU has been receiving an unprecedented number of migrants over recent years. Over the past 13 years (1995-2007), the population of EU-27 increased by nearly 15.5 million people due to net migration, 4.5 million during the first seven years and 11 million during the last six years of this period. The countries that attracted the largest numbers of migrants were Spain, Italy, Germany and the UK. Several new Member States experienced net emigration during that period, but this flow appears to have come to a halt in more recent years. Thus, immigration plays a very different role in national population dynamics across the Member States. Considerable differences also exist with regard to the integration of immigrants into the labour market. The employment rate of male non-EU-27 nationals is 2.5 percentage points lower than that of nationals; for women, the gap is more than ten percentage points. However, there are considerable differences across Member States, and in a number of them the gap is actually in favour of non-nationals.

Member States can also consolidate their public finances and thus reduce the need to allocate public spending to interest payments. The fifth area in which Member States can respond to the challenges of demographic change are public finances, which was addressed in the Communication on The long-term sustainability of public finances in the EU⁵. Moreover, ensuring progress towards sustainable public finances is was a key element in the 2005 reform of the EU fiscal framework and the Stability and Growth Pact. This Communication provided an assessment of the scale and scope of the fiscal sustainability challenge each Member State is facing in view of an ageing population. The increase in the number of older people will create additional public expenditure demands for pensions, health and long-term care⁶. Reforms of social protection systems, making them more efficient and encouraging older workers to stay longer on the labour market, can curb the increase in expenditure to some extent. Governments can prepare for these needs of an ageing society by reducing their public debt and hence the amount of tax revenue they need to allocate for interest payments. In 2007, government debt amounted to 60% of annual GDP in EU-27, the lowest level for the past twelve years. The total amount of budget

⁵ COM(2006) 574 adopted on 12 October 2006. A new assessment of public finance sustainability is to be released in the autumn of 2009.

See Economic Policy Committee and European Commission (2006), *The impact of ageing on public expenditure: projections for the EU25 Member States on pensions, health care, long-term care, education and unemployment transfers* (2004-2050), European Economy, Special report, No.1/2006

deficits of the Member States represented 1% of GDP for EU-27, down from 3% 5 years earlier. The situation varies, however, considerably across Member States and ranges from a budget surplus of over 5% of GDP to as large a deficit. The amount of government debt ranges from more than 100% of GDP to less than 10%, and this is also reflected in interest payments: in 2007, Italy had to use more than 10% of its public spending on debt interest.

INTRODUCTION

The Commission's *Renewed Social Agenda*⁷ identified population ageing, alongside with technological progress and globalisation, as one of the key drivers of societal change in Europe. The prospect of ageing populations has been discussed for a long time. Today, as the first baby-boomers turn 60, it is no longer something that will happen at some point in the distant future. 60 years ago, the number of babies born rose sharply and remained high for about 20 to 30 years. Now the first of these large cohorts born over a period of 20 to 30 years are beginning to retire. This marks a turning point in the demographic development of the European Union and makes it all the more important to consider the policy responses that are required by this major change.

This report has been placed under the theme of *Meeting Social Needs in an Ageing Society*. It thus follows up on the Commission's commitment in the *Renewed Social Agenda* to look at the needs of an ageing population. However, the focus is not just on needs, which would inevitably strengthen the perception of ageing as a burden. There are numerous opportunities for tackling the challenges of ageing and for modernising European societies, creating better living conditions for people of all ages.

Indeed, as the Commission stressed in its communication presented in October 2006 on *The Demographic Future of Europe* — *From Challenge to Opportunity*⁸, Europe can envisage her demographic future with confidence. Such confidence is founded on the recognition that population ageing is above all the result of economic, social and medical progress, as well as greater control over the timing and number of children people wish to have. It was also based on the realisation that Europe faces significant opportunities to respond to the challenges of demographic change in five key areas:

- Better support for families;
- Promoting employment;
- Reforms to raise productivity and economic performance;
- Immigration and integration of migrants;
- Sustainable public finances.

However, major reforms and decisive action are necessary, and the Communication underlined that there is only a short window of opportunity of about ten years during which further employment growth would remain possible. Increasing the number of highly productive and high-quality jobs is the key to ensuring that Europe's economy and societies will be able to meet the needs of ageing populations.

It falls above all to each Member State to develop the right policy mix in response to demographic change, and each Member State faces somewhat different challenges and has different sets of opportunities. The Communication of 2006 offered a broad reference

See Renewed Social Agenda: Opportunities, Access and Solidarity in 21st Century Europe, COM(2008) 412 of 2 July 2008.

⁸ COM(2006) 571, adopted on 12 October 2006.

framework to help Member States develop their specific policy mixes, the success of which will be in the interest of the European Union as a whole. It also emphasised that the Lisbon Strategy for Growth and Jobs, alongside the open method of coordination in the area of social protection and inclusion, offers the appropriate framework for conducting the reforms that are necessary to tackle demographic change.

The Communication announced that every two years, the Commission would hold a European Forum on Demography to take stock of the latest demographic developments and to review where the European Union and the Member States stand in responding to demographic change. The first Forum took place on 30-31 October 2006, the second on 24-25 November 2008.

A tool for assessing where we stand in relation to the demographic challenge

The purpose of this second report on demography in Europe is to provide the latest facts and figures that are needed for an informed debate with the stakeholders taking part in the Forum and in particular with the group of government experts on demography, which was involved in the conception of the present report.

As far as possible, data are provided for each Member State, allowing policy makers and stakeholders to compare their own country's situation with that of others, to understand the specificity of their country and, possibly, to identify countries that provide interesting experiences from which lessons could be learned. In so doing, the report responds to the request from Member States who want to learn from the variety of national experiences across the European Union. The data provided in this report concern the latest demographic trends and projections (chapter 1). In particular, the report discusses the latest Eurostat population projections which present a more optimistic outlook, foreseeing a slight growth of the population as opposed to a slight decline according to the previous projections. However, the challenge of population ageing remains huge and hardly changed compared to the earlier projections.

In addition to demographic data, the report also examines some key indicators showing where the EU as a whole and individual Member States stand in their preparation for demographic change (chapter 4). This analysis, which is one of the commitments entered into by the Commission in the communication of October 2006, follows the five key areas for action. It helps policy makers in the Member States identify those areas where they face the most important opportunities for tackling the demographic challenge.

Chapter 4 can only provide a very cursory overview of the challenges and opportunities in these five areas, each of which is the subject of more in-depth scrutiny in the context of the Lisbon Strategy. The aim of this report is to present a broad picture of where individual Member States and the EU as a whole stand in the five key areas for tackling the challenges of demographic change. In addition, the report aims at complementing information that is already available thanks to ongoing policy coordination processes, by looking at two specific areas, namely the needs of families and older people in a changing demographic context.

Two priority areas for policy review: the needs of families...

The 2008 demography report focuses in particular on two issues that have received much attention following the adoption of the communication on Europe's demographic future: the

modernisation of family policies⁹ and opportunities for enhancing the contribution of older people to the economy and society¹⁰.

As far as family policies are concerned, the report examines in chapter 2 how the reality of family life has changed over recent decades. Couples have become less stable and choose to have children at a higher age, often without being married. Women today face much better opportunities on the labour market and, thanks to the rapid progression of their educational attainment levels, are much better equipped to seize those opportunities. In this context, family policies oriented towards the traditional male breadwinner model are becoming less effective in securing good living conditions for families and children. The chapter discusses the policy implications of the transformation of family life that has taken place in Europe and emphasises in particular the importance of reconciliation policies.

... and older people

Chapter 3 is devoted to opportunities and needs in a society that is ageing at an accelerating pace. Over the past decade, both the population of working age (20-59 years) and the population aged 60 years and above had been growing by 1 to 1.5 million people per year on average. From now on, the population aged 60 years and above will be growing by 2 million people every year for the next 25 years. The growth of the working-age population is slowing down fast and will stop altogether in about six years. From then on, this segment of the population will be shrinking by 1 to 1.5 million people each year.

Thus the baby-boom cohorts will no longer boost the working-age population, as they did over the past decades, but will start increasing the population of pensioners. In about fifteen to twenty years, these same cohorts will lead to a strong expansion of needs for health and social care services. The ageing of the baby boom will put solidarity between the generations to a difficult test.

The potential contribution of the ageing baby boomers

This report looks at the potentials for increased participation of older people, on the labour market and as active members of their communities, notably through volunteering. Mobilising this potential is all the more urgent as much larger cohorts are now entering their 60s. At present, only about 40 % of men and 30 % of women were still in employment at the age of 60. Yet, most people in this age group are still fit and capable of contributing to the economy and society. The Lisbon Strategy is already producing tangible results: Employment rates of people aged 55-64 are rising, reversing the past trend towards ever earlier retirement, but more needs to be done. Opinion surveys also indicate a great willingness to participate in community work or volunteering after retirement. This, too, represents a major opportunity for social progress, but figures on actual engagement fall far short of this declared willingness to volunteer. Clearly, more and better opportunities for employment and voluntary engagement of older people are needed.

Another challenge for policy makers to ensure that older people have access to the goods and services they need. This requires adequate incomes as well as a supply of goods and services that are adapted to the specific needs to older people, allowing them to remain autonomous

See the Communication from the Commission *Promoting solidarity between the generations*, COM(2007) 244.

Council resolution of February 2007, DOC 6216/1/07.

and live in their own household for as long as possible. While much work on incomes in old age has already been done in the context of the Open Method of Coordination on social protection and social inclusion, there is a lack of data on the barriers that older people may be facing and the goods and services that could help overcome those barriers. However, new surveys will soon begin to fill this knowledge gap, and in future demography reports it will be possible to deepen the analysis.

An emerging challenge: protecting the dignity of frail older people

A fundamental issue that has recently been put on the European agenda is the protection of the dignity of frail older people who are often victims of neglect and abuse¹¹. A major European conference took place on 17 March 2008 in Brussels and highlighted the seriousness of the issue, albeit based on very limited information from a few Member States only. The chapter on needs and opportunities in an ageing society discusses some of the policy challenges that need to be tackled and indicates some ways in which the European Union can support policy makers in the Member States.

Help us improve future reports...

Comments and suggestions on this report will be gratefully received and should be sent to:

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Directorate-General for Employment, Social Affairs and Equal Opportunities
European Commission
B-1049 Brussels
EMPL-E1-COURRIER@ec.europa.eu

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See notably the exploratory opinion of the European Economic and Social Committee on *Elder Abuse*, Brussels, 24 October 2007 (CESE 1465/2007).

1. EUROPE'S CURRENT DEMOGRAPHY AND FUTURE TRENDS

The most common way of representing a country's population is by using what is known as a 'population pyramid', which displays the population by age and sex. However, the shape of the pyramid that this representation of population structure typically took in the past has long been replaced by very different contours, much narrower at the base as a result of a declining number of births over recent decades. The pyramid can result from birth rates high above the replacement level or from high mortality at any age. While low birth rates have become a concern in many Member States, a return to pyramid-shaped population structure would not be desirable, because high birth rates implies explosive population growth, whereas high mortality at any age implies that most people will not be able to enjoy a long life. The ideal shape for the population structure would therefore be a pillar, which narrows only at the very top as people die of old age.

Figure 1.1 on the following pages presents current and projected population structures in 2060 for the EU as a whole and for each Member State. The population pyramids show a great diversity across the EU, both for the present and for the future, reflecting the political and social history of each country. The impact of low birth rates and high male mortality during war years is visible in a number of countries.

In the EU-27 pyramid, the baby boom, which peaked in the mid-1960s, is clearly visible. Most countries experienced a period with high birth rates, typically some 40 to 50 years ago in the EU-15 countries¹², and a decade or two later in the former communist Member States. The effects of the peaks in birth rates also tend to be felt some 20 to 30 years later when the children born during a baby boom have their own children, as can be seen very clearly in the case of the Czech Republic. Most Member States are, however, experiencing a declining number of births and thus a narrowing of the base of their population pyramid.

Projections for population structure in 2060 suggest that the EU-12¹³ as well as the Southern Member States and Germany might have almost inverted population pyramids with ever small birth cohorts. Greater life expectancy will result in much larger cohorts aged 60 and above, particularly for women. A few Member States, the Nordic countries, Ireland, the UK and France, are expected to move towards the pillar shape resulting from birth rates close to replacement level and low mortality (or high life expectancy).

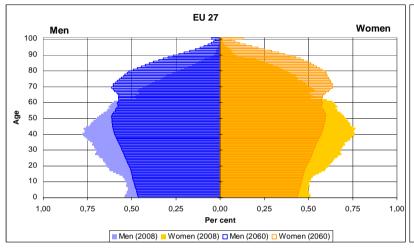
These current and projected future population pyramids are shaped by births, deaths and a third key factor, namely migration. These factors are considered in the present chapter, which examines how they shape the composition and structure of Europe's population.

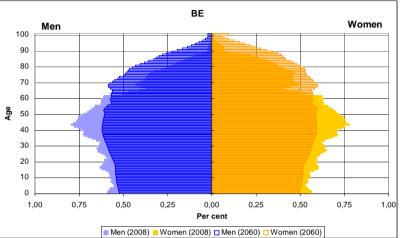
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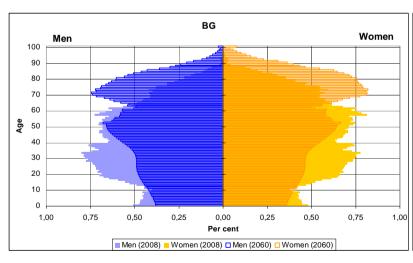
EU-15 will be used to refer to the Member States of the EU before the 2004 enlargement.

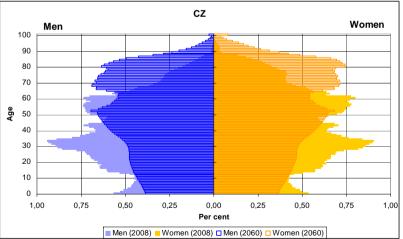
EU-12 is used to indicate the Member States which acceded in 2004 and 2007. EU-10 refers only to the Member States that acceded in 2004.

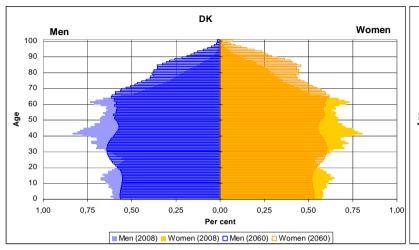
Figure 1.1: Population structure by sex and age, 2008 and 2050

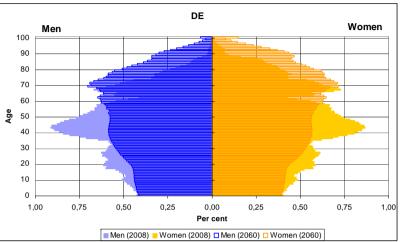


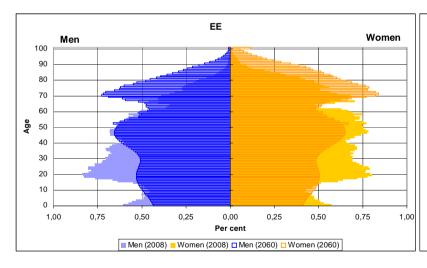


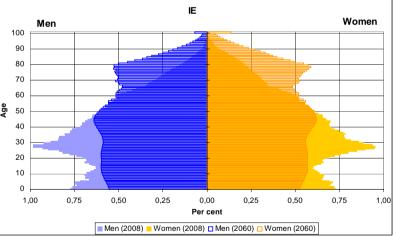


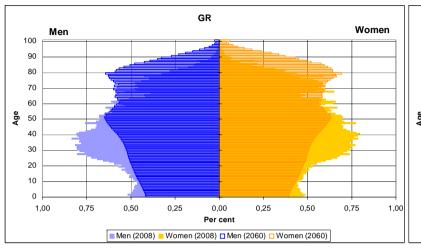


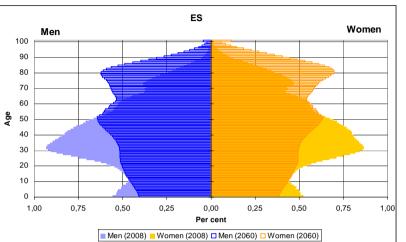


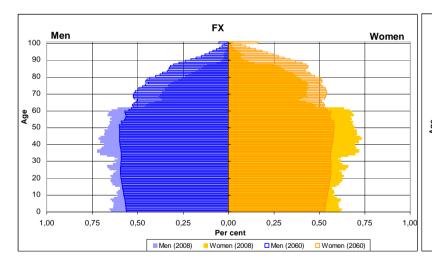


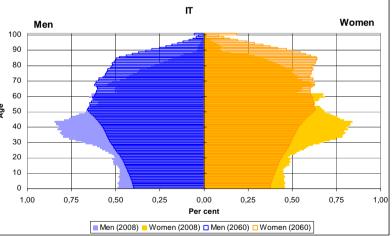


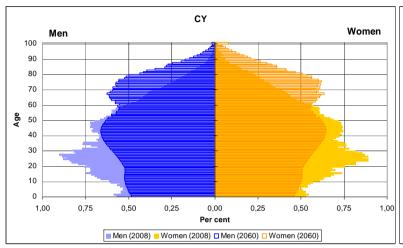


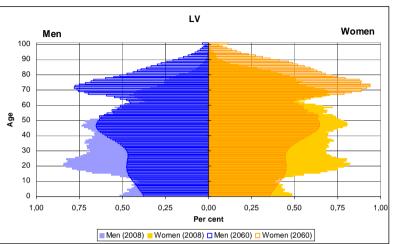


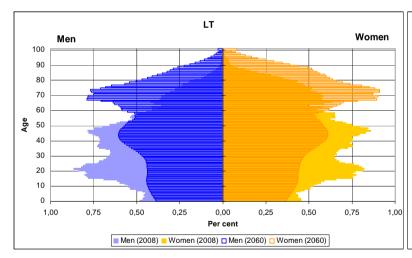


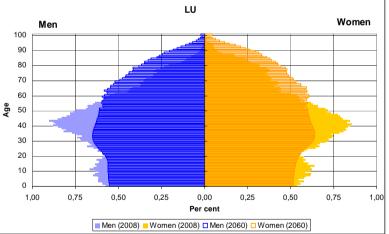


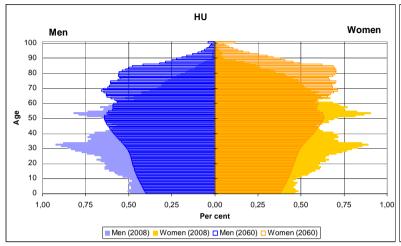


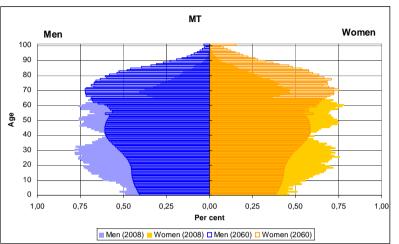


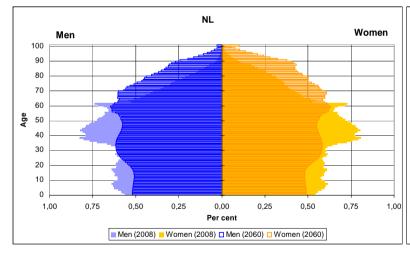


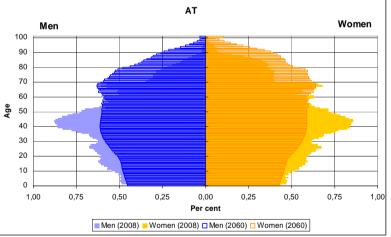


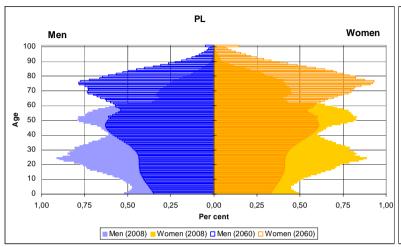


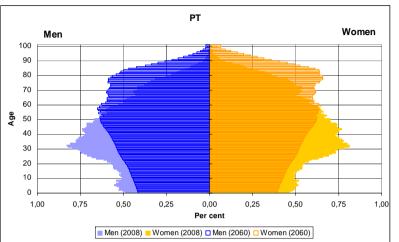




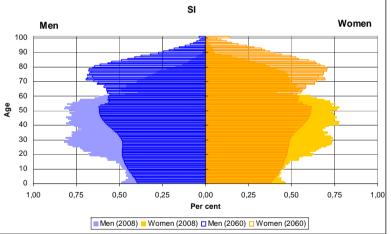


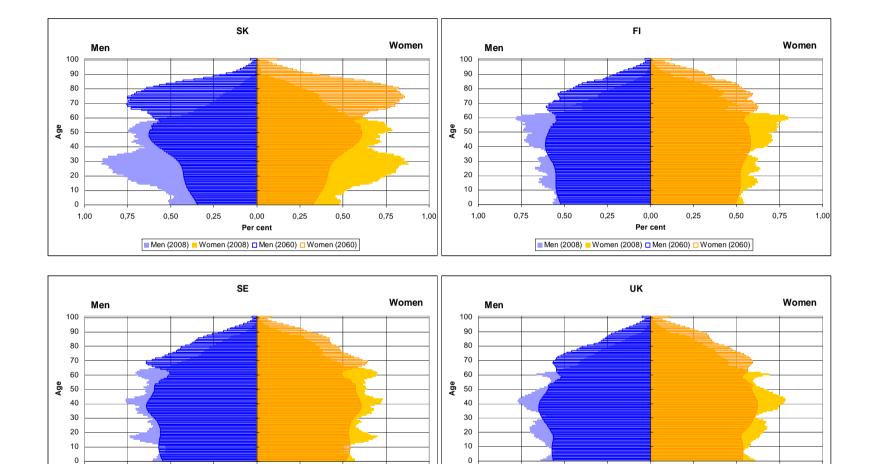












Source: Eurostat, EUROPOP2008 convergence scenario

0,25

0,00

Per cent

■ Men (2008) ■ Women (2008) □ Men (2060) □ Women (2060)

0,25

0,50

0,75

1,00

0,50

0,75

1,00

0,75

1,00

0,50

0,25

0,00

 Per cent

 ■ Men (2008)
 ■ Women (2008)
 □ Men (2060)
 □ Women (2060)

0,25

0,50

0,75

1,00

1.1. Trends in birth rates

In 2005, around 5.1 million children were born in the 27 Member States of the EU, compared to nearly 7.6 million in 1965. The absolute size of birth cohorts may fluctuate significantly, as can be seen from the population pyramids presented above, requiring adaptations to childcare, and education infrastructures, in particular, to accommodate variations in the number of births.

The number of births may vary due to changes in the size of cohorts of women of childbearing age: a baby boom leads to a secondary baby boom 20 to 40 years later. However, a major factor in the decline of the number of births has been a profound change in behaviour: European women have fewer babies than in the 1960s, as demonstrated by the indicator for completed fertility, which refers to the mean number of children born to women of a given generation at the end of their childbearing years (assumed to range from 15 to 49 years).

Table 1.1 shows that women born in 1935 had on average 0.4 children more than women born 20 years later. The figures for women born in 1965 are not fully comparable since some of these women had at that time not yet reached the end of their reproductive life span, but those for 1955 can be compared. The table also reveals other changes in reproductive behaviour. In particular, the mean age of women at the birth of their first child has risen, typically by two to three years in the countries for which data are available. For this indicator, the figures in table1.1 for the cohort born in 1965 can be considered as minimum values, which are expected to increase as a result of births that have not yet been recorded.

Voluntary childlessness (assuming that it does not result from an untreatable medical condition) is another aspect of fertility behaviour affecting population structure. For most of the countries for which data are available, table 1.1 shows how the proportion of childless women has increased slightly. The figures for women born in 1965 may underestimate their completed fertility rate, because they could still have a child.

The completed fertility indicator has limitations since it reveals changes in fertility behaviour only at the end of the reproductive life span of a cohort, and hence with a considerable time lag. Demographers have developed a way of estimating current fertility using an indicator referred to as the total fertility rate. The TFR is the mean number of children that would be born alive to a woman during her lifetime if she were to pass through her childbearing years conforming to the fertility rates by age of a given year. It is an estimate based on childbearing probabilities currently observed for women of different cohorts. It therefore represents the completed fertility of a hypothetical generation, computed by adding the fertility rates by age for women in a given year (the number of women at each age is assumed to be the same). The total fertility rate is also used to indicate replacement level fertility; in more developed countries, a rate of 2.1 is considered to be necessary to replace fully an existing generation. Table 1.2 presents trends in the TFR in EU Member States.

Table 1.1: Fertility indicators, selected birth cohorts of women, 1935-65

	Tota	al cohor	t fertility	rate	Mea	n age n bi	nother a irth	t first	% w	omen w	ithout ch	nildren	(childr oman	ber of en pe , coh 0(%)	er
	1935	1945	1955	1965*	1935	1945	1955	1965*	1935	1945	1955	1965*	0	1	2	3+
ELL 05**	0.07	0.44	4.04	4 77				00.0				45.7	45	40	40	07
EU-25**	2.37	2.11	1.94	1.77				26.3				15.7	15	18	40	27
EU-15**	2.36	2.10	1.90	1.73				26.9				16.1	16	18	39	26
EU-10**	2.40	2.16	2.10	1.96				23.2				13.4	10	17	44	29
AT	2.45	1.96	1.77	1.64				25.3				21.0	17	23	39	15
BE	2.27	1.93	1.83						9.4	8.7	10.5		17	28	34	20
CY			2.31	2.56		_										
CZ	2.12	2.03	2.07	1.93				22.5				7.0	6	15	55	23
DK	2.35	2.06	1.84	1.94		23.3	25.0	27.1		8.1	13.1	13.0	10	22	43	25
EE		1.85	2.00	1.87												
FI	2.29	1.88	1.90	1.91		24.4	25.2	27.0		14.2	18.2	20.0	19	14	36	31
FR	2.57	2.22	2.13	2.02	24.5	24.0	24.7	26.3	10.3	7.0	7.8		28	18	32	22
DE	2.16	1.80	1.67	1.53									30	19	35	15
GR		1.98	2.01	1.75				25.2				18.0	11	16	52	22
HU	1.99	1.90	1.94	1.97				23.0				10.0	7	20	49	23
IE	3.52	3.27	2.67	2.18	25.7	24.9	25.1	27.4	4.5	6.2	13.2	21.0	16	10	28	46
IT	2.28	2.07	1.80	1.49	25.3	24.4	24.5	27.0	13.1	10.2	11.1	20.0	15	25	43	17
LV			1.84	1.77												
LT		1.97	1.94	1.72												
LU		1.82	1.69	1.82												
MT				2.00												
NL	2.49	2.00	1.87	1.77	25.5	24.5	26.3	28.4	12.5	12.4	17.4	19.0	18	15	42	25
PL	2.60	2.27	2.17	2.00				23.3				16.0	11	17	39	33
PT	2.88	2.42	2.04	1.82	25.2	24.6	23.9	25.2	4.1	4.9	7.5	5.0	6	30	45	21
SI	2.07	1.83	1.96	1.77				23.7				9.0	4	26	54	16
SK	2.72	2.38	2.22	2.04				22.7				11.0	10	13	45	32
													. •	. •		<u>-</u>
ES	2.14	1.98	2.03	1.98		24.0	25.4	26.8		6.1	12.8	13.0	13	15	41	31
SE			2.01	1.89						9.8	17.2					
UK			2.03	1.83									3			
BG	2.00	1.78	1.92	1.88				23.9				5.0	5	22	52	21
HR	2.38	2.44	2.28	1.91				22.5				12.0	8	24	39	28
RO	50	4.48	3.97													_0
TR		4.48	3.97													

^{*} Some women in this birth cohort may still have been in their reproductive period

Source: Demography Monitor 2005, NIDI Netherlands, European Observatory on Demography and the Social Situation-Demography Network, European Commission.

^{**} Estimates for the 10 Member States that joined in 2004

Table 1.2: Total Fertility Rates in the EU

	1960/64*	1970/74*	1980/84*	1990/94*	1995/99*	2000/04*	2006
EU-27**	2.64	2.23	1.79	1.56	1.47	1.46	1.53
BE***	2.64	2.07	1.61	1.62	1.58	:	1.74
BG	2.23	2.16	2.01	1.57	1.18	1.24	1.37
CZ	2.22	2.14	2.01	1.72	1.18	1.17	1.33
DK	2.58	1.97	1.44	1.73	1.76	1.76	1.83
DE	2.46	1.77	1.48	1.32	1.33	1.35	1.32
EE	:	2.13	2.12	1.67	1.33	1.39	1.55
IE	3.91	3.84	2.92	1.99	1.89	1.93	1.90
GR	2.25	2.33	2.02	1.37	1.27	1.27	1.39
ES	2.86	2.87	1.94	1.30	1.17	1.27	1.38
FR	2.83	2.36	1.88	1.72	1.80	1.90	2.00
IT***	2.50	2.37	1.55	1.28	1.21	1.27	1.35
CY	3.47	2.38	2.46	2.35	1.85	1.54	1.47
LV		2.01	2.01	1.70	1.18	1.24	1.35
LT	2.57	2.28	2.04	1.86	1.49	1.29	1.31
LU	2.33	1.77	1.48	1.65	1.72	1.66	1.65
HU	1.88	2.01	1.82	1.77	1.40	1.30	1.34
MT	3.16	2.21	1.98	2.02	:	:	1.41
NL	3.17	2.15	1.52	1.59	1.58	1.73	1.70
AT	2.78	2.08	1.61	1.49	1.39	1.38	1.40
PL	2.76	2.24	2.33	1.93	1.51	1.27	1.27
PT	3.16	2.71	2.05	1.53	1.46	1.46	1.35
RO	2.10	2.65	2.18	1.55	1.39	1.30	1.31
SI	2.25	2.14	1.91	1.38	1.25	1.23	1.31
SK	2.93	2.50	2.29	1.94	1.42	1.22	1.24
FI	2.68	1.64	1.68	1.82	1.75	1.75	1.84
SE UK	2.30 2.86	1.90 2.20	1.64	2.04 1.78	1.57 1.71	1.64 1.68	1.85
UN	2.86	2.20	1.81	1.78	1.71	1.08	1.84

^{*}average for 5 year period calculated by NIDI

Source: NIDI, UN data for the years before 1990 and Eurostat demographic data for the years thereafter.

