



# Europe's demographic future:

## Facts and figures on challenges and opportunities



European Commission



# EUROPE'S DEMOGRAPHIC FUTURE: FACTS AND FIGURES ON CHALLENGES AND OPPORTUNITIES

European Commission  
Directorate-General for Employment, Social Affairs and Equal Opportunities  
Unit E.1

Manuscript completed in October 2007

Document drawn up on the basis of COM(2006)571 final, COM(2005)94 final and SEC(2007)638.

**Europe Direct is a service to help you find  
answers to your questions about the  
European Union**

Freephone number (\*):  
**00 800 6 7 8 9 10 11**

(\*) Certain mobile telephone operators do not allow access  
to 00 800 numbers or these calls may be billed.

A great deal of additional information on the European Union is available on the Internet. It can be accessed through the Europa server (<http://europa.eu>).

© European Communities, 2007

Reproduction is authorised provided the source is acknowledged.

Cataloguing data can be found at the end of this publication.

Luxembourg: Office for Official Publications of the European Communities, 2007

ISBN 978-92-79-07043-3

*Printed in Belgium*

PRINTED ON WHITE CHLORINE-FREE PAPER

# TABLE OF CONTENTS

Foreword .....	7
Part 1 Europe's demographic future: facts and figures .....	9
1. Introduction and executive summary .....	11
1. Einleitung und Zusammenfassung .....	17
1. Introduction et résumé .....	24
2. Demographic transition: a common feature of social and economic development .....	31
2.1. The demographic transition paradigm .....	31
2.2. Fertility .....	31
2.2.1. Trends in fertility .....	31
2.2.2. Drivers of fertility .....	33
2.2.3. Tempo and quantum effects on fertility rates .....	34
2.2.4. Results of the 2006 Eurobarometer on fertility and ageing .....	35
2.3. Longevity .....	37
2.3.1. Main trends in longevity .....	37
2.3.2. Expected trends in longevity .....	39
2.3.3. Important longevity differences between socio-economic groups .....	40
2.4. Migration .....	41
2.4.1. Overview of migration trends .....	41
2.4.2. Relative contribution of migration and fertility to population growth .....	43
2.5. Cohort effects: the baby boom .....	44
2.6. The EU-27 population projection .....	46
2.6.1. Changes in the population structure .....	47
2.6.2. Projection methods .....	47
2.6.3. An estimate of projection uncertainty for the EU-25 .....	49
2.7. The regional dimension of population change .....	49
2.8. Global demographic trends .....	53
2.8.1. Europe's place in the global population .....	53
2.8.2. Population trends and challenges in Europe's neighbourhood .....	55
3. The economic and social impacts of demographic change .....	57
3.1. Introduction .....	57
3.2. Employment trends .....	57
3.2.1. Ageing of the labour force and labour market bottlenecks .....	59
3.2.2. Ageing, productivity and prospects for economic growth .....	61
3.2.3. The impact of ageing on future productivity .....	63
3.3. Challenges to public finances and intergenerational solidarity .....	67
3.3.1. Pensions .....	67
3.3.2. Health and long-term care .....	69
3.3.3. Long-term care .....	70
4. Opportunities for tackling demographic change .....	75
4.1. Introduction .....	75
4.2. Demographic renewal: how much scope is there for increased fertility? .....	75
4.2.1. Potential for more births .....	75
4.2.2. Unlocking the potential for more births .....	77
4.2.3. Conclusion .....	85
4.3. Promoting employment in Europe .....	85
4.3.1. Potential for more jobs of better quality .....	86
4.3.2. Unlocking the potential for increased employment .....	87

4.4. A more productive and dynamic Europe .....	91
4.4.1. The potential to raise productivity .....	91
4.4.2. Unlocking the potential for productivity growth .....	92
4.4.3. Ageing consumers and the 'silver economy' .....	94
4.4.4. Conclusion .....	98
4.5. Receiving and integrating immigrants in Europe .....	99
4.5.1. The potential of migration for redressing labour market imbalances .....	99
4.5.2. Unlocking the potential of migration .....	102
4.5.3. Conclusion .....	104
4.6. Sustainable public finances .....	104
4.6.1. Potential for tackling the demographic challenge .....	104
4.6.2. Unlocking the potential .....	106
4.6.3. Conclusion .....	109
5. Overall conclusion .....	110
Annex 1. Country statistics and comments .....	111
Belgium .....	112
Bulgaria .....	113
Czech Republic .....	114
Denmark .....	115
Germany .....	116
Estonia .....	117
Greece .....	118
Spain .....	119
France .....	120
Ireland .....	121
Italy .....	122
Cyprus .....	123
Latvia .....	124
Lithuania .....	125
Luxembourg .....	126
Hungary .....	127
Malta .....	128
Netherlands .....	129
Austria .....	130
Poland .....	131
Portugal .....	132
Romania .....	133
Slovenia .....	134
Slovakia .....	135
Finland .....	136
Sweden .....	137
United Kingdom .....	138
Sources and definitions .....	139
Annex 2. European research projects on demographic change and its impacts .....	141

Part 2 The demographic future of Europe – from challenge to opportunity .....	145
1. The ageing population in Europe: trends and outlook .....	147
2. Impact of the ageing population .....	149
2.1. Impact on the labour market, productivity and economic growth .....	149
2.2. Impact on social security and public finances .....	149
3. A constructive response to the demographic challenge .....	151
3.1. Promoting demographic renewal in Europe .....	151
3.2. Promoting employment in Europe: more jobs and longer working lives of better quality .....	152
3.3. A more productive and dynamic Europe .....	153
3.4. Receiving and integrating immigrants in Europe .....	153
3.5. Sustainable public finances in Europe: guaranteeing adequate social security and equity between the generations .....	154
4. Conclusion: from challenge to opportunity .....	155
Part 3 Green Paper 'Confronting demographic change: a new solidarity between the generations' .....	157
1. Introduction .....	159
2. The challenges of European demography .....	161
2.1. The challenge of a low birth rate .....	161
2.2. The possible contribution of immigration .....	162
3. A new solidarity between the generations .....	163
3.1. Better integration of young people .....	163
3.2. A global approach to the 'working life cycle' .....	164
3.3. A new place for 'elderly people' .....	164
3.4. Solidarity with the very elderly .....	165
4. Conclusion: What should the European Union's role be? .....	166
Annex 1 .....	167
Annex 2 .....	168





## FOREWORD

by Vladimir Špidla, Member of the European Commission in charge of Employment, Social Affairs and Equal Opportunities

Over the coming decades, Europe's demographic make-up will change dramatically. Our populations are becoming older than ever before because of three major trends. First, as the baby-boom generation approaches retirement age, the share of older people will rise rapidly; second, birth rates have remained low for several decades; and third, we are all simply living longer and healthier lives.

For many, the prospect of Europe's greying population is a cause of concern, and sometimes even fear. Such change brings huge challenges. Will an ageing society be less dynamic and productive? How will our shrinking workforce provide adequate incomes and health and social services not only for itself and its children, but also for an ever larger number of old and very old people?

These issues are a reality for all of Europe's Member States, and although each Member State must find its own solutions to suit its particular needs, there is much to be gained from working together at the European level. This is why in March 2005 the Commission launched an open debate on demographic change with the Green Paper *Confronting demographic change: A new solidarity between the generations*. The Commission drew its conclusions from this debate in the 2006 follow-up communication *The Demographic Future of Europe – From Challenge to Opportunity*. For the Commission, ageing is a positive reflection of our social and economic success. Living longer and being able to plan whether and when to have children, and how many, is a big achievement.

Fortunately, demographic change does not happen overnight. We know what to expect and I am confident that we still have some time to prepare. In its 2006 Communication, the Commission identified five key areas for policy action: helping people to balance work, family and private life so that potential parents can have the

number of children they desire; improving work opportunities for older people; increasing potentially productivity and competitiveness by valuing the contributions of both older and younger employees; harnessing the positive impact of migration for the job market; and ensuring sustainable public finances to help guarantee social protection in the long-term.

It is clear that responsibility for action in these five areas lies mainly with Member States. Nevertheless, there is a strong EU dimension too, providing a common European framework underpinned by the Lisbon strategy for growth and jobs. As part of this strategy, the Commission will be monitoring progress and stimulating the exchange of knowledge and initiatives. The European demography Forum and the newly created Group of experts on demographic issues will assist the Commission in its efforts – in particular in its work to produce the biennial European demography Report\*.

This is the first European demography Report and its purpose is not only to provide a comparative statistical analysis on trends, but also to illustrate the scope for policy action in each area. It presents all the material that was collected by the Commission in identifying the five key areas for policy action. It includes, in particular, findings from the demographic impact studies called for by the European Parliament\*\*.

I am confident that this publication, which also contains the two key policy documents on demography mentioned above, will serve as a rich and valuable resource. And I call on researchers, policy makers and other stakeholders in civil society to join forces and share their creative ideas to transform the demographic challenge into an opportunity for all Europeans.

Vladimir Špidla

\* See also the website [http://ec.europa.eu/employment\\_social/social\\_situation/index\\_en.htm](http://ec.europa.eu/employment_social/social_situation/index_en.htm).

\*\* Studies about the overall impact of demographic change in the European Union, following the pilot initiative proposed by Mr Walter, MEP.



Part 1

COMMISSION STAFF WORKING DOCUMENT

## Europe's demographic future: facts and figures

---



# 1. INTRODUCTION AND EXECUTIVE SUMMARY

## 1.1. Background

Demographic change is high on the European policy agenda and, indeed, Europe has to brace itself for profound changes in its population structure. During the coming decade, the baby boom cohorts will start retiring from the labour market. Young cohorts entering the labour market will be much smaller as a result of low fertility. In about ten years, total employment in the EU could start to fall, in spite of rising employment rates. Europe's potential growth rate could decline at a time when significant additional resources will be required to meet the needs of an increasing number of elderly people for whom adequate pensions and health and long-term care provision will have to be secured.

In October 2006, the Commission presented its views on the demographic challenge and the best ways for tackling it in the communication *The demographic future of Europe – from challenge to opportunity*<sup>1</sup>. This communication followed a major public debate launched by the Green Paper *Confronting demographic change: a new solidarity between the generations*<sup>2</sup> of March 2005 as well as discussions at the level of heads of state and government at the Hampton Court informal summit of October 2005. The Commission expressed confidence in Europe's ability to cope with the demographic challenge and presented five key areas in which there are major opportunities for constructive policy responses:

- Promoting demographic renewal in Europe;
- Promoting employment in Europe: more jobs and longer working lives of better quality;
- A more productive and dynamic Europe;
- Receiving and integrating migrants in Europe;
- Sustainable public finances to guarantee adequate social protection and equity between the generations.

As was announced in the Communication, a European report will present an assessment of the demographic situation every two years, reflecting the ongoing debate

and research in the EU, in conjunction with the European Demographic Forum. This first Demographic report summarises the extensive analytical work carried out prior to the adoption of the communication on Europe's demographic future. It draws extensively on the work carried out by the Economic Policy Committee and the Commission (Directorate-General for Economic and Financial Affairs) on future public expenditure trends. Furthermore, it reviews on a series of demographic impact studies and a Eurobarometer survey commissioned under a special budget appropriation approved by the European Parliament (the 'Walter' Pilot Action of 2004 and 2005, i.e. named after its initiator, MEP Ralf Walter). These studies looked at a variety of relevant issues including the link between population decline/ageing and economic growth, the impact of demographic change on the skills and qualifications demanded by the labour market, as well as issues related to innovation and productivity growth in Europe. Finally, the report also reflects the hearings of leading experts in January and March 2006 as well as the first European Forum on demography held on 30-31 October 2006 in Brussels.

The aim of this report is to present the main facts and figures that underpin the debate on Europe's demographic future and appropriate policy responses. It starts by presenting the main drivers of demographic change – fertility, life expectancy and migration – and puts these into a long-term and global perspective. Another chapter discusses the economic impact of ageing and the effect this will have on future living conditions in Europe.

A major ambition of this report is to provide facts and figures to illustrate the potential of each of the five key policy areas in which constructive responses to the demographic challenge can be developed. Thus, one chapter also reviews to what extent Member States have already started unlocking this potential. Although it covers a wide range of different areas, the material presented is certainly still incomplete and the analysis must be regarded as very preliminary. However, the chapter should provide a useful starting point for a realistic assessment of the European Union's preparedness for demographic change. Country summaries based on a set of traditional demographic indicators complete the picture.

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

2. COM(2005) 94, adopted on 16 March 2005.

In the communication of October 2006 the Commission announced its intention to hold a major European Forum on Demography every two years. In connection with each Forum, a report like the present one is to be published to support an informed and constructive debate both at European level and in the Member States. The reactions to this first report received from the various stakeholders who participated in the debate initiated by the Green Paper and from the high-level group of governmental demographic experts will serve to further improve the presentations of the biennial Demographic Situation Report.

There are probably numerous ways in which future reports could be improved over the present one. Comments and suggestions would therefore be gratefully received and should be sent to:

Unit E.1  
Directorate-General for Employment, Social Affairs and Equal Opportunities  
European Commission  
B-1049 Brussels  
Empl-e1-courrier@ec.europa.eu

## 1.2. Highlights of this report

This Report on the Demographic Situation in Europe 2006 consists of three main sections corresponding to the main subjects covered by the Communication on the Demographic future of the EU: an overview of the drivers of demographic change, an analysis of the main impacts of this change and a description of the potential for responding to the challenges posed by demographic change within five key policy areas. This summary highlights the main themes of the report, each of which is discussed more extensively in the respective chapters.

### Chapter 2: Demographic transition: a common feature of social and economic development

The main drivers of demographic change are fertility, mortality (life expectancy) and migration. In addition, the passage of age cohorts of different sizes through the life cycle can have significant impacts.

Regarding **fertility**, there are roughly two groups of countries within the EU: those with a moderately low fertility in the range of 1.6-1.9 births per woman and those with very low fertility in the range of 1.5 births or less. The average for the EU-25 is 1.5 (2005). The fertility rate needed for a full replacement of generations is estimated by demographers at 2.1, but given current levels of migration and rising life expectancy, the population size will decline only at fertility rates significantly below this replacement rate. Currently observed fertility rates may also underestimate long-term trends.

The indicator is constructed in such a way that postponement of childbearing will initially lead to a lower fertility rate until the mothers' new, higher average age at birth is reached. This 'tempo' effect may be affecting countries with the lowest birth rates, notably in Central and Eastern Europe. The Eurostat population projections up to 2050 assume an increase in fertility rates, particularly in countries with the lowest rates: for the EU-25, a slight recovery from 1.5 to 1.6 is assumed. A Eurobarometer survey carried out in 2006 revealed a generally positive attitude of Europeans towards childbearing. Women would like to have more children than they actually have. Moreover, they would also prefer to have their children somewhat later in life than they actually do.

Since the 19th century, gains in **life expectancy** have above all been the result of reduced **mortality in early life**, due to general socio-economic progress and public health measures. More recently, mortality in mid-life has also been reduced. While socio-economic factors such as income and education remain important for gains in life expectancy, the availability of modern medical treatment is playing an increasing role, as are lifestyle changes. Life expectancy is generally higher in the old (EU-15) Member States (82.4 and 76.7 for women and men respectively) than in the new (EU-10) Member States (78.7 and 70.4 for women and men). The Eurostat population projections expect further increases in life expectancy by about six years for men and five years for women (EU-25) between 2004 and 2050. These will have to be brought about mainly by declining mortality at higher ages, thus contributing to the increasing share of older and very old people in the total population. Such progress in life expectancy will, however, be contingent on the avoidance of unhealthy lifestyles, including smoking, poor diet, lack of physical exercise and excessive alcohol consumption.

**Migration** has become a major determinant of demographic change in the EU. In the second half of the 20th century, large parts of Europe witnessed a historical change from emigration to immigration. Net migration into the EU reached a peak of almost 2 million in 2003/2004. However, two thirds of this observed flow concerned Italy and Spain where large numbers of illegal migrants, the majority of whom had arrived in these countries in previous years, were regularised and thus suddenly appeared in the migration statistics. If immigration is maintained at this very high level, the EU's working age population would continue to grow until around 2030 rather than already starting to decline by the end of the present decade, as is currently assumed in the Eurostat population projection. However, such a perspective would raise growing concerns about the integration of these immigrants. Indeed, the degree of integration of populations of immigrant origin already present in many Member States is often seen as highly problematic.

The **baby boom cohorts**, born between 1945 and 1965, currently still boost the working age population. They will start retiring soon, thereby bringing about a major shift in the balance between the active and the retired. About 15 to 20 years later, these cohorts will start relying heavily on health and long-term care systems.

The combination of these trends will leave the total population size roughly unchanged by 2050, but will transform Europe's population structure. According to Eurostat's baseline **population projection**, the median age of the EU will increase between 2004 and 2050 from 39 to 49 years. The number of young people (aged 0-14) in the EU will continue to decline in absolute terms from around 100 million in 1975 to some 66 million by the year 2050. The population of working age (15-64) will be most numerous around the year 2010 (331 million) but will subsequently decline to about 268 million by 2050. While ageing will affect all Member States of the EU, it will do so to varying degrees. The old-age dependency ratio (number of people over 65 divided by the number of people aged 15-64) will reach around 53% in 2050 for the EU-25 (up from 25% today), with the highest rates projected for Italy and Spain (66-67%) and the lowest for Denmark, Luxembourg, Malta, the Netherlands and Sweden (around 40%).

While it may still be one or two decades before the impact of ageing becomes clearly visible at the level of an entire country, the impact can already be observed at **regional level**. In some regions, 'natural change' (difference between births and deaths) has already become negative. Migration may either aggravate or alleviate these trends. Regions will increasingly have to include the effects of long-term population trends in their regional medium-term strategies. A number of regions have already been active and are at the forefront of strategic thinking and actions to tackle the demographic challenge.

A century ago some 15% of the world population lived in the area of the current EU-25; nowadays this share is 7% and by the year 2050 the **share of the EU-25 in the total world population** is projected to be around 5%, according to the UN population projections (2004). While all world regions – except sub-Saharan Africa – will experience significant ageing of their populations, the EU is the only major world region where the total population is projected to decline in the coming four decades. Although declining fertility can be observed in many developing countries, the demographic and socio-economic contrasts between Europe and its Southern neigh-

bours suggest that strong migratory pressures will persist over the coming decades.

### Chapter 3: The economic and social impacts of demographic change

Demographic change will gradually limit the scope for future **employment** growth. Although the population of working age (aged 15-64) is already expected to decline from around 2011 onwards, total employment in the EU-25 is expected to continue growing up to around 2017 due to rising labour force participation. Thanks to higher education levels and greater labour force attachment of younger cohorts of women, female employment rates are projected to rise from just over 55% in 2004 to almost 65% by 2025. The employment rates of older workers are also projected to increase, from 40% in 2004 for the EU-25 to 47% by 2010 and 59% in 2025. From around 2017 onwards, however, the shrinking working age population will lead to stagnation and, subsequently, reduction of total employment. Projections show that, as employment decreases and productivity becomes the only source of future economic growth, the annual average **potential GDP growth** rate in the EU-25 will decline from 2.4% in the period 2004 to 2010 to only 1.2% in the period 2031-2050.

Declining employment at a time when the number of older people in need of adequate pensions and health and long-term care is rising will make it a challenge to provide **sufficient resources for social protection** in a sustainable way. The projected increase in these expenditure categories by 2050 is about 4.5 percentage points of GDP in the EU-25. Public and private spending on pensions, which averaged 13% of GDP in the EU (in 2003), has ensured that being old is no longer associated with being poor or being dependent on one's children. However, Europe's future ability to provide the ageing population with adequate pensions will crucially depend on whether the effective retirement age can be raised and the pension systems adapted to increasing life expectancy, thereby making the relationship between contributions and benefits transparent. The main consumers of health and long-term care today are elderly people, whose projected increasing numbers will result in greater demand for these services. According to Eurostat projections, the share of the total population over 80 will rise from 4.1% in 2005 to 6.3% in 2025 and to 11.4% in 2050. Although age in itself is not the only factor influencing healthcare spending (though it does serve as a proxy for a person's health status), projections illustrate that an ageing population will bring about pressure for increased public spending on health and long-term care.

## Chapter 4: Opportunities for tackling demographic change

The Commission's Communication on 'The demographic future of Europe – from challenge to opportunity' identified five key policy areas in which constructive responses to the demographic challenge can be developed. These include birth rates, employment levels, productivity growth, migration and the sustainability of public finances. If policies in these areas are formulated in an integrated manner, synergies may be reached. For example, policies that promote the labour market participation of older workers will also have a positive impact on public finances. In addition, more competitive markets will increase the return on investment in older workers.

### *Promoting demographic renewal in Europe through greater gender equality*

While the choice to have or not to have (more) children is and must remain a private one, there appears to be scope for policies to enable families to make their choices. Indeed, survey evidence suggests that Europeans generally would like to have more children than they actually have. International comparisons show that policies supportive of those who wish to have children can have some effect in raising birth rates. Even small changes in fertility rates will have a strong impact on the population size and age structure in the long run. However, an increase in fertility rates will only translate into a larger working age population and increased employment after 20 or more years. Therefore, it could at best make a small contribution to tackling the challenge of providing for the ageing baby boom cohorts. Furthermore, the number of women of childbearing age is also projected to fall in the coming decades.

If the aim is to enable people to have the number of children they really wish, public policies that promote greater gender equality and facilitate the reconciliation of work and care seem to be most successful. It is primarily women who adjust their career ambitions to the needs of their families (including caring for elderly relatives), either by dropping out of the labour market or working part-time. Countries that have achieved the highest female labour force participation and the most progress in terms of gender equality (as reflected in differences in time use patterns between men and women) today also display relatively high fertility rates. Some 20 years ago, countries with high female labour force participation tended to display lower fertility than those with low female labour force participation. Access to services (in particular affordable day care provision of high quality), flexibility in working hours and conditions as well as gender equality (including shared family and domestic responsibility) are all important factors in reconciling work and private life. In addition to policies that promote better conditions for women and men wishing to raise a family, it may become increasingly

important to address biological obstacles to fertility. As potential parents postpone the moment at which they decide to have children, infertility is becoming a more and more frequent obstacle to the realisation of their desire to have children. The availability of fertility treatments may then have some impact on birth rates.

### *Promoting employment in Europe: more jobs and longer working lives of better quality*

The effective old-age dependency ratio, or the ratio between people over 65 and the employed persons aged 15-64, is even higher than the demographic dependency ratio and is projected to rise from 37 to 70 in the EU-25 by 2050. Despite a significant increase in employment rates, the effective old-age dependency ratio is projected to worsen significantly. Raising the EU-25 employment rate to the level of the current three best-performing Member States, however, would compensate for about two-thirds of the decline in employment expected to result from a shrinking working-age population. Such an increase in employment rates would, of course, require many changes in the labour market and in institutional arrangements. A life-cycle approach aimed at enabling people to remain much longer active and productive, including through lifelong learning and better health protection, is needed. The main potentials for increased employment rates lie with women and older workers and some other disadvantaged groups on the labour market.

In order to unlock these potentials, raising levels of educational attainment seems to be particularly important. Higher levels of education are associated with significantly higher employment rates and much lower unemployment rates. In 2005, the average employment rate among the highly-skilled in the EU was 82.5%, for the medium-skilled (those having completed upper secondary education) it was 68.7%, whereas for the lowest skilled it was only 46.4%. Both the Lisbon strategy and the European Employment Strategy aim to increase employment and growth and provide guidance on how to meet demographic challenges. A higher labour force participation of women will require better provision of affordable high-quality childcare and care of other dependents, shared family and domestic responsibilities between men and women, reduced gender pay gaps, enhanced gender equality and equal opportunities. The European Pact for Gender Equality adopted in 2006 aims at mainstreaming gender in all actions taken and will be a tool for increasing the employment of women. Prolonging working lives by providing effective incentives for later retirement is an even more important policy to unlock the potential for increased employment. This concerns not only pension schemes, but also early retirement and social security schemes (disability, unemployment, sickness) that are sometimes used as an exit-route. Older workers are nowadays in a much better health condition than the same category of



workers 40/50 years ago. Moreover, as today's older workers entered the labour market at a later stage, strengthening incentives to remain on the labour market seems appropriate. This can be further reinforced by adopting a life-cycle perspective. Active ageing needs to be prepared for by a good initial education that enables workers to participate in lifelong learning. Health promotion throughout working life, as well as effective and efficient health services are also important because a healthy workforce is more productive. Ill health is a key factor in absenteeism and early retirement. Pension reforms in the majority of Member States are already raising the labour market exit age and would be further underpinned by promoting the employability of older workers, both with regard to their skills and their health status. The labour potential of all groups must be fully used and measures taken to better integrate disadvantaged groups on the labour market, such as disabled persons, ethnic minorities and people with a migration background. A high youth unemployment rate is also a serious concern.

### *A more productive and dynamic Europe*

Economic growth and high living standards beyond 2017, when total employment is expected to decline, will depend solely on increases in labour productivity. There is a huge potential for productivity improvements in Europe if all Member States were to catch up with the highest-performing countries whose productivity levels are above or close to that of the US. Indeed, even the productivity leaders can further accelerate their growth by removing obstacles to innovation and structural change and by boosting research and development leading to new products and more efficient production processes.

The key to unlocking this potential is to invest in human capital. The example of the highest-performing Member States shows that general education levels across the EU can still be raised significantly. In this context, it is particularly important to reduce the number of early school leavers, who will face increasing difficulties in future labour markets. In 2005, 17% of men and 13% of women aged 18-24 had not reached more than lower secondary education and were not in further education or training. Further improvements are also necessary with regard to the proportion of people with an upper-secondary or tertiary education. Spending on tertiary education in the EU-25 represents only 1.2% of GDP, compared to 2.9% in the US. The gap between the EU and the US is somewhat smaller with regard to R&D spending, which is just under 2% of GDP in the EU and nearly 2.7% in the US. Europe's future capacity for innovation and productivity growth will depend on increased investment in top-level education and research. This will also be crucial for successful adaptation to the new market opportunities brought about by

the 'silver economy', i.e. new goods and services adapted to the changing needs and demand patterns of an ageing society.

### *Receiving and integrating migrants in Europe*

Europe will continue to be an attractive destination for migrants due to its prosperity and well-functioning societies. However, it should be noted that the EU is not as successful as the USA and Canada in attracting the highest-skilled migrants. The procedure adopted in 2005 for the admission of third-country researchers is a first step towards addressing this issue<sup>3</sup>. Such arrangements need not come at the cost of developing countries in the form of brain drain, but can and should be beneficial to all parties. Around 3.7% of the EU-27 population are non-EU nationals (5.1% in the EU-15). Migration is therefore already responding to the needs of European labour markets, and this need for both high- and low-skilled migrant labour will continue.

While internal mobility of workers within the EU will not change demographic trends for the EU as a whole, it does represent an enormous potential for higher rates of participation and employment as it opens up better opportunities for people living in regions where they face poor labour market prospects. Countries that have experienced rapid economic growth over recent years, like Spain and Ireland, have clearly benefited enormously from the significant inflow of workers both from outside and from within the European Union.

The main challenge to realising the potential of immigration is the integration of migrants and their descendants into European societies. The Member States of the EU have evidently had different degrees of success with labour market and social integration. The educational attainment of non-nationals is generally substantially lower than that of nationals, although in several Member States the percentage of non-nationals with tertiary level education is actually higher than that of nationals. At the same time, in several Member States, the employment rates of migrants, particularly migrant women, are very low. Linked to this insufficient integration of migrants in their host societies is a rather negative perception of immigration: Eurobarometer results indicate that on average only 4 out of 10 EU citizens feel that 'immigrants contribute a lot to their country', while a slight majority of citizens (52%) do not agree with this statement.

### *Sustainable public finances to guarantee adequate social protection and equity between the generations*

In all Member States, the ageing of the population will increase public expenditure on pensions, health and

3. Directive 2005/71/EC.

long-term care. Projections show that most Member States where pensions are financed by specific contributions will see a growing imbalance between contributions and needs. The reserve funds established by several Member States can alleviate future financing needs but appear to be inadequate in most cases. In most Member States, public finances are not sustainable in the long run under current policies. Budgetary consolidation and further reform efforts in pension, health and long-term care systems are required. An increase in the number of years that people remain active and in good health will help to reduce the financial pressure on health and long-term care systems.

Apart from future expenditure and revenue trends, the long-term sustainability of public finances depends on the current deficit and debt situation, which if left unchanged can put public finances on an unsustainable path. Interest payments on public debt can represent more than 10% of public revenue in some Member States. Reducing current deficit and debt levels and avoiding unsustainable expen-

diture trends are recommended policies to ensure that Member States remain capable of meeting future spending needs, including those arising from population ageing. The potential for further consolidation of public finances differs greatly across Member States.

To consolidate public finances over the long-term, it is important to act at a time when growth prospects are still favourable. The EU has a window of opportunity of about 10 years until employment is projected to start to fall as a result of a shrinking working age population. Mobilising the full potential of older workers, including making use of the window of opportunity to reform pension and health-care systems and prevent the early withdrawal of the baby boom cohorts from the labour market will be key to tackling the challenges of ageing. This will strengthen Member States' capacity to ensure adequate social protection of the elderly while making sufficient investment in younger generations and hence maintain intergenerational solidarity.

# 1. EINLEITUNG UND ZUSAMMENFASSUNG

## 1.1. Hintergrund

Dem demografischen Wandel wird in der Europäischen Union große Bedeutung beigemessen. Europa muss sich in der Tat auf tiefgreifende Veränderungen in seiner Bevölkerungsstruktur vorbereiten. Im nächsten Jahrzehnt werden die Babyboomer allmählich ins Rentenalter kommen. Infolge niedriger Geburtenraten werden weitaus weniger junge Menschen in den Arbeitsmarkt eintreten. In etwa zehn Jahren könnte die Gesamtbeschäftigung in der EU trotz steigender Beschäftigungsquoten langsam zurückgehen. Europas potenzielle Wachstumsrate könnte zu einem Zeitpunkt schrumpfen, da beträchtliche zusätzliche Ressourcen erforderlich sein werden, damit den Bedürfnissen einer wachsenden Zahl älterer Menschen entsprochen werden kann, für die ausreichende Renten und eine angemessene Gesundheitsversorgung und Langzeitpflege zu sichern sind.

In ihrer Mitteilung mit dem Titel *„Die demografische Zukunft Europas – Von der Herausforderung zur Chance“*<sup>1</sup> vom Oktober 2006 legte die Kommission ihren Standpunkt zur demografischen Herausforderung dar und schlug die am besten geeigneten Strategien vor, um den zu erwartenden Auswirkungen zu begegnen. Die Mitteilung schloss an die umfassende öffentliche Debatte an, die durch das Grünbuch *„Angesichts des demografischen Wandels – eine neue Solidarität zwischen den Generationen“*<sup>2</sup> vom März 2005 eingeleitet worden war, sowie an die Diskussionen auf Ebene der Staats- und Regierungschefs anlässlich des informellen Gipfels von Hampton Court im Oktober 2005. Die Kommission zeigte sich zuversichtlich, dass Europa fähig ist, die demografische Herausforderung zu bewältigen, und skizzierte fünf Handlungsbereiche, in denen umfangreicher Gestaltungsraum für konstruktive Strategien gegeben ist:

- ein Europa, das die demografische Erneuerung begünstigt;
- ein Europa, das Arbeit aufwertet: mehr Beschäftigung und ein längeres aktives Leben mit hoher Lebensqualität;
- ein produktiveres und leistungsfähigeres Europa;
- ein Europa, das auf die Aufnahme und Integration von Migranten vorbereitet ist;

- ein Europa mit zukunftsfähigen öffentlichen Finanzen: Garant eines angemessenen Sozialschutzes und des Ausgleichs zwischen den Generationen.

Wie in der Mitteilung angekündigt, wird die Kommission alle zwei Jahre einen europäischen Bericht zur Bewertung der demografischen Lage vorlegen, der im Vorfeld des Europäischen Demografieforum einen Überblick über die laufende Debatte und die aktuellen Forschungsarbeiten in der EU geben soll. Im vorliegenden ersten Demografiebericht sind die ausführlichen Analysen zusammengefasst, die vor der Annahme der Mitteilung über die demografische Zukunft Europas durchgeführt wurden. Der Bericht beruht auf der Arbeit des Ausschusses für Wirtschaftspolitik und der Kommission (Generaldirektion Wirtschaft und Finanzen) über künftige Trends bei den öffentlichen Ausgaben. Er stellt eine Reihe von Studien zu den Auswirkungen des demografischen Wandels und eine Eurobarometer-Umfrage vor, die im Rahmen eines vom Europäischen Parlament initiierten Pilotprojektes finanziert wurden (die „Walter“-Pilotaktion von 2004 und 2005, so genannt nach ihrem Initiator, Ralf Walter – MdEP). Die Studien befassten sich mit einer Vielzahl von relevanten Fragen, u. a. mit dem Zusammenhang zwischen Rückgang/Alterung der Bevölkerung und Wirtschaftswachstum, den Auswirkungen des demografischen Wandels auf die vom Arbeitsmarkt verlangten Fähigkeiten und Qualifikationen sowie mit Fragen hinsichtlich von Innovation und Produktivitätswachstum in Europa. Schließlich wird über die Anhörungen führender Experten im Januar und März 2006 sowie das erste Europäische Demografieforum berichtet, das am 30.-31. Oktober 2006 in Brüssel stattfand.

Mit dem vorliegenden Bericht sollen die wesentlichen Fakten und Zahlen aufbereitet werden, die als Grundlage für die Debatte über die demografische Zukunft Europas und entsprechende Strategien dienen können. Zunächst werden die Hauptdeterminanten des demografischen Wandels – Fertilität, Lebenserwartung und Migration – beschrieben und aus einer umfassenden und langfristigen Perspektive beleuchtet. In einem weiteren Kapitel werden die wirtschaftlichen Auswirkungen der Alterung und deren Folgen für die Lebensbedingungen in Europa erörtert.

1. KOM(2006) 571 vom 12. Oktober 2006.

2. KOM(2005) 94 vom 16. März 2005.

Ein zentrales Anliegen des Berichts ist es, Fakten und Zahlen zu liefern, die das Potenzial der fünf wichtigen Strategiebereiche veranschaulichen, konstruktive Antworten auf die demografische Herausforderung zu geben. In einem Kapitel wird daher analysiert, inwieweit die Mitgliedstaaten dieses Potenzial bereits ausschöpfen. Auch wenn ein großes Spektrum unterschiedlicher Bereiche abgedeckt wird, so ist das vorgelegte Material doch noch unvollständig und die Analyse keineswegs abgeschlossen. Gleichwohl dürfte das Kapitel einen nützlichen Ansatzpunkt für eine realistische Beurteilung darüber liefern, wie gut die Europäische Union auf den demografischen Wandel vorbereitet ist. Spezifische Länderprofile, die auf den traditionellen demografischen Indikatoren basieren, vervollständigen das Bild.

In ihrer Mitteilung vom Oktober 2006 teilte die Kommission ihre Absicht mit, im Zweijahresrhythmus ein größeres Europäisches Demografieforum zu veranstalten. In Zusammenhang mit jedem Forum soll ein solcher Bericht veröffentlicht werden, der als Grundlage für eine fundierte und konstruktive Debatte auf europäischer Ebene und in den Mitgliedstaaten dienen soll. Anhand der Reaktionen der verschiedenen interessierten Akteure, die sich bereits an der durch das Grünbuch ausgelösten Aussprache beteiligten, sowie der Gruppe hochrangiger Regierungsexperten für Demografie auf diesen ersten Bericht sollen die Zweijahresberichte über die demografische Zukunft verbessert werden.

Vermutlich gibt es zahlreiche Verbesserungsmöglichkeiten. Daher würden wir uns über Kommentare und Anregungen freuen, die Sie bitte an folgende Anschrift richten:

Referat E.1  
Generaldirektion Beschäftigung, Soziales und  
Chancengleichheit  
Europäische Kommission  
B-1049 Brüssel  
Empl-e1-courrier@ec.europa.eu

## 1.2. Die Kernaussagen des Berichts

Der Bericht über die demografische Zukunft Europas 2006 umfasst drei Hauptteile, die den Hauptthemen der Mitteilung über die demografische Zukunft der EU entsprechen: Überblick über die Determinanten des demografischen Wandels, Analyse der wesentlichen Auswirkungen dieses Wandels sowie Beschreibung, wie im Rahmen von fünf politischen Schlüsselbereichen auf die Herausforderungen des demografischen Wandels reagiert werden kann. In dieser Zusammenfassung werden die wichtigsten Aspekte des Berichts herausgestellt, auf die in den jeweiligen Kapiteln ausführlich eingegangen wird.

## Kapitel 2: Demografischer Übergang: Gemeinsames Merkmal der sozialen und wirtschaftlichen Entwicklung

Die bestimmenden Faktoren des demografischen Wandels sind Fertilität, Mortalität (Lebenserwartung) und Migration. Zusätzlich können die Auswirkungen, die dadurch entstehen, dass Alterskohorten unterschiedlicher Größe den Lebenszyklus durchschreiten, von ausschlaggebender Bedeutung sein.

Hinsichtlich der **Fertilität** kann grob zwischen zwei Gruppen von Ländern in der EU unterschieden werden: jenen mit einer relativ niedrigen Fertilitätsrate (zwischen 1,6 und 1,9 Geburten pro Frau) und jenen mit einer sehr niedrigen Fertilitätsrate (1,5 Geburten und weniger). Der Durchschnitt für die EU-25 liegt bei 1,5 (2005). Demografen gehen davon aus, dass das bestandserhaltende Niveau einer Bevölkerung bei einer Geburtenziffer von etwa 2,1 Geburten je Frau liegt. Angesichts der derzeitigen Migrationsströme und der steigenden Lebenserwartung ist allerdings ein Bevölkerungsrückgang nur bei Fertilitätsraten, die signifikant unter diesem Niveau liegen, zu erwarten. Möglicherweise unterschätzen auch die derzeit beobachteten Fertilitätsraten Langzeittrends.

Der Indikator zur Messung der Fertilitätsrate ist so erstellt, dass die Verschiebung der ersten Geburt auf einen späteren Zeitpunkt im Leben einer Frau zunächst eine niedrigere Fertilitätsrate ergibt, bis die Frauen ein neues höheres Durchschnittsalter bei der Geburt erreicht haben. Dieser Tempo-Effekt könnte bei den Ländern mit den niedrigsten Geburtenraten, insbesondere in Mittel und Osteuropa, zum Tragen kommen. Die Bevölkerungsprojektionen Eurostat bis zum Jahr 2050 gehen von ansteigenden Fertilitätsraten aus, vor allem für die Länder, die derzeit die niedrigsten Raten aufweisen. Für die EU-25 wird eine leichte Erholung von 1,5 auf 1,6 Geburten je Frau prognostiziert. Laut einer Eurobarometer-Umfrage aus dem Jahr 2006 haben die Bürger- und Bürgerinnen in der EU grundsätzlich eine bejahende Haltung zu Kindern. Sie hätten gerne mehr Kinder als sie tatsächlich haben und sie würden sie gerne etwas später bekommen.

Seit dem 19. Jahrhundert ist der Zugewinn an **Lebenserwartung** vor allem auf die gesunkene **Säuglings- und Kindersterblichkeit** infolge allgemeiner soziökonomischer und medizinischer Fortschritte zurückzuführen. In jüngerer Zeit ist auch die Mortalität im mittleren Alter zurückgegangen. Während sozioökonomische Faktoren wie Einkommen und Bildung auch nach wie vor wichtig sind für den Zugewinn an Lebenserwartung, spielen die Verfügbarkeit moderner medizinischer Behandlung und die sich ändernden Lebensweisen eine immer größere Rolle. In der Regel ist die Lebenserwartung in den alten Mitgliedstaaten (EU-15) höher (82,4 Jahre

bei den Frauen und 76,7 Jahre bei den Männern) als in den neuen Mitgliedstaaten (EU-10) (78,7 bzw. 70,4). Laut den Bevölkerungsprognosen von Eurostat ist von einem weiteren Anstieg der Lebenserwartung um etwa sechs Jahre für Männer und fünf Jahre für Frauen (EU-25) im Zeitraum 2004-2050 auszugehen. Hauptgrund hierfür ist vor allem der Rückgang der Mortalität im höheren Alter, was zu einem zunehmenden Anteil älterer und sehr alter Menschen an der Gesamtbevölkerung führen wird. Diese Entwicklung der Lebenserwartung wird allerdings von der Vermeidung einer ungesunden Lebensweise abhängen, einschließlich Tabakkonsum, ungesunder Ernährung, Bewegungsmangel und Alkoholmissbrauch.

**Migration** hat sich zu einem immer bedeutenderen Faktor für den demografischen Wandel in der EU entwickelt. In der zweiten Hälfte des 20. Jahrhunderts vollzog sich in weiten Teilen Europas ein historischer Umbruch von der Auswanderung hin zur Zuwanderung. In den Jahren 2003/2004 erreichte die Nettozuwanderung in die EU einen Spitzenwert von nahezu 2 Millionen. Allerdings betrafen zwei Drittel dieser Migrationsbewegungen Italien und Spanien, die eine hohe Zahl illegaler Zuwanderer verzeichneten, von denen die Mehrzahl bereits in den Jahren zuvor gekommen war und nach der Regularisierung dann plötzlich in der Migrationsstatistik auftauchte. Bei Aufrechterhaltung der Zuwanderung auf diesem sehr hohen Niveau würde die Bevölkerung im erwerbsfähigen Alter in der EU weiterhin bis etwa 2030 anwachsen und nicht, wie es die derzeitige Bevölkerungsprognose von Eurostat voraussagt, bereits Ende des jetzigen Jahrzehnts anfangen zu schrumpfen. Allerdings würde in diesem Fall das Problem der Integration der Zuwanderer noch dringlicher werden. Schon heute wird die unzureichende Integration der bereits in vielen Mitgliedstaaten lebenden Zuwanderer häufig als problematisch angesehen.

**Die Babyboomer** (Jahrgänge 1945 bis 1965) stellen nach wie vor den Großteil der Bevölkerung im erwerbsfähigen Alter. Diese geburtenstarken Kohorten erreichen in Bälde das Rentenalter, was ein zunehmendes Ungleichgewicht zwischen der Anzahl der Erwerbstätigen und der im Ruhestand befindlichen Personen zur Folge hat. 15 bis 20 Jahre nach ihrem Eintritt in den Ruhestand werden sie zu einer starken Belastung der Gesundheits- und Langzeitpflegesysteme führen.

Die Gesamtbevölkerungsgröße wird infolge dieser Trends bis 2050 nahezu unverändert bleiben, verändern wird sich allerdings die Bevölkerungsstruktur in Europa. Laut **Basisbevölkerungsprojektion** von Eurostat wird das Medianalter in der EU zwischen 2004 und 2050 von 39 auf 49 Jahre steigen. Die Zahl junger Menschen (0- bis 14-Jährige) in der EU wird in absoluten Zahlen von ca. 100 Millionen im Jahr 1975 weiterhin bis zum Jahr 2050 auf etwa 66 Millionen sinken. Die Zahl der Personen im

erwerbsfähigen Alter (15- bis 64-Jährige) wird um das Jahr 2010 ihren Höchststand erreichen (331 Millionen), um dann bis 2050 auf 268 Millionen deutlich zurückzugehen. Die Alterung wird alle EU-Mitgliedstaaten betreffen, allerdings in unterschiedlichem Maße. Im Jahr 2050 wird der Altersquotient (Zahl der über 65-Jährigen geteilt durch Zahl der 15- bis 64-Jährigen) in der EU-25 ca. 53 % betragen (derzeit liegt er bei 25 %), wobei die höchsten Quoten für Italien und Spanien zu erwarten sind (66-67 %), die niedrigsten für Dänemark, Luxemburg, Malta, die Niederlande und Schweden (etwa 40 %).

Die Auswirkungen der Alterung mögen auf nationaler Ebene erst in ein bis zwei Jahrzehnten in ihrer ganzen Tragweite sichtbar werden, aber auf **regionaler Ebene** sind sie schon jetzt erkennbar. In einigen Regionen ist bereits ein negatives „natürliches Wachstum“ (Differenz zwischen Geburten und Sterbefällen) zu verzeichnen. Durch die Migration kann die Entwicklung beschleunigt oder verlangsamt werden. Die Regionen werden die Auswirkungen der langfristigen Bevölkerungstrends verstärkt in ihren mittelfristigen Regionalstrategien berücksichtigen müssen. Eine Reihe von Regionen hat bereits reagiert und ist in einer Vorreiterrolle, was Strategiekonzepte und praktisches Handeln zur Bewältigung der demografischen Herausforderung anbelangt.

Vor 100 Jahren lebten ca. 15 % der Weltbevölkerung im Gebiet der heutigen EU-25; heute macht dieser Anteil 7 % aus und laut Bevölkerungsprognosen der UN (aus dem Jahr 2004) wird 2050 der **Anteil der EU-25 an der Gesamtweltbevölkerung** etwa 5 % betragen. Während weltweit in allen Regionen – ausgenommen in Afrika südlich der Sahara – eine signifikante Alterung der Bevölkerung zu verzeichnen sein wird, ist die EU die einzige große Weltregion, die in den nächsten vier Jahrzehnten mit einer Verringerung der Gesamtbevölkerung konfrontiert sein dürfte. Zwar ist in vielen Entwicklungsländern eine rückläufige Fertilität zu verzeichnen, aber die demografischen und sozioökonomischen Kontraste zwischen Europa und seinen südlichen Nachbarn legen nahe, dass der hohe Migrationsdruck in den kommenden Jahrzehnten anhalten wird.

### Kapitel 3: Wirtschaftliche und soziale Auswirkungen des demografischen Wandels

Mit dem demografischen Wandel werden die Möglichkeiten für künftiges **Beschäftigungswachstum** nach und nach abnehmen. Obwohl davon auszugehen ist, dass die Bevölkerung im erwerbstätigen Alter (15- bis 64-Jährige) ab etwa 2011 schrumpfen wird, dürfte die Gesamtbeschäftigung in der EU-25 jedoch zumindest bis etwa 2017 aufgrund einer zunehmenden Erwerbsbeteiligung weiterhin steigen. Dank eines höheren Bildungsstands und einer verstärkten Erwerbsbe-



teiligung jüngerer Frauen dürften die Beschäftigungsquoten für Frauen von knapp mehr als 55 % im Jahr 2004 bis zum Jahr 2025 auf nahezu 65 % ansteigen. Die Beschäftigungsquoten für ältere Arbeitskräfte werden entsprechend den Vorausschätzungen ebenfalls ansteigen, von 40 % im Jahr 2004 (EU-25) auf 47 % im Jahr 2010 und 59 % im Jahr 2025. Ab 2017 wird die Gesamtbeschäftigung jedoch aufgrund der sinkenden Anzahl von Personen im erwerbsfähigen Alter stagnieren, um dann abzunehmen. Da die Beschäftigung sinkt und die Produktivität die einzige Quelle für künftiges Wirtschaftswachstum sein wird, dürfte die durchschnittliche potentielle **Wachstumsrate des jährlichen BIPs** der EU-25 von 2,4 % im Zeitraum 2004-2010 auf nur noch 1,2 % im Zeitraum 2031 bis 2050 zurückgehen.

Die rückläufige Beschäftigung zu einem Zeitpunkt, da die Zahl der älteren Menschen zunimmt, die Anspruch auf ausreichende Renten und eine angemessene Gesundheitsversorgung und Langzeitpflege haben, stellt eine große Herausforderung für die langfristige **Tragfähigkeit der Systeme der sozialen Sicherung** dar. Für diese Ausgabenkategorien ist voraussichtlich bis 2050 in der EU-25 mit einem Anstieg von 4,5 Prozentpunkten des BIP zu rechnen. Öffentliche und private Rentenausgaben, die im Durchschnitt 13 % des BIP in der EU ausmachen (Stand 2003), haben dazu geführt, dass Alter nicht mehr gleichbedeutend mit Armut oder der Abhängigkeit von den eigenen Kindern ist. Ob in Europa jedoch auch in Zukunft angemessene Renten gewährleistet werden können, hängt in entscheidendem Maße davon ab, dass das effektive Renteneintrittsalter erhöht wird und die Rentensysteme an die steigende Lebenserwartung angepasst werden, um so Transparenz beim Verhältnis Beiträge/Leistungen zu schaffen. Gesundheits- und Langzeitpflegedienste werden heutzutage am stärksten von älteren Menschen in Anspruch genommen. Mit der zunehmenden Anzahl älterer Menschen wird auch die Nachfrage nach diesen Leistungen ansteigen. Nach Berechnungen von Eurostat wird der Anteil der über 80-Jährigen an der Gesamtbevölkerung von 4,1 % im Jahr 2005 auf 6,3 % im Jahr 2025 und schließlich auf 11,4 % im Jahr 2050 ansteigen. Auch wenn das Alter an sich nicht der einzige Faktor ist, der die Ausgaben im Gesundheitswesen beeinflusst (allerdings dient es als Indikator für den Gesundheitszustand einer Person), so geht aus den Projektionen doch hervor, dass es aufgrund der alternden Bevölkerung zu massivem Druck zur Erhöhung der öffentlichen Ausgaben für Gesundheitsversorgung und Langzeitpflege kommen wird.

#### Kapitel 4: Chancen zur Bewältigung des demografischen Wandels

In der Mitteilung der Kommission „Die demografische Zukunft Europas – Von der Herausforderung zur Chance“

werden fünf politische Schlüsselbereiche aufgezeigt, in denen konstruktive Lösungen entwickelt werden können, um der demografischen Herausforderung zu begegnen. Zu den diesbezüglichen Schlüsselgrößen gehören Geburtenraten, Beschäftigungsniveau, Produktivitätswachstum, Migration und zukunftsfähige öffentliche Finanzen. Durch eine intelligente Verknüpfung der Maßnahmen in diesen Bereichen sind Synergieeffekte möglich. So werden sich beispielweise Maßnahmen zur Förderung der Beschäftigungsquote für ältere Arbeitskräfte positiv auf die öffentlichen Finanzen auswirken. Außerdem werden stärker wettbewerbsorientierte Märkte die Rendite von Investitionen zugunsten älterer Arbeitskräfte erhöhen.

*Ein Europa, das die demografische Erneuerung begünstigt, indem die Gleichstellung von Frauen und Männern gefördert wird*

Die Entscheidung gegen oder für (mehr) Kinder muss nach wie vor Privatsache bleiben – aber es besteht Spielraum für Maßnahmen, die den Familien eine bewusste Wahl ermöglichen. Laut Umfragen wünschen sich die Europäer ganz allgemein mehr Kinder als sie tatsächlich haben. Internationale Vergleiche belegen, dass Unterstützungsmaßnahmen zugunsten derjenigen, die Kinder haben wollen, durchaus zu einem Ansteigen der Geburtenraten beitragen können. Selbst geringe Änderungen in den Fertilitätsraten werden auf lange Sicht bedeutsame Auswirkungen auf Größe und Altersstruktur der Bevölkerung haben. Allerdings wird sich ein Ansteigen der Fertilitätsraten erst nach 20 oder mehr Jahren in einer größeren Bevölkerung im erwerbsfähigen Alter und in höheren Beschäftigungsquoten niederschlagen. Insofern könnte diese Entwicklung im Idealfall nur in begrenztem Maße zur Lösung des Problems der Alterung der Babyboom-Kohorten beitragen. Erschwerend hinzu kommt, dass Prognosen zufolge die Zahl der Frauen im gebärfähigen Alter in den kommenden Jahrzehnten zurückgehen wird.

Den erfolgversprechendsten Weg, um Männer und Frauen in die Lage zu versetzen, sich ihre Kinderwünsche auch tatsächlich zu erfüllen, stellen politische Maßnahmen zur Förderung der Geschlechtergleichstellung und zur Erleichterung der Vereinbarkeit von Beruf und Familie dar. Es sind in erster Linie die Frauen, die ihre Erwerbstätigkeit und Karriere an die Bedürfnisse der Familie (einschließlich Betreuung älterer Angehöriger) anpassen, indem sie entweder aus dem Beruf ausscheiden oder als teilzeit arbeiten. Die Länder, die die höchste Erwerbsbeteiligungsquote für Frauen und die größten Fortschritte bei der Geschlechtergleichstellung (die sich in unterschiedlichen Mustern der Zeitverwendung bei Frauen und Männern widerspiegeln) aufweisen, verzeichnen derzeit auch relativ hohe Fertilitätsraten. Vor etwa 20 Jahren tendierten die Länder mit einer hohen Erwerbsbeteiligung der Frauen zu einer niedrigeren Fertilität als diejenigen mit einer gerin-

gen Erwerbsbeteiligung der Frauen. Wichtige Faktoren für die Vereinbarkeit von Berufs- und Privatleben sind der Zugang zu Dienstleistungen (vor allem Angebote für erschwingliche und gute Tagesbetreuung), flexible Arbeitszeiten und -bedingungen sowie die Gleichstellung der Geschlechter (wozu auch die gleichmäßige Aufteilung der Familien- und Haushaltspflichten gehört). Parallel zu den Strategien, die auf bessere Bedingungen für Frauen und Männer abstellen, die eine Familie gründen wollen, dürfte es immer wichtiger werden, sich mit den biologischen Faktoren für verminderte Fertilität zu befassen. Da potenzielle Eltern sich immer später für Kinder entscheiden, bleibt ihr Kinderwunsch immer häufiger wegen Unfruchtbarkeit unerfüllt. Insofern kann die Verfügbarkeit von Fertilitätsbehandlungen einen Einfluss auf die Geburtenraten haben.

### *Ein Europa, das Arbeit aufwertet: mehr Beschäftigung und ein längeres aktives Leben mit hoher Lebensqualität*

Der tatsächliche Altersabhängigkeitsquotient bzw. das Verhältnis der über 65-Jährigen zu den erwerbsfähigen Personen im Alter von 15-64 Jahren liegt sogar über dem demografischen Abhängigkeitsquotienten und wird in der EU-25 bis 2050 voraussichtlich von 37 auf 70 steigen. Trotz eines signifikanten Anstiegs der Beschäftigungsquoten dürfte sich der tatsächliche Altersquotient drastisch verschlechtern. Würde die Beschäftigungsquote in der EU-25 auf das Niveau der Mitgliedstaaten, die derzeit die besten Ergebnisse erzielen, angehoben, so würden damit etwa zwei Drittel des Beschäftigungsrückgangs ausgeglichen, der aufgrund einer schrumpfenden Bevölkerung im erwerbsfähigen Alter zu erwarten ist. Eine derartige Steigerung der Beschäftigungsquoten würde natürlich zahlreiche Veränderungen auf dem Arbeitsmarkt und bei den institutionellen Mechanismen voraussetzen. Erforderlich ist ein Lebenszyklus-Ansatz, der darauf abstellt, dass die Arbeitskräfte länger erwerbstätig und produktiv bleiben können, u. a. durch lebenslanges Lernen und einen besseren Gesundheitsschutz. Die größte Chance zur Steigerung der Beschäftigungsquoten liegt in einer Erhöhung der Erwerbsbeteiligung von Frauen, älteren Arbeitskräften und bestimmten auf dem Arbeitsmarkt benachteiligten Gruppen.

Zur Erschließung dieses Potenzials ist eine Anhebung des Bildungsniveaus von ausschlaggebender Bedeutung. Ein höheres Bildungsniveau geht mit signifikant höheren Beschäftigungsquoten und weitaus niedrigeren Arbeitslosenquoten einher. Im Jahr 2005 betrug die durchschnittliche Beschäftigungsquote für hochqualifizierte Arbeitskräfte in der EU 82,5 %, für Arbeitskräfte mit mittlerer Qualifikation (Abschluss der Sekundarstufe II) 68,7 %, für Geringqualifizierte dagegen nur 46,4 %. Sowohl die Lissabon-Strategie als auch die europäische Beschäftigungsstrategie legen den Schwerpunkt auf Beschäftigung und Wachstum und stellen Leitlinien auf,

wie den demografischen Herausforderungen zu begegnen ist. Voraussetzung für eine stärkere Erwerbsbeteiligung von Frauen sind ein Ausbau des Angebots an erschwinglicher, hochwertiger Betreuung für Kinder und pflegebedürftige Angehörige, die Aufteilung der Familien- und Haushaltspflichten auf Frauen und Männer, eine Verringerung der geschlechtsspezifischen Lohnunterschiede sowie eine verstärkte Gleichstellung und Chancengleichheit der Geschlechter. Der 2006 angenommene Europäische Pakt für die Gleichstellung der Geschlechter zielt auf die durchgängige Berücksichtigung der Gleichstellungsperspektive ab und soll als Instrument für die Förderung der Beschäftigung von Frauen dienen. Eine weitere, noch wichtigere Strategie zur Erschließung des Potenzials für eine gesteigerte Beschäftigung besteht in der Verlängerung der Erwerbstätigkeit, indem Anreize für einen späteren Renteneintritt geschaffen werden. Anzusetzen ist hierbei nicht nur bei den Rentensystemen, sondern auch bei den Frühverrentungs- und Sozialversicherungsregelungen (Arbeitsunfähigkeit, Arbeitslosigkeit, Krankheit), die mitunter als Ausstiegsmöglichkeit in Anspruch genommen werden. Ältere Arbeitskräfte sind heutzutage in einer weitaus besseren gesundheitlichen Verfassung als ihre Altersgenossen vor 40/50 Jahren. Im Übrigen erscheint es angebracht, verstärkt Anreize für den längeren Verbleib im Erwerbsleben zu schaffen, da die heutigen älteren Arbeitskräfte später in den Arbeitsmarkt eingetreten sind. Unterstützt werden kann dieser Ansatz durch eine den gesamten Lebenszyklus umspannende Perspektive. Die Grundlage für ein aktives Altern ist durch eine gute Erstausbildung zu schaffen, die die Arbeitskräfte in die Lage versetzt, sich am lebenslangen Lernen zu beteiligen. Die Gesundheitsförderung während des gesamten Berufslebens sowie wirksame und leistungsfähige Gesundheitsdienste sind ebenfalls wichtig, denn gesunde Arbeitskräfte sind produktiver. Gesundheitsstörungen gehören zu den Hauptursachen für Fernbleiben vom Arbeitsplatz und Frühverrentung. Die Rentenreformen in den meisten Mitgliedstaaten sehen eine Anhebung des Erwerbsaustrittsalters vor und würden durch eine Verbesserung der Beschäftigungsfähigkeit älterer Arbeitskräfte (durch Förderung ihrer Qualifikation und ihres Gesundheitszustands) zusätzlich gestützt. Das Arbeitspotenzial aller Gruppen muss voll und ganz genutzt werden, und es sind Maßnahmen zu ergreifen, um benachteiligte Gruppen, wie behinderte Menschen, Angehörige ethnischer Minderheiten und Menschen mit Migrationshintergrund besser in den Arbeitsmarkt zu integrieren. Eine wichtige Zielgruppe sind auch die jungen Menschen, für die eine hohe Arbeitslosenquote zu verzeichnen ist.

### *Ein produktiveres und leistungsfähigeres Europa*

Wirtschaftswachstum und hoher Lebensstandard werden ab 2017, wenn die Gesamtbeschäftigung abnehmen dürfte, ausschließlich von einer erhöhten Arbeitsproduk-

tivität abhängen. In Europa besteht ein großes Potenzial für Produktivitätsverbesserungen, vorausgesetzt alle Mitgliedstaaten schließen zu den Ländern mit den besten Ergebnissen auf, deren Produktivität über dem und nahe am Niveau der USA liegt. Selbst die Länder, die in puncto Produktivität führend sind, können ihr Wachstum beschleunigen, indem sie Barrieren, die der Innovation und dem strukturellen Wandel entgegenstehen, beseitigen sowie intensiv Forschung und Entwicklung fördern, die zu neuen Produkten und effizienteren Produktionsverfahren führen.

Um dieses Potenzial erschließen zu können, bedarf es in erster Linie Investitionen in das Humankapital. Das Beispiel der leistungsfähigsten Mitgliedstaaten zeigt, dass der Bildungsstand in der EU noch erheblich angehoben werden kann. In diesem Kontext gilt es vor allem, die Zahl der Schulabbrecher zu verringern, die auf den künftigen Arbeitsmärkten mit wachsenden Schwierigkeiten konfrontiert sein werden. 2005 verfügten 17 % der Männer und 13 % der Frauen in der Altersgruppe der 18 bis 24-Jährigen lediglich über einen Abschluss der Sekundarstufe I und absolvierten keine weitergehende Ausbildung. Weitere Verbesserungen drängen sich auch in Bezug auf den Anteil der Absolventen der Sekundarstufe II und der Hochschulbildung auf. Die Ausgaben für die tertiäre Bildung belaufen sich in der EU-25 lediglich auf 1,2 % des BIP, in den USA dagegen auf 2,9 %. Etwas kleiner ist die Schere EU/USA bei den Ausgaben für Forschung und Entwicklung (FuE), die in der EU knapp unter 2 % des BIP und in den USA bei etwa 2,7 % liegen. Europas Fähigkeit zu Innovation und Produktivitätswachstum in der Zukunft wird von verstärkten Investitionen zugunsten von Bildung und Forschung auf Spitzenniveau abhängen. Diese werden auch von entscheidender Bedeutung sein, um die neuen Marktchancen erfolgreich zu nutzen, die sich durch die „Seniorenwirtschaft“ auftun, also durch neue Produkte und Dienste, die an die sich wandelnden Bedürfnisse einer alternden Gesellschaft und die geänderte Nachfragestruktur angepasst sind.

### *Ein Europa, das auf die Aufnahme und Integration von Migranten vorbereitet ist*

Aufgrund seines Wohlstands und seiner gut funktionierenden Gesellschaften wird Europa auch weiterhin attraktiv für Zuwanderer sein. Es ist allerdings festzuhalten, dass die EU nicht so erfolgreich ist wie die USA und Kanada, wenn es darum geht, die am besten qualifizierten Zuwanderer anzuziehen. Das 2005 verabschiedete Zulassungsverfahren für Forscher aus Drittstaaten<sup>3</sup> ist ein erster Schritt, um die Attraktivität Europas für Hochqualifizierte zu erhöhen. Derartige Maßnahmen dürfen nicht zu Lasten der Entwicklungsländer infolge der Abwanderung von Spitzenkräften gehen, sondern können und müssen für alle Seiten von Nutzen sein. Etwa 3,7 %

der Bevölkerung der EU-27 sind Staatsangehörige von Drittländern (EU-15: 5,1 %). Somit entspricht die Zuwanderung bereits einem Bedarf der europäischen Arbeitsmärkte und die Nachfrage nach hoch sowie geringqualifizierten Arbeitsmigranten wird anhalten.

Auch wenn die EU-interne Mobilität der Arbeitnehmer die demografischen Trends für die EU insgesamt nicht beeinflussen wird, so birgt sie doch ein enormes Potenzial für eine Erhöhung der Erwerbsbeteiligungs- und Beschäftigungsquoten, da sie Menschen in Regionen mit schlechten Arbeitsmarktchancen bessere Möglichkeiten eröffnet. Länder mit einem hohen Wirtschaftswachstum in den letzten Jahren, wie Spanien und Irland, haben immensen Nutzen gezogen aus dem beträchtlichen Zustrom von Arbeitnehmern sowohl aus Drittstaaten als auch aus der Europäischen Union selbst.

Um das Potenzial der Zuwanderung nutzen zu können, gilt es, die Herausforderung der Eingliederung der Zuwanderer und ihrer Familienmitglieder in die europäischen Gesellschaften zu meistern. Die EU-Mitgliedstaaten verzeichnen offensichtlich unterschiedliche Erfolge bei der beruflichen und sozialen Eingliederung der Zuwanderer. In der Regel ist der Bildungsstand der Nichtstaatsangehörigen weitaus niedriger als der der Staatsbürger des betreffenden Mitgliedstaats, obwohl in einigen Mitgliedstaaten der Prozentsatz der Nichtstaatsangehörigen mit Hochschulabschluss tatsächlich höher ist als derjenige der Staatsangehörigen. Gleichzeitig ist in verschiedenen Mitgliedstaaten die Beschäftigungsquote der Zuwanderer, insbesondere der Frauen, sehr niedrig. Mit dieser unzureichenden Integration der Zuwanderer in die Gesellschaft des Aufnahmelandes geht ein relativ negatives Bild der Migration einher. So sind laut Eurobarometer im Durchschnitt nur 4 von 10 Unionsbürgern der Meinung, dass die Zuwanderer einen erheblichen Beitrag für ihr Land leisten, während die knappe Mehrheit der Bürger (52 %) diese Ansicht nicht teilt.

### *Ein Europa mit zukunftsfähigen öffentlichen Finanzen: Garant eines angemessenen Sozialschutzes und des Ausgleichs zwischen den Generationen*

In allen Mitgliedstaaten wird die Bevölkerungsalterung zu einem Anstieg der öffentlichen Ausgaben für Renten, Gesundheitsversorgung und Langzeitpflege führen. Schätzungen zufolge wird sich in den meisten Mitgliedstaaten, in denen die Renten über Beiträge finanziert werden, das Ungleichgewicht zwischen Beiträgen und Bedarf vergrößern. Die von verschiedenen Mitgliedstaaten eingerichteten Reservefonds können den künftigen Finanzierungsbedarf abmildern, sind aber offenbar in den meisten Fällen nicht ausreichend. In den meisten Mitgliedstaaten sind die öffentlichen Haushalte

3. Richtlinie 2005/71/EG.



bei gleichbleibenden politischen Rahmenbedingungen auf Dauer nicht zukunftsfähig. Erforderlich sind Haushaltskonsolidierung und weitere Anstrengungen zur Reform der Renten-, Gesundheits- und Langzeitpflegesysteme. Eine Erhöhung der Anzahl von Jahren, in denen die Arbeitskräfte ihre Erwerbstätigkeit aufrechterhalten und bei guter Gesundheit bleiben, wird zu einer Minderung des finanziellen Drucks auf die Gesundheits- und Langzeitpflegesysteme beitragen.

Abgesehen von künftigen Entwicklungen bei den Ausgaben und Einnahmen hängt die langfristige Tragfähigkeit der öffentlichen Finanzen von der aktuellen Defizit- und Schuldensituation ab. Falls keine Änderungen vorgenommen werden, besteht das Risiko, dass die langfristige Tragfähigkeit der öffentlichen Finanzen untergraben wird. Zinszahlungen für öffentliche Schulden können in einigen Mitgliedstaaten mehr als 10% der öffentlichen Einnahmen ausmachen. Den Mitgliedstaaten wird nahegelegt, das derzeitige Defizit und Schuldenniveau zu senken sowie untragbare Ausgaben zu vermeiden, damit sie weiterhin in der Lage sind, dem Ausgabenbedarf gerecht zu werden,

u. a. demjenigen, der sich aufgrund der Bevölkerungsalterung ergibt. Das Potenzial für eine weitere Konsolidierung der öffentlichen Finanzen ist in den Mitgliedstaaten äußerst unterschiedlich.

Für eine nachhaltige Konsolidierung der öffentlichen Finanzen ist es wichtig, zu einem Zeitpunkt zu agieren, zu dem die Wachstumsaussichten noch günstig sind. Die EU hat einen zeitlichen Handlungsspielraum von etwa zehn Jahren, ehe die Beschäftigung – entsprechend den Vorausschätzungen – infolge der schrumpfenden Bevölkerung im erwerbstätigen Alter sinkt. Bei der Bewältigung der Herausforderungen der Bevölkerungsalterung kommt der Mobilisierung des vollen Potenzials älterer Arbeitskräfte, einschließlich der Nutzung der begrenzten Zeitspanne zur Reform der Renten und Gesundheitssysteme und zur Vermeidung eines frühzeitigen Ausscheidens der Babyboomer aus dem Arbeitsmarkt, eine entscheidende Rolle zu. Zur Wahrung der Solidarität zwischen den Generationen gilt es, eine angemessene soziale Sicherung für die Älteren zu gewährleisten und ausreichende Investitionen zugunsten der jüngeren Generation zu tätigen.

# 1. INTRODUCTION ET RÉSUMÉ

## 1.1. Contexte

Les changements démographiques occupent une place d'importance dans l'agenda politique européen et, de fait, l'Europe doit rassembler ses forces pour affronter les profondes mutations qui s'opèrent dans la structure de sa population. Au cours des dix prochaines années, les cohortes du baby boom vont commencer à se retirer du marché du travail. Les cohortes de jeunes accédant au marché du travail seront beaucoup moins nombreuses en raison de la faible fécondité. D'ici environ dix ans, l'emploi total dans l'UE pourrait amorcer une chute en dépit d'une hausse des taux d'emploi. Le taux de croissance potentiel de l'Europe pourrait décliner au moment-même où d'importantes ressources supplémentaires seront nécessaires pour répondre aux besoins d'une population croissante de personnes âgées, dont l'adéquation avec les systèmes de retraites, de santé et de soins de longue durée devra être assurée.

En octobre 2006, la Commission a présenté sa position à l'égard des changements démographiques et de la manière d'y faire face dans sa communication intitulée *L'avenir démographique de l'Europe, transformer un défi en opportunité*<sup>1</sup>. Cette communication a été suivie d'un grand débat public, dans le prolongement du Livre vert *Face aux changements démographiques – une nouvelle solidarité entre générations*<sup>2</sup> de mars 2005, et de discussions au niveau des chefs d'État et de gouvernement au sommet informel de Hampton Court en octobre 2005. La Commission a exprimé sa confiance en l'aptitude de l'Europe à gérer les changements démographiques et elle a proposé cinq orientations clés offrant des possibilités majeures d'y répondre par une politique constructive:

- une Europe qui favorise le renouveau démographique;
- une Europe qui valorise le travail: plus d'emplois et une vie active plus longue et de qualité;
- une Europe plus productive et performante;
- une Europe organisée pour recevoir et intégrer les migrants;

- une Europe aux finances publiques viables pour garantir une protection sociale adéquate et l'équité entre les générations.

Comme la communication l'annonçait, tous les deux ans, un rapport présentera une évaluation de la situation démographique en Europe reflétant les débats et recherches en cours dans l'UE, en lien avec le Forum démographique européen. Le présent rapport démographique décrit brièvement le vaste travail d'analyse effectué avant l'adoption de la communication sur l'avenir démographique de l'Europe. Il s'inspire dans une large mesure des travaux du Comité de politique économique et de la direction générale Affaires économiques et financières de la Commission sur l'évolution future des dépenses publiques. En outre, il passe en revue une série d'études d'impact démographique et une enquête Eurobaromètre réalisées au titre d'un crédit budgétaire spécial approuvé par le Parlement européen (l'action pilote "Walter" de 2004 et 2005, du nom de son initiateur, Ralf Walter, député européen). Ces études s'intéressent à une diversité de questions pertinentes, parmi lesquelles le lien entre le déclin et le vieillissement de la population et la croissance économique, l'impact des changements démographiques sur les compétences et qualifications demandées sur le marché du travail ainsi qu'à des problèmes en rapport avec l'innovation et la croissance de la productivité en Europe. Enfin, le rapport rend compte aussi des auditions d'émis experts en janvier et mars 2006, et du Premier Forum européen sur la démographie qui s'est tenu à Bruxelles, les 30 et 31 octobre 2006.

Le but du présent rapport est de présenter les principaux faits et chiffres qui alimentent le débat sur l'avenir démographique de l'Europe et les réponses politiques appropriées à y apporter. Le rapport commence par faire le point sur les principaux moteurs des changements démographiques – la fécondité, l'espérance de vie et la migration – et les place dans une perspective globale à long terme. Un autre chapitre examine l'impact économique du vieillissement et ses conséquences sur les conditions de vie futures en Europe.

Le présent rapport ambitionne de fournir des faits et des chiffres démontrant le potentiel de chacune des cinq orientations politiques clés dans lesquelles des réponses

1. COM(2006) 571, adopté le 12 octobre 2006.

2. COM(2005) 94, adopté le 16 mars 2005.

constructives aux enjeux démographiques peuvent être développées. L'un des chapitres étudie dans quelle mesure les États membres ont déjà commencé à libérer ce potentiel. Bien qu'il aborde un large éventail de domaines différents, les informations fournies sont certainement encore incomplètes et l'analyse doit être considérée comme très provisoire. Cependant, ce chapitre devrait constituer un point de départ utile pour une évaluation réaliste de l'état de préparation de l'Union européenne face aux changements démographiques. L'aperçu est complété de relevés par pays basés sur des indicateurs démographiques traditionnels.

Dans sa communication d'octobre 2006, la Commission a annoncé son intention d'organiser tous les deux ans un grand Forum européen sur la démographie. Pour chaque Forum, un rapport à l'instar de celui-ci doit être publié pour alimenter un débat documenté et constructif, à la fois au niveau européen et des États membres. Les réactions à ce premier rapport reçues des diverses parties prenantes, qui ont pris part au débat lancé par le Livre vert, et du groupe de haut niveau d'experts démographiques gouvernementaux serviront à améliorer le contenu du rapport bisannuel sur la situation démographique.

Il existe sans doute de nombreuses façons d'améliorer les rapports à venir. C'est pourquoi, tout commentaire et suggestion seront les bienvenus et doivent être adressés à :

Unité E.1

Direction générale Emploi, affaires sociales  
et égalité des chances  
Commission européenne  
B-1049 Bruxelles  
Empl-e1-courrier@ec.europa.eu

## 1.2. Données essentielles de ce rapport

Le présent rapport sur la situation démographique en Europe en 2006 consiste en trois grands chapitres correspondant aux principaux domaines faisant l'objet de la communication sur l'avenir démographique de l'UE: un aperçu des moteurs des changements démographiques, une analyse des principaux impacts de ces changements et une description du potentiel de réaction aux enjeux posés par les changements démographiques dans cinq domaines politiques clés. Le présent résumé met en évidence les grands thèmes du rapport, chacun d'eux étant développé plus en détail dans les divers chapitres.

### Chapitre 2: Transition démographique: un facteur courant de développement social et économique

Les principaux moteurs des changements démographiques sont la fécondité, la mortalité (espérance de vie) et la migration. En outre, la succession de cohortes d'âge de différentes tailles tout au long du cycle de vie peut produire des effets significatifs.

Concernant la **fécondité**, il y a deux catégories de pays dans l'UE: ceux à fécondité modérément faible, de l'ordre de 1,6 à 1,9 naissance par femme et ceux à très faible fécondité, 1,5 naissance ou moins. La moyenne pour l'UE-25 est de 1,5 (2005). Le taux de fécondité nécessaire pour assurer un remplacement total des générations est estimé par les démographes à 2,1, mais compte tenu des niveaux actuels de l'immigration et de l'accroissement de l'espérance de vie, la taille de la population ne déclinera qu'à des taux de fécondité significativement inférieurs à ce taux de remplacement. Il se peut aussi que les taux de fécondité actuellement observés sous-estiment les tendances à long terme.

L'indicateur est calculé de telle manière que le report des naissances va d'abord conduire à réduire le taux de fécondité jusqu'au moment où les femmes auront atteint un nouvel âge moyen de maternité plus élevé. Cet effet "de calendrier" peut affecter les pays aux taux de naissance les plus bas, notamment en Europe centrale et orientale. Selon les projections d'Eurostat jusqu'en 2050, les taux de fécondité s'accroîtront, entre autres dans les pays aux taux les plus faibles: pour l'UE-25, une légère reprise de 1,5 à 1,6 est prévue. Une enquête Eurobaromètre réalisée en 2006 a montré que les Européens ont en général une attitude positive à l'égard de la maternité. Les femmes aimeraient avoir plus d'enfants qu'elles n'en ont réellement. En outre, elles préféreraient aussi avoir leurs enfants un peu plus tard dans la vie.

Depuis le XIX<sup>e</sup> siècle, les gains **d'espérance de vie** sont avant tout le résultat d'une diminution de la **mortalité aux premiers stades de la vie**, grâce généralement à des avancées socio-économiques et des mesures de santé publique. Plus récemment, la mortalité en milieu de vie a aussi baissé. Alors que les facteurs socio-économiques, comme le revenu et l'éducation, demeurent importants pour les gains d'espérance de vie, l'existence de traitements médicaux modernes joue un rôle croissant, comme les nouveaux modes de vie. L'espérance de vie est habituellement plus élevée dans les anciens États membres (EU-15) (82,4 pour les femmes et 76,7 pour les hommes) que dans les nouveaux États membres (EU-10) (78,7 pour les femmes et 70,4 pour les hommes). Selon les prévisions d'Eurostat, l'espérance de vie devrait encore s'allonger d'environ six ans pour les hommes et de cinq ans pour les femmes (EU-25) entre 2004 et 2050, grâce essentiellement à la baisse de la mortalité aux âges élevés, ce qui contribuerait à augmenter la proportion de personnes âgées et très âgées dans la population totale. Toutefois, ces allongements de l'espérance de vie dépendront du renoncement à des modes de vie nocifs pour la santé, comme le tabagisme, une mauvaise alimentation, le manque d'exercice physique et l'abus d'alcool.