Table 1.2 shows that the total fertility rate has declined steeply since the 1960s and 1970s to a level that is far below replacement level: around 1.5 for the EU-27, with values close to, or even below, 1.3 in a number of Member States, particularly in the Central and Eastern Member States and Germany. Fertility is also low in the Southern Member States. The countries with the highest fertility rates are France, the UK, Ireland, and the Nordic countries.

Since the 1980s, there has also been a significant change in the timing of births. In 2003, women in EU-15 Member States tended to have their first child around three years later in life than in the early 1960s and 1980s (see Table 1.3). By contrast, a similarly strong increase has not occurred in EU-10 Member States, where women tended to be 2.7 years younger at the birth of their first child than first-time mothers in EU-15.

^{**}EU-27 figures for 2000/04, 2006 are estimates due to missing values for Belgium, Italy and Malta

^{***} Missing Belgian and Italian figures inserted from the 2008 European demographic data sheet, see www.populationeurope.org

Table 1.3: Postponement of childbirth in EU-15 and EU-10

Mean age of mothers at first birth								
1960 1980 2003								
EU-25	24.4	24.6	27.5					
EU-15	24.5	25.0	28.0					
EU-10	24.0	23.1	25.3					

Source: Demography Monitor 2005, NIDI Netherlands, European Observatory on Demography and the Social Situation-Demography Network, European Commission.

More recent data (see Table 1.4) suggest that postponement of childbirth is now also happening in the EU-10 countries which appear to be following the pattern in EU-15. In many Member States, the average age of mothers at the birth of their first child appears to have increased by around five years since 1980.

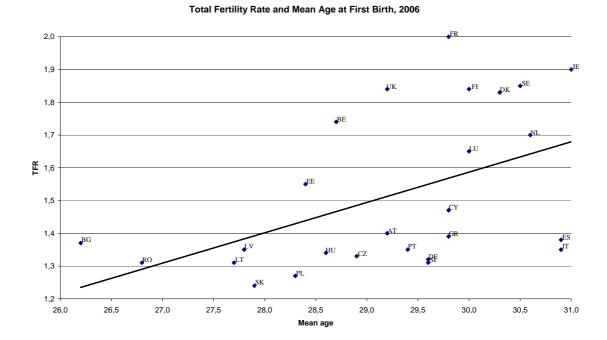
Table 1.4: Mean age of women at first child birth

	1980	1995	2000	2005	2006*
BE		27.3	:	:	28.7
BG	21.9	22.4	23.5	24.7	26.2
CZ	22.4	23.3	24.9	26.6	28.9
DK	24.6	27.4	27.3	28.4	30.3
DE	:	27.5	28.2	29.1	29.6
EE	23.2	23.0	24.0	25.2	28.4
IE	25.5	27.3	27.7	:	31.0
GR	24.1	26.6	28.0	28.5	29.8
ES	25.0	28.4	29.1	29.3	30.9
FR	25.0	28.1	27.9	28.6	29.8
IT	25.0	28.0	:	:	30.9
CY	23.8	:	:	27.5	29.8
LV	22.9	:	24.0	25.	27.8
LT	23.8	23.1	23.9	24.9	27.7
LU	:	27.4	28.3	29.0	30.0
HU	22.5	23.8	25.1	26.7	28.6
MT	:	:	:	:	28.4
NL	25.7	28.4	28.6	28.9	30.6
AT	:	25.6	26.4	27.2	29.2
PL	23.4	23.8	24.5	25.8	28.3
PT	24.0	25.8	26.5	27.4	29.4
RO	22.4	22.9	23.7	24.8	26.8
SI	22.8	24.9	26.5	27.7	29.6
SK	22.7	:	24.2	25.7	27.9
FI	25.6	27.2	27.4	27.9	30.0
SE	25.3	27.2	27.9	28.7	30.5
UK	24.7	:	29.1	29.8	29.2

*Figure for 2006 is the estimated mean age at childbearing, referring to all children not just the first child. Source: 1980 NIDI, 1995, 2000, 2005 Eurostat, 2006 estimated starting values of Eurostat, EUROPOP2008 convergence scenario.

A higher age at the birth of the first child reduces the time left before the end of the reproductive life span. This could in itself reduce fertility rates if an increasing number of women find themselves confronted with problems of biological infertility when they want to have further children. Figure 1.2 shows, however, that the countries with the highest fertility rates also display high average ages of mothers at the birth of their first child.

Figure 1.2: Total fertility and the estimated mean age at first birth, 2006



Source: See Tables 1.2, 1.4.

As more and more couples are postponing childbirth, biological fertility problems are likely to become an obstacle in a growing number of cases. The development of assisted reproductive technology (ART) such as in vitro fertilisation may make it possible for couples to have children at a later age. However, offering wider access to ART is unlikely to have a significant incidence on demographic trends (see Box 1.1).

Box 1.1: Can assisted reproductive technology (ART) promote higher fertility?

It has been suggested¹⁴ that making ART widely available to all those who fail to conceive within a timeframe of one year, could raise the present fertility rate with 0.20 children per woman in the UK and 0.17 in Denmark. These are considerable effects that would help to offset population ageing.

However to reach this goal the capacity for in vitro fertilisation (IVF) would have to rise 5 to 10-fold compared the present capacity in these countries. Indeed, if such treatment is offered after one year of unsuccessful attempts to conceive (and was widely accepted), many women who would have spontaneously conceived after the first year would receive the treatment. An early application of ART treatments to a large group, with no clearly identified cause of infertility, therefore mainly results in pregnancies occurring slightly earlier than without the treatment. But it would expose them also to the

Hoorens S. et al. (2007) Can assisted reproductive technologies help to offset ageing? An assessment of the demographic impact of ART in Denmark and the UK, Human Reproduction 2007, 22: 2471-2475

complications and the side effects of the treatment¹⁵. Although there would be a positive effect on fertility levels, this would be mainly due to the many babies from multiple pregnancies that often result from ART and lead to many more complications than from singletons after IVF. If all IVF pregnancies would lead to just one baby the net effect on fertility rates when treating patients already after one year would be negligible. The impact of IVF as a policy measure to promote fertility rates in order to offset population ageing is therefore highly unlikely.

Between 1997 and 2002, the number of ART treatment cycles has increased by 59%, from approximately 204 000 to 324 000, respectively, with (IVF) and intracytoplasmic sperm injection being the most prevalent treatments. As a result of the total cycles of ART in 2002, approximately 49 000 births occurred across 25 European countries, i.e. around 1% of all births. However, in Denmark in 2002, 4.2% of children were born following ART treatment¹⁶.

Postponement of childbirths also makes it more difficult to estimate total fertility rates. They are based on the assumption that the probability for a woman to have a child when she reaches a certain age will be the same as the probability of giving birth for women who are in this age group today. Postponement from, say, 25 to 30 years of age means that the probability of giving birth at the ages 25 to 29 will fall. This will lower the TFR indicator, even though the women who are postponing may have exactly the same number of children at the end of their reproductive life span. Postponement thus depresses the TFR until the process has come to an end.

It is likely that some of the lowest TFR values in the EU are in fact the result of postponement. The Vienna Institute of Demography has tried to adjust TFR for postponement effects¹⁷. Figures presented in Table 1.5 suggest that actual fertility could be almost 0.2 children per woman higher than the unadjusted TFR. The adjustment is highest in the EU-12 countries, typically between 0.3 and above 0.4, and smallest in countries such as Belgium, Greece, Spain, France, Italy, the Netherlands, Finland and Sweden, where the postponement process seems to be nearing the end.

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Te Velde E. et al. (2008) Can assisted reproductive technologies help to offset population ageing? Human Reproduction 2008, advance access published June 21.

Sorenson C. and P. Mladovsky (2006), *Assisted reproduction technologies in Europe: an overview*, Research Note LSE, European Observatory on Demography and the Social Situation-Health Network, European Commission

See the 2008 VID demography data sheet, http://www.oeaw.ac.at/vid/popeurope

Table 1.5: Period, Tempo Adjusted and Cohort Fertility Rates

	Period TFR 2006	Tempo Adjusted period TFR mean of 2003-2005*)	Gap (2)-(1)	1965 Cohort fertility rate
	(1)	(2)	(3)	(4)
EU-27	1.53	1.72	0.19	1.79
BE	1.74	1.86	0.12	1.79
BG	1.38	1.70	0.32	1.53
CZ	1.33	1.76	0.43	1.93
DK	1.85	2.00	0.15	1.89
DE	1.33	1.59	0.26	1.55
EE	1.55	1.85	0.30	1.95
IE	1.90	2.17	0.27	2.32
GR	1.40	1.52	0.12	1.77
ES	1.38	1.39	0.01	1.61
FR	1.98	2.07	0.09	2.03
IT	1.35	1.48	0.13	1.50
CY	1.44	1.79	0.35	2.57
LV	1.35	1.59	0.24	1.84
LT	1.31	1.68	0.37	1.74
LU	1.64	1.82	0.18	1.82
HU	1.34	1.75	0.41	1.97
MT	1.39	1.58	0.19	2.00
NL	1.72	1.82	0.10	1.78
AT	1.40	1.64	0.24	1.65
PL	1.27	1.58	0.31	2.04
PT	1.36	1.65	0.29	1.82
RO	1.32	1.75	0.43	1.93
SI	1.31	1.55	0.24	1.78
SK	1.24	1.66	0.44	2.09
FI	1.84	1.91	0.07	1.91
SE	1.85	1.96	0.11	2.00
UK	1.84	1.98	0.14	1.96

^{*} Using the Bongaarts-Feeney formula

Source: Vienna Institute of Demography, 2008 demography data sheet.

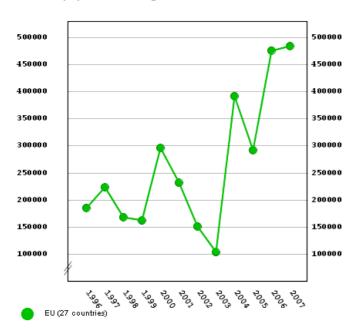
The findings analysed in this section suggest that the TFR indicator could significantly underestimate actual fertility. If confirmed, this would have major implications for future population predictions. As shown below, the potential impact of this tempo adjustment has been one of the reasons why Eurostat has assumed an increase in the TFR between 2008 and 2060 for its latest projection.

1.2. Trends in death rates

In 2005, around 4.8 million deaths were recorded in EU-27, some 300,000 fewer than the number of births. The number of deaths fluctuates much more than the number of births, thus explaining the year-on-year variations in the difference between the two figures. This difference between births and deaths is referred to as natural population change and has been positive since the mid-1990s (see Figure 1.3).

Figure 1.3: Natural population change in the EU-27 between 1996-2007

Natural population change



Source: Eurostat demographic data.

The total number of deaths depends, on the one hand, on the size of cohorts reaching the end of their life cycle and, on the other, on mortality rates, i.e. the likelihood of dying at a given age. One of the most impressive socio-economic achievements of developed societies has been the marked reduction in mortality or, in other words, the large increase in life expectancy. During the past 40 years, life expectancy has increased by more than 10 years for both men and women, amounting to an extra 2.5 years gained per decade. Average life expectancy at birth in EU-27 in 2004, the last year for which information is available for all 27 Member States, was 75.2 years for men and 81.5 years for women. Thus women tend to live on average 6.3 years longer than men.

Improvements in life expectancy at birth have been achieved by reducing mortality risks throughout the life cycle. A recent study carried out by NIDI¹⁸ for Eurostat, covering EU-15 countries, breaks down the changes in mortality by age groups and by main causes of death. The study found that in the 1970s life expectancy at birth increased mainly due to lower infant mortality. In the 1980s, the decline in mortality was particularly important for men in their fifties to seventies, and women over 60. In the 1990s, this trend continued, shifting to older age cohorts for both women and men (see Table 1.6); positive values in the table indicate that mortality in a particular age group has decreased, thus contributing to greater life expectancy).

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Huisman C. (2008) Decomposition of life expectancy changes by cause of death: main findings DOC.ESTAT/F1/DEM(2008)04, study prepared for Eurostat by NIDI Netherlands.

Table 1.6: Arriaga decomposition of changes in life expectancy at birth by age and sex, EU-15 average, 1970-2000

		Men			Women	
Age	1970-1980	1980-1990	1990-2000	1970-1980	1980-1990	1990-2000
0	32.7	17.3	9.4	22.4	13.7	9.1
1-4	4.4	3.7	1.0	3.0	3.5	0.8
5-9	2.2	2.2	1.1	1.0	1.4	1.1
10-14	1.5	1.3	0.9	0.6	0.9	0.8
15-19	0.6	1.9	2.2	0.7	1.0	0.6
20-24	-0.5	0.7	2.6	0.7	8.0	1.0
25-29	0.3	-1.0	2.7	1.2	0.4	1.5
30-34	2.0	-1.5	2.9	1.5	0.8	1.3
35-39	3.4	-0.6	2.5	2.2	0.8	1.6
40-44	3.9	2.1	1.8	2.9	1.9	1.1
45-49	3.5	4.8	2.6	4.3	2.4	1.8
50-54	1.7	8.0	5.1	4.5	4.2	2.7
55-59	5.7	8.5	8.6	5.0	4.8	5.1
60-64	10.6	7.6	11.2	7.0	5.2	7.9
65-69	10.2	9.7	11.5	8.6	6.8	10.2
70-74	8.2	10.3	10.4	11.7	9.1	11.3
75-79	4.4	8.6	9.9	11.4	10.4	13.6
80-84	2.9	10.4	7.4	6.9	17.5	12.9
85+	2.3	6.0	6.2	4.4	14.2	15.5
Total	100%	100%	100%	100%	100%	100%
Change in life expectancy at birth	1.7	2.3	2.7	2.1	2.3	2.2

Source: NIDI Netherlands, "Decomposition of life expectancy changes by cause of death", 6 May 2008.

When life expectancy gains are disaggregated by main causes of death (see Table 1.7), positive values indicate that mortality from a particular cause has decreased, thus contributing to greater life expectancy. Whereas during the 1970s, much progress was achieved by reducing mortality from respiratory diseases and cancer (the former particularly in the case of men, the latter in the case of women), more recent progress was mainly due to fewer people dying from cardio-vascular diseases.

Table 1.7: Breakdown of changes in life expectancy at birth by cause of death for the EU-15 average, 1970-2000

Men	1970-1980	1980-1990	1990-2000
Infectious and parasitic diseases	10.95	2.84	-2.98
MN larynx and trachea/bronchus/lung	-5.99	3.10	7.16
MN smoking related	-12.11	-0.33	-0.48
MN gynaecological	0.22	0.01	-0.15
MN other and remaining	12.41	2.72	9.83
Ischemic heart disease	3.16	22.64	23.58
Other Heart diseases	15.31	11.60	11.25
Cerebrovascular disease	11.24	15.92	11.44
Respiratory system	27.29	13.97	5.23
Transport accidents	5.26	4.73	7.35
Suicide	-3.02	-1.50	2.16
Remaining external causes	3.24	7.24	3.94
Alcohol related	-3.51	2.87	2.63
Other remaining causes	35.54	14.18	19.04
Total	100%	100%	100%
Women	1970-1980	1980-1990	1990-2000
Infectious and parasitic diseases	1970-1980 6.42	1980-1990 2.14	1990-2000 -1.82
Infectious and parasitic diseases MN larynx and trachea/bronchus/lung			=
Infectious and parasitic diseases MN larynx and trachea/bronchus/lung MN smoking related	6.42 -1.83 -5.18	2.14 -0.95 -0.62	-1.82 -2.01 -2.33
Infectious and parasitic diseases MN larynx and trachea/bronchus/lung MN smoking related MN gynaecological	6.42 -1.83	2.14 -0.95	-1.82 -2.01
Infectious and parasitic diseases MN larynx and trachea/bronchus/lung MN smoking related MN gynaecological MN other and remaining	6.42 -1.83 -5.18 -11.45 23.47	2.14 -0.95 -0.62	-1.82 -2.01 -2.33
Infectious and parasitic diseases MN larynx and trachea/bronchus/lung MN smoking related MN gynaecological	6.42 -1.83 -5.18 -11.45	2.14 -0.95 -0.62 0.06	-1.82 -2.01 -2.33 6.97
Infectious and parasitic diseases MN larynx and trachea/bronchus/lung MN smoking related MN gynaecological MN other and remaining Ischemic heart disease Other Heart diseases	6.42 -1.83 -5.18 -11.45 23.47 5.94 19.40	2.14 -0.95 -0.62 0.06 5.68 12.00 17.93	-1.82 -2.01 -2.33 6.97 10.80 18.71 19.65
Infectious and parasitic diseases MN larynx and trachea/bronchus/lung MN smoking related MN gynaecological MN other and remaining Ischemic heart disease Other Heart diseases Cerebrovascular disease	6.42 -1.83 -5.18 -11.45 23.47 5.94 19.40 13.33	2.14 -0.95 -0.62 0.06 5.68 12.00	-1.82 -2.01 -2.33 6.97 10.80 18.71
Infectious and parasitic diseases MN larynx and trachea/bronchus/lung MN smoking related MN gynaecological MN other and remaining Ischemic heart disease Other Heart diseases Cerebrovascular disease Respiratory system	6.42 -1.83 -5.18 -11.45 23.47 5.94 19.40 13.33 19.36	2.14 -0.95 -0.62 0.06 5.68 12.00 17.93 21.96 13.13	-1.82 -2.01 -2.33 6.97 10.80 18.71 19.65 20.38 0.62
Infectious and parasitic diseases MN larynx and trachea/bronchus/lung MN smoking related MN gynaecological MN other and remaining Ischemic heart disease Other Heart diseases Cerebrovascular disease Respiratory system Transport accidents	6.42 -1.83 -5.18 -11.45 23.47 5.94 19.40 13.33 19.36 1.75	2.14 -0.95 -0.62 0.06 5.68 12.00 17.93 21.96 13.13 1.40	-1.82 -2.01 -2.33 6.97 10.80 18.71 19.65 20.38 0.62 3.57
Infectious and parasitic diseases MN larynx and trachea/bronchus/lung MN smoking related MN gynaecological MN other and remaining Ischemic heart disease Other Heart diseases Cerebrovascular disease Respiratory system Transport accidents Suicide	6.42 -1.83 -5.18 -11.45 23.47 5.94 19.40 13.33 19.36 1.75 -0.95	2.14 -0.95 -0.62 0.06 5.68 12.00 17.93 21.96 13.13 1.40 0.55	-1.82 -2.01 -2.33 6.97 10.80 18.71 19.65 20.38 0.62 3.57
Infectious and parasitic diseases MN larynx and trachea/bronchus/lung MN smoking related MN gynaecological MN other and remaining Ischemic heart disease Other Heart diseases Cerebrovascular disease Respiratory system Transport accidents Suicide Remaining external causes	6.42 -1.83 -5.18 -11.45 23.47 5.94 19.40 13.33 19.36 1.75 -0.95 0.26	2.14 -0.95 -0.62 0.06 5.68 12.00 17.93 21.96 13.13 1.40 0.55 6.59	-1.82 -2.01 -2.33 6.97 10.80 18.71 19.65 20.38 0.62 3.57 1.90 3.39
Infectious and parasitic diseases MN larynx and trachea/bronchus/lung MN smoking related MN gynaecological MN other and remaining Ischemic heart disease Other Heart diseases Cerebrovascular disease Respiratory system Transport accidents Suicide Remaining external causes Alcohol related	6.42 -1.83 -5.18 -11.45 23.47 5.94 19.40 13.33 19.36 1.75 -0.95 0.26 -0.68	2.14 -0.95 -0.62 0.06 5.68 12.00 17.93 21.96 13.13 1.40 0.55 6.59 0.95	-1.82 -2.01 -2.33 6.97 10.80 18.71 19.65 20.38 0.62 3.57 1.90 3.39 1.75
Infectious and parasitic diseases MN larynx and trachea/bronchus/lung MN smoking related MN gynaecological MN other and remaining Ischemic heart disease Other Heart diseases Cerebrovascular disease Respiratory system Transport accidents Suicide Remaining external causes	6.42 -1.83 -5.18 -11.45 23.47 5.94 19.40 13.33 19.36 1.75 -0.95 0.26	2.14 -0.95 -0.62 0.06 5.68 12.00 17.93 21.96 13.13 1.40 0.55 6.59	-1.82 -2.01 -2.33 6.97 10.80 18.71 19.65 20.38 0.62 3.57 1.90 3.39

Source: NIDI Netherlands.

Not all Member States have succeeded to the same extent in reducing mortality; significant differences, therefore, remain in life expectancy at birth, as shown by the black section of the bars in Figures 1.4 and 1.5, which indicate life expectancy at birth for women and men respectively. As people reach a certain age, having survived so far, they can expect to live to a higher age than was predicted at birth.

The figures show the age up to which people can expect to live once they have reached the age of 1, 20, 40, 60, 70 and 80 years. The amount that is added to life expectancy between two ages directly reflects mortality between the ages concerned. The small increments in life expectancy (expressed as the age to which a person can expect to live) up to the age of 40 show that mortality risks have been largely eliminated during the first half of the life cycle. Thus, further gains in life expectancy will have to be achieved by reducing mortality in the second half of the life cycle.

However, there is considerable potential for improvement in several EU-12 Member States. Romania could gain about one year of life expectancy by reducing infant mortality to the EU average. As far as women are concerned, there is scope for reducing mortality between 60 and 70 in the Baltic countries and Hungary, in particular. The biggest gains in life expectancy seem possible for men aged 60 to 70, again in the Baltic countries, Bulgaria Hungary, Poland, Romania and Slovakia.

Figure 1.4: Life expectancy at different ages for women, 2004

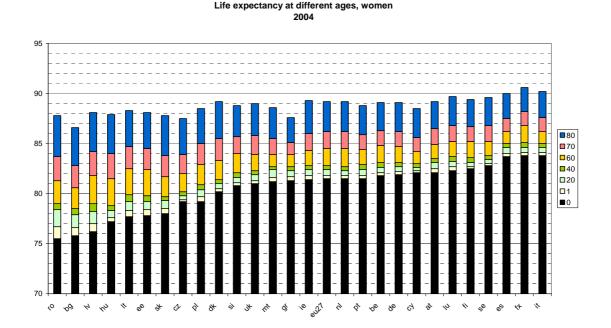
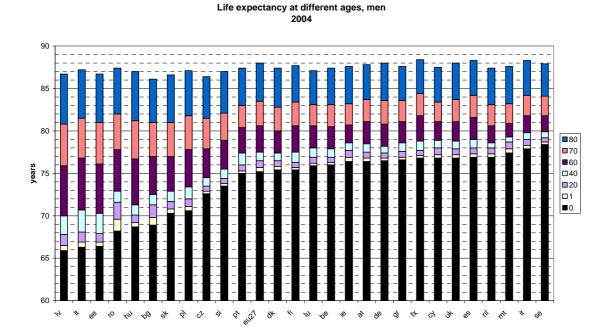


Figure 1.5: Life expectancy at different ages for men, 2004



Source: Eurostat demographic data.

The figures illustrate the East-West gap in life expectancy. In 2005, boys born in EU-15 could expect to live on average 6.5 years longer than their counterparts in EU-12. The gap was smaller for girls, but still amounted to 4 fewer life years for girls born in EU-12. This implies a larger gender gap in life expectancy at birth in EU-12: in 2005 it was 8.1 years, with men expecting to live 69.9 years and women 78.0 years. In EU-15, the gender gap was 5.7 years (life expectancy for men 76.4 years and 82.1 for women). The gender

gap in life expectancy at birth for individual Member States is presented in Figure 1.6. The smallest gender gaps (less than 5 years) were observed in Denmark, Greece, Ireland, the Netherlands, Sweden and the United Kingdom.

Gender difference in life expenctancy in years in 2005 12 10 8 ☐ difference in years 6 Malta Slovakia Slovenia Austria Ireland Estonia Bulgaria France Italy (data from 2004) Belgium Sweden Poland Finland Spain Portugal Czech Republic uxembourg Denmark Netherlands United Kingdom Romania Germany

Figure 1.6: The gender gap in life expectancy at birth, in 2005

Source: Eurostat demographic data.

The problem that many EU-12 countries are facing is premature mortality of middle-aged men. Figure 1.7 presents the proportion of male and female deaths within the age group 40-64 in 2005 as a percentage of total deaths. Across the EU, men in this age group contribute more to the total number of deaths than women, but for the Central and East European EU-12 countries, this is particularly striking.

Deaths in the age group 40-64 as a percentage of total deaths

40%
35%
25%
20%
15%
10%
1t iv hu pl ee sk cz ro fi bg si lu fx at dk de be pt nl es uk cy gr se

Figure 1.7: Proportion of deaths for men and women aged 40-64 in total deaths, in 2005

Source: Eurostat demographic data.

Another important disparity with regard to life expectancy, apart from the East-West and the gender divides, is linked to socio-economic status. A comprehensive overview of the evidence shows that in all 10 countries examined, mortality of the lowest socio-economic categories is 30 to 60% higher than for the highest socio-economic categories. The difference for men is larger than for women. Socio-economic status was measured by the educational attainment level, manual versus professional levels of occupation or housing quality. As shown by Table 1.8, a socio-economic gradient exists for most health indicators including life expectancy at birth. On average, less advantaged groups have shorter lives, suffer more from diseases and feel their health to be worse than more advantaged groups.

The gap in average life expectancy at birth between men from the highest and the lowest socio-economic groups is 4 to 6 years; for women, it amounts to 2 to 4 years. In some countries, these differences are considerably larger (as much as 10 years), and in many countries the gap has widened over the past three decades. People with lower education not only live shorter lives but they spend also more time in poorer health.

The issue of health inequalities is high on the agenda for the Open Method of Coordination on social protection and social inclusion. One of the common objectives agreed within this context calls for inequalities in access to care and in health outcomes to be addressed. The 2008 Joint Report on Social Protection and Social Inclusion by the European Commission and the Council²⁰ underlined that "On average, people with lower levels of education, wealth or occupational status have shorter lives and suffer more often from disease and illness than more well-off groups and these gaps are not

Makenbach J. et.al. (2005) *Health inequalities: Europe in Profile*, Report published under the auspices of the UK presidency of the EU (October 2005).

²⁰ See SEC(2008)91 and COM(2008)42 final

declining. Income inequality, poverty, unemployment, stress, poor working conditions and housing are important determinants of health inequalities, as are lifestyle and willingness and ability to bear the costs."

The Joint Report also stressed that "a combination of general policies and those tailored to lower socio-economic groups is needed" and that few Member States "have begun to address health inequalities systematically and comprehensively by reducing social differences, preventing the ensuing health differences, or addressing the poor health that results". Monitoring progress towards these goals requires further work to develop reliable and comparable indicators for life expectancy, healthy life years and infant mortality by socio-economic status.

Table 1.8: Inequalities in mortality by socio-economic status in 19 European countries*

Country	Indicator of	Period	Age-	Rate	Ratio ^b	Source
	socio- economic position		group -	Men	Women	
AT	Education	1991-1992	45+	1.43*	1.32*	National census-linked mortality follow-up
BE	Education	1991-1995	45+	1.34*	1.29*	National census-linked mortality follow-up
	Housing tenure	1991-1995	60-69	1.44*	1.43*	
CZ	Education	End 1990s	20-64	1.66*	1.09*	Unlinked cross-sectional study
DK	Education	1991-1995	60-69	1.28*	1.26*	National census-linked mortality follow-up
	Housing	1991-1995	60-69	1.64*	1.47*	National census-linked mortality follow-up
	tenure Occupation	1981-1990	45-59	1.33*	n.a.	
England/	Education	1991-1996	45+	1.35*	1.22*	National census-linked mortality follow-up
Wales	Housing	1991-1996	60-69	1.65*	1.58*	National census-linked mortality follow-up;
	tenure Occupation	1981-1989	45-59	1.61*	n.a.	representative sample
EE	Education	2000	20+	2.38*	2.23*	National cross-sectional study
	Education	1988	20-74	1.50*	1.31*	National cross-sectional study
FI	Education	1991-1995	45+	1.33*	1.24*	National census-linked mortality follow-up
	Housing tenure	1991-1995	60-69	1.90*	1.73*	
FR	Education	1990-1994	60-69	1.31*	1.14	National census-linked mortality follow-up
	Housing	1990-1994	60-69	1.27*	1.25*	National census-linked mortality follow-up;
	tenure Occupation	1980-1989	45-59	2.15*	n.a.	representative sample
HU	Education	2002	45-64	1.97*	1.58*	Cross-sectionnal ecological analysis
	Occupation	1984-1985	45-64	1.61	1.33	National cross-sectional study
IE	Occupation	1980-1982	45-59	1.38*	n.a.	National cross-sectional study
IT	Education	1991-1996	45+	1.22*	1.20*	Urban census-linked mortality follow-up
	Housing	1991-1996	60-69	1.37*	1.33*	(Turin)
	tenure	1981-1982	18-54	1.85*	n.a.	National census-linked mortality follow-up
	Education Occupation	1981-1982	45-59	1.35*	n.a.	National census-linked mortality follow-up
LV	Education	1988-1989		1.50	1.20	National cross-sectional study
LT	Education	2001	25+	2.40*	2.90*	Unlinked cross-sectional analysis
NL	Education	1991-1997	25-74	1.92*	1.28	GLOBE Longitudinal study (Eindhoven)
NO	Education	1990-1995	45+	1.36*	1.27*	National census-linked mortality follow-up
	Housing	1990-1995	60-69	1.44*	1.36*	National census-linked mortality follow-up
	tenure	1980-1990	45-59	1.47*	n.a.	
	Occupation					
PL	Education	1988-1989	50-64	2.24	1.78	National cross-sectional study
PT	Occupation	1980-1982	45-59	1.36*	n.a.	National cross-sectional study
SI	Education	1991 & 2002	25-64	2.44	2.66	Unlinked cross-sectional study
ES	Education	1992-1996	45+	1.24*	1.27*	Urban and regional census-linked mortality
	Occupation	1980-1982	45-59	1.37*	n.a.	follow-up (Barcelona & Madrid) National cross-sectional study
SE	Occupation	1980-1986	45-59	1.59*	n.a.	National census-linked mortality follow-up
CH	Education	1991-1995	45+	1.33*	1.27*	National census-linked mortality follow-up
	Occupation	1979-1982	45-59	1.37*	n.a.	National cross-sectional study

a Because of differences in data collection and classification, the magnitude of inequalities in health cannot always directly be compared between countries.

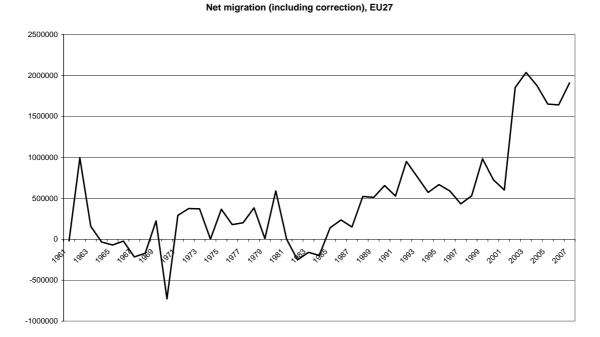
Source: Mackenbach J. et. al. (2005) Health inequalities: Europe in profile, Erasmus University Rotterdam

b Rate Ratio: ratio of mortality rate in lower socio-economic groups as compared to that in higher socio-economic groups. Asterisk (*) indicates that difference in mortality between socio-economic groups is statistically significant. N.a. indicates 'not available'.

1.3. Migration

In 2005, an estimated 1.6 million more people migrated to the European Union (EU-27) than from it. Migration represents a much larger contribution to current population growth than the difference between births and deaths recorded on the territories of the EU-27 Member States. Since the late 1980s, almost every year, EU-27 countries have attracted at least half a million more people than it lost due to emigration. Net migration to the EU has been particularly strong in recent years, reaching up to two million people per year in 2004 (see Figure 1.8)²¹.

Figure 1.8: Net migration (including correction) to EU-27 between 1961 and 2007



Source: Eurostat demographic data.

The population change due to migration is very unevenly distributed across the EU. Table 1.9 shows net migration for individual EU Member States. In recent years, Spain, Italy and the UK have received around three-quarters of the EU's migratory surplus. In Germany, which increased its population by a quarter of a million in 1996, the number was down to just below 50,000 in 2007.

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Net migration is the difference between immigration into and emigration from the area during the year. It is therefore negative when the number of emigrants exceeds the number of immigrants. Since most countries either do not have accurate figures on immigration and emigration or have no figures at all, net migration is estimated on the basis of the difference between population change and natural increase between two dates. The statistics on net migration are therefore affected by all the statistical inaccuracies in the two components of this equation.

Table 1.9: Net migration including correction

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
EU-27	665,880	588,633	430,463	528,845	980,403	714,852	600,059	1,851,753	2,035,346	1,874,951	1,659,611	1,639,202	1,907,561
BE	1,828	15,012	9,676	11,824	16,067	14,349	35,586	40,536	35,467	35,759	50,806	53,357	62,327
BG*	0	1,089	0	0	1	0	-214,185	864	0	0	0	0	-1,397
CZ	9,999	10,129	12,075	9,488	8,774	6,539	-43,070	12,290	25,789	18,635	36,229	34,720	83,945
DK	28,665	17,499	11,989	10,996	9,379	10,094	12,022	9,614	7,025	4,962	6,734	10,118	20,229
DE	398,263	281,493	93,433	46,980	202,050	167,863	274,835	218,807	142,216	81,827	81,578	25,814	47,802
EE**	-15,564	-13,418	-6,927	-6,559	-1,144	224	167	157	140	134	140	164	160
IE	5,920	15,958	17,433	16,213	24,246	31,812	39,261	32,667	31,361	47,620	66,245	66,749	64,394
GR	77,285	70,975	61,409	54,818	45,016	29,401	37,779	38,015	35,382	41,388	39,974	39,995	41,000
ES	70,591	83,328	94,436	158,757	237,853	389,774	441,272	649,230	624,587	610,036	641,199	604,902	701,948
FR	:	:	:	-1,407	150,273	158,266	172,701	184,182	188,736	105,128	91,597	90,115	71,000
FX	-14,567	-18,504	-13,505	-6,424	145,802	155,706	170,711	180,541	185,709	105,000	95,000	91,020	70,000
IT	28,503	56,392	50,428	55,775	34,914	49,526	49,874	344,797	612,009	556,582	324,211	377,458	494,315
CY	6,000	5,300	4,800	4,200	4,200	3,960	4,650	6,883	12,342	15,724	14,421	8,666	12,784
LV	-13,713	-10,081	-9,420	-5,751	-4,085	-5,504	-5,159	-1,834	-846	-1,079	-564	-2,451	-642
LT	-23,668	-23,369	-22,421	-22,122	-20,739	-20,306	-2,559	-1,975	-6,304	-9,612	-8,782	-4,857	-5,244
LU	4,326	3,456	3,624	3,815	4,461	3,431	3,310	2,649	5,410	4,396	6,160	5,353	6,001
HU	17,906	17,876	17,561	17,261	16,793	16,658	9,691	3,538	15,556	18,162	17,268	21,309	14,042
MT	59	264	572	353	359	<u> </u>	2,173	1,743	1,667	1,920	1,612	2,135	2,014
NL	14,929	21,258	30,425	44,107	43,767	57,033	55,984	27,559	7,099	-9,960	-22,824	-25,903	-1,644
AT	2,080	3,880	1,537	8,451	19,787	17,272	43,509	34,761	38,212	61,726	56,400	29,379	31,382
PL	-18,223	-12,765	-11,796	-13,261	-14,011	-409,924	-16,743	-17,945	-13,765	-9,382	-12,878	-36,134	-20,485
PT	21,900	25,880	28,886	31,874	38,000	47,000	65,000	70,000	63,500	47,282	38,400	26,044	19,500
RO	-21,217	-19,473	-13,345	-5,629	-2,516	-3,729	-557,739	-1,572	-7,406	-10,095	-7,234	-6,483	745
SI	777	-3,445	-1,303	-5,406	10,773	2,747	4,963	2,207	3,530	1,719	6,436	6,267	14,134
SK	2,842	2,255	1,731	1,306	1,454	-22,301	1,012	901	1,409	2,874	3,403	3,854	6,793
FI	4,285	3,938	4,808	4,451	3,427	2,410	6,147	5,257	5,803	6,721	9,152	10,600	13,877
SE	11,648	5,839	5,950	10,940	13,657	24,386	28,622	30,854	28,686	25,326	26,724	50,769	53,978
UK	65,026	47,867	58,407	97,371	137,647	143,871	150,956	157,568	177,741	227,158	193,258	247,262	174,603

^{*} Migration flows have not been considered when estimating annual total population.

** Net migration including correction figures represent only corrections due to vital events.

Note: High negative net migration for BG, CZ and RO in 2001 and for PL and SK in 2000 is due to Census.

Source: Eurostat demographic data.

The biggest flow by far -3 million people - concerns migrants from third countries migrating to the EU, most of them (2.6 million) to EU-15 countries. The EU has thus become a major destination for global migration flows, surpassing even the US.

However, migration not only occurs from third countries to the EU. The net migration figures presented in Table 1.9 mask important migratory flows within the EU. Table 1.10 presents a matrix of estimated flows in 2004 for EU-25, EU-15, EU-10 and the rest of the world. About 2.3 million people emigrated from an EU-25 country, about half to another EU-25 country and half leaving the EU. Around one-third of the intra-EU migration (0.4 million) originated from EU-10 countries with most migrants (0.3 million) moving to an EU-15 country. At the same time, 0.2 million people moved from an EU-15 to an EU-10 country.

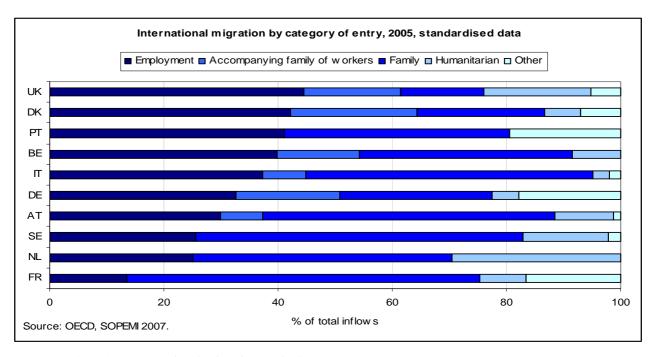
Table 1.10: Migration flows in the EU for 2004, in millions

	То				
From	EU-25	EU-15	EU-10	Non-EU	Total
EU-25	1.1	0.8	0.3	1.2	2.3
EU-15	0.7	0.5	0.2	0.9	1.6
EU-10	0.4	0.3	0.1	0.3	0.6
Non-EU	3.0	2.6	0.4		3.0
Total	4.1	3.3	0.7	1.2	5.3

Source: Demography Monitor 2006, NIDI Netherlands, European Observatory on Demography and the Social Situation- Demography Network, European Commission

Migrants may come to Europe for different reasons: to seek employment, rejoin family members or flee persecution or humanitarian disasters. The OECD collects data on different motives for entry, showing that, in several countries, family reasons are more important than the search for employment (see Figure 1.9).

Figure 1.9: International migration by category of entry, 2005*



Source: OECD (2007) International Migration Outlook SOPEMI.

Immigration to the EU has resulted in a significant proportion of third-country nationals in the EU's population. Moreover, many of those who have acquired citizenship may still be perceived as migrants or see themselves as not fully integrated in their host societies. Table 1.11 shows the proportion of non-nationals living in each Member State, also distinguishing between EU-27 citizens and non-EU citizens. At the beginning of 2007, around 4% of the EU's resident population were non-EU citizens, compared to 2.1% of EU citizens living in an EU country other than their country of citizenship. The proportion of non-EU citizens is relatively high (5% or higher) in Germany, Greece, Spain, Cyprus, Luxembourg and Austria. In the case of Estonia and Latvia, the proportion of non-EU citizens is particularly large (almost one fifth) due to the presence of so-called "recognised aliens", who have no citizenship of any existing country, Russian citizens and citizens of other countries that became independent after the end of the USSR²².

Table 1.11: The EU-27 population by citizenship, 1st January 2007

	Total	of which no	n-nationals	As percer	nt of the	Acquisitions	of citizenship
	population			total pop			2006
		non-EU-27	EU-27	non-EÜ- 27	EU-27	Total	as% of third- country nationals
BE	10,584,534	300,816	631,345	2.8	6.0	:	:
BG	7,679,290	21,690	3,800	0.3	0.0	6,738	31.1
CZ	10,287,189	186,370	109,866	1.8	1.1	2,346	1.3
DK	5,447,084	196,877	81,219	3.6	1.5	7,961	4.0
DE	82,314,906	4,788,792	2,467,157	5.8	3.0	124,566	2.6
EE	1,342,409	229,709	6,700	17.1	0.5	4,781	2.1
IE	4,312,526	141,156	311,150	3.3	7.2	5,763	4.1
GR	11,171,740	729,840	157,700	6.5	1.4	1,962	0.3
ES	44,474,631	2,856,796	1,749,678	6.4	3.9	62,375	2.2
FR	63,392,140	2,369,540	1,280,500	3.7	2.0	147,868	6.2
IT*	59,131,287	2,332,734	606,188	4.0	1.0	35,266	1.4
CY	778,684	47,184	70,900	6.1	9.1	:	:
LV	2,281,305	426,687	6,264	18.7	0.3	18,964	4.4
LT	3,384,879	37,354	2,333	1.1	0.1	467	1.3
LU	476,187	27,227	170,986	5.7	35.9	1,128	4.1
HU	10,066,158	66,827	101,046	0.7	1.0	6,101	9.1
MT	407,810	4,610	9,267	1.1	2.3	474	10.3
NL	16,357,992	437,014	244,918	2.7	1.5	29,089	6.7
AT	8,298,923	550,129	275,884	6.6	3.3	25,746	4.7
PL	38,125,479	30,955	23,928	0.1	0.1	989	3.2
PT	10,599,095	339,295	95,600	3.2	0.9	3,627	1.1
RO	21,565,119	20,095	5,974	0.1	0.0	29	0.1
SI	2,010,377	50,549	3,006	2.5	0.1	3,204	6.3
SK	5,393,637	12,912	19,218	0.2	0.4	1,125	8.7
FI	5,276,955	79,277	42,462	1.5	0.8	4,433	5.6
SE	9,113,257	266,509	225,487	2.9	2.5	51,239	19.2
UK	60,852,828	2,203,028	1,456,900	3.6	2.4	154,015	7.0

*IT: Population numbers for 2006 Source: Eurostat demographic data.

In 2006, around 670 000 third-country nationals and 60 000 European Union citizens acquired the citizenship of an EU Member State. This is the same order of magnitude as for the US (703 000 in 2006)²³. EU citizens living in another Member State other than their own enjoy

See for a more elaborate discussion of net migration and intra EU mobility the forthcoming 2008 Employment in Europe Report.

Source: US Department of Homeland Security, Office of Immigration Statistics, http://www.dhs.gov/xlibrary/assets/statistics/publications/natz_fr_07.pdf

most of the same rights as citizens of the Member State in which they live. Few of them may feel the need to acquire citizenship of another EU Member State.

Box 1.2: International adoptions – how important are they from a demographic perspective?

It has been estimated that there have been some 20 000 international adoptions in the EU in 2004 – a small number compared to the total number of births or the EU's population growth resulting from net migration. The main receiving countries in the EU seem to be Spain, France, Italy and, particularly relative to their population size, Sweden and the Netherlands.

Table 1.12: Receiving countries with the highest number of international adoptions

Country	1988	1998	2001	2003	2004
US	9,120	15,774	19,237	21,616	22,884
France	2,441	3,777	3,094	3,995	4,079
Italy	2,078	2,233	1,797	2,772	3,398
Canada	232 ¹	2,222	1,874	2,181	1,955
Spain	93 ²	1,487	3,428	3,951	5,541
Sweden	1,074	928	1,044	1,046	1,109
Germany	875 ³	922	798	674	506
Netherlands	577	825	1,122	1,154	1,307
Switzerland	492	686	457	366	557
Norway	566	643	713	714	706
Denmark	523	624	631	522	528
Belgium	662	310	255	281	470
Australia	516	245	289	278	370
Finland	78	181	218	238	289
Total 14 countries	19,327	30,801	34,870	39,696	43,699
Estimate for 20 main receiving countries	n.a.	31,720	35,903	40,791	44,875

Source: Selman P. (2005), "Trends in Inter-country Adoption: Analysis of data from 20 Receiving Countries, 1998-2004", *Journal of Population Research*, vol. 23, No. 2/2006.

The main countries of origin of children adopted into 16 EU countries in 2003 were:

China	3,205
Russia	2,321
Colombia	1,433
Ukraine	1,234
Bulgaria	753
Ethiopia	659
Haiti	656
India	579
Vietnam	505
Brazil	439

Source: Selman P (2007), Trends in inter-country adoption 1998-2004. A demographic analysis of data from 20 receiving countries, Journal of Population Research, special issue on "Globalisation and Demographic Change"

The conclusion is therefore that international adoptions may have a major impact on the welfare of the children and the parents concerned, but their number is small. It is not a phenomenon that has a sizable demographic impact on either the sending or the receiving countries.

1.4. Europe's demographic future

This section presents the latest population projections for the European Union (EUROPOP2008 convergence scenario) and looks at some of the differences compared with the previous round of projections, carried out in 2004 (EUROPOP2004). The results of these projections are reflected in the population pyramids presented earlier in this chapter.

Demography is an area in which projections are carried out over a much longer term than in most other areas of concern to policy makers. Projections are conditional "if ..then" statements and they result of explicit assumptions that are extended far into the future. For cohorts already born, long-term projections can be quite reliable. Barring major disasters (resulting in much increased mortality or strong migratory movements), the size as well as the gender and age structure of the older cohorts can be foreseen fairly accurately. However, over a period of half a century, the projections are very sensitive to the assumptions made regarding fertility, mortality (life expectancy) and in particular migration.

For the EUROPOP2008 convergence scenario, a new conceptual framework was adopted to establish reasonable assumptions about these key determinants, taking into account the current situation, which differs widely across the EU. It would be unreasonable to assume that these differences will always prevail. The EUROPOP2008 convergence scenario is therefore based on a framework where the socio-economic and cultural differences between the Member States would fade away in the very long term. Assumptions on fertility rates for individual countries are based on a convergence trajectory whereby they would equalise across the EU by 2150. For migration, a trend towards zero net migration by 2150 is assumed. Similarly, equalisation of life expectancy across countries is assumed to take place in the very long term.

1.4.1. Fertility assumptions

The EUROPOP2008 convergence scenario is based on the expectation that fertility will rise slightly to around 1.7 children per women. By the end of the projection period (2060), significant differences in fertility are expected to persist, as shown in Figure 1.10.

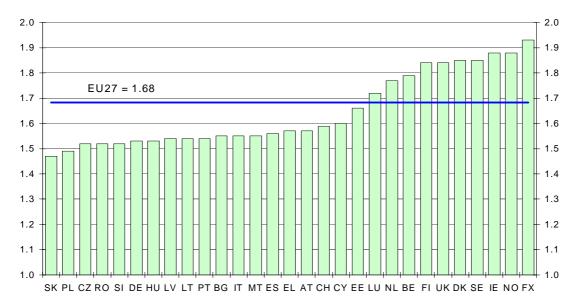


Figure 1.10: Assumed Period Total Fertility Rates in 2060

Source: Eurostat demographic data.

Table 1.13 presents assumed fertility rates for individual countries at 10-year intervals, showing the gradual convergence process. The assumption takes into account the possibility that fertility rates may be underestimated in countries that are currently experiencing an increase in the mean age of mothers at the birth of their first child (see section 1.1 above), but it may still underestimate rates in many EU-12 countries, where postponement could currently have a strong impact on projections. Indeed, compared to EUROPOP2004, the fertility assumptions for EU-12 have been revised downwards from 1.6 to 1.5, whereas those for EU-15 have been raised by 0.1 from 1.6 to 1.7. As a result, the EUROPOP2008 convergence scenario assumes less convergence over the projection period between EU-12 and EU-15 than was the case in EUROPOP2004 (see Figure 1.11).

Table 1.13: Period Total Fertility Rate Assumptions 2008-2060

	2008	2010	2020	2030	2040	2060
BE	1.75	1.76	1.76	1.77	1.78	1.79
BG	1.38	1.39	1.42	1.46	1.49	1.55
CZ	1.33	1.34	1.38	1.41	1.45	1.52
DK	1.85	1.85	1.85	1.85	1.85	1.85
DE	1.34	1.35	1.38	1.42	1.45	1.53
EE	1.55	1.55	1.57	1.60	1.62	1.66
IE	1.90	1.90	1.90	1.89	1.89	1.88
GR	1.41	1.41	1.45	1.48	1.51	1.57
ES	1.39	1.39	1.43	1.46	1.49	1.56
FX	1.98	1.98	1.97	1.96	1.95	1.93
IT	1.38	1.39	1.42	1.46	1.49	1.55
CY	1.45	1.46	1.49	1.52	1.54	1.60
LV	1.36	1.36	1.40	1.43	1.47	1.54
LT	1.35	1.35	1.39	1.43	1.47	1.54
LU	1.65	1.65	1.67	1.68	1.70	1.72
HU	1.35	1.35	1.39	1.42	1.46	1.53
MT	1.38	1.39	1.42	1.46	1.49	1.55
NL	1.72	1.72	1.73	1.74	1.75	1.77
AT	1.41	1.42	1.45	1.48	1.51	1.57
PL	1.27	1.28	1.32	1.36	1.40	1.49
PT	1.36	1.37	1.40	1.44	1.47	1.54
RO	1.32	1.33	1.37	1.41	1.44	1.52
SI	1.32	1.33	1.37	1.40	1.44	1.52
SK	1.25	1.26	1.30	1.34	1.38	1.47
FI	1.84	1.84	1.84	1.84	1.84	1.84
SE	1.85	1.85	1.85	1.85	1.85	1.85
UK	1.84	1.84	1.84	1.84	1.84	1.84

Source: Eurostat, EUROPOP2008 convergence scenario.

2,4 2.1 1,8 1,5 1980 2000 2030 2040 1990 2010 2020 2050 EU-15 obs EU-15 EP08 EU-12 EP08 - - EU-12 EP04

Figure 1.11: Total fertility rate (TFR), 1980-2006 observed, 2008-2050 projected

Source: NIDI based on Eurostat demographic data.

1.4.2. Life expectancy assumptions

The EUROPOP2008 convergence scenario assumes an increase in life expectancy at birth to 84.5 years for men (75.2 in 2004) and 89.0 years for women (81.5 in 2004) by the year 2060 (see Figure 1.12). Compared to 2004, this represents a gain of 9.3 years for men and 7.5 years for women. The gender gap would narrow from 6.3 to 4.5 years. The East-West gap would also be reduced.

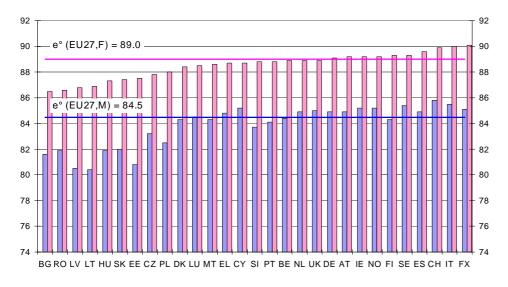


Figure 1.12: Life expectancy at birth in 2060 for men and women

The development of life expectancy over coming decades in the Member States is presented in Table 1.14. Men would typically gain about 1.5 years per decade, 2 or more years in the countries that currently have the lowest life expectancy. For women, the increments would be slightly smaller, in line with the expected reduction in the gender gap.