L'**immigration** est devenue un déterminant majeur des changements démographiques dans l'UE. Dans le second semestre du XX<sup>e</sup> siècle, un changement historique s'est

produit en de nombreux endroits d'Europe qui sont passés de l'émigration à l'immigration. Le volume migratoire net dans l'UE a atteint un sommet de presque 2 millions en 2003/2004. Mais deux tiers de ce flux concernaient l'Italie et l'Espagne où des flux importants de migrants clandestins, la majorité desquels étant arrivés dans ces pays dans les années précédentes, ont été régularisés et sont donc soudain apparus dans les statistiques d'immigration. Si le taux d'immigration se maintient à ce niveau très élevé, la population en âge de travailler dans l'UE continuera à croître jusqu'à environ 2030 au lieu de commencer déjà à décliner d'ici à la fin de la présente décennie, comme le laissent entrevoir les projections démographiques d'Eurostat. Cependant, cette perspective rendrait plus préoccupante encore la question de l'intégration des immigrants. En effet, le degré d'intégration des populations d'origine immigrée déjà présentes dans de nombreux États membres est souvent considéré comme hautement problématique.

Les **cohortes du baby boom**, c'est-à-dire les enfants nés entre 1945 et 1965, constituent encore aujourd'hui l'essentiel de la population en âge de travailler. Elles vont se retirer bientôt du marché du travail, provoquant ainsi un déséquilibre majeur entre les populations active et retraitée. Environ 15 à 20 ans après leur départ, elles commenceront à dépendre intensément des systèmes de santé et des soins de longue durée.

L'association de ces évolutions ne bouleversera pas radicalement le volume total de population d'ici à 2050, mais transformera la structure de la population en Europe. Selon les **projections démographiques** de base d'Eurostat, l'âge moyen dans l'UE passera de 39 à 49 ans entre 2004 et 2050. Le nombre de jeunes (âgés de 0 à 14 ans) dans l'UE continuera de diminuer en termes absolus d'environ 100 millions, niveau atteint en 1975, à quelque 66 millions d'ici l'année 2050. La population en âge de travailler dans la tranche d'âge de 15 à 64 ans sera la plus nombreuse vers l'an 2010 (331 millions), mais elle diminuera ensuite jusqu'à quelque 268 millions d'ici à 2050. Le vieillissement concernera tous les États membres de l'UE, mais à des degrés divers. Le taux de dépendance vieillesse (nombre de personnes de plus de 65 ans divisé par le nombre de personnes âgées de 15 à 64 ans) atteindra environ 53% en 2050 dans l'UE-25 (contre 25% aujourd'hui), les taux les plus élevés devant être ceux de l'Italie et de l'Espagne (66-67%) et les plus bas, pour le Danemark, le Luxembourg, Malte, les Pays-Bas et la Suède (environ 40%).

S'il faudra encore une ou deux décennies avant que l'impact du vieillissement devienne clairement visible au niveau d'un pays entier, l'impact peut déjà être observé au **niveau régional**. Dans certaines régions, l'"accroissement naturel" (variation entre les naissances et les décès) évolue déjà négativement. Les migrations

peuvent soit accentuer soit ralentir ces tendances. Les régions vont devoir de plus en plus tenir compte des effets des évolutions à long terme dans leurs stratégies régionales à moyen terme. Un certain nombre de régions ont déjà réagi et sont à la pointe de la réflexion et de l'action en matière de changements démographiques.

Il y a un siècle, quelque 15% de la population mondiale vivait dans l'espace de l'actuelle UE-25; de nos jours, ce n'est plus que 7%, et vers 2050, selon les prévisions démographiques des Nations-Unies (2004), la population de l'**UE-25** devrait représenter environ 5% de **la population mondiale totale**. Si toutes les régions du monde – à l'exception de l'Afrique sub-saharienne – vont connaître un vieillissement significatif de leurs populations, l'UE est la seule grande région du monde dont la population totale devrait se contracter au cours des quarante prochaines années. Bien qu'une baisse de la fécondité soit observée dans de nombreux pays en développement, les contrastes démographiques et socio-économiques entre l'Europe et ses voisins méridionaux laissent penser que de fortes pressions migratoires se poursuivront au cours des prochaines décennies.

### Chapitre 3: Les impacts économiques et sociaux des changements démographiques

Les changements démographiques limiteront progressivement les possibilités futures de croissance de l'emploi. Bien que la population en âge de travailler (de 15 à 64 ans) soit déjà supposée décliner à partir de 2011 environ, l'**emploi** total dans l'UE-25 devrait continuer à s'accroître jusqu'en 2017 environ en raison de l'augmentation de la participation au marché du travail. Grâce à des niveaux d'éducation supérieurs et à une participation accrue au marché du travail de cohortes de femmes plus jeunes, les taux d'emploi des femmes devraient s'élever d'un peu plus de 55%, niveau de 2004, jusqu'à près de 65% d'ici à 2005. Les taux d'emploi des travailleurs plus âgés devraient aussi s'accroître et passer de 40% en 2004 pour l'UE-25 à 47% d'ici à 2010 et à 59% en 2025. Mais à partir de 2017, la population en âge de travailler ayant diminué, l'emploi total va stagner, puis se réduire. Les prévisions montrent qu'avec la contraction de l'emploi et la productivité devenue seule source de future croissance économique, le taux moyen annuel de **croissance potentielle du PIB** dans l'UE-25 va tomber de 2,4%, niveau entre 2004 et 2010, à seulement 1,2% entre 2031 et 2050.

Comme l'emploi décline à un moment où s'accroît le nombre de personnes vieillissantes nécessitant à due proportion des retraites, des prestations de santé et des soins de longue durée, il sera difficile d'assurer de manière durable des **ressources suffisantes pour la protection sociale**. La hausse prévue de ces catégories de dépenses d'ici à 2050 est d'environ 4,5 points de pourcentage

du PIB dans l'UE-25. Les dépenses publiques et privées au titre des retraites, représentant en moyenne 13% du PIB dans l'UE (en 2003), ont permis que le vieillissement ne soit plus synonyme de pauvreté ou de dépendance vis-à-vis de ses enfants. Cependant, la capacité future de l'Europe à offrir à la population vieillissante des niveaux de retraite satisfaisants dépendra essentiellement de la possibilité ou non de retarder l'âge de la retraite et d'adapter les systèmes de financement de celle-ci à l'allongement de l'espérance de vie, rendant ainsi transparente la relation entre les cotisations et les prestations. Les principaux bénéficiaires des prestations de santé et des soins de longue durée sont les personnes âgées, que les prévisions donnent en augmentation et qui seront davantage en demande de ces services. Selon les projections d'Eurostat, la proportion de la population totale de plus de 80 ans augmentera de 4,1% en 2005 à 6,3% en 2025 et à 11,4% en 2050. Bien que l'âge en soi ne soit pas le seul facteur déterminant des dépenses de santé (même s'il donne une estimation de l'état de santé d'une personne), les prévisions montrent qu'un vieillissement de la population occasionnera une augmentation des dépenses publiques de santé et de soins de longue durée.

#### Chapitre 4: Possibilités de faire face aux changements démographiques

La communication de la Commission sur *L'avenir démographique de l'Europe – transformer un défi en opportunité* a recensé cinq domaines clés dans lesquels des réponses constructives au défi démographique peuvent être développées. Il s'agit des taux de natalité, des niveaux d'emploi, de la croissance de la productivité, des migrations et de la viabilité des finances publiques. Des synergies pourront être obtenues si les politiques dans ces domaines sont élaborées de manière intégrée. Par exemple, les politiques qui encouragent la participation au marché du travail des travailleurs vieillissants auront aussi un impact positif sur les finances publiques. En outre, des marchés plus compétitifs gonfleront le rendement des investissements dans les travailleurs vieillissants.

##### *Promouvoir le renouveau démographique en Europe par une égalité accrue entre les genres*

Si le choix d'avoir ou non des enfants (ou plus d'enfants) est et doit rester une affaire privée, les politiques semblent pouvoir aider les familles à faire leur choix. De fait, une enquête révèle que les Européens aimeraient généralement avoir plus d'enfants qu'ils n'en ont réellement. Les études comparatives internationales montrent que les politiques aidant les personnes qui le souhaitent à avoir des enfants peuvent exercer quelque influence pour relever les taux de natalité. Même de petits changements dans les taux de fécondité produiront un impact majeur sur la taille de la population et sa structure d'âge à long terme. Cependant, un accroissement des taux de fécondité ne se

traduira en une augmentation de la population en âge de travailler et en une hausse du taux d'emploi qu'au-delà de 20 ans ou plus. C'est pourquoi, au mieux, il ne pourra apporter qu'une faible contribution à la résolution du problème du vieillissement des cohortes du baby boom. Du reste, le nombre de femmes en âge de procréer devrait aussi chuter au cours des dix prochaines années.

Si le but est de permettre aux personnes d'avoir le nombre d'enfants qu'elles souhaitent, les politiques qui semblent le mieux réussir sont celles qui favorisent une plus grande égalité entre les sexes et facilitent la conciliation de la vie professionnelle et la prise en charge des enfants et personnes dépendantes. Ce sont essentiellement les femmes qui adaptent leurs projets de carrière aux besoins de leurs familles (y compris la prise en charge des parents âgés), soit en quittant le marché du travail, soit en travaillant à temps partiel. Les pays dans lesquels la participation des femmes au marché du travail est la plus élevée et dans lesquels les progrès en matière d'égalité entre les hommes et les femmes sont les plus notoires (comme en témoignent les pratiques de répartition du temps entre les hommes et les femmes) sont aussi ceux qui aujourd'hui affichent des taux de fécondité relativement élevés. Il y a une vingtaine d'années, les pays à haute participation féminine au marché du travail avaient tendance à enregistrer une fécondité inférieure à celle des pays à faible participation des femmes au marché du travail. L'accès à des services (en particulier des crèches à prix abordable de haute qualité), la flexibilité des horaires et conditions de travail, et l'égalité entre hommes et femmes (dont le partage des responsabilités familiales et domestiques) sont autant de facteurs importants de la conciliation de la vie professionnelle et de la vie privée. Parallèlement aux politiques destinées à offrir de meilleures conditions aux femmes et aux hommes qui souhaitent fonder une famille, il peut être de plus en plus important de s'intéresser aux obstacles biologiques à la fécondité. Étant donné que les parents potentiels reportent le moment de la décision d'avoir des enfants, la stérilité est devenue un obstacle de plus en plus fréquent à la réalisation de leur désir de procréer. Le recours à des traitements de fécondité peut alors influencer sur les taux de natalité.

##### *Promouvoir l'emploi en Europe: plus d'emplois et des vies professionnelles plus longues de meilleure qualité*

Le taux réel de dépendance vieillesse, c'est-à-dire le rapport entre le nombre de personnes de plus de 65 ans et celui des personnes en emploi âgées de 15 à 64 ans, est encore supérieur au taux de dépendance démographique et devrait passer de 37 à 70 dans l'UE-25 d'ici à 2050. En dépit d'une augmentation considérable des taux d'emploi, le taux de dépendance vieillesse devrait se dégrader d'une manière importante. Mais deux tiers environ du déclin de l'emploi attendu d'une contraction de la population en âge de travailler pourraient être compensés par



une élévation du taux d'emploi dans l'UE-25 au niveau de celui des trois États membres actuellement les plus performants. Certes, une telle élévation des taux d'emploi exigerait de nombreux changements sur le marché du travail et dans les mécanismes institutionnels. Il faut adopter une approche fondée sur le cycle de vie visant à permettre aux personnes de rester plus longtemps actives et productives, notamment en leur offrant des possibilités d'éducation et de formation tout au long de la vie et de meilleures protections de la santé. Les principales chances d'augmenter les taux d'emploi tiennent à la participation au marché du travail des femmes, des travailleurs vieillissants et de quelques groupes de personnes handicapées.

Pour réaliser ces potentiels, il semble particulièrement important de relever les niveaux d'éducation. Il y a une corrélation entre des niveaux d'éducation élevés et des taux significativement plus élevés en matière d'emploi et beaucoup plus faibles en matière de chômage. En 2005, le taux d'emploi moyen parmi les personnes hautement qualifiées dans l'UE était de 82,5%, de 68,7% pour les personnes moyennement qualifiées (celles ayant fréquenté l'enseignement secondaire supérieur), tandis qu'il n'était que de 46,4% pour les moins qualifiées. La stratégie de Lisbonne, comme la stratégie européenne de l'emploi, cherchent à accroître l'emploi et la croissance et à donner des lignes directrices sur la manière de réagir aux enjeux démographiques. Pour que les femmes participent davantage au marché du travail, il faudra mettre en place des structures abordables et de qualité pour la garde d'enfants et la prise en charge des personnes dépendantes, partager plus équitablement les responsabilités familiales et domestiques entre les femmes et les hommes, réduire les écarts de salaire entre hommes et femmes, promouvoir l'égalité entre les genres et l'égalité des chances. Le pacte européen pour l'égalité entre les hommes et les femmes, adopté en 2006, vise à intégrer la dimension de genre dans toutes les actions entreprises et sera un instrument d'accroissement de l'emploi des femmes. Une autre mesure politique encore plus importante pour libérer les potentialités d'accroissement de l'emploi consiste à prolonger la durée de vie active en proposant des incitations à retarder la date de départ à la retraite. Il s'agit non seulement des régimes de retraite, mais aussi des dispositifs de préretraite et des régimes de sécurité sociale (handicap, chômage, maladie) qui sont parfois utilisés comme voies de sortie. Aujourd'hui, les travailleurs âgés sont dans un bien meilleur état de santé que leurs semblables d'il y a 40 ou 50 ans. En outre, comme les travailleurs âgés accèdent aujourd'hui plus tardivement au marché du travail, il semble approprié de prendre des mesures incitatives à rester au travail plus longtemps. Un impact plus marqué peut encore être obtenu en adoptant une perspective tout au long du cycle de vie. Le vieillissement actif exige d'y être préparé par un bon niveau d'éducation initiale qui permette aux travailleurs de participer à des programmes d'éducation et de formation tout au long de la

vie. Il importe aussi de promouvoir la santé tout au long de la vie professionnelle et de proposer des services de santé efficaces et performants parce qu'une main d'œuvre en bonne santé est plus productive. Une cause essentielle d'absentéisme et de départ anticipé à la retraite est la maladie. Les réformes des régimes de retraite engagées dans la plupart des États membres retardent déjà l'âge de la sortie du marché du travail et bénéficieraient d'un appui supplémentaire si la capacité d'emploi des travailleurs âgés était développée, tant au regard de leurs qualifications que de leur état de santé. Le potentiel de travail de toutes les catégories de population doit être pleinement exploité et des mesures doivent être prises pour mieux intégrer les groupes défavorisés sur le marché du travail, comme les personnes handicapées, les minorités ethniques et les personnes issues de l'immigration. Un autre problème sérieux est celui du taux de chômage des jeunes.

### *Une Europe plus productive et dynamique*

La croissance économique et l'élévation des niveaux de vie après 2017, alors que l'emploi total devrait être en déclin, dépendront uniquement des accroissements de productivité du travail. L'Europe possède un potentiel considérable d'amélioration de la productivité sous réserve que tous les États membres rattrapent les pays les plus performants, dont les niveaux de productivité sont supérieurs à ceux des États-Unis ou s'en approchent. En effet, même les chefs de file en matière de productivité peuvent encore accélérer leur croissance en éliminant les obstacles à l'innovation et au changement structurel et en dynamisant la recherche et le développement, sources de nouveaux produits et de processus de production plus efficaces.

La solution première pour mobiliser ce potentiel est l'investissement en capital humain. L'exemple des États membres les plus performants montre que les niveaux généraux d'éducation dans l'ensemble de l'UE peuvent encore être considérablement relevés. Dans ce contexte, il est particulièrement important de réduire le nombre d'abandons prématurés de scolarité, qui vont conduire à des difficultés croissantes sur les marchés du travail de demain. En 2005, 17% d'hommes et 13% de femmes âgés de 18 à 24 ans n'avaient pas été au-delà du premier niveau de l'enseignement secondaire et n'avaient pas bénéficié d'une éducation ou formation ultérieure. D'autres améliorations sont aussi nécessaires au regard de la proportion de personnes ayant reçu une éducation secondaire de deuxième niveau ou tertiaire. Les dépenses pour l'enseignement tertiaire dans l'UE-25 ne représentent que 1,2% du PIB, contre 2,9% aux États-Unis. L'écart entre l'UE et les États-Unis est quelque peu réduit en ce qui concerne l'investissement en R&D, un peu moins de 2% du PIB dans l'UE et près de 2,7% aux États-Unis. La capacité future de l'Europe à innover et à accroître sa productivité sera fon-

tion de l'intensification des investissements dans l'éducation et la recherche de haut niveau. Cela sera aussi d'une importance capitale pour que réussisse l'adaptation aux nouvelles opportunités du marché offertes par "l'économie des seniors", c'est-à-dire de nouveaux biens et services adaptés aux nouveaux besoins et modèles de demande d'une société vieillissante.

### *Accueillir et intégrer les migrants en Europe*

L'Europe continuera d'être une destination attrayante pour les migrants en raison de sa prospérité et du bon fonctionnement de ses sociétés. Toutefois, il est à noter que l'UE ne réussit pas autant que les USA et le Canada à attirer les immigrants les plus qualifiés. La procédure adoptée en 2005 pour l'admission de chercheurs de pays tiers est une première étape vers la résolution de ce problème<sup>3</sup>. Les mesures prises dans ce sens ne doivent pas l'être au détriment des pays en développement sous la forme d'une fuite des cerveaux, mais peuvent et doivent bénéficier à toutes les parties. Près de 3,7% de la population de l'UE-27 sont constitués de ressortissants extérieurs à l'UE (5,1% dans l'UE-15). Le système de l'immigration est donc déjà adapté aux besoins des marchés du travail européens, et cette nécessité de disposer d'une main d'œuvre immigrée de composantes à la fois très qualifiée et peu qualifiée se poursuivra.

Si la mobilité interne des travailleurs à l'intérieur de l'UE ne changera pas les tendances démographiques de l'ensemble de l'UE, elle représente un énorme potentiel de taux supérieurs de participation et d'emploi parce qu'elle ouvre la perspective de meilleures opportunités pour les personnes qui vivent dans des régions où les opportunités du marché du travail sont restreintes. Les pays qui ont enregistré une croissance économique rapide au cours des dernières années, comme l'Espagne et l'Irlande, ont clairement tiré profit de l'afflux significatif de travailleurs à la fois de l'extérieur et de l'intérieur de l'Union européenne.

Le défi principal pour réaliser le potentiel de l'immigration est représenté par l'intégration des migrants et de leurs descendants dans les sociétés européennes. Les États membres de l'UE ont bien évidemment enregistré des niveaux de succès différents sur le plan du marché du travail et de l'intégration sociale. Le niveau d'éducation des ressortissants étrangers est généralement largement inférieur à celui des nationaux, bien que dans plusieurs États membres, le pourcentage d'étrangers ayant reçu une formation tertiaire soit réellement supérieur à celui des nationaux. Dans le même temps, dans plusieurs États membres, les taux d'emploi des immigrants, notamment des femmes migrantes, sont très faibles. À cette intégration insuffisante

des immigrants dans leurs sociétés d'accueil s'ajoute une perception négative de l'immigration; selon une enquête Eurobaromètre, seuls 4 citoyens communautaires sur 10 en moyenne estiment que "les immigrants contribuent beaucoup à leur pays", tandis qu'une légère majorité de citoyens (52%) ne partagent pas ce sentiment.

### *Un financement public viable pour garantir une protection sociale adéquate et l'équité entre les générations*

Dans tous les États membres, le vieillissement de la population grèvera les dépenses publiques au regard des retraites, de la santé et des soins de longue durée. Les projections montrent que la plupart des États membres où les retraites sont financées par des cotisations spécifiques vont connaître un déséquilibre croissant entre les contributions et les besoins de financement. Les réserves financières constituées par plusieurs États membres peuvent soulager les futurs besoins de financement mais ne semblent pas à la hauteur dans la plupart des cas. Dans la majorité des États membres, les finances publiques ne tiendront pas dans la durée compte tenu des politiques actuelles. Il faut assurer l'assainissement budgétaire et d'autres réformes des systèmes de retraite, de santé et de soins de longue durée. Une augmentation du nombre d'années pendant lesquelles les personnes restent en activité et en bonne santé contribuera à réduire la pression financière qui pèse sur les systèmes de santé et de soins de longue durée.

Hormis l'évolution des dépenses et revenus futurs, la viabilité à long terme des finances publiques dépend du déficit et de l'endettement actuel qui, s'il reste inchangé, peut amener les finances publiques sur la voie de la non-viabilité. Les intérêts relatifs à l'endettement public peuvent représenter plus de 10% des recettes publiques dans certains États membres. Il est recommandé de réduire le déficit actuel et le niveau d'endettement et d'éviter les dépenses non viables pour s'assurer que les États membres restent en mesure de satisfaire aux futurs besoins de dépenses, notamment les dépenses liées au vieillissement de la population. La capacité d'assainissement des finances publiques diffère largement d'un État membre à l'autre.

Pour assainir les finances publiques sur le long terme, il importe d'agir au moment où les perspectives de croissance sont encore favorables. L'UE dispose d'une fenêtre d'opportunité d'une dizaine d'années avant que l'emploi, selon les prévisions, ne commence à baisser sous l'effet de la contraction de la population en âge de travailler. Le moyen fondamental pour faire face aux enjeux du vieillissement consiste à mobiliser le plein potentiel de travailleurs âgés, et notamment à utiliser la marge de manœuvre, pour réformer les systèmes de retraite et de soins de

3. Directive 2005/71/CE.

santé, et à prévenir le retrait anticipé des cohortes du baby boom du marché du travail. Tout cela renforcera la capacité des États membres à assurer une protection sociale adéquate des personnes âgées tout en investissant suffisamment dans les générations plus jeunes et, dès lors, à maintenir la solidarité entre les générations.



## 2. DEMOGRAPHIC TRANSITION: A COMMON FEATURE OF SOCIAL AND ECONOMIC DEVELOPMENT

### 2.1. The demographic transition paradigm

Explanations and projections of population trends in different parts of the world have been generally guided by the paradigm of demographic transition. This term was first used by the American demographer Warren Thompson in 1929<sup>4</sup> to label the changes – or transitions – he observed in birth and death rates in industrialised societies over the past two hundred years. There always appears to be a common pattern: after an initial decline in death rates, birth rates also start to fall, albeit with a certain lag. During this time lag, birth rates will be much higher than mortality rates, resulting in a rapidly growing population. The paradigm fits well with the remarkable mortality and fertility changes that happened first in Europe in the 19th century and in much of the rest of the world during the 20th century. The transition can be broken down into four different phases.

Stage one corresponds to pre-modern-times and is characterised by the absence of a clear population trend. During the second stage there is a dramatic rise in population caused by a decline in the death rate while the birth rate remains high. The decline in the death rate is due to improvements in food supply thanks to higher yields in agriculture and to improvements in public health<sup>5</sup> (water and food handling, hygienic conditions) which result in a particularly pronounced decrease in childhood mortality. The increasing survival of children leads to a younger population structure. The trend is amplified as the larger surviving cohorts start to have children of their own at the same high fertility rate as their parents. During stage three the birth rate declines, which moves the population back towards stability (in most Northern European countries such a decline in birth rates already started at the end of the 19th century). Towards the end of stage three the fertility rate falls to replacement levels, but as a result of population momentum (i.e. the large number of young people), the population continues to grow. Finally, stage four is characterised once again by stability with the population no longer growing and the population age structure has become much older.

Such a demographic transition seems to be a common feature of development across the world, although there are important differences in timing between the various regions. In the 1950s, the birth rates in Europe were almost twice as high as the death rates, which resulted in significant population growth. It was during the 1990s that Europe entered stage four, when the gap between birth and death rates closed. Europe then started to have a birth deficit resulting in negative natural growth. Consequently, any further population growth has been the result of net immigration. Less developed regions of the world are by and large still in stage three of their demographic transition – death rates have already declined significantly and birth rates are now also coming down, albeit from a very high level. India is expected to complete its demographic transition by the middle of this century. The only region in the world where birth rates have not yet come down is Sub-Saharan Africa, which still appears to be in stage two of the demographic transition. Here the population is growing fast even though the decrease in death rates has recently slowed (due to the fact that in several African countries mortality has actually increased as a result of the HIV/AIDS epidemic).

### 2.2. Fertility

Europe's demographic past is well described by the demographic transition paradigm. However, the very low fertility rates observed over the past decades raise the question whether the assumption of a return to a stable population size, as foreseen for the fourth stage of the demographic transition, is a good guide to the future.

#### 2.2.1. Trends in fertility

The most commonly used indicator for fertility is the Total Fertility Rate (TFR). It gives the average number of children per woman, assuming that all women are going to give birth according to age specific fertility rates observed for a given period. All EU Member States have now TFR levels below 2.1, the level needed for the replacement of generations.

4. Thompson Warren S. 1929, *Population*, *American Sociological Review* 34(6), pp. 959-975.

5. *Readers of the British Medical Journal chose the 'sanitary revolution' as the biggest advance in healthcare since 1840*, see [http://www.bmj.com/cgi/content/full/334/suppl\\_1/s17?eaf](http://www.bmj.com/cgi/content/full/334/suppl_1/s17?eaf).

Within the EU there are roughly two groups of countries: those with a moderately low fertility (in the range of 1.6-1.9 births per woman) and those with very low fertility (in the range of 1.5 births or less). The difference may appear small at first glance. However, it has major implications for a country's long-term demographic future. The Australian demographer Peter McDonald<sup>6</sup> has warned that: 'In a stable population with a fertility rate of 1.3 births per woman, the population falls at the rate of 1.5% per annum. Such a population, in 100 years, would (all other things remaining equal) fall to less than a quarter of its original size. In contrast, with a fertility of 1.9, the rate

of decline in a stable population is only 0.2% and the population size after 100 years would be 82% of its original size.' McDonald concludes that 'it is an error to convey the impression that in the long run of history a fertility rate of 1.3 and a fertility rate of 1.9 is much the same thing. Fertility falls from 1.9 to 1.3 through 60% of all women having one fewer child!' On the basis of this argument a distinction is made between countries with a dangerously low fertility rate of below 1.6 and countries with a comfortably low fertility rate. The latter countries can still expect to offset their natural population decline with a reasonable level of immigration.

**Table 2.1** Total (period) fertility rates (increases compared to previous column shaded)

	1960/1964	1970/1974	1980/1984	1990/1994	2000/2003	2004/2005*	2050**
EU-25	2.64	2.23	1.79	1.56	1.47	1.50	1.60
EU-15	2.67	2.23	1.72	1.50	1.50	1.55	1.61
NMS-10	2.47	2.21	2.19	1.87	1.30	1.25	1.58
BE	2.64	2.07	1.61	1.62	1.63	1.64	1.70
CZ	2.22	2.14	2.01	1.72	1.16	1.23	1.50
DK	2.58	1.97	1.44	1.73	1.75	1.78	1.80
DE	2.46	1.77	1.48	1.32	1.35	1.37	1.45
EE	:	2.13	2.12	1.67	1.35	1.40	1.60
EL	2.25	2.33	2.02	1.37	1.27	1.29	1.50
ES	2.86	2.87	1.94	1.30	1.26	1.32	1.40
FR	2.83	2.36	1.88	1.72	1.89	1.90	1.85
IE	3.91	3.84	2.92	1.99	1.95	1.99	1.80
IT	2.50	2.37	1.55	1.28	1.26	1.33	1.40
CY	3.47	2.38	2.46	2.35	1.54	1.49	1.50
LV	:	2.01	2.01	1.70	1.24	1.24	1.60
LT	2.57	2.28	2.04	1.86	1.30	1.26	1.60
LU	2.33	1.77	.48	1.65	1.67	1.70	1.80
HU	1.88	2.01	.82	1.77	1.31	1.28	1.60
MT	3.16	2.21	.98	2.02	1.58	1.37	1.60
NL	3.17	2.15	.52	1.59	1.72	1.73	1.75
AT	2.78	2.08	.61	1.49	1.37	1.42	1.45
PL	2.76	2.24	2.33	1.93	1.28	1.23	1.60
PT	3.16	2.71	2.05	1.53	1.48	1.42	1.60
SI	2.25	2.14	1.91	1.38	1.23	1.22	1.50
SK	2.93	2.50	2.29	1.94	1.22	1.25	1.60
FI	2.68	1.64	1.68	1.82	1.74	1.80	1.80
SE	2.30	1.90	1.64	2.04	1.62	1.75	1.85
UK	2.86	2.20	1.81	1.78	1.66	1.74	1.75
BG	2.23	2.16	2.01	1.57	1.25	1.29	1.50
RO	2.10	2.65	2.18	1.55	1.28	1.29	1.50
HR	2.12	1.93	1.90	1.55	1.34	1.35	1.85***
TR	6.18	5.68	4.36	2.99	2.42	2.20	1.85***

Source: Eurostat.

\* Preliminary or most recent.

\*\* According to EUROPOP2004, Baseline, data for France refer to metropolitan France only.

\*\*\* UN data.

6. McDonald, P., 'Gender equity, social institutions and the future of fertility', *Journal of Population Research*, No 17(1), 2000, pp. 1-16.

Table 2.1 shows that since the 1970s, all Member States have experienced fertility decline, sometimes very substantial and at a fast speed. In Ireland, for instance, the TFR has declined since the 1960s by almost 50%. In several of the new Member States, such as Poland, the drop was even larger than 50%. Fertility declines were less abrupt in some of the Western and Northern Member States. Currently, women in the EU-25 have on average 1.5 children (1.55 in the old Member States and 1.25 in the new Member States). Despite the fertility decline in Ireland, however, this Member State still has one of the highest fertility rates in Europe, together with France and Finland, while the Czech Republic, Poland, Slovenia and Slovakia have the lowest rates.

### 2.2.2. Drivers of fertility

The literature offers basically two types of explanations for the decline in fertility<sup>7</sup>. Economists have proposed a rational choice approach while sociologists have concentrated on changes in cultural and individual values.

The rational choice approach focuses on various mechanisms. Gary Becker<sup>8</sup> argued that as women become more educated, raising children involves much higher opportunity costs – assuming that mothers have to reduce their labour force participation. Richard Easterlin highlighted the importance of a positive economic outlook: 'If the couple's potential earning power is high in relation to aspirations, they will have an optimistic outlook and will feel freer to marry and have children. If

their outlook is poor relative to aspirations, the couple will feel pessimistic and, consequently, will be hesitant to marry and have children<sup>9</sup>'. A third major rational choice fertility theory proposed by David Friedman focuses on the economic value of children. The idea here is that people have a larger number of children to reduce uncertainty in their future lives. Social protection arrangements, however, limit uncertainty and reduce the economic rationale for having a large number of children, which we still see in many non-European countries where population-wide social protection systems do not function properly.

Sociologists have often challenged or complemented the rational choice approach to fertility. Dirk van de Kaa and Ronald Lesthaeghe have proposed complementing the rational approach by paying more attention to the dramatic changes in individual values and behaviour that have taken place since the 1960s. Only by understanding the newly acquired autonomy of the individual can one comprehend current family formation decisions<sup>10</sup>. Van de Kaa and Lesthaeghe postulate a Second Demographic Transition (SDT) characterised by new patterns of behaviour in terms of living arrangements (single living, pre- and post-marital cohabitation, delayed fertility, high prevalence of non-marital fertility and high rates of divorce) and new individual values with respect to family and fertility behaviour. Table 2.2 illustrates how these values have changed in Western Europe in the process of moving from the first to the second demographic transition in Table 2.2.

7. See also Liefbroer, A. C., 'The impact of perceived cost and rewards of childbearing and entry in parenthood: evidence from a panel study', *European Journal of Population*, 2005.

8. Becker, G.S., *A Treatise on the Family*, Harvard University Press, Cambridge MA, 1981.

9. Easterlin, R.A., *Birth and Fortune: The impact of numbers on personal welfare*, Basic Books, New York, 1980.

10. Van de Kaa, D. J., 'Europe's second demographic transition', *Population Bulletin*, No 42, 1987, pp. 1-57.

**Table 2.2** Overview of demographic and societal characteristics related to FDT and SDT in Western Europe

FDT		SDT	
A. Marriage			
<ul style="list-style-type: none"><li>• Rise in proportions marrying, declining age at first marriage</li></ul>	<ul style="list-style-type: none"><li>• Fall in proportions married, rise in age at first marriage</li></ul>		
<ul style="list-style-type: none"><li>• Low or reduced cohabitation</li></ul>	<ul style="list-style-type: none"><li>• Rise in cohabitation (pre- &amp; post-marital)</li></ul>		
<ul style="list-style-type: none"><li>• Low Divorce</li></ul>	<ul style="list-style-type: none"><li>• Rise in divorce, earlier divorce</li></ul>		
<ul style="list-style-type: none"><li>• High remarriage</li></ul>	<ul style="list-style-type: none"><li>• Decline of remarriage following both divorce and widowhood</li></ul>		
B. Fertility			
<ul style="list-style-type: none"><li>• Decline in marital fertility via reductions at older ages, lowering mean ages at first parenthood</li></ul>	<ul style="list-style-type: none"><li>• Further decline in fertility via postponement, increasing mean age at first parenthood, structural subreplacement fertility</li></ul>		
<ul style="list-style-type: none"><li>• Deficient contraception, parity failures</li></ul>	<ul style="list-style-type: none"><li>• Efficient contraception (exceptions in specific social groups)</li></ul>		
<ul style="list-style-type: none"><li>• Declining illegitimate fertility</li></ul>	<ul style="list-style-type: none"><li>• Rising extra-marital fertility, parenthood within cohabitation</li></ul>		
<ul style="list-style-type: none"><li>• Low definitive childlessness among married couples</li></ul>	<ul style="list-style-type: none"><li>• Rising definitive childlessness in unions</li></ul>		
C. Societal background			
<ul style="list-style-type: none"><li>• Preoccupations with basic material needs: income, work conditions, housing, health, schooling, social security. Solidarity prime value</li></ul>	<ul style="list-style-type: none"><li>• Rise of 'higher order' needs: individual autonomy, self-actualisation, expressive work and socialisation values, grass-roots democracy recognition. Tolerance prime value.</li></ul>		
<ul style="list-style-type: none"><li>• Rising memberships of political, civic and community oriented networks. Strengthening of social cohesion</li></ul>	<ul style="list-style-type: none"><li>• Disengagement from civic and community oriented networks, social capital shifts to expressive and affective types. Weakening of social cohesion</li></ul>		
<ul style="list-style-type: none"><li>• Strong normative regulation by State and Churches. First secularisation wave, political and social 'pillarisation'</li></ul>	<ul style="list-style-type: none"><li>• Retreat of the State, second secularisation wave, sexual revolution, refusal of authority, political 'dépillarisation'</li></ul>		
<ul style="list-style-type: none"><li>• Segregated gender roles, familistic policies, 'embourgeoisement', promotion of breadwinner family model</li></ul>	<ul style="list-style-type: none"><li>• Rising symmetry in gender roles, female economic autonomy</li></ul>		
<ul style="list-style-type: none"><li>• Ordered life course transitions, prudent marriage and dominance of one single family model</li></ul>	<ul style="list-style-type: none"><li>• Flexible life course organisation, multiple lifestyles, open future</li></ul>		

Source: Lesthaeghe R and Surkyn J, 2007, 'When history moves on: the foundation and diffusion of a second demographic transition', forthcoming in Jayakodi, R.; Thornton, A.; Axinn, W. (Eds), *International Family Change – Ideational Perspectives*. Mahwah, New Jersey: Lawrence Earlbaum & Associates.

It is far too early to tell whether the second demographic transition will be as universal as the first demographic transition. If it is mainly driven by changes in values, it could be less permanent and more specific to individual countries. However, birth rates far below replacement levels have also been observed in the most developed Asian countries.

### 2.2.3. Tempo and quantum effects on fertility rates

The most common used period indicator for fertility is the Total Fertility Rate (TFR), which is based on age specific

fertility rates in a particular year. The TFR indicator has to be regarded as an estimate or a projection to the extent that it is based on the assumed future fertility pattern of younger women as derived from the probability of giving birth observed among current older cohorts of women. The effects of changes in current fertility patterns on future fertility probabilities are not taken into account. Thus, when more and more women are postponing births, the TFR will inevitably go down initially (tempo effect), even though the likelihood of having children at a later age would go up if these women still wished to have the same

number of children (quantum effect). Once the general process of postponement in a country has stopped, the TFR will go up again. The sensitivity of the TFR to postponement (and the opposite catching-up effect) causes the TFR to be a volatile and unstable indicator.

In most EU countries, however, the postponement of childbearing does appear to result in reduced average fertility for the cohort as a whole. The share of children without siblings appears to be increasing, and childlessness among women in their 30s and 40s is becoming more frequent.

Cohort fertility rates, which are known only at the end of a cohort's fertile life span, are a more stable indicator of long-term trends as they are not affected by differences in the timing of children (postponement). Cohort fertility turns out to be only slightly higher than the period rates, which suggests that postponement is still reducing TFR. However, an obvious problem in using cohort rates is that they are not available for (younger) cohorts that have not yet reached the end of their fertile life span, so do not allow a timely observation of fertility trends. The latest available average cohort fertility rates for the generations of women born in 1955 and 1965 in the EU-25 – 1.94 and 1.77, respectively – also confirm that fertility has now dropped below the replacement level.

In the EU, the fertility rates of women aged younger than 30 years have declined since the 1970s, while the fertility rates of women over 30 have risen since the 1980s, which is a clear indication of postponement. Since 1980 the average TFR has declined by 0.4 children per woman. During the same period the mean age at childbearing has risen by 2 years to 29 years. In recent years the decline in fertility rates at young ages appears to have slowed down in many Member States and even stopped in several countries. As a consequence, the decline in the total fertility rate (TFR) has also slowed down or even turned into a slight increase. In some countries, the rise in fertility at older ages has slowed down, suggesting that in these countries the 'catching-up phase' is near its end, but in most countries a strong increase in fertility at ages 30 or more is still going on, suggesting that the TFR in these countries may increase in the coming years. Fertility is therefore likely to recover in Member States where it is below average (due to the tempo effect), particularly in the new Member States<sup>11</sup>.

While a reversal in TFR trends can be expected in a number of Member States, there is nevertheless concern that very low fertility rates could persist. Lutz, Skirbekk and

Testa warn in a recent paper<sup>12</sup> of a low fertility trap resulting from a self-reinforcing mechanism. Their low fertility trap hypothesis (LFTH) has three components: a demographic one based on the negative population momentum, i.e. the fact that fewer potential mothers in the future will result in fewer births; a sociological one saying that the ideal family size for the younger cohorts is declining as a consequence of the lower actual fertility observed among previous cohorts; and an economic one based partly on Easterlin's relative earnings power hypothesis, saying that the aspirations of young people are increasing while their expected income may be declining as a consequence of the rising cost of population ageing.

Together, these three factors could trigger a downward spiral, particularly in those countries where the TFR currently lies significantly below 1.5 births per woman.

#### 2.2.4. Results of the 2006 Eurobarometer on fertility and ageing<sup>13</sup>

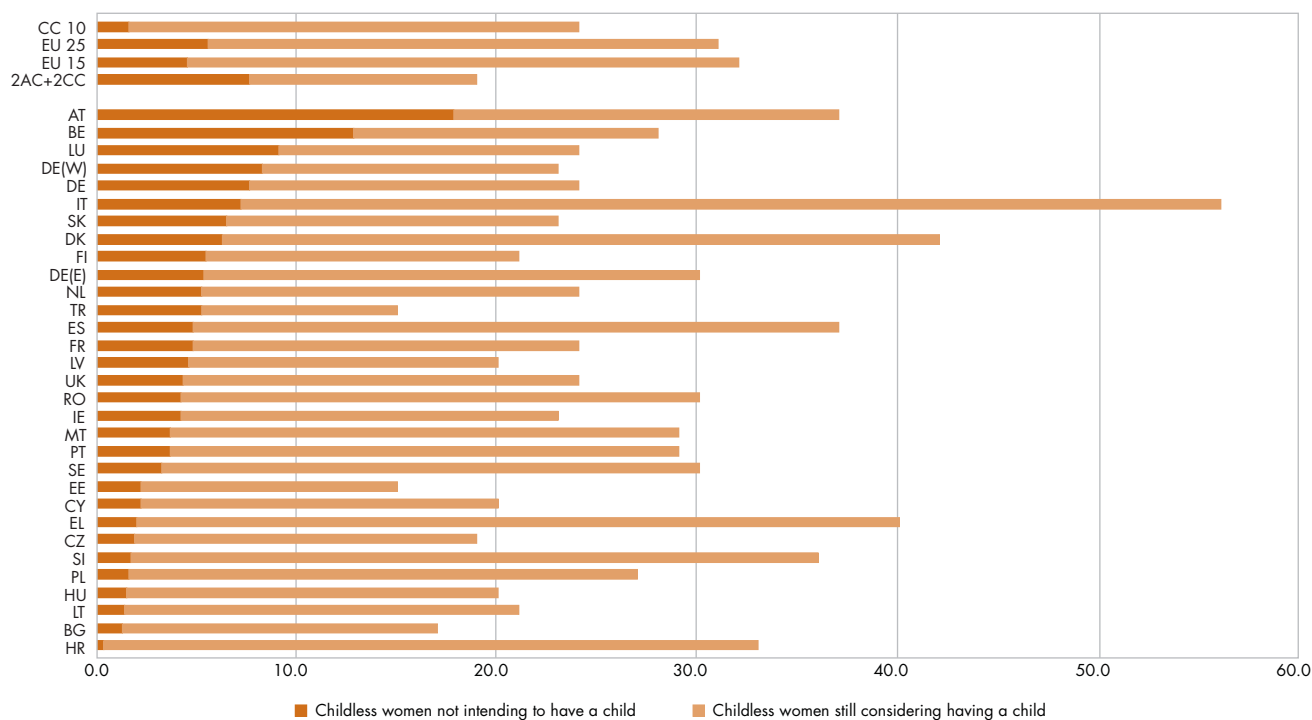
Both the SDT and the LFTH suggest that people now have different values and life styles and have become less interested in having children. A Eurobarometer (EB) survey carried out in 2006 checked whether Europeans have indeed become less interested in children. The survey confirmed the generally positive attitude of Europeans towards childbearing that was first found in the 2002 EB survey. The two-child family remains the most common aspiration of Europeans. The mean ideal number of children is 2 or slightly higher, both for men and women as well as for each age group. Austria and Romania are the only European countries with ideals below the replacement level among young female and male cohorts. This picture remains largely unchanged when we look at the ideals that people have for their own family size, rather than general ideals. As is normal, however, ideals are somewhat removed from reality: when one adds up the number of children already born and the number people still intend to have, for women in the prime reproductive ages, several countries have averages of less than 2 (Austria, Romania, Spain, Italy, Slovakia, Germany, Malta, and the Czech Republic) – see Figures 2.1 and 2.2.

Women would not only like to have more children than they actually have, they would also prefer to have their children somewhat later in life than they actually do (half a year later on average). This confirms that the tempo effect could still be relevant. The age indicated as the latest ages to start having children is 41 for a woman and 46 for a

11. De Beer, P., *An assessment of the tempo effect for future fertility in the EU*, European Observatory on the Social Situation, the demography network (forthcoming), 2006.

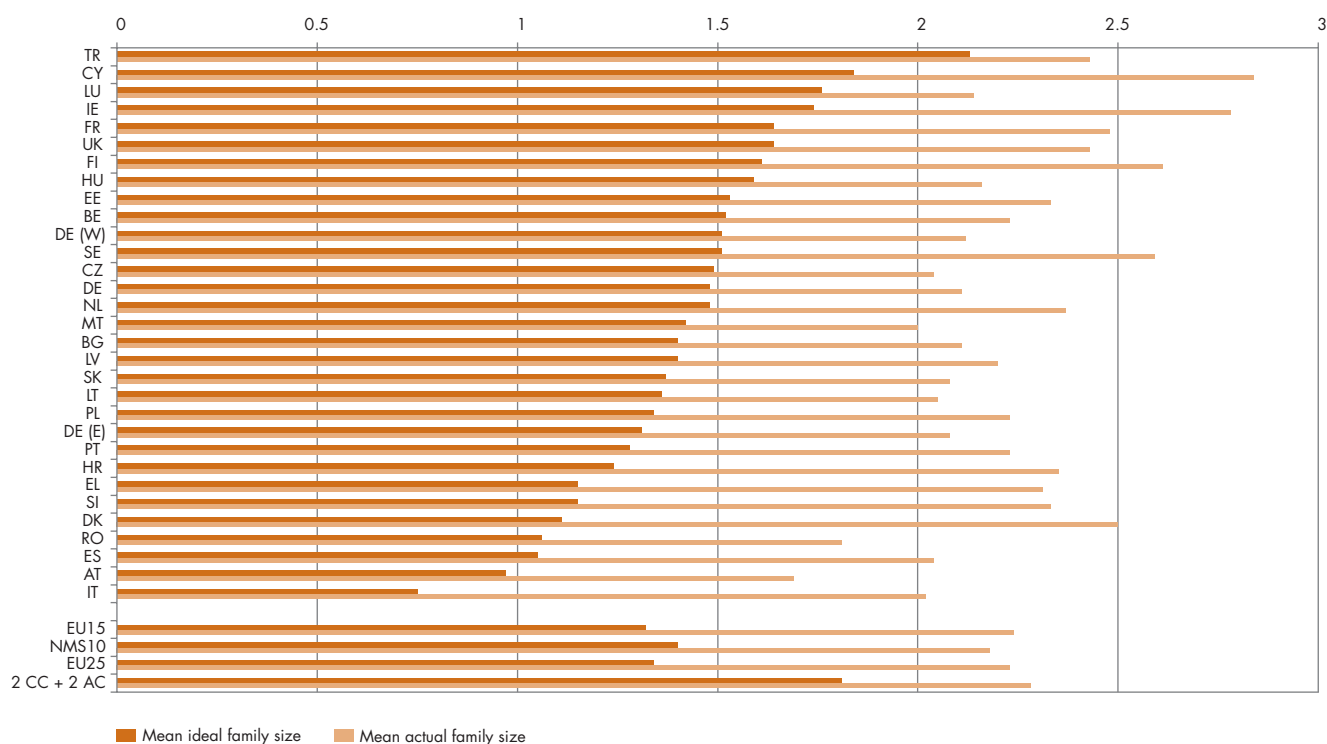
12. Lutz, W., Skirbekk V. and M. R. Testa, 'The low-fertility trap hypothesis: forces that may lead to further postponement and fewer births in Europe', Vienna Institute for Demography (VID) research paper, No 4, 2005.

13. Testa M. R. 'Childbearing preferences and family size issues in Europe', VID Report on the special Eurobarometer, No 253, wave 65.1 and 65.31, TNS Opinion & Social for the EC, 2006.

**Figure 2.1** Childless women, and childless women not intending to have any children, by country, ages 25-39

Source: 'Childbearing preferences and family size issues in Europe' by M.R. Testa, results of the 2006 Euro Barometer on fertility and ageing.

Note: Own adaptation of Figure 21 in the report.

**Figure 2.2** Mean actual and ideal number of children, by country. Women aged 25 to 39

Source: 'Childbearing preferences and family size issues in Europe' by M.R. Testa, results of the 2006 Euro Barometer on fertility and ageing.



man, despite the fact that female biological fertility, on average, starts to decline rapidly after the age of 35<sup>14</sup>.

The most relevant conditions considered as a prerequisite for having children are the health of the two partners (75% for the mother's health and 68% the father's health among men, and 77% for the mother's health and 66% the father's health among women), the presence of a supportive partner (72% overall), a good working situation of the father (61% and 62% among female and male respondents, respectively), the financial situation (60% overall), and the availability of appropriate housing conditions (55% among men and 59% among women).

The importance of the role of both partners for a good family life and particularly for raising children is recognised, but the role of mothers is still considered more crucial. The predominant opinion is that men and women should both contribute to the household income, although fathers should not concentrate too much on their jobs according to almost 80% of respondents of childbearing age in the EU-25. Half of respondents also believe that mothers should not work too much, fearing that family life would suffer if they have a full-time job, while more than half of the respondents are convinced that children of pre-school age would suffer if their mother went out to work. A large majority of Europeans (around 70%) feel, however, that a wor-

king mother is able to establish just as warm a relationship with her children as a non-working mother.

## 2.3. Longevity

### 2.3.1. Main trends in longevity

Decreasing mortality at more advanced ages has become an important driver behind population ageing. Table 2.3 presents an overview of the trend in life expectancy at birth for men and women in the EU-27 plus Croatia and Turkey. Declining mortality results in the extension of life span, measured as the average life expectancy at birth, which is the number of years newborn babies may expect to live after going through the different stages of the life cycle at the currently prevailing mortality rates for each of these stages.

Tables 2.3 and 2.4 show that on average for the EU-25, European women may expect to live 81.8 years while the life expectancy for men is 75.6 years. Life expectancy is generally higher in the old Member States (82.4 and 76.7 for women and men, respectively) than in the new Member States (78.7 and 70.4 for women and men). The Baltic States report the lowest life expectancies along with very large gender differences (around 77 years for women and 65 for men). Relatively large gender differences are also reported for France and Spain (7-8 years).

#### BOX 2.1 Towards a better understanding of fertility determinants: A major new survey

The Eurobarometer is a very useful instrument to monitor public opinion but its rather small sample size (only 1000 respondents per Member State) makes it unsuitable for a more rigorous scientific analysis of fertility. A few years ago the United Nations Economic Commission for Europe (UNECE) took the initiative of collecting a new major international data set with a sample size of around 10.000 persons per country to allow for a more structural and in-depth analysis of fertility. The project is called the Generations and Gender Project (GGP)<sup>15</sup> and will be used to study relationships between parents and children (generation) and between adults (gender). Participation is voluntary, but already 17 EU Member States have signed up or are thinking of participating in the near future.

14. On average female fertility begins to decline slightly at 30, the decline becoming very strong after 35 and infertility usually setting in at 41. See Te Velde, E.R. and P.L. Pearson, 'The variability of female reproductive ageing', *Human Reproduction Update*, 8th year, 2002, pp. 141-154.

15. See for more information <http://www.unece.org/pau/ggp/Welcome.html>.

**Table 2.3** Life expectancy, men

	1960/1964	1970/1974	1980/1984	1990/1994	2000/2003	2004*	2050**
EU-25	67.3	68.5	70.3	72.1	74.7	75.6	81.8
EU-15	67.6	68.9	71.0	73.2	75.8	76.7	82.3
NMS-10	65.6	66.4	66.4	66.2	69.4	70.4	78.7
BE	67.7	67.8	70.0	73.0	75.1	75.9	82.3
CZ	67.5	66.6	67.1	68.6	72.0	72.6	79.7
DK	70.4	70.7	71.2	72.5	74.7	75.2	80.9
DE	66.9	67.3	69.6	72.5	75.4	75.7	82.0
EE	64.3	65.8	64.4	63.3	65.3	66.0	74.9
EL	67.3	70.1	72.2	74.8	75.4	76.6	80.3
ES	67.4	69.2	72.5	73.7	76.1	77.2	81.4
FR	66.9	68.4	70.2	73.2	75.6	76.7	82.7
IE	68.1	68.8	70.1	72.5	74.8	75.8	82.4
IT	67.2	69.0	70.6	74.0	76.8	76.8	83.6
CY	:	70.0	72.3	74.4	76.1	77.0	81.9
LV	66.1	65.4	64.0	62.1	65.0	65.5	74.3
LT	66.6	66.9	65.7	64.5	66.4	66.4	75.5
LU	66.5	67.1	69.1	72.3	75.0	75.0	81.6
HU	66.4	66.5	65.4	64.8	68.1	68.6	78.1
MT	67.1	68.5	69.7	74.0	76.1	76.7	81.8
NL	71.5	70.7	72.7	74.1	75.9	76.4	80.2
AT	66.2	66.5	69.4	72.6	75.6	76.4	83.6
PL	65.1	67.0	67.0	66.9	70.2	70.2	79.1
PT	61.2	64.2	67.7	70.8	73.6	74.2	80.4
SI	65.6	65.9	67.2	69.6	72.4	72.6	79.8
SK	68.4	66.8	66.8	67.5	69.7	70.3	77.7
FI	65.5	66.5	69.2	70.8	74.7	75.3	81.9
SE	71.5	72.1	73.0	75.3	77.7	78.4	83.3
UK	67.9	68.7	70.2	73.4	75.9	76.2	82.9
BG	68.5	69.3	68.9	68.1	68.6	68.9	78.2
RO	65.1	66.5	66.8	66.2	67.6	67.7	77.6
HR	64.3	65.7	66.6	68.6	71.0	72.0	77.8***
TR	50.3***	55.0***	59.0***	64.0***	66.4	68.8	75.2***

Source: Eurostat.

\* Preliminary or most recent.

\*\* According to EUROPOP 2004, Baseline, data for France refer to metropolitan France only.

\*\*\* UN Data.



**Table 2.4** Life expectancy, women

	1960/1964	1970/1974	1980/1984	1990/1994	2000/2003	2004**	2050**
EU-25	73.0	75.0	77.2	79.1	81.0	81.8	86.9
EU-15	73.2	75.3	77.7	79.8	81.6	82.4	87.4
NMS-10	71.6	73.4	74.7	75.3	78.1	78.7	84.1
BE	73.5	74.2	76.8	79.8	81.2	81.7	88.3
CZ	73.4	73.5	74.3	76.0	78.5	79.0	84.1
DK	74.4	75.9	77.3	77.9	79.4	79.9	83.7
DE	72.4	73.6	76.1	79.0	81.2	81.4	86.8
EE	71.6	74.6	74.4	74.4	76.7	76.9	83.1
EL	72.4	73.8	76.8	79.8	80.7	81.4	85.1
ES	72.2	74.8	78.6	80.8	83.2	83.8	87.9
FR	73.6	75.9	78.4	81.3	82.9	83.8	89.1
IE	71.9	73.5	75.6	78.1	79.9	80.7	86.9
IT	72.3	74.9	77.4	80.5	82.4	82.5	88.8
CY	:	72.9	77.0	78.9	81.0	81.4	85.1
LV	73.1	74.7	74.4	73.9	76.2	77.2	82.5
LT	77.1	75.5	75.6	75.6	77.5	77.8	83.7
LU	72.2	73.4	75.9	79.0	80.9	81.0	86.7
HU	70.8	72.3	73.0	73.8	76.4	76.9	83.4
MT	70.7	72.6	73.7	78.4	80.7	80.7	85.0
NL	75.3	76.5	79.3	80.3	80.7	81.1	83.6
AT	72.7	73.4	76.5	79.1	81.5	82.1	87.7
PL	71.0	73.9	75.2	75.9	78.5	79.2	84.4
PT	66.8	70.8	75.2	77.9	80.3	80.5	86.6
SI	72.0	73.4	75.2	77.4	80.1	80.4	85.2
SK	73.0	73.4	74.6	76.0	77.7	77.8	83.4
FI	72.5	75.0	77.6	79.4	81.5	82.3	86.5
SE	75.4	77.5	79.1	80.8	82.2	82.7	86.5
UK	73.7	75.0	76.2	78.9	80.5	80.7	86.6
BG	72.2	73.7	74.3	74.9	75.4	76.0	82.6
RO	69.1	71.0	72.3	73.2	74.8	75.1	82.0
HR	69.0	72.3	74.2	76.0	78.1	79.0	83.3***
TR	54.0****	59.2****	63.2****	68.5****	71.0	71.1	80.1****

Source: Eurostat.

\* Period average.

\*\* Preliminary or most recent.

\*\*\* According to EUROPOP 2004, Baseline, data for France refer to metropolitan France only.

\*\*\*\* UN data.

Overall, gender differences in mortality are nevertheless declining in the EU-25, as male mortality rates are falling to the levels observed for women.

### 2.3.2. Expected trends in longevity

Future increases in life expectancy will depend mostly on declining mortality at higher ages. This translates into increasing life expectancy aged 60. Current mortality rates imply that a European man at age 60 has an additional 15 years to live, which is 20% of his total life span. A 60 year-old European woman may expect to live an additional 20 years which is 25% of her total life span.

A major question is whether the future increase in life expectancy will consist of years in good health. This would allow older people to remain active on the labour market longer and reduce the period of dependency at the end of the life cycle. Healthy life expectancy adjusts life expectancy for time spent in poor health. It should be noted that this indicator is estimated on the basis of self-reporting. Cultural differences between countries can make inter-country comparisons misleading. Table 2.5 provides an overview of health life expectancy at birth in a number of EU countries.

**Table 2.5** Healthy Life Years – 2003

	<b>Males</b>	<b>Females</b>
EU-15	64.5 (e)	66.0 (e)
Euro area	:	:
BE	67.4 (e)	69.2 (e)
CZ	:	:
DK	63.0 (e)	60.9 (e)
DE	65.0 (e)	64.7 (e)
EL	66.7 (e)	68.4 (e)
ES	66.8 (e)	70.2 (e)
FR	60.6 (e)	63.9 (e)
IE	63.4 (e)	65.4 (e)
IT	70.9 (e)	74.4 (e)
CY	68.4	69.6
HU	53.5 (p)	57.8 (p)
MT	:	:
NL	61.7 (e)	58.8 (e)
AT	66.2 (e)	69.6 (e)
PL	:	:
PT	59.8 (e)	61.8 (e)
FI	57.3 (e)	56.5 (e)
SE	62.5 (e)	62.2 (e)
UK	61.5 (e)	60.9 (e)
HR	:	:
IS	:	:
NO	66.3 (p)	64.2 (p)

Source: Eurostat New Cronos.

(:) Not available.  
(e) Estimated value.  
(p) Provisional value.

Since 1980 the average annual increase in life expectancy at birth in the EU-25 countries has been slightly under 2.5 months. There is general agreement among demographers that life expectancy will continue to rise, but there is no agreement on how fast and to what level<sup>16</sup>. Some experts expect that life expectancy will continue to rise by 2 years per decade. They see no reason why this linear increase should ever stop. Others expect that the increase will slow down once a biological limit is reached. In addition, public health problems could also slow down or even reverse the trend towards a higher life expectancy. In several EU Member States, the average annual increase in life expectancy has been lower in recent years than in the previous decades. Another relevant issue is whether or not differences in life expectancy across European countries will become smaller. The latest population projection of Eurostat assumes that by 2050 life expectancy in the EU-10 will converge towards the level of the EU-15, but a considerable gap of 3 to 4 years is projected to remain.

One important factor explaining the increase in life expectancy during the last decades has been the strong decrease in mortality from cardiovascular diseases at late middle age. With most people now surviving to old age, any further substantial increases in life expectancy can only be achieved through a major reduction in mortality at advanced ages. Death at advanced age often cannot be attributed to one single disease, but rather to a general state of frailty leading to what is termed 'co-morbidity'. Medical advances in the treatment of one disease may therefore lead to only a limited gain in lifespan as very old patients may die from another disease.

Moreover, whereas medical progress and improved living conditions have led, and probably will continue to lead, to an increase in life expectancy, it is much more uncertain what the effect of lifestyle (smoking, diet, physical exercise, use of alcohol) will be. The decline in smoking since the 1970s and 1980s has had a favourable impact on life expectancy but the current increase in the prevalence of obesity may well have an adverse effect. Thus, even though medical advances may contribute to a further rise in life expectancy, unhealthy behaviour may have the opposite effect. Moreover, the effect of accumulating environmental risks is difficult to take into account. The latest 2005 figures from Latvia and Lithuania showed a drop in life expectancy. This shows that a downturn in life expectancy is still a real risk in some Member States.

### 2.3.3. Important longevity differences between socio-economic groups<sup>17</sup>

The clearest and most striking difference in life expectancy is between men and women. In 2004, men in the EU-25 had a life expectancy 6 years shorter than that of women. By 2050 this gap is expected to have narrowed by one year but the motto that 'men die quicker but women are sicker' continues to apply as women have lower mortality risks but higher risks of disability when growing older.

The main causes of death of persons over 65 are cancer and cardiovascular disease, together accounting for three quarters of all deaths in almost every European country. Given that the incidence of most chronic conditions rises with age, older people often suffer from several chronic conditions at the same time, requiring complicated and labour-intensive long-term care solutions. A still largely underestimated chronic condition affecting 10-15% of persons over 65 in Europe is depression. Older people suffering from depression are more likely to have multiple chronic illnesses and more likely to face limitations in their daily living. Depression is also a major cause of suicide among older Europeans.

16. This section is based on: 'Future trends in mortality and life expectancies in the European Union', 2006, a policy brief prepared by Paul de Beer of the DEMO network of the SSO (forthcoming)..

17. This section summarises some of the conclusions that can be found in the 'The State of ageing and health in the EU' by the International Longevity Centre-UK and The Merck Company Foundation, June 2006.

A large part of the observed differences in life expectancy between EU-15 and EU-10 countries is due to preventable mortality (from causes that can be avoided by effective intervention, e.g. lifestyle factors or accidents) or treatable mortality (caused by conditions for which effective medical treatments are available). Persons with a lower socio-economic status and/or education have on average a lower life expectancy which to a large extent can be explained by the basis of structural factors such as a more stressful life and an unhealthier lifestyle. Good health in old age is the result of genetic predisposition as well as lifestyle factors such as healthy diet, refraining from smoking, engaging in physical exercise and avoiding excessive alcohol use.

## 2.4. Migration

### 2.4.1. Overview of migration trends

The third main driver of demographic change – and in our developed societies also the most volatile one – is international migration. In the second half of the 20th century,

large parts of Europe witnessed a historical change from emigration to immigration. The exact number of migrants residing in Europe is unknown, partly due to the fact that many European countries collect data on nationality rather than the place or country of birth, thus making it impossible to identify first-generation immigrants after they have obtained the citizenship of their host country.

For the year 2005, the United Nations has estimated that there are about 40 million migrants in the EU-27 Member States – see Table 2.6. About 3% of these migrants are refugees. Europe has a much higher share of migrants (8.8%) in its total population of 728 million than is generally found in the less developed regions of the world (1.4%) while the opposite is true for refugees. In 10 EU Member States, the share of the foreign-born population is estimated to be higher than 10%.

**Table 2.6** International Migration

	Migrant Stock 2005		Refugees 2004	Net Migration Average 2000-2005	
	Number x 1000	% of population		Number x 1000	% of population
Developed regions	115 397	9.5	2 701	2 622	2.2
Less developed regions	75 237	1.4	10 768	- 2 622	- 0.5
EU-27	39 593	8.3	1 663	1 155	2.4
BE	719	6.9	14	13	1.3
CZ	453	4.4	1	10	1.0
DK	389	7.2	65	12	2.3
DE	10 144	12.3	877	220	2.7
EE	202	15.2	0	- 2	- 1.5
EL	974	8.8	2	36	3.2
ES	4 790	11.1	6	405	9.7
FR	6 471	10.7	140	60	1.0
IE	585	14.1	7	39	9.8
IT	2 519	4.3	16	120	2.1
CY	:	:	:	:	:
LV	449	19.5	0	- 2	- 1.0
LT	165	4.8	0	- 4	- 1.2
LU	174	37.4	2	4	8.7
HU	316	3.1	8	10	1.0
MT	11	2.7	2	1	2.8
NL	1 638	10.1	127	30	1.9
AT	1 234	15.1	18	20	2.5
PL	703	1.8	3	- 16	- 0.4
PT	764	7.3	0	50	4.8
SI	167	8.5	0	2	1.0
SK	124	2.3	0	1	0.2
FI	156	3.0	11	8	1.6
SE	1 117	12.4	73	31	3.5
UK	5 408	9.1	289	137	2.3
BG	104	1.3	5	- 10	- 1.3
RO	133	0.6	2	- 30	- 1.4

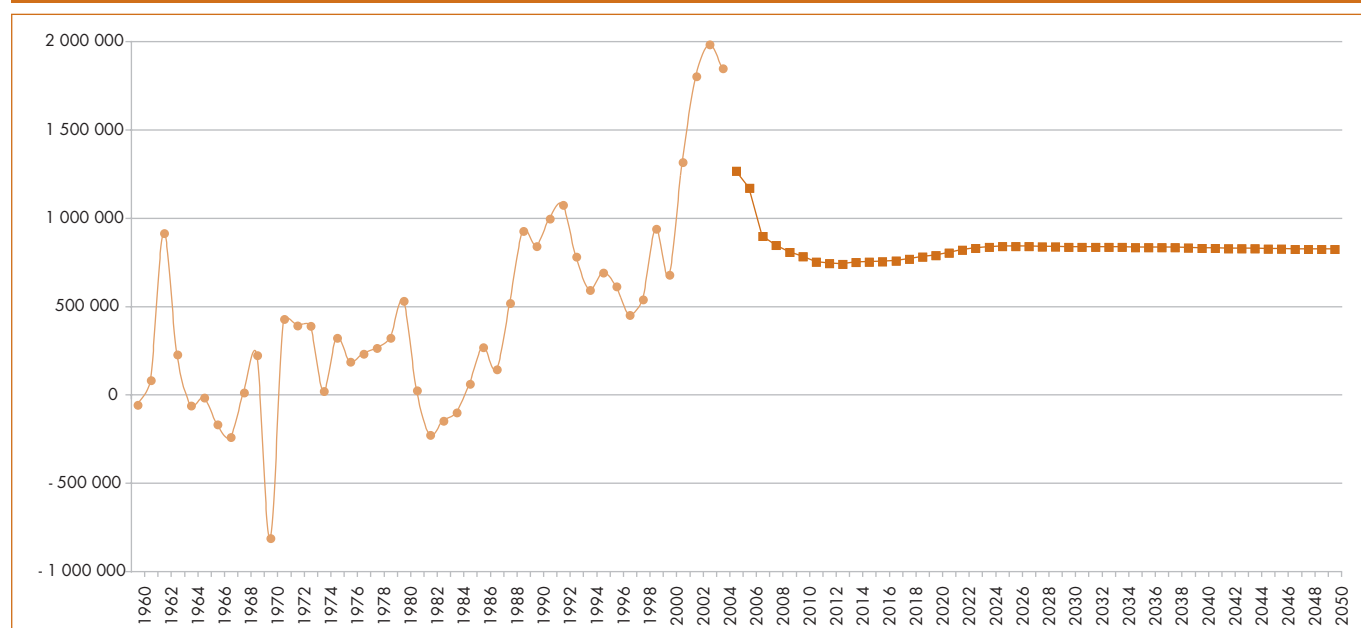
Source: United Nations, Department of Economic and Social Affairs, Population Division, 2006.

Figure 2.3 shows that net migration into the EU reached a peak of almost 2 million in 2003/2004. Figure 2.4 shows the main destinations of the migration flows. The flows for Italy and Spain, which accounted for almost two thirds of the total, were heavily impacted by decisions to regularise illegal migrants. If immigration were to remain at this high level, then the EU's working age population would continue to grow until around 2030, rather than already starting to decline in 2011, as is currently assu-

med in the baseline scenario of the Eurostat population projection.

Movement of persons inside the EU could potentially also affect demographic development in individual Member States. The recent enlargements of the European Union have led to a short-term increase in migration from the new Member States in particular towards the UK and Ireland (see section 4.5 for more discussion of this topic).

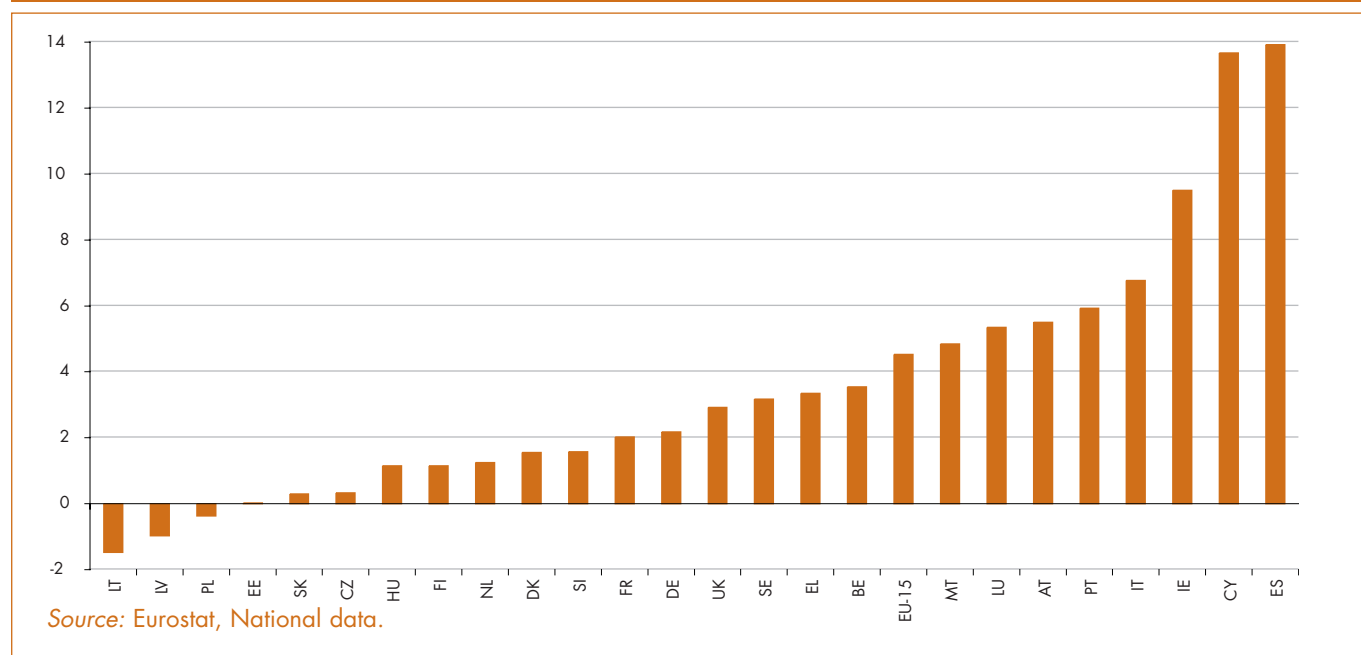
**Figure 2.3** Net migration into the EU-25 (projected from 2005)



Source: Eurostat, National data.

Note: Net migration is defined as the population change not attributable to births and deaths. Direct observations of immigration or emigration flows are not available or not sufficiently precise. Corrections to population figures are included in this indicator.

**Figure 2.4** Annual Crude Net Migration Rate (Average 2001-2004, in thousands)



Source: Eurostat, National data.

The ageing of the population also entails the ageing of the workforce, as well as an imminent decline in both the workforce and the population. According to the latest Eurostat population projection, the population aged 15-64 is going to decrease by one million annually after 2010. These trends are likely to generate major labour market bottlenecks and skills shortages, which will act as a major pull factor for international migration into the European Union. At the same time, the continuing high population growth in Europe's neighbourhood, especially in Africa, combined with poor economic performance and political instability, could act as a strong push factor. Figures from the year 2000 show a total GDP for the EU almost 10 times greater than the combined GDP of sub-Saharan Africa. In comparison, GDP for North America was approximately 3 times larger than that of Central and South America.

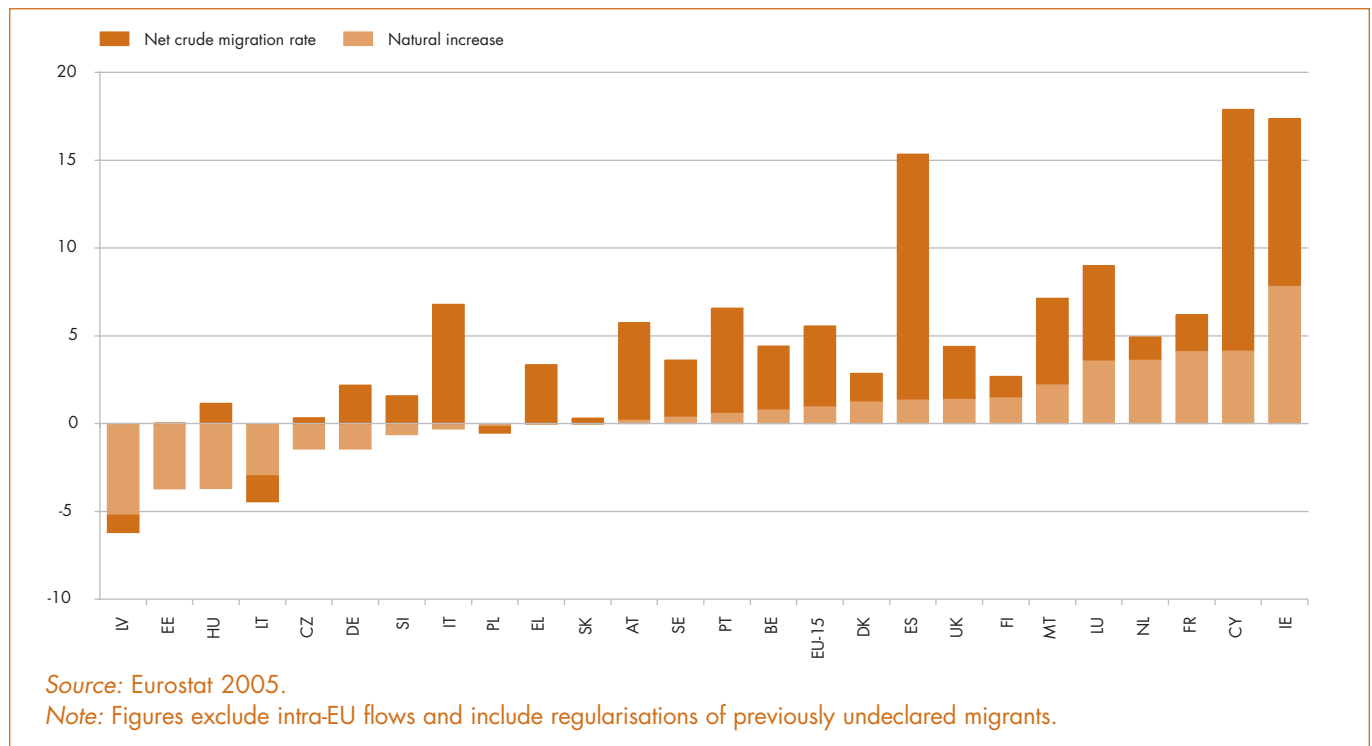
More migration is also likely to follow as a result of globalisation and the creation of trans-national communities. Interestingly, the gender imbalance in international labour migration seems to be shifting, with male domination

(around two thirds) falling in most countries, signalling the pull effect of the increasing feminisation of labour markets in the developed world.

#### 2.4.2. Relative contribution of migration and fertility to population growth

Although international migration may play a crucial role in solving future labour market shortages, its impact on population ageing is likely to be small. Scenario calculations by the United Nations have shown that to halt, let alone reverse, population ageing, truly massive and increasing flows of young migrants would be required<sup>18</sup>. For example, to keep the age structure in Germany unchanged, over 3 million migrants per year would have to be admitted. Clearly, increased immigration cannot prevent ageing, but it can realistically contribute to alleviating labour market bottlenecks. Furthermore, a comparison between the natural rate of population growth and the migration rate in Figure 2.5 shows that in several Member States, immigration has already been helpful in postponing population decline.

**Figure 2.5** Net Migration and Natural Population Growth (average 2001-2004)



18. 'Replacement migration: is it a solution to declining and ageing populations', UN population division, New York, 2000, [www.un.org/esa/population/unpop.htm](http://www.un.org/esa/population/unpop.htm).

Scenario calculations that compare the outcomes for different assumptions show the relative importance of changes in fertility versus migration for the future changes in the population. For example, Eckart Bomsdorf and Bernard Babel have conducted an interesting sensitivity analysis for Germany<sup>19</sup>. They find that a total extra increase in the German population of 2.5 million by 2050, as compared to the baseline scenario, which assumes a decline of 12 million with other factors remaining unchanged, could be achieved in any of the following three ways<sup>20</sup>:

- An increase in the TFR by 0.1 (which in 2003 stood at 1.35);
- An increase in life expectancy by 2.67 years (which in 2003 stood at 75.3 and 81.3 for men and women respectively);
- An increase in annual net migration by 45.000 persons (which in 2003 stood at 150.000).

Table 2.7 compares the results for fertility and migration in a comparative way.

**Table 2.7** Change in the German population by 2050 (in 1000 persons) compared to the baseline projection, due to a 10% or 20% change in fertility and in net migration

Change in %	- 20%	- 10%	10%	20%
- in the Fertility rate	- 6 117	- 3 122	3 248	6 623
- in the Net migration	-1 688	- 844	844	1 688

Source: Bombsdorf and Babel, see footnote 19.

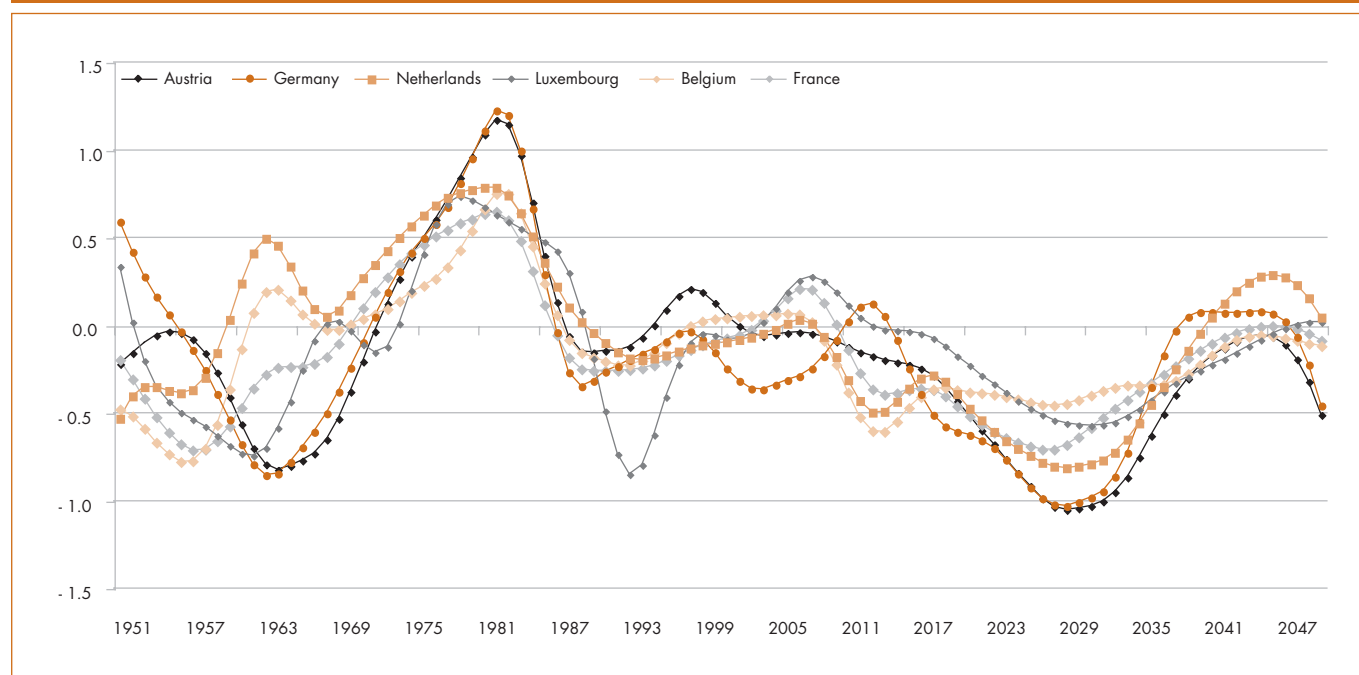
These scenario calculations forcefully illustrate that, over several decades, even small changes in fertility can have a sizeable impact on future demographic development.

## 2.5. Cohort effects: the baby boom

Demographic developments are also strongly influenced by variations in cohort sizes. The large cohorts that were born between 1945 and 1965, in what is known as the 'baby

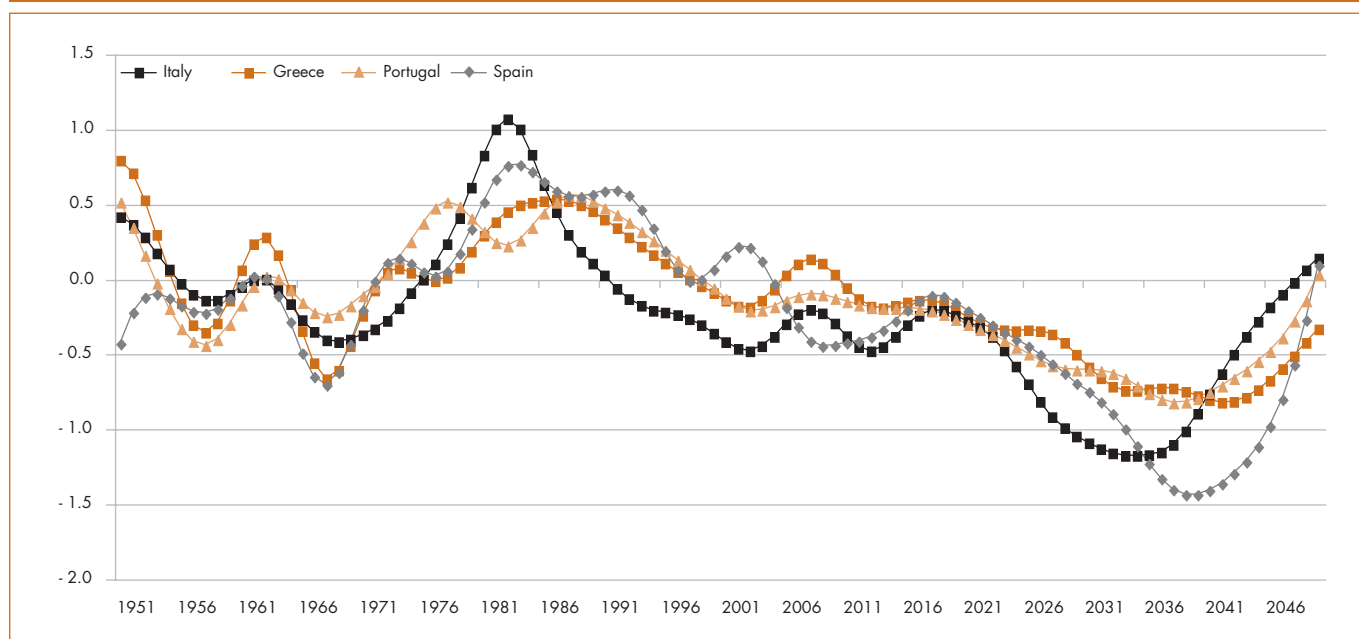
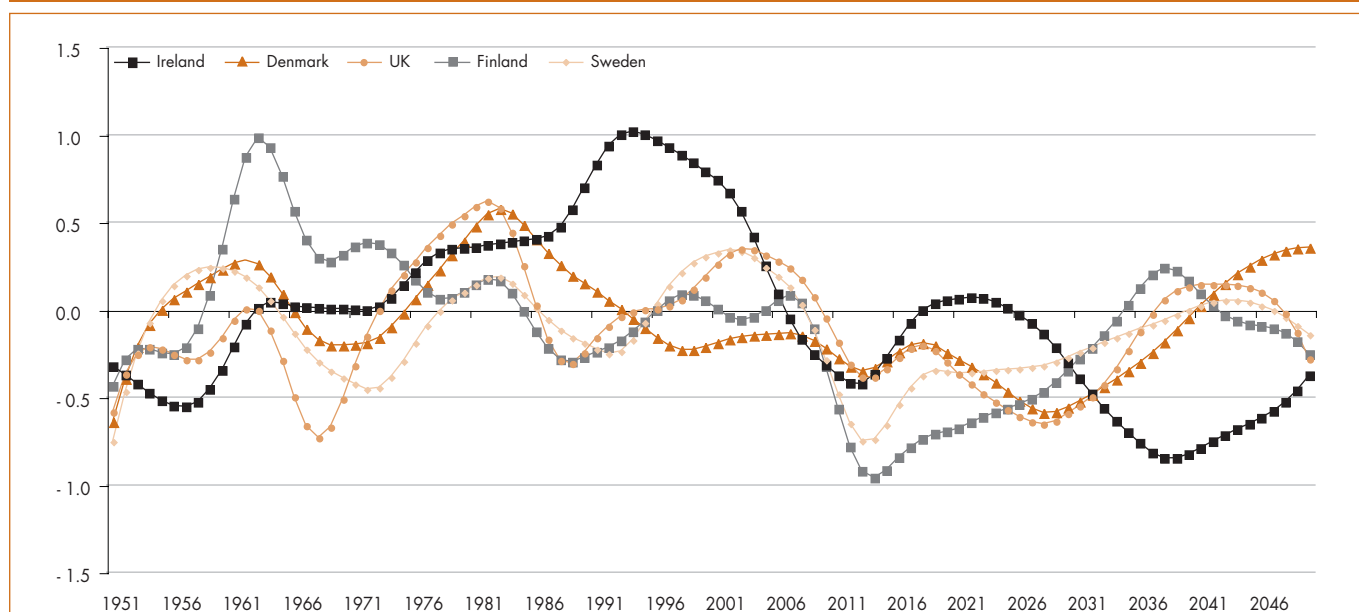
boom', form a large bulge in the population that is gradually working its way through the overall age structure. At present, the baby boom cohorts are still part of the working age population, which, as a result, currently represents a large proportion of the total population. The share of the European population in working age is expected to peak at 67% by the end of 2010. The fact that large cohorts boost the working age population has been described as a demo-

**Figure 2.6a** Difference between the growth rate of the working age and total populations, 1951-2050<sup>22</sup>



19. Bomsdorf E. and B. Babel, 'Wie viel Fertilität und Migranten braucht Deutschland?', HWWA, 85th year, Vol. 6, June 2005.

20. For reasons of simplicity the effect of the change in base ('Sockel') migration was ignored. This effect is relatively small and results from the average age of emigrants being higher than those of immigrants.

**Figure 2.6b** Difference between the growth rate of the working age and total populations, 1951-2050<sup>22</sup>

**Figure 2.6c** Difference between the growth rate of the working age and total populations, 1951-2050<sup>22</sup>


Source: A. Prskawetz, 2006, see footnote 22.

graphic dividend<sup>21</sup>. The retirement of the baby boomers will compound the increase in the old-age dependency ratio (i.e. the number of persons over 65 divided by the number of people aged between 15 and 64) which results from rising life expectancy and low fertility rates. Figures 2.6 present the differences in the annual growth rates of the total population and the population of working age for a number of European countries. After 2010 the difference in

most countries will turn negative, signalling the end of the demographic dividend. The baby boom in Southern Europe emerged later than in Northern and Western Europe as a result of which the boost in the working age population was delayed. In all three parts of Europe it is expected that the difference in growth rates will turn negative after 2010. The baby boom effect in the Central European Member States has come later and been somewhat more subdued.

21. See also the VID/IFS 'Walter' demographic impact study.

22. Prskawetz, A., Th. Lind et al. 'The relationship between demographic change and economic growth in the EU', VID and IFS (Institute for Future Studies), 'Walter' demographic impact study, forthcoming, 2006.



## 2.6. The EU-27 population projection

The results of the latest Eurostat population projection for the EU-27 are based on a series of assumptions about future trends in fertility, mortality and migration. The total population for the EU-27 is projected to shrink from

486.3 million in 2004 to 472.2 million in 2050. Figure 2.7<sup>23</sup> shows how the form of the age pyramid is expected to change as the bulge representing the baby-boom cohorts becomes older.

**Figure 2.7** Age pyramids for the EU-25 population in 2004 and 2050



23. Aggregate projections were originally only presented for the EU-25, but will be adjusted to the EU-27 to the extent feasible.

**Table 2.8** Population in three age groups, absolute numbers (millions)

	1975	2005	2050	2050/1975
0-14 years				
EU-15	82.8	61.5	58.2	0.70
EU-25	98.9	73.4	66.5	0.67
NMS-10	16.1	11.9	8.3	0.52
15-64 years				
EU-15	220.2	256.5	218.3	0.99
EU-25	265.8	308.9	253.4	0.95
NMS-10	45.6	52.4	35.1	0.77
65+ years				
EU-15	45.5	66.8	110.7	2.43
EU-25	52.9	77.0	129.1	2.44
NMS-10	7.4	10.2	18.4	2.49

Source: 2005 Demographic monitor of the SSO.

**Fertility rates** in the baseline scenario are assumed to rise from 1.5 in 2004 to 1.6 by 2030 and to stay constant around that level until 2050. Fewer births eventually translate into smaller cohorts of young persons entering the labour market, especially when compared with the much larger older cohorts leaving for retirement.

**Life expectancy** at birth has increased by 8 years since 1960 and is assumed in the projections to rise by 6.3 years for males to 81.7 and by 5.1 years for females to 86.8 between 2004 and 2050. Moreover, longer life expectancy will dramatically increase the numbers of persons reaching very old ages (80+) from 18 million in 2004 to nearly 50 million in 2050. By 2050 the differences in life expectancy between the old Member States (87.3 and 82.3 for women and men respectively) and the new Member States (84.1 and 78.6 respectively) are predicted to become smaller, especially for men.

**Net migration inflows** are assumed on average to fall from an estimated 1.3 million people in 2004<sup>24</sup> to some 800.000 people annually between 2015 and 2050 (an annual net migration rate of 0.2% of the population). Although net inflows of migrants are projected to accumulate to some 40 million people between 2004 and 2050, they are insufficient to prevent population decline, let alone stabilise the age structure of the population. These demographic forces will cause the total population in the EU-27 in 2050 to be slightly smaller and much older.

### 2.6.1. Changes in the population structure

According to the baseline projection the median age in the EU will increase from 39 to 49 years between 2004 and 2050. The number of young people (age 0-14) in the European Union will continue to decline in absolute terms

from around 100 million in 1975 to some 66 million by the year 2050. Their share relative to the working-age population (the young-age dependency rate) will, however, rise slightly from currently 24% to 26% in the EU-25.

The population of working age (15-64) will be most numerous around the year 2010 (331 million) and will subsequently decline to about 268 million by 2050. The population aged 65 and over will continuously increase from currently 86 million to 141 million by 2050. Its size relative to the working age population in the EU-25 (the old-age dependency rate) has increased from 20% in 1975 to currently 25%. It is projected to double to 51% by 2050. This means that the EU will move from having four to only two persons between 15 and 64 for every citizen aged 65 or above. See also Table 2.8.

Ageing is not going to affect the Member States of the EU in a uniform way. Figure 2.8 shows that there are relatively young and old Member States. Moreover, a ranking of Member States by the old-age dependency ratio, as in Figure 2.8, reveals significant changes reflecting in particular the differences in assumed fertility rates.

The relative share of the population aged 80 and over to the working age population will increase even more sharply: from the current 6% in the EU-25 to 20% by 2050.

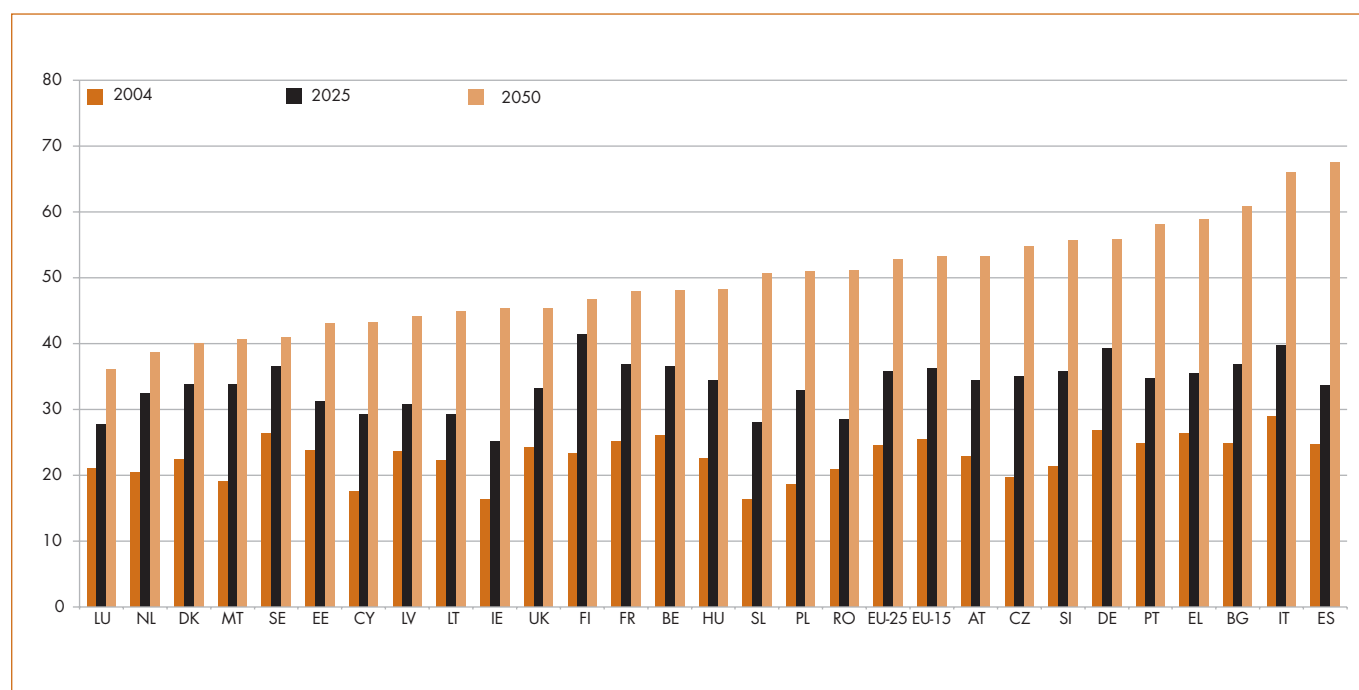
### 2.6.2. Projection methods<sup>25</sup>

Currently the most popular way of handling uncertainty is to present alternative variants (e.g. high and low fertility) around a baseline scenario or benchmark projection. This scenario approach was also used by Eurostat for its latest EU population projection in 2004. One can then study a given policy problem under each variant.

24. Actual realised net migration into the EU was almost 2 million due to large regularisations in Spain and Italy.

25. See the 'Walter' demographic impact study by ETLA on population projections.

**Figure 2.8** Projected old-age dependency ratio by Member State for selected years, 'baseline' variant of the Trend scenario



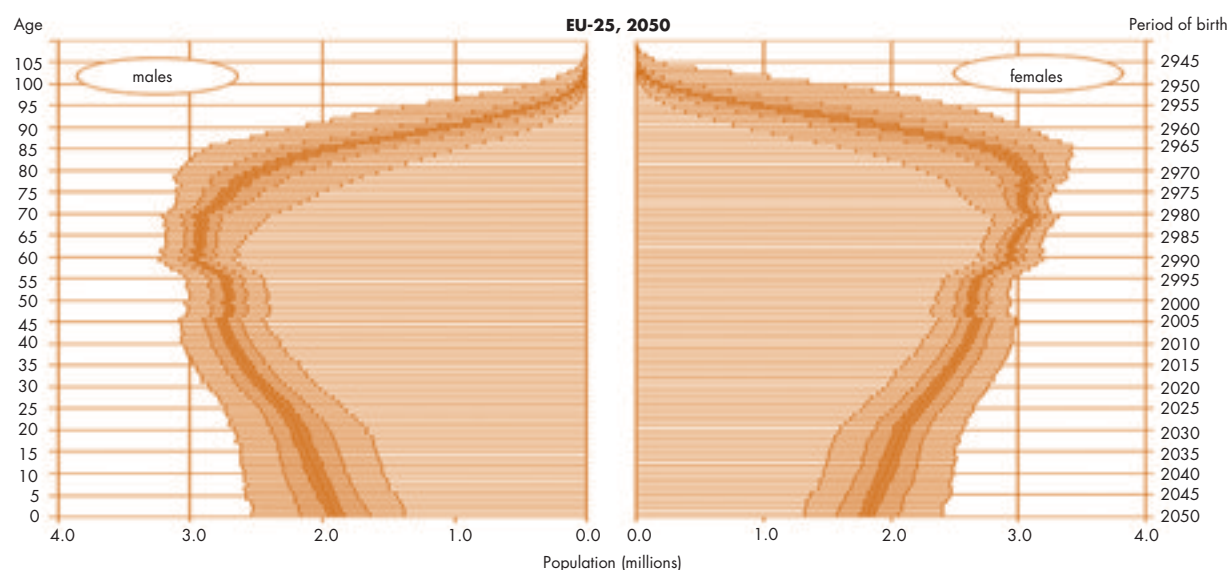
It is, a priori, hard to determine what aspects of future demographics should be varied and by how much. Alternative scenarios should be based on clearly distinct and plausible 'storylines'. This would force the user of a projection to choose the picture of the future that is considered to be the most plausible. When several parameters are used for projections, however, the number of alternative scenarios can become very large and it may not be possible to determine which scenario is the most meaningful. Some researchers therefore advocate another approach to demographic projections which takes uncertainty about the future more explicitly into account.

#### BOX 2.2 Base year data problems and high-quality population data

During the first 20 years of the projection period, projections are quite reliable, in particular for the working age population, provided no major mistakes are made in the starting or base year. In the previous projection, such mistakes were made in the Spanish base year migration data, which made the projection go off the mark within only a few years. This shows that the availability of recent high-quality population data is essential for reliable population projections. Population registers that cover all the

population and are continuously updated by legally controlled administrative procedures provide the best basis for such population data. Countries relying on censuses are in a weaker position due to errors in both registration and the census itself. The main problem in most EU population systems is the recording of 'out-migration'. Because being registered is frequently a precondition for the opening of bank accounts, entitlement to subsidised or low-cost social and health services, etc., there are incentives for incoming migrants to register in their new country/region/municipality. In most cases, however, there are no incentives to deregister at the old place of stay. One solution would be to have details of all 'in-migration' records in the population registers of destination countries/regions/municipalities sent back to the registers of the original place of stay. Such a system has been in use within and between the Nordic countries and functions well.

The idea is to do stochastic or probabilistic projections to produce a realistic range of different population paths that fall within a meaningful confidence interval. Stochastic projections are, however, computationally more demanding and for the user more difficult to comprehend.

**Figure 2.9** Uncertainty intervals of a probabilistic population projection for the EU-25 in 2050

Source: Economic Policy Committee and European Commission, population in 2050 according to the Ageing Working Group Scenario (2006).

### 2.6.3. An estimate of projection uncertainty for the EU-25

How large the uncertainty of a population projection may become after 20 years is shown in Figure 2.9. This is taken from an interesting example of a stochastic projection for the EU-25 prepared by IIASA and the VID<sup>26</sup>. The dark segment indicates the confidence interval in 2020, the middle-shade segment that in 2030 and the light shade segment the one in 2050. The population pyramid of 2050 indicates that the projections for the number of persons below 30 and over 70 are much more uncertain than for the number of persons of intermediate age. The future size of the intermediate age groups is to a large extent, apart from migration, determined by the population momentum of those already born. The number of middle-aged persons is less vulnerable to mistakes made in fertility and mortality assumptions.

## 2.7. The regional dimension of population change

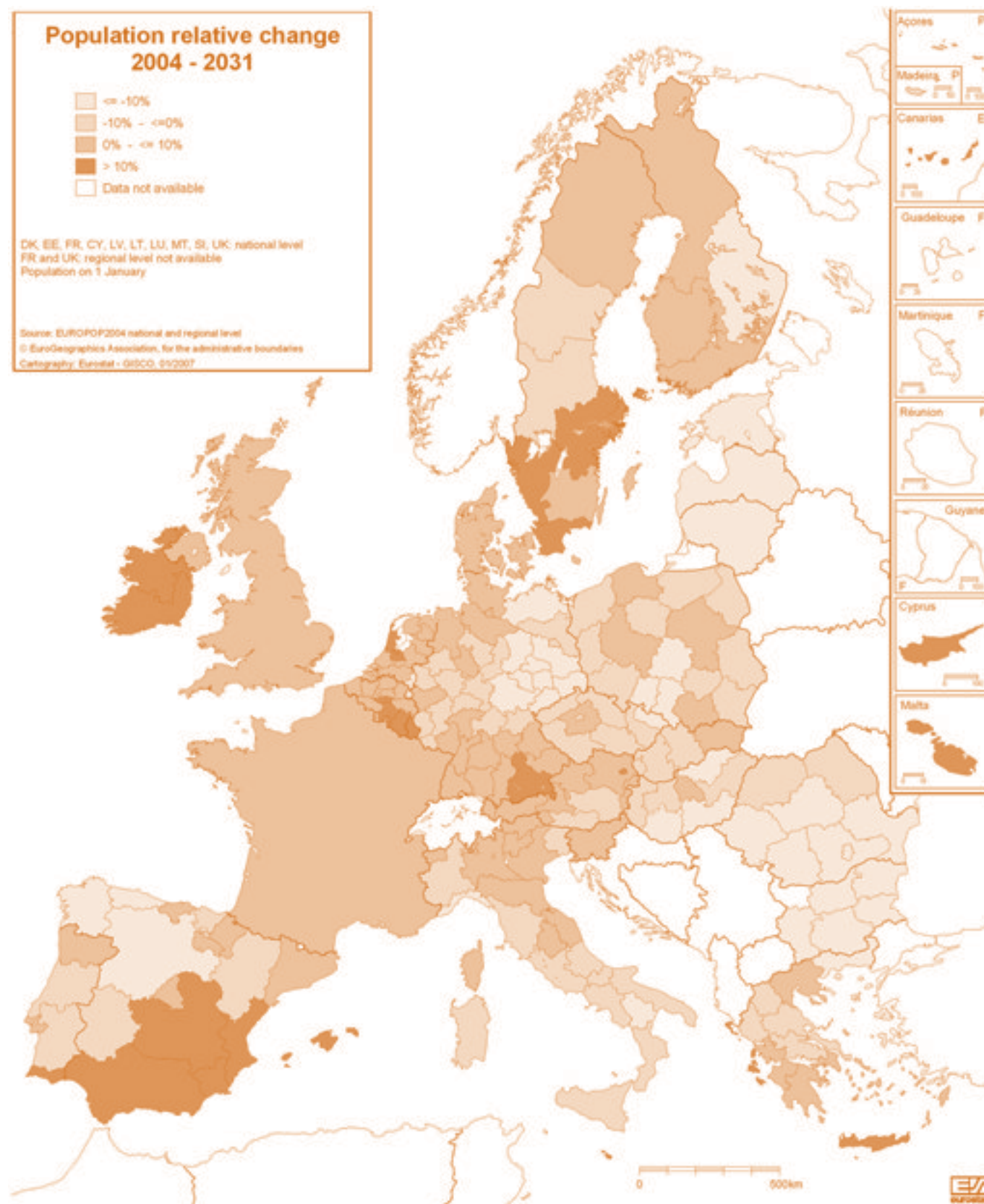
While it may still be one or two decades before the impact of ageing becomes clearly visible at the level of an entire country, the impact of ageing and population decline (notably due to migration) can already be observed at regional level. The main recent trends identified by Eurostat<sup>27</sup> at regional level can be summarised as follows:

- In the north-east of the European Union the population is decreasing. Most affected by this decline are eastern Germany, Poland, the Czech Republic, Slovakia and Hungary, the three Baltic States and parts of Sweden and Finland.
- Many EU regions have been experiencing a negative 'natural population change' since the beginning of the decade (i.e. more people have died than have been born). This negative pattern predominates in Germany, the Czech Republic, Slovakia, Hungary, Slovenia and adjacent regions, as well as in the Baltic States and Sweden to the north and Greece in the south.
- Ireland, France, the three Benelux countries and Denmark are mostly experiencing a 'natural increase' in the population.
- In some regions, a negative natural change has been offset by positive net migration. This is most conspicuous in western Germany, eastern Austria, the north of Italy, Slovenia, as well as the south of Sweden and regions in Spain, Greece and the United Kingdom.
- The opposite is much rarer: in only a few regions (namely in the north of Poland), has a positive 'natural change' been offset by negative net migration.

Figures 2.10 and 2.11 present, respectively, the change in population between 2000 and 2030 at regional NUTS 2 level for Europe and a breakdown of this change.

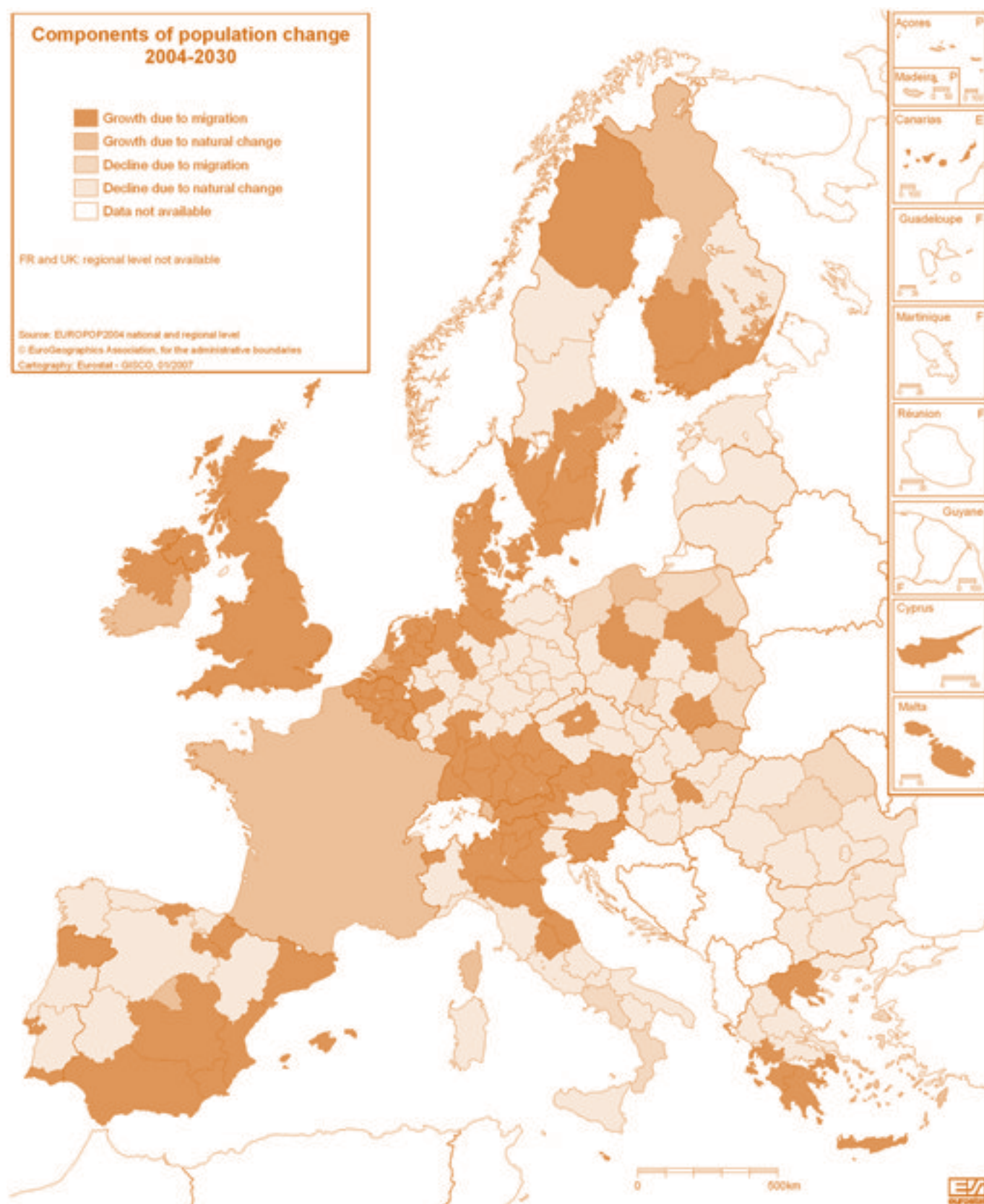
26. Scherbov, S. and M. Mamolo, 'Probabilistic population projections for the EU-25', VID European Demographic Research Papers, No 1, 2006.

27. Eurostat Statistical Yearbook Regions, 2006.

**Figure 2.10** Relative change in population 2004-2031



**Figure 2.11** Components of population change 2004-2030



Demographic ageing is especially evident in the predominantly rural regions of some Member States, notably Portugal, Spain, Greece, Italy, Germany and France, where the proportion of people over 65 is high. Moreover in Germany, the Nordic and Baltic countries and in Southern Europe, strong rural-urban migration of females in the economically active age groups results in a high degree of 'masculinisation' of the rural population<sup>28</sup>.

The increasing importance of regional and local public authorities as policy initiators and service providers will compel regions to include the effects of long-term population trends in their regional medium-term strategies. A number of regions have already been active and are at the forefront of strategic thinking and actions in relation to the demographic challenge<sup>29</sup>.

The Union's Cohesion Policy provides a valuable tool for Member States to adapt their regional and national economies to the challenges of ageing. The Structural Fund programmes and the European Agricultural Fund for Rural Development (EAFRD) have already supported many projects addressing aspects of demographic change. These include successful initiatives to cope with depopulation in urban, rural and sparsely populated areas, initiatives to encourage migration to depopulated areas, fighting discrimination and promoting gender equality and making regions more attractive places to live in. Regions which expect their population to decline are encouraged to work with support from the Structural Funds on policies to mitigate the effects of this anticipated trend and secure the quality of life of the remaining population.

### **BOX 2.3 The impact of demographic change on a region: the case of the Free State of Saxony (Germany)<sup>30</sup>**

A very impressive example of a regional response was given by Georg Milbradt, Prime Minister of Saxony, at the First European Demography Forum. The population of Saxony has been shrinking since 1967. In 1950, it had 5.7 million inhabitants; in 2005 this number had fallen to 4.3 million. The projection for the year 2020 is 3.8 million. After German reunification in 1989, the number of births

fell by more than 50% and a few years later nursery schools, kindergartens and primary schools had to be closed because of a lack of children. These small cohorts have now reached the secondary and vocational school age and universities will be affected next. Although birth rates have since recovered, they have not regained their old level.

The initial drop in birth rates will in the future be compounded by the exodus of young people. Many high-skilled young people, in particular women, are leaving Saxony to study or work elsewhere in Germany. The working age population will shrink approximately twice as much as the overall population and firms in Saxony are already having problems finding sufficient numbers of qualified young professionals to replace retiring staff. The shortage of qualified staff is going to get worse during the next three or four years when the large baby boomer cohorts start to retire. The shortage of qualified labour will hamper Saxony's economic growth prospects.

The population decline has led to decreasing utilisation of the region's infrastructure. Already more than 400.000 housing units are permanently empty, out of a total of 2.3 million. Water and sewage systems are used far below their normal capacity, resulting in hygiene problems and increasing costs per capita. The number of elderly persons in institutional care is growing rapidly resulting in a sharp increase in health and nursing expenditure. At the same time, budget revenue will decrease by nearly a quarter up to 2020. Even though Saxony does not intend to take on any new debt from 2007 onwards, public debt per capita is expected to increase.

However, Saxony has anticipated the negative consequences of ageing and emigration and has started to adapt. Mr Milbradt gave two examples. Saxony has started to reconstruct its cities by demolishing 50.000 empty housing units, with a target of 250.000 units by 2015. Local authorities are required to adjust their urban planning to a shrinking population. Saxony has also begun to downsize its administrative structures. Saxony needs to ensure that it remains an attractive place for business and to make sure that 'nobody will fall behind'. The main challenge, as Mr Milbradt sees

28. See 'Study on Employment in Rural Areas' (SERA) at [http://ec.europa.eu/agriculture/publi/reports/ruralemployment/sera\\_report.pdf](http://ec.europa.eu/agriculture/publi/reports/ruralemployment/sera_report.pdf).

29. See also the Joint Declaration of European regions 'Facing demographic change as a regional challenge' presented at the 2006 Forum to Commissioner Spidla, [http://ec.europa.eu/employment\\_social/events/2006/demog/position\\_paper\\_eu\\_regions\\_en.pdf](http://ec.europa.eu/employment_social/events/2006/demog/position_paper_eu_regions_en.pdf).

30. Based on the presentation of the Prime Minister of Saxony Prof. Georg Milbradt at the First European Demography Forum in 2006, see [http://ec.europa.eu/employment\\_social/emplweb/events/event\\_en.cfm?id=625](http://ec.europa.eu/employment_social/emplweb/events/event_en.cfm?id=625).



it 'is to ensure access to education and healthcare all over Saxony (...) without producing any additional debts.'

Mr Milbradt pleaded for a new way of thinking in which the universal growth paradigm is replaced by a limited number of strong local growth centres against the backdrop of an otherwise shrinking periphery. Only with such a strategy will it be possible to focus the limited available resources. Saxony has started to apply a demographic test to all its laws and funding programmes. In spite of its shrinking population Saxony hopes to remain one of the most dynamic regions in Germany, and, so far, it has been able to maintain its economic growth.

## 2.8. Global demographic trends

### 2.8.1. Europe's place in the global population

According to the United Nations, the world's population increased during the 20th century from 1.6 to 6.4 billion. In the next half century the UN expects a further increase to 9.1 billion<sup>31</sup>. Demographic shifts will not change the ranking of the major world regions according to population size. The EU-25 with 456 million inhabitants currently ranks third after China (1.3 billion inhabitants) and India (1.1 billion), followed by the United States with 300 million inhabitants. In 2050, the EU-25 will still be in third place with 450 million, after India (1.6 billion) and China (1.4 billion) and before the United States with 395 million inhabitants. But the EU is the only major world region where the total population is projected to decline in the coming four decades. In many developing countries, population growth rates are still very high due to birth rates well above the replacement level and a very young age structure. For this reason, the population in these countries is likely to double over the coming decades, which explains why the world population is expected to increase from its current 6.4 billion to 9.1 billion by 2050. There are, however, more and more countries in which birth rates have now fallen well below the replacement level and where the population is ageing rapidly.

For these countries a future of even more rapid population ageing and, in many cases, a shrinking total population size is expected. Because of these significantly different trends between various parts of the world, there is still simultaneously concern about the negative consequences of rapid population growth and, in other parts of the world, about the negative implications of rapid population ageing.

The demographic divide does not always coincide with the traditional split between industrialised and developing countries. Some developing countries have recently seen very rapid fertility declines, and the number of poor countries with sub-replacement fertility is increasing. China is the most prominent example: fertility has recently fallen to an (uncertain) level between 1.4 and 1.8<sup>32</sup>. Over the next two decades China will see both significant further growth and the beginning of significant population ageing, i.e. doubling the present low old-age dependency ratio to 15%. However, it is expected to grow by another 200 million people due to the momentum caused by the very young age structure, which will lead to a further increase in the number of women of reproductive age. At the same time, the one-child family policy can be expected to result in a rapidly increasing share of older people in the total population.

During the first part of this century a significant number of countries will simultaneously experience population growth and aging. This will be the case with the USA which, unlike Europe, is expected to continue to grow significantly thanks to high immigration and higher birth rates than in Europe.

Figure 2.12 illustrates these trends in population growth rates for different parts of the world from 1950 to 2050, based on UN data estimates and projections. It shows that Europe consistently has the lowest annual population growth rate of all continents, falling from 1% per year in 1950 to zero growth at the moment and shrinking at an expected rate of 0.5% by 2050. The figure also shows that even Africa is beyond its peak in growth rates. North America, which saw fairly stable population growth of around 1% from 1965 to the present, is expected to decline only moderately in the future. By 2050 the UN expects North America to have a higher population growth than Latin America, and higher than the world average.

31. Based on the 2003 UN world population projection. The 2004 update published in 2005 led to only small changes.

32. See also the presentation of Mr Juwei Zhang of the Chinese Institute of Population and Labour Economics at the recent Demography Forum [http://ec.europa.eu/employment\\_social/events/2006/demog/zhang\\_slides\\_en.pdf](http://ec.europa.eu/employment_social/events/2006/demog/zhang_slides_en.pdf).

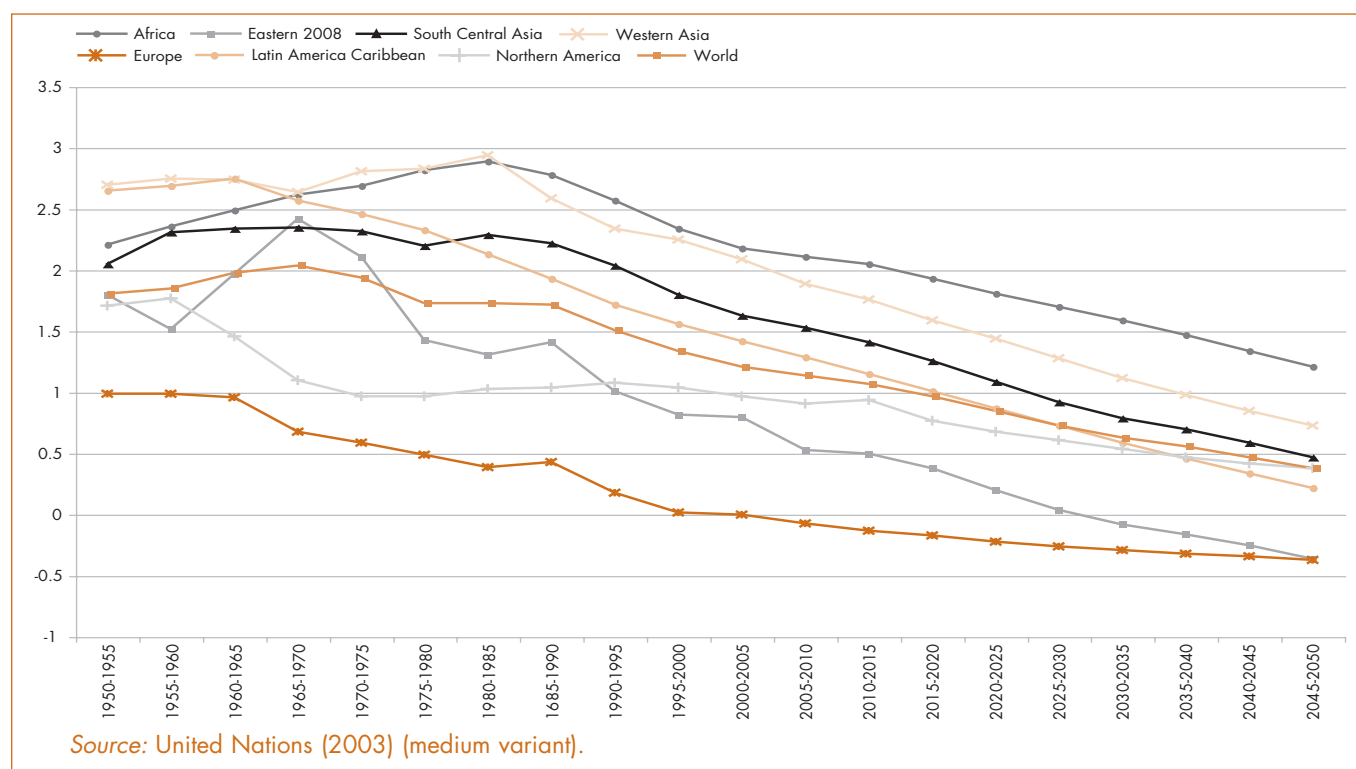
**Figure 2.12** Average annual population growth rates of selected world regions, 1950-2050

Table 2.9 gives an overview of trends in mortality and fertility in the main regions of the world. Over the past half century, life expectancy has increased considerably in all parts of the world. Only in Africa has the HIV/AIDS epidemic in particular slowed down the improvement in life expectancy. In some of the hardest hit countries there has even been population decline. The UN assumes for the future a recovery in Africa, along with a continued increase in life expectancy in all parts of the world.

Fertility rates have also declined considerably in all world regions. The European region has the lowest TFR at 1.4; Africa is at the other extreme with an average rate still close to 4.9. For the coming decades, the UN assumes a continued decline in fertility for the whole world with the exception of Europe, where at least a partial recovery is expected from the projections.

**Table 2.9** Life expectancy at birth and total fertility rates for selected world regions (1950-2050)

Region	Life Expectancy at Birth (both sexes)					Total Fertility Rate				
	1950-1955	1975-1980	2000-2005	2025-2030	2045-2050	1950-1955	1975-1980	2000-2005	2025-2030	2045-2050
Africa	37.8	48.2	48.9	57.1	64.9	6.74	6.59	4.91	3.23	2.40
Eastern Asia	42.9	66.4	72.1	75.0	77.7	5.68	3.13	1.78	1.83	1.85
South-central Asia	39.4	52.6	63.2	69.1	74.0	6.08	5.09	3.25	2.18	1.91
Western Asia	45.2	60.6	69.1	75.2	78.0	6.46	5.30	3.45	2.57	2.19
Europe	65.6	71.5	74.2	78.1	80.5	2.66	1.97	1.38	1.63	1.84
Latin America & Caribbean	51.4	63.0	70.4	75.5	78.5	5.89	4.48	2.53	1.98	1.86
Northern America	68.8	73.3	77.4	79.7	81.8	3.47	1.78	2.05	1.96	1.85
<b>WORLD</b>	<b>46.5</b>	<b>59.8</b>	<b>65.4</b>	<b>70.2</b>	<b>74.3</b>	<b>5.02</b>	<b>3.90</b>	<b>2.69</b>	<b>2.25</b>	<b>2.02</b>

Source: United Nations (2003) (medium variant).

## 2.8.2. Population trends and challenges in Europe's neighbourhood<sup>33</sup>

The Mediterranean Sea represents one of the sharpest demographic divides in the world. Greece, Italy and Spain, which have among the lowest fertility rates, are ageing rapidly and will see their populations shrink, while the countries on the southern rim have some of the most rapidly growing populations. Although fertility rates have been falling in Northern Africa, its population is still growing fast due to the population momentum generated by the very young age structure.

A comparison of population trends in Italy and Egypt over a 100-year period is very striking. In 1950 Egypt had less than half the population size of Italy, but the population grew so fast that by the early 1990s both countries were of equal size. Over the coming decades Italy is expected to start shrinking, while Egypt will continue its rapid population growth. The fertility decline in Egypt seems to have slowed (or even stalled) at a level above three children per woman. But even if the decline continues, Egypt's population may still double so that by 2050 it is likely to be about three times that of Italy's.

On the Eastern border of the EU the situation is very different (see Table 2.10). There are huge income differences compared with the EU but the demographic trends are quite similar. In most eastern European countries, the political and economic transition since 1990 has caused a very rapid decline in fertility to levels that are even lower than in the new Member States. In addition, these countries are confronted with net migration losses, which means that they face the prospect of significant shrinking and ageing of their populations.

The demographic contrasts between Europe and its southern neighbours strongly suggest that strong migratory pressures will persist over the coming decades. The differences in expected population growth combined with huge differences in standards of living constitute a strong push factor for emigration towards the EU. In the Eastern European countries a comparable demographic push factor does not exist, but significant migration flows could result from dissatisfaction with economic and political conditions.

**Table 2.10** Main demographic indicators in neighbouring countries of the EU

	Total Population (1 000)		TFR		Life Expectancy at Birth		Percentage aged 0-14		Percentage aged 60 and above	
	2000	2030	1995- 2000	2025- 2030	1995- 2000	2025- 2030	2000	2030	2000	2030
<b>The Eastern Neighbours</b>										
Russian Federation	145 612	119 713	1.25	1.49	66.1	70.9	18.0	12.8	18.5	28.0
Turkey	68 281	91 920	2.70	1.85	69.0	75.9	31.7	20.1	8.0	15.7
Ukraine	49 688	38 925	1.25	1.50	68.1	75.1	17.8	12.5	20.6	28.0
<b>The Southern Neighbours</b>										
Algeria	30 245	44 120	3.15	1.85	67.9	75.2	35.1	19.8	6.0	13.2
Egypt	67 789	109 111	6.70	2.16	67.0	74.9	36.3	25.0	6.8	11.4
Morocco	29 108	42 505	6.60	2.07	66.6	74.8	33.0	22.7	6.5	13.4
Syrian Arab Republic	16 560	28 750	3.82	2.11	70.5	76.7	39.9	24.9	4.5	9.7
Tunisia	9 519	12 351	5.50	1.85	71.7	77.4	30.3	19.4	8.4	17.0

Source: United Nations Population Projections of 2003 (medium variant).

33. Wilson, Ch., 'La transition démographique en Europe et en Méditerranée.' In Paul Sant Cassia et Thierry Fabre (eds), *Les Défis et les Peurs: entre Europe et Méditerranée*, Actes Sud/MMSH, November 2005, pp. 21-48.



---

## 3. THE ECONOMIC AND SOCIAL IMPACTS OF DEMOGRAPHIC CHANGE

### 3.1. Introduction

At present, the baby boom cohorts are still of working age, but within a few years they will start retiring. This will lead to a decline in the population of working age and a rapid increase in the number of pensioners. As the baby boomers grow older, they will also require more health and long-term care. Ageing will thus lead to increasing demands on social protection systems (pensions and health/long-term care) while the potential labour force will be declining. The impact on public finances of these trends has been examined for the EU-25 Member States by the European Commission and the Economic Policy Committee (EPC) in a comprehensive projections exercise based on the latest EUROSTAT population projections<sup>34</sup>.

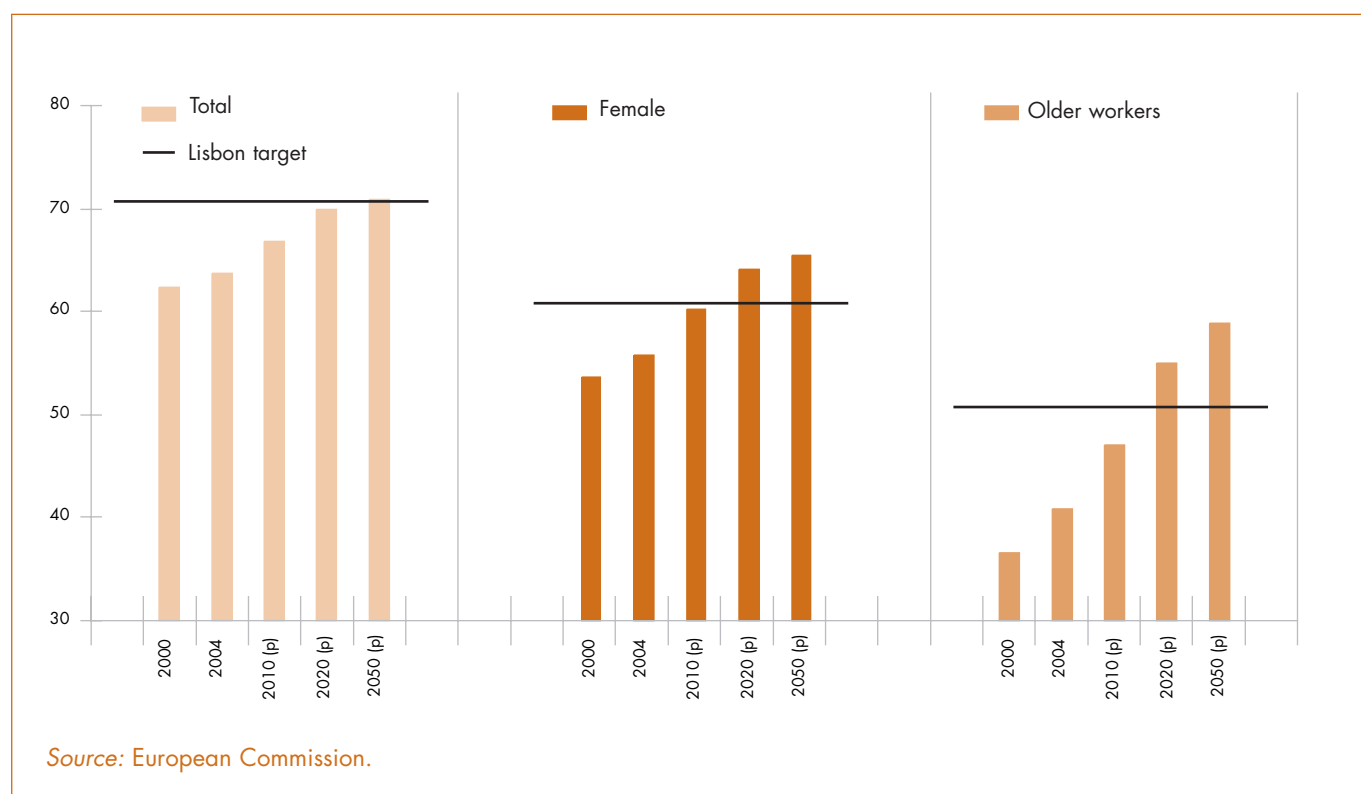
### 3.2. Employment trends

Although the population of working age (aged 15-64) is already expected to decline from 2011 onwards, total employment in the EU-25 is expected to grow up to 2017 thanks to rising labour force participation. According to the projection, which is based on current policies, the overall employment rate of the EU-25 would rise from 63% in 2004 to 67% by 2010 and to 70% by 2020: the EU would thus reach the overall Lisbon employment target, but ten years behind schedule, see Figure 3.1.

The projected increase in the employment rate will occur for two main reasons:

1. Female employment rates are projected to rise from just over 55% in 2004 to almost 65% by 2025, remaining stable thereafter. The increase will come for the most part from cohort effects: older women with low participation rates will be replaced by younger women with a higher educational attainment and consequently a stronger attachment to the labour market; furthermore, policies to increase the availability of child care and other family-friendly measures will also have a positive effect;
2. The employment rates of older workers are projected to increase massively from 40% in 2004 for the EU-25 to 47% by 2010 and 59% in 2025. This increase in the employment rate of older workers, observed since 2000, marks a significant reversal of the decades-long trend towards earlier withdrawal from the labour force. Older workers have accounted for three-quarters of all employment growth in the EU in recent years, and about half of the projected increase is due to the positive effects of recent pension reforms that have curtailed access to early retirement schemes and improved financial incentives for older workers to remain in the labour market.

34. See 'The impact of ageing on public expenditure: projections for the EU-25 Member States on pensions, healthcare, long-term care, education and unemployment transfers (2004-2050)', *European Economy, Special Report, No 1*, 2006.  
[http://ec.europa.eu/economy\\_finance/publications/european\\_economy/2006/eespecialreport0106\\_en.htm](http://ec.europa.eu/economy_finance/publications/european_economy/2006/eespecialreport0106_en.htm).  
For the assumptions underlying the projection, see 'The 2005 EPC projections of age-related expenditure (2004-2050) for the EU-25 Member States: underlying assumptions and projection methodologies', *European Economy Special Report, No 4*, 2005:  
[http://europa.eu.int/comm/economy\\_finance/publications/european\\_economy/2005/eesp405en.pdf](http://europa.eu.int/comm/economy_finance/publications/european_economy/2005/eesp405en.pdf).

**Figure 3.1** Projected employment rates and Lisbon targets

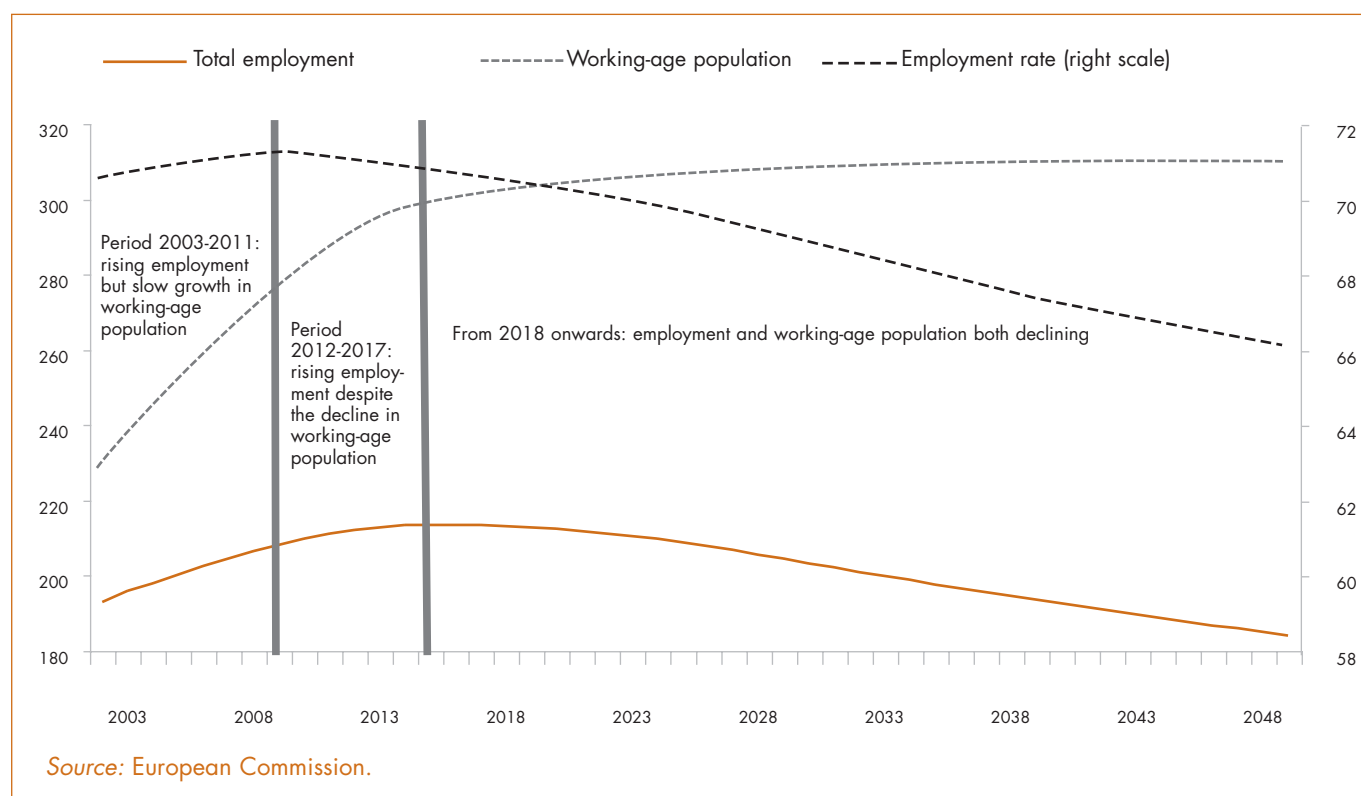
In Figure 3.2 three phases can be distinguished:

1. Between 2004 and 2011, there is scope for significant employment and economic growth as both the population of working age and employment rates are expected to increase.
2. Between 2012 and 2017, rising employment rates can offset the decline in the size of the working-age population brought about by the baby boom generation entering retirement and being replaced by much smaller younger cohorts (due to the decline in fertility). The overall number of persons employed in the EU will continue to increase, albeit at a slower pace, and this period could be characterised by tightening labour market conditions.
3. After 2018, the ageing effect will dominate. By then, the cohort trend towards higher female employment rates will broadly have come to an end putting an even higher pressure on active measures to increase employment among women. In the absence of further reforms to increase the labour force participation of older workers (and raise the effective retirement age), no significant further increases in the employment of

older workers can be expected either. Consequently, the declining size of the working age population must be expected to translate into declining total employment and reduced growth prospects. Having increased by some 20 million between 2004 and 2017, employment during this last period is projected to contract gradually by almost 30 million until 2050.

The demographic dividend of the baby boom (i.e. the fact that these large cohorts are of working age) combined with the current positive employment rate trends constitute a 'window of opportunity' lasting until about 2017, in which structural reforms to prepare for the longer-term impact of ageing can be pursued under relatively favourable growth conditions.

At the same time, differences in employment rates between urban and rural areas will remain vital and significant. This especially concerns the participation of women and young people in the labour markets. The continued modernisation and restructuring of Europe's agricultural sector will place a heavy burden on many rural areas and will create challenges to their development, such as the risk of exclusion associated with lack of skills and low incomes and the management of the restructuring process.

**Figure 3.2** Projected working age population and total employment, EU-25

### 3.2.1. Ageing of the labour force and labour market bottlenecks

A recent study<sup>35</sup> for the Commission looked at possible imbalances in the labour market during the next decade given the expected slow growth or even decline in the working age population and the ageing of the workforce. The focus was on the demand for labour by education/skill level and by sector and on the supply of labour to meet this demand. Future labour demand and supply in 2014 were projected assuming that the trends observed between 1994 and 2004 will continue.

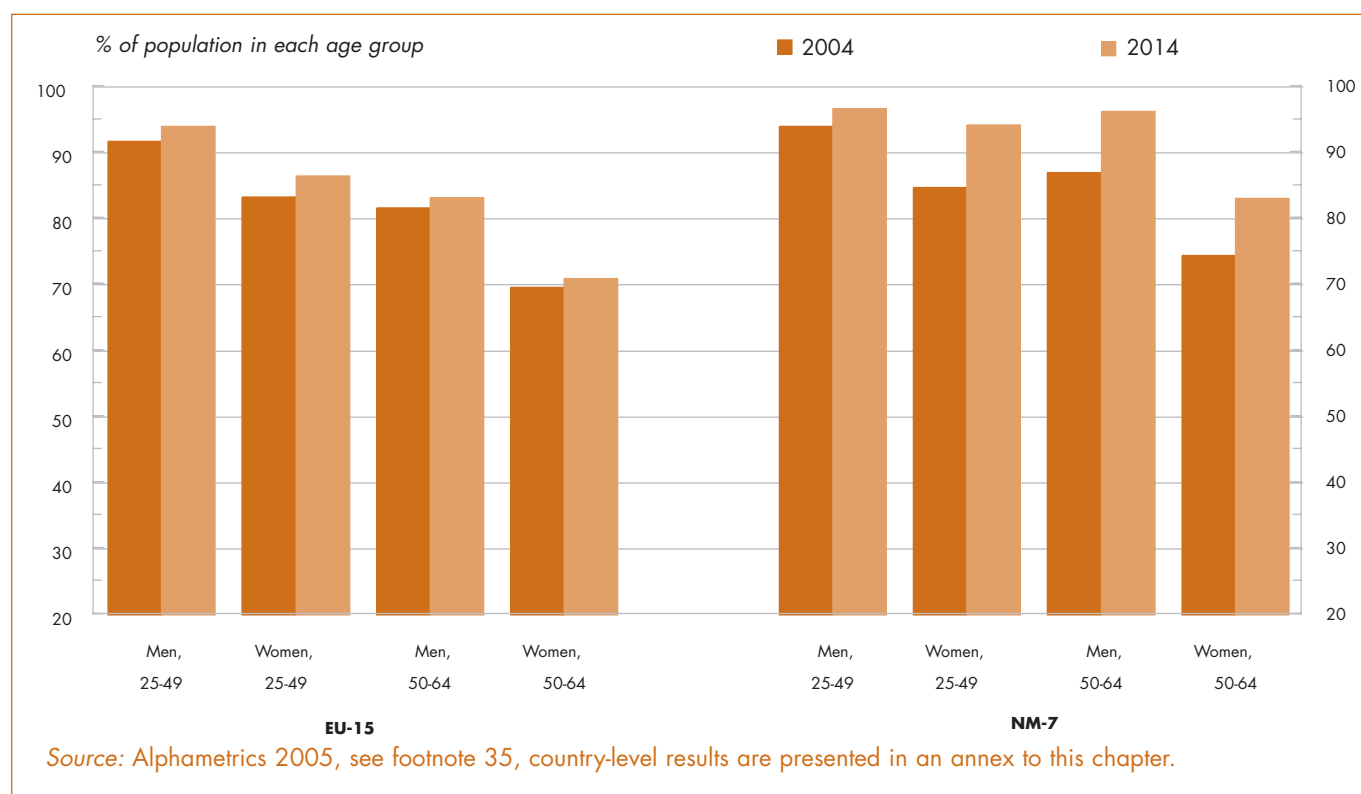
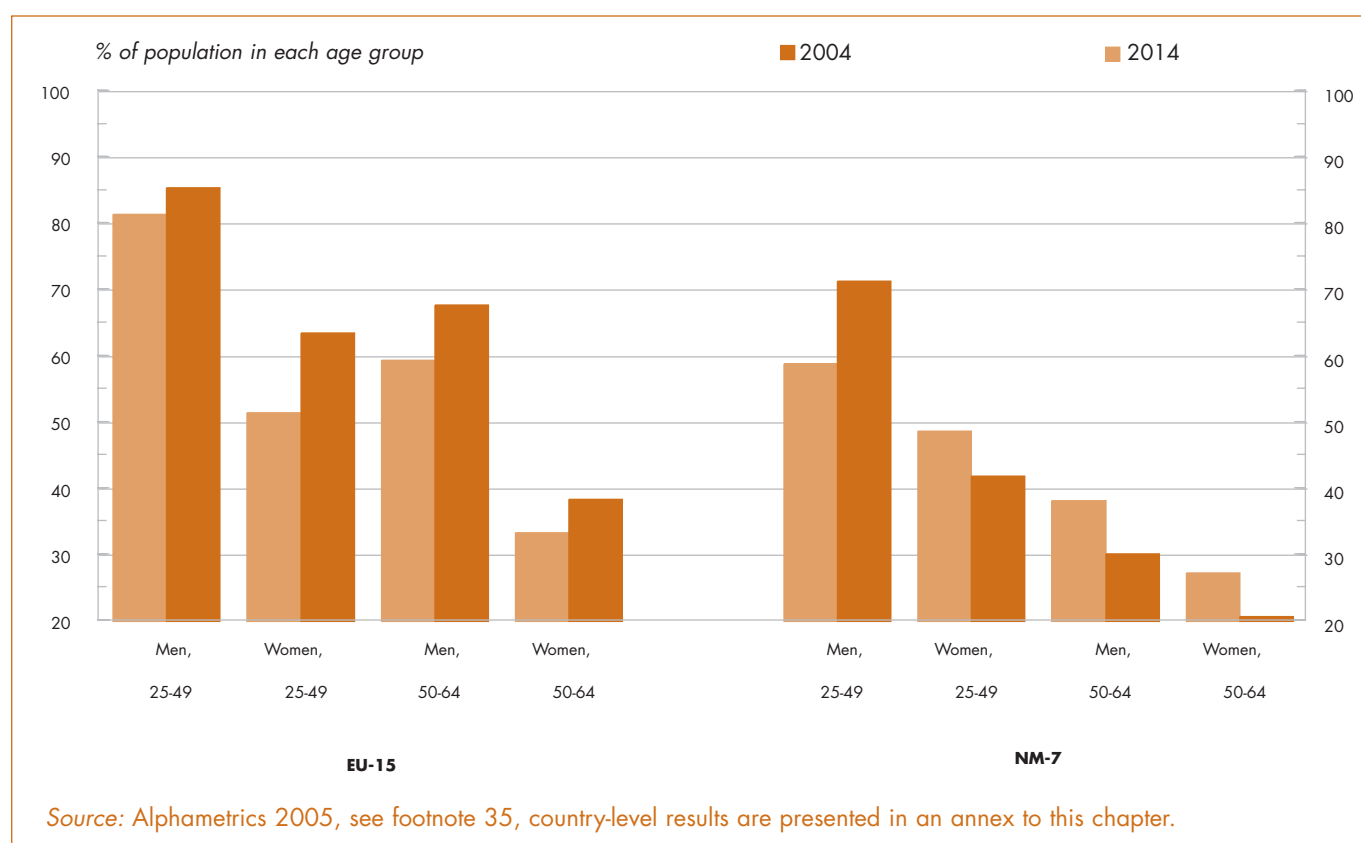
The study finds that labour demand will increase relative to supply for the more highly educated people, especially in the EU-10. At the same time there will also be considerable replacement demand for less skilled people, especially in EU-15 countries. See also Figures 3.3 and 3.4. The study underlines that policy needs to focus on expanding the number of persons with tertiary education not just in the new Member States but also in states where demand is projected to run ahead of supply (for example Denmark, Germany, Spain, Italy, the Netherlands, Finland and Sweden). The study also highlights that policy must

focus on ensuring that employment rates are increased among women and those over 50. Moreover, higher employment rates among women and older workers need to be supported by ensuring lifelong access to suitable training and by providing support in the form of childcare and elderly care to make it possible for people to work.

Given that low-skilled jobs are not going to disappear there could be future bottlenecks in the commercial services and in the health and long-term care sectors. This could perhaps be avoided by improving the attractiveness of less qualified jobs, not only in terms of pay but also in terms of general working conditions. In the UK for instance, the employment rate of low-skilled women is (surprisingly) lower than the EU average even though the average employment rate for women in the UK is above the EU average. This is probably caused by a lack of affordable child care for women in this category. This evidence of the need to improve the attractiveness of low-skilled jobs confirms the present direction of the European Employment Strategy, which is as much concerned with job quality as with getting more people into work. The expected demand for less-skilled workers may also imply a need to reconsider immigration policy.

35. *The implication of demographic trends for employment and jobs*, 'Walter' demographic impact study by Alphametrics Ltd for the European Commission, November 2005, see [http://ec.europa.eu/employment\\_social/social\\_situation/studies\\_en.htm](http://ec.europa.eu/employment_social/social_situation/studies_en.htm).



**Figure 3.3** Projected required increase in employment rates among those with tertiary education in the EU-15 and NM-7 in 2014**Figure 3.4** Projected required increase in employment rates among those with low education in the EU-15 and NM-7 in 2014

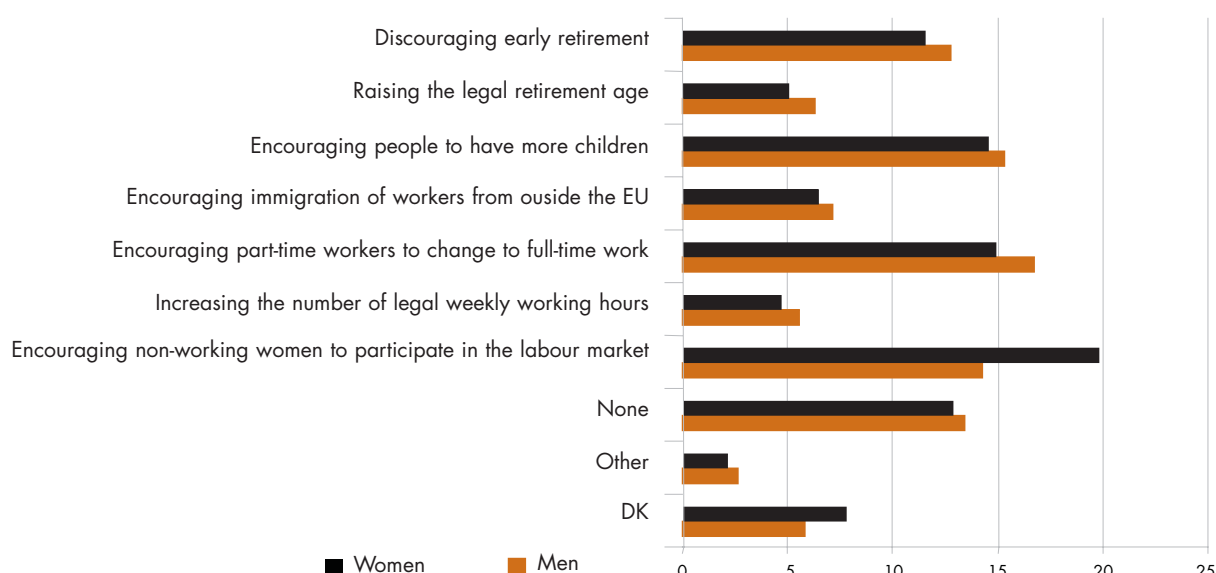
### BOX 3.1 Public preferences for how to best tackle potential labour force shortages

The 2006 Eurobarometer on fertility and ageing<sup>36</sup> contained a question concerning possible solutions to the future problem of shortages in the workforce due to population ageing. The most popular solutions in the EU-25 are a switch from part-time to full-time working (around 15% of the answers) and raising the labour force participation of women (14% and 20% of responses among men and women, respectively).

The idea that a higher number of children per family will ease the problem of shortages in the workforce also receives relatively strong support (15%). An increase in the number of working hours per week receives the fewest mentions (5%). In addition, increasing the legal retirement age or the number of immigrants from non-EU countries is not very popular either (slightly more than 5% of respondents chose these options).

#### Which of the following suggestions aimed at solving potential shortages in the workforce do you agree with most?

(% of respondents in the EU agreeing with the suggestions, maximum of two choices)



Source: Eurobarometer 2006.

### 3.2.2. Ageing, productivity and prospects for economic growth

Falling employment levels as a result of a shrinking working-age population will act as a drag on economic growth. Using prudent assumptions for the evolution of productivity based on trends observed in recent decades, the Economic Policy Committee and the European Commission project that the EU-25 will see a decline in the annual average potential GDP growth rate from 2.4% in the period 2004 to 2010 to only 1.2% in the period 2031-2050. For the EU-10, the decline is much steeper, in part due to their less favourable demographic pros-

pects. For the EU-15, labour productivity is on average projected to be 1.7% for the period 2010 up to 2050. A higher productivity rate is projected for the EU-10 countries: on average 3.1% for the period 2011-30 and 1.9% between 2031 and 2050, thus allowing them to converge towards the level of economic performance in the EU-15 Member States.

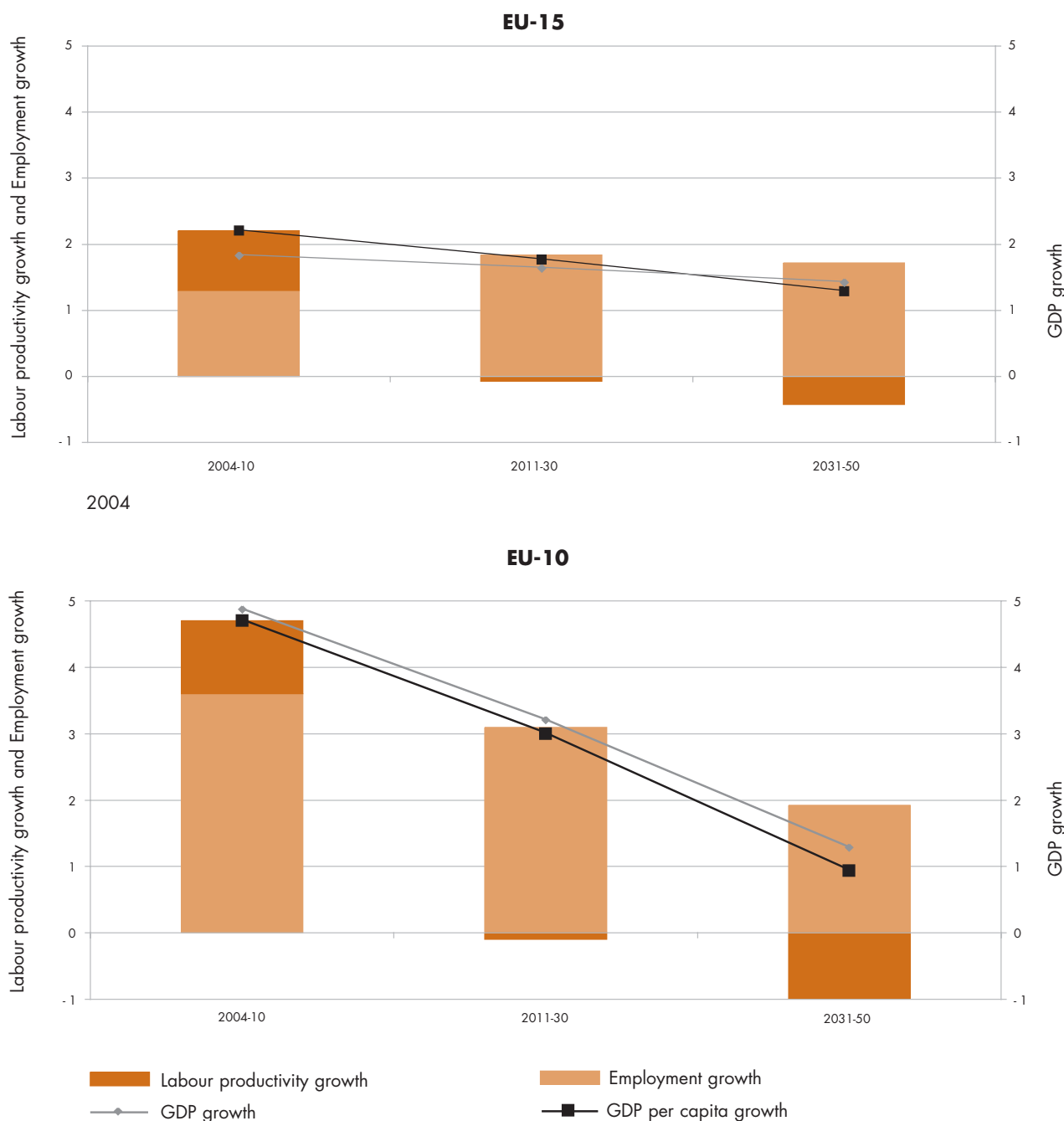
Bringing together the labour force projections and the assumptions about future productivity growth allows for a projection of future GDP growth rates (see also Figure 3.5). For the EU-15, annual average potential GDP growth rate is projected to decline from 2.3% in the

36. Testa M. R. 'Childbearing preferences and family size issues in Europe', VID Report on the special Eurobarometer, No 253, wave 65.1 and 65.31, TNS Opinion & Social for the EC, 2006.

period 2004-2010 to 1.3% between 2031 and 2050. For Euro area countries such as Germany, Greece, Spain, Italy, Austria, Italy and Portugal, potential annual growth rates are expected to drop to only 1%.

An even steeper decline is foreseen in the EU-10, from 4.3% in the period 2004-2010 to 0.9% between 2031 and 2050, reflecting their less favourable demographic prospects.

**Figure 3.5** Projected (annual average) GDP growth rates in the EU-15 and EU-10 and their determinants (employment/productivity)



Source: European Commission.

### 3.2.3. The impact of ageing on future productivity

Once employment has stopped growing (due to a shrinking working age population and employment rates leveling out), the only source of GDP growth will be productivity. Several commentators have suggested that an individual's productivity may decline with age, and that consequently a rising share of older workers in the labour force would automatically reduce overall labour productivity in the economy. It is also feared that older workers may be less likely to embrace innovation, more resistant to the introduction of new technologies and that ageing societies may also be less inclined to make long-term investments, notably in education and R&D.