Table 1.14: Assumed life expectancy at birth

BE 76.7 77.0 78.7 80.2 81.7 84.6 CZ 73.9 74.3 76.3 77.5 81.6 CZ 73.9 74.3 76.3 78.1 79.9 83.2 DK 76.4 76.8 78.4 80.0 81.5 84.3 DE 77.3 77.6 79.3 80.8 82.3 84.9 EE 68.0 68.6 71.4 74.0 76.5 80.8 EE 77.4 77.7 79.5 81.1 82.5 85.2 GR 77.4 77.7 79.4 80.9 82.3 84.8 ES 77.4 77.7 79.4 80.9 82.3 84.9 FX 77.5 77.8 79.5 81.0 82.3 84.9 FX 77.5 77.8 79.5 81.0 82.3 85.2 CY 78.2 78.5 80.0 81.7 83.1 85.2	MEN	2008	2010	2020	2030	2040	2060
CZ 73.9 74.3 76.3 78.1 79.9 83.2 DE 77.3 77.6 79.3 80.8 82.3 84.9 EE 68.0 68.6 71.4 74.0 76.5 80.8 IE 77.5 77.9 79.5 81.1 82.5 85.2 GR 77.4 77.7 79.4 80.9 82.3 84.9 ES 77.4 77.7 79.4 80.9 82.3 84.9 FX 77.5 77.8 79.5 81.0 82.5 85.5 CY 78.2 78.5 78.9 80.3 81.7 83.1 85.5 CY 78.2 78.5 80.0 81.5 82.8 85.5 LT 65.9 66.6 69.8 72.8 75.6 80.5 LU 76.3 76.7 78.5 80.2 81.7 84.5 HU 79.3 76.7 78.2 79.9 81.5							
CZ 73.9 74.3 76.3 78.1 79.9 83.2 DE 77.3 77.6 79.3 80.8 82.3 84.9 EE 68.0 68.6 71.4 74.0 76.5 80.8 IE 77.5 77.9 79.5 81.1 82.5 85.2 GR 77.4 77.7 79.4 80.9 82.3 84.9 ES 77.4 77.7 79.4 80.9 82.3 84.9 FX 77.5 77.8 79.5 81.0 82.5 85.5 CY 78.2 78.5 78.9 80.3 81.7 83.1 85.5 CY 78.2 78.5 80.0 81.5 82.8 85.5 LT 65.9 66.6 69.8 72.8 75.6 80.5 LU 76.3 76.7 78.5 80.2 81.7 84.5 HU 79.3 76.7 78.2 79.9 81.5	BG						
DE 77.3 77.6 79.3 80.8 82.3 84.9 EE 68.0 68.6 71.4 74.0 76.5 80.8 IE 77.5 77.9 79.5 81.1 82.5 85.5 RS 77.4 77.7 79.4 80.9 82.3 84.8 ES 77.4 77.7 79.4 80.9 82.3 84.9 EX 75.6 80.0 81.7 83.1 85.5 LY 66.0 66.6 68.8 72.8 75.6 80.5 LT 65.9 66.6 69.8 72.8 75.6 80.5 LU 76.3 76.7 78.5 80.2 81.7 84.3 NL 69.7 70.2 72.9 75.4 77.7 81.9 81.0 89.7 81.1 82.5 84.9 NT 77.9 76.0 76.4 78.2 79.9 81.5 82.8 85.2 PT 77.4 77.8 79.4 80.9 82.3 84.9 PL 77.4 77.8 79.4 80.9 82.3 84.9 PT 75.8 76.2 78.0 79.7 81.1 82.5 84.9 PT 75.8 76.2 78.0 79.7 81.2 84.1 RO 69.8 70.3 73.0 75.5 77.8 81.9 SI 77.4 77.8 79.4 80.9 82.3 82.5 PT 75.8 76.2 78.0 79.7 81.2 84.1 RO 69.8 70.3 73.0 75.5 77.8 81.9 SI 77.4 77.8 79.4 80.9 82.4 85.0 WWOMEN 2008 2010 2020 2030 2040 2060 BE 82.3 82.6 76.7 77.1 79.3 81.3 83.1 86.5 CZ 80.2 80.5 82.1 83.7 85.1 85.9 87.4 89.1 EE 78.7 79.1 81.1 82.9 84.5 87.7 EE 82.6 82.9 84.3 85.3 86.5 87.7 ES 83.9 84.1 85.8 89.1 EE 81.9 82.2 83.8 85.3 86.5 87.7 ES 83.9 84.1 85.4 86.6 88.9 EE 83.9 84.1 85.4 86.6 88.9 EE 83.3 84.6 85.8 87.0 88.1 90.1 TT 77.4 77.9 99.0 81.5 83.4 86.6 88.9 EE 83.3 84.6 85.8 87.0 88.1 90.1 TT 84.2 84.5 85.9 84.4 84.2 87.3 84.1 85.4 86.6 88.9 89.1 EE 78.7 79.1 81.1 82.9 84.5 85.9 88.4 18.5 83.9 86.5 87.7 89.1 89.1 89.1 89.1 89.1 89.1 89.1 89.1							
DE 77.3 77.6 79.3 80.8 82.3 84.9 EE 68.0 68.6 71.4 77.9 79.5 81.1 82.5 85.2 GR 77.4 77.8 79.4 80.9 82.3 84.8 ES 77.4 77.7 79.4 80.9 82.3 84.9 FX 77.5 77.8 79.5 81.0 82.5 85.1 IT 78.5 78.9 80.3 81.7 83.1 85.5 CY 78.2 78.5 80.0 81.5 82.8 85.2 LV 66.0 66.6 69.8 72.8 75.6 80.4 LU 76.3 76.7 78.5 80.2 81.7 84.5 HU 69.7 70.2 72.9 75.4 77.7 81.9 MT 76.0 76.4 78.2 79.9 81.5 84.3 NL 77.9 78.2 79.7 81.1	DK					81.5	
IE							
IE	EE	68.0	68.6	71.4	74.0	76.5	80.8
ES 77.4 77.7 79.4 80.9 82.3 84.9 FX 77.5 77.8 79.9 80.3 81.0 82.5 85.1 IT 78.5 78.9 80.3 81.7 83.1 85.5 CY 78.2 78.5 80.0 81.5 82.8 85.2 LV 66.0 66.6 69.8 72.8 75.6 80.5 LU 76.3 76.7 78.5 80.2 81.7 84.5 HU 69.7 70.2 72.9 75.4 77.7 81.9 MT 76.0 76.4 78.2 79.9 81.5 84.9 HU 69.7 70.2 72.9 75.4 77.7 81.9 MT 76.0 76.4 78.2 79.9 81.5 84.9 PL 71.4 77.8 79.4 80.9 82.3 84.9 PL 71.4 71.9 79.0 79.7 81.2	IE		77.9	79.5	81.1	82.5	85.2
FX	GR	77.4	77.8	79.4	80.9	82.3	84.8
IT 78.5 78.9 80.3 81.7 83.1 85.5 CY 78.2 78.5 80.0 81.5 82.8 85.2 LV 66.0 66.6 69.8 72.8 75.6 80.5 LT 66.9 66.6 69.8 72.8 75.6 80.5 LU 76.3 76.7 78.5 80.2 81.7 84.5 HU 69.7 70.2 72.9 75.4 77.7 81.9 MT 76.0 76.4 78.2 79.9 81.5 84.4 AT 77.9 78.2 79.7 81.1 82.5 84.9 AT 77.4 77.8 79.4 80.9 82.3 84.9 PL 71.4 77.9 78.2 78.0 79.7 81.2 84.1 RO 69.8 70.3 73.0 75.5 77.8 81.9 SI 74.7 75.1 77.1 78.9 80.6	ES	77.4	77.7	79.4	80.9	82.3	84.9
CY 78.2 78.5 80.0 81.5 82.8 85.2 LV 66.0 66.6 69.8 72.8 75.6 80.5 LT 65.9 66.6 69.8 72.8 75.6 80.4 LU 76.3 76.7 78.5 80.2 81.7 84.5 HU 69.7 70.2 72.9 75.4 77.7 81.5 MT 76.0 76.4 78.2 79.7 81.1 82.5 84.9 NL 77.9 78.2 79.7 81.1 82.5 84.3 NL 77.9 78.2 79.7 81.1 82.5 84.9 AT 77.4 77.8 79.4 80.9 82.3 84.9 PL 71.4 71.9 74.3 76.6 78.8 82.5 PT 75.8 76.2 78.0 79.7 81.2 84.1 SI 74.7 75.1 77.1 78.3 79.9	FX	77.5	77.8	79.5	81.0	82.5	85.1
LV 66.0 66.6 69.8 72.8 75.6 80.5 LT 65.9 66.6 69.8 72.8 75.6 80.4 LU 76.3 76.7 78.5 80.2 81.7 84.5 HU 69.7 70.2 72.9 75.4 77.7 81.9 MT 76.0 76.4 78.2 79.9 81.5 84.3 NL 77.9 78.2 79.7 81.1 82.5 84.9 AT 77.4 77.8 79.4 80.9 82.3 84.9 PL 71.4 77.9 74.3 76.6 78.8 82.5 PT 75.8 76.2 78.0 79.7 81.2 84.1 RO 69.8 70.3 73.0 75.5 77.8 81.9 SI 74.7 75.1 77.1 78.9 80.6 83.7 SK 70.9 71.4 73.8 76.0 78.9 80.6 83.7 SK 70.9 71.4 73.8 76.0 78.2 82.0 FI 76.1 76.5 78.3 79.9 81.5 84.3 LUK 77.4 77.7 79.4 80.9 82.4 85.0 WOMEN 2008 2010 2020 2030 2040 2060 BE 82.3 82.6 84.0 85.4 86.6 88.9 BG 76.7 77.1 79.3 81.3 83.1 85.4 UK 77.4 77.7 79.1 83.3 83.1 86.5 CZ 80.2 80.5 82.1 83.7 85.1 87.8 DE 82.6 82.9 84.3 85.6 86.8 89.1 EE 78.7 79.1 81.1 82.9 84.5 87.2 GR 82.6 82.9 84.3 85.6 86.8 89.1 EE 78.7 79.1 81.1 82.9 84.5 87.7 ES 83.9 84.1 85.4 86.5 87.6 89.6 FX 84.3 84.6 85.8 87.0 88.0 90.0 CY 81.7 82.2 82.0 83.5 82.1 83.7 85.1 87.8 UK 81.9 82.2 83.8 85.3 86.7 89.2 UK 81.0 81.4 83.0 84.5 85.9 88.4 UK 77.4 77.7 79.1 81.1 82.9 84.5 87.7 ES 83.9 84.1 85.6 86.8 89.1 EE 78.7 79.1 81.1 82.9 84.5 87.7 ES 83.9 84.1 85.4 86.5 87.6 89.6 FX 84.3 84.6 85.8 87.0 88.1 90.1 IT 84.2 84.5 85.7 86.9 88.0 90.0 CY 81.7 82.2 82.8 84.1 85.3 86.5 87.7 ES 83.9 84.1 85.4 86.5 87.6 89.6 FX 84.3 84.6 85.8 87.0 88.1 90.1 IT 84.2 84.5 85.7 86.9 88.0 90.0 CY 81.7 82.2 82.5 83.9 85.3 86.7 89.2 UV 76.7 77.1 79.4 81.5 83.7 86.9 UV 76.7 77.1 79.4 81.5 83.4 86.8 UV 77.4 77.9 80.0 81.9 83.7 86.9 UV 76.7 77.1 79.4 81.5 83.4 86.8 UV 77.4 77.9 80.0 81.9 83.7 86.9 UV 76.7 77.1 79.4 81.5 83.4 86.8 UV 77.4 77.9 80.0 81.9 83.7 86.9 UV 81.2 84.5 85.7 86.9 88.0 90.0 CY 81.7 82.2 82.5 83.9 85.3 86.6 88.9 PT 82.4 82.7 84.1 85.4 86.6 88.8 SK 78.7 79.1 81.0 82.7 84.4 87.4 FI 83.0 83.3 84.7 85.9 87.1 89.3			78.9	80.3	81.7	83.1	85.5
LT							
LU			66.6				80.5
HU 69.7 70.2 72.9 75.4 77.7 81.9 MT 76.0 76.4 78.2 79.9 81.5 84.3 NL 77.9 78.2 79.7 81.1 82.5 84.9 AT 77.4 77.8 79.4 80.9 82.3 84.9 PL 71.4 71.9 74.3 76.6 78.8 82.5 PT 75.8 76.2 78.0 79.7 81.2 84.1 RO 69.8 70.3 73.0 75.5 77.8 81.9 SI 74.7 75.1 77.1 78.9 80.6 83.7 SK 70.9 71.4 73.8 76.0 78.2 82.0 FI 76.1 76.5 78.3 79.9 81.5 84.3 SE 79.0 79.2 80.6 81.9 82.4 85.0 WOMEN 208 2010 2020 2030 2040 2060				69.8	72.8		
MT 76.0 76.4 78.2 79.7 81.1 82.5 84.9 AT 77.9 78.2 79.7 81.1 82.5 84.9 AT 77.4 77.8 79.4 80.9 82.3 84.9 PL 71.4 71.9 74.3 76.6 78.8 82.5 PT 75.8 76.2 78.0 79.7 81.2 84.1 RO 69.8 70.3 73.0 75.5 77.8 81.9 SI 74.7 75.1 77.1 78.9 80.6 83.7 SK 70.9 71.4 73.8 76.0 78.2 82.0 FI 76.1 76.5 78.3 79.9 81.5 84.3 SE 79.0 79.2 80.6 81.9 83.1 85.4 UK 77.4 77.7 79.4 80.9 82.4 85.0 WOMEN 2008 2010 2020 2030 2040							
NL 77.9 78.2 79.7 81.1 82.5 84.9 AT 77.4 77.8 79.4 80.9 82.3 84.9 PL 71.4 71.9 74.3 76.6 78.8 82.5 PT 75.8 76.2 78.0 79.7 81.2 84.1 RO 69.8 70.3 73.0 75.5 77.8 81.9 SI 74.7 75.1 77.1 78.9 80.6 83.7 SK 70.9 71.4 73.8 76.0 78.2 82.0 FI 76.1 76.5 78.3 79.9 81.5 84.3 SE 79.0 79.2 80.6 81.9 83.1 85.4 UK 77.4 77.7 79.4 80.9 82.4 85.0 WOMEN 2008 2010 2020 2030 2040 2060 BE 82.3 82.6 84.0 85.4 86.6 88.9	HU						
AT 77.4 77.8 79.4 80.9 82.3 84.9 PL 71.4 71.9 74.3 76.6 78.8 82.5 PT 75.8 76.2 78.0 79.7 81.2 84.1 RO 69.8 70.3 73.0 75.5 77.8 81.9 SI 74.7 75.1 77.1 78.9 80.6 83.7 SK 70.9 71.4 73.8 76.0 78.2 82.0 FI 76.1 76.5 78.3 79.9 81.5 84.3 SE 79.0 79.2 80.6 81.9 83.1 85.4 UK 77.4 77.7 79.4 80.9 82.4 85.0 WOMEN 2008 2010 2020 2030 2040 2060 BE 82.3 82.6 84.0 85.4 86.6 88.9 BG 76.7 77.1 79.3 81.3 83.1 86.5							
PL 71.4 71.9 74.3 76.6 78.8 82.5 PT 75.8 76.2 78.0 79.7 81.2 84.1 RO 69.8 70.3 73.0 75.5 77.8 81.9 SI 74.7 75.1 77.1 78.9 80.6 83.7 SK 70.9 71.4 73.8 76.0 78.2 82.0 FI 76.1 76.5 78.3 79.9 81.5 84.3 SE 79.0 79.2 80.6 81.9 83.1 85.4 UK 77.4 77.7 79.4 80.9 82.4 85.0 WOMEN 2008 2010 2020 2030 2040 2060 BE 82.3 82.6 84.0 85.4 86.6 88.9 BG 76.7 77.1 79.3 81.3 83.1 86.5 CZ 80.2 80.5 82.1 83.7 85.1 87.5							
PT 75.8 76.2 78.0 79.7 81.2 84.1 RO 69.8 70.3 73.0 75.5 77.8 81.9 SI 74.7 75.1 77.1 78.9 80.6 83.7 SK 70.9 71.4 73.8 76.0 78.2 82.0 FI 76.1 76.5 78.3 79.9 81.5 84.3 SE 79.0 79.2 80.6 81.9 83.1 85.4 UK 77.4 77.7 79.4 80.9 82.4 85.0 WOMEN 2008 2010 2020 2030 2040 2060 BE 82.3 82.6 84.0 85.4 86.6 88.9 BG 76.7 77.1 79.3 81.3 83.1 86.5 CZ 80.2 80.5 82.1 83.7 85.1 87.8 DK 81.0 81.4 83.0 84.5 85.9 88.4							
RO 69.8 70.3 73.0 75.5 77.8 81.9 SI 74.7 75.1 77.1 78.9 80.6 83.7 SK 70.9 71.4 73.8 76.0 78.2 82.0 FI 76.1 76.5 78.3 79.9 81.5 84.3 SE 79.0 79.2 80.6 81.9 83.1 85.4 UK 77.4 77.7 79.4 80.9 82.4 85.0 WOMEN 2008 2010 2020 2030 2040 2060 BE 82.3 82.6 84.0 85.4 86.6 88.9 BG 76.7 77.1 79.3 81.3 83.1 86.5 CZ 80.2 80.5 82.1 83.7 85.1 87.8 DK 81.0 81.4 83.0 84.5 85.9 88.4 DE 82.6 82.9 84.3 85.6 86.8 89.1							
SI 74.7 75.1 77.1 78.9 80.6 83.7 SK 70.9 71.4 73.8 76.0 78.2 82.0 FI 76.1 76.5 78.3 79.9 81.5 84.3 SE 79.0 79.2 80.6 81.9 83.1 85.4 UK 77.4 77.7 79.4 80.9 82.4 85.0 WOMEN 2008 2010 2020 2030 2040 2060 BE 82.3 82.6 84.0 85.4 86.6 88.9 BG 76.7 77.1 79.3 81.3 83.1 86.5 CZ 80.2 80.5 82.1 83.7 85.1 87.8 DK 81.0 81.4 83.0 84.5 85.9 88.4 DE 82.6 82.9 84.3 85.6 86.8 89.1 EE 78.7 79.1 81.1 82.9 84.5 87.5							
SK 70.9 71.4 73.8 76.0 78.2 82.0 FI 76.1 76.5 78.3 79.9 81.5 84.3 SE 79.0 79.2 80.6 81.9 83.1 85.4 UK 77.4 77.7 79.4 80.9 82.4 85.0 WOMEN 2008 2010 2020 2030 2040 2060 BE 82.3 82.6 84.0 85.4 86.6 88.9 BG 76.7 77.1 79.3 81.3 83.1 86.5 CZ 80.2 80.5 82.1 83.7 85.1 87.8 DK 81.0 81.4 83.0 84.5 85.9 88.4 DE 82.6 82.9 84.3 85.6 86.8 89.1 EE 78.7 79.1 81.1 82.9 84.5 87.5 IE 81.9 82.2 83.8 85.3 86.7 89.2							
FI 76.1 76.5 78.3 79.9 81.5 84.3 SE 79.0 79.2 80.6 81.9 83.1 85.4 UK 77.4 77.7 79.4 80.9 82.4 85.0 WOMEN 2008 2010 2020 2030 2040 2060 BE 82.3 82.6 84.0 85.4 86.6 88.9 BG 76.7 77.1 79.3 81.3 83.1 86.5 CZ 80.2 80.5 82.1 83.7 85.1 87.8 DK 81.0 81.4 83.0 84.5 85.9 88.4 DE 82.6 82.9 84.3 85.6 86.8 89.1 EE 78.7 79.1 81.1 82.9 84.5 87.5 IE 81.9 82.2 83.8 85.3 86.7 89.2 GR 82.6 82.8 84.1 85.3 86.5 87.7							
SE 79.0 79.2 80.6 81.9 83.1 85.4 UK 77.4 77.7 79.4 80.9 82.4 85.0 WOMEN 2008 2010 2020 2030 2040 2060 BE 82.3 82.6 84.0 85.4 86.6 88.9 BG 76.7 77.1 79.3 81.3 83.1 86.5 CZ 80.2 80.5 82.1 83.7 85.1 87.8 DK 81.0 81.4 83.0 84.5 85.9 88.4 DE 82.6 82.9 84.3 85.6 86.8 89.1 EE 78.7 79.1 81.1 82.9 84.5 87.5 IE 81.9 82.2 83.8 85.3 86.7 89.2 GR 82.6 82.8 84.1 85.3 86.5 87.5 IE 81.9 82.2 83.8 84.1 85.3 86.5							
UK 77.4 77.7 79.4 80.9 82.4 85.0 WOMEN 2008 2010 2020 2030 2040 2060 BE 82.3 82.6 84.0 85.4 86.6 88.9 BG 76.7 77.1 79.3 81.3 83.1 86.5 CZ 80.2 80.5 82.1 83.7 85.1 87.8 DK 81.0 81.4 83.0 84.5 85.9 88.4 DE 82.6 82.9 84.3 85.6 86.8 89.1 EE 78.7 79.1 81.1 82.9 84.5 87.5 IE 81.9 82.2 83.8 85.3 86.7 89.2 GR 82.6 82.8 84.1 85.3 86.5 87.6 89.6 FX 84.3 84.6 85.8 87.0 88.1 90.1 IT 84.2 84.5 85.7 86.9 88.0							
WOMEN 2008 2010 2020 2030 2040 2060 BE 82.3 82.6 84.0 85.4 86.6 88.9 BG 76.7 77.1 79.3 81.3 83.1 86.5 CZ 80.2 80.5 82.1 83.7 85.1 87.8 DK 81.0 81.4 83.0 84.5 85.9 88.4 DE 82.6 82.9 84.3 85.6 86.8 89.1 EE 78.7 79.1 81.1 82.9 84.5 87.5 IE 81.9 82.2 83.8 85.3 86.7 89.2 GR 82.6 82.8 84.1 85.3 86.5 87.7 ES 83.9 84.1 85.4 86.5 87.6 89.6 FX 84.3 84.6 85.8 87.0 88.1 90.1 IT 84.2 84.5 85.7 86.9 88.0 90.1							
BE 82.3 82.6 84.0 85.4 86.6 88.9 BG 76.7 77.1 79.3 81.3 83.1 86.5 CZ 80.2 80.5 82.1 83.7 85.1 87.8 DK 81.0 81.4 83.0 84.5 85.9 88.4 DE 82.6 82.9 84.3 85.6 86.8 89.1 EE 78.7 79.1 81.1 82.9 84.5 87.5 IE 81.9 82.2 83.8 85.3 86.7 89.2 GR 82.6 82.8 84.1 85.3 86.5 87.7 ES 83.9 84.1 85.4 86.5 87.6 89.6 FX 84.3 84.6 85.8 87.0 88.1 90.1 IT 84.2 84.5 85.7 86.9 88.0 90.0 CY 81.7 82.0 83.5 84.9 86.2 88.7 LV 76.7 77.1 79.4 81.5 83.4 86.8	l UK	77.4	77.7	79.4	80.9	82.4	85.0
BG 76.7 77.1 79.3 81.3 83.1 86.5 CZ 80.2 80.5 82.1 83.7 85.1 87.8 DK 81.0 81.4 83.0 84.5 85.9 88.4 DE 82.6 82.9 84.3 85.6 86.8 89.1 EE 78.7 79.1 81.1 82.9 84.5 87.5 IE 81.9 82.2 83.8 85.3 86.7 89.2 GR 82.6 82.8 84.1 85.3 86.5 87.7 ES 83.9 84.1 85.4 86.5 87.6 89.6 FX 84.3 84.6 85.8 87.0 88.1 90.1 IT 84.2 84.5 85.7 86.9 88.0 90.0 CY 81.7 82.0 83.5 84.9 86.2 88.7 LV 76.7 77.1 79.4 81.5 83.4 86.8							
CZ 80.2 80.5 82.1 83.7 85.1 87.8 DK 81.0 81.4 83.0 84.5 85.9 88.4 DE 82.6 82.9 84.3 85.6 86.8 89.1 EE 78.7 79.1 81.1 82.9 84.5 87.5 IE 81.9 82.2 83.8 85.3 86.7 89.2 GR 82.6 82.8 84.1 85.3 86.5 87.7 ES 83.9 84.1 85.4 86.5 87.6 89.6 FX 84.3 84.6 85.8 87.0 88.1 90.1 IT 84.2 84.5 85.7 86.9 88.0 90.0 CY 81.7 82.0 83.5 84.9 86.2 88.7 LV 76.7 77.1 79.4 81.5 83.4 86.8 LT 77.4 77.9 80.0 81.9 83.7 86.9 LU 81.2 81.5 83.2 84.6 86.0 85.5	WOMEN	2008	2010	2020	2030	2040	2060
DK 81.0 81.4 83.0 84.5 85.9 88.4 DE 82.6 82.9 84.3 85.6 86.8 89.1 EE 78.7 79.1 81.1 82.9 84.5 87.5 IE 81.9 82.2 83.8 85.3 86.7 89.5 GR 82.6 82.8 84.1 85.3 86.5 87.7 ES 83.9 84.1 85.4 86.5 87.6 89.6 FX 84.3 84.6 85.8 87.0 88.1 90.1 IT 84.2 84.5 85.7 86.9 88.0 90.0 CY 81.7 82.0 83.5 84.9 86.2 88.7 LV 76.7 77.1 79.4 81.5 83.4 86.8 LT 77.4 77.9 80.0 81.9 83.7 86.9 LU 81.2 81.5 83.2 84.6 86.0 88.5	WOMEN BE	2008 82.3	2010 82.6	2020 84.0	2030 85.4	2040 86.6	2060 88.9
DE 82.6 82.9 84.3 85.6 86.8 89.1 EE 78.7 79.1 81.1 82.9 84.5 87.5 IE 81.9 82.2 83.8 85.3 86.7 89.2 GR 82.6 82.8 84.1 85.3 86.5 87.7 ES 83.9 84.1 85.4 86.5 87.6 89.6 FX 84.3 84.6 85.8 87.0 88.1 90.1 IT 84.2 84.5 85.7 86.9 88.0 90.0 CY 81.7 82.0 83.5 84.9 86.2 88.7 LV 76.7 77.1 79.4 81.5 83.4 86.8 LT 77.4 77.9 80.0 81.9 83.7 86.9 LU 81.2 81.5 83.2 84.6 86.0 88.5 HU 78.1 78.5 80.5 82.4 84.2 87.3 MT 81.1 81.4 83.1 84.6 86.1 86.6	WOMEN BE BG	2008 82.3 76.7	2010 82.6 77.1	2020 84.0 79.3	2030 85.4 81.3	2040 86.6 83.1	2060 88.9 86.5
EE 78.7 79.1 81.1 82.9 84.5 87.5 IE 81.9 82.2 83.8 85.3 86.7 89.2 GR 82.6 82.8 84.1 85.3 86.5 87.7 ES 83.9 84.1 85.4 86.5 87.6 89.6 FX 84.3 84.6 85.8 87.0 88.1 90.1 IT 84.2 84.5 85.7 86.9 88.0 90.0 CY 81.7 82.0 83.5 84.9 86.2 88.7 LV 76.7 77.1 79.4 81.5 83.4 86.8 LT 77.4 77.9 80.0 81.9 83.7 86.9 LU 81.2 81.5 83.2 84.6 86.0 88.5 HU 78.1 78.5 80.5 82.4 84.2 87.3 MT 81.1 81.4 83.1 84.6 86.1 88.6 NL 82.2 82.5 83.9 85.3 86.6 88.9	WOMEN BE BG CZ	2008 82.3 76.7 80.2	82.6 77.1 80.5	2020 84.0 79.3 82.1	85.4 81.3 83.7	86.6 83.1 85.1	88.9 86.5 87.8
IE 81.9 82.2 83.8 85.3 86.7 89.2 GR 82.6 82.8 84.1 85.3 86.5 87.7 ES 83.9 84.1 85.4 86.5 87.6 89.6 FX 84.3 84.6 85.8 87.0 88.1 90.1 IT 84.2 84.5 85.7 86.9 88.0 90.0 CY 81.7 82.0 83.5 84.9 86.2 88.7 LV 76.7 77.1 79.4 81.5 83.4 86.8 LT 77.4 77.9 80.0 81.9 83.7 86.9 LU 81.2 81.5 83.2 84.6 86.0 88.5 HU 78.1 78.5 80.5 82.4 84.2 87.3 MT 81.1 81.4 83.1 84.6 86.1 88.6 NL 82.2 82.5 83.9 85.3 86.6 88.9 AT 82.9 83.2 84.6 85.8 87.0 89.2	WOMEN BE BG CZ DK	82.3 76.7 80.2 81.0	82.6 77.1 80.5 81.4	84.0 79.3 82.1 83.0	85.4 81.3 83.7 84.5	86.6 83.1 85.1 85.9	88.9 86.5 87.8 88.4
GR 82.6 82.8 84.1 85.3 86.5 87.7 ES 83.9 84.1 85.4 86.5 87.6 89.6 FX 84.3 84.6 85.8 87.0 88.1 90.1 IT 84.2 84.5 85.7 86.9 88.0 90.0 CY 81.7 82.0 83.5 84.9 86.2 88.7 LV 76.7 77.1 79.4 81.5 83.4 86.8 LT 77.4 77.9 80.0 81.9 83.7 86.9 LU 81.2 81.5 83.2 84.6 86.0 88.5 HU 78.1 78.5 80.5 82.4 84.2 87.3 MT 81.1 81.4 83.1 84.6 86.1 88.6 NL 82.2 82.5 83.9 85.3 86.6 88.9 AT 82.9 83.2 84.6 85.8 87.0 89.2 PL 79.9 80.3 82.1 83.7 85.3 88.0	WOMEN BE BG CZ DK DE	82.3 76.7 80.2 81.0 82.6	82.6 77.1 80.5 81.4 82.9	84.0 79.3 82.1 83.0 84.3	85.4 81.3 83.7 84.5 85.6	86.6 83.1 85.1 85.9 86.8	88.9 86.5 87.8 88.4 89.1
ES 83.9 84.1 85.4 86.5 87.6 89.6 FX 84.3 84.6 85.8 87.0 88.1 90.1 IT 84.2 84.5 85.7 86.9 88.0 90.0 CY 81.7 82.0 83.5 84.9 86.2 88.7 LV 76.7 77.1 79.4 81.5 83.4 86.8 LT 77.4 77.9 80.0 81.9 83.7 86.9 LU 81.2 81.5 83.2 84.6 86.0 88.5 HU 78.1 78.5 80.5 82.4 84.2 87.3 MT 81.1 81.4 83.1 84.6 86.1 88.6 NL 82.2 82.5 83.9 85.3 86.6 88.9 AT 82.9 83.2 84.6 85.8 87.0 89.2 PL 79.9 80.3 82.1 83.7 85.3 88.0 PT 82.4 82.7 84.1 85.4 86.6 88.8	WOMEN BE BG CZ DK DE EE	82.3 76.7 80.2 81.0 82.6 78.7	82.6 77.1 80.5 81.4 82.9 79.1	84.0 79.3 82.1 83.0 84.3 81.1	85.4 81.3 83.7 84.5 85.6 82.9	86.6 83.1 85.1 85.9 86.8 84.5	88.9 86.5 87.8 88.4 89.1 87.5
FX 84.3 84.6 85.8 87.0 88.1 90.1 IT 84.2 84.5 85.7 86.9 88.0 90.0 CY 81.7 82.0 83.5 84.9 86.2 88.7 LV 76.7 77.1 79.4 81.5 83.4 86.8 LT 77.4 77.9 80.0 81.9 83.7 86.9 LU 81.2 81.5 83.2 84.6 86.0 88.5 HU 78.1 78.5 80.5 82.4 84.2 87.3 MT 81.1 81.4 83.1 84.6 86.1 88.6 NL 82.2 82.5 83.9 85.3 86.6 88.9 AT 82.9 83.2 84.6 85.8 87.0 89.2 PL 79.9 80.3 82.1 83.7 85.3 88.0 PT 82.4 82.7 84.1 85.4 86.6 88.8 RO 76.6 77.1 79.3 81.3 83.2 86.6	WOMEN BE BG CZ DK DE EE	82.3 76.7 80.2 81.0 82.6 78.7 81.9	82.6 77.1 80.5 81.4 82.9 79.1 82.2	84.0 79.3 82.1 83.0 84.3 81.1 83.8	85.4 81.3 83.7 84.5 85.6 82.9 85.3	86.6 83.1 85.1 85.9 86.8 84.5 86.7	88.9 86.5 87.8 88.4 89.1 87.5 89.2
IT 84.2 84.5 85.7 86.9 88.0 90.0 CY 81.7 82.0 83.5 84.9 86.2 88.7 LV 76.7 77.1 79.4 81.5 83.4 86.8 LT 77.4 77.9 80.0 81.9 83.7 86.9 LU 81.2 81.5 83.2 84.6 86.0 88.5 HU 78.1 78.5 80.5 82.4 84.2 87.3 MT 81.1 81.4 83.1 84.6 86.1 88.6 NL 82.2 82.5 83.9 85.3 86.6 88.9 AT 82.9 83.2 84.6 85.8 87.0 89.2 PL 79.9 80.3 82.1 83.7 85.3 88.0 PT 82.4 82.7 84.1 85.4 86.6 88.8 RO 76.6 77.1 79.3 81.3 83.2 86.6 SI 81.9 82.2 83.7 85.1 86.4 88.8	WOMEN BE BG CZ DK DE EE	82.3 76.7 80.2 81.0 82.6 78.7 81.9 82.6	82.6 77.1 80.5 81.4 82.9 79.1 82.2 82.8	84.0 79.3 82.1 83.0 84.3 81.1 83.8 84.1	85.4 81.3 83.7 84.5 85.6 82.9 85.3 85.3	86.6 83.1 85.1 85.9 86.8 84.5 86.7 86.5	88.9 86.5 87.8 88.4 89.1 87.5 89.2 87.7
CY 81.7 82.0 83.5 84.9 86.2 88.7 LV 76.7 77.1 79.4 81.5 83.4 86.8 LT 77.4 77.9 80.0 81.9 83.7 86.9 LU 81.2 81.5 83.2 84.6 86.0 88.5 HU 78.1 78.5 80.5 82.4 84.2 87.3 MT 81.1 81.4 83.1 84.6 86.1 88.6 NL 82.2 82.5 83.9 85.3 86.6 88.9 AT 82.9 83.2 84.6 85.8 87.0 89.2 PL 79.9 80.3 82.1 83.7 85.3 88.0 PT 82.4 82.7 84.1 85.4 86.6 88.8 RO 76.6 77.1 79.3 81.3 83.2 86.6 SI 81.9 82.2 83.7 85.1 86.4 88.8 SK 78.7 79.1 81.0 82.7 84.4 87.4	WOMEN BE BG CZ DK DE EE IE GR ES	82.3 76.7 80.2 81.0 82.6 78.7 81.9 82.6 83.9	82.6 77.1 80.5 81.4 82.9 79.1 82.2 82.8 84.1	84.0 79.3 82.1 83.0 84.3 81.1 83.8 84.1 85.4	85.4 81.3 83.7 84.5 85.6 82.9 85.3 85.3 86.5	86.6 83.1 85.1 85.9 86.8 84.5 86.7 86.5 87.6	88.9 86.5 87.8 88.4 89.1 87.5 89.2 87.7
LV 76.7 77.1 79.4 81.5 83.4 86.8 LT 77.4 77.9 80.0 81.9 83.7 86.9 LU 81.2 81.5 83.2 84.6 86.0 88.5 HU 78.1 78.5 80.5 82.4 84.2 87.3 MT 81.1 81.4 83.1 84.6 86.1 88.6 NL 82.2 82.5 83.9 85.3 86.6 88.9 AT 82.9 83.2 84.6 85.8 87.0 89.2 PL 79.9 80.3 82.1 83.7 85.3 88.0 PT 82.4 82.7 84.1 85.4 86.6 88.8 RO 76.6 77.1 79.3 81.3 83.2 86.6 SI 81.9 82.2 83.7 85.1 86.4 88.8 SK 78.7 79.1 81.0 82.7 84.4 87.4 FI 83.0 83.3 84.7 85.9 87.1 89.3	WOMEN BE BG CZ DK DE EE IE GR ES FX	82.3 76.7 80.2 81.0 82.6 78.7 81.9 82.6 83.9 84.3	82.6 77.1 80.5 81.4 82.9 79.1 82.2 82.8 84.1 84.6	84.0 79.3 82.1 83.0 84.3 81.1 83.8 84.1 85.4	85.4 81.3 83.7 84.5 85.6 82.9 85.3 85.3 86.5	86.6 83.1 85.1 85.9 86.8 84.5 86.7 86.5 87.6 88.1	88.9 86.5 87.8 88.4 89.1 87.5 89.2 87.7 89.6 90.1
LT 77.4 77.9 80.0 81.9 83.7 86.9 LU 81.2 81.5 83.2 84.6 86.0 88.5 HU 78.1 78.5 80.5 82.4 84.2 87.3 MT 81.1 81.4 83.1 84.6 86.1 88.6 NL 82.2 82.5 83.9 85.3 86.6 88.9 AT 82.9 83.2 84.6 85.8 87.0 89.2 PL 79.9 80.3 82.1 83.7 85.3 88.0 PT 82.4 82.7 84.1 85.4 86.6 88.8 RO 76.6 77.1 79.3 81.3 83.2 86.6 SI 81.9 82.2 83.7 85.1 86.4 88.8 SK 78.7 79.1 81.0 82.7 84.4 87.4 FI 83.0 83.3 84.7 85.9 87.1 89.3 SE 83.1 83.4 84.7 86.0 87.2 89.3	WOMEN BE BG CZ DK DE EE IE GR ES FX	82.3 76.7 80.2 81.0 82.6 78.7 81.9 82.6 83.9 84.3 84.2	82.6 77.1 80.5 81.4 82.9 79.1 82.2 82.8 84.1 84.6 84.5	84.0 79.3 82.1 83.0 84.3 81.1 83.8 84.1 85.4 85.8 85.7	85.4 81.3 83.7 84.5 85.6 82.9 85.3 85.3 86.5 87.0 86.9	86.6 83.1 85.1 85.9 86.8 84.5 86.7 86.5 87.6 88.1 88.0	88.9 86.5 87.8 88.4 89.1 87.5 89.2 87.7 89.6 90.1
LU 81.2 81.5 83.2 84.6 86.0 88.5 HU 78.1 78.5 80.5 82.4 84.2 87.3 MT 81.1 81.4 83.1 84.6 86.1 88.6 NL 82.2 82.5 83.9 85.3 86.6 88.9 AT 82.9 83.2 84.6 85.8 87.0 89.2 PL 79.9 80.3 82.1 83.7 85.3 88.0 PT 82.4 82.7 84.1 85.4 86.6 88.8 RO 76.6 77.1 79.3 81.3 83.2 86.6 SI 81.9 82.2 83.7 85.1 86.4 88.8 SK 78.7 79.1 81.0 82.7 84.4 87.4 FI 83.0 83.3 84.7 85.9 87.1 89.3 SE 83.1 83.4 84.7 86.0 87.2 89.3	WOMEN BE BG CZ DK DE EE IE GR ES FX IT CY	82.3 76.7 80.2 81.0 82.6 78.7 81.9 82.6 83.9 84.3 84.2	82.6 77.1 80.5 81.4 82.9 79.1 82.2 82.8 84.1 84.6 84.5	84.0 79.3 82.1 83.0 84.3 81.1 83.8 84.1 85.4 85.8 85.7 83.5	85.4 81.3 83.7 84.5 85.6 82.9 85.3 85.3 86.5 87.0 86.9 84.9	86.6 83.1 85.1 85.9 86.8 84.5 86.7 86.5 87.6 88.1 88.0 86.2	88.9 86.5 87.8 88.4 89.1 87.5 89.2 87.7 89.6 90.1 90.0 88.7
HU 78.1 78.5 80.5 82.4 84.2 87.3 MT 81.1 81.4 83.1 84.6 86.1 88.6 NL 82.2 82.5 83.9 85.3 86.6 88.9 AT 82.9 83.2 84.6 85.8 87.0 89.2 PL 79.9 80.3 82.1 83.7 85.3 88.0 PT 82.4 82.7 84.1 85.4 86.6 88.8 RO 76.6 77.1 79.3 81.3 83.2 86.6 SI 81.9 82.2 83.7 85.1 86.4 88.8 SK 78.7 79.1 81.0 82.7 84.4 87.4 FI 83.0 83.3 84.7 85.9 87.1 89.3 SE 83.1 83.4 84.7 86.0 87.2 89.3	WOMEN BE BG CZ DK DE EE IE GR ES FX IT CY LV	82.3 76.7 80.2 81.0 82.6 78.7 81.9 82.6 83.9 84.3 84.2 81.7 76.7	82.6 77.1 80.5 81.4 82.9 79.1 82.2 82.8 84.1 84.6 84.5 82.0 77.1	84.0 79.3 82.1 83.0 84.3 81.1 83.8 84.1 85.4 85.8 85.7 83.5 79.4	85.4 81.3 83.7 84.5 85.6 82.9 85.3 85.3 86.5 87.0 86.9 84.9 81.5	86.6 83.1 85.1 85.9 86.8 84.5 86.7 86.5 87.6 88.1 88.0 86.2 83.4	88.9 86.5 87.8 88.4 89.1 87.5 89.2 87.7 89.6 90.1 90.0 88.7 86.8
MT 81.1 81.4 83.1 84.6 86.1 88.6 NL 82.2 82.5 83.9 85.3 86.6 88.9 AT 82.9 83.2 84.6 85.8 87.0 89.2 PL 79.9 80.3 82.1 83.7 85.3 88.0 PT 82.4 82.7 84.1 85.4 86.6 88.8 RO 76.6 77.1 79.3 81.3 83.2 86.6 SI 81.9 82.2 83.7 85.1 86.4 88.8 SK 78.7 79.1 81.0 82.7 84.4 87.4 FI 83.0 83.3 84.7 85.9 87.1 89.3 SE 83.1 83.4 84.7 86.0 87.2 89.3	WOMEN BE BG CZ DK DE EE IE GR ES FX IT CY LV LT	82.3 76.7 80.2 81.0 82.6 78.7 81.9 82.6 83.9 84.3 84.2 81.7 76.7 77.4	82.6 77.1 80.5 81.4 82.9 79.1 82.2 82.8 84.1 84.6 84.5 82.0 77.1 77.9	84.0 79.3 82.1 83.0 84.3 81.1 83.8 84.1 85.4 85.7 83.5 79.4 80.0	85.4 81.3 83.7 84.5 85.6 82.9 85.3 85.3 86.5 87.0 86.9 84.9 81.5	86.6 83.1 85.1 85.9 86.8 84.5 86.7 86.5 87.6 88.1 88.0 86.2 83.4	88.9 86.5 87.8 88.4 89.1 87.5 89.2 87.7 89.6 90.1 90.0 88.7 86.8
NL 82.2 82.5 83.9 85.3 86.6 88.9 AT 82.9 83.2 84.6 85.8 87.0 89.2 PL 79.9 80.3 82.1 83.7 85.3 88.0 PT 82.4 82.7 84.1 85.4 86.6 88.8 RO 76.6 77.1 79.3 81.3 83.2 86.6 SI 81.9 82.2 83.7 85.1 86.4 88.8 SK 78.7 79.1 81.0 82.7 84.4 87.4 FI 83.0 83.3 84.7 85.9 87.1 89.3 SE 83.1 83.4 84.7 86.0 87.2 89.3	WOMEN BE BG CZ DK DE EE IE GR ES FX IT CY LV LT LU	82.3 76.7 80.2 81.0 82.6 78.7 81.9 82.6 83.9 84.3 84.2 81.7 76.7 77.4 81.2	82.6 77.1 80.5 81.4 82.9 79.1 82.2 82.8 84.1 84.6 84.5 82.0 77.1 77.9 81.5	84.0 79.3 82.1 83.0 84.3 81.1 83.8 84.1 85.4 85.7 83.5 79.4 80.0 83.2	85.4 81.3 83.7 84.5 85.6 82.9 85.3 86.5 87.0 86.9 84.9 81.5 81.9	86.6 83.1 85.1 85.9 86.8 84.5 86.7 86.5 87.6 88.1 88.0 86.2 83.4 83.7 86.0	88.9 86.5 87.8 88.4 89.1 87.5 89.2 87.7 89.6 90.1 90.0 88.7 86.8
AT 82.9 83.2 84.6 85.8 87.0 89.2 PL 79.9 80.3 82.1 83.7 85.3 88.0 PT 82.4 82.7 84.1 85.4 86.6 88.8 RO 76.6 77.1 79.3 81.3 83.2 86.6 SI 81.9 82.2 83.7 85.1 86.4 88.8 SK 78.7 79.1 81.0 82.7 84.4 87.4 FI 83.0 83.3 84.7 85.9 87.1 89.3 SE 83.1 83.4 84.7 86.0 87.2 89.3	WOMEN BE BG CZ DK DE EE IE GR ES FX IT CY LV LT LU HU	82.3 76.7 80.2 81.0 82.6 78.7 81.9 82.6 83.9 84.3 84.2 81.7 76.7 77.4 81.2 78.1	82.6 77.1 80.5 81.4 82.9 79.1 82.2 82.8 84.1 84.6 84.5 82.0 77.1 77.9 81.5 78.5	84.0 79.3 82.1 83.0 84.3 81.1 83.8 84.1 85.4 85.7 83.5 79.4 80.0 83.2 80.5	85.4 81.3 83.7 84.5 85.6 82.9 85.3 86.5 87.0 86.9 84.9 81.5 81.9 84.6 82.4	86.6 83.1 85.1 85.9 86.8 84.5 86.7 86.5 87.6 88.1 88.0 86.2 83.4 83.7 86.0 84.2	88.9 86.5 87.8 88.4 89.1 87.5 89.2 87.7 89.6 90.1 90.0 88.7 86.8 86.9 88.5
PL 79.9 80.3 82.1 83.7 85.3 88.0 PT 82.4 82.7 84.1 85.4 86.6 88.8 RO 76.6 77.1 79.3 81.3 83.2 86.6 SI 81.9 82.2 83.7 85.1 86.4 88.8 SK 78.7 79.1 81.0 82.7 84.4 87.4 FI 83.0 83.3 84.7 85.9 87.1 89.3 SE 83.1 83.4 84.7 86.0 87.2 89.3	WOMEN BE BG CZ DK DE EE IE GR ES FX IT CY LV LT LU HU MT	82.3 76.7 80.2 81.0 82.6 78.7 81.9 82.6 83.9 84.3 84.2 81.7 76.7 77.4 81.2 78.1 81.1	82.6 77.1 80.5 81.4 82.9 79.1 82.2 82.8 84.1 84.6 84.5 82.0 77.1 77.9 81.5 78.5 81.4	84.0 79.3 82.1 83.0 84.3 81.1 83.8 84.1 85.4 85.8 85.7 83.5 79.4 80.0 83.2 80.5 83.1	85.4 81.3 83.7 84.5 85.6 82.9 85.3 86.5 87.0 86.9 84.9 81.5 81.9 84.6 82.4	86.6 83.1 85.1 85.9 86.8 84.5 86.7 86.5 87.6 88.1 88.0 86.2 83.4 83.7 86.0 84.2	88.9 86.5 87.8 88.4 89.1 87.5 89.2 87.7 89.6 90.1 90.0 88.7 86.8 86.9 88.5 87.3
PT 82.4 82.7 84.1 85.4 86.6 88.8 RO 76.6 77.1 79.3 81.3 83.2 86.6 SI 81.9 82.2 83.7 85.1 86.4 88.8 SK 78.7 79.1 81.0 82.7 84.4 87.4 FI 83.0 83.3 84.7 85.9 87.1 89.3 SE 83.1 83.4 84.7 86.0 87.2 89.3	WOMEN BE BG CZ DK DE EE IE GR ES FX IT CY LV LT LU HU MT NL	82.3 76.7 80.2 81.0 82.6 78.7 81.9 82.6 83.9 84.3 84.2 81.7 76.7 77.4 81.2 78.1 81.1	82.6 77.1 80.5 81.4 82.9 79.1 82.2 82.8 84.1 84.6 84.5 82.0 77.1 77.9 81.5 78.5 81.4	84.0 79.3 82.1 83.0 84.3 81.1 83.8 84.1 85.4 85.7 83.5 79.4 80.0 83.2 80.5 83.1 83.9	85.4 81.3 83.7 84.5 85.6 82.9 85.3 86.5 87.0 86.9 84.9 81.5 81.9 84.6 82.4 84.6	86.6 83.1 85.1 85.9 86.8 84.5 86.7 86.5 87.6 88.1 88.0 86.2 83.4 83.7 86.0 84.2 86.1	88.9 86.5 87.8 88.4 89.1 87.5 89.2 87.7 89.6 90.1 90.0 88.7 86.8 86.9 88.5 87.3 88.6
RO 76.6 77.1 79.3 81.3 83.2 86.6 SI 81.9 82.2 83.7 85.1 86.4 88.8 SK 78.7 79.1 81.0 82.7 84.4 87.4 FI 83.0 83.3 84.7 85.9 87.1 89.3 SE 83.1 83.4 84.7 86.0 87.2 89.3	WOMEN BE BG CZ DK DE EE IE GR ES FX IT CY LV LT LU HU MT NL AT	82.3 76.7 80.2 81.0 82.6 78.7 81.9 82.6 83.9 84.3 84.2 81.7 76.7 77.4 81.2 78.1 81.1 82.2 82.9	82.6 77.1 80.5 81.4 82.9 79.1 82.2 82.8 84.1 84.6 84.5 82.0 77.1 77.9 81.5 78.5 81.4 82.5 83.2	84.0 79.3 82.1 83.0 84.3 81.1 83.8 84.1 85.4 85.8 85.7 83.5 79.4 80.0 83.2 80.5 83.1 83.9 84.6	85.4 81.3 83.7 84.5 85.6 82.9 85.3 86.5 87.0 86.9 84.9 81.5 81.9 84.6 82.4 84.6 85.3 85.8	86.6 83.1 85.1 85.9 86.8 84.5 86.7 86.5 87.6 88.1 88.0 86.2 83.4 83.7 86.0 84.2 86.1 86.6 87.0	88.9 86.5 87.8 88.4 89.1 87.5 89.2 87.7 89.6 90.1 90.0 88.7 86.8 86.9 88.5 87.3 88.6 88.9
SI 81.9 82.2 83.7 85.1 86.4 88.8 SK 78.7 79.1 81.0 82.7 84.4 87.4 FI 83.0 83.3 84.7 85.9 87.1 89.3 SE 83.1 83.4 84.7 86.0 87.2 89.3	WOMEN BE BG CZ DK DE EE IE GR ES FX IT CY LV LT LU HU MT NL AT PL	82.3 76.7 80.2 81.0 82.6 78.7 81.9 82.6 83.9 84.3 84.2 81.7 76.7 77.4 81.2 78.1 81.1 82.2 82.9 79.9	82.6 77.1 80.5 81.4 82.9 79.1 82.2 82.8 84.1 84.6 84.5 82.0 77.1 77.9 81.5 78.5 81.4 82.5 83.2	84.0 79.3 82.1 83.0 84.3 81.1 83.8 84.1 85.4 85.8 85.7 83.5 79.4 80.0 83.2 80.5 83.1 83.9 84.6 82.1	85.4 81.3 83.7 84.5 85.6 82.9 85.3 86.5 87.0 86.9 84.9 81.5 81.9 84.6 82.4 84.6 85.3 85.8	86.6 83.1 85.1 85.9 86.8 84.5 86.7 86.5 87.6 88.1 88.0 86.2 83.4 83.7 86.0 84.2 86.1 86.6 87.0	88.9 86.5 87.8 88.4 89.1 87.5 89.2 87.7 89.6 90.1 90.0 88.7 86.8 86.9 88.5 87.3 88.6 88.9
SK 78.7 79.1 81.0 82.7 84.4 87.4 FI 83.0 83.3 84.7 85.9 87.1 89.3 SE 83.1 83.4 84.7 86.0 87.2 89.3	WOMEN BE BG CZ DK DE EE IE GR ES FX IT CY LV LT LU HU MT NL AT PL PT	82.3 76.7 80.2 81.0 82.6 78.7 81.9 82.6 83.9 84.3 84.2 81.7 76.7 77.4 81.2 78.1 81.1 82.2 82.9 79.9 82.4	82.6 77.1 80.5 81.4 82.9 79.1 82.2 82.8 84.1 84.6 84.5 82.0 77.1 77.9 81.5 78.5 81.4 82.5 83.2 80.3 82.7	84.0 79.3 82.1 83.0 84.3 81.1 83.8 84.1 85.4 85.8 85.7 83.5 79.4 80.0 83.2 80.5 83.1 83.9 84.6 82.1 84.1	85.4 81.3 83.7 84.5 85.6 82.9 85.3 86.5 87.0 86.9 84.9 81.5 81.9 84.6 82.4 84.6 85.3 85.8	86.6 83.1 85.1 85.9 86.8 84.5 86.7 86.5 87.6 88.1 88.0 86.2 83.4 83.7 86.0 84.2 86.1 86.6 87.0 85.3	88.9 86.5 87.8 88.4 89.1 87.5 89.2 87.7 89.6 90.1 90.0 88.7 86.8 86.9 88.5 87.3 88.6 88.9 89.2
FI 83.0 83.3 84.7 85.9 87.1 89.3 SE 83.1 83.4 84.7 86.0 87.2 89.3	WOMEN BE BG CZ DK DE EE IE GR ES FX IT CY LV LT LU HU MT NL AT PL PT RO	82.3 76.7 80.2 81.0 82.6 78.7 81.9 82.6 83.9 84.3 84.2 81.7 76.7 77.4 81.2 78.1 81.1 82.2 82.9 79.9 82.4 76.6	82.6 77.1 80.5 81.4 82.9 79.1 82.2 82.8 84.1 84.6 84.5 82.0 77.1 77.9 81.5 78.5 81.4 82.5 83.2 80.3 82.7 77.1	84.0 79.3 82.1 83.0 84.3 81.1 83.8 84.1 85.4 85.8 85.7 83.5 79.4 80.0 83.2 80.5 83.1 83.9 84.6 82.1 84.1 79.3	85.4 81.3 83.7 84.5 85.6 82.9 85.3 86.5 87.0 86.9 84.9 81.5 81.9 84.6 82.4 84.6 85.3 85.8 83.7 85.4	86.6 83.1 85.1 85.9 86.8 84.5 86.7 86.5 87.6 88.1 88.0 86.2 83.4 83.7 86.0 84.2 86.1 86.6 87.0 85.3 86.6 83.2	88.9 86.5 87.8 88.4 89.1 87.5 89.2 87.7 89.6 90.1 90.0 88.7 86.8 86.9 88.5 87.3 88.6 88.9 89.2 88.0 88.8
SE 83.1 83.4 84.7 86.0 87.2 89.3	WOMEN BE BG CZ DK DE EE IE GR ES FX IT CY LV LT LU HU MT NL AT PL PT RO SI	82.3 76.7 80.2 81.0 82.6 78.7 81.9 82.6 83.9 84.3 84.2 81.7 76.7 77.4 81.2 78.1 81.1 82.2 82.9 79.9 82.4 76.6 81.9	82.6 77.1 80.5 81.4 82.9 79.1 82.2 82.8 84.1 84.6 84.5 82.0 77.1 77.9 81.5 78.5 81.4 82.5 83.2 80.3 82.7 77.1 82.2	84.0 79.3 82.1 83.0 84.3 81.1 83.8 84.1 85.4 85.8 85.7 83.5 79.4 80.0 83.2 80.5 83.1 83.9 84.6 82.1 84.1 79.3 83.7	85.4 81.3 83.7 84.5 85.6 82.9 85.3 86.5 87.0 86.9 84.9 81.5 81.9 84.6 82.4 84.6 85.3 85.8 83.7 85.4	86.6 83.1 85.1 85.9 86.8 84.5 86.7 86.5 87.6 88.1 88.0 86.2 83.4 83.7 86.0 84.2 86.1 86.6 87.0 85.3 86.6 83.2 86.4	88.9 86.5 87.8 88.4 89.1 87.5 89.2 87.7 89.6 90.1 90.0 88.7 86.8 86.9 88.5 87.3 88.6 88.9 89.2 88.0 88.8
	WOMEN BE BG CZ DK DE EE IE GR ES FX IT CY LV LT LU HU MT NL AT PL PT RO SI SK	82.3 76.7 80.2 81.0 82.6 78.7 81.9 82.6 83.9 84.3 84.2 81.7 76.7 77.4 81.2 78.1 81.1 82.2 82.9 79.9 82.4 76.6 81.9 78.7	82.6 77.1 80.5 81.4 82.9 79.1 82.2 82.8 84.1 84.6 84.5 82.0 77.1 77.9 81.5 78.5 81.4 82.5 83.2 80.3 82.7 77.1 82.2 79.1	84.0 79.3 82.1 83.0 84.3 81.1 83.8 84.1 85.4 85.8 85.7 83.5 79.4 80.0 83.2 80.5 83.1 83.9 84.6 82.1 84.1 79.3 83.7 81.0	85.4 81.3 83.7 84.5 85.6 82.9 85.3 86.5 87.0 86.9 84.9 81.5 81.9 84.6 82.4 84.6 85.3 85.8 83.7 85.4	86.6 83.1 85.1 85.9 86.8 84.5 86.7 86.5 87.6 88.1 88.0 86.2 83.4 83.7 86.0 84.2 86.1 86.6 87.0 85.3 86.6 83.2 86.4 84.4	88.9 86.5 87.8 88.4 89.1 87.5 89.2 87.7 89.6 90.1 90.0 88.7 86.8 86.9 88.5 87.3 88.6 88.9 89.2 88.0 88.8 86.6 88.8
, =:: 01.0 01.0 00.0 00.0 00.4 00.0	WOMEN BE BG CZ DK DE EE IE GR ES FX IT CY LV LT LU HU MT NL AT PL PT RO SI SK FI	82.3 76.7 80.2 81.0 82.6 78.7 81.9 82.6 83.9 84.3 84.2 81.7 76.7 77.4 81.2 78.1 81.1 82.2 82.9 79.9 82.4 76.6 81.9 78.7 83.0	82.6 77.1 80.5 81.4 82.9 79.1 82.2 82.8 84.1 84.6 84.5 82.0 77.1 77.9 81.5 78.5 81.4 82.5 83.2 80.3 82.7 77.1 82.2 79.1 83.3	84.0 79.3 82.1 83.0 84.3 81.1 83.8 84.1 85.4 85.8 85.7 83.5 79.4 80.0 83.2 80.5 83.1 83.9 84.6 82.1 84.1 79.3 83.7 81.0 84.7	85.4 81.3 83.7 84.5 85.6 82.9 85.3 86.5 87.0 86.9 84.9 81.5 81.9 84.6 82.4 84.6 85.3 85.8 83.7 85.4 81.3	86.6 83.1 85.1 85.9 86.8 84.5 86.7 86.5 87.6 88.1 88.0 86.2 83.4 83.7 86.0 84.2 86.1 86.6 87.0 85.3 86.6 83.2 86.4 84.4 87.1	88.9 86.5 87.8 88.4 89.1 87.5 89.2 87.7 89.6 90.1 90.0 88.7 86.8 86.9 88.5 87.3 88.6 88.9 89.2 88.0 88.8 86.6 88.8 87.4