Recent simulation analysis carried out as preparatory work for the joint European Commission – Economic Policy Committee projections shows that the negative effect of a change in the age structure of the population on productivity is likely to be fairly limited. While it is accepted that an individual's labour productivity is expected to decline after the age of 55, a very strong fall in the productivity of older workers compared with that of prime-age workers would be required to significantly depress total labour productivity. On the basis of the current evidence, such an outcome appears rather unlikely. Macro-simulations show that to get a 5% decline compared with the baseline productivity level (i.e. a 0.1 percentage point decline in annual average productivity growth rates) one would need to

assume that the productivity of those aged 50-54 and 55-64 respectively is only 70% and 50% of that of prime-age workers, which is obviously very pessimistic.

It is important to recognise that productivity is much more than a simple property calculated by summing up individual inputs: it is rather a system attribute that cannot be separated from its social context. Changes in the educational and age composition of the workforce are the central explanatory factors for productivity growth. Ultimately, it is the composition of human capital in combination with technology that determines the growth potential of an economy.

This macro-finding of the European Commission, Directorate-general for Economic and Financial Affairs is more or less confirmed in a recent micro-productivity study that was carried out for the European Commission<sup>37</sup>. The study found an inverted U-shaped relationship between individual productivity and age and also found, for most workers but not for all, significant decreases in productivity after the age of 50. The reason for this is likely to be age-related reductions in cognitive abilities, while experience can boost productivity up to a point beyond which additional tenure has little effect. Older persons become less quick (dexterity) and may experience a decline in their memory and reasoning abilities, see Table 3.1. In addition, senior workers may also find it more difficult to adjust to new ways of working.

**Table 3.1** Average ability measured as deviation and scaled by standard deviation from ability levels of 25-34-year-olds

Age	Numerical ability	Managerial ability	Clerical perception	Finger dexterity	Manual dexterity	Experience
- 19	- 0.30	- 0.17	0.14	0.05	0.16	- 0.40
20-24	- 0.11	0.00	0.17	0.10	0.35	- 0.40
25-34	0.00	0.00	0.00	0.00	0.00	0.00
35-44	- 0.39	0.00	- 0.28	- 0.40	0.05	0.27
45-54	- 0.63	0.00	- 0.55	- 0.92	- 0.49	0.27
55-65	- 0.85	0.00	- 0.80	- 1.42	- 0.94	0.27

Source: Bombsdorf and Babel, see footnote 37.

Educational attainment clearly has a strong effect on productivity and could very well compensate for the negative effects of ageing on productivity in the longer run. The study found that an extra year of education could increase productivity by 20%, which is larger than the 8-10% that is typically found in the literature.

On the basis of mining and manufacturing data from Sweden, the study found that in some local labour markets the productivity of 50-59-year-old workers was in fact

continuing to increase. The older workers were not as productive as prime-aged workers but they were clearly more productive than the youngest workers. These older workers were experienced and highly skilled and they were working with modern capital equipment. This is potentially an important result because it indicates that the proper matching of available skills through well-functioning labour markets may be as important as education for maintaining the productivity of an ageing workforce. A labour market with a young labour force is usually charac-

37. This section is based on 'The Impact of Population Ageing on Innovation and Productivity Growth in Europe', 'Walter' demographic impact study by VID and IFS, November 2005, see [http://ec.europa.eu/employment\\_social/social\\_situation/studies\\_en.htm](http://ec.europa.eu/employment_social/social_situation/studies_en.htm).

terised by high job turnover, which is also costly and reduces value added per employee. A labour market with an old labour force no longer needs such high turnover provided the older workers have been well matched. In purely quantitative terms, industrial restructuring and reallocation of labour are likely to be much more important for future productivity than the age composition of the labour force.

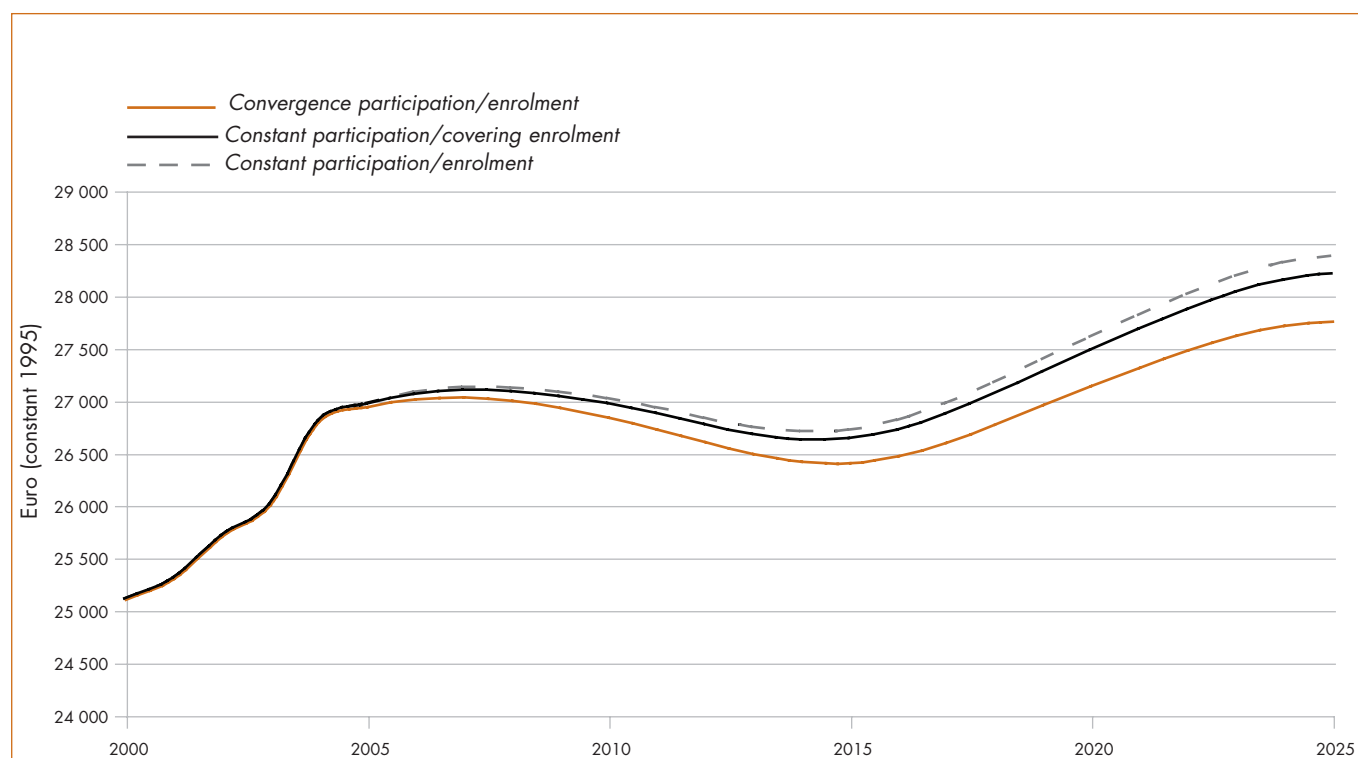
If the result found above for Swedish industrial workers has a more general validity, then past policies encouraging early retirement could have lowered aggregate productivity in many European firms. Moreover, even if older workers have a lower productivity than the prime workforce, raising their participation rates would still increase per capita income simply because more older workers would be able to earn their own living to a larger extent.

With the help of the microeconomic results found for Sweden, the study is able to draw country-specific conclusions with respect to future income growth prospects. These prospects could still be fairly good over the next 20 years. The study estimates that between 2005 and 2025 projected growth rates of labour productivity may rise from slightly below 1% to over 2% as participation rates converge to those of the best performing countries. The expected rise in participation will automatically generate an increase in the average level of educational

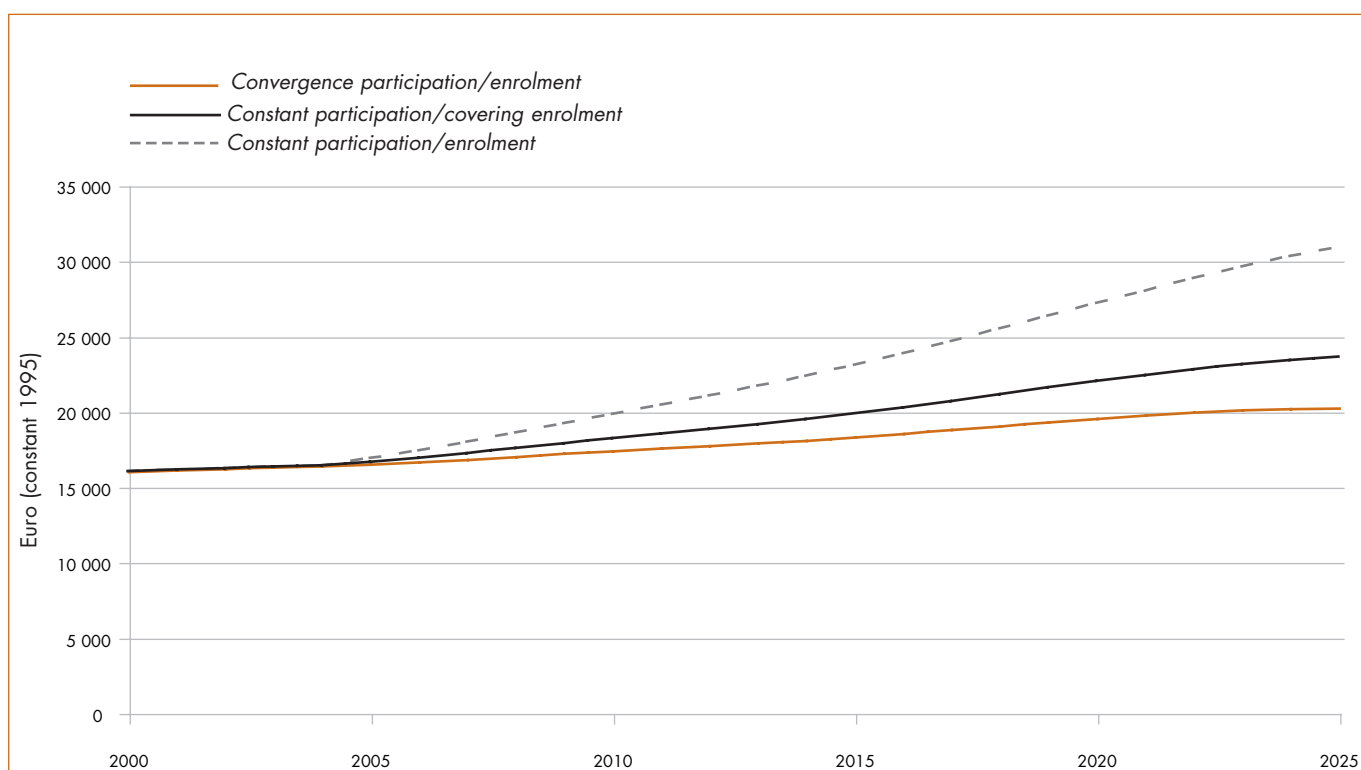
attainment of the workforce. After 2025, however, there is a risk due to declining productivity growth in the absence of further improvements in participation rates and education enrolment rates. To maintain fast productivity growth beyond 2025 requires an extra effort to make sure that educational achievement levels throughout the EU reach the levels of today's best performing countries.

This implies that future income trends for individual Member States will depend very much on their actual participation rates, educational attainment and age structure. For instance, in Sweden (see Figure 3.6), the automatic increase in educational levels will help to increase GDP per capita over the coming years but this may not be enough for a continued increase. Labour force participation rates are already high in Sweden and the growth potential available through increased labour force participation will therefore be more difficult to achieve. On the other extreme is Austria, see Figure 3.7, which has a very high educational level but whose labour force participation rates for older workers are among the lowest in the EU. The growth potential of labour market reforms aimed at increasing these participation rates is therefore high for Austria. For Italy, see Figure 3.8, both policies (increasing educational levels and labour force participation) appear appropriate and would help to increase GDP per capita over the coming decades.

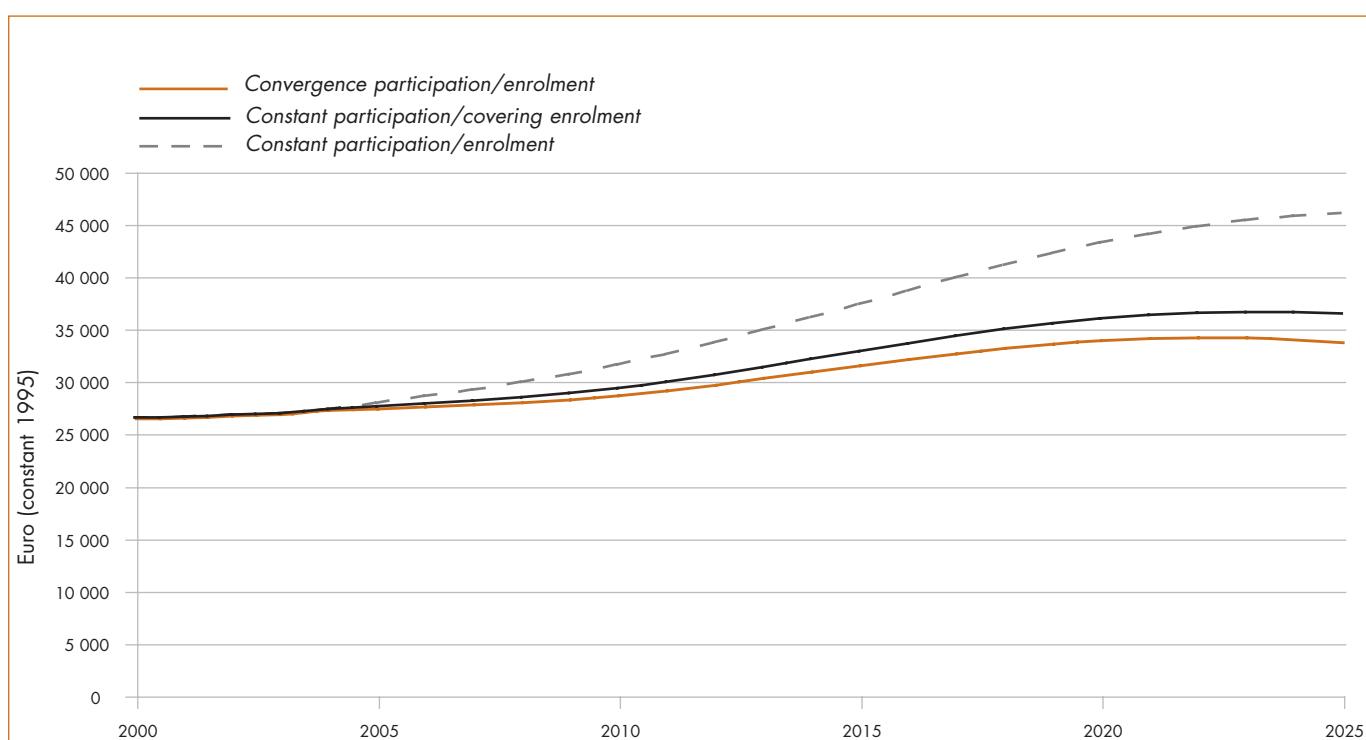
**Figure 3.6** Sweden, GDP per capita



Source: Impact of population ageing on innovation and productivity growth in Europe, see footnote 37.

**Figure 3.7** Italy, GDP per capita


Source: Impact of population ageing on innovation and productivity growth in Europe, see footnote 37.

**Figure 3.8** Austria, GDP per capita


Source: Impact of population ageing on innovation and productivity growth in Europe, see footnote 37.

The problem of an ageing workforce for future productivity often appears to be exaggerated. The negative effects of ageing per se are not particularly strong and can be more than offset by higher education levels, although this can only be achieved over relatively long time spans. Instead of focussing on whether productivity declines with age, a more relevant question is how to adapt education and lifelong learning policies in the context of an ageing society. Ageing should actually increase the economic returns to education, as the benefits of higher productive potential can be exploited over a longer time horizon, provided skills are updated throughout working life.

The discussion of the demographic dividend has shown that changes in relative cohort size are likely to exert an important impact on economic growth. The simulation results in the box below indicate the order of magnitude

of these age-related effects for the future. The general conclusion is that it will be hard to avoid a decline in GDP growth rates, but that this decline will be more severe in demographic scenarios that imply slow or even negative rates of workforce growth. Policies aimed at ensuring an expansion, or at least non-negative growth, of the working age population can thus be recommended. Preferably, such policies should both encourage immigration and aim to restore fertility rates to near-replacement level. The projections imply negative, but not catastrophic effects of population ageing on per capita GDP growth rates. Moreover, analysis of the growth forecasts based on different population scenarios shows that the forecast outcomes are not very sensitive to different demographic assumptions. Restricting immigration, though, would come at the price of somewhat lower per capita income growth.

### BOX 3.2 The effect of future demographic change on economic growth in the EU<sup>38</sup>

The researchers estimated a separate growth model for each of the EU-25 countries in which a major part of past economic growth could be explained by change over time in the relative size of the various cohorts that make up the working age population. In a next step, this model was fed with the latest Eurostat population projections and used to generate future GDP growth rates. The results were calculated for five different Eurostat variants: 1) the base line scenario; 2) the baseline scenario with zero migration to analyse the effect of migration; 3) the baseline scenario with a high fertility assumption to analyse the effect of higher fertility; 4) the high scenario with low life expectancy to maximise the number of young, and 5) an old scenario which combines low fertility with high life expectancy to maximise the number of old. Figure 3.10 presents the aggregate results for the EU<sup>39</sup> for the five different scenarios.

The general long-term trend in growth rates is downward, primarily because of the negative effect of an increasing share of the older population. More people over 65 implies a lower growth rate in GDP per worker and has a depressing effect on GDP per capita due to the declining share of the working age population.

The high fertility variant leads to a growth rate after 2030 that is 0.2% larger than the original base line. The variant with the maximum number of young arrives at a 0.3% higher growth rate. The zero migration variant leads to a 0.4% lower growth rate whereas the variant with the maximum number of elderly generates a 0.5% lower growth rate. In general the negative effects of more ageing and/or less migration are larger than the positive effects of higher fertility and lower life expectancy.

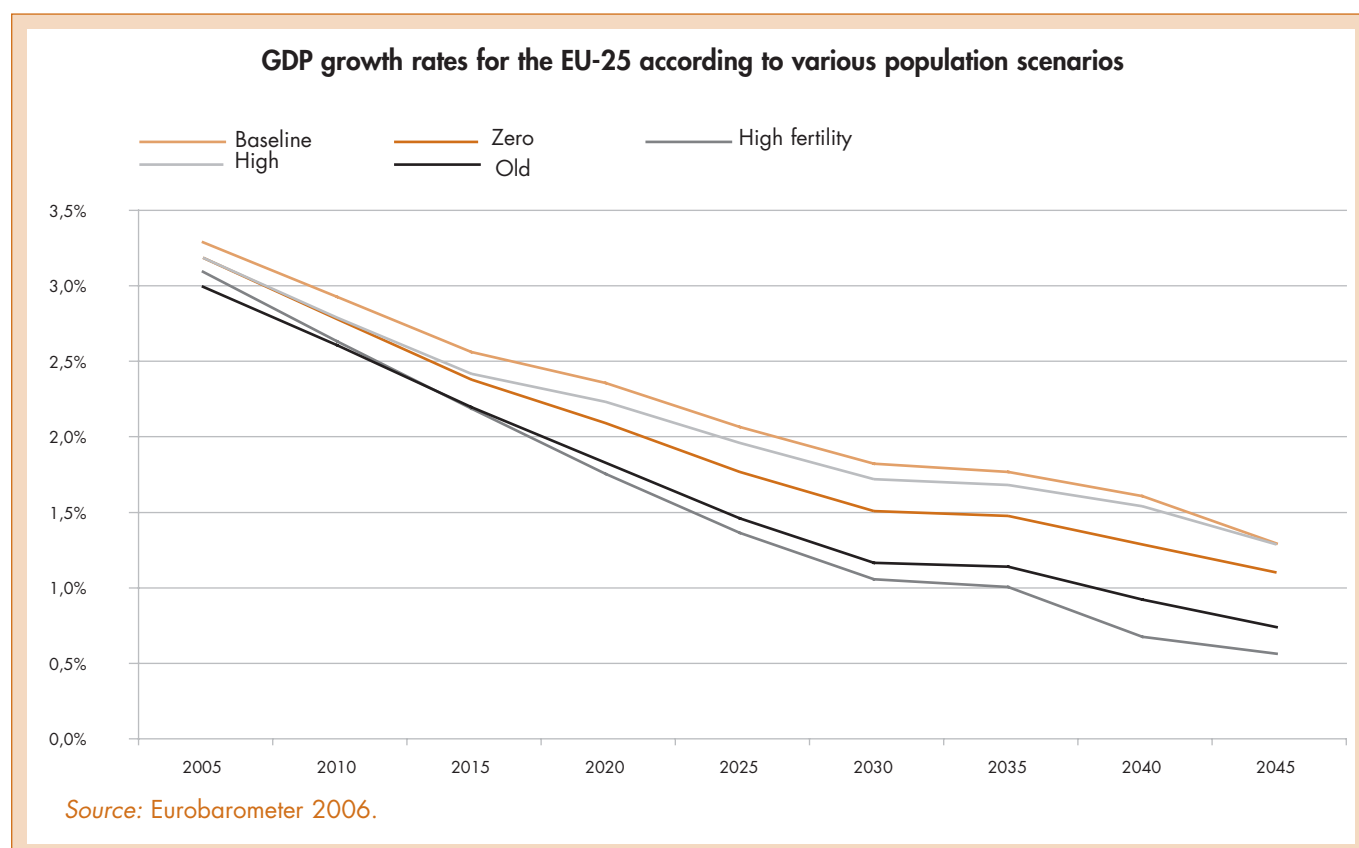
These are ceteris paribus results assuming that increased life expectancy has no effect on the economic behaviour of individuals. However, recent research suggests that such an assumption is probably unwarranted. Instead, longer life expectancy can result in increased investment in education, increased savings rates and, possibly, a higher optimal rate of retirement. Thus, the negative effects on GDP growth rates should perhaps be seen as the outcome of a scenario where such adaptations to higher life expectancy are impeded by bad policies. The zero migration scenario<sup>40</sup> has a relatively strong negative effect on the per capita income growth rate for countries that today have positive net migration.

38. 'The relationship between demographic change and economic growth in the EU' by A. Prskawetz, Th. Fent, W. Barthel of Vienna Institute for Demography, J. Crespo-Cuaresma of Vienna University and Th. Lindh, B. Malmberg, M. Halvarsson of the Institute for Future Studies, 'Walter' demographic impact study 2006, forthcoming.

39. Luxembourg and Cyprus had to be excluded due to the lack of demographic and initial income data respectively.

40. The Eurostat baseline projection makes very different assumptions about trends in net migration for different countries. For instance, in 13 of the EU-15 countries, Eurostat assumes declining net migration, the exceptions being NL and FI.





### 3.3. Challenges to public finances and intergenerational solidarity

The challenge of demographic ageing not only consists in ensuring that Europe's economy can continue to grow thanks to higher labour force participation and strong productivity growth. The issue of a declining working age population may be less difficult to tackle than the problem of providing adequate resources for an increasing number of older people who need adequate pensions and health and long-term care. The changes in demography therefore constitute a major challenge for public finances and social cohesion, which is illustrated by the fact that in 2050 there will be two working-age people per elderly citizen as opposed to the current ratio of four to one.

The long-term projections carried out by the Economic Policy Committee and the European Commission show that the pension, health and long-term care costs linked to the ageing population will lead to significant increases in public spending in most Member States by 2050. Many Member States have already carried out reforms which put them on the path to greater sustainability, but substantially increased expenditure on pensions is still projected for some countries. On the basis of current policies, total age-related public expenditure is projected to increase by

3.4 percentage points of GDP, while expenditure on pensions, health and long-term care alone is projected to increase by 4.4 percentage points for the EU-25 and up to 10 percentage points in some Member States<sup>41</sup>.

#### 3.3.1. Pensions

The trends for pensions are presented in Table 3.2.

Public and private spending on pensions, which in 2003 averaged 13% of GDP in the EU, has ensured that being old is no longer associated with being poor or dependent on one's children (see Table 3.2). This has mainly been achieved through the provision of public pensions (amounting to about 10% of GDP). Public spending on pensions is projected to increase in most countries; in some, it is projected to decrease because a part of it is being shifted into private pension savings. Despite this shift to private provision, and the need to ensure well functioning, competitive and open pension and retirement markets, the adequacy of retirement income will continue to be a public responsibility. However, there are significant differences across Member States as far as the fight against poverty in old age is concerned and poverty risks among older people generally remain somewhat higher than for the rest of the population (see also Figure 3.9 on poverty risks).

41. See Economic Policy Committee/European Commission: 'The impact of ageing populations on public spending on pensions, health and long-term care, education and unemployment benefits for the elderly', February 2006, available under: [http://europa.eu.int/comm/economy\\_finance/epc/epc\\_sustainability\\_ageing\\_en.htm](http://europa.eu.int/comm/economy_finance/epc/epc_sustainability_ageing_en.htm). The focus of these projections is forward-looking and they are not directly comparable with ESSPROS figures as they do not include occupational private expenditure and private healthcare.

**Table 3.2** Projected change in spending on public pensions (in % of GDP)

	2004	2030	2050
	Level	Change from 2004	
BE	10.4	4.3	5.1
CZ	8.5	1.1	5.6
DK	9.5	3.3	3.3
DE	11.4	0.9	1.7
EE	6.7	- 1.9	- 2.5
EL	:	:	:
ES	8.6	3.3	7.1
FR	12.8	1.5	2.0
IE	4.7	3.1	6.4
IT	14.2	0.8	0.4
CY	6.9	5.3	12.9
LV	6.8	-1.2	- 1.2
LT	6.7	1.2	1.8
LU	10.0	5.0	7.4
HU	10.4	3.1	6.7
MT	7.4	1.7	- 0.4
NL	7.7	2.9	3.5
AT	13.4	0.6	- 1.2
PL	13.9	- 4.7	- 5.9
PT	11.1	4.9	9.7
SI	11.0	3.4	7.3
SK	7.2	0.5	1.8
FI	10.7	3.3	3.1
SE	10.6	0.4	0.6
UK	6.6	1.3	2.0
EU-25	10.6	1.3	2.2

Source: Economic Policy Committee and European Commission.

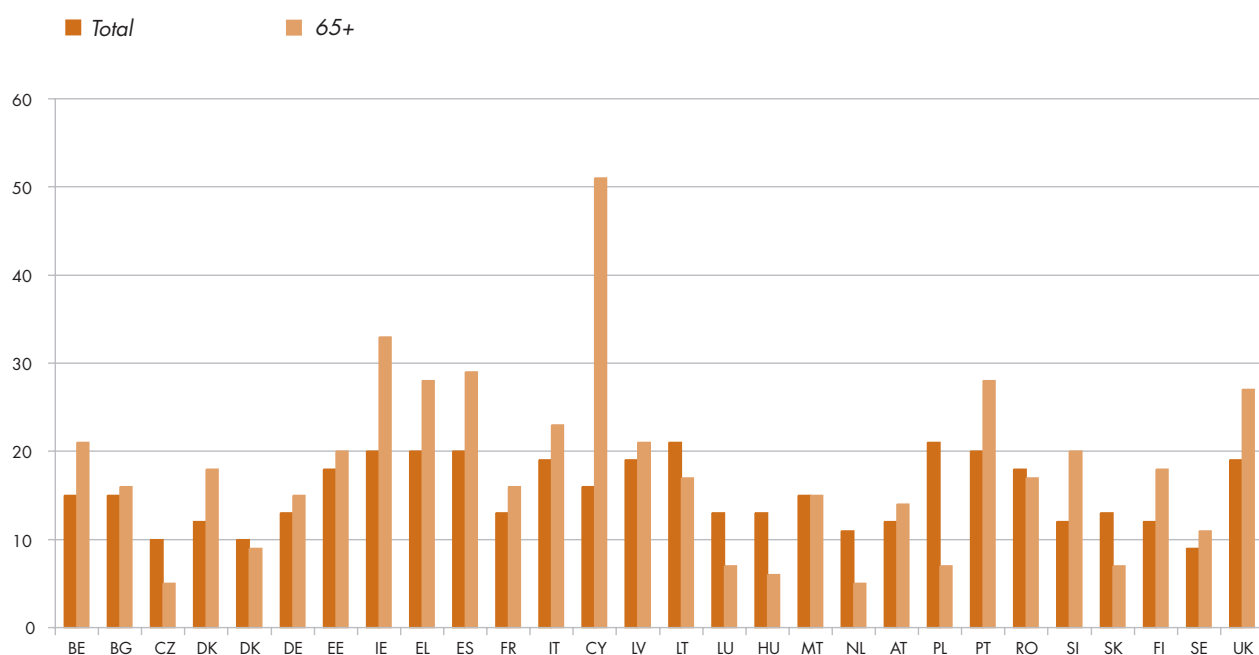
Pension systems aim not only to ensure that older people do not have to live in poverty, but also provide arrangements to allow them to maintain a living standard after retirement that is not too far off from what they enjoyed during their working lives. Earnings related pensions are essential in this respect and in future will continue to be the main source of pension income for retired people. Thanks to pension entitlements that generally provide 60-70% of an individual's income upon retirement, older people enjoy living standards relatively close to that of the general population, generally ranging between 75% and 90% of that of the 0-64 population. However, there are significant differences between men and women as a result of differences in past earnings due to different employment histories. In some countries, credits have been introduced for periods devoted to care.

Future levels of pensions in relation to earnings (income replacement levels) will depend firstly on the pace of accrual of pension entitlements, which is linked to developments in the labour market, and on the maturation of pension schemes. On the whole, pension schemes (in particular statutory schemes) currently manage to ensure adequate income replacement levels after a full career in most Member States. In certain cases, however, current average pension levels turn out to be low compared to current earnings, reflecting low coverage or low income replacement under statutory schemes, as well as maturing pension systems and incomplete careers or under-declaration of earnings in the past.

The work carried out on future replacement rates by the Indicators' Sub-Group of the Social Protection Committee<sup>42</sup> suggests that reforms of statutory schemes may reduce replacement rates at given retirement ages. Pensions are generally indexed to prices, which means that they generally lag behind the evolution of wages. This can translate into significant reductions in theoretical replacement rates upon retirement. On the other hand, rising female labour force participation and longer working lives in all Member States will result in higher average pensions. In southern and eastern Member States, economic modernisation and corresponding employment changes will also lead to better pension outcomes in the future. These structural developments could offset the trend towards less generous benefit rules to a significant extent. However, other factors could also work in the opposite direction, for example further postponement of entrance to the labour market or an increase of periods of unemployment.

Several countries have extended – or are in the process of extending – the period of earnings history used for calculating the pension entitlement. Thus, instead of using the years of highest earnings towards the end of the career, earnings over a much longer period or even the entire career are taken into account (i.e. going from a final wage system to an average wage system). This will usually lead to lower pension levels, particularly if past earnings are not fully adjusted for (nominal) wage growth. Pension levels can also be lowered by adjustments to the formula used to calculate benefits. One significant development has been the introduction of a demographic adjustment factor as in the Swedish scheme where rising life expectancy will lower the replacement rate unless people postpone their retirement. Mechanisms to take into account the ratio between the employed and retired are also being developed. Such reforms provide strong incentives for people to postpone retirement in line with rising life expectancy until they can get an adequate pension.

42. See [http://ec.europa.eu/employment\\_social/social\\_protection/docs/2006/sec\\_2006\\_304\\_horizontalanalysis\\_en.pdf](http://ec.europa.eu/employment_social/social_protection/docs/2006/sec_2006_304_horizontalanalysis_en.pdf).

**Figure 3.9** Risk of poverty amongst older people (ceiling at 60% of the median)

Source: HBS for BG and RO, EU-SILC for others. Income reference year 2004.

Notes: At-risk-of-poverty rates are defined as the share of persons with an equivalised disposable income below an at-risk-of-poverty threshold. Equivalised disposable income is defined as the household's total disposable income divided by its 'equivalent size' to take account of its size and composition. The at-risk-of-poverty threshold is set at 60% of the national median equivalised disposable income. It must be noted that income generated from owner-occupied housing or housing at below market rents – i.e. imputed rent – is not included in the definition of income. Inclusion of this element of income could make a significant difference in the measurement of risk-of-poverty rates.

Europe's future ability to provide adequate pensions to the ageing baby boom cohorts will crucially depend on whether the effective retirement age can be raised again. Pension systems must also make the relationship between contributions and benefits more transparent and be adapted to increasing life expectancy. While in the 1960s it was normal to retire well after 60, workers left the labour markets increasingly earlier during the 1970s and 1980s and, although this trend now seems to have reversed, the average ages upon leaving the labour market are still below the levels of the late 1960s. Moreover, the employment phase of the life-cycle has been compressed by longer periods spent in education.

While the number of years in employment has declined since the 1960s, life expectancy at 60 increased within the EU-25 by around 4 years between 1960 and 2000 (from 15.8 years to 19.3 years for men and from 19 years to 23.6 years for women). The most recent Eurostat projections are based on a further increase of four years in life expectancy at 65 between 2004 to 2050 (an additional 4.4 years for men and 3.9 years for women)<sup>43</sup>.

In short, contribution years have decreased over the past decades while the years in receipt of benefits have increased and could continue to increase. Pension reforms that restore the balance between contribution years and years of benefit receipt will make a major contribution towards preventing poverty in old age at a time when the number of pensioners will be much larger than today.

### 3.3.2. Health and long-term care

The probability of needing health and long-term care increases with age, with most care needs concentrated during the final years of life. The main consumers of health and long-term care are therefore people over 80 whose share in the total population according to the Eurostat population projection will rise from 4.1% in 2005 to 6.3% in 2025 and to 11.4% in 2050, mainly due to further increases in life expectancy, falls in fertility rates and the effect of the baby boom generation reaching old age. The number of the 80+ in the EU-25 is projected to grow by 58% between 2005 and 2025 (see also Figure 3.10).

43. Joint Report on Social Protection and Social Inclusion, 2006. See [http://ec.europa.eu/employment\\_social/social\\_inclusion/docs/2006/cs2006\\_7294\\_en.pdf](http://ec.europa.eu/employment_social/social_inclusion/docs/2006/cs2006_7294_en.pdf).

Although not age but rather the health status of a person is the main factor behind **healthcare** spending, the Economic Policy Committee projections illustrate that an ageing population would increase the pressure for more public spending in healthcare. It could push up healthcare spending by between 1% and 2% of GDP in most Member States, i.e. an increase of approximately 25% over current spending (see also Table 3.3).

**Table 3.3** Projected change in public spending on healthcare (in % of GDP)

	<b>2004</b>	<b>2030</b>	<b>2050</b>
	<b>Level</b>	<b>Change from 2004</b>	
BE	6.2	0.9	1.4
CZ	6.4	1.4	2.0
DK	6.9	0.8	1.0
DE	6.0	0.9	1.2
EE	5.4	0.8	1.1
EL	5.1	0.8	1.7
ES	6.1	1.2	2.2
FR	7.7	1.2	1.8
IE	5.3	1.2	2.0
IT	5.8	0.9	1.3
CY	2.9	0.7	1.1
LV	5.1	0.8	1.1
LT	3.7	0.7	0.9
LU	5.1	0.8	1.2
HU	5.5	0.8	1.0
MT	4.2	1.3	1.8
NL	6.1	1.0	1.3
AT	5.3	1.0	1.6
PL	4.1	1.0	1.4
PT	6.7	- 0.1	0.5
SI	6.4	1.2	1.6
SK	4.4	1.3	1.9
FI	5.6	1.1	1.4
SE	6.7	0.7	1.0
UK	6.7	0.7	1.0
EU-25	6.4	1.0	1.6

Source: Economic Policy Committee and European Commission.

Improvements in the health status of the elderly are projected to have a large effect on health spending, moderating the projected increase in spending on healthcare due to ageing. If healthy life expectancy would evolve broadly in line with the change in life expectancy, then the projected increase in spending on healthcare due to ageing could be halved. In comparison, less progress has been made

in incorporating other important drivers of spending, mainly on the supply side, into the projection model. Stylised scenarios (see Figure 3.11) indicate that the projected increase in public spending on healthcare is very sensitive to the assumptions regarding the evolution of unit costs and the income elasticity of demand. Healthcare spending around the world is generally already rising at a faster rate than economic growth<sup>44</sup>. Spending on health as a share of GDP could increase rapidly if unit costs (wages, pharmaceutical prices, spending on technologies) grow faster than their equivalents in the economy as a whole, on account of public policies aiming to improve access to health or improve quality (by reducing waiting lists, increasing choice, etc.), or if rising per capita income levels and rising death-related costs lead to increased demand for healthcare services.

The pure ageing scenario assumes that age-specific health spending per capita remains constant over time. The constant health scenario captures the potential impact of improvements in the health of the elderly. The death-related costs scenario combines an increase in healthy life with the fact that most healthcare costs are incurred in the final years of a person's life. The income elasticity scenario assumes that the income elasticity of demand for healthcare exceeds unity. Finally, the Ageing Working Group (AWG) reference scenario shows the impact of a balanced combination of the factors affecting healthcare spending.

### 3.3.3. Long-term care

An ageing population will place a strong upward pressure on public spending for long-term care as frailty and disability rise sharply at older ages, especially amongst the very old (aged 80+). According to the 'AWG reference scenario' based on current policy settings, public spending on long-term care is projected to increase by between 0.1 percentage points and 1.8 percentage points of GDP between 2004 and 2050 (see also Table 3.4). However, this range reflects very different approaches to the provision and/or financing of formal care. The projections are based on the current institutional setting and assume no change in public provision policy.

44. Snapshots: Health Care Spending in the United States and OECD Countries, January 2007  
<http://www.kff.org/insurance/snapshot/chcm010307oth.cfm>.

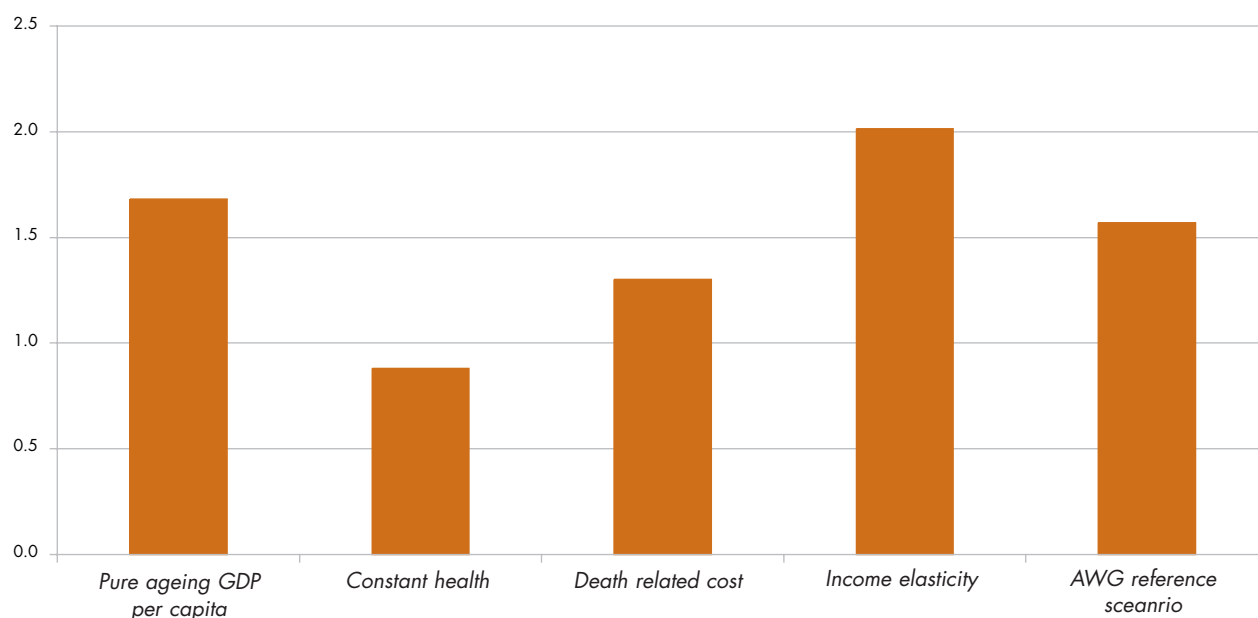
**Figure 3.10** Increase of population 80+ vs. increase of the proportion of the population 80+ in the total population between 2005 and 2025



Source: European Commission.

Note: Increase of the proportion of the population 80+ on right axis.

**Figure 3.11** Projected change in healthcare expenditure between 2004 and 2050 (in % of GDP, EU-25)<sup>45</sup>



Source: Economic Policy Committee and European Commission.

45. European Economy Special Report, No 1, 2006, pp. 108-112.

**Table 3.4** Projected public spending on long-term care (as % of GDP)

	2004	2010	2020	2030	2040	2050	2004-2050
BE	0.9	0.9	1.1	1.3	1.6	1.8	0.9
DK	1.1	1.1	1.2	1.8	2.0	2.2	1.1
DE	1.0	1.0	1.2	1.4	1.6	2.0	1.0
EL	:	:	:	:	:	:	:
ES	0.5	0.5	0.5	0.5	0.6	0.8	0.2
FR							
IE	0.6	0.6	0.6	0.7	0.9	1.2	0.6
IT	1.5	1.5	1.6	1.7	1.9	2.2	0.7
LU	0.9	1.0	1.0	1.1	1.3	1.5	0.6
NL	0.5	0.5	0.5	0.8	0.9	1.1	0.6
AT	0.6	0.7	0.8	1.0	1.2	1.5	0.9
PT	:	:	:	:	:	:	:
FI	1.7	1.9	2.1	3.0	3.4	3.5	1.8
SE	3.8	3.7	3.7	4.9	5.2	5.5	1.7
UK	1.0	1.0	1.1	1.3	1.5	1.8	0.8
CY	:	:	:	:	:	:	:
CZ	0.3	0.3	0.4	0.5	0.6	0.7	0.4
EE	:	:	:	:	:	:	:
HU	:	:	:	:	:	:	:
LT	0.5	0.6	0.6	0.6	0.7	0.9	0.4
LV	0.4	0.4	0.5	0.5	0.6	0.7	0.3
MT	0.9	0.9	0.9	1.0	1.1	1.1	0.2
PL	0.1	0.1	0.1	0.1	0.2	0.2	0.1
SK	0.7	0.8	0.7	0.9	1.1	1.3	0.6
SI	0.9	1.1	1.3	1.5	1.9	2.2	1.2
<b>EU-25</b>	<b>0.9</b>	<b>0.9</b>	<b>0.9</b>	<b>1.1</b>	<b>1.3</b>	<b>1.5</b>	<b>0.6</b>
<b>EU-15</b>	<b>0.9</b>	<b>0.9</b>	<b>1.0</b>	<b>1.1</b>	<b>1.3</b>	<b>1.5</b>	<b>0.7</b>
<b>EU-10</b>	<b>0.2</b>	<b>0.3</b>	<b>0.3</b>	<b>0.3</b>	<b>0.4</b>	<b>0.5</b>	<b>0.2</b>

Source: European Commission.

Note: EU-25, EU-15 and EU-10 – average weighted by GDP.

The projections show that an ageing population may lead to a growing gap between the number of elderly persons with a disability who are in need of care (which will more than double by 2050) and the actual supply of formal care services. Countries with very low projected increases in public spending currently have very low levels of formal care. If these countries would respond to the growing need for professional care by increasing the supply of formal care services, their spending rates may increase much more dramatically. The results for the different long-term care scenarios are presented in Figure 3.12.

The Economic Policy Committee/European Commission study has also prepared an estimate of the number of dependent elderly people for those countries for which both data from SHARE<sup>46</sup> on disability rates and data from national sources on the numbers of people living in institutions are available<sup>47</sup> (see Table 3.5). In most countries, around 20% of the population aged 65+ has some form of disability. For men, this ranges from 12% in the Netherlands to

27% in the UK, and for women from 19% in Denmark, the Netherlands and Austria to 33% in the UK.

According to SHARE, 'Older people are often at the centre of a complex exchange network within a family where they both give and receive support. Many persons between 50 and 65 are involved with personal care for their parents and later on for their spouses. There appears to be a strong North/South divide in Europe; a higher proportion of older people are involved in family support in northern and continental countries, where as in southern countries help and support tends to be confined to a few individuals within the family who are more intensely involved as either the givers or receivers of care. As a consequence older people living alone are more likely to be given support in northern countries.'

Table 3.6, taken from SHARE, provides detailed information on the living situation and the type of care received by the 80+ in the SHARE countries.

46. SHARE: Survey of Health Ageing and Retirement in Europe, Editor A. Boersch-Supan, 2005.

47. European Economy Special Report, No 1, 2006, p. 141.

**Table 3.5** Estimated elderly dependent population in 2004 for 8 EU Member States (in thousands)

	65-69		70-74		75-79		80+		Total dependent population aged 65+		As % of total population aged 65+	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
DK	11	16	5	10	11	11	27	49	54	86	16	19
DE	191	183	117	340	174	414	390	980	873	1 917	15	22
ES	67	83	109	150	115	189	189	546	480	968	16	23
IT	113	124	128	310	201	337	299	702	741	1 473	16	23
NL	23	24	14	34	23	44	51	150	111	251	12	19
AT	9	19	11	22	20	27	12	77	52	145	11	19
SE	9	13	16	15	17	36	62	154	104	218	16	25
UK	230	285	266	329	231	356	361	841	1 088	1 811	27	33

Source: SHARE, 1+ ADLs, AWG population scenario reported in the Economic Policy Committee and European Commission (2005a).

Note: Estimates of the number of people in institutions by age have been made for Denmark, Spain, the Netherlands and Sweden.

**Table 3.6** Living situation and type of care of persons 80+ who are not living in an institution

	SE	DK	NL	DE	FR	AT	CH	ES	IT	EL	TOTAL
Mean age in years	84.8	84.3	83.7	84.2	83.9	84.0	84.5	84.7	84.0	84.7	84.3
Living alone in %	66.3	64.4	62.7	64.9	53.4	66.7	53.3	39.2	50.7	65.7	56.2
Living as couple in %	31.1	29.8	34.3	26.7	37.1	20.0	39.5	24.0	27.8	26.6	27.4
Living with family in %	2.6	5.8	3.0	8.4	9.4	13.3	7.2	36.8	21.6	7.7	16.4
Personal care from HH in %	16.9	21.5	10.5	31.2	25.5	43.6	11.9	37.8	38.2	34.0	33.3
Personal care from HH or PCG in %	9.9	24.0	15.1	22.1	32.6	22.8	5.2	31.5	23.2	10.4	22.5
Practical help or personal care (HH or PCG) in %	36.7	60.0	48.7	28.0	54.5	32.7	6.3	41.7	29.2	11.1	32.3
Getting help from children in %	39.4	28.9	30.9	43.6	40.0	28.6	19.5	20.6	14.9	50.5	30.4

Source: SHARE 2005.

Note: HH = household, PCG = professional care giver.

The share of very old persons living alone is between 50% and 70%; only in Spain is this share lower at 39%. There are larger differences when it comes to living with family. It appears that this arrangement is much more common in southern than in northern Europe, e.g. 37% in Spain and 22% in Italy compared to only 3% in Sweden and the Netherlands. In terms of the type of care received within the household, from a professional care giver or from one's own children, the situation is rather diverse. For instance, there does not appear to be a trade-off between professional care and getting help from children. SHARE concludes that 'A mixture of public, voluntary and personal care does not erode family support. Instead family members are freed from the more arduous tasks of intensive personal care (undertaken by professional services) and are able to devote more time to other family relationships.'

The Economic Policy Committee/European Commission has also constructed a number of different long-term care scenarios to explore the sensitivity of future public expenditure under various assumptions<sup>48</sup>. The first scenario is once more the pure ageing scenario assuming constant disability rates. The 'constant' disability scenario assumes an improvement in general disability status. The cost/GDP per capita scenario assumes that unit costs evolve in line with GDP per capita. The increased formal care scenario assumes a change in policy, where formal care services are provided to a growing share of the elderly population (the prevalence of receiving formal care increases in all countries by 1% per year during the period 2004-2020. Finally the Ageing Working Group reference scenario combines these scenarios in a prudent way (see Figure 3.12). The analysis shows that the main risk with an ageing population would be an increase in the demand

48. European Economy Special Report, No 1, 2006, p. 135.



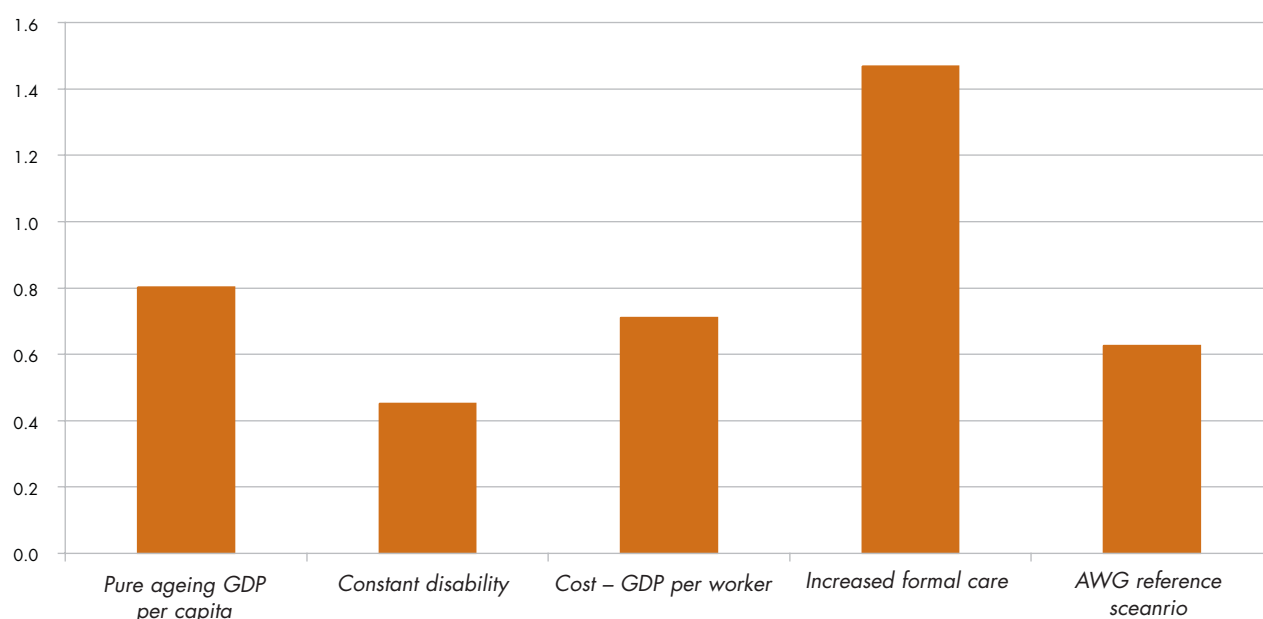
for formal long-term care. There may be less informal care available within households on account of trends in family size and the projected increase in the participation of women in the labour market. For countries currently with less developed formal care systems, the headline projected increase in public spending on long-term care may not fully capture the pressure on public finances, as policy changes in favour of more formal care provision may be needed in future.

Future healthcare needs will depend not only on ageing-related developments (including healthy ageing trends). Future expenditure will also depend on new technological developments (which may increase expenditure by making new forms of treatment and care available or reduce it by replacing expensive with cheaper treatments). The provision of (formal) long-term care is a highly labour intensive activity with relatively little room for technology-driven productivity increases. Long-term care

needs will be very much influenced by the expectations of patients, who normally prefer to be cared for at home care, as well as by the capacity and willingness of families to provide informal care (which is likely to depend on the geographic proximity of relatives or the employment status of potential carers).

As reflected in the Joint Report on Social Protection and Social Inclusion 2007<sup>49</sup>, the National Reports from the Member States highlight other significant areas essential for the sustainability of long-term care systems. These include developing more formalised care for the elderly and disabled and attaching a higher priority to home care services and the introduction of new technology (e.g. independent living systems) which can enable people to live in their own homes for as long as possible. And, in addition, Member States also stress the importance of rehabilitation, which in turn helps dependents return to an active life.

**Figure 3.12** Change in long-term care expenditure (in % of GDP, EU-25)



Source: Economic Policy Committee and European Commission.

49. COM(2007) 13 final.

## 4. OPPORTUNITIES FOR TACKLING DEMOGRAPHIC CHANGE

### 4.1. Introduction

In its Communication on 'The demographic future of Europe – from challenge to opportunity', the Commission presented a constructive response to the demographic challenge and highlighted five policy areas in which the Member States can take measures to tackle this challenge. The areas are:

- 'demographic renewal', i.e. lifting the obstacles to a return to higher fertility rates;
- raising employment levels, which will result in a better balance between active and inactive people;
- boosting productivity growth and hence the economy's ability to meet the needs of an ageing population;
- receiving and integrating immigrants so as to avoid future labour shortages;
- and ensuring the sustainability of public finances and thus securing the ability to maintain adequate social protection and public services in the future.

This chapter examines how much scope there is for improvement in each of these five areas and provides some indications as to the obstacles that need to be overcome to unlock the potential for tackling the demographic challenge.

Clearly, combinations of measures in several of these areas are needed, but each Member State has different potentials in each of these areas and will therefore require its own specific policy mix. The data presented in this chapter should allow each Member State to identify the areas with the greatest scope for improvement and to define policy priorities accordingly.

### 4.2. Demographic renewal: how much scope is there for increased fertility?

The Commission's communication on the demographic future of Europe stressed that Member States can respond to low birth rates and that such reactions are both necessary and realistic. The necessity stems from the fact that people generally would like to have more children than

they actually have. That a policy response to low birth rates is realistic is demonstrated by international comparisons underlining the effectiveness of policies to support those who wish to have children.

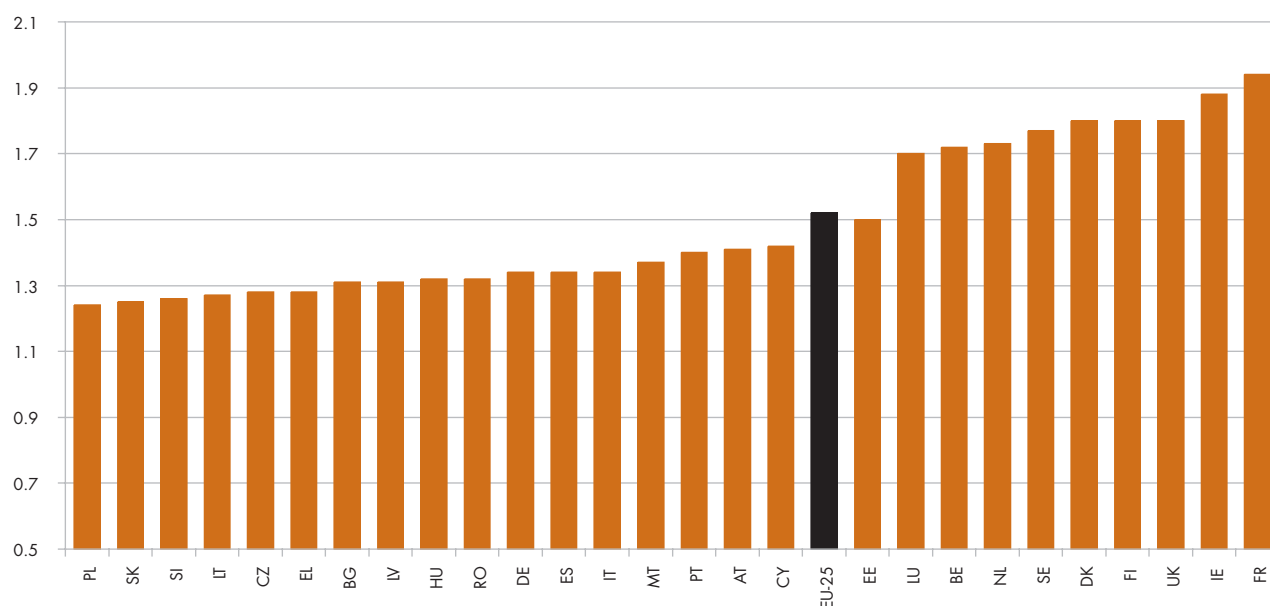
#### 4.2.1. Potential for more births

In all EU Member States the fertility rate has declined to a level below the replacement level of 2.1 and the EU average is just below 1.5 (see Figure 4.1). This means roughly that every generation is replaced by a generation that is 25% smaller. At the same time, there are large differences in fertility levels between Member States.

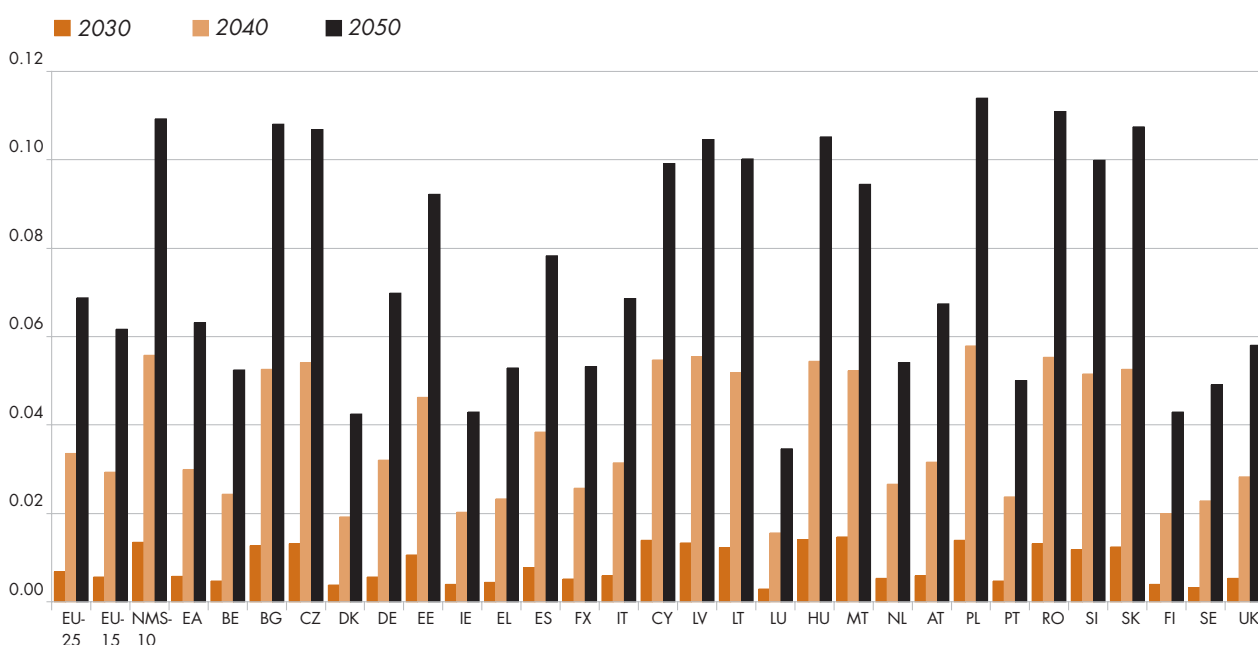
Two groups can be distinguished. On the one hand, there are countries with fertility rates above 1.6 (e.g. FR, UK, NL, BE, DK and SE), which, given rising life expectancy and continuing migration, will prevent population decline. In most other Member States, however, fertility rates do not exceed 1.5, implying that population decline seems inevitable.

A return to higher fertility rates would not prevent the accelerated ageing resulting from the baby boom cohorts growing old. Moreover, with rising life expectancy, a constant old-age dependency ratio could only be achieved by fertility rates well above the replacement level – and this would mean continuous population growth. Higher fertility will eventually result in a larger labour force, but this takes about 20 years, i.e. the time it takes for these cohorts to go through the education system and enter the labour market.

Figure 4.2 illustrates the long-term effects of higher fertility on the working age population. It compares the size of the potential labour force in 2030, 2040 and 2050 under the baseline scenario and a high fertility scenario.

**Figure 4.1** Total Fertility Rates in 2005

Source: Eurostat.

**Figure 4.2** Difference in the size of the 20-64 working age population for the High Fertility Scenario and the Baseline Scenario (in % of baseline labour force)Source: Eurostat New Cronos and own calculations<sup>50</sup>.

The baseline scenario assumes continuing low fertility rates in the EU-25, albeit at a somewhat higher level than today in the low fertility countries. In 2050 the highest

total fertility rates are expected in Sweden and France (1.85), compared to TFRs of 1.4 or 1.45 in countries such as Spain, Italy, Germany and Austria, which are expected

50. EUROPOP 2004 population projection, the difference between the baseline scenario and a high fertility scenario.

to have the lowest fertility rates. For the EU as a whole, the TFR in 2030 is assumed to be 1.62.

Under the high fertility scenario, it is assumed that the fertility rate in 2035 will have stabilised at 1.93 per woman, relative to the baseline value. Figure 4.2 shows that the higher fertility scenario will have hardly any impact on the population of working age in 2030; the effect will only start to be noticeable from 2040 onwards.

In spite of the fact that increased fertility rates will only produce positive economic impacts after a very long time lag, many countries consider low fertility rates as a public policy issue. According to the UN population perception surveys, 18 out of 29 European countries considered their fertility level as 'satisfactory' in 1976. By 2005 a majority of 28 out of 43 perceived the fertility level as 'too low'<sup>51</sup>. Only two of the EU-10 and six of the EU-15 Member States believed that no intervention was called for to raise fertility levels<sup>52</sup>. The replies of the Member States to the Commission's Green Paper on demography confirmed that majority of Member States now tend to see the current low fertility rate as a matter of public concern.

In the long run, higher fertility rates would prevent population decline and, while not reversing demographic ageing, would contribute to a more balanced mix of younger and older people in society. However, it is a highly personal choice whether to have children or not and the only way governments in a free society can influence fertility rates is by removing obstacles that prevent those who would like to have children from actually having them. Apparently, there are several constraints preventing Europeans from realising their desire to have children, see also the previous discussion in section 2.2.4. The problems include a lack of jobs and housing for young people wanting to start a family, the difficulty of reconciling paid work with family life and perhaps also a general lack of confidence in the future<sup>53</sup>. All these factors may have a negative impact on young people thinking about starting a family and on the likelihood of existing families having an extra child.

Greater gender equality and a better work/life balance seem to be conducive to increasing both female labour force participation and fertility. In fact there has been a reversal in the sign of the correlation between fertility and female labour force participation among OECD countries since the middle of the 1980s. This cross-country correlation switched from – 0.54 in 1970 to 0.68 in 1996<sup>54</sup>. Today, countries where many women are in paid employ-

ment, often supported by effective instruments to reconcile work with private and family responsibilities for both men and women, tend to have higher fertility rates than countries where fewer women work. Countries where it has remained difficult to reconcile employment and having a family tend to have experienced a large decline in births combined with only a modest increase in female labour force participation. In Italy, for example, female force participation went from about 34% in 1975 to just about 51% in 2004, a fairly low figure when compared to the 75% in Sweden. The TFR in Italy and Sweden stood at 2.5 and 2.3 during the first half of the 1960s, but in 2004 was 1.3 and 1.8, respectively. The availability of child-care helps to combine work and family and appears to have a particular effect on the probability of working for highly educated women.

#### 4.2.2. Unlocking the potential for more births

Public policy matters when trying to understand differences in fertility. It can create better conditions for founding a family, raising children, reconciling work and family life as well as sharing family and domestic responsibilities between women and men. Clearly, some Member States have already found relatively successful policy mixes.

##### BOX 4.1 Different family policy mixes in Europe

At the 2005 Green Paper conference 'Confronting demographic change: a new solidarity between the generations', one of the experts, Linda Hantrais<sup>55</sup>, summed up the current situation across the EU as follows:

*'Some countries would appear to be more successful (the Nordic states) in achieving relatively high employment rates for women in combination with a widespread level of social acceptance of working motherhood, measured in terms of attitudes and practices and the legitimacy of public policy intervention. They do so through a high tax economy and heavy reliance on the public sector. Southern European countries are at the other end of the spectrum, low female employment rates (except Portugal) combine with heavy reliance on intergenerational support networks, which are, however, increasingly being called into question. In between are two contrasting models. The Anglo-Saxon countries depend on highly flexible*

51. Various UN Population Perception Surveys held between 1979 and 2005. In these surveys governments are asked whether countries consider their level of fertility 'too low, satisfactory or too high'.

52. On fertility policy the question asked is: 'Should one raise, maintain or lower policy intervention or should there be no policy intervention?'

53. Survey realized near 34.000 Europeans aged 18-75 old living in 14 countries in the period from 1999 to 2003. Population Policy Acceptance Study Dialog, produced by the Federal Institute for Population Research for the Robert Bosch Stiftung.

54. De Laat, J. and A. Sevilla Sanz, 'Working women, men's home time and lowest-low fertility', Essex University ISER, Working Paper, No 23, 2006.

55. See [http://ec.europa.eu/employment\\_social/emplweb/events/event\\_en.cfm?id=5](http://ec.europa.eu/employment_social/emplweb/events/event_en.cfm?id=5)

labour markets, small public sectors, a low-wage household service sector and a welfare-to-work ethos. The corporatist countries (Austria, Germany and the Netherlands) have remained closer to the traditional male breadwinner model, with less public support for families and greater reliance on collective labour agreements and on women prioritising their role as mothers at home rather than working mothers. The Central and East European countries present a rather different configuration: they combine traditionally high female activity rates, although both male and female rates have been falling, with a strong commitment to mothers as workers, not however for reasons of gender equality. Here, cutbacks in the provision of public services and the shrinking public sector have hit women hardest and have forced families to become more self-reliant.<sup>1</sup>

All Member States support families in one form or another, the main types of support being:

#### 4.2.2.1. Financial support (including tax breaks) to reduce the financial inequality between people with and without children

Children are costly in terms of both direct costs and foregone earnings. These costs create considerable income differences between otherwise comparable couples with and without children. Social protection benefits compensate for the direct and indirect costs of having children. According to Eurostat data on social protection expenditure (ESSPROS – which do not include tax benefits or spending on education), about three quarters of social protection benefits targeted at families take the form of benefits in cash. In 2004, they amounted to some 1.5% of GDP for the EU-25, ranging from 0.4% in Spain to more than 3% in Luxembourg (see Table 4.1).

**Table 4.1** Social protection benefits targeted at family support in the EU

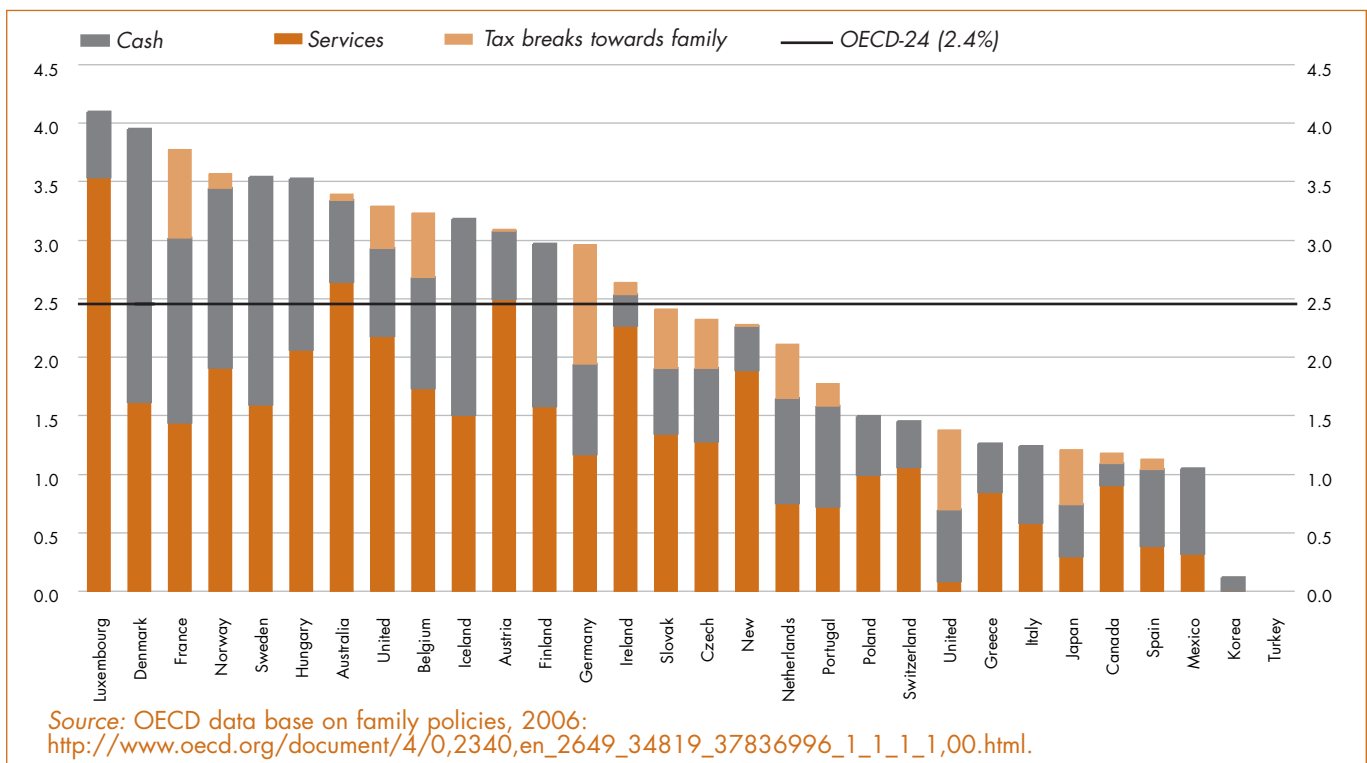
2004						
	Share of population between 0-19 in %	Support intensity corrected for the share of the young*	TFR	Total family support	Support in cash In % of GDP	Support in kind
EU-25	22.5	9.32	1.51	2.1 e	1.5 e	0.6 e
EU-15	22.2	9.46	:	2.1 e	1.5 e	0.6 e
EA-12	21.6	9.71	1.51	2.1 p	1.5 p	0.5 p
BE	23.2	8.63	1.68	2	1.6	0.4
CZ	21.7	7.36	1.23	1.6 p	1.4 p	0.2 p
DK	24.3	16.04	1.78	3.9	1.6	2.3
DE	20.5	14.65	1.37	3 p	2.2 p	0.7 p
EE	23.9	7.11	1.47	1.7	1.6	0.1
IE	28.4	8.81	1.99	2.5	2.3	0.3
EL	20.2	8.41	1.31	1.7	1.2	0.5
ES	20.1	3.48	1.33	0.7 p	0.4 p	0.3 p
FR	25.1	9.98	1.92	2.5 p	2 p	0.5 p
IT	19.2	5.73	1.33	1.1 p	0.7 p	0.5 p
CY	27.8	7.21	1.49	2	1.9	0.1
LV	23.4	5.55	1.24	1.3 p	1 p	0.2 p
LT	25.7	4.28	1.26	1.1 p	0.7 p	0.4 p
LU	24.5	15.52	1.70	3.8 p	3.3 p	0.6 p
HU	22.2	11.26	1.28	2.5	1.9	0.6
MT	25.3	3.95	1.37	1	0.9	0.1
NL	24.5	5.30	1.73	1.3 p	0.7 p	0.5 p
AT	22.2	13.49	1.42	3	2.5	0.5
PL	25.4	3.55	1.23	0.9 p	0.9 p	:
PT	21.6	5.55	1.40	1.2 p	0.8 p	0.5 p
SI	21.1	9.50	1.25	2 p	1.4 p	0.6 p
SK	25.5	7.06	1.24	1.8 p	1.6 p	0.1 p
FI	23.8	12.63	1.80	3	1.6	1.3
SE	24.0	12.51	1.75	3 p	1.6 p	1.5 p
UK	24.8	6.87	1.77	1.7 e	1.3 e	0.4 e

Source: Eurostat, ESSPROS.

\* support in % of GDP divided by the share of the young (0-19) in the population.

\*\* e = estimated value, p = provisional value.

The data collected by the OECD are not directly comparable. However, they do illustrate the value of tax breaks to families, which again display a wide variation across countries (see Figure 4.3).

**Figure 4.3** Public spending on family benefits in cash, services and tax measures, 2003 (in % of GDP)

Benefits in kind amounted to 0.6% of GDP with an even larger variation across countries. The differences become larger when one corrects for the fact that the share of young people differs between countries.

In spite of the support for families, households with children remain exposed to a slightly higher risk of poverty than the population as a whole (see Table 4.2). The risk of poverty is likely to have an impact on young couples thinking about starting a family of their own. This was confirmed by the replies to the 2006 Eurobarometer survey, which in particular mention adequate working, financial and housing conditions as prerequisites for having children (see chapter 2.2.4).

**Table 4.2** At-risk-of-poverty after social transfers, 2004 (in %)

	With children	Total
BE	18	15
CZ	15	8
DK	9	11
DE	20	16
EE	20	18
EL	20	20
ES	24	20
FR	14	14
IE	22	21
IT	26	19
CY	11	15
LV	19	16
LT	17	15
LU	18	11
HU	17	12
MT	21	15
NL	18	12
AT	15	13
PL	23	17
PT	23	21
SI	9	10
SK	30	21
FI	10	11
SE	11	11
UK	22	18
EU-25	20	16

Source: Eurostat EU-SILC and national data.

Note: Risk-of-poverty defined as income below 60% of the median income.

**Table 4.3** Provision of childcare in European countries in 2003

Country	Childcare coverage rate 0-3 years Target = 33%	Childcare coverage rate 3-compulsory school age Target = 90%	Public expenditure on formal day care as a % of GDP
BE (Flanders)	81%	100%	0.1%
BE (Wallonia)	33%	98%	
CZ	8%	85%	0.0%
DK	56%	93%	1.7%
DE	7%	89%	0.4%
EE	22%	79%	
EL	7%	60%	0.4%
ES	10%	98%	0.1%
FR	43%	100%	0.7%
IE	:	:	0.2%
CY	:	:	:
IT	6%	93%	:
LV	16%	75%	:
LT	18%	60%	:
LU	14%	80%	:
HU	6%	86%	:
MT	:	:	:
NL	35%	100%	0.2%
AT	9%	82%	0.4%
PL	2%	60%	
PT	19%	75%	0.2%
SI	27%	59%	
SK		70%	0.1%
FI	21%	70%	1.2%
SE	41%	90%	1.3%
BG	7%	74%	:

Source: Plantenga and Remery, 2005, see footnote 56.

#### 4.2.2.2. Access to services

Table 4.1 and Figure 4.3 show that family support in the form of services (or benefits in kind) plays a major role in a number of countries, in particular the Nordic countries and France. Given its importance for reconciling professional and private life – and hence for achieving high employment rates – the Barcelona summit of 2002 set two targets for the availability of childcare, namely to provide, by the year 2010, childcare for at least 33% of children aged 0-3 and for 90% of children between the age of 3 and mandatory school age. Table 4.3<sup>56</sup> gives an overview of the progress achieved by 2003.

With the exception of a few countries, the level of coverage for the older children is already quite high. Ten countries meet the 90% target. By contrast, the provision of

child care for the youngest age group is below 10% in several countries. Most child care services are partly subsidised. According to Plantenga and Remery, parents pay on average only 25-35% of the cost. They find that, besides affordability, cultural norms about motherhood and the proper way to care for (young) children also limit the use of crèches. In the case of young children, leave arrangements and care provided by relatives (especially grandparents) are often preferred by many parents.

The presence of children combined with the lack of services also has a clear impact on the employment situation of women. Table 4.4 shows that everywhere in the EU, except in Slovenia and Portugal, the employment rate of women caring for young children is lower than that of women without children.

56. Plantenga J. and C. Remery, *Reconciliation of work and private life: a comparative review of 30 European countries*, European Commission, Directorate-General for Employment, Social Affairs and Equal Opportunities, 2005.



**Table 4.4** Employment impact of parenthood for women\*

	2001	2002	2003	2004	2005
EU-25	14.2	14.1	13.6	13.6	14.3
EU-15	12.6	12.7	12.2	12.5	13.3
EU-10	22.0	20.2	20.0	18.7	19.5
BE	1.7	3.1	6.6	1.7	2.1
CZ	43.6	41.8	38.9	41.0	39.2
DK	:	3.6	2.9	1.6	1.6
DE	21.9	21.4	19.7	20.3	26.5
EE	30.2	31.7	28.8	31.3	30.0
EL	4.8	5.5	6.0	6.6	3.5
ES	9.2	9.0	8.8	8.2	7.5
FR	11.9	11.5	9.9	11.4	10.2
IE	16.5	16.2	:	18.9	18.2
IT	4.9	4.9	5.1	5.9	6.8
CY	5.6	4.5	8.0	8.0	3.4
LV	12.8	12.8	19.1	17.6	18.0
LT	0.0	3.4	4.0	5.1	2.8
LU	9.2	5.4	10.9	8.2	7.0
HU	35.0	35.1	37.1	34.1	35.3
MT	26.2	18.6	22.6	15.7	17.2
NL	12.0	11.5	11.1	9.7	9.4
AT	6.8	8.8	6.2	11.2	14.4
PL	13.6	12.5	12.0	9.6	11.1
PT	- 2.4	- 1.2	- 2.3	- 3.7	- 3.8
SI	- 5.9	- 5.1	- 7.9	- 5.1	- 1.5
SK	27.8	29.7	30.2	29.5	34.5
FI	:	:	12.9	15.7	15.7
UK	21.9	23.2	24.1	23.0	21.2

\* Difference in employment rates for women with children under 6 and women without children (age group 20-50).