Source: Eurostat, EUROPOP2008 convergence scenario.

1.4.3. Migration assumptions

Migration patterns – between the EU and the rest of the World, between Member States and within Member States – can change much faster and in much less predictable ways than

fertility and life expectancy. Over recent years, the EU as a whole, and some Member States in particular, have experienced strong population growth due to net migration – in excess of 1.5 million people per year since 2002. It therefore seemed reasonable to revise upwards the migration assumptions used in EUROPOP2004. Table 1.15 presents the assumptions on net migration country by country.

Table 1.15: Assumptions for annual net migration, 2008-2060

In persons	2008	2010	2020	2030	2040	2060
EU-27	1,683,921	1,563,444	1,252,781	1,093,105	1,005,488	803,507
BE	50,657	47,475	36,244	31,356	27,084	23,251
BG	-1,377	419	242	-477	2,483	-1,178
CZ	24,020	25,857	24,739	22,855	27,335	16,653
DK	9,653	9,836	8,103	8,719	6,475	6,160
DE	159,773	146,680	173,142	187,050	131,599	115,852
EE	-553	-392	-64	-325	75	-338
IE	63,066	53,449	21,664	8,732	6,013	8,648
GR	39,720	39,531	38,188	37,151	36,596	26,778
ES	623,449	540,207	263,065	160,787	150,488	129,859
FX	99,301	97,902	92,517	86,548	76,923	62,937
IT	259,522	255,867	240,773	248,711	229,485	174,270
CY	9,282	9,151	8,498	7,844	7,190	5,883
LV	-974	-850	-333	-576	80	-592
LT	-2,219	-1,706	-243	-271	-160	-113
LU	4,350	4,289	3,983	3,676	3,370	2,757
HU	19,622	19,086	22,407	17,309	22,278	14,855
MT	993	1,016	1,023	886	946	801
NL	7,846	7,736	10,618	13,668	6,508	8,350
AT	33,081	32,615	30,517	31,234	26,040	22,347
PL	-15,509	-15,291	13,983	-1,340	17,059	8,154
PT	51,783	51,054	47,580	46,087	45,345	34,477
RO	-5,644	-5,075	6,290	-797	12,897	3,906
SI	5,863	5,177	4,435	3,436	3,313	2,254
SK	3,552	3,210	5,001	3,866	6,081	3,682
FI	9,659	9,965	7,820	5,814	4,827	4,495
SE	46,832	42,297	26,861	20,225	17,189	15,777
UK	188,171	183,938	165,727	150,935	137,967	113,582

Source: Eurostat, EUROPOP2008 convergence scenario.

The cumulative effect of net migration assumed under the EUROPOP2008 convergence scenario is to increase the EU's population by 56 million by 2061, compared to 40 million under EUROPOP2004. This is not directly comparable because EUROPOP2004 covered only 46 years from 2004 to 2050, compared to 52 years from 2008-2060 under the EUROPOP2008 convergence scenario. As can be seen from Figure 1.13, Cyprus, Luxembourg, Spain, Portugal and Italy are expected to receive the largest net migration flows in relation to their projected total population.

35 (%)
30
25
20
15
EU27 = 11.7 %
10
5

LV LT EE BG PL RO NL SK FX FI DK UK SI SE NO HU DE MT IE CZ BE AT EL CH IT PT ES LU CY

Figure 1.13: Cumulative migration (2008-2060) as a percentage of the population on 1st January 2061

Source: Eurostat, EUROPOP2008 convergence scenario.

-5

Net migration thus makes a very significant difference to Europe's future population. Without the assumed net migration inflow, Europe's population would start shrinking from 2012 onwards. With the level of migration assumed in EUROPOP2008 convergence scenario, the onset of population decline is postponed until 2035 (see Figure 1.14).

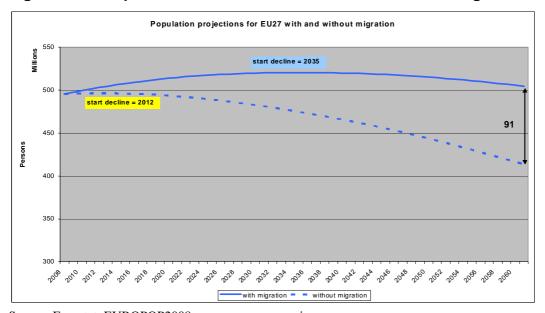


Figure 1.14: Population size of the EU-27 with and without migration, 2008-2061

Source: Eurostat, EUROPOP2008 convergence scenario.

The assumed level of immigration will also have a significant impact on the future age structure of the EU population. Table 1.16 shows that, in the absence of net migration into the EU, the old-age dependency ratio (defined as the number of people aged 65 and over divided by the number of people aged 15-64) could be almost nine percentage points higher in 2060.

For EU-12 countries, which are assumed to attract fewer migrants, the old-age dependency ratio would still be four points higher than under the zero-migration hypothesis. Thus, large-scale immigration, while not preventing population ageing, does have a significant impact on the speed of ageing that the EU, and EU-15 in particular, will be experiencing over coming decades.

Table 1.16: EUROPOP2008 convergence scenario with and without migration

	1-1-2008	2060 with migration	2060 without migration	Difference in % and % points
EU-27				
Total population (x1000)	495,394	505,719	416,544	21.4
Age group 0-14 (x1000)	77,544	70,952	54,152	31.0
Age group 15-64 (x1000)	333,248	283,293	223,378	26.8
Age group 65+ (x1000)	84,602	151,474	139,014	9.0
Onset of population decline		2035	2012	
Young age dependency ratio (%)	23.3	25.0	24.2	0.8
Old age dependency ratio (%)	25.4	53.5	62.2	-8.8
EU-15				
Total population (x1000)	392,222	420,530	336,785	24.9
Age group 0-14 (x1000)	62,011	60,881	45,151	34.8
Age group 15-64 (x1000)	260,680	237,717	181,514	31.0
Age group 65+ (x1000)	69,531	121,932	110,120	10.7
Onset of population decline		2044	2014	
Young age dependency ratio (%)	23.8	25.6	24.9	0.7
Old age dependency ratio (%)	26.7	51.3	60.7	-9.4
EU-12				
Total population (x1000)	103,172	85,189	79 759	6.8
Age group 0-14 (x1000)	15,533	10,072	9 001	11.9
Age group 15-64 (x1000)	72,569	45,576	41 864	8.9
Age group 65+ (x1000)	15,071	29,541	28 895	2.2
Onset of population decline		<2008	<2008	
Young age dependency ratio (%)	21.4	22.1	21.5	0.6
Old age dependency ratio (%)	20.8	64.8	69.0	-4.2

Source: Eurostat, EUROP2008 convergence scenario, calculations NIDI.