Source: EU Labour Force Survey – Spring data, LU 2003, 2004 and 2005: Annual average data, data not available for SE.

Notes: Data may lack comparability due to changes in certain survey characteristics: between 2002 and 2003 for FR and LU, between 2003 and 2004 for IT and AT, between 2004 and 2005 for DE and ES. : means no data available.

#### 4.2.2.3. Flexibility in working hours and work organisation

Part-time work has become a widely used option to reconcile work and family life. Table 4.5 shows that part-time work is much more prevalent amongst women than men. In 2005, 33% of women in the EU had part-time jobs as compared to 7% of men. This high prevalence of part-time working among women relative to men shows again that it is mainly women who adapt their employment patterns and careers to the needs of family life.

Flexible working-time arrangements, such as flexitime systems or teleworking, may offer both mothers and fathers alternative opportunities for reconciliation. According to the Fourth Working Conditions Survey of

the European Foundation for Improvement in Living and Working Conditions<sup>57</sup>, more and more Europeans are making use of flexible working-time arrangements (see Figure 4.4). In the surveyed countries, 48% of establishments offer some form of working time flexibility but only 25% allow extended flexibility (i.e. the possibility to accumulate hours for a day off or longer periods of leave). The use of flexitime is lower in Southern European countries and the new Member States than in the rest of Europe.

The survey also confirms that parental leave is mostly taken up by women and that, even in a country like Sweden, men still take up only 17% of total parental leave. The take-up of parental leave, in particular by men, increases with the level of the replacement income.

57. For the report see <http://www.eurofound.eu.int/ewco/surveys/EWCS2005/index.htm>. At the 2006 Forum on the Demographic Future of Europe, John Hurley of the Dublin Foundation summarised the results working time arrangements, see [http://ec.europa.eu/employment\\_social/events/2006/demog/hurley\\_en.pdf](http://ec.europa.eu/employment_social/events/2006/demog/hurley_en.pdf)

**Table 4.5** Share of part-time work 2004-2005 (in %)

	Women	Men
BE	41	7
CZ	8	2
DK	33	13
DE	44	8
EE	10	5
EL	9	2
ES	25	5
FR	31	6
IE	32	6
IT	26	5
CY	14	5
LV	12	8
LT	9	5
LU	38	3
HU	6	3
MT	19	5
NL	75	23
AT	39	6
PL	14	8
PT	17	7
SI	11	7
SK	4	1
FI	19	9
SE	40	12
UK	43	11
EU-25	33	7

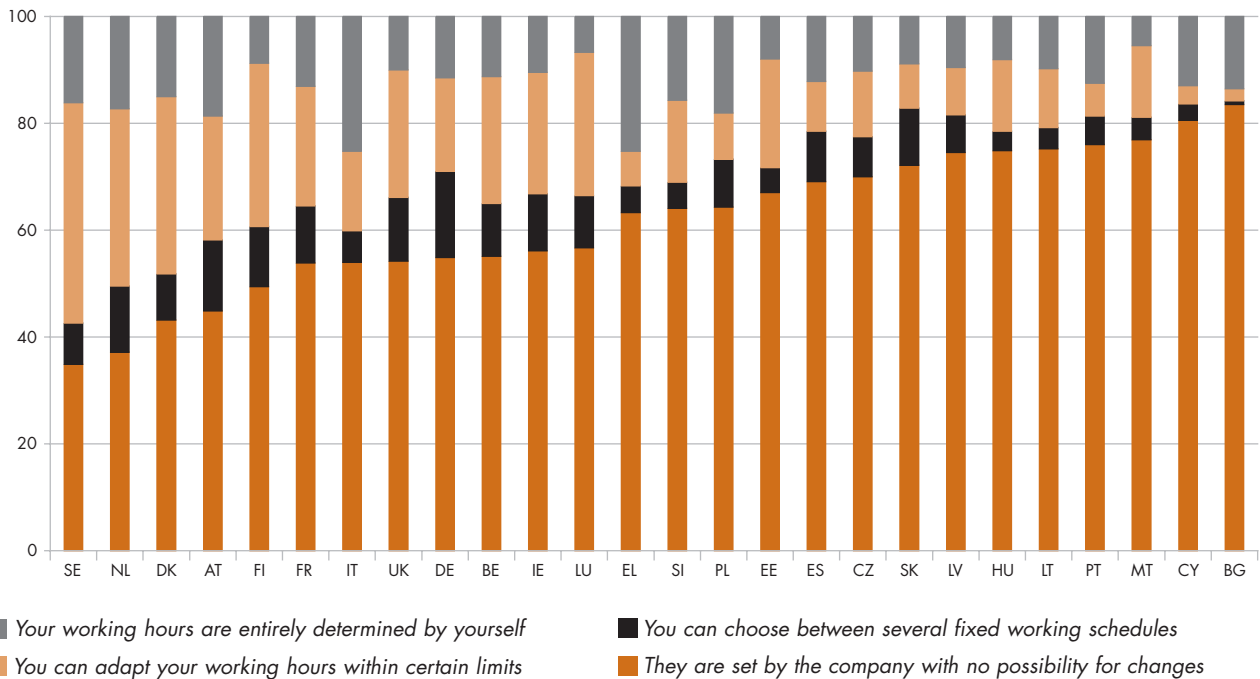
Source: Eurostat EU-SILC and national data.

Note: Risk-of-poverty defined as income below 60% of the median income.

Figure 4.5 summarises the possibilities for workers to influence their daily working hours across Europe. Over half of all workers (56%) have their working time arrangements set by the company with no possibility of change, 9% of workers can choose between several fixed working schedules, 17% can adapt their working hours within certain limits (i.e. flexitime); and, in 18% of cases, it is the worker who decides on individual working hours (e.g. self-employed workers). Around 50% of workers in northern European countries can adapt their working time (to a certain extent) to their particular needs. In contrast, fewer than 25% of workers in southern and Eastern Europe are able to do this.

A key factor influencing work/life balance found in the survey is the length of the working week. Over 40% of those who work long hours say they are dissatisfied with their work/life balance; by contrast, 85% of those who work less than 30 hours per week are happy with their work/life balance. Regular long working days (of over 10 hours in length) also have a negative impact. In particular working fathers report more dissatisfaction with their work/life balance than women. The Dublin Foundation suggests that the dissatisfaction of working fathers could be related to their inability and/or frustration to meet the changing social expectations regarding a father's domestic role. This would suggest that there is potential for change among working fathers.

**Figure 4.4** Incidence of different forms of flexible working time arrangements, by country (%)

**Figure 4.5** Working time discretion by country (%)

Source: Fourth Working Conditions Survey of the Dublin Foundation, 2005.

Women still carry a disproportionate share of the negative impact of children on labour market participation. This is reflected in lower employment rates of women, a higher incidence of part-time working and the gender pay gap (see Table 4.6). Indeed, female labour force participation is 15 percentage points below that of men, while part-time working is four to five times more prevalent among women. In addition, there is a large gap in the hourly pay earned by women and by men. In 2004, women's average gross hourly earnings were 15% less than men's across the EU, though with wide variations across Member States.

The empirical evidence suggests that promoting the reconciliation of a professional career with a fulfilling private life will result in higher employment rates, in particular for women, and higher fertility rates. But having a family will always bring additional work and responsibilities, which are currently to a large extent assumed by women and forces them to sacrifice professional career opportunities. Progress towards greater equality between women and men will therefore also require a more equal sharing of household and family work. Table 4.7 illustrates how large the differences between women and men still are. Time use survey data show that women spend much more time than men doing domestic work and that they have less free time. The differences between women and men tend to be larger in southern and Eastern Europe. The Dublin Foundation's Working Conditions Survey showed that part-time working women actually worked longer hours than full-time working men when counting both paid and unpaid work.

**Table 4.6** Employment rate of women/men and Gender pay gap for 2004-2005 (in %)

	Women	Men	2004-2005
BE	54	68	6
CZ	56	73	19
DK	72	80	17
DE	60	71	23
EE	62	67	24
EL	46	74	10
ES	51	75	15
FR	58	69	12
IE	58	77	11
IT	45	70	7
CY	58	79	25
LV	59	68	15
LT	59	66	16
LU	54	73	14
HU	51	63	11
MT	34	74	4
NL	66	80	19
AT	62	75	18
PL	47	59	10
PT	62	73	5
SI	61	70	9
SK	51	55	24
FI	67	70	20
SE	70	74	17
UK	66	78	22
EU-25	56	71	15

Source: Eurostat Labour Force Survey.

**Table 4.7** Allocation of daily time for women and men aged 20 to 74 in Europe

Hours and minutes per day																
Women																
	BE	DE	EE	ES	FR	IT	LV	LT	HU	PL	SI	FI	SE	UK	NO	
Gainful work, study	2:07	2:05	2:33	2:26	2:31	2:06	3:41	3:41	2:32	2:29	2:59	2:49	3:12	2:33	2:53	
Domestic work	4:32	4:11	5:02	4:55	4:30	5:20	3:56	4:29	4:58	4:45	4:58	3:56	3:42	4:15	3:47	
Travel	1:19	1:18	1:06	1:05	0:54	1:14	1:20	1:04	0:51	1:06	1:02	1:07	1:23	1:25	1:11	
Sleep	8:29	8:19	8:35	8:32	8:55	8:19	8:44	8:35	8:42	8:35	8:24	8:32	8:11	8:27	8:10	
Meals, personal care	2:43	2:43	2:08	2:33	3:02	2:53	2:10	2:22	2:19	2:29	2:08	2:06	2:28	2:16	2:08	
Free time	4:50	5:24	4:36	4:29	4:08	4:08	4:09	3:49	4:38	4:36	4:29	5:30	5:04	5:04	5:51	
Total	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	

Hours and minutes per day																
Men																
	BE	DE	EE	ES	FR	IT	LV	LT	HU	PL	SI	FI	SE	UK	NO	
Gainful work, study	3:30	3:35	3:40	4:39	4:03	4:26	5:09	4:55	3:46	4:15	4:07	4:01	4:25	4:18	4:16	
Domestic work	2:38	2:21	2:48	1:37	2:22	1:35	1:50	2:09	2:40	2:22	2:40	2:16	2:29	2:18	2:22	
Travel	1:35	1:27	1:17	1:16	1:03	1:35	1:28	1:13	1:03	1:13	1:09	1:12	1:30	1:30	1:20	
Sleep	8:15	8:12	8:32	8:36	8:45	8:17	8:35	8:28	8:31	8:21	8:17	8:22	8:01	8:18	7:57	
Meals, personal care	2:40	2:33	2:15	2:35	3:01	2:59	2:10	2:25	2:31	2:23	2:13	2:01	2:11	2:04	2:02	
Free time	5:22	5:52	5:28	5:17	4:46	5:08	4:48	4:50	5:29	5:25	5:34	6:08	5:24	5:32	6:03	
Total	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	

Source: Eurostat – National Time Use Surveys conducted between 1998 and 2004 by national statistical agencies and research institutes.

Notes: Unspecified time use is included in 'Free time'.

FR: In France, long periods spent on rest were coded as 'Sleep' and in the other countries as 'Rest', included here in 'Free time'.

NO: encouraged reporting conversation as a main activity by diary instruction (coded as 'Socialising', which is part of 'Free time'). National data were rounded, which may result in small discrepancies.

Cross-country differences in gender equality at home appear to be linked to differences in fertility. In Northern European countries the increased labour force participation of women has been followed by an increase in men's contribution to household work. Less egalitarian attitudes in Southern Europe may have acted as a brake on female labour force participation, as women often have to choose between raising children and paid work. A recent econometric study by De Laat and Sevilla Sanz<sup>58</sup> found that the difference in an egalitarian attitudes score between the most and the least egalitarian country in their sample (Norway and Spain, respectively) explains a difference in fertility of up to 0.87 children.

There is strong evidence that policies to support families and to promote gender equality do matter and that they can raise fertility rates. The highest birth rates in Europe can indeed be observed in those countries that have the most generous family policies and which also have made most progress in gender equality. A study by the OECD<sup>59</sup> has tried to simulate the effects of different policies on total fertility rates. The results presented in Box 4.2 should not be regarded as predictions of the most likely outco-

mes, but as an indication of the likely effects on fertility rates of various policies based on a very simplified set of assumptions. The policies considered are taxes and transfers that lower the direct costs of children, greater availability of part-time employment for women, longer periods of parental leave, and greater availability of formal child-care for preschool children. Despite the obvious limitations, the results suggest that these policies can help parents overcome the obstacles that prevent them from having the number of children they want.

In addition to policies that promote better conditions for women and men wishing to raise a family, it may become increasingly important to address biological obstacles to fertility. As potential parents postpone the moment at which they decide to have children, fertility problems are becoming a more and more frequent obstacle to the realisation of their desire. The availability of Artificial Reproduction Techniques (ART), such as in vitro fertilisation, may also have an impact on a country's total fertility rate. A recent study conducted by RAND<sup>60</sup> suggests that, if the UK adopted the same policy regime concerning the availability of ART as is currently practised in Denmark, its fertility rate

58. De Laat, J. and A. Sevilla Sanz, 'Working women, men's home time and lowest-low fertility', Essex University ISER, Working Paper, No 23, 2006.

59. D'Addio A. C. and M. Mira d'Ercole, 'Trends and determinants of fertility rates and the role of policies', OECD Social Policy Division, see <http://www.oecd.org/dataoecd/7/33/35304751.pdf>.

60. Grant, J. and others, 'Should ART be part of the population mix?', RAND Europe, paper prepared for the 2006 meeting of the European Association of Human Reproduction and Embryology in Prague.

could go up by 0.07. This may not seem very much but would still have a sizeable impact on population growth in the long run. In fact, the size of the effect is comparable to the effects on fertility of policies considered in the above-mentioned OECD study. More research, taking account of possible deadweight effects and involving more countries, is needed to confirm this result.

#### 4.2.3. Conclusion

There is convincing evidence that better conditions for families, increased gender equality, higher female employment and more support for those who would like to start a family would have a positive impact on fertility rates in the EU. However, it should also be clear that the imminent challenge of demographic ageing cannot be addressed by raising fertility rates. Higher fertility rates will affect the balance between active and retired people only after two decades at least – before that, significant investment in the education of these additional children will be required.

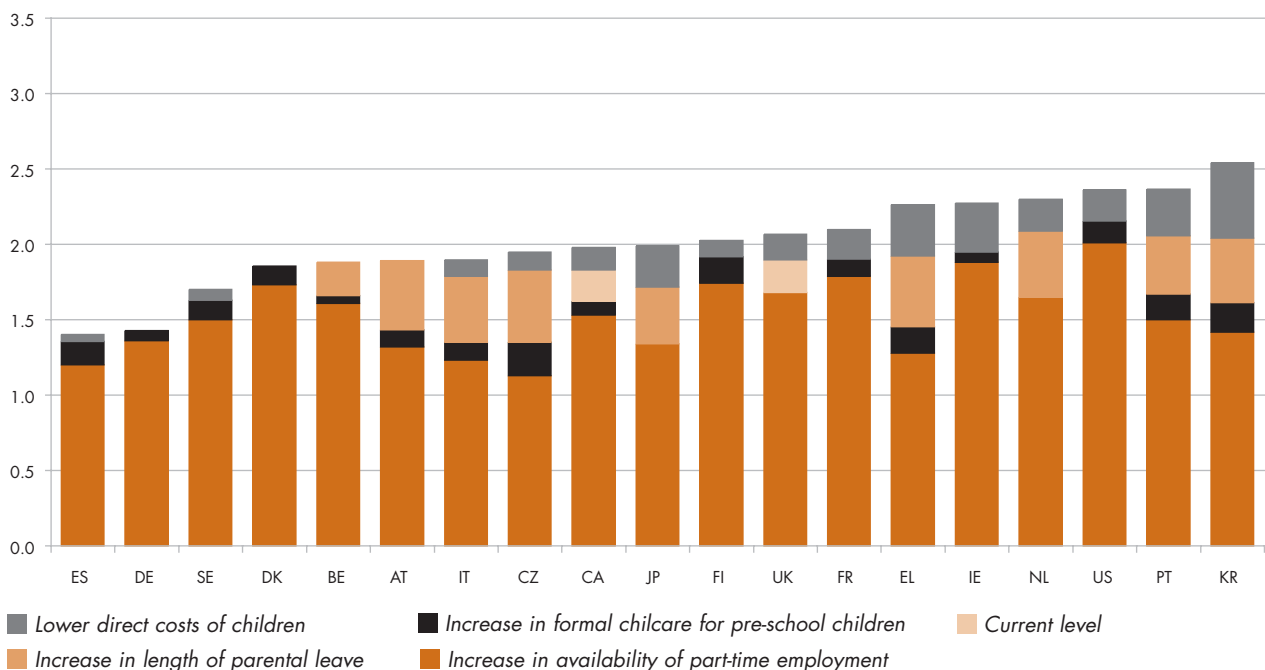
However, helping people to achieve their goal of starting a family and raising children is now recognised as an important policy goal. The Barcelona target of access to child-care, the Commission's Gender equality Roadmap and the Member States' European Pact for Gender Equality specifically address the need to further support gender equality policies, including better work/life balance measures, to help meet the demographic challenge.

#### 4.3. Promoting employment in Europe

The second strand of the constructive response to the demographic challenge presented by the Commission in its communication on the demographic future of Europe is the need to raise employment rates. Demographic ageing will reduce the population of working age (generally defined as people aged 15-64 years) while the number of people over 65 (generally assumed to be retired) will increase. The old-age dependency ratio, i.e. the number of people over 65 relative to the population of working age, will become less

#### BOX 4.2 Policy simulation of the effect on fertility

Potential Impact of various policy reforms on total fertility rates



Notes: Countries are ranked in increasing order of the total fertility rates that could be achieved as a result of four sets of policies: i) a reduction in the direct costs of children (measured as the difference between the equivalised disposable income of a two-earner couple without children and that of a two-earner couple with 2 children, where the principal earner earns 67% of the earnings of an APW (Average Productive Wage), and the spouse 33%); ii) an increase in the availability of part-time employment to the level achieved in the three OECD countries where it is highest (Japan, the Netherlands and the United Kingdom); iii) an increase in the availability of formal childcare (the share of children below 3 years of age attending formal childcare) to the levels of the three countries where it is highest (Denmark, Sweden and the United States); and iv) an increase in the length of leave (both maternity and parental) to the levels of the four countries where it is the highest (Germany, France, Spain and Finland). The simulations allow for the possibility of substitution between longer parental leave and greater childcare availability. The combined effect of these policies, e.g. in the case of Japan, is an increase of the total fertility rate from a level of 1.3 in 1999 to around 2.0.

Source: OECD, see footnote 59.

favourable and the active population will have to shoulder a heavier burden of providing for the elderly. However, what matters with regard to the production and distribution of resources is not the ratio between these two age groups but the ratio between people actually in employment and people receiving benefits. Raising employment rates, improving integration within the labour market – especially for young people and disadvantaged groups such as the disabled, ethnic minorities and immigrants – and encouraging older workers to stay longer on the labour market can help maintain a good balance between the active and the retired in a context of demographic ageing. Indeed many Member States have considerable scope for raising their employment and economic performance levels through higher labour force participation.

#### 4.3.1. Potential for more jobs of better quality

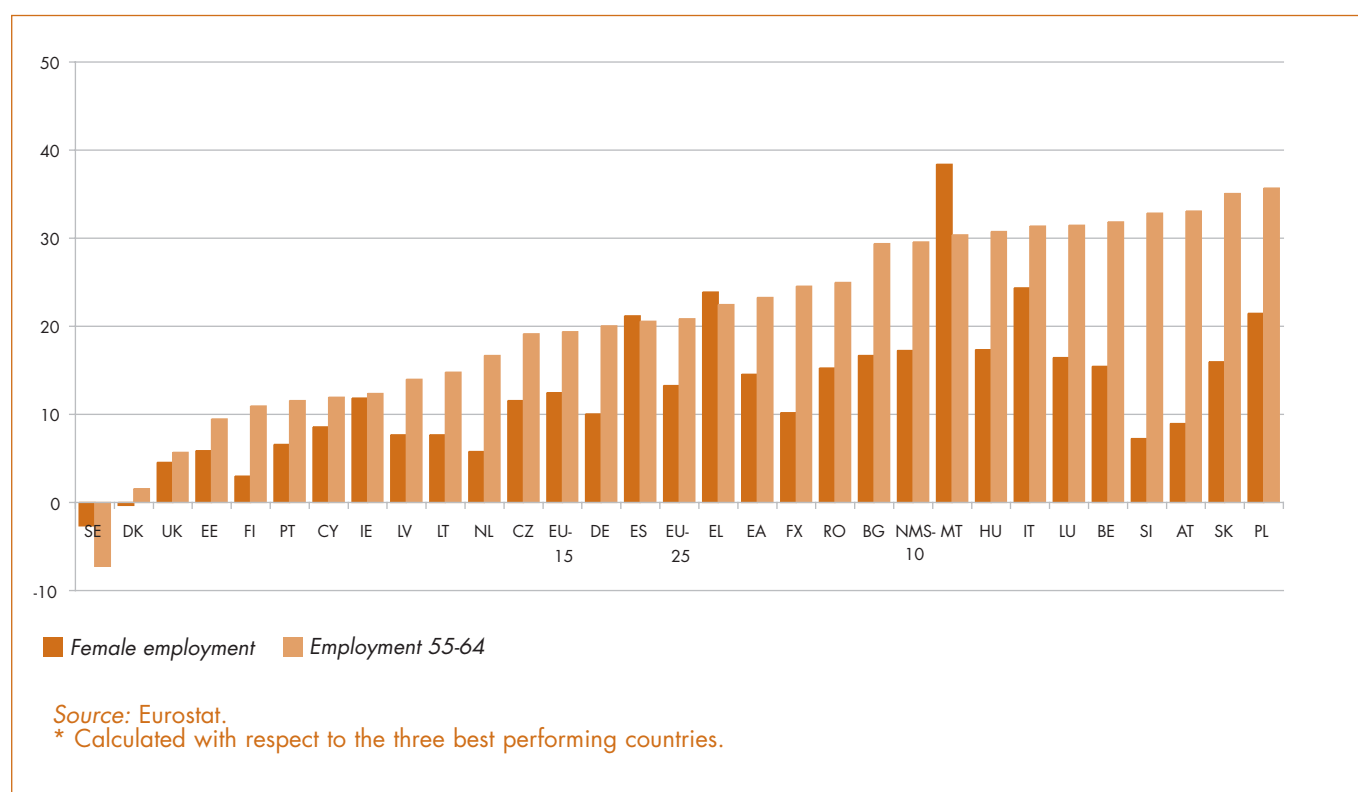
As the baby boom cohorts reach retirement age and smaller young cohorts enter the labour market, the balance between the inactive and active segments of the population could worsen significantly. However, Europe has a huge potential to compensate for this demographic effect by raising levels of employment. The European Council decisions of Lisbon and Stockholm which set targets for overall employment, as well as rates for women and older workers, are indicative of the labour market potential inherent in Europe. In 2005 the

overall, female and older people's employment rates were respectively around 6.4 and 7.5 percentage points below the Lisbon and Stockholm employment targets for 2010<sup>61</sup>. Rates for older workers aged 55-64 actually improved most in the period 2000-2005, rising by approximately 6 percentage points (see Figure 4.7).

If individual Member States were to bring up employment rates on the whole, and for women and 55-64-year-olds in particular, to the levels of the current three best-performing countries, this would make a major contribution to tackling the demographic deficit. As shown in the chart below, the greatest improvements would have to be made in securing higher employment rates for older workers. The next greatest challenge lies in raising rates for women, while the best overall employment rates are somewhat more within reach.

Translated into absolute numbers of jobs that need to be created, improving labour market performance in these areas has a substantial potential for making up the job deficit foreseen in 2050 as compared to 2010 levels (second column in Table 4.8). However, calculating the contribution of a 25% increase in employment rates for 65-69-year-olds reveals that the potential employment contribution that can be expected from this group is likely to be rather modest.

**Figure 4.6** Potential gap in employment rate (female, senior) in the EU (in %)\*



61. *Employment in Europe 2006*, European Commission, Directorate-General for Employment, Social Affairs and Equal Opportunities.

**Table 4.8** Main employment results from the demographic projections, in thousands

	I	II	III	IV	V	VI	VII
	Estimated employment in 2050 for 20-64 year-olds (1)	Decline in comparison with 2010 (2)	Increase in female employment rate (3)	Increase in ER (4)	Decrease in UR (5)	Increase in ER for 55-64 year-olds (6)	Increase of 25% in ER for 65-69 year-olds (7)
EU-25	157 828	33 963	15 281	21 090	6 562	11 858	1 434
EU-15	136 669	25 979	12 193	15 561	4 394	9 171	1 176
NMS-10	21 558	7 726	3 001	5 131	1 986	2 800	258
EURO	104 612	23 930	11 177	14 685	4 007	8 639	936
BE	3 755	404	436	632	128	417	31
BG	1 557	1 299	213	428	110	222	21
CZ	3 250	1 355	266	303	108	238	32
DK	2 295	218	- 5	- 29	21	10	14
DE	26 780	7 749	1 924	3 049	1 264	1 982	240
EE	436	142	18	37	21	15	4
IE	2 058	- 173	169	148	- 1	79	17
EL	3 459	1 010	635	683	173	299	37
ES	13 623	4 696	2 197	2 389	716	1 035	140
FR	23 242	1 674	1 697	2 646	1 087	1 833	183
IT	16 006	5 848	3 116	3 939	452	2 009	164
CY	408	- 39	23	9	114	17	4
LV	708	262	40	75	39	38	7
LT	1 092	334	62	121	71	65	11
LU	242	- 44	29	32	1	23	2
HU	2 949	929	413	690	39	363	28
MT	164	- 9	54	53	3	21	2
NL	7 168	458	270	166	2	347	47
AT	3 068	517	191	253	6	355	26
PL	10 246	3 865	1 910	3 457	1 494	1 779	144
PT	3 657	1 105	164	203	72	138	34
RO	5 820	2 871	692	1 204	182	630	66
SI	691	227	35	61	11	81	7
SK	1 611	632	201	327	217	254	19
FI	1 978	327	40	121	84	71	16
SE	4 261	- 105	- 71	- 42	72	- 94	28
UK	25 849	1 501	774	598	32	468	198

Notes: (I) Employment in 2050 is estimated as the current employment rate multiplied by the expected population of 20-64-year-olds based on Eurostat's 'central variant' scenario.

(II) Difference between the estimated number of jobs in 2010 and in 2050.

(III) – (VI) For each case, estimated number of jobs gained if the corresponding rate reaches the current average level of the 3 best-performing EU-25 countries.

(VII) Estimated number of jobs gained if the employment rate for 65-69-year-olds is increased by 25% in each country.

ER = employment rate; UR = unemployment rate.

Source: Own calculations based on Eurostat population projections and Labour Force Survey data.

The high prevalence of part-time work amongst women also represents an untapped potential for raising the number of hours worked in Europe.

#### 4.3.2. Unlocking the potential for increased employment

Raising levels of educational attainment is one of the keys to unlocking the potential for increased employment in Europe<sup>62</sup>. Skill levels are significantly related to employment rates, with employment generally being higher the

62. The revised Employment Guidelines adopted by the European Council in their decision of 12th July 2005 (2005/600/EC) specifically cover this area: Guideline 23, which calls for expanding and improving investment in human capital through specified measures including lifelong learning strategies, and Guideline 24, which calls on Member States to adapt education and training systems in response to new competence requirements.



**Table 4.9** Employment (ER), unemployment (UR) and activity rates (AR) by education levels in 2005 (age group 15-64, in %)

	Total, irrespective of education level			High education level			Medium education level			Low education level		
	ER	UR	AR	ER	UR	AR	ER	UR	AR	ER	UR	AR
BE	61.0	8.1	66.4	83.6	3.8	86.9	66.0	8.2	71.9	40.0	13.7	46.3
CZ	64.7	7.8	70.2	85.0	2.1	86.8	72.0	7.1	77.4	21.3	27.3	29.3
DK	75.5	4.9	79.4	85.7	3.6	88.9	78.3	4.8	82.3	58.3	7.1	62.8
DE	65.3	11.4	73.7	82.7	5.8	87.8	69.2	11.5	78.2	42.1	19.0	52.0
EE	64.9	8.3	70.8	82.6	3.2	85.3	69.9	10.1	77.7	28.3	15.2	33.3
EL	60.3	9.8	66.8	81.4	7.7	88.2	61.0	11.5	68.9	50.5	9.0	55.4
ES	63.2	9.4	69.7	80.4	6.6	86.1	66.0	9.1	72.6	55.3	11.4	62.5
FR	62.8	9.3	69.3	76.9	6.6	82.3	68.7	8.2	74.9	47.2	13.6	54.6
IE	67.1	4.3	70.2	85.7	2.3	87.8	72.4	3.7	75.2	48.9	7.4	52.7
IT	57.8	7.6	62.5	79.5	6.0	84.6	67.6	6.6	72.4	45.8	9.2	50.4
CY	68.7	5.5	72.6	85.9	4.0	89.5	73.1	5.5	77.4	52.2	6.9	56.1
LV	63.0	9.2	69.4	85.6	3.9	89.1	68.9	8.9	75.6	33.1	18.6	40.7
LT	62.6	8.6	68.5	87.5	3.8	91.0	67.6	9.7	74.9	25.1	16.0	29.9
LU	63.6	4.5	66.6	82.5	3.5	85.5	63.0	4.2	65.8	50.5	6.2	53.8
HU	56.8	7.1	61.2	82.6	2.5	84.8	64.9	6.9	69.7	28.1	14.2	32.7
MT	53.6	7.9	58.2	82.7	2.7	84.9	76.0	3.7	78.9	44.5	10.6	49.8
NL	73.2	4.8	76.9	85.6	2.9	88.2	77.5	4.3	81.0	58.2	7.7	63.0
AT	67.6	5.3	71.3	83.6	3.1	86.4	72.5	4.5	76.0	45.1	10.4	50.3
PL	52.2	18.3	63.9	81.1	6.8	87.0	56.4	19.4	70.0	22.9	30.1	32.7
PT	67.6	7.7	73.2	87.5	4.4	91.5	63.5	7.5	68.7	65.5	8.3	71.5
SI	66.0	5.9	70.1	86.5	3.1	89.2	70.7	6.0	75.2	40.7	9.1	44.7
SK	57.4	16.3	68.6	83.4	5.2	88.0	66.6	14.4	77.8	13.1	53.1	28.0
FI	69.2	9.7	76.6	84.1	4.6	88.1	72.8	9.5	80.5	47.0	18.5	57.7
SE	72.6	8.8	79.6	86.0	4.7	90.2	78.7	7.8	85.3	52.0	17.1	62.8
UK	71.5	4.6	74.9	87.4	2.5	89.7	76.1	4.8	80.0	49.2	9.2	54.1
<b>EU-25</b>												
<b>Total</b>	<b>63.6</b>	<b>9.1</b>	<b>70.0</b>	<b>82.5</b>	<b>5.0</b>	<b>86.9</b>	<b>68.7</b>	<b>9.3</b>	<b>75.8</b>	<b>46.4</b>	<b>12.9</b>	<b>53.2</b>
<b>Men</b>	<b>71.1</b>	<b>8.5</b>	<b>77.7</b>	<b>85.9</b>	<b>4.6</b>	<b>90.1</b>	<b>75.1</b>	<b>8.7</b>	<b>82.3</b>	<b>56.8</b>	<b>11.7</b>	<b>64.4</b>
<b>Women</b>	<b>56.2</b>	<b>9.9</b>	<b>62.4</b>	<b>79.1</b>	<b>5.5</b>	<b>83.7</b>	<b>62.2</b>	<b>10.0</b>	<b>69.1</b>	<b>36.3</b>	<b>14.5</b>	<b>42.5</b>

Source: Eurostat Labour Force Survey, spring results.

greater the educational attainment level. In 2005 the average employment rate was 82.5% among the high-skilled in the EU and 68.7% for the medium-skilled (those having completed upper secondary education), whereas for the low-skilled it was only 46.4%<sup>63</sup> (see Table 4.9).

Fortunately, the level of educational attainment among the EU-25 working age population continues to rise, contributing to a more employable and adaptable workforce and in turn to increased employment and participation rates. In 2005, the high-skilled (i.e. those having completed tertiary education) represented close to 20% of the working age population, while the low-skilled (those with only lower secondary education or below) represented just under 33%<sup>64</sup>. This compares with shares of 17.6% and

36.2% respectively in 2000 and reflects the ongoing improvements in the level of human capital in the EU. This has mainly been the result of improvements in the skill composition of the female working age population, where the high-skilled share has increased 3 percentage points and that of the low-skilled fallen by 4.3 percentage points, compared to changes of 1.7 and -2.5 percentage points respectively for men. However, present levels of education still show that there is great potential for increasing employment by raising these levels even more.

Women have accounted for the greatest growth in employment in recent years<sup>65</sup>, both in relative and absolute terms. Indeed, the overall increase in female employment has been more than twice that for men. This reflects

63. *Employment in Europe 2006*, European Commission, Directorate-General for Employment, Social Affairs and Equal Opportunities.

64. *Ibid.*

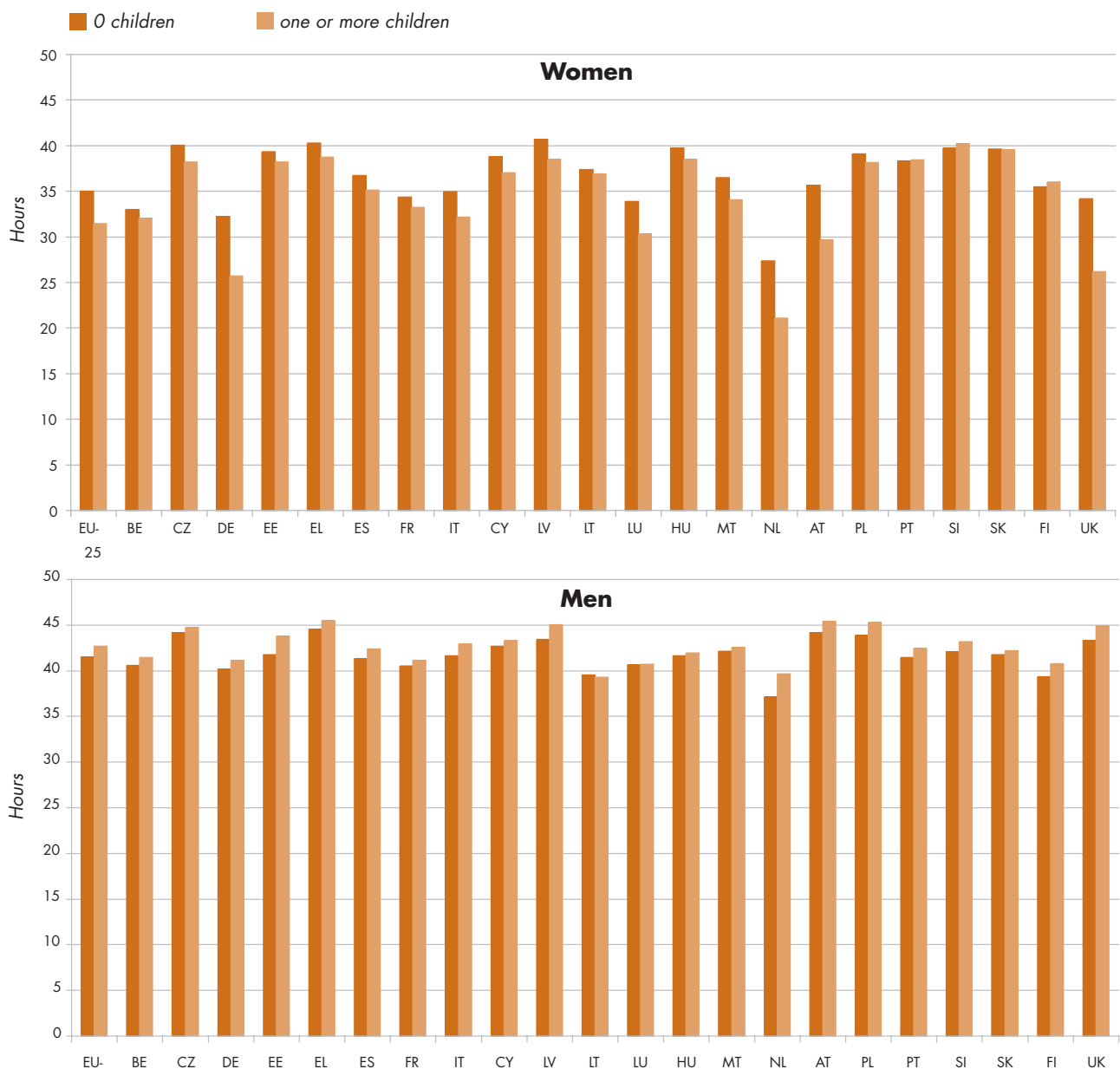
65. *Ibid.*

the recent trend of rising labour market participation for women, among whom activity rates increased from 60% to 62.5% between 2000 and 2005 against an increase in the male rate of only 0.4 percentage points.

In many Member States, however, especially those in the north of Europe, a disproportionate number of women who combine employment with having children work in part-time jobs. In 2005, almost 40% of women with chil-

dren, whether under 6 or older, worked part-time (i.e. for less than 30 hours a week), while around 10% worked under 15 hours a week<sup>66</sup> (see Figure 4.7). Both figures are around twice the rates for women without children. Such jobs not only yield less income than full-time ones but are often inferior in terms of their status and the responsibilities they involve, aspects which equally need to be taken into account when assessing the opportunity cost to women of having children.

**Figure 4.7** Average hours worked per week by women and men (aged 20-49) with or without children (aged 0-6) in EU Member States, 2004



Source: Eurostat, European Labour Force Survey, 2004.  
Note: Data are not available for DK, IE and SE.

66. 'Is the pressure on parents of young children too heavy?' Policy brief prepared for the European Commission's Directorate-General for Employment, Social Affairs and Equal Opportunities by the Social Situation Observatory, Social Inclusion and Income Distribution Network.

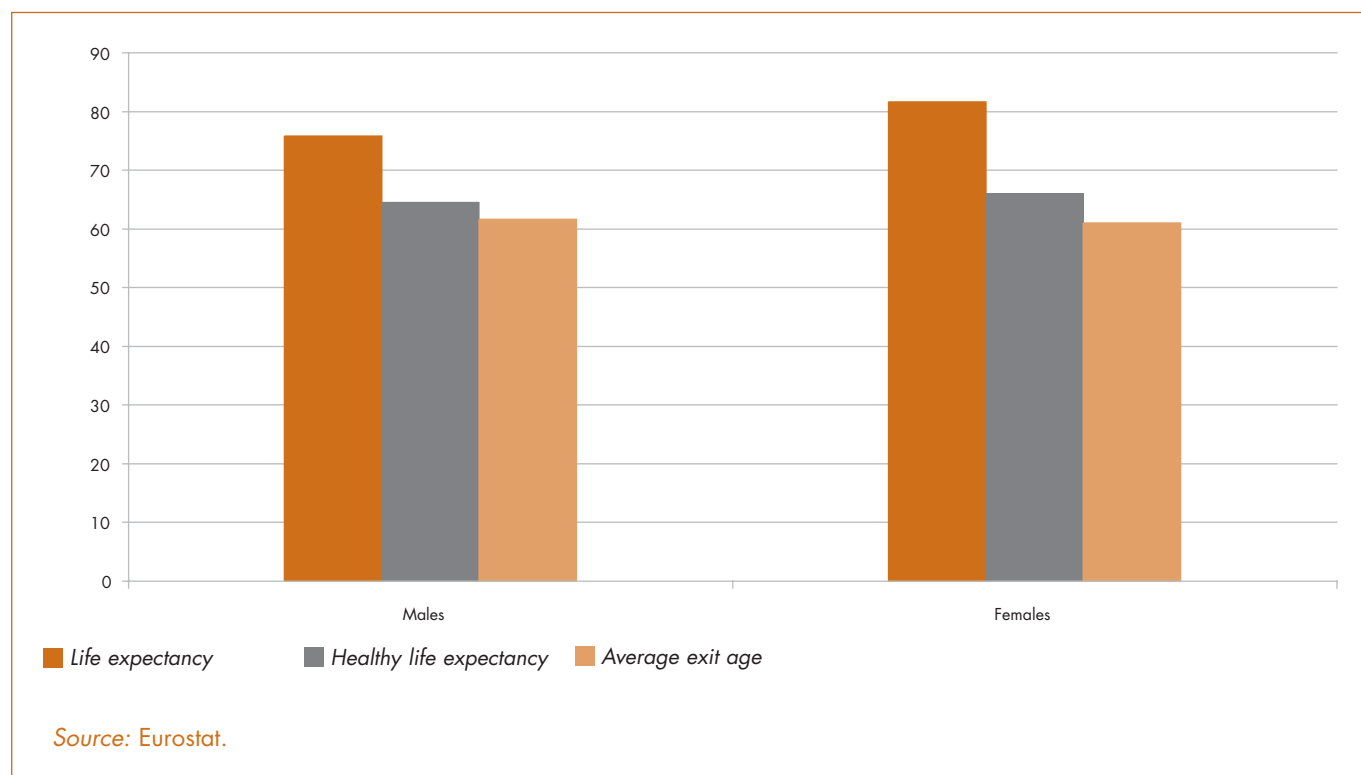
Having children has a more pronounced effect on the employment of women with low education (no qualifications beyond compulsory schooling) than those with higher levels. In the EU-25 as a whole in 2004, the proportion in employment of women aged 25-49 with low education and children under 6 was 20 percentage points lower than for women with the same level of education without children, which averaged just under 40%. For women with children aged 6-11, the proportion was over 7 percentage points lower. By contrast, for women with tertiary education, the difference in employment rates between those with children under 6 and those without young children was 12 percentage points and for those with children aged 6-11 less than 2 percentage points.

Prolonging working lives by promoting the postponement of retirement is another key to unlocking the potential for increased employment. Pension reforms in the majority of Member States are already raising the labour market exit age, but much can still be achieved in this area.

The statutory retirement age in most Member States is currently 65. In France, however, the statutory retirement age is 60 and in several other countries including Belgium, Italy, Austria and the United Kingdom, there is a separate lower age for women. The average exit age in 2005 for the EU-25 was estimated to be 60.4 years (see Figure 4.8). Employment amongst 55-64-year-olds increased by almost a quarter in the period 2000 to 2005<sup>67</sup>, indicating that pension reforms and other incentives put in place by Member States are having a clear effect.

Achieving longer working lives also involves addressing the causes of early retirement. Data available on the reasons given for their inactivity by 55-64-year-olds indicate that many individuals were already retired. However, as the figures in Table 4.10 show, many were inactive due to disability or the onset of illness. According to this table, the differences across countries are striking and to a great degree probably reflect different institutional arrangements rather than differences in health status.

**Figure 4.8** Healthy life expectancy, life expectancy and average exit age from the labour market in the EU-15, 2003



67. *Employment in Europe 2006*, European Commission.

**Table 4.10** Percentage of population and causes of inactivity for inactive persons aged 50-64, 2005 (in %)

Ageing and the labour market	Percentage of inactive individuals					Inactive as % of total population
	Personal/family reasons	Retirement	Illness/disability	Believe job not available	Other reasons	
BE	21	45	12	6	15	52
CZ	1	71	24	1	3	38
DK	4	50	41	:	3	29
DE	13	56	11	4	15	36
EE	:	52	33	9	:	32
EL	21	39	7	1	32	47
ES	39	18	23	4	15	45
FR	:	45	0	0	54	44
IE	:	1	1	:	96	39
IT	9	43	7	6	35	55
CY	59	20	17	:	3	38
LV	7	57	20	8	6	35
LT	3	52	33	6	4	36
LU	43	41	14	0	1	51
HU	3	67	22	4	4	51
MT	46	27	11	:	13	58
NL	9	39	32	3	17	40
AT	16	70	6	1	6	51
PL	6	41	36	6	11	54
PT	21	47	16	:	16	37
SI	9	61	23	3	4	50
SK	1	72	23	1	2	44
FI	3	33	44	5	14	33
SE	2	25	60	2	11	23
UK	5	38	16	0	40	34
EU-25	11	44	16	3	25	43

Source: Eurostat Labour Force Survey.

Note: Other reasons include education and volunteer work.

The fact remains however, that Europeans are living longer in good health than ever before in history (see Figure 4.9). The increase in healthy life expectancy signals the potential for greater labour market participation amongst those members of society who are currently retiring well before statutory retirement age.

#### 4.4. A more productive and dynamic Europe

The third response to the demographic challenge identified by the Communication on the demographic future of Europe is the improvement of productivity. Once the population of working age has started declining and no further improvements in employment rates can be expected, Europe's economic growth will depend on rising productivity alone. This has to be boosted by structural reforms to allow the less productive countries to catch up with the more advanced countries. Reforms will foster the development and uptake of new technologies as well as structural change in response to a changing environment. One dri-

ving factor behind this structural change will be the rising demand of older people for goods and services that are well-adapted to their specific needs. This 'silver economy' will create new business opportunities and markets.

##### 4.4.1. The potential to raise productivity

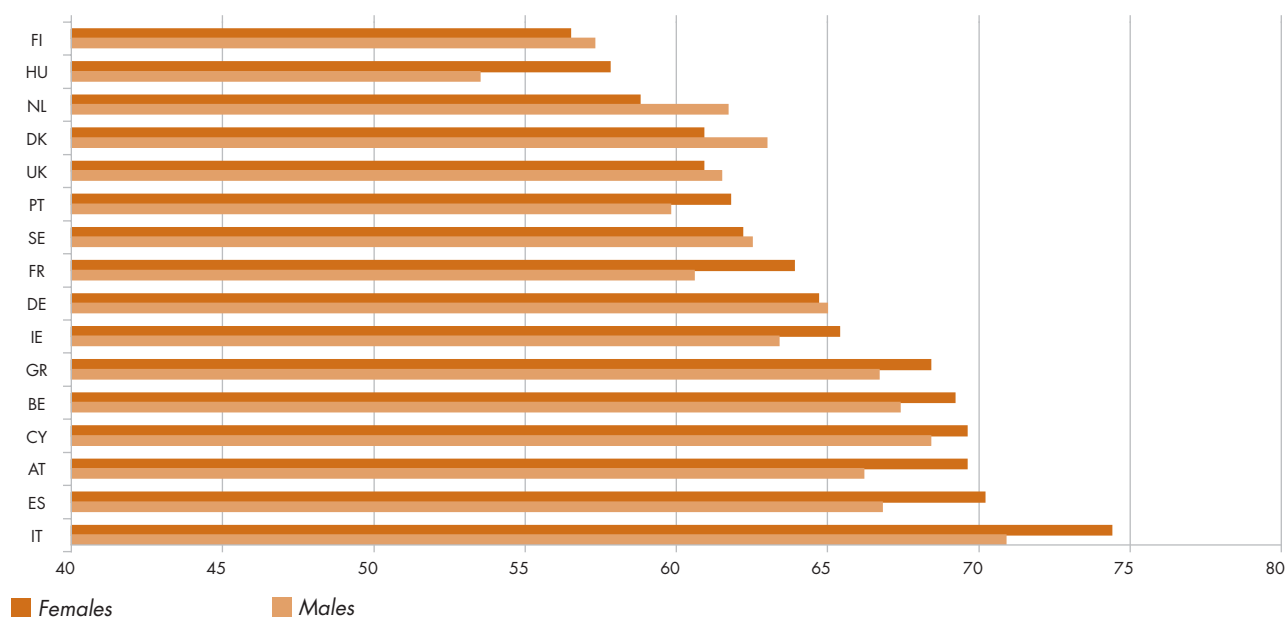
The decline in the working age population of the EU as a whole is already expected to start in 2010, but further increases in employment rates could ensure further employment growth up to 2017. Thereafter, economic growth and improvements in living standards will become dependent on increases in productivity. In fact, labour productivity gains already account for two-thirds of the average economic growth recorded in the EU-25 between 2000 and 2005.

The most obvious indication of the scope for productivity growth is the productivity gap between the highest performing countries and the rest. Table 4.11 presents producti-

vity per hour in 2004 relative to the EU-15 average. Leaving aside Luxembourg, the EU Member States with the highest productivity per hour worked are Belgium, Ireland and the Netherlands, all exceeding the EU-15 average by about 20% (nearly 30% in the case of Belgium).

Productivity in the US is close to the level of the EU productivity leaders. Catching up with the productivity leaders represents a considerable potential for accelerated growth in most Member States, in particular those that have joined the EU since 2004.

**Figure 4.9** Life expectancy in good health in 2003



Source: Eurostat.

Note: Provisional value for PT, all others estimated with the exception of CY.

Even the productivity leaders can accelerate their growth by further raising general education levels, removing obstacles to innovation and structural change, and boosting research and development leading to new products and more efficient production processes. However, the potential to move the production frontier is harder to quantify than the catch-up potentials.

#### 4.4.2. Unlocking the potential for productivity growth

Labour productivity depends to a large extent on previous investment in human capital. Table 4.12 shows that in 2005 around 15% of all young people in the EU-25, 6 million persons aged 18 to 24, came under the category of early school-leavers<sup>68</sup>. The Lisbon target agreed to by the Member States for this category is to reduce early school-leaving to below 10%. The proportion of early school-leavers was particularly high among men and in some Member States more than one third of young men had

dropped out of school. These early school-leavers will have poor employment prospects, their risk of being unemployed will be much higher than average and if they do find work, it will tend to be low-productivity and low-quality jobs.

Another important indicator of educational attainment is the upper-secondary education completion rate among 20-24-year-olds. Upper secondary education is the phase when the majority of young people prepare for transition into the labour market. This rate has stagnated at around 77% since 2000 (74% for men, 79% for women), as against the Lisbon target agreed by the Member States of at least 85%. Table 4.13 shows that in 2005 only five Member States had reached this target for men. Among 22-year-olds, a larger share of women had completed upper secondary education than men. This is reflected not only in the EU average but also in the figures for almost every single Member State. The young cohorts are on average achieving a higher level of educational than earlier

68. Percentage of the population aged 18-24 with at most lower secondary education and not in further education or training.

**Table 4.11** Productivity per hour relative to the EU-15 average

	1995	2000	2004
EU-15	100.0	100.0	100.0
EA	105.6	104.3	101.6
EA13	:	102.5	101.4
EA12	103.9	102.8	101.6
BE	131.3 e	126.4 e	131.4 e
CZ	44.2 e	45.3	52.1
DK	105.1	104.8	101.1
DE	109.0	106.6	109.7
EE	:	34.0	41.1
IE	96.9 e	112.0 e	120.3 e
EL	60.6	64.9	71.6
ES	93.7	87.5	88.5
FR	116.1	119.1	117.4 f
IT	103.3	100.5	91.0 f
LV	:	30.6 e	35.4 e
LT	29.9 e	34.4	43.8
LU	145.4 e	150.7 e	157.7 e
MT	:	76.6 e	71.5 e
NL	113.7 e	115.7 e	118.6
AT	100.0	100.1	99.1
PL	:	41.4 e	45.6 e
PT	60.2 e	66.0 e	59.5 f
SI	:	61.0 e	67.9 e
SK	38.7 e	46.7	56.0
FI	93.7	98.3	95.3
SE	99.3	101.8	101.9
UK	90.0 e	94.3 e	99.7 e
US	109.5	111.4	115.3
JP	76.4 e	77.2 e	80.8 f

Source: Eurostat.

Note: (e) = estimated value, (f) = forecast.

cohorts. The share of the total population having completed secondary education in Member States ranges from 26% up to 90% and is generally lower than that of women and men aged 22.

A good initial education provides the basis for lifelong learning which is vital for keeping skills up-to-date and remaining employable. Lifelong learning can be measured by looking at participation in training of people aged 25-64. For this group the Lisbon target agreed to by the Member States is 12.5%. Table 4.14 shows that in southern European countries and in most new Member States the likelihood of having recently participated in training is lowest and often hardly exceeds half the EU-15 average. Generally, older workers tend to be less likely to participate in training in all Member States<sup>69</sup>.

As regards the gender dimension, in most countries women participated more in lifelong learning than men,

**Table 4.12** Early school-leavers in %, 2005

	Women	Men
BE	11	15
CZ	7	6
DK	8	9
DE	14	14
EE	11	17
EL	9	18
ES	25	36
FR	11	15
IE	10	15
IT	18	26
CY	11	27
LV	8	16
LT	6	12
LU	10	17
HU	11	14
MT	39	43
NL	11	16
AT	9	9
PL	4	7
PT	30	47
SI	3	6
SK	6	6
FI	7	11
SE	8	9
UK	13	15
EU-25	13	17

Source: Eurostat.

independently of their educational attainment levels. Persons with higher initial educational attainment levels and younger generations also do more training: highly educated people participate seven times more in lifelong learning those with a low level of education, while participation decreases after the age of 34.

In order to compete successfully in the knowledge economy, tertiary education is becoming increasingly important. The development of new technologies and their transformation into new products and services and better production methods requires highly skilled graduates. Yet, at present the EU invests approximately 1.2% of GDP in tertiary education compared to nearly 2.9% in the US.

A lack of top-level graduates may limit the scope for raising the overall level of investment in research and development. But inadequate funding of research may also lead to a brain drain with many highly qualified research

69. A more extensive discussion on education can be found in the Commission paper 'Progress towards the Lisbon Objectives in Education and Training', <http://ec.europa.eu/education/policies/2010/doc/progressreport06.pdf>.

chers moving to centres of excellence elsewhere. Figure 4.10 shows that there are large differences between the Member States in the amount of money spent on R&D. Sweden and Finland are the two best ranked countries with around 3.5% of GDP. The EU average is below 2% while R&D spending in the US represents close to 2.7% of GDP.

#### 4.4.3. Ageing consumers and the 'silver economy'

Europe, together with Japan, will be the first region in the world to experience rapid population ageing. This will result in major shifts in demand patterns towards goods and services adapted to the needs of the elderly. Europe has the opportunity to become a world leader in these new markets for older consumers.

The size of these new markets will depend on the number of older consumers and on their purchasing power, which is more difficult to assess. According to the AARP (the American Association of Older People), consumers over the age of 45 were already responsible for more than half (52%) of total consumer spending in the United States in 2001, up from 47% in 1984. Between 1984 and 2001, the total average annual expenditure of older consumers in the US increased at a greater rate (+ 8%) than that for all consumers (+ 6%), largely reflecting the ageing of the baby boomers. Given that the average retirement incomes of many pensioners in the EU are comparable or even better than those in the US, thanks to higher replacement rates, a similar rise in the purchasing power of older persons as a group can be expected in the EU<sup>70</sup>.

**Table 4.13** Educational attainment in 2005  
(% completing secondary education)\*

	Women aged 20-24	Men	Total population
BE	85	76	66
CZ	90	91	90
DK	78	75	81
DE	72	70	83
EE	87	75	89
EL	89	79	60
ES	68	55	48
FR	84	81	66
IE	89	83	65
IT	78	68	50
CY	89	72	65
LV	87	77	84
LT	90	81	87
LU	76	67	66
HU	85	81	76
MT	52	45	26
NL	79	71	72
AT	88	84	80
PL	92	88	85
PT	57	40	26
SI	94	88	81
SK	92	91	88
FI	87	83	79
SE	89	87	83
UK	77	78	71
EU-25	80	74	69

\* Percentage of those aged 20-24 and total population who have successfully completed at least upper-secondary education (ISCED3).

Source: Eurostat.

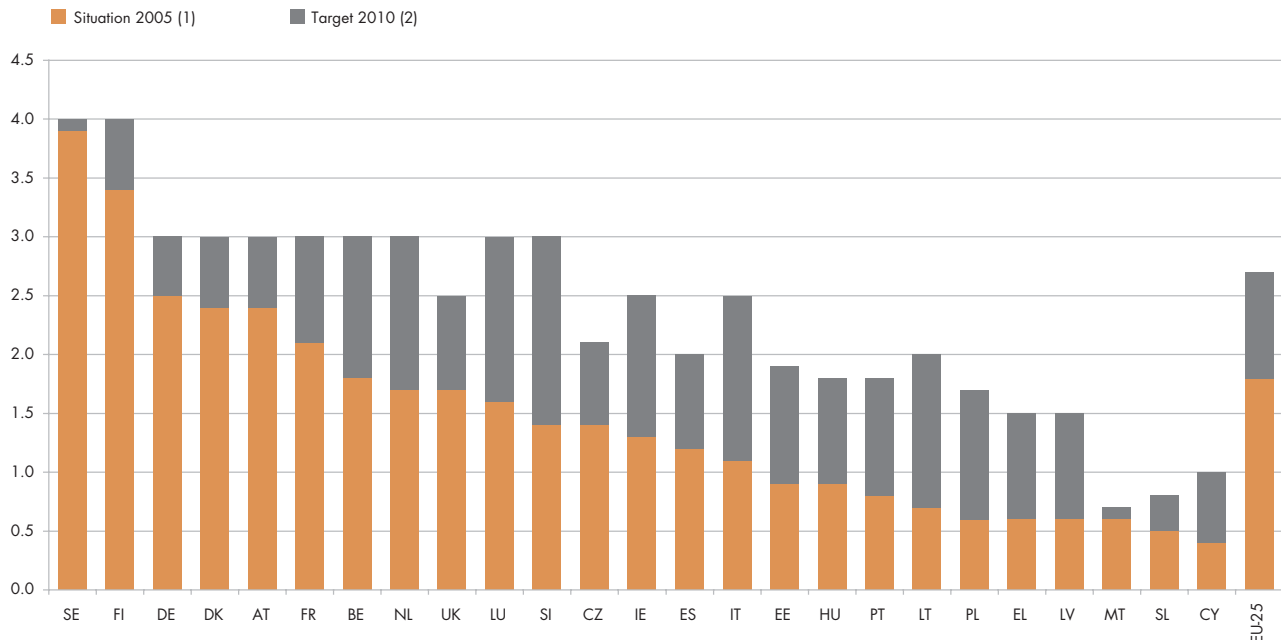
**Table 4.14** Life Long Learning: % of workers between 25-64 having participated in some form of training during the last 4 weeks

2005	Total	Men	Women
EU-27	9.7	8.9	10.4
EU-25	10.2	9.4	11
EU-15	11.2	10.4	12.1
EU-10	5.3	4.6	6
EU-12	10.5	9.8	11.3
BE	8.3	8.2	8.5
BG	1.3	1.3	1.2
CZ	5.6	5.2	5.9
DK	27.4	23.6	31.2
DE	7.7	8	7.4
EE	5.9	4.3	7.3
IE	7.4	6.2	8.6
EL	1.9	1.9	1.8
ES	10.5	9.7	11.4
FR	7.1	6.9	7.2
IT	5.8	5.4	6.2
CY	5.9	5.4	6.3
LV	7.9	5	10.6
LT	6	4.2	7.7
LU	8.5	8.5	8.5
HU	3.9	3.2	4.6
MT	5.3	6.1	4.5
NL	15.9	15.6	16.1
AT	12.9	12.3	13.5
PL	4.9	4.3	5.4
PT	4.1	4	4.2
RO	1.6	1.5	1.6
SI	15.3	13.6	17.2
SK	4.6	4.3	5
FI	22.5	19	26.1
SE	32.1	27.9	36.5
UK	27.5	23	32

Source: Eurostat New Cronos.

70. Gaberlavage, G., 'Beyond 50.04: A Report to the Nation on Consumers in the Marketplace', Research Report, AARP Public Policy Institute, May 2004.



**Figure 4.10** R&D Intensity (Gross domestic expenditure on R&D (GERD) as % of GDP)**Notes:**

(1) EL: 2003; BE, IT, MT, NL, SI, UK: 2004.

(2) PL: 2008; IE: 2013; UK: 2014.

(3) IE: The target is 2.50% of GNP in 2013.

(4) EU-25: The EU-25 R&amp;D intensity for 2005 was estimated by DG Research.

(5) EU-25: The EU-25 R&amp;D intensity for 2010 results from the aggregation of the targets set by the Member States (including estimated targets for IE, PL and the UK).

Member States have been ranked according to the current level of R&amp;D intensity from left to right.

Taken from the annex to the 2006 Annual Lisbon Progress Report: Macro-economic, micro-economic and employment issues, European Commission.

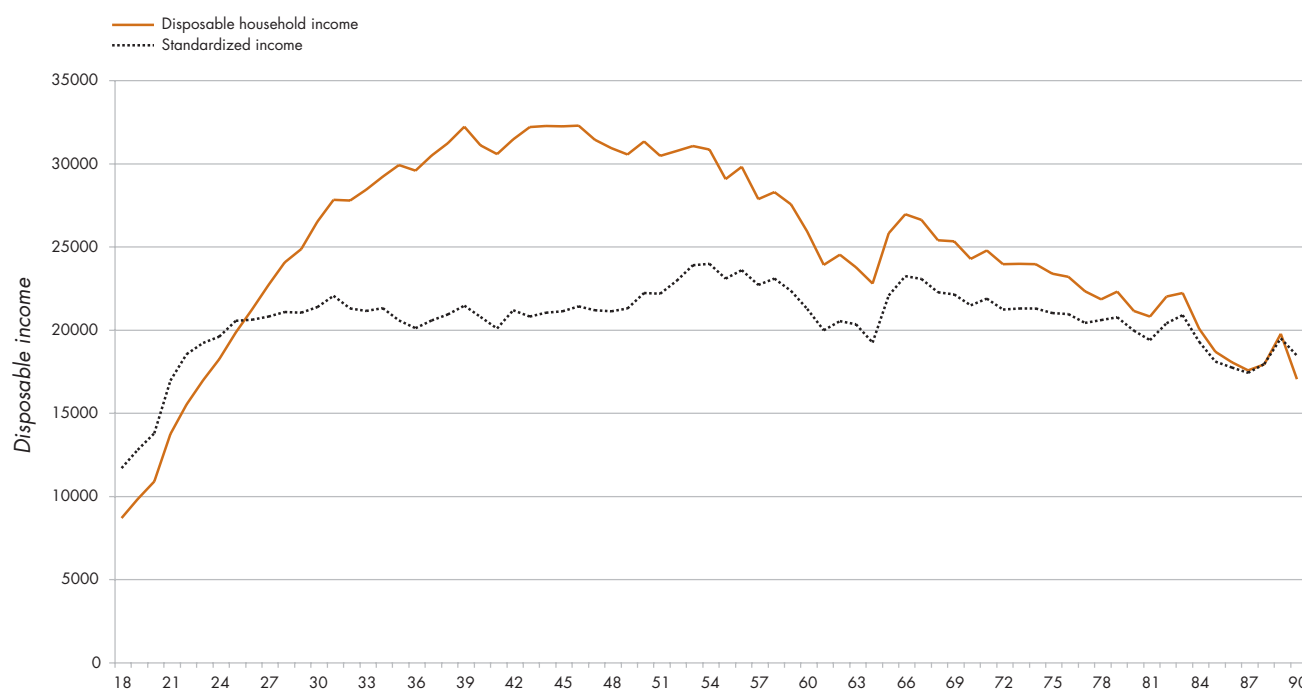
In a recent study, the Deutsches Institut für Wirtschaft (DIW) has confirmed the increasing importance of the older generation for the economy. Persons over 60 are already responsible for almost one third of total private consumption in Germany. This share is expected to increase on purely demographic grounds to more than 40% in 2050. Total consumer spending in Germany is expected to decrease 6% by 2050 compared to 2003. This decrease is likely to affect all age categories except persons older than 75. Demographic ageing will lead to a reduction in consumer spending on all goods and services except for health and long-term care. Ageing has already started to influence consumer spending in Germany. Over the last 10 years, persons over 75 have almost doubled their consumer spending from 43 to 80 billion.

The DIW<sup>71</sup> study predicts that the growing size of this age group will lead to another doubling of their spending to €68 billion by 2050.

The Dutch Ministry of Social Affairs has recently published a report on the future income situation of older Dutch citizens<sup>72</sup>. Figure 4.11 shows the average disposable income for 60 000 households in 2006 according to age. Disposable income peaks at the age of 40. Thereafter it starts to decline as a result of decreasing labour force participation and stagnating career profiles. At the official retirement age of 65 there is a slight increase. Pension income at the age of 80 is lower than at the age of 65, as there were in the past fewer opportunities to accumulate a second-pillar pension.

71. Buslei, H., E. Schulz and V. Steiner, *Auswirkungen des demographischen Wandels auf die private Nachfrage nach Gütern und Dienstleistungen in Deutschland bis 2050*, DIW Berlin, 2006, commissioned by the 'Bundesministerium für Familie, Senioren, Frauen und Jugend'.

72. 'Future income of older people', Working document, Dutch Ministry of Social Affairs, 2006, in Dutch see [http://docs.szw.nl/pdf/129/2006/129\\_2006\\_3\\_10147.pdf](http://docs.szw.nl/pdf/129/2006/129_2006_3_10147.pdf).

**Figure 4.11** Disposable household income according to age, 2006

Source: Dutch Ministry of Social Affairs 2006, MICROS.

Figure 4.11 also displays equivalised income (correcting for differences in household composition). Equivalised income remains almost flat from the mid-20s to 80 years of age. The report thus concludes that older people enjoy income levels that are similar to those of people between 30 and 64 years of age. However, it should be noted that the relative income situation of older people in the Netherlands is very good compared to that of some other Member States.

The information on income gives an incomplete picture of purchasing power. Wealth tends to be concentrated in the hands of older people, notably in the form of home ownership, which, for many households, represents their most important private asset, with the possible exception of private pension entitlements. Financial instruments such as reverse mortgages may allow older people to use housing wealth for consumption purposes, which could boost the purchasing power of the elderly.

The combination of good supply conditions (high levels of education, R&D, responsive and flexible markets) and the growing purchasing power of older consumers offers a huge new potential for economic growth, sometimes referred to as the 'silver economy'. There is no precise definition of this concept, so there are no statistics measuring

the progress towards the 'silver economy'. This is not a single new sector of the economy, but rather a wide range of age-related products and services in many existing sectors, including information and communication technologies, financial services, housing, transport, energy, tourism, culture, infrastructures, and local services as well as long-term care.

#### BOX 4.3 European network to promote the 'silver economy'

An interesting illustration of what may be possible under the heading of the Silver Economy is provided by the **SEN@R network**<sup>73</sup>. This network brings together 12 EU regions, representing 6 countries and 53 million inhabitants, with the aim to develop new ageing-related goods and services opportunities. Within the network, special interest groups have been set up around themes such as financial services, culture and tourism, health and life style, and independent living. In 2006 the network held a second large Silver Economy conference in Kerkrade (NL), at which many interesting examples were presented<sup>74</sup>.

73. [www.silvereconomy-europe.org](http://www.silvereconomy-europe.org).

74. [www.silvereconomy2006.nl](http://www.silvereconomy2006.nl).

The European Central Bank has recently presented an overview of the consequences of ageing in the banking sector<sup>75</sup>. Banks may face a decrease in business as a result of lower interest income and a declining demand for traditional services such as personal credit and mortgages. On the other hand, they could increase their business in other areas by offering new products tailored to senior customers (e.g. reverse mortgages), thus compensating for the decreasing demand for credit and mortgages among younger customers. There will also be a growing demand for asset management and advisory services. Banks will also have to adjust to new risks (i.e. longevity risk) which are linked to some of the new products such as annuities. Furthermore, the traditional boundaries between banks, insurance companies and investment companies are likely to become blurred.

Older people also represent an important demand factor as the main consumers of health and long-term care services. The increased demand for these services is going to create many new jobs. At the same time, available public resources have to be used in a rational way to ensure financial sustainability. One way to limit the need for expensive institutional care is to enable older people to remain in their homes as long as possible. Information and Communication Technologies (ICT) in combination with both formal and informal care may make this feasible for much larger groups of older people than is currently the case. Even many frail elderly people suffering from chronic diseases could, thanks to the right technologies, continue to live independently.

#### BOX 4.4 Products and services for independent living based on new technologies<sup>76</sup>

Older people are more likely to suffer from functional limitations in areas such as mobility, vision, hearing and in some aspects of cognitive performance. Specifically designed ICT-based assistive technologies can be of great benefit. In particular, the design-for-all approach appears very promising for the development of new products. There are three domains where ICT applications may particularly benefit older persons with limitations.

- In the assistive technology domain, ICT-based products are designed to compensate for motor, sensory and cognitive difficulties frequently experienced by older adults. For instance, speech technology has been deployed in assistive technology applications during recent years. Portable devices have been developed to detect lost objects like a key, to support people with light to moderate memory loss. Also personalised route guidance systems for travelling or use at home have been developed for elderly persons with impaired mobility. In the longer run, more powerful devices are expected, including robots designed to support dependent people in carrying out a variety of tasks such as navigating and manipulating every day objects without any human support.

In the assistive technology domain more than 20 000 products (not all involving an ICT component) have become available during the last decade. Unfortunately, most are produced in small series and therefore at a very high price. There is also much latent

demand in that people in need of an assistive technology are not aware that a product is on the market.

- In the smart home domain, support for the independence of older people can be provided by adding 'intelligence networks' to the immediate home environment. ICT is used to integrate various home appliances, devices and services to enable residents to control and monitor their living space from any location within the home. This may encompass relatively simple home automation functions, such as turning lights on and off, smoke alarms or access control; it can also involve of fully automated electrical systems. Despite a considerable research effort to exploit smart home technology, actual take-up is still largely confined to experimental settings and demonstrators. The lack of technical standards inhibits the creation of the right conditions for a mass market for smart home applications. However, recent activities in the consumer electronics industry may lead to the emergence of a commercial value chain along which home networking products and services may soon flow to the consumer.

- In the tele-care/tele-medicine domain, the focus is on applications utilizing ICT to enable the remote provision of support by parties that usually interact with older people in a care-related context. Applications include for instance alarm systems addressing security-related needs, e.g. getting help in an emergency, and the remote monitoring of vital data for medical purposes. Psycho-social needs can also be catered for with the help of video-telephony to provide social support and reassurance.

75. Maddoni, A. and others, 'Macro economic implications of demographic developments in the Euro area', ECB occasional paper series, No 51, August 2006.

76. Impacts of New Technologies and Information Society, 'Walter' demographic impact study by Empirica and the Work Research Centre, 2005 available at [http://ec.europa.eu/employment\\_social/social\\_situation/studies\\_en.htm](http://ec.europa.eu/employment_social/social_situation/studies_en.htm).

See also the Joint Research Plan on the basis of Article 169 of the Treaty on Ambient Assisted Living.

Some alarm systems are location-independent, allowing users to initiate an alarm whenever and wherever they need to. Alarm systems are by now the most widely used Independent Living Technology application, although actual take-up varies considerably across countries. In the EU-15 Member States, on average some 4% of the 50+ population have such alarms.

While 'active' alarm systems require the client to actively call for help when an emergency arises, 'passive' systems are triggered by the absence of a particular event. The simplest passive alarm system consists of monitoring agreed regular telephone calls made by the individual to a service centre and triggering an alarm if a call is not made. More recent passive alarm systems have been automated and often combined with the monitoring of particular health parameters such as blood pressure or temperature.

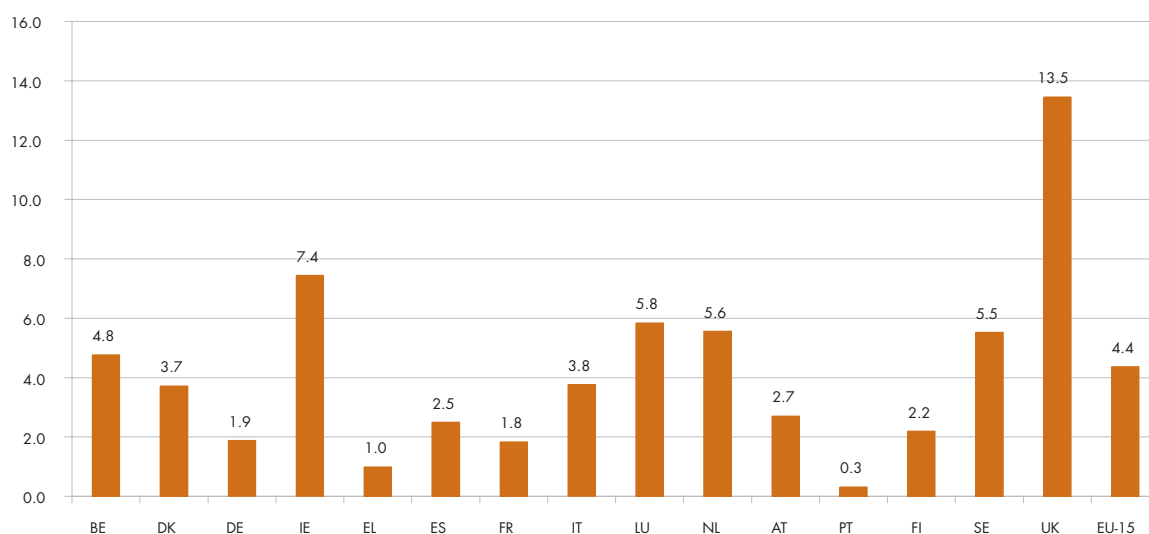
Market potentials will dramatically rise due to demographic development, particularly among the very old.

For instance, the potential demand for tele-care applications capable of addressing the needs of people being treated for heart diseases is likely to nearly triple between 2005 and 2050, from 4 million to 11 million.

The Independent Living Technology (ILT) domain has not yet matured; only few applications such as community alarms and assistive technology devices are widely available today. Many ILT implementations still exist only in experimental settings.

In conclusion it can be stated that only a minority of older people are currently benefiting from ILT applications that have a high potential utility for them. Market forces alone will not ensure that ICT developments in response to demographic ageing will be optimal for older people and for European society as a whole. Public policy will be required to help shape developments in the ways needed to exploit the positive potential and reduce the likelihood of negative impacts.

**Policy simulation of the effect on fertility**



Source: Empirica – WRC 2005.

#### 4.4.4. Conclusion

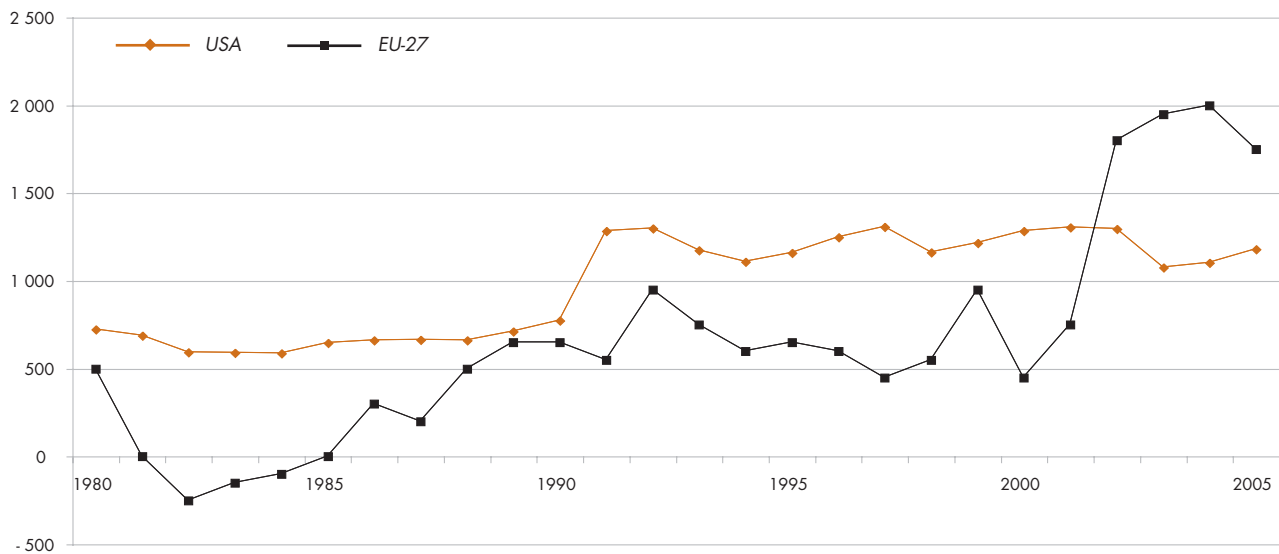
There is considerable scope for productivity growth in the EU, both in catching up with the productivity leaders and by investing in human capital as well as research and in development, thereby boosting Europe's innovation potential and capacity to adapt to a changing economic envi-

ronment. Older people, in particular the retired have still very low levels of ICT skills and a below-average use of the internet<sup>77</sup>. This will also strengthen the ability of European businesses and workers to seize the new economic opportunities arising from the 'silver economy', i.e. new goods and services responding to the needs of an ageing population<sup>78</sup>.

77. See also the Commission's second annual progress report on the Information Society (IP/07/453), [http://ec.europa.eu/information\\_society/eeurope/i2010/annual\\_report/index\\_en.htm](http://ec.europa.eu/information_society/eeurope/i2010/annual_report/index_en.htm) and the forthcoming communication on ICT and Ageing Well in the Information Society.

78. There is also a supply side aspect to ageing as social services may also benefit from a larger proportion of elderly due to their involvement in volunteer activities. See <http://www.iccr-international.org/activage>.

Figure 4.12 Net migration 1980-2005



Source: Eurostat, OECD Employment and Labour Market Statistics.

Notes: Net migration is measured as the difference between the total population on 1 January and 31 December for a given calendar year, minus the difference between births and deaths (or natural increase). The figures reflect large-scale regularisations in some Member States.

#### 4.5. Receiving and integrating immigrants in Europe

The Communication on the demographic future of Europe emphasised the importance of continued immigration. This will be necessary to meet the needs of the European labour market, both for qualified and unskilled labour. Europe's prosperity and political stability, along with the dynamic population growth in neighbouring countries, will ensure that immigration can at least partly offset the decline in Europe's potential labour force due to large cohorts retiring from the labour market and small young cohorts entering it. However, the Communication also stressed the importance of integrating immigrants and respecting the needs of their countries of origin.

##### 4.5.1. The potential of migration for redressing labour market imbalances

For more than two centuries, most countries of Europe have primarily been countries of emigration, but the last 60 years have seen all countries of Western Europe gradually become destinations for international migrants and asylum seekers. Today, all western European countries and several central European Member States of the European Union have a positive migration balance. Over recent years, net migration into the enlarged EU appears to have exceeded migration into other traditional recipient nations such as the United States of America.

In some Member States, the number of deaths already exceeds the number of births ('natural population

decrease'), but positive net migration prevents the population from actually shrinking.

Over the coming years, more and more countries will experience a natural population decrease, so immigration might become increasingly important. Table 4.15 compares the projected decline in the working age population with the expected cumulative total inflow of migrants. It also shows the share of the gross fall (i.e. without migration) likely to be offset by projected numbers of immigrants (column IV). These are simplified assumptions, but the calculation gives a rough indication of the contribution of continued immigration in the years to come.

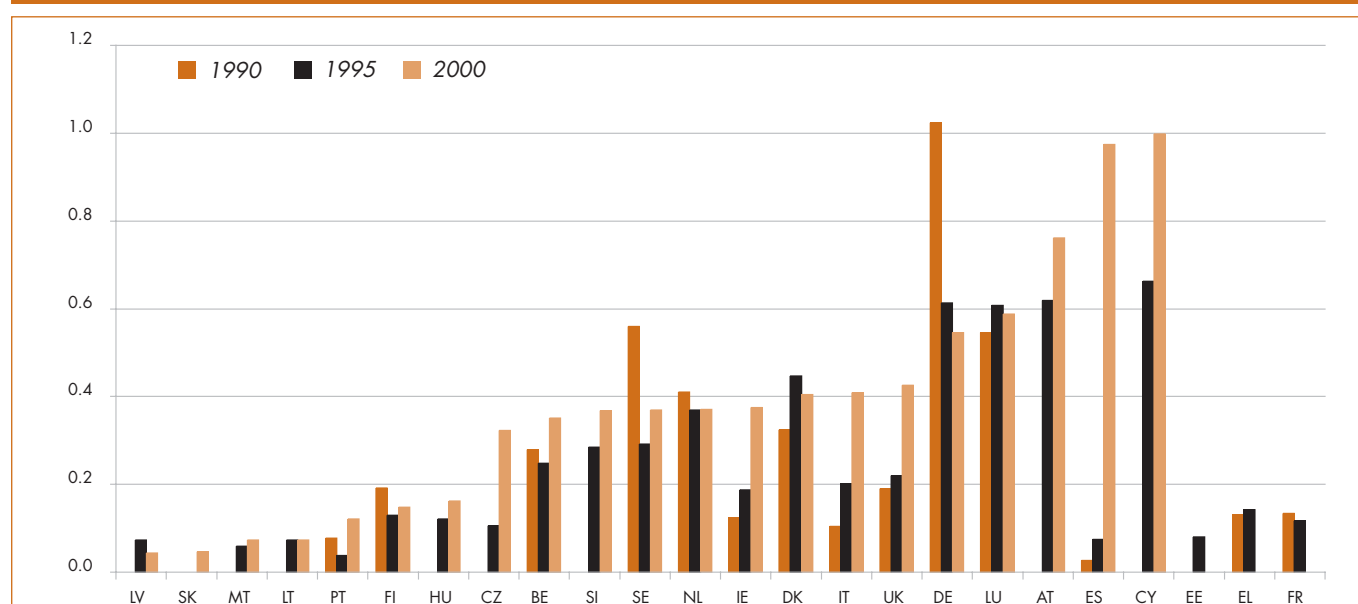
Around 56 million persons entering the country and finding jobs would be needed to compensate for the projected reduction in the population of working age for the EU-27. Some countries, typically those with the highest projected fertility rates such as Ireland, would not need additional labour in order to maintain current job levels. Other Member States would require quite dramatic numbers of immigrants (Germany, Spain, Italy and Poland). All in all, net migration well above the European levels of recent decades would be necessary to compensate for the decline in the working age population.

However, migrant inflows have varied dramatically in recent years across Member States, with countries bordering the Mediterranean receiving vastly greater influxes of migrants in absolute terms than other areas of the EU.

**Table 4.15** Population of working age and migration, 2004-2050

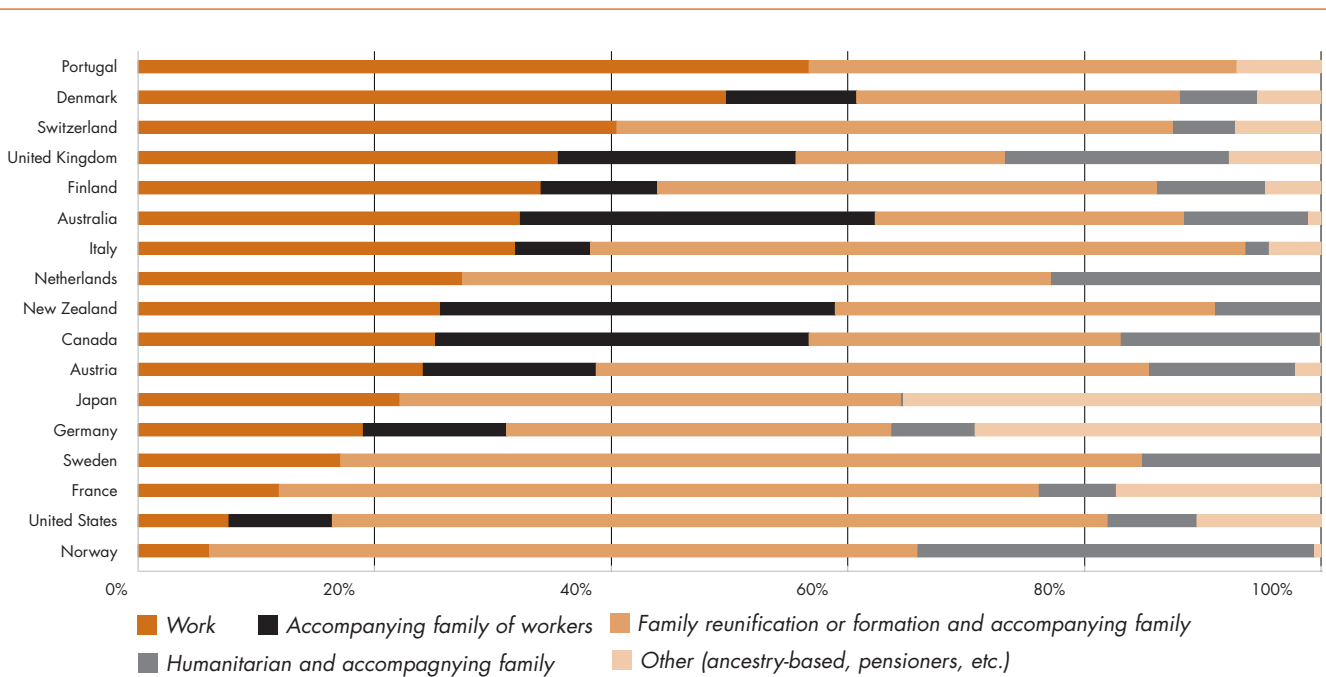
	Non-EU immigrants as % of pop. 2000-2004	Projected decline in the population of working age 2010-2050	Immigration assumed under the baseline scenario 2050	III/(II + III)
	I (%)	II (thous.)	III (thous.)	IV
BE	0.35	616.0	921.1	0.60
BG	0.32	2 160.6	- 295.6	- 0.16
CZ	0.32	1 932.6	473.1	0.20
DK	0.40	281.5	281.4	0.50
DE	0.55	11 263.5	7 442.7	0.40
EE	0.08	201.0	19.1	0.09
IE	0.38	- 242.3	431.5	2.28
EL	0.09	1 577.8	1 047.1	0.40
ES	0.98	7 202.0	4 178.7	0.37
FR	0.09	2 433.6	2 347.2	0.49
IT	0.41	9 508.7	4 672.4	0.33
CY	1.00	- 52.6	164.1	1.47
LV	0.04	378.7	28.5	0.07
LT	0.07	483.5	37.6	0.07
LU	0.59	- 64.6	133.9	1.93
HU	0.16	1 495.3	515.2	0.26
MT	0.07	- 16.4	84.9	1.24
NL	0.37	611.6	1 491.7	0.71
AT	0.76	730.1	957.2	0.57
PL	:	6 745.1	417.5	0.06
PT	0.12	1 521.6	522.4	0.26
RO	0.02	4 521.7	- 368.3	- 0.09
SI	0.37	322.8	189.0	0.37
SK	0.05	991.5	91.9	0.08
FI	0.15	452.6	198.6	0.31
SE	0.37	- 136.0	961.8	1.16
UK	0.43	2 003.8	4 697.6	0.70

Source: Eurostat population projections.

**Figure 4.13** Non-EU migration inflows, 5-year averages (%)

Source: Eurostat.

Note: Years indicate first year of period. Rates are calculated as the number of non-EU migrants per year divided by total population.

**Figure 4.14** International migration by category of entry, selected OECD countries, 2004, harmonised data, % of total inflows

Source: OECD.

Note: OECD harmonised statistics, for details of sources see: <http://www.oecd.org/dataoecd/61/7/37035672.pdf>.

Not only the magnitude but also the nature of migration flows differs greatly across the EU. Figure 4.14 shows figures for a number of OECD countries. Illegal migration has been a major cause for concern in EU countries bordering the Mediterranean and Spain, Italy and Greece have all regularised the status of large numbers of illegal migrants within recent years<sup>79</sup>.

To the extent that employment opportunities are unevenly distributed across the EU, the internal mobility of workers in the EU also represents an enormous potential for higher rates of participation and employment on the labour market. The full potential of intra-EU mobility is, however, not yet harnessed, as transitional arrangements still restrict the mobility of citizens from the Member States that have joined the EU since 2004<sup>80</sup>.

Table 4.16 shows that currently the percentage of non-EU nationals in EU-15 Member States is significantly higher than the percentage of EU-10 nationals. Labour market data show that employment rates among EU-10 nationals residing in other EU countries are comparable to the rates for nationals of those countries and other EU-15 nationals. Moreover, they are generally higher than for non-EU nationals. In Ireland, Spain and the UK, EU-10 nationals even have higher employment rates than local nationals. This

**Table 4.16** Resident population by nationality, 2005

	National	EU-15	EU-10	non-EU
BE	91.3	5.8	0.2	2.8
DK	96.4	1.1	:	2.4
DE	89.5	2.8	0.7	7.0
EL	94.0	0.3	0.4	5.3
ES	90.5	1.2	0.2	8.1
FR	94.4	1.9	0.1	3.6
IE	92.3	3.0	2.0	2.8
LU	57.9	37.6	0.3	4.2
NL	95.7	1.4	0.1	2.8
AT	89.2	1.9	1.4	7.5
PT	97.0	0.4	:	2.6
FI	98.3	0.4	0.3	1.0
SE	94.8	2.3	0.2	2.7
UK	93.8	1.7	0.4	4.1

Source: Eurostat, Labour Force Survey, 2005 Q1, Ireland 2005 Q2 for working age population, population statistics for net migration.

Notes: ':' signifies data not reliable due to small sample size. Italy is excluded, since it does not disaggregate by nationality. EU-15 and EU-25 aggregates without Italy. EU-10 aggregate without Poland.

shows that EU-10 nationals positively contribute to overall labour market performance, to sustained economic growth and to the state of public finances in their host countries<sup>81</sup>.

79. The European Council and the European Commission have taken a wide range of initiatives aimed at dealing with the challenges posed by this issue, see COM(2005) 621, COM(2006) 402 and COM(2006) 735.

80. See COM(2006) 48.

81. Ibid.



**Table 4.17** Contribution of immigration to increased employment, 2000-2005

Country	Total change in employment	From indigenous population	From migrants	From employment rate increase
IE	261 876	34 134	175 102	52 640
ES	3 333 463	-53 196	1 656 768	1 729 891

Source: Eurostat Labour Force survey and population projections.

Note: Migrants and indigenous residents are assumed to have same employment rate in 2005. It is also assumed that the improvement in the employment rate applies to the 2000 population.

Two Euro-area countries that experienced growth appreciably above the Euro-area average during the period 1999-2005, namely Ireland and Spain, illustrate the importance of migration. Neither of the two countries could have achieved such strong economic and employment growth without the massive inflow of foreign workers; estimates of the natural growth in population and the number of migrants entering these two countries (see Table 4.17) show that immigration has made a substantial contribution to the increased number of employed, although this contribution has been more modest in the case of Spain than for Ireland. While Spain has mainly had immigration from outside the EU, Ireland has benefited strongly from immigration from other Member States, particularly the EU-10.

#### 4.5.2. Unlocking the potential of migration

The great challenges of international migration for receiving countries are centred on integration and social cohesion. The Member States of the EU have evidently had dif-

ferent degrees of success with labour market and social integration. Table 4.18 shows that the average educational attainment of non-nationals is generally substantially lower than that of nationals. It is noteworthy that in several countries, thanks to the presence of high-skilled migrants, the situation is reversed for tertiary education. Migrants are often, irrespective of their qualifications, pushed into low-end jobs. As a result, emigration countries are losing high-skilled workers while in the EU these skills remain untapped.

Figure 4.15 shows that foreign-born individuals are often less well integrated into the labour market, although this differs across countries. Thus, in eight of the EU-25 countries, employment rates for locally born individuals outstrip those of both migrants born in the EU, and, to an even greater degree, of individuals born outside the EU. There is a dramatic contrast between the two employment gaps in Poland, although relatively few persons from other EU countries reside here.

**Table 4.18** Distribution of foreign and national population (aged 25 to 64 years) by level of education (2002-2003)

	Less than upper secondary		Upper secondary		Tertiary level	
	Foreigners	Nationals	Foreigners	Nationals	Foreigners	Nationals
BE	52.3	37.8	25.7	33.5	22	28.7
DK	30.7	27.6	41.7	46.7	27.5	25.7
DE	47.1	13.6	38.2	62.4	14.7	24
EL	42.1	46.8	40.9	35.3	17	17.9
ES	43.3	58.3	28.5	17.2	28.2	24.6
FR	63.9	33.5	20.6	42.5	15.5	23.9
IRL	21.3	40.1	28.6	35.4	50.1	24.5
LU	43.8	27.5	38	56.7	18.2	15.8
NL	43.7	31.9	31.5	43.3	24.8	24.9
AT	42.9	19.3	43.4	63.7	13.7	17
PT	55.4	79.1	28.1	11.1	16.6	9.8
FI	29.1	24.8	46	42.4	24.9	32.8
SE	23.7	18	45.4	55.5	30.9	26.5
UK	30.9	17.4	25.5	53.1	43.6	26.2
CZ	25.9	11.7	52.5	76.6	21.5	11.7
HU	20.2	27.4	52.6	58	27.2	14.5
SK	13.2	13.8	67.8	75	19	11.2

Source: OECD/Sopemi, 2005.

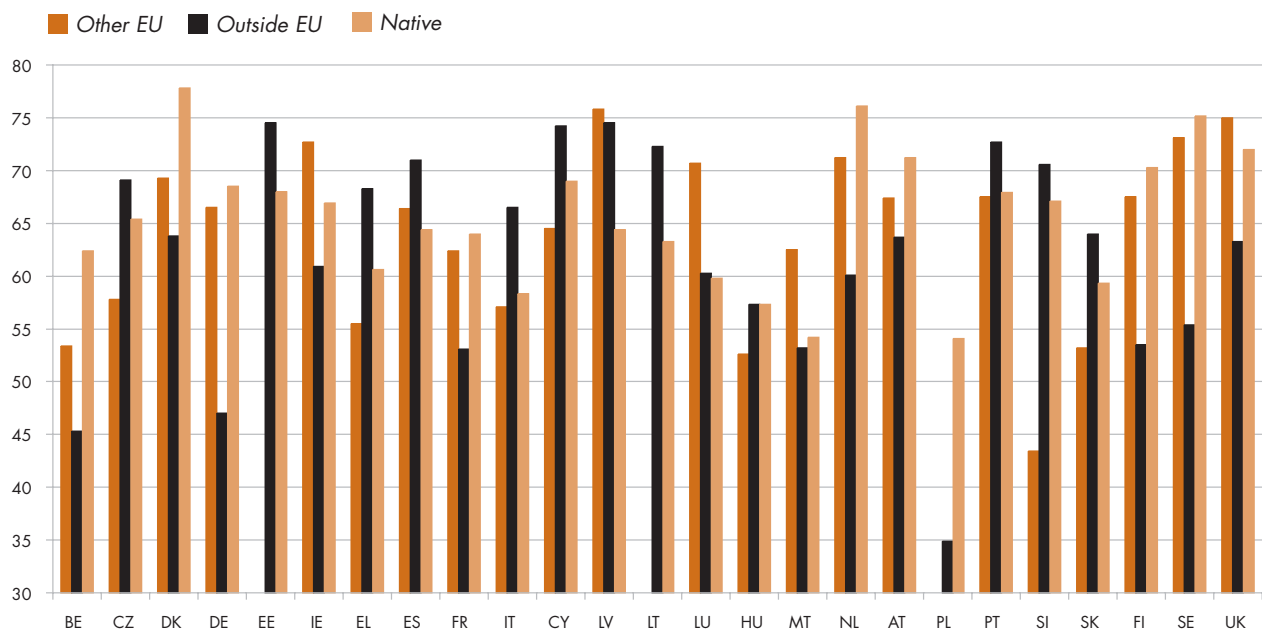
Note: For DK and NL 2002 data. 7.4%, 13%, 6% and 43.4% of the foreign population did not respond to the question on education attainment in Germany, Ireland, Sweden and the UK, respectively.

**BOX 4.5 Migration and Integration – Topics at the European Demographic Forum**

The Demographic Forum on in Brussels 30-31 of October 2006 was marked by keynote speeches that also touched upon the issue of migration. A strong case was made for the creation of a quota system designed to attract highly qualified immigrants with a minimum of bureaucratic difficulty, giving these migrants access to all EU Member States (the so-called Blue Card scheme)<sup>82</sup>. A better mix of both high- and low-skilled immigrants may exert a positive influence on the public perception of immigration and may help overcome the reluctance to welcome further immigration. In addition, as part of a workshop aimed at presenting examples of initiatives to meet the challenges of successful migration and integration, especially at local and national level, speakers stressed the considerable extent and importance of migration in Europe and the need for a truly

European response. Other interventions highlighted examples of policies implemented at national level, of advocacy on behalf of minorities and of integration programmes at local level.

Participants were told of the comprehensive initiatives launched in Portugal for the reception and integration of migrants under the aegis of that country's High Commissioner for Immigration and Ethnic Minorities<sup>83</sup>. The Portuguese approach is multifaceted, involving the distribution of information (both for immigrants and the indigenous population), the consolidation of the institutions involved in a one-stop-shop philosophy, evidence gathering, support for advocacy initiatives and measures to raise public awareness and combat discrimination.

**Figure 4.15** Employment rates 2006 (in %)

Source: Eurostat Labour Force Survey.

Note: 2005 data for IE, LU, and IT; data by nationality for DE.

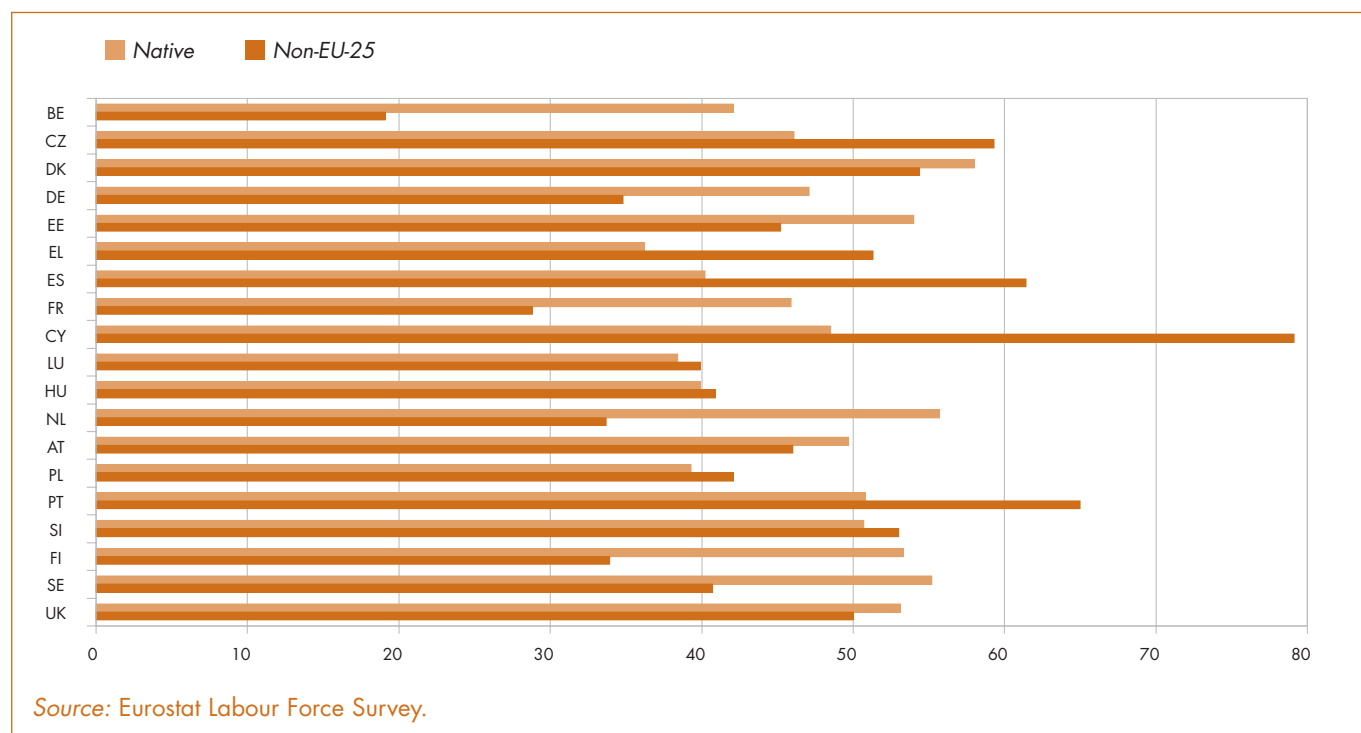
Migrant women face particular problems in the labour market, often in the form of dual discrimination, i.e. discrimination on the basis of both their gender and ethnic origin. The differences in employment rates between natives and non-natives are remarkably large in some countries. In some countries that have recently experienced large inflows of migrants such as Spain and Greece, employment rates amongst non-EU women are in fact higher than

those for native women, which suggests that these countries have attracted female workers in particular (e.g. to work in the hotel and catering sectors as well as caring for the sick and elderly).

Unsuccessful integration may be the result of unwelcoming attitudes to immigration and migrants which may in turn be reinforced by the social problems linked to the poor

82. 'Welcome to Europe', Bruegel Policy Brief No 3, 2006, see <http://www.bruegel.org>.

83. For more information visit <http://www.acime.gov.pt>.

**Figure 4.16** Employment rates for women in 2006 (in %)

integration of migrants. This may make it politically unacceptable to receive more immigrants. Eurobarometer survey results indicate that on average only 4 out of 10 EU citizens feel that immigrants contribute a lot to their country while a majority of citizens (52%) do not agree with this statement. However, there are significant differences between countries. While fully 79% of Swedes have a positive opinion of the contribution of immigrants to society, only 12% of Slovaks hold this view.

#### 4.5.3. Conclusion

Europe has much left to do in the areas of managing migration and integration. There is a need for more high-skilled immigration to complement the influx of low-skilled labour, for which there is also likely to be much demand. However, immigration is only helpful if immigrants and their descendants have equal opportunities for successful integration within the economy and society of their host country. Resentful attitudes towards immigration and a lack of understanding of the character and effects of immigration could well be the main obstacles to Europe making full use of this major opportunity to tackle the demographic challenge.

### 4.6. Sustainable public finances

The Communication on the demographic future of Europe stressed that, in most Member States, public finances are not sustainable under current policies. This lack of sustaina-

bility can be the result of large debt and deficit levels today or of projected future expenditure trends not matched by resources available to governments in the form of tax revenues or accumulated reserves. In the worst cases, already unsound public finances are compounded by unsustainable expenditure trends linked to demographic ageing. Countries in such a situation will not be able to meet the needs of an ageing population and offer their elderly adequate pensions and/or health and long-term care.

#### 4.6.1. Potential for tackling the demographic challenge

Long-term fiscal sustainability can be assessed on the basis of the 'sustainability gap'. This measures the size of the permanent budgetary adjustment (e.g. a constant reduction in public expenditure as a share of GDP or a constant increase in public revenue as a share of GDP) needed for a government to meet its 'inter-temporal budget constraint', thus ensuring sustainable public finances<sup>84</sup>. The sustainability gap can be broken down into two components: the initial budgetary position which illustrates whether public finances are sustainable in terms of only the current budgetary position (i.e. the primary balance and the level of debt), and the long-term budgetary impact of ageing, i.e. the impact of the projected change in age-related public expenditure. This decomposition of the sustainability gap provides estimates of the extent to which the gap is due to the present (i.e. 2005) structural position and to the long-run budgetary impact of ageing. The results are presented in Table 4.19, where a low value indicates a favourable situation.

84. See *European Economy*, No 4, 2006, 'The long-term sustainability of public finances in the EU'.

Nine Member States (BE, EL, ES, IE, CY, LU, HU, PT, and SI) face a permanent sustainability gap in excess of five percentage points of GDP due to projected increases in age-related expenditure. A second group of ten countries can expect a more limited budgetary impact from ageing under current policies, with a gap ranging from two to five percentage points of GDP. A third group of seven countries face a moderate gap of less than two percentage points. In three countries the projected decline in public expenditure would turn the gap positive i.e. projected revenues would exceed projected expenditure (notably Poland where the decline is mainly due to a projected decrease in the benefit ratio).

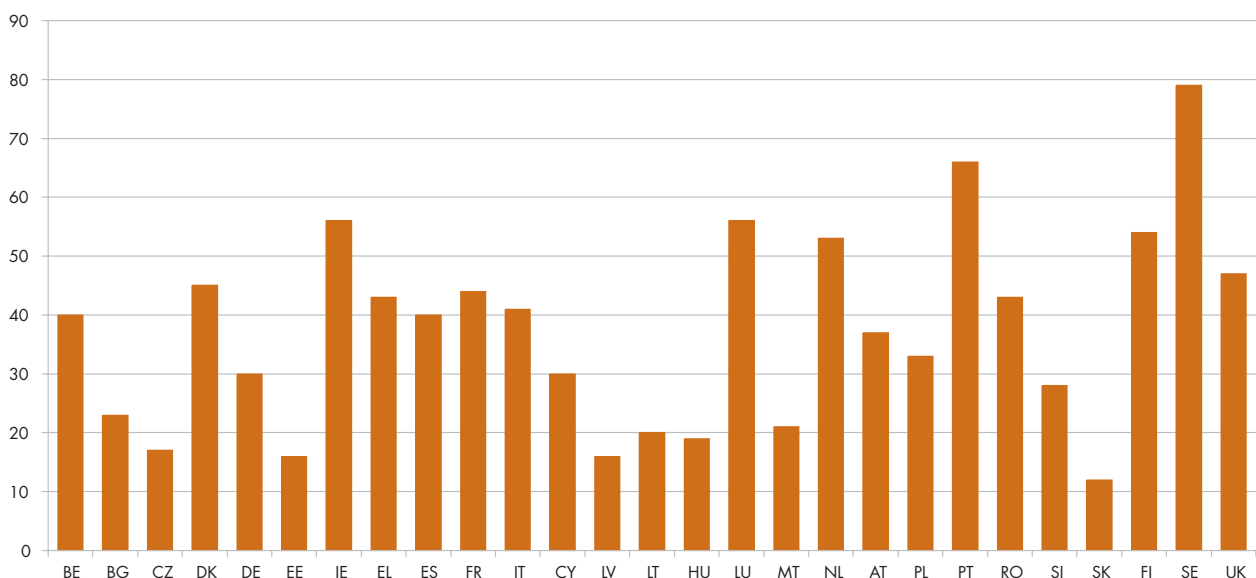
Sound public finances can be seriously undermined by the level of interest payments as a percentage of total government revenue (see Table 4.20). Too high a level of interest payments due to past mistakes in budget policy is an additional challenge that needs to be overcome in order to arrive at long-term sustainability. In the mid-1990s, Italy used more than a quarter of government revenue to service its public debt, and Greece one third. Since then, interest payments have gone down considerably, albeit not primarily as a result of debt reduction but rather thanks to the lower interest rates made possible by the introduction of the Euro. In 2005, Italy and Greece spent 11% and 13%, respectively, of their public revenue on interest payments. This is still a large amount of money that would otherwise go a long way towards meeting future ageing-related needs or could be used for investing

in education, research and development, better support for families or new infrastructure, thereby laying the foundations for future growth.

With an overall government deficit of 2.3% of GDP in 2005, the (then) EU-25 Member States had clearly not been extending their financial room for manoeuvre to prepare for an ageing society. However, they did run a small primary budget surplus (i.e. the government balance after deduction of interest payments), indicating a move towards consolidation. Total government debt for the EU-25 rose between 2002 and 2005 by almost three percentage points of GDP to above the Treaty reference value of 60% of GDP for the EU-25 and nine Member States in particular, which had to channel at least 5% of their revenue into interest payments. These Member States face significant challenges in consolidating their public finances before the impact of ageing starts to materialise.

Large projected increases in ageing-related spending, possibly combined with an unfavourable initial budgetary position, expose a number of Member States to serious financial risks. Based on indicators such as the sustainability gap, the Commission has made an overall risk assessment. Six countries are assessed as a high-risk, ten as a medium-risk and nine as a low-risk in terms of the future sustainability of public finances<sup>85</sup>. The high-risk countries (CZ, EL, CY, HU, PT and SI) are characterised by a very significant rise in age-related expenditure, indicating a strong need to curb future spending trends.

**Figure 4.17** Citizens who feel that immigrants contribute a lot to their country (in %)



Source: Standard Eurobarometer, fall 2006.

85. 'The short-term sustainability of public finances in the EU', Communication from the Commission, COM (2006) 574.

**Table 4.19** The 'S2' sustainability gap indicator (in % of GDP)

	Total	Initial budgetary position	Long-term budgetary impact of ageing
BE	1.8	- 3.5	5.3
CZ	5.5	0.7	4.8
DK	- 2.2	- 6.1	3.9
DE	4.4	1.6	2.8
EE	- 3.4	- 1.8	- 1.7
EL	3.0	2.2	0.9
ES	3.2	- 2.7	5.9
FR	4.0	1.4	2.6
IE	2.9	- 3.1	6.0
IT	3.1	1.3	1.8
CY	8.5	0.2	8.3
LV	0.8	- 0.4	1.2
LT	1.8	0.5	1.3
LU	9.5	1.2	8.3
HU	9.8	4.8	5.1
MT	- 0.3	- 0.1	- 0.1
NL	1.3	- 3.1	4.4
AT	0.3	- 0.8	1.1
PL	- 0.2	2.6	- 2.8
PT	10.5	3.8	6.7
SI	7.3	0.2	7.1
SK	3.0	0.9	2.1
FI	- 0.9	- 5.1	4.2
SE	- 1.1	- 3.1	2.0
UK	3.5	0.2	3.3
EU-25*	3.4	0.3	3.0

Source: Economic Policy Committee and European Commission.

\* The rise in age-related expenditure for Greece is underestimated due to the lack of pension projections. The aggregate EU result excludes Greece.

The medium-risk countries (BE, DE, ES, FR, IE, IT, LU, MT, SK and UK) can be split into two groups. On the one hand, there are countries that can expect significant ageing costs, but have a strong budgetary position (ES, EL and LU). These countries have preserved some room for manoeuvre which could allow them to accommodate to some extent future ageing-related needs. The second group of medium-risk countries are characterised by moderate projected expenditure increases as a result of reforms that have already been undertaken, but some budget consolidation nevertheless remains necessary (SK, IT, DE, FR, UK and MT).

Finally, the low-risk countries (DK, EE, LV, LT, NL, AT, PL, FI and SE) have established both a solid budgetary position today (running large primary surpluses, reducing debt and/or accumulating assets) and have curbed future ageing-related expenditure increases thanks in particular to reforms of their pension systems.

#### 4.6.2. Unlocking the potential

The analysis of the two components of the sustainability gap highlights that more than half of the Member States face a significant challenge to consolidate their public finances in order to prepare for the impact of demographic ageing. Clearly, the best time for doing so is over the next ten years, during which most Member States should still be able to achieve significant employment growth.

The risk with a rapid consolidation of public finances is of course that this might reduce a country's future growth potential, for instance, if spending on education, research and development or infrastructure (including social services such as childcare) is curtailed. The key to the successful exploitation of the window of opportunity is to adjust both the current and medium-term public finance position through the mobilisation of the full potential of the baby boom cohorts and reforms in pension and healthcare systems. The next ten years will determine to what extent the

considerable economic potential of this large and still active and healthy age group will be used and hence contribute to GDP, or whether most of the people in these cohorts will prematurely become dependent on benefits, as has been the case until now, due to early labour market exit. Moreover, there is still some time left to promote healthy ageing among these cohorts so that the need for costly health and long-term care can be reduced or at least postponed.

The report by the Economic Policy Committee and the European Commission on the impact of ageing on public expenditure (2004-2050)<sup>86</sup> analyses the effect of changes in the labour force participation of older wor-

kers and additional productivity growth on future pensions expenditure (see Table 4.21). The calculations show that an increase of five percentage points in the employment rate of older workers would have only a modest impact on future pension expenditure in terms of percentage points of GDP (i.e. – 0.2 percentage points in the EU-10 and – 0.1 percentage points in the EU-15). This is due to the fact that people working longer will accrue additional pension rights and thus receive higher pensions when they retire. In some countries, annual pension adjustments also take into account the development in aggregate employment levels, allowing higher increases in pensions when employment is higher (as is the case in DE).

**Table 4.20** Public finances today

	Share of total government revenue devoted to paying interest on government debt			General government deficit(-)/surplus(+) as % of GDP	Primary budget deficit(-)/surplus(+) as % of GDP	General government gross debt as % of GDP
	1995	2000	2005	2005	2005	2005
BE	18	13	9	- 2.3	1.9	93.2
CZ	3	2	3	- 3.6	- 2.5	30.4
DK	11	7	4	4.9	6.7	35.9
DE	8	7	7	- 3.2	- 0.5	67.9
EE	0	1	1	2.3	2.5	4.5
EL	33	19	13	- 5.2	- 0.4	107.5
ES	14	8	5	1.1	2.9	43.1
FR	7	6	5	- 2.9	- 0.2	66.6
IE	15	6	4	1.1	2.1	27.4
CY	:	10	9	- 2.3	1.1	69.2
LV	3	3	2	0.1	0.7	12.1
LT	1	5	3	- 0.5	0.3	18.7
IT	26	14	11	- 4.1	0.5	106.6
LU	1	1	0	- 1.0	- 0.8	6.0
HU	:	12	9	- 6.5	- 2.6	57.7
MT	:	10	10	- 3.2	0.8	74.2
NL	13	8	5	- 0.3	2.1	52.7
AT	8	8	6	- 1.5	1.3	63.4
PL	13	8	6	- 2.5	0.1	42.0
PT	17	8	7	- 6.0	- 3.3	64.0
SI	:	6	4	- 1.4	0.3	28.0
SK	4	8	5	- 3.1	- 1.4	34.5
FI	7	5	3	2.7	4.1	41.3
SE	11	7	3	3.0	4.6	50.4
UK	10	7	5	- 3.3	- 1.1	42.4
<b>EU-12</b>	<b>12</b>	<b>9</b>	<b>7</b>	<b>- 2.4</b>	<b>0.5</b>	<b>:</b>
<b>EU-25</b>	<b>:</b>	<b>8</b>	<b>6</b>	<b>- 2.3</b>	<b>0.4</b>	<b>63.2</b>

Source: European Commission.

86. The impact of ageing on public expenditure: projections for the EU-25 Member States on pensions, healthcare, long-term care, education and unemployment transfers (2004-2050); Report prepared by the Economic Policy Committee and the European Commission, Directorate-General for Economic and Financial Affairs, published as European Economy Special Report No 1/2006.

Table 4.21 also shows, however, that faster productivity growth can have a strong impact on future pension expenditure as a percentage of GDP. This illustrates the importance of maintaining sufficient public spending on education, lifelong learning and research and development. The Financial Services Committee (FSC) has stressed the need for further monitoring of market innovation and a level playing field in order to promote the development of a Single Market for retirement products<sup>87</sup>.

The projections of the Economic Policy Committee for healthcare spending also illustrate that the increase in healthcare spending could be limited if the projected increase in life expectancy were accompanied by an increase in healthy life years and an improvement in health status. Ageing is however not the only factor deter-

mining future healthcare expenditure. There are several non-demographic factors that drive up healthcare expenditure such as institutional arrangements, health status, income elasticity of demand, unit cost developments in the healthcare sector or technological change. The latter can, on the one hand, reduce unit costs (as existing expensive treatments are replaced by less costly treatments) and thus expenditure, but may, on the other hand, yield new and more expensive treatments and drugs, leading to increasing expenditure. Many of these factors can be influenced by changes in public policies resulting in very different expenditure trends. While improvements in the health status of elderly citizens could reduce the projected increase in healthcare expenditure, increased demand or improved quality of services could offset this impact.

**Table 4.21** Changes in gross public pension expenditure increases as a share of GDP between 2004 and 2050

	Baseline change, 2004-2050	Employment rate of older workers increased by 5 percentage points	Annual labour productivity growth increased by 0.25 percentage points
	Difference relative to the baseline projection		
BE	5.1	- 0.3	- 0.4
CZ	5.5	- 0.3	- 0.3
DK	3.3	- 0.3	0.0
DE	1.7	0.0	0.0
EE	- 2.5	- 0.4	- 0.2
EL	:	:	:
ES	7.1	- 0.1	- 0.9
FR	2.0	- 0.4	- 0.4
IE	6.4	- 0.1	0.0
IT	0.4	0.2	- 0.5
CY	12.9	:	- 1.4
LV	- 1.2	0.0	- 0.1
LT	1.8	- 0.3	- 0.3
LU	7.4	:	- 0.1
HU	6.7	- 1.1	- 0.4
MT	- 0.4	0.0	- 0.7
NL	3.5	- 0.1	- 0.1
AT	- 1.2	- 0.4	- 0.8
PL	- 5.9	0.0	- 0.4
PT	9.7	- 0.2	- 1.2
SI	7.3	- 0.9	- 0.1
SK	1.8	0.1	- 0.2
FI	3.1	- 0.2	- 0.4
SE	0.6	:	- 0.2
UK	2.0	- 0.1	- 0.4
EU-15	2.3	- 0.1	- 0.3
EU-10	0.3	- 0.7	- 0.4
EU-25	2.2	- 0.1	- 0.3

Source: Economic Policy Committee and European Commission.

87. See Doc. 8797/06 EF 9 ECOFIN 140 and FSC 4162/07 REV 1.



The third main ageing-related public spending category is long-term care. There is great variation in current public provision for long-term care in the EU (which ranges today from 0.1% of GDP in Poland to 3.8% of GDP in SE). The projected increase in spending is 0.6 percentage points of GDP for the EU-25. This is based on the assumption of no policy change, i.e. countries currently relying mainly on informal care will not develop formal care systems. However, the projected rapid increase in the number of very old people and increased female labour force participation are more than likely to lead to more demand for formal care. In this sense, the great differences between Member States in the projected long-term care expenditure should be interpreted rather as revealing gaps in the provision of long-term care services than as being realistic projections for actual expenditure. As in the area of healthcare, there is scope for influencing future needs through prevention policies and by making care systems more cost-efficient, in particular by ensuring that the elderly can stay longer in their own homes.

#### 4.6.3. Conclusion

The ageing population and in particular the imminent retirement of the baby boom cohorts will have a determining influence on the future sustainability of public finances and hence society's ability to provide adequate pensions, health and long-term care without jeopardising investment in future generations. Making the best possible use of the potential of the window of opportunity, through a mobilisation of the full potential of the baby boom cohorts by encouraging them to stay longer on the labour market, will be the key to ensuring adequate living standards for the elderly without jeopardising the life chances of younger generations. In addition, people can be encouraged to reduce their future need for health and long-term care by adopting a healthy lifestyle that helps prevent chronic disease and dependency. And finally, full use should be made of the scope for making pension, health and long-term care systems more efficient and putting them on a sound financial footing.

## 5. OVERALL CONCLUSION

This report has highlighted how much potential there is for tackling the demographic challenge in five key areas and which obstacles need to be overcome to unlock this potential. Action in one field alone is unlikely to be sufficient and a mix of policies will be required. While this report mainly focuses on mitigating the impact of the challenge through increasing the overall size of the workforce, a wide range of other issues are also relevant to meeting the demographic challenge and seizing opportunities. For instance one important issue not dealt with in this report is the impact of demographic change on the environment. Further analysis is also required of ageing and the need to improve the European market for long-term savings products. The effects of migration would also deserve further analysis. Subsequent reports, to be published in connection with each future European Demography Forum, will touch in more detail on these and other subjects so as to support an informed and constructive debate both at European level and in the Member States.

Nevertheless, the very cursory analysis presented above confirms the confident tone of the Commission regarding the demographic future of Europe: it is possible to tackle the demographic challenge provided the window of opportunity of the next ten years is used. This is a period during which Europe can still count on the active involvement of the baby boom cohorts and other factors such as rising employment amongst women. A spirit of inter-generational solidarity and the advancement of equal opportunities will therefore be crucial elements in exploiting this opportunity.

Each Member State faces different opportunities and will therefore want to set different priorities according to its specific circumstances. The country summaries in the annex to this report contain some key data, both on demographic trends and on the opportunities for responding to them. The summaries are not an attempt at cross-country comparisons but simply aim to provide an accessible overview for each Member State of the state of play in relevant areas, as an aid to setting country-specific priorities in preparing for demographic ageing.

## ANNEX 1

### COUNTRY STATISTICS AND COMMENTS

## BELGIUM

	Belgium					EU-25				
Demographic Trends	1960	1980	2004/5	2030	2050	1960	1980	2004/5	2030	2050
Population in Millions	9	10	10	11	11	378	426	457	469	450
Total Fertility Rate (number of children per women)	2.7	1.6	1.6	1.7	1.7	2.6	1.9	1.5	1.6	1.6
Life expectancy at birth for women in years	74	77	82	87	88	73	76	80	84	86
Life expectancy at birth for men in years	68	70	76	80	82	67	69	74	78	81
Net migration in the population in thousands			24	19	19			1 464	835	822
Mean age of women at childbirth			:					29		
Population share of persons under 25 in %	34	36	29	26	25	40	38	29	24	23
Population share of persons aged 25-64 in %	54	50	54	49	47	50	49	54	51	47
Population share of persons aged 60-79 in %	16	16	18	24	22	13	15	18	25	25
Population share of very old persons 80+ in %	2	3	4	7	11	1	2	4	7	11
Old age dependency ratio (15-64) in %	18	22	26	41	48	15	21	25	40	53
<b>Gender Equality and Family situation</b>	<b>2004/5</b>					<b>2004/5</b>				
Employment rate women/men in %	54/68					56/71				
Gender pay gap in %	6					15				
Share of part time work among women/men in %	41/7					33/7				
Childcare availability for children (0-3 / 3-compulsory school age) in %	63/100					:/:				
At-risk-of-poverty after social transfer in total/children in %	15/16					17/20				
<b>Ageing and the Labour Market</b>	<b>2004/5</b>					<b>2004/5</b>				
Employment rates for persons aged 55-64 women/men in %	22/42					34/52				
Employment rates for persons aged 60-64 in %	17					27				
Employment rates for persons aged 65-69 in %	3					8				
Average exit age from the labour market	59					61				
Inactive for health reasons in % of inactive (aged 50-64)	12					16				
Internet use total/people 65-74 in %	58/12					51/12				
<b>Education, R&amp;D and Productivity</b>	<b>2004/5</b>					<b>2004/5</b>				
Early school leavers women/men in %	11/15					13/17				
Youth educational attainment levels women/men in %	85/76					80/74				
Total population having at least completed secondary edu. in %	66					69				
Lifelong learning	8.2/8.5					9.4/11				
R&D share in % GDP	1.9					1.9				
Productivity per hour relative to EU-15 in %	129					100				
<b>Migration and Integration</b>	<b>2004/5</b>					<b>2004/5</b>				
Share of non nationals in the population in %	8					6				
Employment rate of nationals in %	62					65				
Employment rate of non EU-25 nationals in %	35					55				
Unemployment rate of nationals in %	8					9				
Unemployment rate of non EU-25 nationals in %	34					17				
Low education of nationals in %	43					35				
Low education non EU-25 nationals in %	56					49				
<b>Sustainability of Public Finances and Social Protection</b>	<b>2004/5 2030 2050</b>					<b>2004/5 2040 2050</b>				
Government debt as % of GDP	93.3					63.4				
% of government revenue in GDP	49.3					43.7				
% of public expenditure on pensions in GDP	10.4 14.7 15.5					10.6 11.9 12.8				
% of public expenditure on health care in GDP	6.2 7.1 11.3					6.4 7.4 8.0				
% of public expenditure on long term care in GDP	0.9 1.3 1.9					0.9 1.1 1.5				

**Demographic challenges and ...**

Belgium's fertility rate is slightly above the European average and population ageing is projected to be less pronounced than in the EU as a whole.

**... opportunities for tackling them**

While childcare availability lies above the EU average it could be extended for very young children. The gender pay gap is one of the lowest in the EU. Nevertheless, there is scope for women's employment rates to catch up with men's; moreover a large proportion of women works part-time.

Employment rates of older workers, in particular women, are very low and they represent an important labour force reserve.

Major gains are also possible with regard to the integration of minorities and third country nationals into labour markets and education systems.

Finally, the reduction of public debt would enhance the ability to meet future social protection needs linked to ageing.

## BULGARIA

	Bulgaria					EU-25				
	1960	1980	2004/5	2030	2050	1960	1980	2004/5	2030	2050
<b>Demographic Trends</b>										
Population in Millions	8	9	8	6	5	378	426	457	469	450
Total Fertility Rate (number of children per women)	2.2	2.0	1.2	1.4	1.5	2.6	1.9	1.5	1.6	1.6
Life expectancy at birth for women in years	72	74	76	81	83	73	76	80	84	86
Life expectancy at birth for men in years	68	68	69	76	78	67	69	74	78	81
Net migration in the population in thousands			- 16	2	3			1 464	835	822
Mean age of women at childbirth			26					29		
Population share of persons under 25 in %	41	36	28	20	20	40	38	29	24	23
Population share of persons aged 25-64 in %	52	52	55	54	47	50	49	54	51	47
Population share of persons aged 60-79 in %	10	14	20	26	32	13	15	18	25	25
Population share of very old persons 80+ in %	1	2	3	7	10	1	2	4	7	11
Old age dependency ratio (15-64) in %	11	18	25	40	61	15	21	25	40	53
<b>Gender Equality and Family situation</b>			<b>2004/5</b>					<b>2004/5</b>		
Employment rate women/men in %			52/60					56/71		
Gender pay gap in %			16					15		
Share of part time work among women/men in %			3/2					33/7		
Childcare availability for children ( 0-3 / 3 – compulsory school age) in %			7/74					:/:		
At-risk-of-poverty after social transfer in total/children in %			15/18					17/20		
<b>Ageing and the Labour Market</b>			<b>2004/5</b>					<b>2004/5</b>		
Employment rates for persons aged 55-64 women/men in %			26/46					34/52		
Employment rates for persons aged 60-64 in %			17					27		
Employment rates for persons aged 65-69 in %			5					8		
Average exit age from the labour market			60					61		
Inactive for health reasons in % of inactive (aged 50-64)			:					16		
Internet use total/people 65-74 in %			:					51/12		
<b>Education, R&amp;D and Productivity</b>			<b>2004/5</b>					<b>2004/5</b>		
Early school leavers women/men in %			21/20					13/17		
Youth educational attainment levels women/men in %			76/77					79/74		
Total population having at least completed secondary edu. in %			73					69		
Lifelong learning			1.3/1.2					9.4/11		
R&D share in % GDP			0.5					1.9		
Productivity per hour relative to EU-15 in %			32					100		
<b>Migration and Integration</b>			<b>2004/5</b>					<b>2004/5</b>		
Share of non nationals in the population in %			:					6		
Employment rate of nationals in %			56					65		
Employment rate of non EU-25 nationals in %			:					55		
Unemployment rate of nationals in %			10					9		
Unemployment rate of non EU-25 nationals in %			:					17		
Low education of nationals in %			:					35		
Low education non EU-25 nationals in %			:					50		
<b>Sustainability of Public Finances and Social Protection</b>			<b>2004/5</b>	<b>2030</b>	<b>2050</b>			<b>2004/5</b>	<b>2040</b>	<b>2050</b>
Government debt as % of GDP			38.8					63.4		
% of government revenue in GDP			41.1					43.7		
% of public expenditure on pensions in GDP			9.1	7.3	7.9			10.6	11.90	12.8
% of public expenditure on health care in GDP			4.8	5.8	6.4			6.4	7.40	8
% of public expenditure on long term care in GDP			:	:	:			0.9	1.10	1.5

**Demographic challenges and ...**

The total population of Bulgaria is expected to decline significantly by 2050 as a result of low birth rates, high adult mortality and a high current level of net emigration. Fertility rates are expected to recover from the current low level while net emigration should come to a halt. Life expectancy, for both men and women, is currently low and significant progress is expected. The old-age dependency ratio, currently at the European average, is expected to rise to a much higher level than for the EU as a whole.

**... opportunities for tackling them**

Low employment rates mean that there is a major potential for employment growth.

Productivity is only one third of the EU average, so there is an enormous catching-up potential. Reducing the number of early school leavers and increasing the investment in research and investment would contribute to realising this productivity growth potential.

Current and projected public spending on health and long-term care is significantly below the EU average, however, there may be pressures for increased spending.

## CZECH REPUBLIC

	Czech Republic					EU-25				
Demographic Trends	1960	1980	2004/5	2030	2050	1960	1980	2004/5	2030	2050
Population in Millions	10	10	10	10	9	378	426	457	469	450
Total Fertility Rate (number of children per women)	2.2	2.0	1.2	1.5	1.5	2.6	1.9	1.5	1.6	1.6
Life expectancy at birth for women in years	73	74	79	83	84	73	76	80	84	86
Life expectancy at birth for men in years	67	67	72	78	80	67	69	74	78	81
Net migration in the population in thousands			4	22	20			1 464	835	822
Mean age of women at childbirth			28					29		
Population share of persons under 25 in %	39	37	28	23	22	40	38	29	24	23
Population share of persons aged 25-64 in %	52	50	58	54	48	50	49	54	51	47
Population share of persons aged 60-79 in %	13	15	17	23	29	13	15	18	25	25
Population share of very old persons 80+ in %	1	2	3	7	9	1	2	4	7	11
Old age dependency ratio (15-64) in %	13	21	20	37	55	15	21	25	40	53
<b>Gender Equality and Family situation</b>	<b>2004/5</b>					<b>2004/5</b>				
Employment rate women/men in %	56/73					56/71				
Gender pay gap in %	19					15				
Share of part time work among women/men in %	8/2					33/7				
Childcare availability for children (0-3 / 3 – compulsory school age) in %	8/85					:/:				
At-risk-of-poverty after social transfer in total/children in %	10/14					17/20				
<b>Ageing and the Labour Market</b>	<b>2004/5</b>					<b>2004/5</b>				
Employment rates for persons aged 55-64 women/men in %	31/60					34/52				
Employment rates for persons aged 60-64 in %	22					27				
Employment rates for persons aged 65-69 in %	8					8				
Average exit age from the labour market	60					61				
Inactive for health reasons in % of inactive (aged 50-64)	24					16				
Internet use total/people 65-74 in %	32/2					51/12				
<b>Education, R&amp;D and Productivity</b>	<b>2004/5</b>					<b>2004/5</b>				
Early school leavers women/men in %	7/6					13/17				
Youth educational attainment levels women/men in %	90/91					80/74				
Total population having at least completed secondary edu. in %	90					69				
Lifelong learning	5.2/5.9					9.4/11				
R&D share in % GDP	1.3					1.9				
Productivity per hour relative to EU-15 in %	50					100				
<b>Migration and Integration</b>	<b>2004/5</b>					<b>2004/5</b>				
Share of non nationals in the population in %	3					6				
Employment rate of nationals in %	65					65				
Employment rate of non EU-25 nationals in %	72					55				
Unemployment rate of nationals in %	8					9				
Unemployment rate of non EU-25 nationals in %	7					17				
Low education of nationals in %	20					35				
Low education non EU-25 nationals in %	22					49				
<b>Sustainability of Public Finances and Social Protection</b>	<b>2004/5 2030 2050</b>					<b>2004/5 2040 2050</b>				
Government debt as % of GDP	30.5					63.4				
% of government revenue in GDP	42.5					43.7				
% of public expenditure on pensions in GDP	8.5 9.6 14.1					10.6 11.9 12.8				
% of public expenditure on health care in GDP	6.4 7.8 8.4					6.4 7.4 8.0				
% of public expenditure on long term care in GDP	0.3 0.5 0.7					0.9 1.1 1.5				

**Demographic challenges and ...**

The Czech Republic currently has one of the lowest fertility rates in the EU, but this may be partly the effect of a transition to women having children later in life; a recovery of fertility is assumed for the population projections. These projections indicate a shrinking population and, in spite of below-average life expectancy, a strong rise in the old-age dependency ratio.

**... opportunities for tackling them**

Female employment rates could rise significantly and the gender pay gap remains large. Households with children face a higher poverty risk than households without children.

Employment rates for older workers are close to the European average, which means that there is much room for increasing the size of the labour force.

While educational attainment is already high, productivity levels can still be raised considerably.

Public debt is currently low, but a large ageing-related increase in public pensions expenditure is expected.

## DENMARK

	Denmark					EU-25				
	1960	1980	2004/5	2030	2050	1960	1980	2004/5	2030	2050
<b>Demographic Trends</b>										
Population in Millions	5	5	5	6	5	378	426	457	469	450
Total Fertility Rate (number of children per women)	2.6	1.4	1.8	1.8	1.8	2.6	1.9	1.5	1.6	1.6
Life expectancy at birth for women in years	74	77	80	83	84	73	76	80	84	86
Life expectancy at birth for men in years	70	71	75	79	81	67	69	74	78	81
Net migration in the population in thousands			8	7	7			1 464	835	822
Mean age of women at childbirth			30					29		
Population share of persons under 25 in %	40	36	30	27	27	40	38	29	24	23
Population share of persons aged 25-64 in %	49	50	55	50	48	50	49	54	51	47
Population share of persons aged 60-79 in %	14	17	17	23	21	13	15	18	25	25
Population share of very old persons 80+ in %	2	3	4	7	9	1	2	4	7	11
Old age dependency ratio (15-64) in %	17	22	23	37	40	15	21	25	40	53
<b>Gender Equality and Family situation</b>			<b>2004/5</b>					<b>2004/5</b>		
Employment rate women/men in %			72/80					56/71		
Gender pay gap in %			17					15		
Share of part time work among women/men in %			33/13					33/7		
Childcare availability for children ( 0-3 / 3 – compulsory school age) in %			56/93					:/:		
At-risk-of-poverty after social transfer in total/children in %			12/9					17/20		
<b>Ageing and the Labour Market</b>			<b>2004/5</b>					<b>2004/5</b>		
Employment rates for persons aged 55-64 women/men in %			54/65					34/52		
Employment rates for persons aged 60-64 in %			37					27		
Employment rates for persons aged 65-69 in %			14					8		
Average exit age from the labour market			62					61		
Inactive for health reasons in % of inactive (aged 50-64)			41					16		
Internet use total/people 65-74 in %			77/30					51/12		
<b>Education, R&amp;D and Productivity</b>			<b>2004/5</b>					<b>2004/5</b>		
Early school leavers women/men in %			8/9					13/17		
Youth educational attainment levels women/men in %			78/75					80/74		
Total population having at least completed secondary edu. in %			81					69		
Lifelong learning			23.6/31.2					9.4/11		
R&D share in % GDP			2.6					1.9		
Productivity per hour relative to EU-15 in %			103					100		
<b>Migration and Integration</b>			<b>2004/5</b>					<b>2004/5</b>		
Share of non nationals in the population in %			5					6		
Employment rate of nationals in %			77					65		
Employment rate of non EU-25 nationals in %			53					55		
Unemployment rate of nationals in %			5					9		
Unemployment rate of non EU-25 nationals in %			14					17		
Low education of nationals in %			30					35		
Low education non EU-25 nationals in %			42					49		
<b>Sustainability of Public Finances and Social Protection</b>			<b>2004/5</b>	<b>2030</b>	<b>2050</b>			<b>2004/5</b>	<b>2040</b>	<b>2050</b>
Government debt as % of GDP			35.8					63.4		
% of government revenue in GDP			55.5					43.7		
% of public expenditure on pensions in GDP			9.5	12.8	12.8			10.6	11.9	12.8
% of public expenditure on health care in GDP			6.9	7.7	7.9			6.4	7.4	8.0
% of public expenditure on long term care in GDP			1.1	1.7	2.2			0.9	1.1	1.5

**Demographic challenges and ...**

Denmark has currently one of the highest fertility rates in the EU while life expectancies for both men and women are below the EU average. The projected increase in the old-age dependency ratio is much smaller than for the EU as a whole.

**... opportunities for tackling them**

Denmark has already achieved high female employment rates, although the gender pay gap remains significant and women are much more likely to work part-time than men.

The employment rate of older workers is also far above the EU average, but could still rise in the over-60 age group if health and disability issues as causes for early labour market exit can be tackled.

There also appears to be scope for a better integration of third country nationals into labour markets and education systems.

Public debt is low compared to the EU average. The projected ageing-related increase in public protection spending is slightly above the EU average.



## GERMANY

	Germany					EU-25				
Demographic Trends	1960	1980	2004/5	2030	2050	1960	1980	2004/5	2030	2050
Population in Millions	73	78	83	81	75	378	426	457	469	450
Total Fertility Rate (number of children per women)	2.5	1.5	1.4	1.5	1.5	2.6	1.9	1.5	1.6	1.6
Life expectancy at birth for women in years	72	76	82	85	87	73	76	80	84	86
Life expectancy at birth for men in years	67	70	76	80	82	67	69	74	78	81
Net migration in the population in thousands			211	181	179			1 464	835	822
Mean age of women at childbirth			29					29		
Population share of persons under 25 in %	37	35	26	22	21	40	38	29	24	23
Population share of persons aged 25-64 in %	52	50	55	50	47	50	49	54	51	47
Population share of persons aged 60-79 in %	16	17	21	28	25	13	15	18	25	25
Population share of very old persons 80+ in %	2	3	4	8	14	1	2	4	7	11
Old age dependency ratio (15-64) in %	17	24	28	46	56	15	21	25	40	53
<b>Gender Equality and Family situation</b>	<b>2004/5</b>					<b>2004/5</b>				
Employment rate women/men in %	60/71					56/71				
Gender pay gap in %	23					15				
Share of part time work among women/men in %	44/8					33/7				
Childcare availability for children (0-3 / 3 – compulsory school age) in %	7/89					:/:				
At-risk-of-poverty after social transfer in total/children in %	20/16					17/20				
<b>Ageing and the Labour Market</b>	<b>2004/5</b>					<b>2004/5</b>				
Employment rates for persons aged 55-64 women/men in %	38/54					34/52				
Employment rates for persons aged 60-64 in %	28					27				
Employment rates for persons aged 65-69 in %	6					8				
Average exit age from the labour market	61					61				
Inactive for health reasons in % of inactive (aged 50-64)	11					16				
Internet use total/people 65-74 in %	65/20					51/12				
<b>Education, R&amp;D and Productivity</b>	<b>2004/5</b>					<b>2004/5</b>				
Early school leavers women/men in %	14/14					13/17				
Youth educational attainment levels women/men in %	72/70					80/74				
Total population having at least completed secondary edu. in %	83					69				
Lifelong learning	8/7.4					9.4/11				
R&D share in % GDP	2.5					1.9				
Productivity per hour relative to EU-15 in %	106					100				
<b>Migration and Integration</b>	<b>2004/5</b>					<b>2004/5</b>				
Share of non nationals in the population in %	9					6				
Employment rate of nationals in %	67					65				
Employment rate of non EU-25 nationals in %	47					55				
Unemployment rate of nationals in %	10					9				
Unemployment rate of non EU-25 nationals in %	25					17				
Low education of nationals in %	26					35				
Low education non EU-25 nationals in %	56					49				
<b>Sustainability of Public Finances and Social Protection</b>	<b>2004/5 2030 2050</b>					<b>2004/5 2040 2050</b>				
Government debt as % of GDP	67.7					63.4				
% of government revenue in GDP	42.3					43.7				
% of public expenditure on pensions in GDP	11.4 12.3 13.1					10.6 11.9 12.8				
% of public expenditure on health care in GDP	6.0 6.9 7.2					6.4 7.4 8.0				
% of public expenditure on long term care in GDP	1.0 1.4 2.0					0.9 1.1 1.5				

**Demographic challenges and ...**

In Germany, below-average fertility rates and life expectancies that match the EU average are expected to translate into a shrinking population. Germany currently has the highest old-age dependency ratio in the EU and is expected to stay above the EU average in this regard.

**... opportunities for tackling them**

Labour market opportunities for women could be promoted through better childcare provision and access to full-time employment and a reduced pay gap.

Employment rates of older workers are slightly above the EU average and could increase further.

The integration of third country nationals into labour markets and education systems could also be further improved.

The public debt lies above the EU average; fiscal consolidation could contribute to the sustainability of public finances. The expected ageing-related increase in public social protection spending is slightly below the EU average.

## ESTONIA

	Estonia					EU-25				
	1960	1980	2004/5	2030	2050	1960	1980	2004/5	2030	2050
<b>Demographic Trends</b>										
Population in Millions	1.2	1.5	1.4	1.2	1.1	378	426	457	469	450
Total Fertility Rate (number of children per women)	1.9	2.1	1.4	1.6	1.6	2.6	1.9	1.5	1.6	1.6
Life expectancy at birth for women in years	73	75	77	81	83	73	76	80	84	86
Life expectancy at birth for men in years	65	65	66	72	75	67	69	74	78	81
Net migration in the population in thousands			1	2	2			1 464	835	822
Mean age of women at childbirth			28					29		
Population share of persons under 25 in %	38	37	31	27	24	40	38	29	24	23
Population share of persons aged 25-64 in %	51	51	53	52	50	50	49	54	51	47
Population share of persons aged 60-79 in %	14	14	19	22	26	13	15	18	25	25
Population share of very old persons 80+ in %	2	2	3	6	8	1	2	4	7	11
Old age dependency ratio (15-64) in %	16	19	24	33	43	15	21	25	40	53
<b>Gender Equality and Family situation</b>			<b>2004/5</b>					<b>2004/5</b>		
Employment rate women/men in %			62/67					56/71		
Gender pay gap in %			24					15		
Share of part time work among women/men in %			10/5					33/7		
Childcare availability for children ( 0-3 / 3 – compulsory school age) in %			22/79					:/:		
At-risk-of-poverty after social transfer in total/children in %			18/18					17/20		
<b>Ageing and the Labour Market</b>			<b>2004/5</b>					<b>2004/5</b>		
Employment rates for persons aged 55-64 women/men in %			54/59					34/52		
Employment rates for persons aged 60-64 in %			44					27		
Employment rates for persons aged 65-69 in %			18					8		
Average exit age from the labour market			62					61		
Inactive for health reasons in % of inactive (aged 50-64)			33					16		
Internet use total/people 65-74 in %			59/10					51/12		
<b>Education, R&amp;D and Productivity</b>			<b>2004/5</b>					<b>2004/5</b>		
Early school leavers women/men in %			11/17					13/17		
Youth educational attainment levels women/men in %			87/75					80/74		
Total population having at least completed secondary edu. in %			89					69		
Lifelong learning			4.3/7.3					9.4/11		
R&D share in % GDP			0.8					1.9		
Productivity per hour relative to EU-15 in %			39					100		
<b>Migration and Integration</b>			<b>2004/5</b>					<b>2004/5</b>		
Share of non nationals in the population in %			19					6		
Employment rate of nationals in %			65					65		
Employment rate of non EU-25 nationals in %			62					55		
Unemployment rate of nationals in %			6					9		
Unemployment rate of non EU-25 nationals in %			15					17		
Low education of nationals in %			23					35		
Low education non EU-25 nationals in %			21					49		
<b>Sustainability of Public Finances and Social Protection</b>			<b>2004/5</b>	<b>2030</b>	<b>2050</b>			<b>2004/5</b>	<b>2040</b>	<b>2050</b>
Government debt as % of GDP			4.8					63.4		
% of government revenue in GDP			42.4					43.7		
% of public expenditure on pensions in GDP			6.7	4.8	4.2			10.6	11.9	12.8
% of public expenditure on health care in GDP			5.4	6.2	6.5			6.4	7.4	8.0
% of public expenditure on long term care in GDP			:	:	:			0.9	1.1	1.5

**Demographic challenges and ...**

Estonia's fertility rate is currently below the EU average, but this may partly be the effect of a transition to women having children later in life; a recovery of fertility is assumed for the population projections. Life expectancy is significantly lower than the EU average, particularly for men, and this gap is expected to remain large until the end of the projection period (2050). The result would be a relatively low old-age dependency ratio.

**... opportunities for tackling them**

Female employment rates are high and most women work full-time. However, their pay is significantly lower than men's, indicating scope for a qualitative improvement of female employment.

A high proportion of people in their 50s and 60s are still in employment. There is room to capitalize on this fact and further reinforce active labour market policies through focus on lifelong learning.

There is much catch-up potential for productivity growth which could build on the high level of educational achievement and on efforts to ensure that R&D results are translated into innovative services and products.

## GREECE

	Greece					EU-25				
	1960	1980	2004/5	2030	2050	1960	1980	2004/5	2030	2050
<b>Demographic Trends</b>										
Population in Millions	8	10	11	11	11	378	426	457	469	450
Total Fertility Rate (number of children per women)	2.3	2.0	1.3	1.5	1.5	2.6	1.9	1.5	1.6	1.6
Life expectancy at birth for women in years	72	77	81	84	85	73	76	80	84	86
Life expectancy at birth for men in years	67	72	76	79	80	67	69	74	78	81
Net migration in the population in thousands			43	35	35			1 464	835	822
Mean age of women at childbirth			30					29		
Population share of persons under 25 in %	43	38	27	23	21	40	38	29	24	23
Population share of persons aged 25-64 in %	49	49	55	53	46	50	49	54	51	47
Population share of persons aged 60-79 in %	11	15	20	26	28	13	15	18	25	25
Population share of very old persons 80+ in %	1	2	3	7	10	1	2	4	7	11
Old age dependency ratio (15-64) in %	13	20	27	39	59	15	21	25	40	53
<b>Gender Equality and Family situation</b>			<b>2004/5</b>					<b>2004/5</b>		
Employment rate women/men in %			46/74					56/71		
Gender pay gap in %			10					15		
Share of part time work among women/men in %			9/2					33/7		
Childcare availability for children (0-3 / 3 – compulsory school age) in %			7/60					:/:		
At-risk-of-poverty after social transfer in total/children in %			20/21					17/20		
<b>Ageing and the Labour Market</b>			<b>2004/5</b>					<b>2004/5</b>		
Employment rates for persons aged 55-64 women/men in %			26/59					34/52		
Employment rates for persons aged 60-64 in %			31					27		
Employment rates for persons aged 65-69 in %			9					8		
Average exit age from the labour market			60					61		
Inactive for health reasons in % of inactive (aged 50-64)			7					16		
Internet use total/people 65-74 in %			22/1					51/12		
<b>Education, R&amp;D and Productivity</b>			<b>2004/5</b>					<b>2004/5</b>		
Early school leavers women/men in %			9/18					13/17		
Youth educational attainment levels women/men in %			89/79					80/74		
Total population having at least completed secondary edu. in %			60					69		
Lifelong learning			6.2/8.6					9.4/11		
R&D share in % GDP			0.6					1.9		
Productivity per hour relative to EU-15 in %			71					100		
<b>Migration and Integration</b>			<b>2004/5</b>					<b>2004/5</b>		
Share of non nationals in the population in %			8					6		
Employment rate of nationals in %			60					65		
Employment rate of non EU-25 nationals in %			71					55		
Unemployment rate of nationals in %			10					9		
Unemployment rate of non EU-25 nationals in %			8					17		
Low education of nationals in %			50					35		
Low education non EU-25 nationals in %			52					49		
<b>Sustainability of Public Finances and Social Protection</b>			<b>2004/5</b>	<b>2030</b>	<b>2050</b>			<b>2004/5</b>	<b>2040</b>	<b>2050</b>
Government debt as % of GDP			107.5					63.4		
% of government revenue in GDP			38.3					43.7		
% of public expenditure on pensions in GDP			:	:	:			10.6	11.9	12.8
% of public expenditure on health care in GDP			5.1	5.9	6.8			6.4	7.4	8.0
% of public expenditure on long term care in GDP			:	:	:			0.9	1.1	1.5

**Demographic challenges and ...**

The fertility rate is one of the lowest in the EU while life expectancy is close to the EU average. Greece's old-age dependency ratio is projected to rise to several points above the EU average.

**... opportunities for tackling them**

The employment rates of both women and older workers could rise significantly. Productivity levels might benefit from further improving the business environment and the climate for R&D and innovation. Raising percentages of the population completing higher education and facilitating movement between training/ education and the labour market could also bring benefits. According to the employment statistics, third country nationals seem to be well integrated into the labour market, but this may be due to the fact that most of them have come fairly recently, in search of work. Facilitating their entrance into the regular labour market might strengthen social protection and public finances.

Public debt is large; its reduction could help meet future social protection needs.

## SPAIN

	Spain					EU-25				
	1960	1980	2004/5	2030	2050	1960	1980	2004/5	2030	2050
<b>Demographic Trends</b>										
Population in Millions	30	38	42	45	43	378	426	457	469	450
Total Fertility Rate (number of children per women)	2.9	1.9	1.3	1.4	1.4	2.6	1.9	1.5	1.6	1.6
Life expectancy at birth for women in years	72	75	83	87	88	73	76	80	84	86
Life expectancy at birth for men in years	67	73	77	80	81	67	69	74	78	81
Net migration in the population in thousands			508	105	102			1 464	835	822
Mean age of women at childbirth			31					29		
Population share of persons under 25 in %	43	43	27	22	20	40	38	29	24	23
Population share of persons aged 25-64 in %	49	47	56	53	45	50	49	54	51	47
Population share of persons aged 60-79 in %	11	13	17	25	29	13	15	18	25	25
Population share of very old persons 80+ in %	1	2	4	7	13	1	2	4	7	11
Old age dependency ratio (15-64) in %	13	17	25	39	67	15	21	25	40	53
<b>Gender Equality and Family situation</b>			<b>2004/5</b>					<b>2004/5</b>		
Employment rate women/men in %			51/75					56/71		
Gender pay gap in %			15					15		
Share of part time work among women/men in %			25/5					33/7		
Childcare availability for children ( 0-3 / 3 – compulsory school age) in %			10/98					:/:		
At-risk-of-poverty after social transfer in total/children in %			20/21					17/20		
<b>Ageing and the Labour Market</b>			<b>2004/5</b>					<b>2004/5</b>		
Employment rates for persons aged 55-64 women/men in %			27/60					34/52		
Employment rates for persons aged 60-64 in %			32					27		
Employment rates for persons aged 65-69 in %			4					8		
Average exit age from the labour market			62					61		
Inactive for health reasons in % of inactive (aged 50-64)			23					16		
Internet use total/people 65-74 in %			44/4					51/12		
<b>Education, R&amp;D and Productivity</b>			<b>2004/5</b>					<b>2004/5</b>		
Early school leavers women/men in %			25/36					13/17		
Youth educational attainment levels women/men in %			68/55					80/74		
Total population having at least completed secondary edu. in %			48					69		
Lifelong learning			1.9/1.8					9.4/11		
R&D share in % GDP			1.1					1.9		
Productivity per hour relative to EU-15 in %			88					100		
<b>Migration and Integration</b>			<b>2004/5</b>					<b>2004/5</b>		
Share of non nationals in the population in %			8					6		
Employment rate of nationals in %			63					65		
Employment rate of non EU-25 nationals in %			70					55		
Unemployment rate of nationals in %			9					9		
Unemployment rate of non EU-25 nationals in %			12					17		
Low education of nationals in %			60					35		
Low education non EU-25 nationals in %			50					49		
<b>Sustainability of Public Finances and Social Protection</b>			<b>2004/5</b>	<b>2030</b>	<b>2050</b>			<b>2004/5</b>	<b>2040</b>	<b>2050</b>
Government debt as % of GDP			43.2					63.4		
% of government revenue in GDP			39.2					43.7		
% of public expenditure on pensions in GDP			8.6	11.9	15.7			10.6	11.9	12.8
% of public expenditure on health care in GDP			6.1	7.3	8.3			6.4	7.4	8.0
% of public expenditure on long term care in GDP			0.5	0.5	0.7			0.9	1.1	1.5

**Demographic challenges and ...**

Spain's current fertility rate is among the lowest in the EU and women tend to have their first child relatively late in life. Life expectancy is above the EU average. The projections assume that fertility will recover slightly and that life expectancies will roughly evolve in line with the EU average. This would result in the highest old-age dependency ratio in the EU in 2050. Over recent years, Spain has attracted large numbers of immigrants, many of whom were regularised, boosting the official population and employment of Spain.

**... opportunities for tackling them**

Female employment rates could rise, but this might require a more extensive provision of childcare for the youngest children.

Employment rates of older workers are above the EU average, but could also be further increased.

Educational attainment can be improved and early school leaving reduced; this could help Spain to narrow the productivity gap to the EU average.

Third country nationals seem to be well integrated into the labour market, but this may be due to the fact that immigration is relatively recent, with most people coming in search for work (rather than to join family members who arrived earlier).