1.4.4. Main results of the new projections 2008-2060

The main results of the EUROPOP2008 convergence scenario projections can be presented as a demographic balance comparing the situation on 1st January 2008 with the projected situation for 1st January 2060 (see Table 1.17)²⁴. The results from the EUROPOP2004 baseline scenario (which used a different method for establishing assumptions for long-term trends about the main drivers of demographic change) are presented in Table 1.18. Whereas the previous projection round concluded that the population of EU-27 was likely to decline by 16 million people by the year 2050, the latest projections (EUROPOP2008 convergence scenario) expect an increase by 10 million people by the year 2060. Thus the population of EU-27 would rise from 495 to almost 506 million people. The difference is mainly due to the migration assumption, but more optimistic fertility and life expectancy assumptions for the EUROPOP2008 convergence scenario also contribute to the large difference between the two projection rounds.

^{*} Difference between 2060 value with migration minus 2060 value without migration in percentage of the 2060 value without migration.

See Eurostat Statistics in Focus 72/2008: Ageing characterises the demographic perspectives of the European societies

Table 1.17: EUROPOP2008 convergence scenario, demographic balance 1st January 2008 – 1st January 2060

(in	Estimated	Cumulated	Cumulated	Natural	Cumulated	Total	Projected
thousands)	population	births	deaths	change	net migration	change	population
	1.1.2008			2008 - 2059			1.1.2060
EU-27	495,394	250,897	298,800	-47,903	58,227	10,325	505,719
BE	10,656	6,454	6,472	-19	1,657	1,639	12,295
BG	7,642	2,739	4,941	-2,201	44	-2,158	5,485
CZ	10,346	4,364	6,433	-2,069	1,237	-832	9,514
DK	5,476	3,321	3,260	61	383	444	5,920
DE	82,179	32,206	51,693	-19,487	8,067	-11,420	70,759
EE	1,339	622	828	-206	-1	-206	1,132
IE	4,415	3,785	2,308	1,477	860	2,337	6,752
EL	11,217	4,998	6,944	-1,947	1,848	-99	1,118
ES	45,283	23,164	28,060	-4,896	11,526	6,629	51,913
FX	61,876	40,885	35,274	5,611	4,313	9,924	71,800
IT	59,529	25,453	37,412	-11,959	11,820	-140	59,390
CY	795	583	453	130	396	526	1,320
LV	2,269	871	1,453	-582	-4	-587	1,682
LT	3,365	1,331	2,145	-814	-4	-818	2,548
LU	482	353	289	64	186	250	732
HU	10,045	4,155	6,477	-2,322	994	-1,329	8,717
MT	411	187	243	-55	50	-6	405
NL	16,404	9,076	9,388	-312	504	192	16,596
AT	8,334	4,103	4,879	-776	1,480	703	9,037
PL	38,116	14,911	22,418	-7,507	530	-6,977	31,139
PT	10,617	4,938	6,603	-1,665	2,312	647	11,265
RO	21,423	8,212	13,067	-4,855	353	-4,501	16,921
SI	2,023	816	1,252	-435	191	-244	1,779
SK	5,399	2,117	3,223	-1,106	255	-851	4,547
FI	5,260	2,999	3,227	-228	330	102	5,402
SE	9,183	5,896	5,400	496	1,196	1,692	10,875
UK	61,270	42,359	34,660	7,699	7,708	15,406	76,677
NO	4,737	3,306	2,692	614	686	1,300	6,037
СН	7,591	4,166	4,321	-155	1,757	1,602	9,193

Source: Eurostat, EUROP2008 convergence scenario.

Table 1.18: EUROPOP2004, demographic balance 1st January 2004 – 1st January 2050, baseline scenario

(in	Observed	Cumulated	Cumulated	Natural	Cumulated	Total	Population
thousands)	population	births	deaths	change	net migration	change	
	1.1.2004			2004 - 2050			1.1.2051
EU-25	456,815	199,694	248,045	-48,351		_	
EU-I5	382,674	170,300	207,086	-36,786	37,123	338	383,012
BE	10,396	5,022	5,427	-405	897	492	10,888
CZ	10,211	3,774	5,784	-2,010	647	-1,363	8,848
DK	5,398	2,735	3,037	-302	323	22	5,419
DE	82,532	29,880	47,191	-17,311	8,980	-8,330	74,201
EE	1,351	561	809	-248	19	-229	1,121
EL	11,041	4,352	6,559	-2,207	1,743	-464	10,578
ES	42,345	16,856	22,863	-6,007	6,235	228	42,573
FR	59,901	32,972	30,053	2,919	2,823	5,741	65,642
IE	4,028	2,718	1,903	814	645	1,459	5,487
IT	57,888	20,402	31,680	-11,278	5,777	-5,501	52,387
CY	730	401	392	8	238	247	977
LV	2,319	933	1,418	-484	30	-454	1,865
LT	3,446	1,350	1,957	-606	28	-578	2,868
LU	452	296	233	63	132	194	646
HU	10,117	4,063	6,092	-2,029	795	-1,233	8,883
MT	400	219	223	-4	113	110	510
NL	16,258	8,622	8,980	-358	1,480	1,121	17,379
AT	8,114	3,300	4,212	-912	985	73	8,187
PL	38,191	15,209	20,231	-5,022	318	-4,704	33,487
FT	10,475	4,505	5,832	-1,326	808	-518	9,957
SI	1,996	771	1,162	-390	287	-103	1,893
SK	5,380	2,111	2,892	-781	109	-671	4,709
FI	5,220	2,573	2,875	-303	288	-15	5,205
SE	8,976	5,022	4,851	171	1,069	1,240	10,216
UK	59,652	31,047	31,390	-343	4,939	4,596	64,247
BG	7,801	2,229	4,740	-2,512	-252	-2,764	5,038
RO	21,711	7,947	12,194	-4,247	-475	-4,722	16,989

Source: Eurostat, EUROP2004.

Striking differences are also found between the two projection rounds for individual countries. Italy's population, according to the EUROPOP2008 convergence scenario, would be the same size as today whereas, under EUROPOP2004, it was expected to fall by 5.5 million. The UK is expected to become the most populous EU-27 country with almost 77 million inhabitants in 2060, according to the EUROPOP2008 convergence scenario. The previous projection round expected a population of 64 million UK residents in 2050.

These differences between the two rounds of projections underline the importance of interpreting such results with caution. Nevertheless, one development is certain, namely the forthcoming retirement of the baby-boom cohorts which will accelerate the process of population ageing and shift the balance between people of working age and retirees (see Chapter 3). Both projection rounds also yield very similar results as far as the long-term evolution of the old-age dependency ratio (people aged 65+ in relation to people aged 15-64) is concerned: EUROPOP2004 expected a ratio of 0.53 for 2050 (EU-25); according to the EUROPOP2008 convergence scenario, it should be 0.50, rising to 0.53 in 2060. Today's old-age dependency ratio is 0.25, meaning that for every person aged 65 or over, there are four people of working age (15-64). In 2050, there will be only two people of working age for every person aged 65 or over (see Table 1.19). Only unrealistically large increases in net immigration or birth rates could curb this trend to a noticeable extent, and this would imply very rapid population growth. By contrast, a shrinking population resulting from very low birth rates and an unfavourable net migration balance can seriously accelerate the ageing of a

country's population. Countries in this situation can expect their old-age dependency ratios to triple compared to today, rising to levels as high as 0.68 in Slovakia and Poland, for two people aged 65 or over, there would only be three of working age.

Table 1.19: Old-age dependency ratios for selected years, 2008-2060

(%)	2008	2010	2020	2030	2040	2050	2060
ÈÚ 27	25.39	25.90	31.05	38.04	45.36	50.42	53.47
BE	25.80	26.09	30.60	37.58	42.27	43.87	45.84
BG	24.99	25.29	31.10	36.28	43.58	55.44	63.54
CZ	20.59	21.83	31.07	35.71	42.71	54.81	61.40
DK	23.61	24.98	31.85	37.85	42.69	41.31	42.66
DE	30.29	31.17	35.28	46.23	54.73	56.43	59.08
EE	25.23	25.01	29.18	34.42	38.96	47.19	55.55
IE	16.31	16.67	20.23	24.63	30.60	40.40	43.57
EL	27.77	28.22	32.75	38.47	48.25	56.99	57.12
ES	24.15	24.43	27.42	34.32	46.39	58.69	59.07
FX	25.33	25.81	32.77	39.02	43.99	44.68	45.20
IT	30.47	30.99	35.47	42.45	54.07	59.24	59.32
CY	17.69	18.00	22.26	27.44	30.76	37.65	44.47
LV	25.02	25.17	28.08	34.57	40.72	51.18	64.45
LT	23.02	23.18	25.98	34.71	42.81	51.13	65.65
LU	20.92	21.07	24.23	30.80	36.31	37.82	39.10
HU	23.50	24.22	30.31	34.06	40.11	50.83	57.64
MT	19.79	21.19	31.25	39.14	41.71	49.77	59.07
NL	21.84	22.82	30.69	40.00	46.77	45.61	47.18
AT	25.43	26.01	29.18	38.09	46.03	48.31	50.65
PL	18.95	18.98	27.19	35.98	41.29	55.69	68.97
PT	25.91	26.58	30.66	36.63	44.59	52.96	54.76
RO	21.34	21.34	25.67	30.32	40.75	54.00	65.27
SI	22.97	23.91	31.21	40.83	49.40	59.40	62.19
SK	16.58	16.95	23.85	32.30	39.98	55.46	68.49
FI	24.80	25.70	36.75	43.89	45.06	46.61	49.30
SE	26.66	27.81	33.69	37.43	40.78	41.91	46.71
UK	24.27	24.72	28.58	33.23	36.92	37.96	42.14
NO	22.10	22.73	28.32	34.32	40.24	41.43	43.92
CH	24.10	24.94	29.93	37.72	43.74	45.74	48.51

Source: Eurostat, EUROPOP2008 convergence scenario.

The trend towards a very different age structure of the population is inevitable. The proportion of people of working age, aged 15-64, will decline while the proportion of older people aged 65 or over will increase. The fastest growing age group, however will be people aged 80 or over whose proportion in the population could almost triple from 4% to 11% (see Table 1.20).

Table 1.20: Projected age structure changes in the EU between 2008 and 2050

Shares in %	0-1	9	20-	64	65-	79	80)+	population i	in millions
	2008	2050	2008	2050	2008	2050	2008	2050	2008	2050
EU-27	22	19	61	52	13	18	4	11	495.4	515.3
BE	23	21	60	53	12	16	5	10	10.7	12.2
BG	20	17	63	52	14	22	4	10	7.6	5.9
CZ	21	17	65	52	11	22	3	9	10.3	9.9
DK	25	22	60	54	11	15	4	10	5.5	5.9
DE	19	16	61	52	15	18	5	14	82.2	74.5
EE	22	19	61	53	14	18	4	9	1.3	1.2
IE	27	23	62	53	8	16	3	7	4.4	6.5
GR	19	18	62	51	15	20	4	11	11.2	11.4
ES	20	18	64	50	12	21	5	11	45.3	53.2
FX	25	23	59	52	11	15	5	10	61.9	71.0
IT	19	17	61	51	15	20	5	13	59.5	61.2
CY	25	20	63	57	10	16	3	7	0.8	1.3
LV	21	17	62	54	14	20	4	10	2.3	1.8
LT	23	16	61	54	13	19	3	11	3.4	2.7
LU	24	22	62	55	11	14	3	9	0.5	0.7
HU	21	17	63	53	12	20	4	9	10.0	9.1
MT	23	17	63	54	11	19	3	10	0.4	0.4
NL	24	20	61	53	11	16	4	11	16.4	16.9
AT	21	18	62	53	13	17	5	11	8.3	9.1
PL	23	16	64	53	10	22	3	10	38.1	33.3
PT	21	18	62	52	13	20	4	10	10.6	11.4
RO	22	16	63	53	12	22	3	9	21.4	18.1
SI	20	17	64	50	13	21	4	12	2.0	1.9
SK	23	15	65	53	9	22	3	9	5.4	4.9
FI	23	21	60	52	12	16	4	11	5.3	5.4
SE	24	22	59	54	12	15	5	10	9.2	10.7
UK	24	22	60	55	12	14	5	9	61.3	74.5

Source: Eurostat, EUROPOP2008 convergence scenario.

1.5. Ageing as a global phenomenon

Ageing does not affect only EU countries, although, together with Japan, many EU Member States are among the most aged countries in the world. Population ageing is a universal process that accompanies economic and social development. Indeed, the pace of population ageing can be faster in developing than in developed countries, requiring them to adjust to the rapidly growing number of older people.

The *United Nations ageing index* illustrates the pace of the ageing process across the world (see Table 1.21). It presents the number of older people (defined here as people aged 60 or more) per 100 younger people (aged 0-14 years). An increase in this index means that the population is ageing. In 2007 the index stood at 136.2 for Europe (defined more broadly than the EU) compared to 38.7 for the world as a whole. For the developed regions of the world, the index was 124.2. Within Europe, the South and West are most aged (indices of 155.6 and 147.3 respectively). By 2050, the ageing index is expected to less than double in Europe, but more than triple in the less developed regions, which, by then, will have a similar proportion of people over the age of 60 to that in Europe today. Thus, Europe will not be alone in having to tackle the challenge of an ageing population.

Table 1.21: UN Ageing indicators for world regions in 2007 and 2050

	Ageing index	% Populat	ion	Median age	Depend	dency ratio	
2007	100 * b/a	a: 0-14	b: 60+		Youth	Old	
World	38.7	27.6	10.7	28.1	42.4	11.5	
More developed regions	124.2	16.7	20.7	38.6	24.6	22.9	
Less developed regions	28.0	30.0	8.4	25.6	46.7	8.8	
Least developed regions	12.4	41.3	5.1	18.9	74.5	5.9	
Africa	12.9	41.1	5.3	18.9	74.0	6.2	
Asia	35.8	27.0	9.6	27.7	40.6	9.9	
Europe	136.2	15.5	21.1	39.0	22.6	23.5	
Latin America and the	31.3	29.2	9.1	25.9	45.3	9.8	
Caribbean							
Northern America	86.1	20.1	17.3	36.3	29.8	18.6	
Oceania	59.7	24.2	14.4	32.3	36.9	15.6	
Eastern Europe	123.4	14.9	18.3	37.5	20.9	19.8	
Northern Europe	124.3	17.5	21.7	38.9	26.2	23.9	
Southern Europe	155.6	14.9	23.2	39.8	22.2	26.5	
Western Europe	147.3	15.9	23.4	40.7	24.0	26.9	
Northern Africa	21.4	32.3	6.9	23.0	51.3	7.4	
Western Asia	20.1	33.1	6.7	23.6	53.2	7.3	
2050							
World	107.4	20.2	21.7	37.8	31.7	25.4	
More developed regions	206.8	15.6	32.4	45.5	26.8	44.4	
Less developed regions	95.7	20.9	20.0	36.6	32.4	22.6	
Least developed regions	34.1	28.9	9.9	27.3	44.9	10.2	
Africa	34.7	28.7	10.0	27.4	44.4	10.3	
Asia	129.1	18.3	23.6	39.9	28.5	27.2	
Europe	229.7	15.0	34.5	47.1	26.2	48.0	
Latin America and the	133.4	18.1	24.1	39.9	28.4	28.9	
Caribbean							
Northern America	157.6	17.1	27.0	41.5	27.7	34.2	
Oceania	139.0	18.0	25.0	40.5	28.7	30.8	
Eastern Europe	230.6	14.9	34.5	47.2	25.4	44.4	
Northern Europe	187.0	16.2	30.2	43.7	27.0	40.0	
Southern Europe	276.3	14.0	38.6	50.1	26.1	60.7	
Western Europe	222.5	15.2	33.9	46.6	26.7	48.5	
Northern Africa	94.3	20.6	19.4	36.1	31.5	21.2	
Western Asia	84.2	21.2	17.8	35.3	32.1	19.4	

Source: UN (2007), the 2006 revision of the Medium variant of the 2004 UN World Population Prospects.

2. CHANGING FAMILY AND HOUSEHOLD LIVING AND WORKING ARRANGEMENTS

This chapter examines how the demographic and socio-economic trends reported in Europe in the latter part of the 20th century and early 20th century are affecting family life. It begins by presenting the changing definitions of families and households used by demographers, before exploring the impact on family composition of the trends analysed in Chapter 1. It then looks at the ways in which demographic change shapes household size and structure. The chapter concludes with a review of the challenges that changing patterns of family formation and dissolution, living and working arrangements present for governments and comments on their implications for policy.

The first demographic transition²⁵, which continued throughout most of the 20th century in the Western world, was characterised by decreasing fertility and mortality and increasing life expectancy. The second demographic transition began in the 1960s at the time when the postwar baby boom was coming to an end, and fertility rates were falling below the replacement level. This resulted in the low population growth and population ageing described in Chapter 1.

Another significant change was the increase in divorce rates. By the 1970s, alternatives to formal marriage were developing. In some countries, the number of couples cohabiting before marriage and the number of extramarital births were increasing rapidly.

A further trend contributing to changing family life was the dramatic increase in women's educational attainment and labour market participation from the 1970s in all European countries. These combined trends resulted in a diversification of family living arrangements, smaller family and household size, a growing number of lone-parent families and single-person households.

This de-institutionalisation of family life is closely interconnected with the processes of slower population growth and accelerated population ageing. The reduction in the time devoted to childbearing and childraising associated with the postponement and decline in fertility have made women less dependent on the bonds of formal marriage for their livelihood. In turn, lower levels of long-term commitment to marriage and its instability may be linked to the fall in fertility rates and smaller family size. Greater life expectancy, population ageing and increasing geographical mobility have called into question the relationships between the generations and the availability of family support networks. The diversification of family forms and structures has created important policy dilemmas for governments concerned about the threat posed by family breakdown for social order and the social and economic well-being of family members throughout the many stages in their life course.

2.1. Defining families and households

Family is a shifting concept. What it means to be a member of a family and the expectations people have of family relationships vary over time and space, making it difficult to find a universally agreed and applied definition. In their attempt to capture and track changing

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See chapter 2 of the Commission's first demography report (*Europe's demographic future: facts and figures on challenges and opportunities*, SEC(2007)638).

family forms and composition, demographers most often refer to the family nucleus and to private household units. Due to differences in the timing and formal recognition of changing patterns of family formation and dissolution, these concepts have become more difficult to operationalise. Analysts of demographic statistics therefore have access to relatively few complete and reliable datasets with which to make comparisons over time and between and within countries.

To assist governments in collecting data that can be collated internationally, the United Nations Economic Commission for Europe (UNECE) in conjunction with Eurostat draws up recommendations for the definitions to be used in the national censuses that are usually carried out every 10 years in the Member States of the European Union. Box 2.1 presents the definitions of family and household recommended for the forthcoming 2010 round of censuses.

Box 2.1: Defining the family nucleus and household

In family statistics, the term **family nucleus** is often used to refer to two or more persons who live in the same household and who are related as husband and wife, as opposite-sex partners in a registered partnership or as cohabiting partners, as a marital (registered) same-sex couple, or as parent and child.

When a family is defined in this narrow sense it may consist of a couple without children, a couple with one or more children or a lone parent with one or more children.

A **private household**, by contrast, is either a **housekeeping unit**, consisting of one or several persons occupying the whole or part of a housing unit, who provide themselves with the essentials for living, or a **dwelling unit** with one or more persons living in a housing unit (particularly relevant in the case of register-based statistics).

The concept of a **private household** thus applies to both:

- non-family households when one person lives alone or when two or more persons living in the same household unit do not constitute a family nucleus;
- and family households when two or more persons do constitute a family nucleus (a family household can also consist of two or more families).

The United Nations' definitions have been modified since they were first established in the 1970s to take account of changes in family and household composition. For example, the definition of the family nucleus was originally based on the 'conjugal family concept' according to which married couples were counted as family nuclei whether or not they had children. As consensual unions have been more widely recognised in national statistics, definitions have been extended: the recommendations for the 2010 censuses include registered same-sex couples in the list of related persons who can be considered to form a family nucleus.

Source: United Nations Economic Commission for Europe/Statistical Office of the European Communities (Eurostat) (2006) *Conference of European Statisticians: recommendations for the 2010 Censuses of Population and Housing*, prepared by the United Nations Economic Commission for Europe and Eurostat, New York/Geneva.

Although there is considerable overlap between the concepts of household and family in the statistics, the two concepts are interchangeable. Not every household can automatically be regarded as a family, and not every family forms a simple household. In addition, family ties

often extend beyond households as generations no longer cohabit, and family units break down or reconstitute. In this chapter, the term family is based on the concept of the family nucleus and, to some extent, family ties reaching beyond the family nucleus. The term household is used to encompass all living arrangements including one-person households.

2.2. Trends in family formation and composition

Most of the key changes that demographers were identifying in family formation and composition in European societies during the latter part of the 20^{th} century have continued into the 2000s. In some cases, they have been intensified, and in others they appear to be stabilising, insofar as can be assessed from the available data. This section examines in more detail how the key components of family formation and dissolution evolved in the late 20^{th} and early 21^{st} centuries, and tracks the resulting diversification of family forms.

2.2.1. Changing patterns of family formation, dissolution and reconstitution

For national statistical offices, registered marriage has long been considered to mark the first stage in family formation. In their efforts to make well-informed policy, governments have collected data on marital status (single, married, widowed or divorced and not remarried), gross (crude) marriage rates, age-specific first marriage rates, mean age at first marriage and at all marriages, proportions of first-married men and women by generation, divorce rates by duration of marriage and median duration of marriage at divorce. As alternatives to legal marriage, as well as divorce have become more widespread, data have also been collected on non-marital living arrangements. This section examines the different stages in couple formation, dissolution and reconstitution through marriage and divorce, unmarried cohabitation and separation, remarriage and re-partnering where the available data allow comparisons to be made over time and across countries.

2.2.1.1. Changing patterns of marriage and divorce

According to Eurostat, the number of all marriages contracted in a given year in EU-27 between 1975 and 2005 declined by almost 30%. In 1975, 3.45 million marriages were recorded, but by 2005 the number had fallen to 2.4 million. One reason for this decline has been the ageing of the European population, which led to a decrease in the number of young people, automatically resulting in fewer new candidates for marriage.

To find out whether the preference for first marriage has indeed decreased over the last decades, a correction has to be made to account for the change in the total number of potential marriage candidates. Table 2.1 presents the total rate of first marriages adjusted for changes cohort size²⁶. It confirms that the rate of first marriage has fallen everywhere in EU-27. In 1975, more than about 80% of all men and women, with the exception of the Nordic countries, entered into a first marriage. By 2003, the rate had fallen to about 55%. More recent information from the 1990s and the beginning of 21st century for other European countries seem to confirm the general decline in the rate of first marriage, although Denmark, France, Romania and Sweden were reporting a slight recovery. The rate of first marriage for women is higher than for men because men are more likely than women to enter into a second marriage.

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But even after this correction the Total First Marriage Rate may still be biased. The TFMR is (like the TFR) a period estimator and as such sensitive to a postponement in the age of first marriage.

Table 2.1: Trends in total rate of first marriages, in %*

	4075	4000	4005	4000	4005	0000	0000
Men	1975	1980	1985	1990	1995	2000	2003
EU-25	86	74	67	67	54	57	53
BE	86	74	62	67	52	48	44
BG	94	90	87	83	54	50	46
CZ	94 :	90	:	:	:	48	43
DK	62	49	54	56	61	69	68
DE							
	77	68	61	59	49	52	50 41
EE		- :	70	74		37	
IE	:	:	70	71	60	:	:
EL		70		72	73	50	62
ES	:	79	64	67	58	59	54
FX**	82	69	53	55	48	58	55
IT	91	79	69	69	59	58	:
CY	:	:	:	:	:	:	
LV	:	:	:	:	:	39	44
LT						54	55
LU	:	:	:	58	50	49	44
HU	94	77	80	77	57	48	44
MT	:	:	:	:	:	87	72
NL	78	66	55	62	49	54	52
AT	73	67	59	54	50	50	48
PL	:		:			63	58
PT	:	:	79	87	76	72	59
RO	:	:			:	60	64
SI	94	73	61	49	49	42	40
SK	:	:	:_	:_	:	51	50
FI	64	61	55	54	52	59	59
SE	57	49	49	52	42	49	46
UK	:	76	65	59	50	49	:
Women							
EU-25	89	77	65	72	57	51	47
BE	89	77	65	72	57	51	47
BG	:	97	93	87	56	53	49
CZ	:	78	122	103	_ :_	50	45
DK	67	53	57	60	65	73	71
DE	80	69	63	64	56	59	55
EE	94	94	88	79	45	37	42
IE	94	75	69	70	59	:	:
EL	:	:	:	72	75	54	68
ES	:	76	64	69	60	63	58
FX**	86	71	54	56	49	61	57
IT	94	78	68	69	62	64	:
CY	:	:	:	:	:	:	:
LV		97	93	94	47	40	45
LT	:	94	98	106	67	56	56
LU	:	:	:	64	56	54	50
HU	:	89	86	77	56	49	47
MT	:	:	:	:		89	76
NL	83	68	57	66	53	59	55
AT	74	66	60	58	55	55	51
PL	92	89	89	90	66	63	58
PT	:	86	79	88	77	75	63
RO	98	102	85	94	73	64	69
SI	99	79	65	51	51	45	42
SK	:	:	:	:	:	52	52
FI	70	67	58	59	57	62	62
SE	63	52	53	55	44	53	52
UK		<u> </u>	66	62	53	54	
					er wome		

^{*} The mean number of first marriages per woman or man in a given year adjusted for cohort size. First marriages by age group are added together assuming that the number of men and women in each group is the same. This is the first marriage rate of a hypothetical individual subjected at each age to the current marriage conditions. It is comparable in nature to the period total fertility rate (see chapter 2).

^{**} Metropolitan France

Source: NIDI and Eurostat demographic data 2006, corrections and changes have been introduced by the authors.

A number of reasons have been proposed for the decrease in first marriages across the EU in the late 20th century. The spread of reliable methods of birth control in Western societies and the rise in female paid employment made women less dependent on a formal marital relationship for their livelihood. As more emphasis was placed on individual self-fulfilment, couples may have become less willing to accept the kind of compromise needed to support a marital partnership. Traditional marriage was no longer the only option. Changes in family law making divorce easier and establishing alternative contractual living arrangements, together with the decline in religious observance, endorsed and reinforced changing value systems and social behaviour.

Like the age of the mother at first birth (see Chapter 1), the average age at first marriage also increased markedly between 1990 and 2003: by 2.3 years for men and by 2.6 years for women (see Table 2.2). The age gap between men and women narrowed from 2.7 years in 1990 to 2.4 years in 2003. The gap between the countries with the highest and lowest age at first marriage was reduced slightly from 6.5 years in 1990 to 6.3 years in 2003. As with childbirth, women in the Central and Eastern European countries continued to enter into a marriage at a younger age than in EU-15 countries. No clear link can be observed between the marriage rate and mean age at first marriage. Even in countries with a relatively high mean age of first marriage, the marriage rate may be relatively high. A positive correlation is found, by contrast, between postponement of marriage and postponement of first birth.

Table 2.2: Change in average age at first marriage between 1990 and 2003

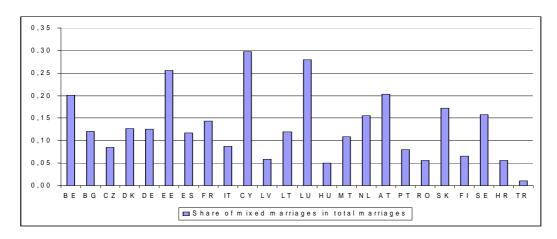
	199	0	2003			
	Women	Men	Women	Men		
EU-25*	24.8	27.5	27.4	29.8		
BE	24.3	26.3	27.1	29.3		
BG	21.4	24.6	24.9	28.2		
CZ	21.1	23.5	25.6	28.4		
DK	27.6	30.0	30.1	32.3		
DE	25.3	27.9	28.1	30.6		
EE	22.5	24.6	25.5	28.1		
IE	26.5	28.3	:	:		
EL	24.7	28.7	27.3	31.0		
ES	25.3	27.5	28.3	30.2		
FR	25.6	27.5	28.2	30.4		
IT	25.6	28.6	27.4	30.4		
CY	:	:	26.1	28.9		
LV	22.3	24.1	24.8	26.8		
LT	22.4	24.2	24.4	26.6		
LU	25.4	26.9	27.9	30.2		
HU	21.5	24.2	25.8	28.6		
MT	:	:	26.5	29.0		
NL	25.9	28.2	28.4	30.8		
AT	24.9	27.4	27.4	29.9		
PL	22.7	:	24.7	27.0		
PT	23.9	26.0	26.1	28.0		
RO	22.0	:	24.1	27.5		
SI	23.8	26.6	27.5	30.1		
SK	21.8	24.8	25.0	27.7		
FI	25.0	27.0	28.5	30.4		
SE	27.5	29.9	30.5	32.9		
UK	25.0	27.2	27.2	29.3		

*estimate

Source: Eurostat.

Another important phenomenon in the EU is the number of mixed marriages between spouses of different EU nationalities, as well as between EU nationals and immigrants from third countries. Mixed marriages are defined as marriages where one of the spouses is a citizen of the country in question whereas the other is not. Figure 2.1 presents the situation across the EU in 2006 (or last year available)²⁷. The number of mixed marriages was high – more than 20% of all marriages – in Cyprus, Luxemburg and Estonia, followed by Austria and Belgium. It was lowest, at around 5%, in Hungary, Romania, Latvia and Finland. Currently, mixed marriages between EU nationals represent an important proportion of total marriages in most EU Member States.

Figure 2.1: Proportion of mixed marriages among all marriages concluded in 2006



Source: IHS Austria based on national statistical data.