## FRANCE

	France					EU-25				
Demographic Trends	1960	1980	2004/5	2030	2050	1960	1980	2004/5	2030	2050
Population in Millions	47	54	60	65	66	378	426	457	469	450
Total Fertility Rate (number of children per women)	2.9	1.9	1.9	1.9	1.9	2.6	1.9	1.5	1.6	1.6
Life expectancy at birth for women in years	74	78	83	88	89	73	76	80	84	86
Life expectancy at birth for men in years	67	70	76	81	83	67	69	74	78	81
Net migration in the population in thousands			64	59	59			1 464	835	822
Mean age of women at childbirth			30					29		
Population share of persons under 25 in %	39	38	31	28	27	40	38	29	24	23
Population share of persons aged 25-64 in %	50	48	52	48	46	50	49	54	51	47
Population share of persons aged 60-79 in %	15	14	16	23	22	13	15	18	25	25
Population share of very old persons 80+ in %	2	3	5	8	11	1	2	4	7	11
Old age dependency ratio (15-64) in %	19	22	25	41	48	15	21	25	40	53
<b>Gender Equality and Family situation</b>	<b>2004/5</b>					<b>2004/5</b>				
Employment rate women/men in %	58/69					56/71				
Gender pay gap in %	12					15				
Share of part time work among women/men in % (0-3 / 3 – compulsory school age) in %	31/6					33/7				
Childcare availability for children	43/100					:/:				
At-risk-of-poverty after social transfer in total/children in %	13/13					17/20				
<b>Ageing and the Labour Market</b>	<b>2004/5</b>					<b>2004/5</b>				
Employment rates for persons aged 55-64 women/men in %	35/41					34/52				
Employment rates for persons aged 60-64 in %	13					27				
Employment rates for persons aged 65-69 in %	3					8				
Average exit age from the labour market	59					61				
Inactive for health reasons in % of inactive (aged 50-64)	0.4					16				
Internet use total/people 65-74 in %	:/:					51/12				
<b>Education, R&amp;D and Productivity</b>	<b>2004/5</b>					<b>2004/5</b>				
Early school leavers women/men in %	11/15					13/17				
Youth educational attainment levels women/men in %	84/81					80/74				
Total population having at least completed secondary edu. in %	66					69				
Lifelong learning	9.7/11.4					9.4/11				
R&D share in % GDP	2.2					1.9				
Productivity per hour relative to EU-15 in %	117					100				
<b>Migration and Integration</b>	<b>2004/5</b>					<b>2004/5</b>				
Share of non nationals in the population in %	6					6				
Employment rate of nationals in %	64					65				
Employment rate of non EU-25 nationals in %	44					55				
Unemployment rate of nationals in %	9					9				
Unemployment rate of non EU-25 nationals in %	25					17				
Low education of nationals in %	42					35				
Low education non EU-25 nationals in %	65					49				
<b>Sustainability of Public Finances and Social Protection</b>	<b>2004/5 2030 2050</b>					<b>2004/5 2040 2050</b>				
Government debt as % of GDP	66.8					63.4				
% of government revenue in GDP	49.1					43.7				
% of public expenditure on pensions in GDP	12.8 14.3 14.8					10.6 11.9 12.8				
% of public expenditure on health care in GDP	7.7 8.9 9.5					6.4 7.4 8.0				
% of public expenditure on long term care in GDP	: : :					0.9 1.1 1.5				

**Demographic challenges and ...**

France has one of the highest fertility rates in the EU and the population projections assume that this will not change. Life expectancy is assumed to rise above the EU average. The total population is expected to grow while the old-age dependency ratio could evolve more favourably than for the EU as a whole.

**... opportunities for tackling them**

Employment opportunities for women are relatively well developed thanks to extensive childcare provision, and the gender pay gap is below the EU average.

By contrast, there is much scope for increasing the labour force participation of older workers. A more modern employment protection combined with lifelong learning would increase labour market flexibility. Another area which would generate employment growth is the integration of third country nationals whose employment rates and educational attainment are particularly low.

Public debt is slightly above the EU average and the projected increase in public social protection expenditure is also roughly in line with the EU as a whole.

## IRELAND

	Ireland					EU-25				
	1960	1980	2004/5	2030	2050	1960	1980	2004/5	2030	2050
<b>Demographic Trends</b>										
Population in Millions	3	3	4	5	5	378	426	457	469	450
Total Fertility Rate (number of children per women)	4.0	2.9	2.0	1.8	1.8	2.6	1.9	1.5	1.6	1.6
Life expectancy at birth for women in years	72	76	81	85	87	73	76	80	84	86
Life expectancy at birth for men in years	68	70	76	80	82	67	69	74	78	81
Net migration in the population in thousands			16	13	12			1 464	835	822
Mean age of women at childbirth			31					29		
Population share of persons under 25 in %	45	48	36	30	26	40	38	29	24	23
Population share of persons aged 25-64 in %	44	41	53	52	48	50	49	54	51	47
Population share of persons aged 60-79 in %	14	13	13	20	24	13	15	18	25	25
Population share of very old persons 80+ in %	2	2	3	5	8	1	2	4	7	11
Old age dependency ratio (15-64) in %	19	18	16	28	45	15	21	25	40	53
<b>Gender Equality and Family situation</b>			<b>2004/5</b>					<b>2004/5</b>		
Employment rate women/men in %			58/77					56/71		
Gender pay gap in %			11					15		
Share of part time work among women/men in %			32/6					33/7		
Childcare availability for children (0-3 / 3 – compulsory school age) in %			:/					:/		
At-risk-of-poverty after social transfer in total/children in %			20/19					17/20		
<b>Ageing and the Labour Market</b>			<b>2004/5</b>					<b>2004/5</b>		
Employment rates for persons aged 55-64 women/men in %			37/66					34/52		
Employment rates for persons aged 60-64 in %			43					27		
Employment rates for persons aged 65-69 in %			15					8		
Average exit age from the labour market			63					61		
Inactive for health reasons in % of inactive (aged 50-64)			1.2					16		
Internet use total/people 65-74 in %			37/8					51/12		
<b>Education, R&amp;D and Productivity</b>			<b>2004/5</b>					<b>2004/5</b>		
Early school leavers women/men in %			10/15					13/17		
Youth educational attainment levels women/men in %			89/83					80/74		
Total population having at least completed secondary edu. in %			65					69		
Lifelong learning			6.9/7.2					9.4/11		
R&D share in % GDP			1.2					1.9		
Productivity per hour relative to EU-15 in %			120					100		
<b>Migration and Integration</b>			<b>2004/5</b>					<b>2004/5</b>		
SShare of non nationals in the population in %			6					6		
Employment rate of nationals in %			67					65		
Employment rate of non EU-25 nationals in %			57					55		
Unemployment rate of nationals in %			4					9		
Unemployment rate of non EU-25 nationals in %			7					17		
Low education of nationals in %			44					35		
Low education non EU-25 nationals in %			19					49		
<b>Sustainability of Public Finances and Social Protection</b>			<b>2004/5</b>	<b>2030</b>	<b>2050</b>			<b>2004/5</b>	<b>2040</b>	<b>2050</b>
Government debt as % of GDP			27.6					63.4		
% of government revenue in GDP			33.9					43.7		
% of public expenditure on pensions in GDP			4.7	7.8	11.1			10.6	11.9	12.8
% of public expenditure on health care in GDP			5.3	6.5	7.3			6.4	7.4	8.0
% of public expenditure on long term care in GDP			0.6	0.7	1.2			0.9	1.1	1.5

**Demographic challenges and ...**

Ireland currently has the highest fertility rate in the EU and the proportion of young people in the population is also high. Life expectancy matches the EU average. The projections assume that fertility rates will remain high and that life expectancy will stay close to the EU average. The old-age dependency ratio could more than double, but would remain significantly below the EU average by 2050.

**... opportunities for tackling them**

Female labour force participation is already relatively high, but there remains scope for improvement with an employment rate gap between men and women of almost 20 percentage points and about one-third of women working part-time. Labour market opportunities for women could benefit from more accessible childcare. The gender pay gap is below the EU average.

An increase in public spending on R&D and a reduction of early school leaving would help to raise future productivity. Although employment rates of older workers are above the EU average, potential still exists for improvement.

Public debt is low, but a large ageing-related increase in public social protection expenditure is projected.



## ITALY

	Italy					EU-25				
Demographic Trends	1960	1980	2004/5	2030	2050	1960	1980	2004/5	2030	2050
Population in Millions	50	56	58	57	53	378	426	457	469	450
Total Fertility Rate (number of children per women)	2.5	1.5	1.3	1.4	1.4	2.6	1.9	1.5	1.6	1.6
Life expectancy at birth for women in years	72	77	83	87	89	73	76	80	84	86
Life expectancy at birth for men in years	67	71	77	82	84	67	69	74	78	81
Net migration in the population in thousands			330	114	114			1 464	835	822
Mean age of women at childbirth			31					29		
Population share of persons under 25 in %	40	38	25	21	20	40	38	29	24	23
Population share of persons aged 25-64 in %	50	49	56	51	45	50	49	54	51	47
Population share of persons aged 60-79 in %	12	15	20	27	27	13	15	18	25	25
Population share of very old persons 80+ in %	1	2	5	9	14	1	2	4	7	11
Old age dependency ratio (15-64) in %	14	20	29	45	66	15	21	25	40	53
<b>Gender Equality and Family situation</b>	<b>2004/5</b>					<b>2004/5</b>				
Employment rate women/men in %			45/70					56/71		
Gender pay gap in %			7					15		
Share of part time work among women/men in %			26/5					33/7		
Childcare availability for children (0-3 / 3 – compulsory school age) in %			6/93					:/:		
At-risk-of-poverty after social transfer in total/children in %			19/22					17/20		
<b>Ageing and the Labour Market</b>	<b>2004/5</b>					<b>2004/5</b>				
Employment rates for persons aged 55-64 women/men in %			21/43					34/52		
Employment rates for persons aged 60-64 in %			18					27		
Employment rates for persons aged 65-69 in %			7					8		
Average exit age from the labour market			61					61		
Inactive for health reasons in % of inactive (aged 50-64)			7.1					16		
Internet use total/people 65-74 in %			34/4					51/12		
<b>Education, R&amp;D and Productivity</b>	<b>2004/5</b>					<b>2004/5</b>				
Early school leavers women/men in %			18/26					13/17		
Youth educational attainment levels women/men in %			78/68					80/74		
Total population having at least completed secondary edu. in %			50					69		
Lifelong learning			5.4/6.2					9.4/11		
R&D share in % GDP			1.1					1.9		
Productivity per hour relative to EU-15 in %			92					100		
<b>Migration and Integration</b>	<b>2004/5</b>					<b>2004/5</b>				
Share of non nationals in the population in %			4.1					6		
Employment rate of nationals in %			:					65		
Employment rate of non EU-25 nationals in %			:					55		
Unemployment rate of nationals in %			:					9		
Unemployment rate of non EU-25 nationals in %			:					17		
Low education of nationals in %			:					35		
Low education non EU-25 nationals in %			:					49		
<b>Sustainability of Public Finances and Social Protection</b>	<b>2004/5 2030 2050</b>					<b>2004/5 2040 2050</b>				
Government debt as % of GDP			106.4					63.4		
% of government revenue in GDP			44.0					43.7		
% of public expenditure on pensions in GDP			14.2	15.0	14.6			10.6	11.9	12.8
% of public expenditure on health care in GDP			5.8	6.7	7.1			6.4	7.4	8.0
% of public expenditure on long term care in GDP			1.5	1.7	2.2			0.9	1.1	1.5

**Demographic challenges and ...**

Italy currently has the highest old-age dependency ratio in the EU. With a low fertility rate and high life expectancy – both being expected to continue – the old-age dependency ratio could rise to almost two-thirds (2 persons aged 65+ for every 3 persons of working age) and the total population could shrink by about five million. In recent years, a significant number of migrants has arrived in Italy.

**... opportunities for tackling them**

There is significant scope for promoting the labour force participation of women. This would also help in reducing the risk of poverty for households with children.

Employment rates for older workers are also comparatively low.

There is scope for raising productivity, notably by raising educational attainment levels, combating early school leaving and boosting R&D spending.

Reducing public debt would enhance Italy's ability to meet future social protection needs, even if the projected ageing-related increase in public expenditure is comparatively small.



## CYPRUS

	Cyprus					EU-25				
	1960	1980	2004/5	2030	2050	1960	1980	2004/5	2030	2050
<b>Demographic Trends</b>										
Population in Millions	0.6	0.6	0.7	0.9	1	378	426	457	469	450
Total Fertility Rate (number of children per women)	3.4	2.5	1.5	1.5	1.5	2.6	1.9	1.5	1.6	1.6
Life expectancy at birth for women in years	71	75	81	84	85	73	76	80	84	86
Life expectancy at birth for men in years	68	73	76	80	82	67	69	74	78	81
Net migration in the population in thousands			6	5	5			1 464	835	822
Mean age of women at childbirth			29					29		
Population share of persons under 25 in %	53	44	35	26	23	40	38	29	24	23
Population share of persons aged 25-64 in %	41	46	53	53	51	50	49	54	51	47
Population share of persons aged 60-79 in %	9	12	14	21	25	13	15	18	25	25
Population share of very old persons 80+ in %	1	2	3	5	8	1	2	4	7	11
Old age dependency ratio (15-64) in %	10	16	18	33	43	15	21	25	40	53
<b>Gender Equality and Family situation</b>			<b>2004/5</b>					<b>2004/5</b>		
Employment rate women/men in %			58/79					56/71		
Gender pay gap in %			25					15		
Share of part time work among women/men in %			14/5					33/7		
Childcare availability for children (0-3 / 3 – compulsory school age) in %			12/82					:/		
At-risk-of-poverty after social transfer in total/children in %			16/11					17/20		
<b>Ageing and the Labour Market</b>			<b>2004/5</b>					<b>2004/5</b>		
Employment rates for persons aged 55-64 women/men in %			32/71					34/52		
Employment rates for persons aged 60-64 in %			38					27		
Employment rates for persons aged 65-69 in %			20					8		
Average exit age from the labour market			63					61		
Inactive for health reasons in % of inactive (aged 50-64)			17					16		
Internet use total/people 65-74 in %			31/4					51/12		
<b>Education, R&amp;D and Productivity</b>			<b>2004/5</b>					<b>2004/5</b>		
Early school leavers women/men in %			11/27					13/17		
Youth educational attainment levels women/men in %			89/72					80/74		
Total population having at least completed secondary edu. in %			65					69		
Lifelong learning			5.4/6.3					9.4/11		
R&D share in % GDP			0.4					1.9		
Productivity per hour relative to EU-15 in %			:					100		
<b>Migration and Integration</b>			<b>2004/5</b>					<b>2004/5</b>		
Share of non nationals in the population in %			13					6		
Employment rate of nationals in %			68					65		
Employment rate of non EU-25 nationals in %			79					55		
Unemployment rate of nationals in %			5					9		
Unemployment rate of non EU-25 nationals in %			4					17		
Low education of nationals in %			42					35		
Low education non EU-25 nationals in %			41					49		
<b>Sustainability of Public Finances and Social Protection</b>			<b>2004/5</b>	<b>2030</b>	<b>2050</b>			<b>2004/5</b>	<b>2040</b>	<b>2050</b>
Government debt as % of GDP			70.3					63.4		
% of government revenue in GDP			39.5					43.7		
% of public expenditure on pensions in GDP			6.9	12.2	19.8			10.6	11.9	12.8
% of public expenditure on health care in GDP			2.9	3.6	4.0			6.4	7.4	8.0
% of public expenditure on long term care in GDP			:	:	:			0.9	1.1	1.5

**Demographic challenges and ...**

Life expectancy in Cyprus is close to the EU average and fertility slightly below. This is assumed to continue over the next decades. Nevertheless, thanks to migration, Cyprus' population is expected to grow significantly, and the increase in the old-age dependency ratio could be moderate compared to the EU average by 2050.

**... opportunities for tackling them**

Female employment rates are already comparatively high, but the gender pay gap is very large.

Labour force participation of older men is high, even in the higher age groups (65-69).

Third country nationals appear to be well integrated into the market.

Public debt is higher than the EU average, and the ageing-related projected increase in public pensions expenditure is very large.

## LATVIA

	Latvia					EU-25				
Demographic Trends	1960	1980	2004/5	2030	2050	1960	1980	2004/5	2030	2050
Population in Millions	2.1	2.5	2.3	2.0	1.9	378	426	457	469	450
Total Fertility Rate (number of children per women)	1.9	2	1.3	1.6	1.6	2.6	1.9	1.5	1.6	1.6
Life expectancy at birth for women in years	74	74	76	80	83	73	76	80	84	86
Life expectancy at birth for men in years	66	65	65	71	74	67	69	74	78	81
Net migration in the population in thousands			- 2	3	3			1 464	835	822
Mean age of women at childbirth			27					29		
Population share of persons under 25 in %	38	36	30	26	24	40	38	29	24	23
Population share of persons aged 25-64 in %	51	51	53	52	50	50	49	54	51	47
Population share of persons aged 60-79 in %	13	14	19	22	26	13	15	18	25	25
Population share of very old persons 80+ in %	2	2	3	6	8	1	2	4	7	11
Old age dependency ratio (15-64) in %	16	20	24	33	44	15	21	25	40	53
<b>Gender Equality and Family situation</b>	<b>2004/5</b>					<b>2004/5</b>				
Employment rate women/men in %	59/68					56/71				
Gender pay gap in %	15					15				
Share of part time work among women/men in %	12/8					33/7				
Childcare availability for children (0-3 / 3 – compulsory school age) in %	16/75					:/:				
At-risk-of-poverty after social transfer in total/children in %	19/19					17/20				
<b>Ageing and the Labour Market</b>	<b>2004/5</b>					<b>2004/5</b>				
Employment rates for persons aged 55-64 women/men in %	45/55					34/52				
Employment rates for persons aged 60-64 in %	32					27				
Employment rates for persons aged 65-69 in %	19					8				
Average exit age from the labour market	63					61				
Inactive for health reasons in % of inactive (aged 50-64)	20					16				
Internet use total/people 65-74 in %	42/4					51/12				
<b>Education, R&amp;D and Productivity</b>	<b>2004/5</b>					<b>2004/5</b>				
Early school leavers women/men in %	8/16					13/17				
Youth educational attainment levels women/men in %	87/77					80/74				
Total population having at least completed secondary edu. in %	84					69				
Lifelong learning	5/10.6					9.4/11				
R&D share in % GDP	0.4					1.9				
Productivity per hour relative to EU-15 in %	34					100				
<b>Migration and Integration</b>	<b>2004/5</b>					<b>2004/5</b>				
Share of non nationals in the population in %	21					6				
Employment rate of nationals in %	63					65				
Employment rate of non EU-25 nationals in %	61					55				
Unemployment rate of nationals in %	9					9				
Unemployment rate of non EU-25 nationals in %	18					17				
Low education of nationals in %	27					35				
Low education non EU-25 nationals in %	10					49				
<b>Sustainability of Public Finances and Social Protection</b>	<b>2004/5 2030 2050</b>					<b>2004/5 2040 2050</b>				
Government debt as % of GDP	11.9					63.4				
% of government revenue in GDP	34.4					43.7				
% of public expenditure on pensions in GDP	6.8 5.6 5.6					10.6 11.9 12.8				
% of public expenditure on health care in GDP	5.1 5.9 6.2					6.4 7.4 8.0				
% of public expenditure on long term care in GDP	0.4 0.5 0.7					0.9 1.1 1.5				

**Demographic challenges and ...**

Latvia's fertility rate is currently below the EU average, but this may partly be the effect of a transition to women having children later in life; a recovery of fertility is assumed for the population projections. Life expectancy is significantly below the EU average, particularly for men, and the gap is expected to remain large over the projection period. As a result the population is expected to shrink and the old-age dependency ratio will increase much less than for the EU as a whole.

**... opportunities for tackling them**

Female employment rates are above the EU average and most women work full-time. A better availability of child care, particularly for the youngest children, might allow further increases.

The employment rates of older workers are also above the EU average, but could grow further.

Latvia has a huge potential for catching up in terms of productivity and can build on a high level of educational attainment. There is also scope for more proactive education and labour market integration policies for third country nationals.

Public finances are sound and public social protection expenditure is not expected to rise significantly over the coming decades.

## LITHUANIA

	Lithuania					EU-25				
	1960	1980	2004/5	2030	2050	1960	1980	2004/5	2030	2050
<b>Demographic Trends</b>										
Population in Millions	2.8	3.4	3.4	3.1	2.9	378	426	457	469	450
Total Fertility Rate (number of children per women)	2.4	2.0	1.3	1.6	1.6	2.6	1.9	1.5	1.6	1.6
Life expectancy at birth for women in years	74	76	78	82	84	73	76	80	84	86
Life expectancy at birth for men in years	67	66	67	72	76	67	69	74	78	81
Net migration in the population in thousands			- 6	5	4			1 464	835	822
Mean age of women at childbirth			27.1					29		
Population share of persons under 25 in %	44	40	33	25	23	40	38	29	24	23
Population share of persons aged 25-64 in %	48	48	52	54	50	50	49	54	51	47
Population share of persons aged 60-79 in %	11	12	17	22	25	13	15	18	25	25
Population share of very old persons 80+ in %	1	2	3	5	9	1	2	4	7	11
Old age dependency ratio (15-64) in %	12	17	23	33	45	15	21	25	40	53
<b>Gender Equality and Family situation</b>			<b>2004/5</b>					<b>2004/5</b>		
Employment rate women/men in %			59/66					56/71		
Gender pay gap in %			16					15		
Share of part time work among women/men in %			9/5					33/7		
Childcare availability for children ( 0-3 / 3 – compulsory school age) in %			18/60					:/:		
At-risk-of-poverty after social transfer in total/children in %			21/23					17/20		
<b>Ageing and the Labour Market</b>			<b>2004/5</b>					<b>2004/5</b>		
Employment rates for persons aged 55-64 women/men in %			42/59					34/52		
Employment rates for persons aged 60-64 in %			37					27		
Employment rates for persons aged 65-69 in %			8					8		
Average exit age from the labour market			61					61		
Inactive for health reasons in % of inactive (aged 50-64)			34					16		
Internet use total/people 65-74 in %			34/2					51/12		
<b>Education, R&amp;D and Productivity</b>			<b>2004/5</b>					<b>2004/5</b>		
Early school leavers women/men in %			6/12					13/17		
Youth educational attainment levels women/men in %			90/81					80/74		
Total population having at least completed secondary edu. in %			87					69		
Lifelong learning			4.2/7.7					9.4/11		
R&D share in % GDP			0.7					1.9		
Productivity per hour relative to EU-15 in %			42					100		
<b>Migration and Integration</b>			<b>2004/5</b>					<b>2004/5</b>		
Share of non nationals in the population in %			1					6		
Employment rate of nationals in %			63					65		
Employment rate of non EU-25 nationals in %			68					55		
Unemployment rate of nationals in %			8					9		
Unemployment rate of non EU-25 nationals in %			9					17		
Low education of nationals in %			30					35		
Low education non EU-25 nationals in %			15					49		
<b>Sustainability of Public Finances and Social Protection</b>			<b>2004/5</b>	<b>2030</b>	<b>2050</b>			<b>2004/5</b>	<b>2040</b>	<b>2050</b>
Government debt as % of GDP			18.7					63.4		
% of government revenue in GDP			32.0					43.7		
% of public expenditure on pensions in GDP			6.7	7.9	8.5			10.6	11.9	12.8
% of public expenditure on health care in GDP			3.7	4.4	4.6			6.4	7.4	8.0
% of public expenditure on long term care in GDP			0.5	0.7	0.9			0.9	1.1	1.5

**Demographic challenges and ...**

Lithuania's fertility rate is currently below the EU average, but this may partly be the effect of a transition to women having children later in life; a recovery of fertility is assumed for the population projections. Life expectancy is significantly below the EU average, particularly for men, and the gap is expected to remain large over the projection period. As a result, the population is expected to shrink and the old-age dependency ratio will increase much less than for the EU as a whole.

**... opportunities for tackling them**

Female employment rates are above the EU average and most women work full-time. A better availability of childcare might still allow for further improvements.

The employment rates of older workers are also above the EU average, but could still grow, particularly if health and disability issues are tackled.

Lithuania has great potential for catching up in terms of productivity and can build on a high level of educational attainment.

Public finances are sound and public social protection expenditure is expected to rise moderately over the coming decades.

## LUXEMBOURG

	Luxembourg					EU-25				
Demographic Trends	1960	1980	2004/5	2030	2050	1960	1980	2004/5	2030	2050
Population in Millions	0.3	0.4	0.5	0.6	0.6	378	426	457	469	450
Total Fertility Rate (number of children per women)	2.4	1.5	1.7	1.8	1.8	2.6	1.9	1.5	1.6	1.6
Life expectancy at birth for women in years	72	76	81	85	87	73	76	80	84	86
Life expectancy at birth for men in years	67	69	75	80	82	67	69	74	78	81
Net migration in the population in thousands			3	3	3			1 464	835	822
Mean age of women at childbirth			30					29		
Population share of persons under 25 in %	35	35	30	28	28	40	38	29	24	23
Population share of persons aged 25-64 in %	55	52	56	52	50	50	49	54	51	47
Population share of persons aged 60-79 in %	15	16	16	21	19	13	15	18	25	25
Population share of very old persons 80+ in %	2	2	3	5	8	1	2	4	7	11
Old age dependency ratio (15-64) in %	16	20	21	32	36	15	21	25	40	53
<b>Gender Equality and Family situation</b>	<b>2004/5</b>					<b>2004/5</b>				
Employment rate women/men in %	54/73					56/71				
Gender pay gap in %	14					15				
Share of part time work among women/men in %	38/3					33/7				
Childcare availability for children (0-3 / 3 – compulsory school age) in %	14/80					:/:				
At-risk-of-poverty after social transfer in total/children in %	13/17					17/20				
<b>Ageing and the Labour Market</b>	<b>2004/5</b>					<b>2004/5</b>				
Employment rates for persons aged 55-64 women/men in %	25/38					34/52				
Employment rates for persons aged 60-64 in %	13					27				
Employment rates for persons aged 65-69 in %	:					8				
Average exit age from the labour market	58					61				
Inactive for health reasons in % of inactive (aged 50-64)	14					16				
Internet use total/people 65-74 in %	69/26					51/12				
<b>Education, R&amp;D and Productivity</b>	<b>2004/5</b>					<b>2004/5</b>				
Early school leavers women/men in %	10/17					13/17				
Youth educational attainment levels women/men in %	76/67					80/74				
Total population having at least completed secondary edu. in %	66					69				
Lifelong learning	8.5/8.5					9.4/11				
R&D share in % GDP	1.7					1.9				
Productivity per hour relative to EU-15 in %	154					100				
<b>Migration and Integration</b>	<b>2004/5</b>					<b>2004/5</b>				
Share of non nationals in the population in %	39					6				
Employment rate of nationals in %	61					65				
Employment rate of non EU-25 nationals in %	56					55				
Unemployment rate of nationals in %	3					9				
Unemployment rate of non EU-25 nationals in %	12					17				
Low education of nationals in %	33					35				
Low education non EU-25 nationals in %	31					49				
<b>Sustainability of Public Finances and Social Protection</b>	<b>2004/5 2030 2050</b>					<b>2004/5 2040 2050</b>				
Government debt as % of GDP	6.2					63.4				
% of government revenue in GDP	42.2					43.7				
% of public expenditure on pensions in GDP	10.0 15.0 17.4					10.6 11.9 12.8				
% of public expenditure on health care in GDP	5.1 5.9 6.3					6.4 7.4 8.0				
% of public expenditure on long term care in GDP	0.9 1.1 1.5					0.9 1.1 1.5				

**Demographic challenges and ...**

Luxembourg's fertility rate is above the EU average while life expectancy is close to the EU level. This is projected to continue. Thanks to immigration, the population is expected to grow significantly. The old-age dependency ratio is projected to be the lowest in the EU by 2050.

**... opportunities for tackling them**

Female employment could grow, reducing the current 20-percentage point gap between male and female employment rates. A large proportion of women work part-time. The expansion in childcare facilities will certainly help in this respect.

Another important labour force reserve are older workers whose employment rates are significantly below the EU average.

Productivity levels are very high which could allow the country to attract more migrant workers.

Public debt is at a very low level, but the projected ageing-related increase in public pensions expenditure is large.

## HUNGARY

	Hungary					EU-25				
	1960	1980	2004/5	2030	2050	1960	1980	2004/5	2030	2050
<b>Demographic Trends</b>										
Population in Millions	10	11	10	9	9	378	426	457	469	450
Total Fertility Rate (number of children per women)	1.8	1.8	1.3	1.6	1.6	2.6	1.9	1.5	1.6	1.6
Life expectancy at birth for women in years	71	73	77	82	83	73	76	80	84	86
Life expectancy at birth for men in years	66	65	69	75	78	67	69	74	78	81
Net migration in the population in thousands			15	21	20			1 464	835	822
Mean age of women at childbirth			28					29		
Population share of persons under 25 in %	40	35	29	24	24	40	38	29	24	23
Population share of persons aged 25-64 in %	51	51	56	53	48	50	49	54	51	47
Population share of persons aged 60-79 in %	13	15	18	22	26	13	15	18	25	25
Population share of very old persons 80+ in %	1	2	3	6	8	1	2	4	7	11
Old age dependency ratio (15-64) in %	14	21	23	35	48	15	21	25	40	53
<b>Gender Equality and Family situation</b>			<b>2004/5</b>					<b>2004/5</b>		
Employment rate women/men in %			51/63					56/71		
Gender pay gap in %			11					15		
Share of part time work among women/men in %			6/3					33/7		
Childcare availability for children ( 0-3 / 3 – compulsory school age) in %			6/86					:/:		
At-risk-of-poverty after social transfer in total/children in %			13/17					17/20		
<b>Ageing and the Labour Market</b>			<b>2004/5</b>					<b>2004/5</b>		
Employment rates for persons aged 55-64 women/men in %			27/41					34/52		
Employment rates for persons aged 60-64 in %			15					27		
Employment rates for persons aged 65-69 in %			4					8		
Average exit age from the labour market			61					61		
Inactive for health reasons in % of inactive (aged 50-64)			22					16		
Internet use total/people 65-74 in %			37/5					51/12		
<b>Education, R&amp;D and Productivity</b>			<b>2004/5</b>					<b>2004/5</b>		
Early school leavers women/men in %			11/14					13/17		
Youth educational attainment levels women/men in %			85/81					80/74		
Total population having at least completed secondary edu. in %			76					69		
Lifelong learning			3.2/4.6					9.4/11		
R&D share in % GDP			0.9					1.9		
Productivity per hour relative to EU-15 in %			:					100		
<b>Migration and Integration</b>			<b>2004/5</b>					<b>2004/5</b>		
Share of non nationals in the population in %			1					6		
Employment rate of nationals in %			57					65		
Employment rate of non EU-25 nationals in %			64					55		
Unemployment rate of nationals in %			7					9		
Unemployment rate of non EU-25 nationals in %			4					17		
Low education of nationals in %			34					35		
Low education non EU-25 nationals in %			23					49		
<b>Sustainability of Public Finances and Social Protection</b>			<b>2004/5</b>	<b>2030</b>	<b>2050</b>			<b>2004/5</b>	<b>2040</b>	<b>2050</b>
Government debt as % of GDP			58.4					63.4		
% of government revenue in GDP			45.2					43.7		
% of public expenditure on pensions in GDP			10.4	13.5	17.1			10.6	11.9	12.8
% of public expenditure on health care in GDP			5.5	6.3	6.5			6.4	7.4	8.0
% of public expenditure on long term care in GDP			:	:	:			0.9	1.1	1.5

**Demographic challenges and ...**

Hungary's fertility rate is currently below the EU average, but this may partly be the effect of a transition to women having children later in life; a recovery of fertility is assumed for the population projections. Life expectancy is significantly below the EU average, particularly for men, and the gap is expected to remain large over the projection period. As a result, the population is expected to shrink and the old-age dependency ratio will increase less than for the EU as a whole.

**... opportunities for tackling them**

Hungary has significant scope for increasing employment through higher labour force participation of women and of older workers.

Productivity levels can also catch up, building on a high level of educational attainment of the population.

More R&D investment could also help to boost productivity.

Public debt is close to the EU average but public spending on pensions is expected to rise significantly.

## MALTA

	Malta					EU-25				
Demographic Trends	1960	1980	2004/5	2030	2050	1960	1980	2004/5	2030	2050
Population in Millions	0.3	0.3	0.4	0.5	0.5	378	426	457	469	450
Total Fertility Rate (number of children per women)	3.1	2.0	1.7	1.6	1.6	2.6	1.9	1.5	1.6	1.6
Life expectancy at birth for women in years	71	76	81	84	85	73	76	80	84	86
Life expectancy at birth for men in years	67	71	76	80	82	67	69	74	78	81
Net migration in the population in thousands			3	2	3			1 464	835	822
Mean age of women at childbirth			:					29		
Population share of persons under 25 in %	53	41	32	26	25	40	38	29	24	23
Population share of persons aged 25-64 in %	40	49	54	51	50	50	49	54	51	47
Population share of persons aged 60-79 in %	10	12	15	21	24	13	15	18	25	25
Population share of very old persons 80+ in %	1	2	3	6	8	1	2	4	7	11
Old age dependency ratio (15-64) in %	13	15	19	36	41	15	21	25	40	53
<b>Gender Equality and Family situation</b>	<b>2004/5</b>					<b>2004/5</b>				
Employment rate women/men in %	34/74					56/71				
Gender pay gap in %	4					15				
Share of part time work among women/men in %	19/5					33/7				
Childcare availability for children (0-3 / 3 – compulsory school age) in %	:/					:/				
At-risk-of-poverty after social transfer in total/children in %	15/18					17/20				
<b>Ageing and the Labour Market</b>	<b>2004/5</b>					<b>2004/5</b>				
Employment rates for persons aged 55-64 women/men in %	12/51					34/52				
Employment rates for persons aged 60-64 in %	16					27				
Employment rates for persons aged 65-69 in %	:					8				
Average exit age from the labour market	58					61				
Inactive for health reasons in % of inactive (aged 50-64)	11					16				
Internet use total/people 65-74 in %	:/					51/12				
<b>Education, R&amp;D and Productivity</b>	<b>2004/5</b>					<b>2004/5</b>				
Early school leavers women/men in %	39/43					13/17				
Youth educational attainment levels women/men in %	52/45					80/74				
Total population having at least completed secondary edu. in %	26					69				
Lifelong learning	6.1/4.5					9.4/11				
R&D share in % GDP	0.3					1.9				
Productivity per hour relative to EU-15 in %	69					100				
<b>Migration and Integration</b>	<b>2004/5</b>					<b>2004/5</b>				
Share of non nationals in the population in %	3					6				
Employment rate of nationals in %	54					65				
Employment rate of non EU-25 nationals in %	60					55				
Unemployment rate of nationals in %	7					9				
Unemployment rate of non EU-25 nationals in %	5					17				
Low education of nationals in %	76					35				
Low education non EU-25 nationals in %	61					49				
<b>Sustainability of Public Finances and Social Protection</b>	<b>2004/5 2030 2050</b>					<b>2004/5 2040 2050</b>				
Government debt as % of GDP	74.7					63.4				
% of government revenue in GDP	41.6					43.7				
% of public expenditure on pensions in GDP	7.4 9.1 7.0					10.6 11.9 12.8				
% of public expenditure on health care in GDP	4.2 5.5 6.0					6.4 7.4 8.0				
% of public expenditure on long term care in GDP	0.9 1.1 1.1					0.9 1.1 1.5				

**Demographic challenges and ...**

Life expectancy in Malta is slightly below the EU average and fertility slightly above (but expected to fall slightly). Thanks to migration, the population is expected to grow, and the increase in the old-age dependency ratio could be moderate compared to the EU average by 2050.

**... opportunities for tackling them**

There is considerable scope for increasing female employment; the gap between male and female employment rates currently stands at 40 percentage points. Older workers represent another much underused labour force potential.

Productivity levels are still significantly below the EU average and to close the gap educational attainment levels need to be improved and R&D spending boosted.

Public debt is above the EU average, but the ageing-related increase in public social protection expenditure is expected to be moderate.



## THE NETHERLANDS

	The Netherlands					EU-25				
Demographic Trends	1960	1980	2004/5	2030	2050	1960	1980	2004/5	2030	2050
Population in Millions	11	14	16	18	17	378	426	457	469	450
Total Fertility Rate (number of children per women)	3.2	1.5	1.8	1.8	1.8	2.6	1.9	1.5	1.6	1.6
Life expectancy at birth for women in years	75	79	81	83	84	73	76	80	84	86
Life expectancy at birth for men in years	72	73	76	79	80	67	69	74	78	81
Net migration in the population in thousands			21	32	31			1 464	835	822
Mean age of women at childbirth			30					29		
Population share of persons under 25 in %	45	40	30	27	28	40	38	29	24	23
Population share of persons aged 25-64 in %	46	49	56	50	49	50	49	54	51	47
Population share of persons aged 60-79 in %	12	13	16	24	21	13	15	18	25	25
Population share of very old persons 80+ in %	1	2	3	6	8	1	2	4	7	11
Old age dependency ratio (15-64) in %	15	17	21	37	39	15	21	25	40	53
<b>Gender Equality and Family situation</b>	<b>2004/5</b>					<b>2004/5</b>				
Employment rate women/men in %	66/80					56/71				
Gender pay gap in %	19					15				
Share of part time work among women/men in %	75/23					33/7				
Childcare availability for children (0-3 / 3 – compulsory school age) in %	35/100					:/:				
At-risk-of-poverty after social transfer in total/children in %	11/13					17/20				
<b>Ageing and the Labour Market</b>	<b>2004/5</b>					<b>2004/5</b>				
Employment rates for persons aged 55-64 women/men in %	35/57					34/52				
Employment rates for persons aged 60-64 in %	25					27				
Employment rates for persons aged 65-69 in %	10					8				
Average exit age from the labour market	61					61				
Inactive for health reasons in % of inactive (aged 50-64)	32					16				
Internet use total/people 65-74 in %	79/34					51/12				
<b>Education, R&amp;D and Productivity</b>	<b>2004/5</b>					<b>2004/5</b>				
Early school leavers women/men in %	11/16					13/17				
Youth educational attainment levels women/men in %	79/71					80/74				
Total population having at least completed secondary edu. in %	72					69				
Lifelong learning	15.6/16.1					9.4/11				
R&D share in % GDP	1.8					1.9				
Productivity per hour relative to EU-15 in %	117					100				
<b>Migration and Integration</b>	<b>2004/5</b>					<b>2004/5</b>				
Share of non nationals in the population in %	4					6				
Employment rate of nationals in %	74					65				
Employment rate of non EU-25 nationals in %	42					55				
Unemployment rate of nationals in %	4					9				
Unemployment rate of non EU-25 nationals in %	18					17				
Low education of nationals in %	37					35				
Low education non EU-25 nationals in %	48					49				
<b>Sustainability of Public Finances and Social Protection</b>	<b>2004/5 2030 2050</b>					<b>2004/5 2040 2050</b>				
Government debt as % of GDP	52.9					63.4				
% of government revenue in GDP	43.8					43.7				
% of public expenditure on pensions in GDP	7.7 10.6 11.2					10.6 11.9 12.8				
% of public expenditure on health care in GDP	6.1 7.1 7.4					6.4 7.4 8.0				
% of public expenditure on long term care in GDP	0.5 0.8 1.1					0.9 1.1 1.5				

**Demographic challenges and ...**

Fertility in the Netherlands is at a relatively high level and has recovered from a much lower level in the 1980s. Life expectancy is slightly below the EU average. Projections are based on the assumption that fertility will remain high and that life expectancy will grow slower than for the EU as a whole. These trends combined with significant immigration will result in a growing population and one of the lowest old-age dependency ratios in the EU by 2050.

**... opportunities for tackling them**

Female labour force participation is high, but the contribution of women to the economy could improve if women worked more hours and the gender pay gap was reduced. Better childcare provision could help in this respect.

Employment could also grow through higher labour force participation of older workers and improved access of minorities and third country nationals to the labour market and education systems.

Public debt is below the EU average. Public social protection expenditure is expected to rise faster than for the EU as a whole, albeit to a level that would remain below the EU average.



## AUSTRIA

	Austria					EU-25				
	1960	1980	2004/5	2030	2050	1960	1980	2004/5	2030	2050
<b>Demographic Trends</b>										
Population in Millions	7	8	8	9	8	378	426	457	469	450
Total Fertility Rate (number of children per women)	2.8	1.8	1.4	1.5	1.5	2.6	1.9	1.5	1.6	1.6
Life expectancy at birth for women in years	73	76	82	86	88	73	76	80	84	86
Life expectancy at birth for men in years	66	69	76	81	84	67	69	74	78	81
Net migration in the population in thousands			25	19	20			1 464	835	822
Mean age of women at childbirth			29					29		
Population share of persons under 25 in %	37	37	28	23	22	40	38	29	24	23
Population share of persons aged 25-64 in %	51	48	56	52	48	50	49	54	51	47
Population share of persons aged 60-79 in %	16	16	18	25	24	13	15	18	25	25
Population share of very old persons 80+ in %	2	3	4	7	13	1	2	4	7	11
Old age dependency ratio (15-64) in %	18	24	24	41	53	15	21	25	40	53
<b>Gender Equality and Family situation</b>			<b>2004/5</b>					<b>2004/5</b>		
Employment rate women/men in %			62/75					56/71		
Gender pay gap in %			18					15		
Share of part time work among women/men in %			39/6					33/7		
Childcare availability for children (0-3 / 3 – compulsory school age) in %			9/82					:/:		
At-risk-of-poverty after social transfer in total/children in %			12/13					17/20		
<b>Ageing and the Labour Market</b>			<b>2004/5</b>					<b>2004/5</b>		
Employment rates for persons aged 55-64 women/men in %			23/41					34/52		
Employment rates for persons aged 60-64 in %			14					27		
Employment rates for persons aged 65-69 in %			5					8		
Average exit age from the labour market			59					61		
Inactive for health reasons in % of inactive (aged 50-64)			6					16		
Internet use total/people 65-74 in %			55/8					51/12		
<b>Education, R&amp;D and Productivity</b>			<b>2004/5</b>					<b>2004/5</b>		
Early school leavers women/men in %			9/9					13/17		
Youth educational attainment levels women/men in %			88/84					80/74		
Total population having at least completed secondary edu. in %			80					69		
Lifelong learning			12.3/13.5					9.4/11		
R&D share in % GDP			2.2					1.9		
Productivity per hour relative to EU-15 in %			98					100		
<b>Migration and Integration</b>			<b>2004/5</b>					<b>2004/5</b>		
Share of non nationals in the population in %			10					6		
Employment rate of nationals in %			70					65		
Employment rate of non EU-25 nationals in %			59					55		
Unemployment rate of nationals in %			4					9		
Unemployment rate of non EU-25 nationals in %			13					17		
Low education of nationals in %			28					35		
Low education non EU-25 nationals in %			50					49		
<b>Sustainability of Public Finances and Social Protection</b>			<b>2004/5</b>	<b>2030</b>	<b>2050</b>			<b>2004/5</b>	<b>2040</b>	<b>2050</b>
Government debt as % of GDP			62.9					63.4		
% of government revenue in GDP			46.7					43.7		
% of public expenditure on pensions in GDP			13.4	14.0	12.2			10.6	11.9	12.8
% of public expenditure on health care in GDP			5.3	6.3	6.9			6.4	7.4	8.0
% of public expenditure on long term care in GDP			0.6	0.9	1.5			0.9	1.1	1.5

**Demographic challenges and ...**

Fertility in Austria lies below the EU average and only a moderate recovery is expected. Thanks to life expectancy rising above the EU average and significant immigration, the population could continue to grow up to 2030. The old-age dependency ratio is expected to evolve in line with the EU-25 level.

**... opportunities for tackling them**

Female employment rates are high, but many women only work part-time and their hourly pay is significantly lower than men's.

Older workers represent a significant potential for increasing employment as their employment rates are well below the EU average. Employment rates might also benefit from improved access of third country nationals to the labour market and education systems.

Public debt is close to the EU average and public social protection expenditure is expected to rise only moderately over the coming decades.

## POLAND

	Poland					EU-25				
	1960	1980	2004/5	2030	2050	1960	1980	2004/5	2030	2050
<b>Demographic Trends</b>										
Population in Millions	30	36	38	37	34	378	426	457	469	450
Total Fertility Rate (number of children per women)	2.7	2.3	1.2	1.6	1.6	2.6	1.9	1.5	1.6	1.6
Life expectancy at birth for women in years	71	75	79	83	84	73	76	80	84	86
Life expectancy at birth for men in years	66	67	71	77	79	67	69	74	78	81
Net migration in the population in thousands			- 28	36	34			1 464	835	822
Mean age of women at childbirth			28					29		
Population share of persons under 25 in %	48	41	33	24	22	40	38	29	24	23
Population share of persons aged 25-64 in %	47	49	54	53	48	50	49	54	51	47
Population share of persons aged 60-79 in %	9	12	15	23	28	13	15	18	25	25
Population share of very old persons 80+ in %	1	2	3	5	9	1	2	4	7	11
Old age dependency ratio (15-64) in %	10	15	19	36	51	15	21	25	40	53
<b>Gender Equality and Family situation</b>			<b>2004/5</b>					<b>2004/5</b>		
Employment rate women/men in %			47/59					56/71		
Gender pay gap in %			10					15		
Share of part time work among women/men in %			14/8					33/7		
Childcare availability for children (0-3 / 3 – compulsory school age) in %			2/60					:/:		
At-risk-of-poverty after social transfer in total/children in %			21/25					17/20		
<b>Ageing and the Labour Market</b>			<b>2004/5</b>					<b>2004/5</b>		
Employment rates for persons aged 55-64 women/men in %			20/36					34/52		
Employment rates for persons aged 60-64 in %			18					27		
Employment rates for persons aged 65-69 in %			10					8		
Average exit age from the labour market			58					61		
Inactive for health reasons in % of inactive (aged 50-64)			36					16		
Internet use total/people 65-74 in %			35/3					51/12		
<b>Education, R&amp;D and Productivity</b>			<b>2004/5</b>					<b>2004/5</b>		
Early school leavers women/men in %			4/7					13/17		
Youth educational attainment levels women/men in %			92/88					80/74		
Total population having at least completed secondary edu. in %			85					69		
Lifelong learning			4.3/5.4					9.4/11		
R&D share in % GDP			0.5					1.9		
Productivity per hour relative to EU-15 in %			48					100		
<b>Migration and Integration</b>			<b>2004/5</b>					<b>2004/5</b>		
Share of non nationals in the population in %			2					6		
Employment rate of nationals in %			53					65		
Employment rate of non EU-25 nationals in %			49					55		
Unemployment rate of nationals in %			18					9		
Unemployment rate of non EU-25 nationals in %			10					17		
Low education of nationals in %			28					35		
Low education non EU-25 nationals in %			9					49		
<b>Sustainability of Public Finances and Social Protection</b>			<b>2004/5</b>	<b>2030</b>	<b>2050</b>			<b>2004/5</b>	<b>2040</b>	<b>2050</b>
Government debt as % of GDP			42.5					63.4		
% of government revenue in GDP			40.5					43.7		
% of public expenditure on pensions in GDP			13.9	9.2	8.0			10.6	11.9	12.8
% of public expenditure on health care in GDP			4.1	5.1	5.5			6.4	7.4	8.0
% of public expenditure on long term care in GDP			0.1	0.1	0.2			0.9	1.1	1.5

**Demographic challenges and ...**

Poland's fertility rate has dropped to one of the lowest levels in the EU, but this may partly be the effect of a transition to women having children later in life; a recovery of fertility is assumed for the population projections. Life expectancy is significantly below the EU average and it is not expected that the gap will be closed over the projection period. Over recent years, Poland experienced significant emigration, but a reversal of this trend is expected. Altogether, this will lead to a shrinking population and a rise of the old-age dependency ratio to close to the EU average.

**... opportunities for tackling them**

Employment rates of both men and women are far below the EU average, leaving much scope for future employment growth. Promoting the labour force activation of women might also reduce the risk of poverty, which is higher for households with children. The employment rate gap between Poland and the EU average is particularly large for older workers.

There is a large potential for productivity growth which could build on a high level of educational attainment.

Public debt is below the EU average and public pensions expenditure is even expected to fall significantly over the coming decades.

## PORTUGAL

	Portugal					EU-25				
	1960	1980	2004/5	2030	2050	1960	1980	2004/5	2030	2050
<b>Demographic Trends</b>										
Population in Millions	9	10	10	11	10	378	426	457	469	450
Total Fertility Rate (number of children per women)	3.1	2.0	1.5	1.6	1.6	2.6	1.9	1.5	1.6	1.6
Life expectancy at birth for women in years	67	75	81	85	87	73	76	80	84	86
Life expectancy at birth for men in years	61	68	74	79	80	67	69	74	78	81
Net migration in the population in thousands			42	15	15			1 464	835	822
Mean age of women at childbirth			29					29		
Population share of persons under 25 in %	45	44	28	24	22	40	38	29	24	23
Population share of persons aged 25-64 in %	47	46	55	52	46	50	49	54	51	47
Population share of persons aged 60-79 in %	11	13	18	25	27	13	15	18	25	25
Population share of very old persons 80+ in %	1	1	4	7	11	1	2	4	7	11
Old age dependency ratio (15-64) in %	13	17	25	39	58	15	21	25	40	53
<b>Gender Equality and Family situation</b>			<b>2004/5</b>					<b>2004/5</b>		
Employment rate women/men in %			62/74					56/71		
Gender pay gap in %			5					15		
Share of part time work among women/men in %			17/7					33/7		
Childcare availability for children (0-3 / 3 – compulsory school age) in %			19/75					:/:		
At-risk-of-poverty after social transfer in total/children in %			20/21					17/20		
<b>Ageing and the Labour Market</b>			<b>2004/5</b>					<b>2004/5</b>		
Employment rates for persons aged 55-64 women/men in %			44/58					34/52		
Employment rates for persons aged 60-64 in %			41					27		
Employment rates for persons aged 65-69 in %			28					8		
Average exit age from the labour market			62					61		
Inactive for health reasons in % of inactive (aged 50-64)			16					16		
Internet use total/people 65-74 in %			32/2					51/12		
<b>Education, R&amp;D and Productivity</b>			<b>2004/5</b>					<b>2004/5</b>		
Early school leavers women/men in %			30/47					13/17		
Youth educational attainment levels women/men in %			57/40					80/74		
Total population having at least completed secondary edu. in %			26					69		
Lifelong learning			4/4.2					9.4/11		
R&D share in % GDP			0.7					1.9		
Productivity per hour relative to EU-15 in %			59					100		
<b>Migration and Integration</b>			<b>2004/5</b>					<b>2004/5</b>		
Share of non nationals in the population in %			3					6		
Employment rate of nationals in %			67					65		
Employment rate of non EU-25 nationals in %			73					55		
Unemployment rate of nationals in %			8					9		
Unemployment rate of non EU-25 nationals in %			12					17		
Low education of nationals in %			77					35		
Low education non EU-25 nationals in %			63					49		
<b>Sustainability of Public Finances and Social Protection</b>			<b>2004/5</b>	<b>2030</b>	<b>2050</b>			<b>2004/5</b>	<b>2040</b>	<b>2050</b>
Government debt as % of GDP			63.9					63.4		
% of government revenue in GDP			39.9					43.7		
% of public expenditure on pensions in GDP			11.1	16.0	20.8			10.6	11.9	12.8
% of public expenditure on health care in GDP			6.7	6.6	7.2			6.4	7.4	8.0
% of public expenditure on long term care in GDP			:	:	:			0.9	1.1	1.5

**Demographic challenges and ...**

Portugal's fertility rate is just below the EU average and this is expected to continue in the population projection. Life expectancy for women is at the EU average while it is lower for men. The old-age dependency ratio, currently at the same level as for the EU as a whole, is expected to rise faster than in the rest of the EU.

**... opportunities for tackling them**

Female employment rates are above the EU average and a relatively small percentage of women are in part-time work. Expanding child-care availability might enable even more employment growth.

The employment levels of older workers are also above average, but here too, there remains scope for further progress.

Portugal has significant room for raising productivity levels, but this will require efforts to raise educational attainment levels and prevent early school leaving.

Public debt is close to the EU average, but a very large ageing-related increase in public spending on pensions is expected.

## ROMANIA

	Romania					EU-25				
	1960	1980	2004/5	2030	2050	1960	1980	2004/5	2030	2050
<b>Demographic Trends</b>										
Population in Millions	18	22	22	19	17	378	426	457	469	450
Total Fertility Rate (number of children per women)	2.0	2.3	1.3	1.5	1.5	2.6	1.9	1.5	1.6	1.6
Life expectancy at birth for women in years	69	73	75	80	82	73	76	80	84	86
Life expectancy at birth for men in years	65	67	68	75	78	67	69	74	78	81
Net migration in the population in thousands			- 17	6	9			1 464	835	822
Mean age of women at childbirth			26					29		
Population share of persons under 25 in %	44	41	32	24	21	40	38	29	24	23
Population share of persons aged 25-64 in %	49	49	54	57	49	50	49	54	51	47
Population share of persons aged 60-79 in %	10	12	17	23	30	13	15	18	25	25
Population share of very old persons 80+ in %	1	1	2	5	8	1	2	4	7	11
Old age dependency ratio (15-64) in %	10	16	21	30	51	15	21	25	40	53
<b>Gender Equality and Family situation</b>			<b>2004/5</b>					<b>2004/5</b>		
Employment rate women/men in %			52/64					56/71		
Gender pay gap in %			13					15		
Share of part time work among women/men in %			11/10					33/7		
Childcare availability for children ( 0-3 / 3 – compulsory school age) in %			:/					:/		
At-risk-of-poverty after social transfer in total/children in %			18/21					17/20		
<b>Ageing and the Labour Market</b>			<b>2004/5</b>					<b>2004/5</b>		
Employment rates for persons aged 55-64 women/men in %			33/47					34/52		
Employment rates for persons aged 60-64 in %			32					27		
Employment rates for persons aged 65-69 in %			26					8		
Average exit age from the labour market			63					61		
Inactive for health reasons in % of inactive (aged 50-64)			:					16		
Internet use total/people 65-74 in %			:/					51/12		
<b>Education, R&amp;D and Productivity</b>			<b>2004/5</b>					<b>2004/5</b>		
Early school leavers women/men in %			20/21					13/17		
Youth educational attainment levels women/men in %			76/74					79/74		
Total population having at least completed secondary edu. in %			73					69		
Lifelong learning			1.5/1.6					9.4/11		
R&D share in % GDP			0.4					1.9		
Productivity per hour relative to EU-15 in %			36					100		
<b>Migration and Integration</b>			<b>2004/5</b>					<b>2004/5</b>		
Share of non nationals in the population in %			:					6		
Employment rate of nationals in %			58					65		
Employment rate of non EU-25 nationals in %			:					55		
Unemployment rate of nationals in %			8					9		
Unemployment rate of non EU-25 nationals in %			:					17		
Low education of nationals in %			:					35		
Low education non EU-25 nationals in %			:					50		
<b>Sustainability of Public Finances and Social Protection</b>			<b>2004/5</b>	<b>2030</b>	<b>2050</b>			<b>2004/5</b>	<b>2040</b>	<b>2050</b>
Government debt as % of GDP			18.5					63.4		
% of government revenue in GDP			36.8					43.7		
% of public expenditure on pensions in GDP			:	:	:			10.6	11.9	12.8
% of public expenditure on health care in GDP			:	:	:			6.4	7.4	8.0
% of public expenditure on long term care in GDP			:	:	:			0.9	1.1	1.5

**Demographic challenges and ...**

The total population of Romania is expected to decline significantly by 2050 as a result of low birth rates and a high current level of net emigration. Fertility rates are expected to recover from the current low level while net emigration should come to a halt. Life expectancy, particularly for men, is currently low and significant progress is expected. The old-age dependency ratio is expected to remain below the European average.

**... opportunities for tackling them**

Low employment rates mean that there is a major potential for employment growth.

Productivity is just above one-third of the EU average, so there is an enormous catching-up potential. Reducing the number of early school leavers and increasing investment in research and investment would contribute to realising this productivity growth potential.

Current public debt is well below the EU average. Projections of future ageing-related public spending are not available.

## SLOVENIA

	Slovenia					EU-25				
Demographic Trends	1960	1980	2004/5	2030	2050	1960	1980	2004/5	2030	2050
Population in Millions	1.6	1.8	2.0	2.0	1.9	378	426	457	469	450
Total Fertility Rate (number of children per women)	2.3	1.9	1.2	1.5	1.5	2.6	1.9	1.5	1.6	1.6
Life expectancy at birth for women in years	72	75	80	84	85	73	76	80	84	86
Life expectancy at birth for men in years	66	67	73	78	80	67	69	74	78	81
Net migration in the population in thousands			6	7	7			1 464	835	822
Mean age of women at childbirth			29					29		
Population share of persons under 25 in %	43	39	28	23	22	40	38	29	24	23
Population share of persons aged 25-64 in %	49	50	57	52	47	50	49	54	51	47
Population share of persons aged 60-79 in %	11	13	18	26	28	13	15	18	25	25
Population share of very old persons 80+ in %	1	2	3	6	11	1	2	4	7	11
Old age dependency ratio (15-64) in %	12	17	22	40	56	15	21	25	40	53
<b>Gender Equality and Family situation</b>	<b>2004/5</b>					<b>2004/5</b>				
Employment rate women/men in %			61/70					56/71		
Gender pay gap in %			9					15		
Share of part time work among women/men in %			11/7					33/7		
Childcare availability for children (0-3 / 3 – compulsory school age) in %			27/59					:/:		
At-risk-of-poverty after social transfer in total/children in %			10/9					17/20		
<b>Ageing and the Labour Market</b>	<b>2004/5</b>					<b>2004/5</b>				
Employment rates for persons aged 55-64 women/men in %			19/43					34/52		
Employment rates for persons aged 60-64 in %			16					27		
Employment rates for persons aged 65-69 in %			11					8		
Average exit age from the labour market			56					61		
Inactive for health reasons in % of inactive (aged 50-64)			23					16		
Internet use total/people 65-74 in %			47:/					51/12		
<b>Education, R&amp;D and Productivity</b>	<b>2004/5</b>					<b>2004/5</b>				
Early school leavers women/men in %			3/6					13/17		
Youth educational attainment levels women/men in %			94/88					80/74		
Total population having at least completed secondary edu. in %			81					69		
Lifelong learning			13.6/17.2					9.4/11		
R&D share in % GDP			1.5					1.9		
Productivity per hour relative to EU-15 in %			66					100		
<b>Migration and Integration</b>	<b>2004/5</b>					<b>2004/5</b>				
Share of non nationals in the population in %			2					6		
Employment rate of nationals in %			66					65		
Employment rate of non EU-25 nationals in %			51					55		
Unemployment rate of nationals in %			7					9		
Unemployment rate of non EU-25 nationals in %			14					17		
Low education of nationals in %			29					35		
Low education non EU-25 nationals in %			33					49		
<b>Sustainability of Public Finances and Social Protection</b>	<b>2004/5 2030 2050</b>					<b>2004/5 2040 2050</b>				
Government debt as % of GDP			29.1					63.4		
% of government revenue in GDP			44.0					43.7		
% of public expenditure on pensions in GDP			11.0	14.4	18.3			10.6	11.9	12.8
% of public expenditure on health care in GDP			6.4	7.6	8.0			6.4	7.4	8.0
% of public expenditure on long term care in GDP			0.9	1.4	2.1			0.9	1.1	1.5

**Demographic challenges and ...**

Slovenia's fertility rate has dropped to one of the lowest levels in the EU, but this may be the effect of a transition to women having children later in life; a recovery of fertility is assumed for the population projections. Life expectancy is below the EU average and it is not expected that the gap will be closed over the projection period. The old-age dependency ratio is expected to increase faster than for the EU as a whole and to exceed the EU-25 level by 2050.

**... opportunities for tackling them**

Female employment rates are well above the EU average and few women work part-time. The gender pay gap is smaller than for the EU as a whole.

There is significant scope for increased employment of older workers, many of whom quit for reasons of illness or disability. With productivity standing roughly at 2/3 of the EU-15 level, there is a potential for rapid growth which could build on high levels of educational attainment.

Public debt is comparatively low, but a large ageing-related increase in public social protection expenditure is expected.

## SLOVAKIA

	Slovakia					EU-25				
	1960	1980	2004/5	2030	2050	1960	1980	2004/5	2030	2050
<b>Demographic Trends</b>										
Population in Millions	4	5	5	5	5	378	426	457	469	450
Total Fertility Rate (number of children per women)	2.9	2.3	1.2	1.5	1.6	2.6	1.9	1.5	1.6	1.6
Life expectancy at birth for women in years	73	75	78	82	83	73	76	80	84	86
Life expectancy at birth for men in years	68	67	70	75	78	67	69	74	78	81
Net migration in the population in thousands			- 2	5	5			1 464	835	822
Mean age of women at childbirth			27					29		
Population share of persons under 25 in %	48	43	33	23	22	40	38	29	24	23
Population share of persons aged 25-64 in %	46	47	55	56	49	50	49	54	51	47
Population share of persons aged 60-79 in %	10	12	14	22	29	13	15	18	25	25
Population share of very old persons 80+ in %	1	2	2	4	8	1	2	4	7	11
Old age dependency ratio (15-64) in %	11	16	16	32	51	15	21	25	40	53
<b>Gender Equality and Family situation</b>			<b>2004/5</b>					<b>2004/5</b>		
Employment rate women/men in %			51/55					56/71		
Gender pay gap in %			24					15		
Share of part time work among women/men in %			4/1					33/7		
Childcare availability for children ( 0-3 / 3 – compulsory school age) in %			:/70					:/:		
At-risk-of-poverty after social transfer in total/children in %			13/17					17/20		
<b>Ageing and the Labour Market</b>			<b>2004/5</b>					<b>2004/5</b>		
Employment rates for persons aged 55-64 women/men in %			16/48					34/52		
Employment rates for persons aged 60-64 in %			13					27		
Employment rates for persons aged 65-69 in %			2					8		
Average exit age from the labour market			59					61		
Inactive for health reasons in % of inactive (aged 50-64)			23					16		
Internet use total/people 65-74 in %			50/1					51/12		
<b>Education, R&amp;D and Productivity</b>			<b>2004/5</b>					<b>2004/5</b>		
Early school leavers women/men in %			6/6					13/17		
Youth educational attainment levels women/men in %			92/91					80/74		
Total population having at least completed secondary edu. in %			88					69		
Lifelong learning			4.3/5					9.4/11		
R&D share in % GDP			0.6					1.9		
Productivity per hour relative to EU-15 in %			53					100		
<b>Migration and Integration</b>			<b>2004/5</b>					<b>2004/5</b>		
Share of non nationals in the population in %			0.4					6		
Employment rate of nationals in %			58					65		
Employment rate of non EU-25 nationals in %			65					55		
Unemployment rate of nationals in %			16					9		
Unemployment rate of non EU-25 nationals in %			12					17		
Low education of nationals in %			25					35		
Low education non EU-25 nationals in %			12					49		
<b>Sustainability of Public Finances and Social Protection</b>			<b>2004/5</b>	<b>2030</b>	<b>2050</b>			<b>2004/5</b>	<b>2040</b>	<b>2050</b>
Government debt as % of GDP			34.5					63.4		
% of government revenue in GDP			35.7					43.7		
% of public expenditure on pensions in GDP			7.2	7.7	9.0			10.6	11.9	12.8
% of public expenditure on health care in GDP			4.4	5.7	6.3			6.4	7.4	8.0
% of public expenditure on long term care in GDP			0.7	0.9	1.3			0.9	1.1	1.5

**Demographic challenges and ...**

Slovakia's fertility rate has dropped to one of the lowest levels in the EU, but this may be the effect of a transition to women having children later in life; a recovery of fertility is assumed for the population projections. Life expectancy is below the EU average, particularly for men, and it is not expected that the gap will be closed over the projection period. The old-age dependency ratio, currently far below the EU-25 average, is expected to increase fast and reach almost the EU-25 level by 2050.

**... opportunities for tackling them**

While the gender gap in employment rates is small (reflecting also low employment rates for men), the pay gap is particularly large and child-care is only available for a minority of children. There is significant scope for employment growth by raising the labour force participation of older workers.

Slovakia could also benefit from catching up in terms of productivity and can build on a high level of educational attainment. More expenditure for R&D and for lifelong learning could also help. Public debt is low and the expected ageing-related increase in public social protection expenditure is moderate.



## FINLAND

	Finland					EU-25				
	1960	1980	2004/5	2030	2050	1960	1980	2004/5	2030	2050
<b>Demographic Trends</b>										
Population in Millions	4	5	5	5	5	378	426	457	469	450
Total Fertility Rate (number of children per women)	2.7	1.7	1.8	1.8	1.8	2.6	1.9	1.5	1.6	1.6
Life expectancy at birth for women in years	73	78	82	85	87	73	76	80	84	86
Life expectancy at birth for men in years	66	69	75	80	82	67	69	74	78	81
Net migration in the population in thousands			6	6	6			1 464	835	822
Mean age of women at childbirth			30					29		
Population share of persons under 25 in %	46	36	30	27	26	40	38	29	24	23
Population share of persons aged 25-64 in %	47	52	54	47	47	50	49	54	51	47
Population share of persons aged 60-79 in %	10	15	17	24	23	13	15	18	25	25
Population share of very old persons 80+ in %	1	2	4	8	10	1	2	4	7	11
Old age dependency ratio (15-64) in %	12	18	24	45	47	15	21	25	40	53
<b>Gender Equality and Family situation</b>			<b>2004/5</b>					<b>2004/5</b>		
Employment rate women/men in %			67/70					56/71		
Gender pay gap in %			20					15		
Share of part time work among women/men in %			19/9					33/7		
Childcare availability for children (0-3 / 3 – compulsory school age) in %			21/70					:/:		
At-risk-of-poverty after social transfer in total/children in %			12/9					17/20		
<b>Ageing and the Labour Market</b>			<b>2004/5</b>					<b>2004/5</b>		
Employment rates for persons aged 55-64 women/men in %			53/53					34/52		
Employment rates for persons aged 60-64 in %			34					27		
Employment rates for persons aged 65-69 in %			6					8		
Average exit age from the labour market			61					61		
Inactive for health reasons in % of inactive (aged 50-64)			44					16		
Internet use total/people 65-74 in %			73/18					51/12		
<b>Education, R&amp;D and Productivity</b>			<b>2004/5</b>					<b>2004/5</b>		
Early school leavers women/men in %			7/11					13/17		
Youth educational attainment levels women/men in %			87/83					80/74		
Total population having at least completed secondary edu. in %			79					69		
Lifelong learning			19/26.1					9.4/11		
R&D share in % GDP			3.5					1.9		
Productivity per hour relative to EU-15 in %			97					100		
<b>Migration and Integration</b>			<b>2004/5</b>					<b>2004/5</b>		
Share of non nationals in the population in %			2					6		
Employment rate of nationals in %			69					65		
Employment rate of non EU-25 nationals in %			47					55		
Unemployment rate of nationals in %			8					9		
Unemployment rate of non EU-25 nationals in %			25					17		
Low education of nationals in %			35					35		
Low education non EU-25 nationals in %			47					49		
<b>Sustainability of Public Finances and Social Protection</b>			<b>2004/5</b>	<b>2030</b>	<b>2050</b>			<b>2004/5</b>	<b>2040</b>	<b>2050</b>
Government debt as % of GDP			41.1					63.4		
% of government revenue in GDP			49.9					43.7		
% of public expenditure on pensions in GDP			10.7	14.0	13.8			10.6	11.9	12.8
% of public expenditure on health care in GDP			5.6	6.7	7.0			6.4	7.4	8.0
% of public expenditure on long term care in GDP			1.7	2.9	3.5			0.9	1.1	1.5

**Demographic challenges and ...**

Fertility rates and life expectancy are very close to the EU average and this is expected to continue. The old-age dependency ratio, currently also close to the EU average, is expected to grow less fast.

**... opportunities for tackling them**

The female employment rate is high and the gap between male and female rates is small, whereas the gender pay gap is larger than for the EU as a whole.

The employment rate of older workers is also comparatively high, but could be further improved by tackling health and disability as a major cause for early labour market exit. Employment could also grow thanks to improved access of minorities and third country nationals to the labour market and education systems.

Public debt is relatively low, but the expected ageing-related increase in public social protection expenditure is faster than for the EU as a whole.



## SWEDEN

	Sweden					EU-25				
	1960	1980	2004/5	2030	2050	1960	1980	2004/5	2030	2050
<b>Demographic Trends</b>										
Population in Millions	7	8	9	10	10	378	426	457	469	450
Total Fertility Rate (number of children per women)	2.3	1.7	1.8	1.9	1.9	2.6	1.9	1.5	1.6	1.6
Life expectancy at birth for women in years	75	77	82	85	87	73	76	80	84	86
Life expectancy at birth for men in years	71	73	78	82	83	67	69	74	78	81
Net migration in the population in thousands			28	22	21			1 464	835	822
Mean age of women at childbirth			30					29		
Population share of persons under 25 in %	36	33	30	28	27	40	38	29	24	23
Population share of persons aged 25-64 in %	52	51	53	49	48	50	49	54	51	47
Population share of persons aged 60-79 in %	15	19	18	22	21	13	15	18	25	25
Population share of very old persons 80+ in %	2	3	5	8	9	1	2	4	7	11
Old age dependency ratio (15-64) in %	18	25	26	39	41	15	21	25	40	53
<b>Gender Equality and Family situation</b>			<b>2004/5</b>					<b>2004/5</b>		
Employment rate women/men in %			70/74					56/71		
Gender pay gap in %			17					15		
Share of part time work among women/men in %			40/12					33/7		
Childcare availability for children ( 0-3 / 3 – compulsory school age) in %			41/90					:/:		
At-risk-of-poverty after social transfer in total/children in %			9/8					17/20		
<b>Ageing and the Labour Market</b>			<b>2004/5</b>					<b>2004/5</b>		
Employment rates for persons aged 55-64 women/men in %			67/72					34/52		
Employment rates for persons aged 60-64 in %			57					27		
Employment rates for persons aged 65-69 in %			15					8		
Average exit age from the labour market			63					61		
Inactive for health reasons in % of inactive (aged 50-64)			60					16		
Internet use total/people 65-74 in %			81/27					51/12		
<b>Education, R&amp;D and Productivity</b>			<b>2004/5</b>					<b>2004/5</b>		
Early school leavers women/men in %			8/9					13/17		
Youth educational attainment levels women/men in %			89/87					80/74		
Total population having at least completed secondary edu. in %			83					69		
Lifelong learning			27.9/36.5					9.4/11		
R&D share in % GDP			4.0					1.9		
Productivity per hour relative to EU-15 in %			102					100		
<b>Migration and Integration</b>			<b>2004/5</b>					<b>2004/5</b>		
Share of non nationals in the population in %			5					6		
Employment rate of nationals in %			73					65		
Employment rate of non EU-25 nationals in %			45					55		
Unemployment rate of nationals in %			7					9		
Unemployment rate of non EU-25 nationals in %			24					17		
Low education of nationals in %			24					35		
Low education non EU-25 nationals in %			24					49		
<b>Sustainability of Public Finances and Social Protection</b>			<b>2004/5</b>	<b>2030</b>	<b>2050</b>			<b>2004/5</b>	<b>2040</b>	<b>2050</b>
Government debt as % of GDP			50.3					63.4		
% of government revenue in GDP			56.5					43.7		
% of public expenditure on pensions in GDP			10.6	11.0	11.2			10.6	11.9	12.8
% of public expenditure on health care in GDP			6.7	7.4	7.7			6.4	7.4	8.0
% of public expenditure on long term care in GDP			3.8	4.9	5.5			0.9	1.1	1.5

**Demographic challenges and ...**

Sweden's fertility rate is above the EU average and this expected to continue. Life expectancy for women stands at the EU-25 level while men in Sweden can expect to live about two years longer than the EU average. This situation is assumed to prevail over the projection period. Combined with significant immigration, these trends will result in further population growth and a moderate increase in the old-age dependency ratio.

**... opportunities for tackling them**

Sweden has already achieved the highest employment rates in the EU and the gap between men and women is small. However, the gender pay gap is larger than for the EU as a whole and a large proportion of women work part-time. Employment rates of older workers are very high, too; improvements would require further efforts to prevent disability.

While productivity exceeds the EU-15 average, the high levels of educational attainment and investment in research and development could allow further growth. Access of minorities and third country nationals to the labour market and education system might be improved. The public debt is below the EU average; the expected ageing-related increase in public social protection expenditure are moderate.

## UNITED KINGDOM

	United Kingdom					EU-25				
Demographic Trends	1960	1980	2004/5	2030	2050	1960	1980	2004/5	2030	2050
Population in Millions	52	56	60	64	64	378	426	457	469	450
Total Fertility Rate (number of children per women)	2.8	1.8	1.7	1.8	1.8	2.6	1.9	1.5	1.6	1.6
Life expectancy at birth for women in years	74	76	81	85	87	73	76	80	84	86
Life expectancy at birth for men in years	68	69	76	81	83	67	69	74	78	81
Net migration in the population in thousands			140	99	98			1 464	835	822
Mean age of women at childbirth			29					29		
Population share of persons under 25 in %	37	36	31	27	25	40	38	29	24	23
Population share of persons aged 25-64 in %	52	49	53	50	48	50	49	54	51	47
Population share of persons aged 60-79 in %	15	17	17	23	23	13	15	18	25	25
Population share of very old persons 80+ in %	2	3	4	7	10	1	2	4	7	11
Old age dependency ratio (15-64) in %	18	24	24	37	45	15	21	25	40	53
<b>Gender Equality and Family situation</b>	<b>2004/5</b>					<b>2004/5</b>				
Employment rate women/men in %	66/78					56/71				
Gender pay gap in %	22					15				
Share of part time work among women/men in %	43/11					33/7				
Childcare availability for children (0-3 / 3 – compulsory school age) in %	11/30					:/:				
At-risk-of-poverty after social transfer in total/children in %	18/22					17/20				
<b>Ageing and the Labour Market</b>	<b>2004/5</b>					<b>2004/5</b>				
Employment rates for persons aged 55-64 women/men in %	48/66					34/52				
Employment rates for persons aged 60-64 in %	42					27				
Employment rates for persons aged 65-69 in %	15					8				
Average exit age from the labour market	62					61				
Inactive for health reasons in % of inactive (aged 50-64)	16					16				
Internet use total/people 65-74 in %	66/25					51/12				
<b>Education, R&amp;D and Productivity</b>	<b>2004/5</b>					<b>2004/5</b>				
Early school leavers women/men in %	13/15					13/17				
Youth educational attainment levels women/men in %	77/78					80/74				
Total population having at least completed secondary edu. in %	71					69				
Lifelong learning	23/32					9.4/11				
R&D share in % GDP	1.9					1.9				
Productivity per hour relative to EU-15 in %	97					100				
<b>Migration and Integration</b>	<b>2004/5</b>					<b>2004/5</b>				
Share of non nationals in the population in %	5					6				
Employment rate of nationals in %	72					65				
Employment rate of non EU-25 nationals in %	59					55				
Unemployment rate of nationals in %	5					9				
Unemployment rate of non EU-25 nationals in %	9					17				
Low education of nationals in %	15					35				
Low education non EU-25 nationals in %	20					49				
<b>Sustainability of Public Finances and Social Protection</b>	<b>2004/5 2030 2050</b>					<b>2004/5 2040 2050</b>				
Government debt as % of GDP	42.8					63.4				
% of government revenue in GDP	39.5					43.7				
% of public expenditure on pensions in GDP	6.6 7.9 8.6					10.6 11.9 12.8				
% of public expenditure on health care in GDP	7.0 8.1 8.9					6.4 7.4 8.0				
% of public expenditure on long term care in GDP	1.0 1.3 1.8					0.9 1.1 1.5				

**Demographic challenges and ...**

The UK's fertility rate is above the EU average and it is assumed that this will persist. Life expectancy is close to the EU average, but a more favourable evolution for men is expected in the population projections. These trends, combined with a significant level of immigration, will lead to a growing population and a much more favourable evolution of the old-age dependency ratio than for the EU as a whole.

**... opportunities for tackling them**

The gap between male and female employment rates is smaller than for the EU as a whole, but, at 12 percentage points, there is scope for further progress. The gender pay gap is particularly large and many women only work part-time. An improvement in the situation may require better availability of childcare. Improved female employment might also reduce the risk of poverty for households with children. Employment rates of older workers are high, even for people in their 60s.

Public debt is comparatively low; the expected ageing-related increase in public social protection expenditure is slightly above the increase for the EU as a whole.