If marriage marks the institutionalisation of family formation, divorce formally registers the end of a relationship. Divorce rates fluctuate with changes in the law and, thus, cannot provide reliable data on trends over time and space in the rate of marital breakdown. A steep increase or fall in a given year may be explained by the introduction of more permissive or restrictive regulations, thereby masking longer-term trends. In most countries, legislation in the late 20^{th} century facilitated access to divorce by mutual consent, in general contributing to an increase in divorce rates.

Table 2.3 presents the mean number of divorces in a given year in relation to the number of marriages concluded in that year (corrected for differences in the size of marriage cohort). As with total fertility and total marriage rates, the total annual divorce rate is not the divorce rate of an actual 'marriage cohort'; rather, it is the divorce rate of a hypothetical generation subjected at each age to current marriage and divorce conditions, unbiased by the age structure of the population, thereby ensuring greater comparability over time and across countries.

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Schuh U. (2008) *Mixed marriages in the EU* Research Note HIS Austria, European Observatory on Demography and the Social Situation- Demography Network, European Commission.

Table 2.3: Trends in divorce rates*, 1975-2005

	1975	1980	1985	1990	1995	2000	2005
BE	0.2	0.2	0.3	0.3	0.5	0.4	:
BG	:	:			0.2	0.2	0.3
CZ	:	:	:	:	0.4	0.4	0.5
DK	0.4	0.4	0.5	0.4	0.4	0.4	0.5
DE	0.3	0.3	0.3	0.3	0.3	0.4	0.4
EE	:	:	:	:	0.7	0.5	:
IE	0.0	0.0	0.0	0.0	0.0	:	:
GR	0.1	0.1	0.1	0.1	0.2	0.2	
ES	0.0	0.0	0.1	0.1	0.1	0.2	0.3
FR**	:	:	:				:
IT	0.0	0.0	0.0	0.1	0.1	:	0.1
CY	:	:	:		0.1	0.2	0.2
LV	:_	:	:_	:	0.3	0.3	0.4
LT	:	:	:	:	0.3	0.4	0.5
LU	0.1	0.3	0.3	0.4	0.3	0.5	0.5
HU	:	:	:	:	0.3	0.4	0.4
MT**	-	-	-	-	-	-	-
NL	0.2	0.2	0.3	0.3	0.4	0.4	0.4
AT	0.2	0.3	0.3	0.3	0.4	0.4	0.5
PL	:	:	:		0.1	0.2	0.3
PT	0.0	0.1	0.1	0.1	0.2	0.3	0.3
RO	:	:	:	:	0.2	0.2	0.2
SI	:	:	:	0.1	0.1	0.2	0.3
SK	:	:	:		:	0.3	0.4
FI	0.3	0.3	0.3	0.4	0.5	0.5	0.5
SE	0.5	0.4	0.5	0.4	0.5	0.5	0.5
UK	0.3	0.3	0.4	0.4	0.4	:	0.4

^{*} Independent of marriage cohort size

Source: Eurostat demographic data.

The data presented in Table 2.3 indicate a steady increase in divorce rates in most Member States. Whereas levels were already relatively high in some countries in the 1970s, most notably Denmark and Sweden, no statistics on divorce were collected in Ireland, Italy, Spain and Portugal in 1975. No data are available for the earlier period in the countries that joined the EU in 2004 and 2007, but recent data show large disparities in their divorce rates in the 21st century: Estonia and Lithuania record high rates, similar to those in the Nordic states, whereas Bulgaria, Poland, Slovenia and Romania are closer to the countries in Southern Europe, displaying some of the lowest rates. Between 2000 and 2005, divorce rates appear to have stabilised in a number of countries, including Finland and Sweden where unprecedented levels had been reached in 1995, with 1 divorce for every 2 marriages. The disparity between the countries with the highest and lowest rates has changed very little over the period.

Whereas the number of divorces was increasing during the late 20th century, the mean duration of marriage at the time of divorce²⁸ generally did not fall over the period. Table 2.4 shows that, in most of the countries with complete datasets, couples were divorcing after a larger number of years of marriage in 2005 than in 1975, suggesting that marriage continues to be seen as an enduring institution. The disparity between the countries with the longest and shortest duration of marriage at the time of divorce decreased by the end of the period,

^{**} Data for France are missing; divorce is not permitted in Malta.

The mean duration of marriage at divorce is obtained by adding the series of divorce rates by duration of marriage for the calendar year under consideration, and calculating the mean of this sum.

ranging from 8.4 in Austria to 24.2 years in Italy in 1975, but from 10.5 in Latvia to 16.8 in Italy in 2005.

Table 2.4: Trends in mean duration of marriage (in years) at the time of divorce, 1975-2000

	1975	1980	1985	1990	1995	2000	2005
BE	13.3	12.6	13.6	13.9	13.3	13.1	:
BG	:	:	:	:	9.0	10.2	12.3
CZ	:	:	:	:	10.7	11.2	12.3
DK	11.1	10.4	11.2	11.4	11.4	11.5	11.4
DE	9.1	10.0	10.3	11.4	11.7	12.3	12.7
EE	: :	:	: .	:	10.1	9.8	:
GR	11.5	14.7	12.8	12.1	11.1	12.4	:
ES	:	:	15.4	14.8	16.1	14.7	13.9
FR*	:	:	:	:	:	:	:
IT	24.2	17.1	16.9	15.5	15.8	:	16.8
CY	:	:	:	:	11.4	12.0	11.9
LV	:	:	:	:	9.9	10.4	10.5
LT	:	:	:	:	11.0	11.4	11.6
LU	10.5	11.4	11.5	13.1	12.5	11.5	13.3
HU	:	:	:_	:	10.8	11.0	11.8
NL	14.4	11.5	12.1	11.8	11.5	12.2	13.0
AT	8.4	9.2	9.8	10.0	10.7	11.1	10.7
PL	:	:	:	:	12.5	11.4	13.3
PT	17.4	13.9	14.3	14.2	13.5	13.3	12.7
RO		:	:	:	9.1	9.9	11.1
SI	:	:	:	10.4	12.2	12.6	13.6
SK		:	:	:	:	11.8	13.0
FI	11.6	11.6	12.4	12.4	12.5	12.7	12.6
SE	12.6	11.2	11.8	12.0	11.8	11.7	11.9
UK	13.0	12.5	11.1	11.6	11.2	:	13.3

^{*} Data for France are missing

Source: Eurostat demographic data.

2.2.1.2. Trends in unmarried cohabitation, separation and re-partnering

Legally contracted marriage and divorce provide only a partial view of changing patterns of couple formation and dissolution. A marked trend since the 1980s, firstly in the Nordic countries and subsequently extending southwards, is the development of unmarried cohabitation. Initially, consensual unions served as a prelude to marriage to the extent that unmarried cohabitation replaced marriage as the first form of partnership for young people. By the 1990s, consensual unions had come to be seen as a longer-term alternative to marriage in these countries. Today, young people at the beginning of their working life and well into their twenties are likely to be spending more time in education and training and may embark on one or more cohabiting relationships without necessarily seeing them as long term or as a prelude to raising a child.

Unmarried cohabitation is difficult to define and to measure. Unlike officially recorded life events such as births, marriages and deaths, consensual unions are generally not registered with administrative services. However, as unmarried cohabitation has become more widespread, some governments have given legal status to non-marital relationships, recognising the rights of unmarried heterosexual and same-sex partnerships. As a result, non-marital partnerships have become institutionally visible and can be recorded in official statistics. The data from registers are, however, usually confined to crude rates by age and sex with little information about duration or separation. Where consensual unions are not legally registered, either because they have no legal status, or the partners choose not to register, the data collected are based on self-reporting.

The 2001 population census provides information about the proportion of couples living together without being formally married, but no similar EU-wide data are available on same-sex cohabiting couples or couples living together for only part of the time. Table 2.5 shows how unmarried cohabitation has become a widespread and socially acceptable living arrangement in different regions within the EU. On average, about 9% of all couples are cohabiting, but large differences are found between countries. The proportion of cohabiting couples is largest in Northern Europe (22% for Denmark and Finland and 21% in Estonia) and much lower in Southern and Eastern Europe.

Table 2.5: Proportion of unmarried cohabiting couples in 2001 by age groups, in %

	total	20-29	30-39	40-49	50+
EU23*	9	31	13	7	3
BE	9	35	14	7	3
BG	8	26	8	5	2
CZ	5	13	6	5	4
DK	22	69	30	16	8
DE	10	40	16	8	4
EE	21	52	26	17	11
IE	10	52	13	5	2
GR	3	12	4	2	1
ES	6	25	9	5	2
IT	4	12	6	4	2
Су	1	6	2	1	0
LV	9	20	9	8	7
LT	7	13	8	7	5
HU	11	30	13	10	6
NL	16	57	22	10	5
AT	12	40	17	9	5
PL	2	6	2	2	1
PT	7	15	9	7	4
RO	8	18	8	6	4
SI	9	32	16	8	3
SK	3	4	3	2	2
FI	22	65	30	18	8
UK	16	55	23	12	5

^{*} No information available for FR, LU, MT and SE.

Source: Eurostat 2001 Population Census.

As divorce has become more widespread in Europe, a growing number of marriages are remarriages involving divorced persons. Table 2.6, which presents data for 1995 to 2005, shows that, although most people marrying in EU-27 were single (rather than divorced or widowed), a substantial minority of marriages were of divorcees. The Southern European countries and Poland and Slovenia, which recorded relatively low divorce rates, reported the lowest proportion of remarriages. In Austria, Germany, Luxembourg, the Czech Republic, Denmark, Estonia, Hungary and Latvia, by contrast more than 20% of all marriages in 2005 involved persons previously married. Except for the Southern European countries, where the proportion of divorcees in all marriages has remained relatively stable, in most countries re-partnering through marriage has become widespread.

Table 2.6: Proportion in all marriages of previously divorced persons, 1995-2005, in %

		men			women	
	1995	2000	2005	1995	2000	2005
BE	21	23	•	21	23	:
BG	11	12	12	9	11	11
CZ	23	24	25	23	24	24
DK	22	21	22	22	21	21
DE	21	24	25	23	26	27
EE	31	29	29	28	29	25
IE	0	:	7	0	:	5
GR	9	11	11	8	10	11
ES	5	6	8	4	5	8
FX*	16	17	19	16	16	18
IT	:	6	7	:	5	7
CY	<u> </u>	21	16	:_	19	15
LV	:	27	26	:	25	22
LT	17	20	22	14	18	19
LU	19	23	26	19	22	23
HU	17	19	20	17	19	19
MT	:	5	:	:	4	:
NL	17	18	18	15	17	17
AT	19	22	26	19	22	26
PI	:	8	8	:	7	7
PT	7	8	12	5	7	11
RO	12	13	15	11	12	13
SI	:	8	8	:	8	6
SK	:	11	12	:	9	11
FI	18	20	:	18	21	:
SE	20	19	18	20	21	22
UK	27	:	:	26	:	:

* FX is Metropolitan France

Source: Eurostat demographic data.

As unmarried cohabitation has become a more common living arrangement, the breakdown of cohabitation is also becoming more prevalent. Although reliable comparative data for unmarried partnership dissolution are almost non-existent, the sparse information available from national surveys suggests that unmarried cohabitation is more fragile and of shorter duration than marriage (often less than two years). In the UK for example, data from the British Household Panel show that 60% of consensual unions in the 1990s are known to have turned into a marriage within 10 years, while 35% were dissolved, confirming that unmarried cohabitation was still widely seen as a prelude to marriage. Cohabiting unions that were not converted into marriages were the most likely type of partnership to dissolve. However, marriages with no prior experience of cohabitation were not more likely to breakdown than marriages that began as a cohabiting relationship²⁹.

In the 1970s, institutionalised life-long marriage contracts were the only legally recognised partnership arrangement in which to give birth and raise children, marriage was most likely to end with the death of one of the partners, and divorce was non-existent or difficult to obtain. In 21st century, couples have a much wider range of options to choose from and are more likely to experience several different partnership arrangements. These options are not, however, equally available for men and women in all EU-27 Member States. Trend data suggest that, although change is following the same general direction, a large gap remains between the leaders and the laggards.

Hantrais L. (2004) Family Policy Matters, The Policy Press, see page 63

2.2.2. Changing patterns of births within and outside marriage

Despite the formal definition used by demographers of a family nucleus as a couple with or without children, for many people, family formation is dependent on the birth of children. As shown in Chapter 1, compared with the 1980s, the transition to parenthood, like that to marital status, has been postponed, and childbearing is more often being compressed into a smaller number of years at a later age, particularly among well-educated women: first births are now more likely to occur as women approach the age of 30, if not later, compared with age 25 in the early 1980s, although some levelling off is occurring.

The extent to which conceiving children is determined voluntarily depends to a large extent on access to effective means of birth control. Information is not routinely and consistently collected on contraceptive use, abortion and childlessness, and little is known about the extent to which childlessness is voluntary or involuntary. Statistics on contraceptive practices do not always include unmarried women, and abortion rates usually record only legal abortions. Where access to a legal abortion is restricted, as in Ireland and Poland, the number of abortions to nationals of the countries concerned may go unrecorded. Data on childlessness are not routinely recorded in many countries and can only be collected at the end of the reproductive life span of a cohort. There is no measure on childlessness that would be equivalent to total period fertility which provides an estimate of the number of children women are likely to have (see the discussion in Chapter 1 on different fertility indicators and postponement).

Although it is not possible to make systematic comparisons of trends over time and within or between countries, the limited information available suggests that more couples in the early 2000s, compared with half a century earlier, are able to control their fertility and choose the number and timing of births using reliable methods of contraception and/or abortion. Voluntary postponement of childbirth is known, however, to increase the risk of permanent childlessness, despite the wider availability of assisted reproductive technology (see Chapter 1).

As more couples form consensual unions and more marriages end in divorce, marriage and parenting are increasingly becoming disconnected. Since cohabitation has replaced marriage as the first form of partnership, many couples are not married when their first child is born. While cohabiting couples often opt for marriage when they decide to have children, a growing number of cohabiting parents choose to raise children outside marriage. As illustrated by Figure 2.2, an important trend in family formation in Europe over the past 40 years has been the large increase in the number of extramarital births. In 2005, about 35% of all European children were born outside a formal marriage, compared with only 8% in 1975.

Live births outside marriage, % of total number of births, average of EU Member States

40%
35%
25%
20%
10%
1960 1963 1966 1969 1972 1975 1978 1981 1984 1987 1990 1993 1996 1999 2002 2005

Figure 2.2: Trends in extramarital birth rates

Source: Eurostat demographic data.

This phenomenon, which, like unmarried cohabitation, started in the Nordic countries in the 1970s, had spread to all EU Member States by the earlier 21st century. Table 2.7 shows that Cyprus, Greece, Italy and Spain, but also the Netherlands, were recording very low rates of extramarital births in 1975, whereas the phenomenon was already widespread in Denmark and Sweden. The Southern European countries experienced a large increase in the number of extramarital births over this period, but their average levels remained below those attained in the north of Europe in 2005. The gap between the countries with the highest and lowest rates increased over the period. Cyprus and Greece continued to display rates that were 10 times below the levels in the Nordic countries in 2005. In Sweden and Estonia, more than 55% of births now take place outside marriage (58% in Estonia). Everywhere, the proportion of extramarital births continued to increase between 2000 and 2005. As more countries are officially recognising same-sex couples, some are also allowing same-sex couples to adopt children, and more women in lesbian relationships are bearing their own children.

Table 2.7: Trends in the proportion of live births outside marriage, in %

	1975	1980	1985	1990	1995	2000	2005
EU-27	:	:	:	:	21.8	:	:
BE	3.1	4.1	7.1	11.6	17.3	:	:
BG	9.3	10.9	11.7	12.4	25.7	38.4	49.0
CZ	4.5	5.6	7.3	8.6	15.6	21.8	31.7
DK	21.7	33.2	43.0	46.4	46.5	44.6	45.7
DE	8.5	11.9	16.2	15.3	16.1	23.4	29.2
EE	:	:	:	27.2	44.2	54.5	58.5
IE	3.7	5.9	8.5	14.6	22.3	31.5	32.0
GR	1.3	1.5	1.8	2.2	3.0	4.0	5.1
ES	2.0	3.9	8.0	9.6	11.1	17.7	26.6
FX*	8.5	11.4	19.6	30.1	37.6	42.6	47.4
IT	2.5	4.3	5.4	6.5	8.1	9.7	15.4
CY	0.7	0.6	0.4	0.7	1.4	2.3	4.4
LV	11.7	12.5	14.4	16.9	29.9	40.3	44.6
LT	6.2	6.3	7.0	7.0	12.8	22.6	28.4
LU	4.2	6.0	8.7	12.8	13.1	21.9	27.2
HU	5.6	7.1	9.2	13.1	20.7	29.0	35.0
MT	1.2	1.1	1.2	1.8	4.6	10.6	20.0
NL	2.1	4.1	8.3	11.4	15.5	24.9	34.9
AT	13.5	17.8	22.4	23.6	27.4	31.3	36.5
PI	:	:	:	:	9.5	12.1	18.5
PT	7.2	9.2	12.3	14.7	18.7	22.2	30.7
RO	:	:	:	:	19.7	25.5	28.5
SI	9.9	13.1	19.1	24.5	29.8	37.1	46.7
SK	5.2	5.7	6.6	7.6	12.6	18.3	26.0
FI	10.1	13.1	16.4	25.2	33.1	39.2	40.4
SE	32.8	39.7	46.4	47.0	53.0	55.3	55.4
UK	9.0	11.5	18.9	27.9	33.5	39.5	42.9

* Metropolitan France

Source: Eurostat demographic data.

Figures for extramarital births include births to cohabiting couples as well as those to lone parents. The increase in lone parenting is associated with higher extramarital birth and divorce rates. Even though the great majority of extramarital births take place within cohabiting partnerships, the number of children aged 0 to 14 living with lone mothers has also increased since the 1970s, ranging from 25% in Estonia and 23% in the UK, to 7.9% in Greece and 5.2% in Cyprus according to 2001 census data. This trend can be explained not only by the rise in divorce rates and the breakdown of unmarried cohabitation, but also because of the increasing number of women who decide that they would like to have a child without living with a partner and without jointly registering the birth with the father.

In the mid-1990s, for example, divorce and separation explained more than 50% of lone motherhood, while widowhood explained 20% of lone-parent families across EU-15. In southern Europe, widowhood explained almost 30% of lone parenting, whereas in Denmark more than a third of all lone parents had never been married. Never-married lone parents accounted for 25% or more of lone parents in Austria, Finland, France, Germany, Ireland and the UK.

Like unmarried cohabitation, lone parenthood is not a stable state. In the UK, for example, data from the Office of National Statistics and British Household Survey estimate that in about 50% of cases, lone parenthood lasts no more than four years. It remains, however, that children born to lone parents are likely to spend more years living with a single parent than

children born within an unmarried cohabiting union, who, in turn, spend longer living with one parent than the offspring of a married couple after divorce³⁰.

For most couples, the birth of children is a reason for getting married. Nevertheless the number of cohabiting couples with children appears to be rising. Table 2.8 presents the importance of various family living arrangements for households with children under the age of 25. In 2001, 80% of all such households with dependent children were headed by a married father and mother; another 6% by cohabiting parents. Single parent families represented around 14% of households with children. Large differences were found across the Member States. The highest levels of single parenthood were found in some of the Eastern European Member States, whereas unmarried cohabiting parenthood was more common in some of the Northern and Western European countries.

Table 2.8: Family status in households with children under the age of 25 (year 2001)

% of all households with children under 25	Single fathers	Single mother with children	Single parent with children	Married couple	Cohabiting couple	Two adults with children
23	1	2	3=1+2	4	5	6=4+5
EU-22*	2	12	14	80	6	86
CZ	3	17	20	76	4	80
DK	1	7	8	72	20	92
DE	2	8	10	81	9	90
EE	2	23	25	59	16	75
IE	3	14	17	75	8	83
GR	2	10	12	85	3	88
ES	3	12	15	80	5	85
FR	2	10	12	88	:	88
IT	2	11	13	84	3	87
CY	1	6	7	91	2	93
LV	3	29	32	62	6	68
LT	2	19	21	73	6	79
HU	2	14	16	75	9	84
NL	2	7	9	76	15	91
AT	2	14	16	74	10	84
PL	2	17	19	79	2	81
PT	2	10	12	82	6	88
RO	2	11	13	80	7	87
SL	3	16	19	73	8	81
SK	2	15	17	81	2	83
FI	2	11	13	68	19	87
UK	2	14	16	70	14	84

^{*}EU average calculated for 22 countries, no information is available for BE, SE, MT and LU; no information on unmarried cohabitation for FR.

Source: Eurostat 2001 Population Census, own calculations, see also the report for the Commission "Literature review on the impact of family breakdown on children", University of Nottingham.

Compared with the 1970s, more children in the EU are likely to experience transitions between different family living arrangements, to live with only one parent or with stepparents in reconstituted families, and to be raised by mixed-nationality couples (see Chapter 1). However, even in countries with high rates of lone parenthood and divorce, at least two-thirds of children still spend the greater part of their childhood living as a family with both their natural parents. Much of the information presented in this section on unmarried cohabitation and lone parenting is derived from data collected in the 1990s and in the 1991 and 2001

Hantrais L. (2004) *Family Policy Matters*, The Policy Press, see page 68.

censuses. More complete and reliable datasets are needed to track trends in family formation, dissolution and reconstitution with a greater degree of accuracy.

2.3. Changes in labour force participation of women

Arguably, one of the most important trends of the last 40 years affecting family life has been the dramatic increase in women's employment. Since the 1960s, more women have become economically active and have entered paid employment outside the home, particularly in the public services sector, rather than working on the land or in a family enterprise as in the past. Their employment rates have, thereby, moved closer to those of men making them much less dependent on the formal marital relationship for their livelihood. Although the overall trend is for more women with young children to remain in employment during their childrearing years, striking differences can be observed between EU Member States.

Table 2.9 shows the increase in employment rates since 1985 for women aged 25-54, the period in their lives when they are most likely to be combining paid work with family responsibilities. Despite the fact that, for the EU as whole, the employment rate for women aged 25-54 has increased, four groups of countries can be distinguished. In the Northern European countries, employment rates were already high in the 1980s and they have remained above the EU average. In the Western European countries, overall rates were generally lower, but they have since increased markedly, due in some cases, the Netherlands in particular, to the widespread use of part-time work. The third group is formed by the Southern European countries, which reported a relatively low level of women's employment in 1985, and have since seen a marked increase. Although no comparable data are available about women's employment rates in the Central and East European Member States for the years 1985, 1990 and 1995, it is widely accepted that women's employment rates under the socialist regimes were higher than in EU-15 and that, after the transition to a social market economy, women's employment rates fell steeply in many of these countries.

Table 2.9: Employment rates of women aged 25-54, 1985-2005

	1985	1990	1995	2000	2005
EU-27	:	:	:	66.3	69.2
EU-15	:	:	61.0	65.7	69.6
BE	48.3	54.5	60.6	67.8	70.4
BG	:	:	:	67.4	70.3
CZ	:	:	•	73.7	74.0
DK	77.0	80.3	75.9	80.4	80.6
DE	54.4	61.5	66.3	71.1	72.5
EE	:	:		74.4	77.5
IE	30.3	38.7	48.9	62.5	67.3
GR	43.6	47.1	49.0	52.9	58.5
ES	<u> </u>	37.0	40.2	50.9	61.5
FR	62.2	64.6	67.6	69.6	74.0
IT	42.3	46.2	46.9	50.7	57.9
CY	:	:	:	64.0	72.2
LV	:	:	:	71.7	75.3
LT	:	:	:	76.5	78.8
LU	41.6	48.7	50.6	63.0	68.4
HU	:	:	:	66.7	67.2
MT	<u> </u>	:_	:_	32.9	35.4
NL	40.4	51.6	60.5	70.9	75.5
AT	:	:	69.8	73.5	76.0
PL	:	:	:	64.5	63.1
PT	:	63.4	68.9	73.9	74.9
RO	:	:	:_	72.7	66.5
SI	:	:	:	79.6	81.1
SK		:	:	69.3	69.2
FI	:	:	71.5	77.6	79.0
SE		:	82.1	80.9	81.1
UK	61.1	68.6	69.5	73.1	74.8

Source: Eurostat, Labour Force Survey.

Table 2.10 looks at trends in the employment gap between women and men. In all the EU Member States for which datasets are complete, the gap has decreased over the period. However, between 2000 and 2005, the gap increased in the countries where it had previously been very small: Estonia, Latvia, Lithuania, Slovenia and Sweden. The marked increase in the employment rates of women in Greece and Spain resulted in a reduction in the gender gap. The reduction over the whole period was faster for the younger than for the older age group, reflecting greater proximity in patterns of male and female employment among younger people and a greater propensity for younger cohorts of women to remain in the labour force.

Table 2.10: Gender Gap in Employment Rates, in percentage points*

		Persor	ns aged 2	5-49			Persons aged 50+				
	1985	1990	1995	2000	2005	1985	1990	1995	2000	2005	
EU	:	32	24	21	16	:	24	19	17	15	
EU-27	:	:	:	19	16	:	:	:	16	15	
EU-15	:	:	24	21	17	:		19	17	15	
BE	38	32	24	18	14	27	21	18	16	16	
BG	:	:	:	5	6		:	:	11	11	
CZ	:	:	:	17	18	:	:	:	19	19	
DK	10	7	10	8	8	19	19	18	12	13	
DE	34	28	20	16	11	27	27	20	16	12	
EE	:	:	:	6	7	:	:	:	12	9	
IE	48	42	30	24	21	35	33	32	29	23	
GR	47	43	39	34	29	30	28	25	23	22	
ES	:	47	37	33	24	:	28	23	23	21	
FR	27	25	19	18	14	18	14	11	10	9	
IT	49	42	37	33	28	31	28	23	21	19	
CY	:	:	:	27	18	:		:	29	28	
LV	:	:	:	4	7	:	:	:	16	14	
LT	:	:		-1	5			:	11	14	
LU	51	43	39	28	23	27	27	24	21	16	
HU	:	:	:	13	15	:	:	:	13	11	
MT	;	:	:	55	52	:	:	:	35	33	
NL	44	36	26	20	14	27	25	21	21	18	
AT	:	:	19	15	13	:	:	20	19	15	
PL	:	:		14	13	:		:	14	14	
PT	:	27	19	14	11	:	27	22	20	15	
RO	:	:		12	13			:	12	12	
SI	:	:	:	2	5	:	:	:	18	17	
SK	:			10	13	:			16	19	
FI	:	:	5	8	7	:	:	7	8	7	
SE	:		2	4	6	:		9	10	10	
UK	26	21	16	15	13	22	19	15	14	14	

^{*} Male rate minus the female rate

Source: Eurostat, Labour Force Survey.

These changes in female labour force participation also have profound consequences for both family and household living arrangements. A significant trend has been the reversal in the correlation between fertility and female labour force participation rates across OECD³¹. Until the mid-1980s, the correlation was consistently negative: countries with high average female participation rates displayed lower period fertility rates. During the late 1990s, the correlation started to become positive in some countries. In the early 2000s, the EU Member States with the highest female participation rates also displayed the highest fertility rates. Nevertheless, comparisons of employment rates for women with young children and part-time employment demonstrate that women are still much more likely than men to adapt their employment patterns when they have children.

The combined effect of the trends observed in family living and working arrangements in clusters of EU Members States in the early 2000s can be summarised in the following terms: In Northern Europe, relatively high employment rates of women and small gender-employment gaps can be observed, together with relatively high fertility, indicating that women are more successful in managing to combine family responsibilities and paid work than elsewhere in the EU. The picture is more variegated in Western Europe, where France, the Netherlands and UK display relatively high employment of women and total fertility rates, while above-average employment rates in Austria and Germany are accompanied by low

D'Addio A. C. and M. Mira d'Ercole (2004) "Trends and determinants of fertility rates and the role of policies" OECD (www.oecd.org/dataoecd/7/33/35304751.pdf)

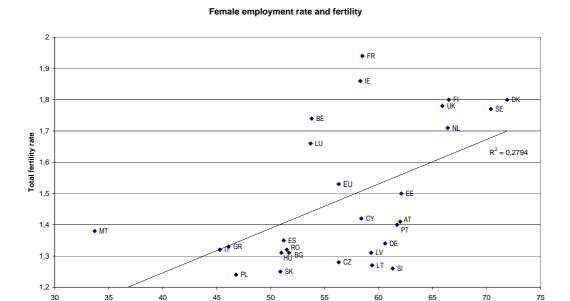
fertility rates. By contrast, the southern European countries, except Portugal and, in some respects, Spain, but including Cyprus and Malta, are characterised by a combination of persistently low levels of female employment, irrespective of whether women have children, relatively large gender employment gaps and low fertility rates, meaning that few women are managing to combine employment with childraising.

Whereas employment rates of women were rising in Western Europe in the 1990s, in the Central and East European countries, both male and female rates fell steeply during the process of economic transition; they were rising again by 2005, albeit with more difficulty in Hungary and Poland. Because female employment rates had fallen from a relatively high level in the 1990s, the gender employment gap continued to be smaller in these countries than in Western Europe. By 2005, as female employment rates began to pick up, fertility rates were also rising.

Although attitudes towards mothers' work outside the home have also been evolving, and Europeans have become more accepting of women combining employment with family life, marked differences remain between countries. Overall, Northern and Western Europe could be said to have achieved a relatively high overall level of labour market integration for women, due often to relatively high part-time rates, combined with widespread acceptance of less conventional living and working arrangements, but nevertheless with substantial variations between countries. Southern Europe and Ireland lie towards the other end of the spectrum in terms of the labour market integration of women and, again, display different approaches towards living and working arrangements. The Eastern European countries are distinguished from most EU-15 Member States by the combination of a relatively small employment gap, low levels of part-time work and, traditionally, a stronger commitment to working mothers in both attitudes and practice, although again with variations between countries.

Marital status, childbearing and childrearing are no longer seen as an insurmountable obstacle for women's employment. Indeed, some countries with high levels of employment of women also have higher fertility rates (see Figure 2.3), suggesting that achieving a satisfactory worklife balance for women may be a key to both higher employment of women and to the maintenance of relatively higher fertility rates, although the strategies adopted in doing so are likely to remain culture specific.

Figure 2.3: Cross-country correlation between employment rates of women and fertility rates



Employment rate

Source: Eurostat

2.4. Changing household size and composition

The changes in family life described above, including postponement of marriage and childbirth, lower fertility rates and childlessness, rising divorce rates and the development of alternative modes of family formation, dissolution and reconstitution, are associated with smaller average family size and new patterns of household composition. This section focuses on trends in household living arrangements, with particular reference to household size and composition. The most comprehensive source of data on households is the population census carried out every 10 years in most EU Member States. The last census took place in 2001. Other sources, such as the European Labour Force Survey, and the European Household Budget Survey provide more recent data, but their samples exclude people living in institutions.

2.4.1. Changing household size

As average household size has been declining, the total number of households in Europe has increased much faster over the past 40 years than the size of Europe's population. Several factors have contributed to this development. Firstly, the general decline in the number of births has made families with more than three children increasingly rare. Secondly, the increase in life expectancy combined with the fact that women live on average about six years longer than men means that more women are living alone in old age. Thirdly, the increase in divorce and separation, together with other forms of solo childraising has led to many more single-person households.

Other possible contributing factors include the general increase in economic prosperity, which has made it affordable for people to live in smaller households. Greater prosperity has meant, in particular, that parents and adult children are generally no longer forced to live together under the same roof for economic reasons. Meanwhile, more years spent in education and

later labour market entry for young people have resulted in young adults remaining longer in the parental household.

Table 2.11 combines information from several population censuses to show how household size has changed since 1960³². The table confirms the long-term decline in average household size, as the number of large households with 5 or more persons has fallen while the number of single-person households has increased. Average household size in 2003 was smallest in Germany and largest in Poland and Slovakia.

Table 2.11: Household characteristics in European countries, 1960-2001

	Average household size			h	% of single-person households			seholds w ore person		
	1960	1980	2001	2003	1960	1980	2001	1960	1980	2001
EU-27	:	:	2.5	:	:	:	29	:	:	8
EU-25	3.3	2.8	2.5	2.4	16	21	29	:	:	8
EU-15	3.2	2.8	2.4	2.4	16	22	30	21	13	7
EU-10*	3.5	3.1	2.7	:	15	18	26	:	:	12
BE	3.0	2.7	:	2.5	17	23	:	16	11	:
BG	3.9	3.2	2.7	2.7	6	17	23	:	:	9
CZ	:	:	2.4	2.5	:	:	30	:	:	5
DK	3.0	2.5	2.2	2.2	20	29	37	15	7	5
DE	2.8	2.4	2.2	2.1	21	31	36	14	8	4
EE	:	:	2.3	2.6	:	:	3	:	:	6
IE	4.1	3.8	2.9	:	13	17	22	35	32	18
GR	3.8	3.1	2.8	2.6:	10	15	20	:	:	11
ES	3.8	3.4	2.9	2.9	:	10	20	:	26	12
FR	3.1	2.7	2.4	2.4	20	25	31	20	12	8
IT	3.6	3.0	2.6	2.6	11	18	25	27	15	7
CY	3.9	3.5	3.0	3.0	11	10	15	37	25	18
LV	:	:	2.9	2.6	:	:	25	:	:	11
LT	:	:	2.6	2.9	:	:	29	:	:	8
LU	3.3	2.8	2.5	2.5	12	21	29	19	12	9
HU	3.2	2.9	2.6	2.6	15	20	25	32	17	9
MT	4.2	3.3	:	3.0	11	13	:	37	19	:
NL	3.2	2.5	2.3	2.3	12	22	34	27	12	7
AT	3.0	2.7	2.4	2.4	20	28	34	17	13	8
PL	3.6	3.2	2.8	3.1	16	17	25	:	:	14
PT	3.8	3.4	2.8	2.8	11	13	17	29	21	9
RO	:	:	2.9	2.8	:	:	19	:	:	14
SI	:	:	2.8	2.6	:	:	22	:	:	11
SK	:	:	3.2	3.1	:	:	19		:	20
FI	3.3	2.6	2.2	2.2	22	27	37	25	10	6
SE	2.8	2.3	:		20	33	:	13	6	:
UK	3.1	2.7	2.4	2.3	13	22	30	16	11	7

Source: Eurostat Population Census, and Schulz E. (2007) "Household patterns", Research Note prepared for the demography network of the Social Situation Observatory of the European Commission, DIW Berlin Germany.

The 1999 and 2005 Household Budget Surveys provide an indication of more recent changes in average household size, as shown in figure 2.4. In 2005, the average number of persons per household was 2.48 in EU-27, ranging from 2.1 in Denmark and Germany to 3.1 in Cyprus and 3.3 in Malta. Compared with 1999, average household size declined over the period in all EU Member States, with the exception of the UK, where it remained almost constant, and Estonia, Romania and Malta, where it increased.

^{* 10} Member States that joined in 2004

Schulz E. (2007) *Household Patterns*, Research Note, DIW Berlin, European Observatory on Demography and the Social Situation- Demography Network, European Commission

3,30
3,10
2,90
2,70
2,50
2,30
2,10
1,90
1,70
1,50

Medical first f

Figure 2.4: Average household size in European countries, in 1999 and 2005

Source: Eurostat Household Budget Surveys 1999 and 2005, prepared by DIW Berlin.

Further analysis of the available data by age confirms that young adults and older people generally live in smaller households than people aged 30-59. In EU-27, for the year 2005, average household size of households headed³³ by people aged 30-44 years was 3.1. For households headed by people aged 45-59 years, it was 2.7, compared with 2.2 for households headed by young people (aged 20-29) and 1.8 for households headed by older people (60+).

One determinant of average household size is the moment at which young adults decide to leave their parents' home. Information from the 2002 European Labour Force Survey for a limited but representative set of countries, presented in Table 2.12, shows the proportion of young adults living with their parents by gender for four different age groups³⁴.

In most tax systems the head of a family/household is the person in a family or household setting who provides more than half of the financial support to their family/household during the tax year.

Fokkema T. and A. Liefbroer (2007) *Households in Transition – A policy oriented analysis*, study cofunded by the European Commission ref. no. VS/2005/0713, NIDI Netherlands

Table 2.12: Proportion of young adults living with their parents in 2002, in %

		Wom	en		Mei	n		
·	20-24	25-29	30-34	35-39	20-24	25-29	30-34	35-39
BE	65.4	21.4	8.9	5.4	78.5	39.0	17.1	10.8
CZ	69.9	29.5	11.3	7.9	83.7	48.1	22.7	14.6
DE	44.5	13.3	4.8	3.4	62.0	27.2	11.4	7.2
GR	69.7	51.1	25.0	14.4	77.1	71.8	45.9	27.2
ES	82.8	53.5	22.4	13.5	87.5	65.7	32.7	19.6
FR	44.0	10.9	4.6	3.1	62.0	22.6	9.2	6.5
IT	85.0	53.5	23.3	11.3	91.8	72.6	38.6	18.3
LV	64.1	39.4	31.4	16.8	74.7	47.5	34.1	26.4
LT	63.4	38.7	23.7	15.3	74.9	51.7	35.9	19.8
HU	67.9	33.1	17.9	12.8	81.0	51.9	28.7	20.9
NL	43.1	6.3	1.7	0.9	68.3	20.6	5.6	3.3
PT	74.7	45.3	21.3	13.7	83.2	59.9	30.9	19.1
AT	60.1	24.7	10.1	8.7	75.5	43.4	23.9	15.4
SL	85.3	55.2	29.0	17.6	91.2	74.4	46.9	26.9
SK	82.3	55.6	36.3	21.5	89.7	68.3	48.0	34.4

Source: Eurostat 2002 Labour Force Survey, calculations by NIDI

Young adults in Northern and Western European countries are leaving the parental home earlier than in other EU Member States, whereas young people in Southern Europe tend to stay longer with their parents. The same data confirm that in Northern and Western European countries a larger proportion of men and women of all ages tend to live in a single-person household. In Southern Europe, living in a single-person household is not only much less common for young adults, but also less common at older ages. Because of the extended period that parents and children live together, average household size tends to be larger in Southern Europe.

In Central and Eastern Europe, the situation is more heterogeneous. Slovenia, Hungary and the Czech Republic are beginning to look more like the countries in Northern and Western Europe, but the two Baltic States in the sample (Latvia and Lithuania) and Slovakia bear more resemblance to Southern Europe. In sum, Northern and Western Europe, on the one hand, and Southern Europe, on the other, are following a diverging trend, whereas the situation is less clear cut in Central and Eastern Europe.

2.4.2. Changing household composition

Growing numbers of individuals are living alone for various reasons and are not, therefore, classified in census counts as family units, although they may have strong family ties with people living outside their household. Figure 2.5 shows that in 2005 the proportion of single-person households among all households for EU-27 was 27.7%, ranging from 8.7% in Malta to 40% in Finland. The proportion of family households, defined here as two or more adults living with dependent children, was the smallest in Sweden with 19% and largest in Malta with more than 50%.

70 60 50 40 30 20 10 Just Bear Union 27 production of this last . Juited Kingdom European Union 189 Czech Regulic Bulgatie Estonia Hundan ■ Share of single person households ■ Share of family households

Figure 2.5: Proportion of single-person and family households in 2005, in %

Source: Eurostat, Household Budget Survey 2005

A comparison of living arrangements by gender shows that young women leave home and embark on family formation a few years earlier than men. Men tend to lag behind women with regard to life cycle transitions. Another significant gender difference is that very few men live as lone parents. After a divorce, the children usually live with the mother. Due to the longer life expectancy of women, men are also more likely to live with a partner in old age.

People over 80 have a much higher risk of being impaired in their daily living. When this happens, they must rely on personal care and help with housekeeping from other people. Those who still have a partner are less likely to move to a nursing home than widowed or single older people. The 2001 population census contains information about the living arrangements of people by age groups for all EU Member States with the exception of Sweden and Malta. Table 2.13 shows that in EU-27, over 90% of people aged 80-89 and almost 80% of those aged 90+ were still living in private households. This represents around 14.8 million people aged 80+ in the EU-27 still living in a private household. Among them, 46% of those aged 80-89 and 51% of those aged 90+ were living alone.

Table 2.13: Proportion of oldest old (80+) living in private households and institutions in 2001, in %

		People	aged 80-89 livir	ng in		People aged 90+ living in				
	Private	Institutions		Private		Institutions				
	НН	Total	Medical Institutions	Residential Homes	НН	Total	Medical Institutions	Residential Homes		
EU-27	92.1	7.9	:	:	77.7	22.2	:	:		
EU-15	91.3	8.7	:	:	75.6	24.3	:	:		
EU-12	96.9	3.1	:	:	94.1	5.9	:	:		
BE	85.3	14.8	0.7	12.8	61.4	38.5	1.9	34.7		
BG	99.1	0.9	0.1	0.8	98.5	1.5	0.2	1.3		
CZ	94.0	6.0	0.3	5.3	86.5	13.5	0.4	12.1		
DK	93.4	6.6	:	:	80.1	19.9	:	:		
DE	90.9	9.1			71.9	28.1				
EE	96.1	3.9	0.1	3.5	92.0	8.0	0.4	7.5		
IE	84.9	15.1	4.1	8.8	65.2	34.8	7.9	24.3		
GR	96.2	3.8	0.8	1.5	94.4	5.6	1.1	2.7		
ES	95.1	4.9	0.6	2.8	90.6	9.4	1.2	5.7		
FR	87.0	13.0	1.7	10.5	66.9	33.1	4.7	27.6		
IT	95.8	4.2	0.1	3.1	89.9	10.1	0.2	8.8		
CY	90.4	9.6	0.5	8.8	76.8	23.2	1.4	21.5		
LV	97.5	2.5	0.0	2.5	96.2	3.8	0.0	3.8		
LT	97.8	2.2	0.1	2.0	96.6	3.4	0.2	3.0		
LU	82.6	17.4	1.8	12.0	61.4	38.5	2.9	29.5		
HU	94.5	5.5	0.6	4.7	90.5	9.5	1.0	8.1		
MT**	:	:	:	:	:	:		:		
NL	83.8	16.2	3.3	12.5	55.1	44.9	7.7	36.5		
AT	90.1	9.9	1.9	7.6	75.8	24.2	5.2	18.5		
PL	97.6	2.4	0.4	1.6	95.4	4.5	0.9	3.1		
PT	90.9	9.1	0.3	7.9	82.3	17.7	0.6	15.4		
RO	99.3	0.7	0.2	0.4	98.7	1.3	0.4	0.8		
SI	91.3	8.7			86.3	13.7				
SK*	94.2	5.4	0.7	4.2	91.8	7.7	0.8	6.4		
FI*	88.5	7.5	2.1	4.4	68.4	22.2	6.1	13.4		
SE**	:	:	:	:	:	:	:	:		
UK	90.4	9.6	4.3	4.4	69.0	31.0	12.9	15.8		

^{*} Rows do not always add up to 100% due to unknown arrangements or categories not covered.

Sources: Eurostat 2001 Census data, calculations by DIW

In EU-27, according to 2001 census data, about 1.7 million people aged 80+ and 560,000 people aged 90+ were living in an institution, of whom 83% and 86%, respectively, were women. The proportion of people living in institutions was much higher in EU-15 (9% of those aged 80–89 and 24% of those aged 90+) than in the EU-12 (3% and 6% respectively). Moreover, in Northern and Western European countries, people aged 90+ were more likely to be institutionalised than in Southern European countries, where care for older people is mainly provided by families.

A relatively new development particularly in Italy, Spain and Greece has been the arrival of female migrants, notably from Eastern Europe and third countries that often live in the homes of dependent older people and provide the necessary care. According to the Italian National Institute of Social Security (INPS), at the end of 2002, non-nationals represented 56% of the 224,000 registered workers employed in the personal care sector in Italy, and 90% of these non-nationals were women from Eastern Europe and South America.

^{**} No data for MT and SE

2.4.3. Projection of future household patterns

The trend towards smaller households can be expected to continue as a result of population ageing. An extrapolation based on the results of the 2001 population census and using Eurostat's new population projections (EUROPOP2008 convergence scenario, see Chapter 1) is presented in Table 2.14 below. The projection is based on the assumption that household distribution by age group will remain the same as in 2001 and that there will be no other factors (cultural, behavioural, economic) that would lead to different household patterns. Any variations in household patterns would therefore result purely from the changing age structure of the population³⁵.

The findings show that average household size for EU-27 is likely to decrease further from a level of 2.5 in 2005 to 2.3 in 2050. In 1960, average household size for EU-25 was still at a level of 3.3. The expected demographically induced decrease in average household size between 2001 and 2050 is, therefore, much smaller than the decrease that occurred between 1960 and 2001.

Table 2.14: Projection of household size to 2050 on the basis of EUROPOP2008 convergence scenario

	Total HHs	% of	Average				
	in millions	1	2	3	4	5+	HH size
				2001			
EU-27	187.5	28.8	29.9	17.7	15.5	8.1	2.5
EU-25	177.2	29.3	30.1	17.4	15.3	7.9	2.5
EU-15	150.1	29.9	31.0	17.0	14.9	7.3	2.4
EU-12	37.4	24.6	25.7	20.3	17.8	11.6	2.7
				2050			
EU-27	219.0	35.0	31.7	14.8	12.1	6.5	2.3
EU-25	209.4	35.2	31.7	14.7	12.0	6.3	2.3
EU-15	181.1	35.2	32.0	14.6	12.0	6.1	2.2
EU-12	37.9	33.8	29.9	15.8	12.2	8.2	2.4

Source: Eurostat 2001 Census data, 2050 calculation by DIW

The number of one- and two-person households is expected to increase considerably. Figure 2.6 shows that in most European countries the number of these small households is expected to increase by at least 50%, and in several countries the number could double between 2001 and 2050.

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Schulz E. (2008) *Demographic change and the demand for housing*, Research Note, DIW Berlin, European Observatory on Demography and the Social Situation- Demography Network, European Commission

Figure 2.6: Increase in the number of one- and two-person households between 2001 and 2050

Source: 2001 Eurostat Population Census, 2050 DIW calculation using Eurostat, EUROPOP2008 convergence scenario.

The increase in the number of single-person households will be particularly large due to the rising number of older people living alone: from 32.3 million in 2001 to around 51.6 million in 2050 (see Table 2.15). The number of people aged 80+ living alone will increase most rapidly: from 6.1 to 22.5 million.

Table 2.15: Number of older people, total and singles, in 2001 and 2050, in millions

	2001		20	050
	Total	Singles	Total	Singles
		6	60 +	
EU-27	111.5	32.3	170.9	51.6
EU-15	90.2	26.8	135.8	42.0
EU-12	21.2	5.5	35.0	9.6
		3	30+	
EU-27	13.0	6.1	48.8	22.5
EU-15	10.8	5.2	39.9	19.1
EU-12	2.2	0.8	8.8	3.4

 $Source: 2001\ Eurostat\ Population\ Census, 2050\ DIW\ calculation\ using\ EUROPOP2008\ convergence\ scenario.$

2.5. Adapting policies to changing family and household patterns

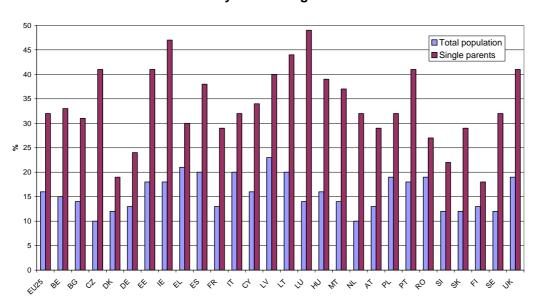
Governments use data on changing social realities to inform public policies and to formulate policy measures designed to ensure that the needs of the population are still adequately met. This implies that they keep under review rights and obligations under family law, the design

of tax-benefit system, and the provision of housing and social services, especially child and elder care, which are crucial in supporting women's labour force participation.

How successful policy adaptation is can be monitored using a range of indicators, such as those that have been developed for the Open Method of Coordination (OMC) on social protection and social inclusion. Many of these focus on poverty risks of various groups within the population, defined by gender, age, household type and labour market involvement, in particular³⁶. The OMC has now been in operation for 8 years and has resulted in a much better understanding of social challenges, due to the availability of this battery of agreed common indicators.

These indicators show that much more needs to be done, in many Member States, to protect one of the family types that could become more prevalent as a result of the greater variety of family forms described in this chapter, in particular single-parent families. These consist mostly of women with their dependent children. Around one-third of these families are at risk of poverty (see Figure 2.7), twice the proportion for the population as a whole. The problem is being addressed through higher benefits, and through measures that enable single parents to reconcile regular employment with family responsibilities.

Figure 2.7: Exposure of single-parent families to the risk of poverty, 2006



At-Risk-of-Poverty Rates: Single-Parent Families

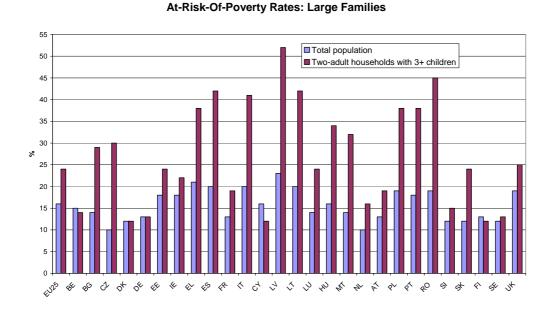
Source: SILC 2006, Income data 2005; except for UK, income year 2006 and for IE moving income reference period (2005-2006); BG and RO: National HBS 2006 and income data 2006, PT provisional values.

However, it is not only lone-parent families that are exposed to a high risk of poverty. Couples with three or more children – a family type that is becoming less frequent – are also more vulnerable than the population in general: 24% of these large families have an income

See also the 2008 Joint Report on Social Protection and Social Inclusion.

below the poverty threshold³⁷, compared to 16% for the population as a whole. Some countries do have policies in place that protect large families as well as the general population: in Belgium, Denmark, Germany, Cyprus, Finland and Sweden, couples with three or more children experience poverty hardly more often – or even less often – than the general population. In most Southern, Central and East European Member States, by contrast, large families are twice as much at risk of poverty as the population as a whole (see Figure 2.8).

Figure 2.8: Exposure of large families to the risk of poverty, 2006



Source: EU-SILC 2006 (income data for 2005); BG and RO: National HBS 2006 and income data 2006

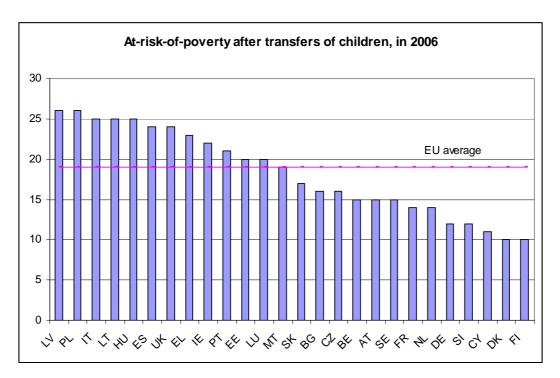
About 19% of children up to the age of 18 were at risk of poverty in the EU in 2006, meaning that the disposable income of the household in which they live, adjusted for household size, was below 60% of the national median income (compared to an at-risk-of-poverty rate for the whole population of 16%). All families with children are therefore at a higher risk of poverty than the population in general. Figure 2.9 shows that the risk of poverty is highest in several Southern and Central and East European countries: a quarter or more of children are concerned in Poland, Latvia, Italy, Lithuania and Hungary, and just under a quarter in Spain, Italy, Lithuania, and the UK. Two Nordic countries, Finland and Denmark, have the lowest risk of poverty at 10%.

For details see http://ec.europa.eu/employment_social/spsi/common_indicators_en.htm

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People are regarded as being at risk of poverty if their income, adjusted for household size, falls below 60% of the national median income.

Figure 2.9: At-risk-of-poverty rate after social transfers as % of children, in 2005



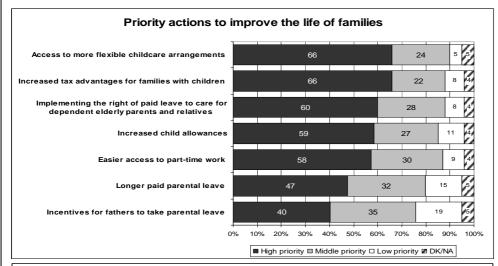
Source: Eurostat, EU SILC 2006 (income data for 2005).

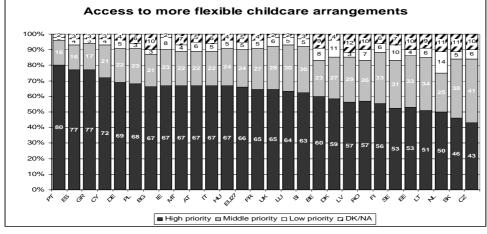
The financial situation of families and the risk of poverty they are exposed to depend on the combination of income that parents can earn and the benefits they receive. Benefits may go a long way towards covering the costs of raising children, but would have to be very high to replace a second income in a two-adult household. The availability of affordable childcare, enabling both parents to participate in the labour force, can therefore have a major impact on the financial situation of families.

Box 2.2: Public opinion on priority actions for families

A recent Flash Eurobarometer 247³⁸ asked EU citizens about the most important policy measures that could improve life for families. More flexible childcare arrangements and increased tax advantages received the strongest support. The demand for flexible childcare was particularly high in some southern European Member States.

Question: Various policy measures can help improve life for families. For each of the measures I am going to read out, would you say it should receive high, medium or low priority for policy action in [COUNTRY]?





Source: Flash Eurobarometer 247

Some simple correlations seem to confirm the view held by the Commission that reconciliation measures are of crucial importance. Although higher cash benefits per child (in relation to GDP per capita) are positively correlated with large family size, the link is extremely weak (see Figure 2.10). The strongest correlation would seem to exist between the availability of childcare, and higher level of employment of women, which bring more income into families thereby reducing the risk of poverty. Indeed, only about 7% of

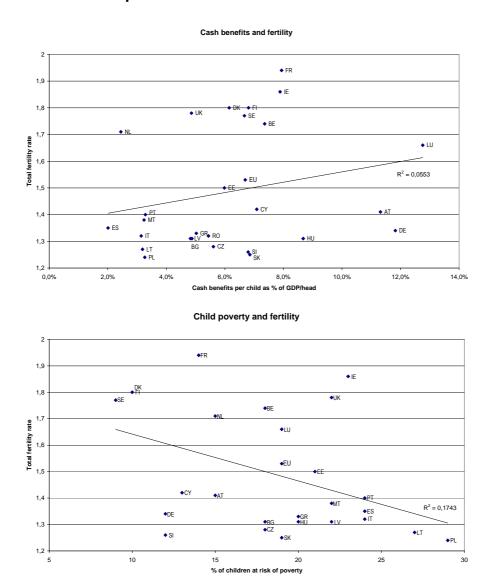
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The fieldwork was carried out between 10th and 14th September 2008. Over 27,000 randomly selected citizens aged 15 years and above were interviewed in the 27 EU Member States. Interviews were predominantly carried out via fixed telephone.

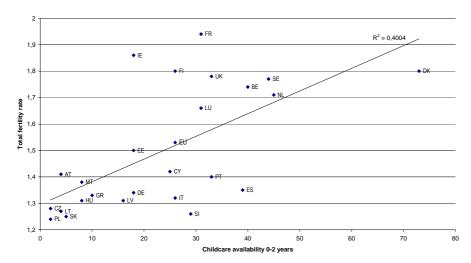
households with dependent children were at risk of poverty in 2005 when each adult household member was in employment.

A stronger focus on reconciliation measures in supporting families has other advantages: it increases the labour supply, keeping ever better educated women in employment. This increases the growth potential of the economy and strengthens the ability of a country to confront the challenges of an ageing society.

Figure 2.10: Correlations of fertility with indicators related to family and reconciliation policies

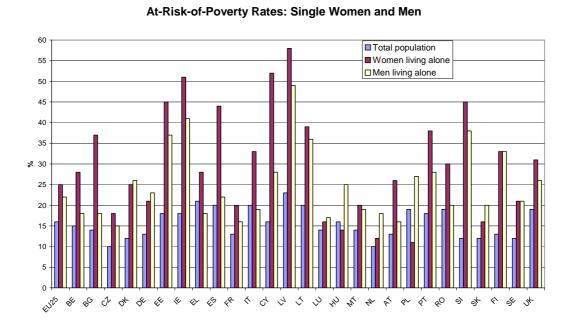


Availability of childcare for children aged 0-2 and fertility



The rising number of single-person households also warrants some attention to the social conditions of people with this living arrangement, particularly in the case of older women. Figure 2.11 shows that, for the EU as a whole, both single men (at 22%) and women (at 25%) are at a higher risk of poverty than the population as a whole (16%). Again, the picture is very heterogeneous across the EU. In some countries, single women or single men (but never both) may be less at risk of poverty than the general population. There are also several countries where single men are exposed to a higher risk of poverty than single women. Each country thus faces its specific policy challenges with regard to the various family and household types.

Figure 2.11: At-risk-of-poverty rate for single women and men, in 2005



Source: Eurostat, EU SILC 2006 (income data for 2005).

Box 2.3: The EU's contribution to better policies for families

- In the context of the Open Method of Coordination on social protection and social inclusion, the analysis of common indicators contributes to a better knowledge of how well different types of family and household are protected against the risk of poverty. Ongoing and planned work in the framework of the OMC, notably on child poverty and older women, will help build up the knowledge base on the problems they create and the policies that can be used to tackle them.
- The implementation of the *Roadmap for equality between women and men* adopted by the Commission in March 2003 (COM(2006) 92), and in particular of the measures under the heading reconciliation of work, private and family life, will also contribute to better conditions for families.
- A European Alliance for Families was established under the German presidency in 2007, following the adoption by the Commission of the communication on Europe's Demographic Future: From Challenge to Opportunity (COM(2006)571). The Alliance provides a platform for mutual learning for the Member States to help them modernise their family policies and respond to new challenges arising from the social changes presented in this chapter.
- One of the initiatives taken under the Alliance is to cooperate with the OECD on the development of its Family Database³⁹ and to ensure that this database becomes a tool that allows all EU Member States to assess the situation of families in their country from a comparative perspective. This work is in progress and will be presented in the 2010 Demography Report.
- Also linked to the European Alliance for Families is the establishment of a Web Portal which will present information on family policies in the Member States and examples of good practice at the local and company level⁴⁰.
- The European Structural funds can, under certain conditions, support initiatives in the Member States with the aim of creating better conditions for families, notably through measures that facilitate the reconciliation of work and private life. A brochure has been prepared in cooperation with the expert group on demographic issues established in June 2007 by the Commission.
- The funding of a *Social Platform* on family issues is foreseen under the 7th Framework Programme for research and development. This platform would bring together researchers, policy makers and stakeholders to help orient future research according to the needs discussed with policy makers and stakeholders.
- The Commission assesses the progress towards the targets for childcare set in Barcelona in 2002 in a forthcoming Communication ⁴¹

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See: http://www.oecd.org/els/social/family/database

http://ec.europa.eu/employment_social/families/index_en.html

To be completed after adoption.