## SOURCES AND DEFINITIONS

<b>Demographic Trends</b>	
Population in Millions	1960, 1980 UN 2004 Population projections, 2004/5, 2030 and 2050 Eurostat
Total Fertility Rate (number of children per women) given year	idem, number of children born to a woman if she follows the fertility age profile of a given year
Life expectancy at birth for women in years	idem
Life expectancy at birth for men in years	idem
Net migration in the population in thousands	idem
Mean age of women at childbirth	idem, in years
Population share of persons under 25 in %	idem
Population share of persons aged 25-64 in %	idem
Population share of persons aged 60-79 in %	idem
Population share of very old persons 80+ in %	idem
Old age dependency ratio 65+/ (15-64) in %	idem
<b>Gender Equality and Family situation</b>	
Employment rate women/men in %	Eurostat, persons between 15-64
Gender pay gap in %	Eurostat EU SILC, National data, % difference in average gross hourly earnings
Share of part time work among women/men in %	Eurostat
Childcare availability for children (0-3 / 3 – compulsory school age) in %	National data, children cared for by formal arrangement other than family in 2003
At-risk-of-poverty after social transfer in total/children in %	Eurostat, EU SILC
<b>Ageing and the Labour Market</b>	
Employment rates for persons aged 55-64 women/men in %	Eurostat
Employment rates for persons aged 60-64 in %	Eurostat
Employment rates for persons aged 65-69 in %	Eurostat
Average exit age from the labour market	Eurostat, based on a probability model considering the relative changes of activity rates from one year to another
Inactive for health reasons in % of inactive (aged 50-64)	Eurostat
Internet use total/people 65-74 in %	Eurostat
<b>Education, R&amp;D and Productivity</b>	
Early school leavers women/men in %	Eurostat, % of 18-24 year olds having achieved only lower secondary education or less and not attending further training or education
Youth educational attainment levels women/men in %	Eurostat, % of 22 year olds having achieved at least upper secondary education
Total population having at least completed secondary edu. in %	Eurostat
Lifelong learning	Eurostat, % of workers between 25-64 that participated in some form of training
R&D share in % GDP	Eurostat
Productivity per hour relative to EU-15 in %	Eurostat, EU-15 is put at 100
<b>Migration and Integration</b>	
Share of non nationals in the population in %	Eurostat
Employment rate of nationals in %	Eurostat
Employment rate of non EU-25 nationals in %	Eurostat
Unemployment rate of nationals in %	Eurostat
Unemployment rate of non EU-25 nationals in %	Eurostat
Low education of nationals in %	Eurostat
Low education non EU-25 nationals in %	Eurostat
<b>Sustainability of Public Finances and Social Protection</b>	
Government debt as % of GDP	Eurostat
% of government revenue in GDP	Projections by the Economic Policy Committee and the European Commission
% of public expenditure on pensions in GDP	idem
% of public expenditure on health care in GDP	idem
% of public expenditure on long term care in GDP	idem



## ANNEX 2

### EUROPEAN RESEARCH PROJECTS ON DEMOGRAPHIC CHANGE AND ITS IMPACTS

## 1. THE EU FRAMEWORK PROGRAMMES FOR RESEARCH AND TECHNOLOGICAL DEVELOPMENT

A wide range of initiatives in the area of demographic change have been and are being supported through the EU Framework Programmes (FP) for research and technological development. Some examples are:

### 1.1. Sixth Framework Programme (2002-2006):

- SHARELIFE – Employment and health at 50+: a life history approach to European welfare state interventions  
<http://www.share-project.org>
- ActivAge – Overcoming the barriers and seizing the opportunities for active aging policies in Europe  
<http://www.iccrinternational.org/activage/en/index.html>
- DIALOG – Population policy acceptance study  
<http://www.bib-demographie.de/ppa/IndexDialogStart.htm>
- RECOWOWE – Network of excellence on reconciling work and welfare in Europe (including family/work/employment regimes)  
[http://ec.europa.eu/research/social-sciences/pdf/group\\_2/recwowe\\_en.pdf](http://ec.europa.eu/research/social-sciences/pdf/group_2/recwowe_en.pdf)
- SPReW – Generational approach to the social patterns of relation to work  
<http://www.ftu-namur.org/sprew/fr-index.html>
- FEMAGE – Needs for female immigrants and their integration in ageing societies  
<http://www.bib-demographie.de/femage>
- Linda HANTRAIS 'Family and Welfare Research', Policy Review of 13 FP4&FP5 socio-economic research projects, Brussels 2006, EUR n ° 22088, ISBN 92-79-02494-9  
<http://cordis.europa.eu/citizens/publications.htm>

### 1.2. Seventh Framework Programme (2007-2013):

For details on the new Framework Programme and calls published under it, visit  
<http://cordis.europa.eu>

## 2. PREPARATORY ACTION ON THE IMPACT OF DEMOGRAPHIC CHANGE ON EUROPEAN AND NATIONAL POLICIES

At the request of the European Parliament, the Commission managed in 2004 and 2005 a 'preparatory action to encourage that account is taken of demographic change in European and national policies'. This preparatory action comprised a series of studies on: Demographic projections, uncertainty and policy-making

- Education, occupations and sectors
- Quality of Life, Health Promotion and Health Care
- Innovation and Productivity Growth in Europe
- Impacts of New Technologies and Information Society
- The impact of ageing on private consumption and savings
- Global convergence: the link between trade, development aid and migration
- The link between population decline, ageing and economic growth
- Childbearing preferences and family issues in Europe (2006 Eurobarometer Survey)

These studies are available at:

[http://ec.europa.eu/employment\\_social/social\\_situation/studies\\_en.htm](http://ec.europa.eu/employment_social/social_situation/studies_en.htm)





Part 2

COMMISSION COMMUNICATION

The demographic future of Europe –  
from challenge to opportunity

---



# 1. THE AGEING POPULATION IN EUROPE: TRENDS AND OUTLOOK

Demographic ageing, i.e. the increase in the proportion of older people, is above all the result of significant economic, social and medical progress giving Europeans the opportunity to live a long life in comfort and security that is without precedent in our history. However, as was stressed by the Heads of State and Government at their Hampton Court informal Summit in October 2005, it is also one of the main challenges that the European Union will have to face in the years to come.

This Communication responds to the concern raised at this Summit, which is also widely felt by Europe's citizens. It is a follow-up to the Commission's communication to the European Council entitled *European values in the Globalised World* and the Commission's Green Paper on *Confronting demographic change: a new solidarity between the generations*<sup>1</sup>. It examines the possibilities for Europeans to confront the demographic challenge by drawing on the renewed Lisbon strategy for Growth and Jobs and the Sustainable Development Strategy. More specifically, it underlines how the European Union can support its Member States as part of a long-term strategy, the implementation of which essentially depends on their willingness and competences. In so doing, it sets out the main factors, evaluates the various complex impacts and identifies the main courses of action at national, regional and local levels, as well as at European level. It concludes that we can take up the challenge of the ageing population if we create conditions in support of people who wish to realise their desire to have children and take full advantage of the opportunities offered by longer and more productive lives in better health.

The ageing of the European Union's population is the result of four interactive demographic trends. However, their magnitude and rhythm may vary substantially from one country to another and from one region to another, ruling out a uniform response. In summary:

- The average number of children per woman (the current fertility rate) is low, at 1.5 children for EU-25, well below the replacement rate of 2.1 required to stabilise

the population size in the absence of immigration. A limited increase of 1.6 is projected for EU-25 by 2030<sup>2</sup>.

- The decline in fertility in recent decades followed the post-war baby boom which is today causing the bulge in the size of the population aged 45 to 65 years. The gradual progress of the baby-boomers towards retirement age will lead to a substantial increase in the proportion of old people, who will need to be supported financially by a reduced working-age population. This phenomenon will disappear, but not for several decades.
- After increasing by eight years since 1960, life expectancy at birth could continue to rise by at least a further five years by 2050. The projected increase would have its greatest impact on the older generations, so that Europeans reaching the age of 65 in 2050 can expect to live on average between four and five years longer than those reaching 65 today. This will lead to a spectacular increase in the number of people surviving to the ages of 80 and 90, leading to many of them spending several decades in retirement and reaching an age frequently characterised by infirmity and disability, although the proportion of people in poor health in this age bracket could fall.
- Europe is already the recipient of major inflows of net migration from third countries. In 2004, the EU registered 1.8 million immigrants, i.e. an influx greater than that of the United States relative to the total population. The EU is set to remain a popular destination for migrants over the coming decades. Eurostat's conservative projection is that around 40 million people will emigrate to the European Union between now and 2050. As many of them are of working age, migrants tend to bring down the average age of the population. However, the longer-term repercussions remain uncertain, as they depend on the more or less restrictive nature of family reunification policies and birth patterns of migrants. Despite the current flows, immigra-

1. COM(2005) 525, 3.11.2005 and COM(2005) 94, 16.3.2005, respectively.

2. Some demographers have expressed the hypothesis that a very low fertility rate could become irreversible, cf. 'The low fertility trap hypothesis: forces that may lead to further postponement and fewer births in Europe' by Lutz, Skirbekk and Testa, Vienna Institute of Demography research paper No 4 2005.

on can only partially compensate for the effects of low fertility and extended life expectancy on the age distribution of the European population.

As a result of these trends, the total population of EU-25 will fall slightly, but will become much older. In economic terms, the main change will involve the size of the working-age population (15-64 years), which will decrease by 48 million between now and 2050. The dependency ratio (the number of people aged 65 years and above relative to those aged from 15 to 64) is set to double and reach 51% by 2050, which means that the EU will change from having four to only two persons of working age for each citizen aged 65 and above.

The regional and social implications of population ageing are also worth noting. Regions with declining populations consisting mainly of senior citizens will face difficulties in supplying essential public goods and services, such as health care, housing, urban planning, transport and tourism services, so that their environmental balance will also reflect the impact of an ageing population. Demographic change is also accompanied by profound social changes affecting the composition of families, particularly evident in the growing number of elderly persons living alone. The increase in the number of very old dependent persons also raises new problems of an economic, social or even ethical nature.

The ageing population of the EU needs to be examined against the background of the global expansion of the world's population. Following a worldwide population increase from 2 billion in 1950 to 6.5 billion today, the United Nations' key projection is that this growth will continue, albeit at a slower pace, to reach a population of 9.1 billion by 2050. Around 95% of the overall growth of the population will occur in the developing countries, and the population of the 50 least developed countries is set to double. The fastest growth will take place in Africa. As a result, the proportion of the worldwide population accounted for by the 25 Member States will decrease.

However, Europe will not be ageing alone. Significant increases in the dependency ratios will appear between now and 2050 in emerging economies such as China and India. If developing countries can exploit the demographic dividend and integrate young working-age people into the labour market, global production will increase and provide profitable investment opportunities for Europeans saving for their retirement. Conversely, the combination of a high birth rate and slow development could lead to instability in these countries and increase pressure to emigrate.

Global migration flows have and will continue to have major repercussions for the countries of destination and departure. For the EU, the impact of immigrants on population ageing will depend on how well they integrate into the formal economy, bearing in mind that the employment rate for immigrants is still lower than that of non-immigrants in many Member States. Immigration may temporarily help to reduce the financial impact of an ageing population when legally employed immigrants pay contributions into public pension schemes. However, economically active immigrants will also, over time, accumulate their own pension rights. Their longer-term contribution to a sustainable balance in public finances will therefore depend on the existence of well-designed pension schemes. For the countries of origin, emigration to the EU can be beneficial, specifically through the reduction of pressure on the labour market, transfers of funds and the contribution of migrants returning to their countries with new skills and capital. However, the emigration of a large section of the young educated population is likely, for certain countries and sectors, to give rise to a 'brain drain' with its negative impact on the economy and the country's prospects for social development. Against this backdrop, we must not ignore the possibilities offered by temporary migration and the voluntary return of migrants to their countries of origin.

## 2. IMPACT OF THE AGEING POPULATION

### 2.1. Impact on the labour market, productivity and economic growth

Over the next decade, the working-age population will begin to decline when a large number of the 'baby-boomers' retire. However, with the support of specially-adapted employment policies, this phenomenon is likely to be temporarily offset during the next decade by increasing rates of employment. Recent projections<sup>3</sup> show that although the working-age population will begin to fall from 2010 onwards, the total number of persons in work in EU-25 will continue to increase until around 2017. More than two thirds of this increase will be the result of a higher number of women in work, older women being gradually replaced by better-educated younger women with greater involvement in working life. The remainder is accounted for by the substantial increase anticipated in the employment rate for older workers (aged from 55 to 64 years). The expected positive developments tend to create a 'window of opportunity' permitting the implementation of reforms before the effects of population ageing make themselves fully felt. However, higher employment rates can only offer temporary respite, and the full burden of the demographic changes would subsequently be felt. Even if the objective of 70% in the overall rate of employment as set out in the Lisbon strategy is reached, the total number of persons in work is set to decrease by 30 million between the end of the decade and 2050.

Economic growth rates are set to decline with the ageing of the population, mainly owing to the reduction in the working-age population. The projections show that, if current trends and policies remain unaltered, the average annual growth rate in GDP for EU-25 will fall systematically from 2.4% over the period 2004-2010 to only 1.2% between 2030 and 2050. Over time, Europe will increasingly have to rely on its productivity gains as a major source of economic growth. Older workers will constitute an increasing proportion of global labour and economic production resources. However, many countries still employ only a relatively small number of older workers

owing to excessive recourse to early retirement, insufficient financial incentives to work offered by tax and social security systems, and poor management of age-related issues in the workplace. This is in particular reflected by insufficient access to training, or even discrimination against older workers.

An older labour force and longer working lives need not imply less productive labour. The available data do not suggest that older workers are necessarily less productive and less innovative. The decline in physical and mental capacity occurs only at an older age, is very gradual, is subject to wide variations depending on the individuals concerned, and can be reduced by preventive health policies. Moreover, it may be offset by greater experience, changes to work organisation and more effective use of information and communication technologies (ICT). In addition, the future cohorts of older workers will also benefit from higher levels of training, reducing the risk of a slower spread of new technologies that could be associated with ageing.

In addition, we cannot take it as read that the reduction in the number of young people will facilitate their access to the labour market. Factors like education and suitable skills will still be essential in securing stable employment. In the context of an ageing society it is therefore of vital importance to provide quality training for young people, thereby meeting the needs of the labour market and of a knowledge-based society, and to develop lifelong learning to ensure that individuals maintain their human capital.

### 2.2. Impact on social security and public finances

On the basis of current policies, ageing will lead to ever greater pressures on public spending, although the situation varies widely from one country to another. For EU-25, it is projected that age-related public spending will rise by 3-4 GDP points between 2004 and 2050, representing an increase of 10% in public spending<sup>4</sup>.

3. Economic Policy Committee and European Commission (2006), 'The impact of ageing on public expenditure: projections for the EU-25 Member States on pensions, health care, long-term care, education and unemployment transfers (2004-50)' in *European Economy Reports and Studies*, No 1.

4. Communication from the Commission – The long-term sustainability of public finances in the EU – COM(2006) 574, 12.10.2006.

These upward pressures will be felt from 2010 onwards and will become particularly pronounced between 2020 and 2040. They will relate to pensions, health and services for the elderly.

Overall public finances risk becoming unsustainable in many countries, thereby compromising the future equilibrium of pension and social security systems in general. Allowing public spending linked to ageing to create budget deficits would lead to an intolerable spiral of debt. Such consequences would undermine the potential for economic growth and compromise the functioning of the single currency, thereby requiring pensions and health benefits to be seriously called into question, with considerable negative impact on the future wellbeing of pensioners and taxpayers.

Delaying reforms until public spending on pensions and health has risen would be missing an opportunity to ensure that every generation, including the baby-boomers, contribute to the necessary process of adjustment.

However, the EU governments have, in general, not remained inactive and recent reforms, especially in the fields of public pensions, health, employment and education systems, have begun to pay off, as evidenced in particular by the employment rate for older workers, which has been rising rapidly since 2000. These reforms have also aimed to transfer responsibilities from governments and companies to individuals; citizens will thus have to play a much more active role as regards both the amounts they save for retirement and choosing when to retire.

Ageing will also bring about sharp rises in public spending on health and long-term care, even if much will depend on the future improvement in the state of health of the elderly. Such an improvement will require, in particular, better adapted healthcare services and a preventive approach to chronic diseases which could be helped by the use of new technologies. If the gains to be made in terms of life expectancy were generally acquired in good health and without disability, the projected increase in public spending on health and dependency care due to ageing would be reduced by half<sup>5</sup>.



### 3. A CONSTRUCTIVE RESPONSE TO THE DEMOGRAPHIC CHALLENGE

In view of the complexity of the challenges of ageing, an overall strategy appears essential. Both at EU and at national level it will be necessary to review existing policies to determine whether they need to be adjusted to take account of the changing demography of the EU.

Five core policy directions are outlined below:

#### 3.1. Promoting demographic renewal in Europe

The EU Member States can prevent demographic decline or react to the falling birth rate, which for some of them is reaching a worrying level. These reactions are both necessary and realistic: necessary because surveys show that in all EU countries couples would like to have more children; realistic because international comparisons underline the effectiveness of family and other policies consistently implemented by some countries over several decades to create conditions supportive of those who wish to have children<sup>6</sup>.

There are many different such policies but they generally have three aspects in common, aiming to (i) reduce the inequality of opportunities offered to citizens with and without children, (ii) offer universal access to assistance services for parents, in particular for education and care for young children, and (iii) manage working hours to offer both men and women better opportunities for life-long learning and for balancing their private and working lives.

Furthermore, the most recent analyses of the fall in the birth rate emphasise the substantial impact of the rise in the age at which women have their first child, reflecting the growing reluctance of couples to have children. These analyses attach growing importance to reducing uncertainties accompanying the entry of young adults into the labour market and, more generally, to the improvement of their living conditions. In addition, effective gender equality policies make it easier for parents to

consider when to have children. We must therefore tackle the problems of access to accommodation, facilitate access to affordable and quality childcare and generally improve the work-life balance through flexible forms of work, making use of new technologies. We must also tackle child poverty, the extent of which remains worrying and also reflects the relative deterioration of the situation of families with children.

Solidarity between generations could be jeopardised if the burden of ageing had to be carried by the younger population, decreasing in number and economic strength. Remedying this situation is one of the priorities of the new pact between the generations.

At the Barcelona European Council in 2002, Member States made a clear commitment to step up provision of childcare: by 2010 this should be available to at least 90% of children between 3 and 6 years old, and at least 33% of children under 3 years of age. It is now time for these national childcare facilities to be put in place.

The Commission:

- will consult the social partners on the measures (e.g. on parental leave, or more flexible work arrangements) to be taken to improve the balance between the working, private and family lives of men and women, in order to take greater account of the needs of families<sup>7</sup>;
- will hold in October 2006 the first *European Demographic Forum* which will give rise to a Commission analysis report. In addition, the Commission will set up a *group of government experts* to accompany the work of the Forum.

6. Cf. for example 'The Demographic Future of Europe – Facts, Figures, Policies: Results of the Population Policy Acceptance Study (PPAS)' published by the German Federal Institute for Population Research and the Robert Bosch Foundation; Eurobarometer No 253 produced in 2006, for which an analysis of the results is to be published shortly.

7. Communication from the Commission – First-stage consultation of European social partners on the reconciliation of professional, private and family life – SEC(2006) 1245, 12.10.2006.

### 3.2. Promoting employment in Europe: more jobs and longer working lives of better quality

Increasing the rate of employment is a vital component of the Lisbon Strategy. Some success has already been achieved. The relevant reforms of employment, education and training policy will thus have to be expanded and pursued beyond 2010. Increased efforts will be needed to reduce the segmentation of the labour markets, pursue the increase in the number of women in work<sup>8</sup>, and increase the efficiency and equity of education systems in order to enhance skills and foster the integration of new entrants who suffer from this segregation. This, in particular, will be the aim underlying the implementation of 'flexicurity' guidelines which should facilitate the transition between different stages in the life cycle by means of increased flexibility of the labour markets, lifelong learning and active labour market and social security policies. The involvement of a large number of stakeholders with different levels of responsibility – workers and companies – by means of social dialogue and corporate social responsibility will be required.

Demographic ageing, however, calls for strategic importance to be given to increasing the rate of participation of men and women aged over 55. This will require far-reaching reforms to remove incentives for early exit from the labour market and to encourage the employment of senior citizens. It must also be ensured that it is effectively possible to work for longer and that public employment policies as a whole create more job opportunities for older workers.

'Active ageing' constitutes in itself a comprehensive and sustainable approach which must employ a range of tools beyond retirement reforms. In order to be able to seriously consider working longer, people must not be faced with discriminatory prejudices, they must have been prepared to update and make the most of the skills they have gained with experience and have access to more flexible retirement schemes, and they must not only be in good physical and mental health but also have good prospects of remaining so for a long time to come. The EU has legislative instruments to ensure that the ban on age discrimination is enforced, and the 2007 European Year of Equal Opportunities for All will be an opportunity to evaluate its implementation by the Member States, which are responsible for developing training and stepping up lifelong preventive health policies. Easier access to lifelong learning

must reach everyone and, in particular, those with lower skills and in less favourable employment conditions. While these areas are not new, demographic ageing now makes them a *priority investment in the future* which the European Union supports, principally through its 'Education and Training 2010' programme.

Increasing the active population will be achieved partly by improving public health. First of all, we need to rationalise the structure of our health systems' provision of care, which often no longer meets current needs. The Commission's recent initiative to establish a Community framework to improve cross-border mobility for patients and free movement of health services will allow economies of scale to be achieved and is part of this programme. Secondly, effective preventive measures to tackle obesity, smoking, alcoholism and mental illnesses should also have a broad impact on Europeans' state of health and, therefore, on productivity at work and future healthcare costs. Thirdly, the increased use of new technologies, such as telemedicine and personalised healthcare systems, available to senior citizens, their families and healthcare staff, could help to control healthcare expenditure and improve the wellbeing of citizens. Finally, the types of illnesses will certainly change with an ageing population, inevitably raising new questions about the types of care required in the future.

Continuing to work after the age of 60 should no longer be, as it is today, the prerogative of high income earners and the highly qualified. This should lead to a reduction in the disparity in life expectancies, which today constitutes one of the most salient forms of social inequality, depending on income and level of education. Preventive measures to foster lifestyles and environmental conditions conducive to good health, within and outside the workplace, must henceforth lead to increased cooperation between the stakeholders in public health, education, the media and work organisation. This should influence at an early stage life expectancy *in good health*, which differs markedly from overall life expectancy and varies considerably between Member States.

The participation of people aged over 65, including those who are officially retired, in the economic and social fabric must be promoted as an opportunity and not presented as a constraint. This increased participation in social activity on a voluntary basis will be achieved by means which have largely yet to be created.

8. Communication from the Commission – A Roadmap for equality between women and men 2006-2010 – COM(2006) 92, 1.3.2006.

Member States are invited to take the necessary measures to respect their commitments, taken at the Stockholm European Council in 2001, to raise employment rates for workers over 55 to over 50%. At the launch of a new cycle of the Lisbon Strategy for Growth and Employment in 2008, the Commission will examine the results obtained in each Member State as regards the employment rate for men and women aged over 55 and the age of withdrawal from the labour force. It will report on specific examples of best practices from the Member States in promoting active ageing.

The European Union has agreed to step up support to Member States to reach this goal with an agreement on a reinforced European Social Fund and Lifelong Learning programme for 2007-2013<sup>9</sup>.

The Commission will consult the stakeholders on initiatives aimed at establishing a Community framework to improve cross-border supply of health services and mobility for patients<sup>10</sup>.

Member States are invited to implement fully the Directive on equal treatment in employment and occupation<sup>11</sup>. In 2007, the Commission will review the state of implementation of this directive with regard to age discrimination.

### 3.3. A more productive and dynamic Europe

A third response to the demographic challenge is to improve the productivity of Europeans at work. More generally, the Lisbon Strategy, which has been refocused since 2005, brings together in a coherent manner all the structural reforms, including microeconomic ones, which are likely to optimise European performance. The European Union contributes to this directly by deepening the internal market, implementing competition rules, prioritising the quality of regulation (specifically with regard to small and medium-sized enterprises) and through social cohesion policy. In this way, the Lisbon Strategy establishes the conditions required for optimising skills and the quality and productivity of work at all ages.

The ageing population can even represent a good opportunity to enhance the competitiveness of the European economy. European companies should be able to take advantage of better conditions to grasp the opportunities offered

by demographic change in terms of creating new markets for goods and services which respond to the needs of an older clientele<sup>12</sup>. A first step in this direction would undoubtedly be to encourage companies and other economic actors to incorporate the ageing phenomenon into their innovation strategies. This concerns a number of areas such as information and communication technologies, financial services, transport, energy and tourism infrastructures and local services, in particular long-term care. In all these areas the European Union can supplement or to strengthen planning efforts of the Member States.

By the end of 2008, the Commission will adopt a Communication on how best to take into account the needs of an ageing population in areas such as town and country planning, the environment or access to new technologies. It will pay special attention to the conditions and potential role for the Structural Funds for developing care provision adapted to the needs of dependent people and their families.

### 3.4. Receiving and integrating immigrants in Europe

It must be acknowledged that over the next 15 to 20 years significant net immigration into Europe will continue. This will at first meet the needs of the European labour market, which will need to attract a qualified labour force from outside. The need for external unskilled labour will also remain very high. Nor can we overlook the attractiveness of Europe owing to its relative prosperity, its political stability, the desire of recently arrived immigrants to be reunited with their families and the dynamic growth in the populations of relatively poor neighbouring regions. These different factors should be better reconciled by organising legal immigration and, correspondingly, the integration of immigrants, while at the same time respecting the needs of the country of origin.

Current national policies on immigration from third countries are not uniform. In some countries, legal flows are limited and illegal immigration remains more or less contained; in others, the large-scale regularisations of recent years have allowed the circumstances of hundreds of thousands of immigrants who were living and working on an irregular basis to be legalised. These differences reflect, beyond the disparities in the labour market, the growing difficulties of immigrants with regard to econo-

9. Regulation (EC) No 1081/2006 of the European Parliament and of the Council of 5 July 2006 on the European Social Fund, and proposal for a Decision establishing an integrated action programme in the field of lifelong learning – COM(2004) 474, 14.7.2004.

10. See Communication from the Commission – Consultation regarding Community action on health services – SEC(2006) 1195, 26.9.2006.

11. Council Directive 2000/78/EC of 27 November 2000 establishing a general framework for equal treatment in employment and occupation.

12. Communication from the Commission – Putting knowledge into practice: A broad-based innovation strategy for the EU – COM(2006) 502, 13.9.2006.

mic and social integration in countries that have a long tradition of immigration. These differences are not sustainable in the long term within a European Union characterised by the free movement of workers and an increasingly unified internal labour market. It is also the European Union, with its international weight, its commercial role and its international cooperation relations with the Mediterranean, African and Latino-American regions, which can engage in partnerships indispensable to the management of migration flows, a prerequisite for the success of immigration policies. It also falls to the European Union, which is founded on non-discrimination and the respecting of differences, to inform public opinion and combat prejudice, to identify the real obstacles to be overcome and also to point out the riches of diversity<sup>13</sup>.

This is why the EU today is working with the Member States to develop elements of a common policy on legal immigration<sup>14</sup>, focussing particularly on immigration for work purposes in order to satisfy requirements in certain sectors of the labour market. This policy should be supplemented by tighter policies on integrating third-country nationals<sup>15</sup>, allocating greater financial resources, and by striking up partnerships with emigration countries.

At the same time, with respect to the internal mobility of Community citizens, the transition towards full freedom of movement for workers within an enlarged EU of 27 Member States will continue up to 2014. This internal mobility helps offset imbalances in labour markets in Europe and should be taken into consideration in planning immigration policies.

The Hague programme of 2004 led to a 'Policy Plan on legal migration' and inspired the establishment of the European Integration Fund. Such measures can support further action at all levels to help the integration of legal migrants.

The Commission will continue its initiatives to stimulate the integration of migrants, specifically by holding discussions with Member States on obstacles to integration, to find out more about migrants' profiles, perceptions and policies implemented. Over the course of 2009, the Commission will consider the need to propose new measures relating to economic immigration, taking account of the needs of the labour market, and taking stock of the progress achieved on internal mobility.

### 3.5. Sustainable public finances in Europe: guaranteeing adequate social security and equity between the generations

In most Member States, public finances are not sustainable under current policies. Sustained efforts towards budgetary consolidation are nevertheless required. Increasing the participation rate in employment is an effective tool that governments have at their disposal for increasing their revenue and contending with expenditure linked to ageing, without increasing the rates of taxation.

The recent retirement reforms in several countries will allow the financial imbalance in the pension systems to be significantly reduced. Nonetheless, some countries may require additional reforms, aimed in particular at avoiding early withdrawals from the labour market, raising the age of definitive retirement, offering older people financial incentives to stay in the labour market and allowing individuals to increase their retirement income with a supplementary pension, while ensuring a better balance between individuals' contributions and benefits.

New challenges are emerging, linked to the development of private savings and funded systems. They are linked, for example, to the cover of these systems, to the level of contributions and to the increasing role of pension funds, which in turn raises questions about transparency and quality of supervision. In this context, it is of key importance to develop efficiently functioning financial markets and to create stable and secure conditions for individuals to save and invest. Governments should also favour the emergence of a sufficient variety of financial instruments. Building up private savings and capital should also be promoted so that individuals can have more autonomy in determining the level of income they wish to have at their disposal during their retirement. There is also a need for communication and education in financial matters to help individuals adapt to new circumstances.

Together with this communication, the Commission is adopting a report analysing the long-term sustainability of public finances, based on population projections up to 2050 and on the financial strategies presented by the Member States in their 2005 Convergence and Stability Programmes.

13. See the results of Eurobarometer No 64, published in December 2005, and No 65, published in June 2006, on public opinion and migrations.

14. Communication from the Commission – Policy Plan on Legal Migration – COM(2005) 669, 21.12.2005.

15. Communication from the Commission – A Common Agenda for Integration – Framework for the Integration of Third-Country Nationals in the European Union – COM(2005) 389, 1.9.2005.

## 4. CONCLUSION: FROM CHALLENGE TO OPPORTUNITY

The ageing of European populations is the inevitable consequence of developments that are fundamentally positive: increased life expectancy, often in good health, and easier choice over whether and when to have children, in particular by increasingly educated women who enjoy easier access to the labour market. However, these far-reaching demographic and socioeconomic changes compel us to reform existing institutions, for reasons of both economic efficiency and social equity.

Our current policies are not viable in the long term, in that they do not address the expected decrease in the active population and the prospect of slippage in public finances. The source of the problem is not higher life expectancy as such, rather it is the inability of current policies to adapt to the new demographic order and the reluctance of businesses and citizens to change their expectations and attitudes, particularly in the context of labour market modernisation. In short, the Member States are facing a problem of retirement rather than a problem of ageing.

Of course, it falls above all to the Member States to formulate specific responses to the demographic challenge. Recent experience in this regard is encouraging, as the first retirement reforms have begun to bear fruit. The challenge is not insurmountable if we make good use of our brief window of opportunity of about ten years.

These reforms are also part of a European framework, already applied opportunely and tenaciously through the renewed Lisbon Strategy for Growth and Jobs, the Stability and Growth Pact, the Sustainable Development Strategy, cohesion policy, and the open method of coordination in the area of social protection and inclusion.

It is not now a question of introducing a new process of European coordination. We need to commit to continuing and deepening these efforts, while at the same time ensuring that adequate account is taken of the multiple and complex facets of the demographic challenge as a whole and in each of our policies, at both national and Community level.

In this respect, this communication develops a reference framework at Community level for Member States' policies. The framework has set out five areas that respond to a common perspective of restored confidence:

- Promoting demographic renewal in Europe
- Promoting employment in Europe: more jobs and longer working lives of better quality
- A more productive and dynamic Europe
- Receiving and integrating migrants in Europe
- Sustainable public finances in Europe: guaranteeing adequate social security and equity between the generations.

Community and national policies need to be attuned to the demographic challenge described in this Communication. European policies, including the Commission's, need to be reviewed so that the demographic challenge is mainstreamed into tomorrow's policy choices. The Commission recommends that the sectoral Councils and the sectoral Committees in the European Parliament consider the impact of demographic change in the policy areas for which they are responsible.

Confidence in the long-term future is to be built from today on the basis of men and women participating in working life, and on productivity and performance. This same confidence will also help Europeans to enjoy fruitful relationships with current and future migrants, based on mutual respect.

Confronting the demographic challenge will be a long-term task for all of us. Progress in the implementation of these initiatives will be the subject of the European Demographic Forum to be held every two years, for the first time in October 2006. The results of the initiatives announced in this communication between now and 2009 and the lessons of the Forum will form the subject of a chapter in the Annual Progress Report (Lisbon Process), which the Commission will devote every two years to the Union's state of preparedness for increasing life expectancy.



Part 3

COMMISSION COMMUNICATION

Green Paper

'Confronting demographic change:  
a new solidarity between the generations'

---





# 1. INTRODUCTION

Europe is facing today unprecedented demographic change. In 2003, the natural population increase in Europe was just 0.04% per annum; the new Member States, with the exception of Cyprus and Malta, all saw falling populations. In many countries, immigration has become vital to ensure population growth. The fertility rate everywhere is below the threshold needed to renew the population (around 2.1 children per woman), and has even fallen below 1.5 children per woman in many Member States.

Europeans would like to have more children. But they are discouraged from doing so by all kinds of problems that limit their freedom of choice, including difficulties in finding housing.

It is also the case that families – the structure of which varies but which still constitute an essential part of European society – do not find the environment in which they live conducive to child-rearing. If Europe is to reverse this demographic decline, families must be further encouraged by public policies that allow women and men to reconcile family life and work. Furthermore, the family will continue to play an important role in solidarity between the generations. The Union therefore needs to find out more about families in the various Member States, in particular with regard to employment and income in single-parent families, access to housing, social benefits and care for the elderly.

The Union's population is set to grow just slightly up until 2025, thanks to immigration, before starting to drop<sup>1</sup>: 458 million in 2005, 469.5 million in 2025 (+ 2%), then 468.7 million in 2030. Yet 55 of the 211 regions of the EU-15 already saw a fall in population during the second half of the 1990s. This is also the case in most of the regions of the new Member States (35 out of 55 regions), because of natural decrease and net emigration<sup>2</sup>.

This trend is even greater when just the total working age population (15-64 years) is considered: between 2005 and 2030, it is due to fall by 20.8 million.

The report from the High Level Group chaired by Wim Kok emphasised the importance of the demographic challenge for the Lisbon Strategy: ageing could cause potential annual growth in GNP in Europe to fall from 2-2.25% today to 1.25% in 2040, with all that entails for entrepreneurship and initiative in our societies.

To meet this challenge, the Lisbon Agenda must be resolutely implemented, in particular those policies focusing on getting people into jobs – especially certain groups in the population such as women and both younger and older people – on innovation and increasing productivity.

It is also necessary to continue modernising social protection systems, especially pensions, to ensure their social and economic sustainability and to enable them to cope with the effects of demographic ageing.

For several years now, the Union has been developing policies<sup>3</sup> to help anticipate these changes<sup>4</sup> and recent initiatives, such as the Green Paper on an EU approach to managing economic migration, contribute to the discussion.

These demographic changes are the result of three basic trends:

- **Continuing increases in longevity** as a result of considerable progress made in health care and quality of life in Europe: healthy life expectancy is still rising. This trend should continue, with the gap between male and female life expectancy closing. It will not be uncommon to see four surviving generations of the same family. But the individual members will move about more and will not always live as close to each other as they did in the past.
- The continuing growth in the number of workers **over 60**, which will stop only around 2030, when the baby-boomer generation will become 'elderly'.

1. Eurostat's baseline scenario, used for population forecasting, provisional results – December 2004.

2. Regions NUTS 2. Source: Third report on cohesion, February 2004.

3. See Annex 1.

4. Towards a Europe for All Ages – COM(1999) 221, 25.2.1999; Europe's response to World Ageing – COM(2002) 143, 18.3.2002.

- **Continuing low birth rates.** The baby-boomer generation has had fewer children than previous generations, as a result of many factors: difficulties in finding a job, the lack and cost of housing, the older age of parents at the birth of their first child, different study, working life and family life choices. Almost everywhere, fertility is below the population replacement level. In certain southern and eastern European countries, it is less than 1.3 children per woman.

The structure of society is also changing radically. Family structures are changing: there are more 'older workers' (55-64), elderly people (65-79) and very elderly people (80+), fewer children, young people and adults of working age. The bridges between the various stages of life have become more complex: this is particularly the case for young people, who are experiencing certain life events later (e.g. graduation, first job, first child).

European and national level public policies must take these demographic changes into account. This is the goal of the preparatory action adopted by the European Parliament in 2004<sup>5</sup> which seeks to better take into account the impact of demographic changes in all the relevant policies.

In a growing number of Member States, adapting to these trends has already become a political priority. To compensate for the predicted fall in the working age population, the Union advocates greater employment participation, particularly by women and older people, encourages investment in human resources and higher productivity through economic reforms, research and innovation. Greater efforts are needed to integrate young people into the labour market

and to support them as they pursue 'non-linear' careers, alternating between employment, study, unemployment and retraining or the updating of skills.

In the context of the Union's new social agenda, a more in-depth debate is needed which respects the various powers of different levels of governance. Many issues associated with demographic change come within the exclusive competence of the Member States or their regional authorities, or social partners. But these are also urgent issues of common interest to which all the Member States need to respond.

The fact is that the demographic dependency ratio<sup>6</sup> will rise from 49% in 2005 to 66% in 2030. We will have to not only reach but to exceed the objective in the Lisbon Strategy – an employment rate of 70% – to compensate for the expected drop in the working age population: employment participation will have to increase, and the retirement age will have to continue to rise. It will be important to assess and discuss how best to mitigate the most damaging effects of these trends.

- Do you take the view that the discussion of demographic trends and managing their impact should take place at European level?
- If so, what should be the objectives, and which policy areas are concerned?

5. Budget heading 25 04 01 – OJ L 53, 23.2.2004, Volume 47, p. II/1281.

6. The ratio of the population aged 0 to 14 and over 65 to the population aged between 15 and 64 years.

## 2. THE CHALLENGES OF EUROPEAN DEMOGRAPHY

The three causes of demographic ageing mentioned above can be found throughout Europe, but the situations are very different, as summarised below<sup>7</sup>:

- **The Union no longer has a 'demographic motor'.** Those Member States whose population is not set to fall before 2050 represent only a small share of Europe's total population. Of the five largest Member States, only the populations of Britain and France will grow between 2005 and 2050 (+ 8 % and + 9.6% respectively)<sup>8</sup>. The population will start to drop in some cases before 2015, and in some cases the fall will be by more than 10-15% by 2050.
- **Immigration** has recently mitigated the impact of falling birth rates in many countries.
- The situation in the **candidate countries** accentuates the demographic contrasts. Forecasts for Bulgaria and Romania show negative growth (- 21% and - 11% respectively by 2030), as do UN forecasts for Croatia (- 19%). However, the population of Turkey is set to rise by more than 19 million between 2005 and 2030 (+ 25%).

These developments are part of a wider trend: all parts of the world will witness demographic ageing over this century. Our main partner, the United States, may see its population rising between 2000 and 2050<sup>9</sup>. In China it will be fast, with a falling population from 2025. However, the populations of our neighbouring regions in Europe, Africa and the Middle East will start to age much

later: their populations are much younger, with an average age of 20 years or less, compared to 35 in Europe.

### 2.1. The challenge of a low birth rate

In this context, a low birth rate is a challenge for the public authorities. Never in history has there been economic growth without population growth. Increasing productivity, in particular through access to lifelong learning, and increasing employment participation, in particular by creating a real European labour market and a higher level of occupational mobility, are two important ways of doing this, as are increasing the birth rate and immigration.

Europeans have a fertility rate which is insufficient to replace the population. Surveys have revealed the gap which exists between the number of children Europeans would like (2.3) and the number that they actually have (1.5)<sup>10</sup>. This means that, if appropriate mechanisms existed to allow couples to have the number of children they want, the fertility rate could rise overall, even though the desired family size varies considerably from one Member State to another.

The low fertility rate is the result of obstacles to private choices: late access to employment, job instability, expensive housing and lack of incentives (family benefits, parental leave, child care, equal pay). Incentives of this kind can have a positive impact on the birth rate and increase employment, especially female employment, as certain countries have shown. However, 84% of men surveyed by Eurobarometer in 2004 said that they had not taken parental leave or did not intend to do so, even when informed of their rights.

Eurostat base scenario, EU-25 (in thousands)	2005-2050	2005-2010	2010-2030	2030-2050
<b>Total population</b>	<b>- 2.1% (- 9 642)</b>	<b>+ 1.2% (+ 5 444)</b>	<b>+ 1.1% (+ 4 980)</b>	<b>- 4.3% (- 20 066)</b>
Children (0-14)	- 19.4% (- 14 415)	- 3.2% (- 2 391)	- 8.9% (- 6 411)	- 8.6% (- 5 612)
Young people (15-24)	- 25.0% (- 14 441)	- 4.3% (- 2 488)	- 12.3% (- 6 815)	- 10.6% (- 5 139)
Young adults (25-39)	- 25.8% (- 25 683)	- 4.1% (- 4 037)	- 16.0% (- 15 271)	- 8.0% (- 6 375)
Adults (40-54)	- 19.5% (+ 19 125)	+ 4.2% (+ 4 170)	- 10.0% (+ 10 267)	- 14.1% (- 13 027)
Older workers (55-64)	+ 8.7% (+ 4 538)	+ 9.6% (+ 5 024)	+ 15.5% (+ 8 832)	- 14.1% (+ 9 318)

7. See Annex 2.

8. Spain will see growth of 5.7 % between 2005 and 2030, and a drop of 0.8 % between 2005 and 2050.

9. UN forecasts, 2002.

10. Report of the High-level Group on the future of social policy in an enlarged European Union, May 2004.

Over many years, the Union has been making considerable efforts to achieve equality between men and women and has coordinated national social protection policies.

- How can a better work/life balance help to tackle the problems associated with demographic ageing?
- How can a more balanced distribution of household and family tasks between men and women be encouraged?
- Should the award of certain benefits or advantages (leave, etc.) be linked to an equal distribution of tasks between the sexes? How best to ensure an adequate income for both parents on parental leave?
- How can the availability of child care structures (crèches, nursery schools, etc.) and elderly care structures be improved by the public and private sectors?
- Can a reduced rate of VAT contribute to the development of care services?
- How can parents, in particular young parents, be encouraged to enter the labour market, have the career that they want and the number of children they want?

## 2.2. The possible contribution of immigration

Immigration from outside the EU could help to mitigate the effects of the falling population between now and 2025, although it is not enough on its own to solve all the

problems associated with ageing and it is no substitute for economic reforms. As stated in the recent Commission Green Paper<sup>11</sup>, ever larger migrant flows may be needed to meet the need for labour and safeguard Europe's prosperity. Given the demographic situation in Europe and its geographical environment, this immigration will also be intended to reinforce the population in general, and not only to supply manpower. This means that the admission mechanisms for third country nationals must be managed effectively and transparently, and proactive integration and equal opportunities policies must be ensured, in order to achieve a balance between the respective rights and responsibilities of migrants and host societies<sup>12</sup>. The option of a wider recourse to immigration as part of the response to demographic ageing needs to be discussed at national and European levels, as well as with the countries of origin.

The Thessaloniki European Council in June 2003 declared that an EU integration policy [for immigrants] should help to meet the new demographic and economic challenges currently facing the EU. This is the debate initiated by the Green Paper adopted last January.

- To what extent can immigration mitigate certain negative effects of demographic ageing?
- What policies should be developed for better integrating these migrants, in particular young people?
- How could Community instruments, in particular the legislative framework to combat discrimination, the structural funds and the Employment Strategy, contribute?

11. COM(2004) 811, 11.1.2005.

12. Communication from the Commission on immigration, integration and employment – COM(2003) 336.

### 3. A NEW SOLIDARITY BETWEEN THE GENERATIONS

Demographic changes are creating a new society, and these changes are set to speed up from 2010 onwards: ever fewer young people and young adults, ever more older workers, pensioners and very elderly people. Our societies will have to invent new ways of liberating the potential of young people and older citizens. Dealing with these changes will require the contribution of all those involved: new forms of solidarity must be developed between the generations, based on mutual support and the transfer of skills and experience. The European initiative for youth proposed by the Commission in the Communication on the mid-term review of the Lisbon strategy should contribute to this.

#### 3.1. Better integration of young people

Today's children and young people will have to take over from larger numbers of individuals in the previous generations. Their level of education and training is certainly markedly higher than that of their elders: for example, in the EU-15, nearly 28% of 25-34 year olds had been educated to degree level in 2003, compared to 16% of 55-64 year olds. This points to a potential for higher productivity and greater adaptability than was the case for previous generations. However, the Union must accept that young people are becoming a rare and yet undervalued resource. The fact is that young people are finding it hard to integrate in economic life:

- The unemployment rate for under 25s was 17.9% in December 2004, compared to 7.7% for those aged 25 or over.
- Young people are at particular risk of poverty<sup>13</sup>: this applies to 19% of 16-24 year olds, compared to 12% of those aged 25-64<sup>14</sup>. This proportion is also higher than that for people aged 65 years or above (17%).
- Young people are sometimes faced with discrimination on the grounds of their age and lack of occupational experience, accentuated by other factors such as gender, social origin or race, all of which make it more difficult for them to integrate into economic life and society.

- The skills learnt at school are not always in line with the requirements of the knowledge society and the level of school failure is still a source of concern. In 2002, some 16.5% of 18-24 year olds left school with no qualifications. There are many reasons for this. Measures to support families and their school-age children, associated with the modernisation of teaching systems, should reduce school failure rates.
- Moreover, children are also at risk of poverty: this is the reality for 19% of under 15s. The risk is even worse for those living in single-parent families. One consequence of this is that children are forced to drop out of school early, which may, in the medium term, accentuate the risk of poverty amongst young people.

The education system will have to meet a significant challenge: it needs both to raise the level of initial training and to offer more flexible pathways, in which, for example, young people would be more likely to alternate education at college, work and work-linked training, in order to meet the needs of the economy. They should also have greater access to the opportunities provided by distance learning.

Demographic ageing does not of course mean an automatic solution to the problems of unemployment and integration. The social partners, the school system, public authorities and local players will have to reflect on how best to improve integration pathways and combat the discrimination which can affect young people.

European objectives have been laid down for the prevention of long-term youth unemployment, combating school drop-out and raising the level of initial training. The structural funds help to attain them at grass roots level.

- How can Community policies contribute more to combating child poverty and poverty among single-parent families and to reducing the risk of poverty and exclusion among young people?

13. I.e. with a net income less than 60% of the average.

14. Joint Report on Inclusion : [http://europa.eu.int/comm/employment\\_social/soc-prot/soc-incl/joint\\_rep\\_fr.htm](http://europa.eu.int/comm/employment_social/soc-prot/soc-incl/joint_rep_fr.htm)

- How can initial training and adult training schemes be improved? What can non-formal education and voluntary activities contribute? How can the structural funds and the instruments for achieving better access to the knowledge society contribute?
- How can the bridges between school and working life and the quality of young people's employment be improved? What role should social dialogue play? What can dialogue with civil society, in particular youth organisations, contribute?
- What forms of solidarity can be fostered between young people and elderly people?

### 3.2. A global approach to the 'working life cycle'

The number of young adults (25-39 years old) will begin to fall in 2005 and this trend is set to accelerate significantly after 2010 (-16% between 2010 and 2030). The number of 40-54 year olds will start to fall in 2010. In parallel, the number of people aged 55 and over will grow by 9.6% between 2005 and 2010, and by 15.5% between 2010 and 2030, before falling sharply in its turn. Companies will therefore have to rely increasingly on the experience and skills of older workers, whilst actively preparing those younger than 55 to replace them. Despite a certain degree of progress, the employment rate for people aged 55+ (40.2% in 2003, or around 20.5 million people in employment) is far below the European objective of 50%.

Young employed people may want to spend more time with their children and work more at another time in their life. These demographic changes may therefore lead to a new, more adaptable and flexible organisation of working time. Technological developments are another way of better balancing family life and work.

The quality of jobs and the working environment will also make a significant contribution to keeping people at work, by reducing the risk of occupational accidents and improving workers' health, in particular the health of the oldest workers. Anticipating these changes will help us to manage the working life cycle better. It will also be necessary to develop incentives to change people's behaviour with regard to older workers and to combat discrimination.

In order to promote the transition to a knowledge society, EU policies promote the modernisation of work organisation, the definition of lifelong learning strategies, the quality of the working environment and 'active ageing', in particular raising the average retirement age. Demographic changes reinforce the importance of these policies, whilst raising new questions:

- How can the organisation of work be modernised, to take into account the specific needs of each age group? How can young couples' integration in working life be facilitated and how can we help them to find a balance between flexibility and security to bring up their children, to train and update their skills to meet the demands of the labour market? How can we enable older people to work more?
- How can work organisation best be adapted to a new distribution between the generations, with fewer young people and more older workers?
- How can the various stakeholders in the Union contribute, in particular by way of social dialogue and civil society?

### 3.3. A new place for 'elderly people'

The number of elderly people aged 65-79 will increase significantly after 2010 and until around 2030 (+ 37.4%). They will be more active and in better health if current trends continue. They will also be better off, having been more likely to build up a full pension, and will have more savings than their predecessors and their children.

Elderly people in certain countries are increasingly choosing to move to another region or abroad: mobility is not the reserve of the young or of employed people. They are consuming more new goods and services and want to participate actively in social life, in particular in the voluntary sector. They may wish to continue working or to combine part-time work with retirement, a trend that is developing in the USA. The employment rate of 65-74 year olds in the EU was 5.6% in 2003, compared to 18.5% in the USA. Some of them will also want to help their children and grandchildren and ensure that their wealth is passed down to the younger generations.



The European coordination of retirement scheme reforms is promoting more flexible bridges between work and retirement.

- Should there be a statutory retirement age, or should flexible, gradual retirement be permitted?
- How can elderly people participate in economic and social life, e.g. through a combination of wages and pensions, new forms of employment (part-time, temporary) or other forms of financial incentive?
- How can activities employing elderly people in the voluntary sector and the social economy be developed?
- What should be the response to pensioner mobility between Member States, in particular with regard to social protection and health care?
- How should we be investing in health promotion and prevention so that the people of Europe continue to benefit from longer healthy life expectancy?

employment. Furthermore, more grown-up children live far away from their parents.

Families must therefore be supported to a greater extent. This is where social services and networks of solidarity and care within local communities come in.

- The coordination of national social protection policies is due to be extended to long-term care for the elderly in 2006. How can this help to manage demographic change?
- In particular, should a distinction be drawn between retirement pensions and dependency allowances?
- How do we train the human resources needed and provide them with good quality jobs in a sector which is often characterised by low salaries and low qualifications?
- How do we arrive at a balanced distribution of care for the very old between families, social services and institutions? What can be done to help families? What can be done to support local care networks?
- And what can be done to reduce inequality between men and women when they reach retirement age?
- How can new technologies support older people?

### 3.4 Solidarity with the very elderly

With life expectancy increasing all the time, our societies are witnessing the presence of an ever-rising number of very elderly persons (80+): + 17.1% between 2005 and 2010, + 57.1% between 2010 and 2030. On that timescale, very elderly people would number nearly 34.7 million, compared with approximately 18.8 million today. The proportion of people living alone, particularly women, will increase owing to female widowhood resulting from the difference in length of survival between the sexes. Retirement pensions for women are significantly less generous than for men. Women also have shorter careers and earn less during their working lives.

Families will not on their own be able to solve the matter of caring for these people, however dependent or independent they are. The improved health profile of today's younger generations holds out the hope that the very elderly of the future will remain self-sufficient for longer, and that they will wish to remain in their own homes. High intensity care will be increasingly concentrated towards the end-of-life period. Nevertheless, there will also be more people than today who will need such high intensity care as a result of the loss of their independence.

In either case, appropriate care will be needed, and this today is provided in many countries by families and particularly by women. Yet these women are increasingly in

## 4. CONCLUSION: WHAT SHOULD THE EUROPEAN UNION'S ROLE BE?

In order to face up to demographic change, Europe should pursue three essential priorities:

- **Return to demographic growth. We must ask two simple questions: What value do we attach to children? Do we want to give families, whatever their structure, their due place in European society?** Thanks to the determined implementation of the Lisbon agenda (modernisation of social protection systems, increasing the rate of female employment and the employment of older workers), innovative measures to support the birth rate and judicious use of immigration, Europe can create new opportunities for investment, consumption and the creation of wealth.
- **Ensure a balance between the generations**, in the sharing of time throughout life, in the distribution of the benefits of growth, and in that of funding needs stemming from pensions and health-related expenditure.
- **Find new bridges between the stages of life.** Young people still find it difficult to get into employment. An increasing number of 'young retirees' want to participate in social and economic life. Study time is getting longer and young working people want to spend time with their children. These changes alter the frontiers and the bridges between activity and inactivity.

- Should the European Union be promoting exchanges and regular (e.g. annual) analysis of demographic change and its impact on societies and all the policies concerned?
- Should the Union's financial instruments – particularly the structural funds – take better account of these changes? If so, how?
- How could European coordination of employment and social protection policies better take on board demographic change?
- How can European social dialogue contribute to the better management of demographic change? What role can civil society and civil dialogue with young people play?
- How can demographic change be made an integral part of all the Union's internal and external policies?

In July 2005, the Commission will be organising a conference bringing together all the players concerned and which will offer an opportunity to examine the issues raised in this Green Paper. The objective of this conference and the Green Paper is to collect the best practices of the Member States and other players. The debate could also contribute to the European Youth Initiative proposed in the mid-term review of the Lisbon strategy<sup>15</sup>.

15. Youth Ministers agreed at the Council on 21 February 2005 to the use of the name 'European Pact for Youth'.

## ANNEX 1

For several years now, many Community policies have been helping to anticipate demographic change:

- The European Employment Strategy and education and vocational training policy have mobilised those involved to combat school drop-out and to raise the level of young people's initial training<sup>16</sup>, as well as to promote 'active ageing', the gradual raising of the average retirement age<sup>17</sup> and an improvement in the quality of jobs. Here too, the Union is far from achieving the objectives set.
- The reform of social protection systems. The common objectives for the reform of pension schemes, adopted in 2001, call for the solidarity between the generations to be preserved and for a balance between retired and working people to be maintained. Extending the coordination of national health care and long-term elderly care policies will help to develop this approach. The European Strategy on Social Inclusion has set objectives for tackling child and family poverty.
- Respecting the principle of equality between men and women and taking this dimension into account in all the Union's policies ('gender mainstreaming'). Measures to help achieve a better work/life balance play a vital role in raising the employment rate. For example, the Barcelona European Council called in 2002 for Member States to develop child care structures. The social dialogue has concluded agreements on parental leave and part-time working which have been implemented by way of directives. Despite this progress, much remains to be done, as demonstrated by the low take-up rate of parental leave among men and the persistence of obstacles to women's access to high quality employment.
- Combating discrimination. Since 2000, a legislative framework has covered all discrimination in employment and has promoted diversity.
- The Broad Economic Policy Guidelines call for growth to be made more sustainable by reducing public debt and implementing sound policy. The multilateral surveillance of the implementation of the Broad Economic Policy Guidelines and the Stability and Growth Pact includes the evaluation of the sustainability of public finances. Work has been undertaken in the Economic Policy Committee to measure the medium-term and long-term economic and budgetary impact of ageing.
- A common approach to immigration policy including economic immigration has been developing for several years.
- The Social Fund, as a tool to support the Employment Strategy, and the European Regional Development Fund promote the development of child care and better 'age management' in companies.
- The research framework programme supports many projects associated with ageing and demographic change, focusing especially on clinical research into diseases affecting the very elderly and their impact on health care systems. The framework programme also includes studies on demographic trends in Europe.

16. Guideline 4, Council Decision of 22 July 2003 (OJ L 197, 5.8.2003, p.13).

17. Guideline 5.

## ANNEX 2

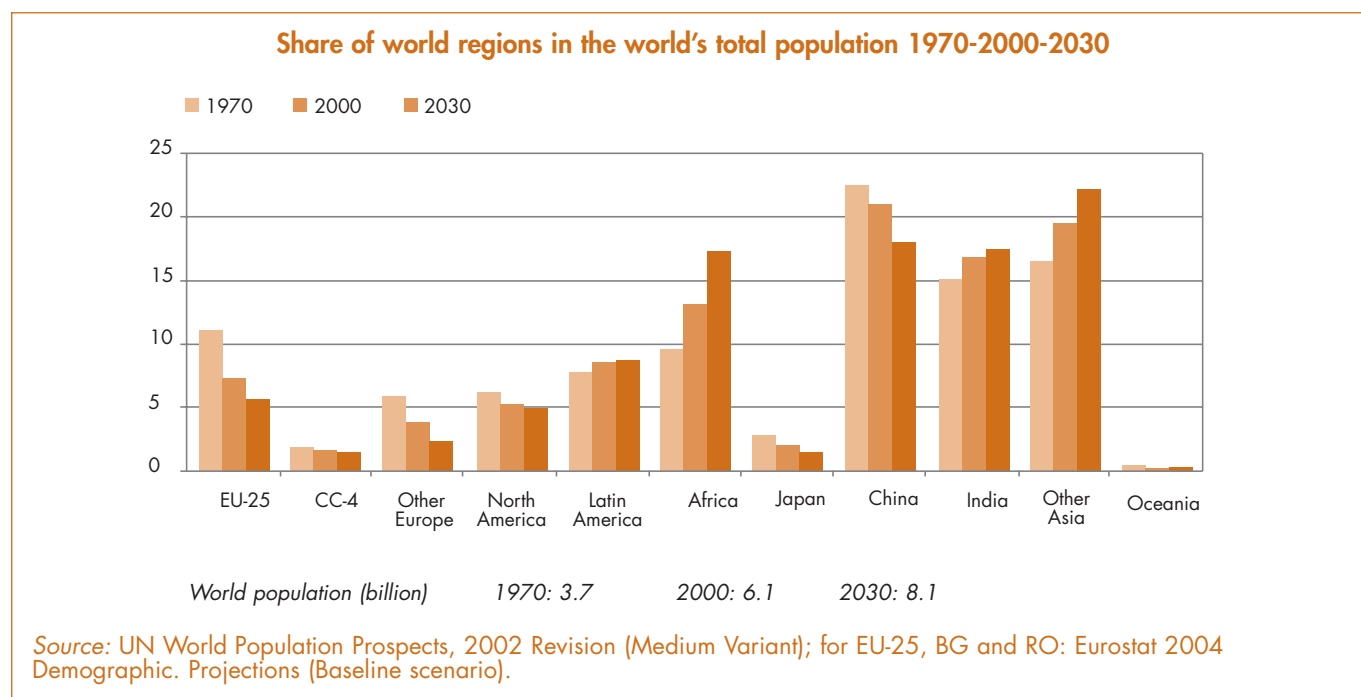
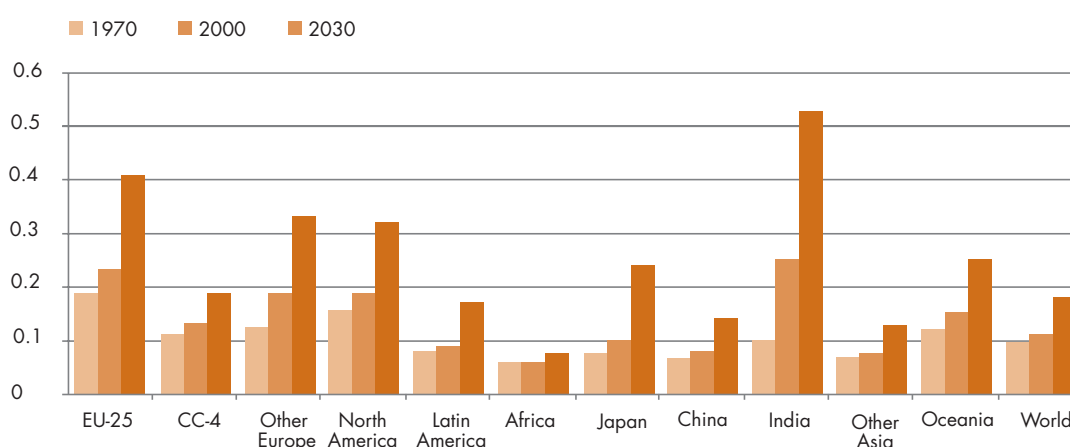
**Figure 1** The European Union in the world

Figure 1 shows that the share of the EU-25 in world population between 2000-2030 is likely to fall from 12 to 6%. Other regions are also affected. Africa is likely to become one of the new giants. The shares of India and Other Asia are also expected to rise. The increasing demographic size of these other regions could diminish Europe's influence in the world.

**Figure 2** Old age dependency

**Old dependency ratio (age group 65+ as share of age group 15-64)**

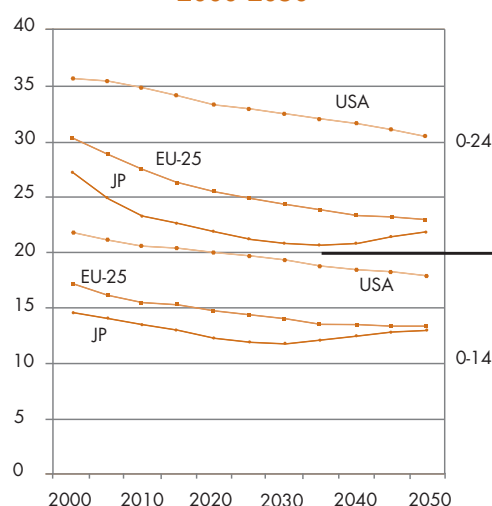


Source: UN World Population Prospects, 2002 Revision (Medium Variant); for EU-25: Eurostat 2004 Demographic Projections (Baseline scenario); CC = BG, RO, HU, TR.

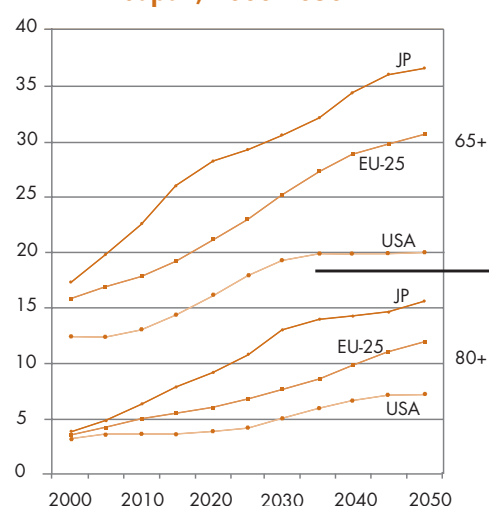
Figure 2 shows that old age dependency is going to be a global challenge over the next three decades with the exception of Africa. The pressure is going to be the highest in Japan and Europe. This means that the problem does not only exist in EU-25 and that all developed regions of the world are forced to redesign their policies and institutional arrangements in order to resolve the problems associated with ageing.

**Figure 3** Share of the youngest and the oldest in the European population

**Share of age group 0-14 and age group 0-24 in total population, EU-25, USA and Japan, 2000-2050**

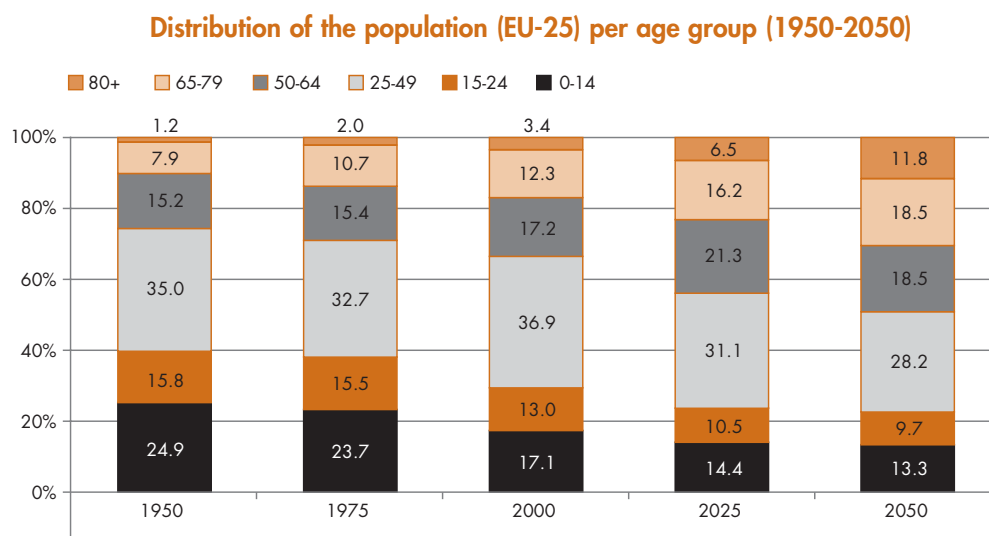


**Share of age group 65 and over and 80 and over in the total population, EU-25, USA and Japan, 2000-2050**



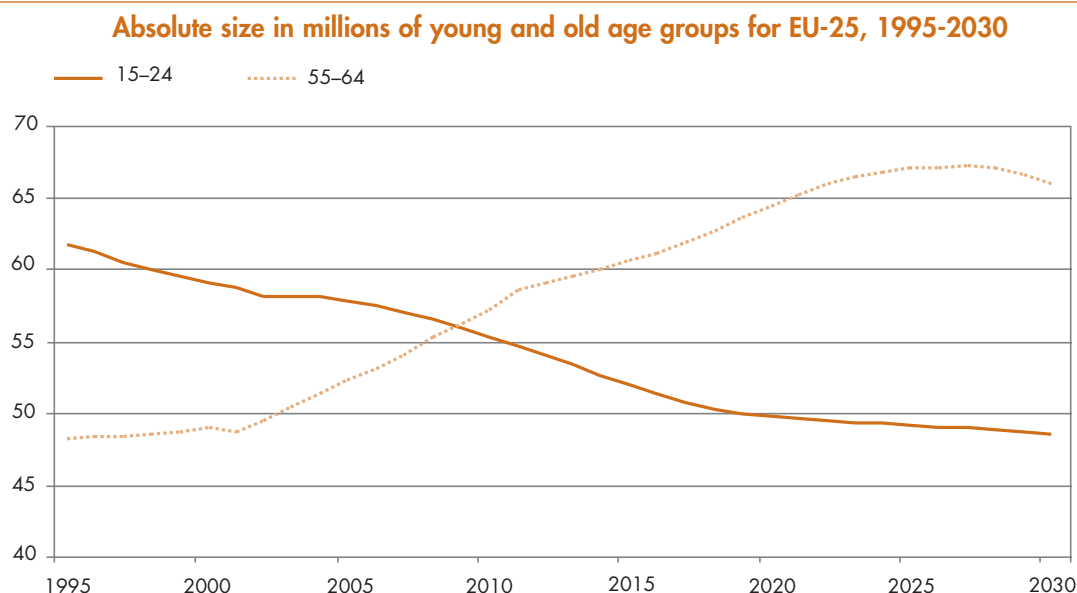
Source: Eurostat 2004 Demographic Proj. (Baseline scen.); UN World Population Prospects (2002 Rev. – Medium variant).

Figure 3 presents the shares of the two youngest and the two oldest age groups between 2000-2050 for Japan, USA and EU-25. In all three cases an important decline in the share of younger cohorts is observed while the share of the older cohorts has increased. The main implication of these trends is that the overall demand for care will increasingly have to shift from the young to the elderly. The only way to cope with this potentially huge increase in demand from old age groups is to develop active ageing policies.

**Figure 4** The Ageing of the European population

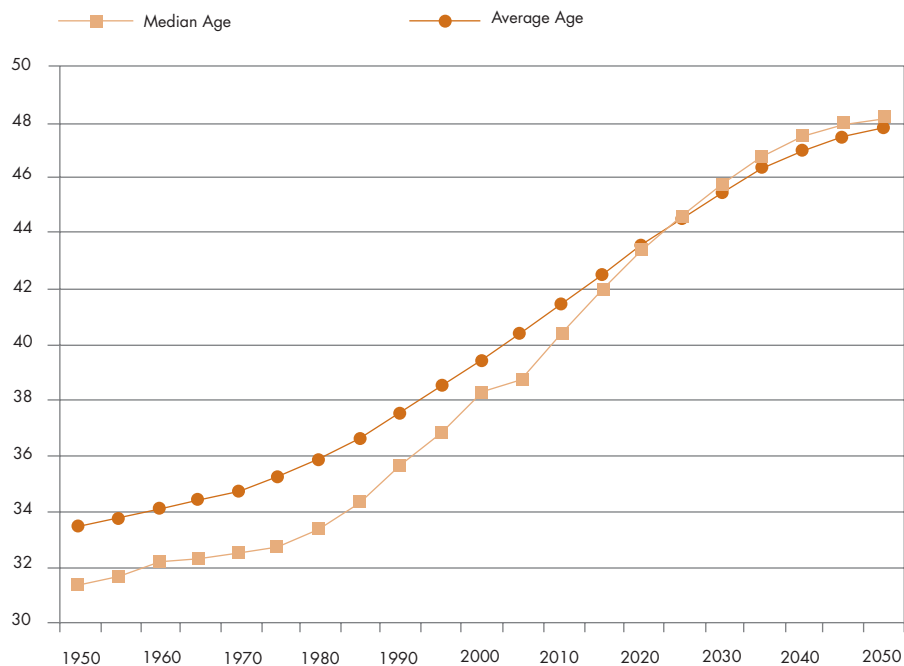
Source: UN World Population Prospects (2002 Rev.) and Eurostat 2004 Demographic Projections (Baseline scenario).

Figure 4 shows that ageing is having an important effect on the age structure of the European population. As the baby boom generation moves through the age pyramid, older cohorts become more numerous than the younger ones. The total EU-25 population has grown from 350 million in 1950, to 418 million in 1975 to 450 million in 2000. In 2025, population is expected to grow to 470 million persons but after this, it is likely to decrease to 449 million in 2050. In other words, it will take two more decades before ageing starts to have a negative effect on the absolute size of the population. On the other hand the effect of ageing on the age composition comes at much earlier stage and is therefore of much importance for the labour market and the health and long-term care sector.

**Figure 5** Size of the youngest (15-24) and oldest (55-64) working age groups

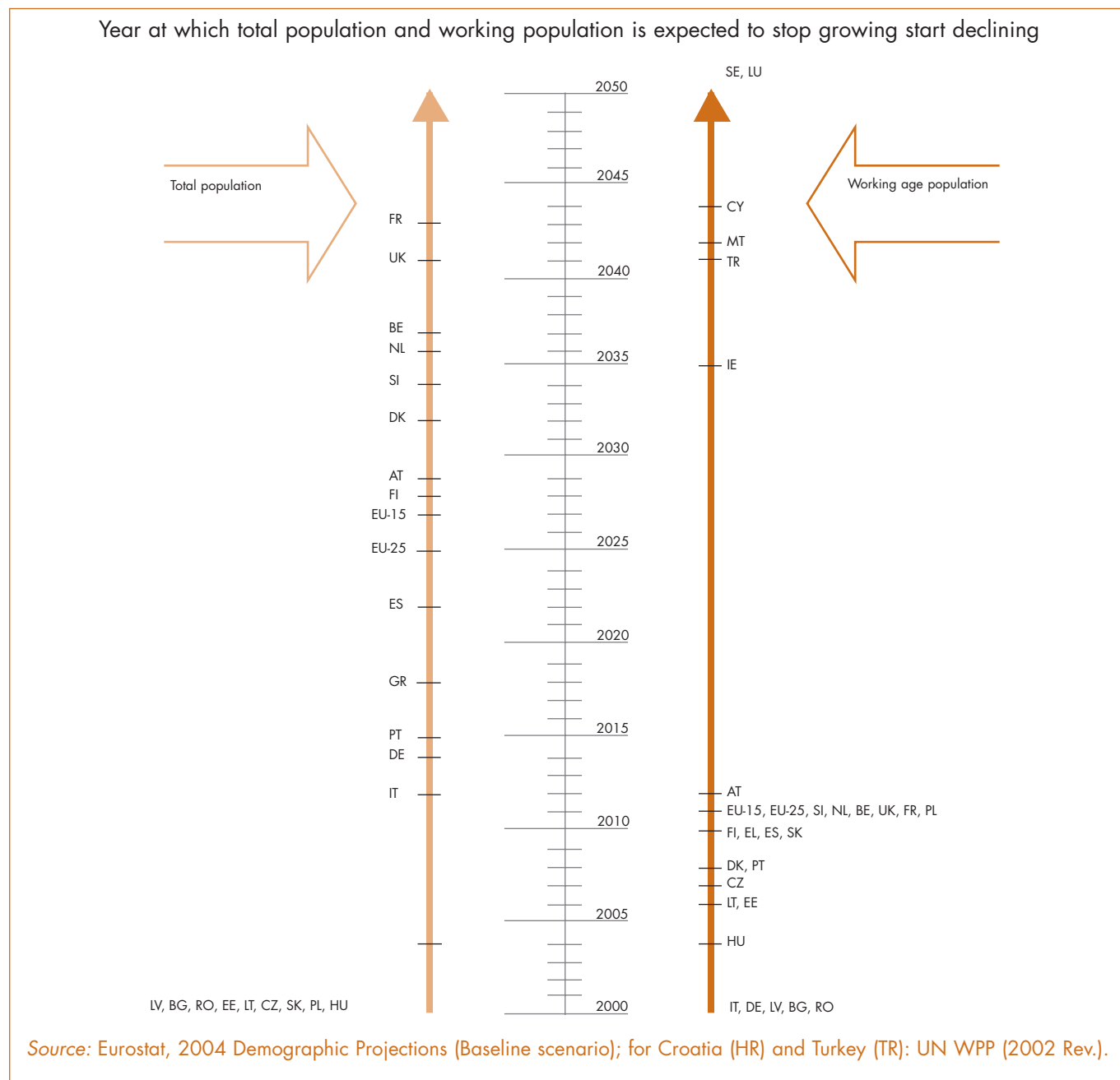
Source: Eurostat, 2004 onwards: 2004 Demographic Projections (Baseline scenario).

Figure 5 shows that around 2009 the size of the youngest cohort of the working age population will dive below the size of the oldest cohort. In 2050 there are expected to be 66 million persons of 55-64 and only 48 million of 15-24. This means that the working age population will start declining soon after 2010 and that the labour market will increasingly have to rely on older workers. The Figure illustrates that it has become very urgent to improve the employability of our older workers in order to prepare our labour markets for the onset of ageing.

**Figure 6** Change in the median and average age in the EU-25 1950-2050

Source: Eurostat, 2004 onwards: 2004 Demographic Projections (Baseline scenario).



**Figure 7** Ageing pattern across the Union

The pattern of ageing is different across the Union. Figure 7 shows on a timeline the years at which the total population and the working age population in each of the Member States are expected to stop growing and start declining. All Member States will have to deal with ageing challenge but not at the same time and not to the same degree. The decline in the total population of the EU-25 is expected by 2025 and it will be preceded by a decline in the population of working age starting already in 2011.

Figure 8 Trends in fertility

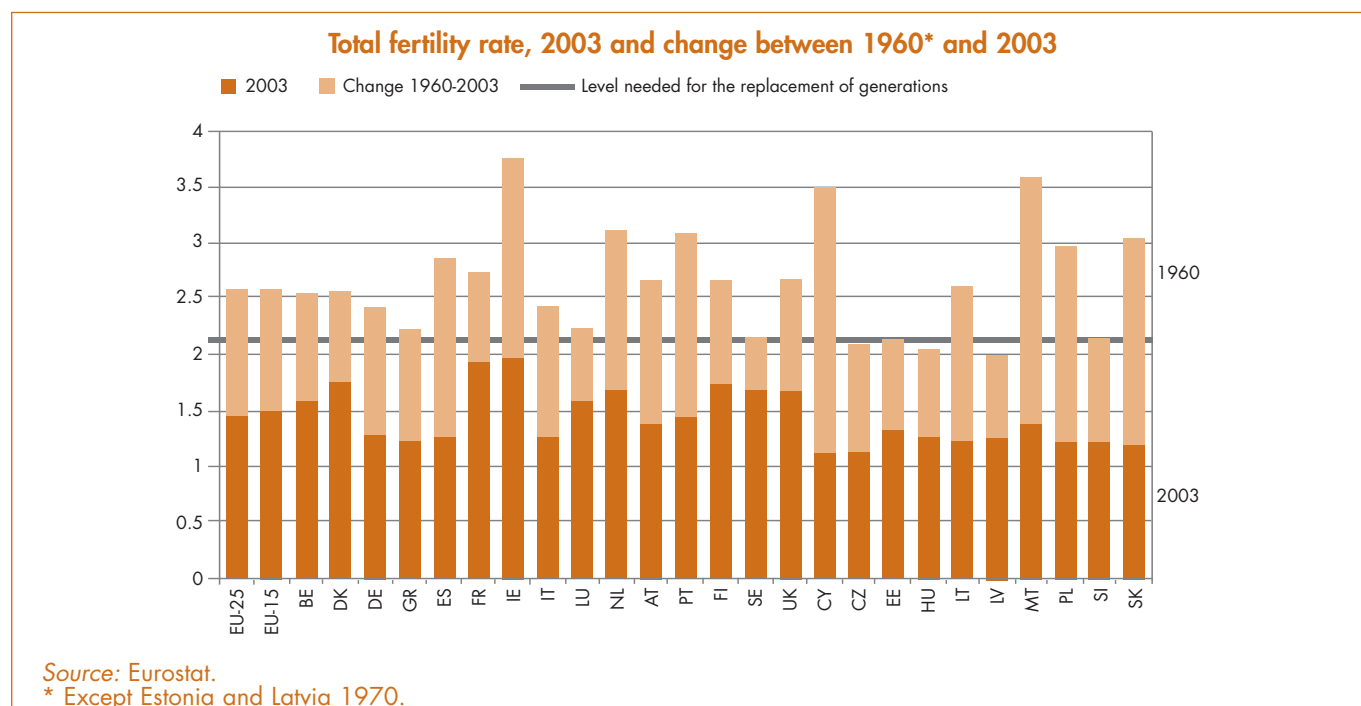
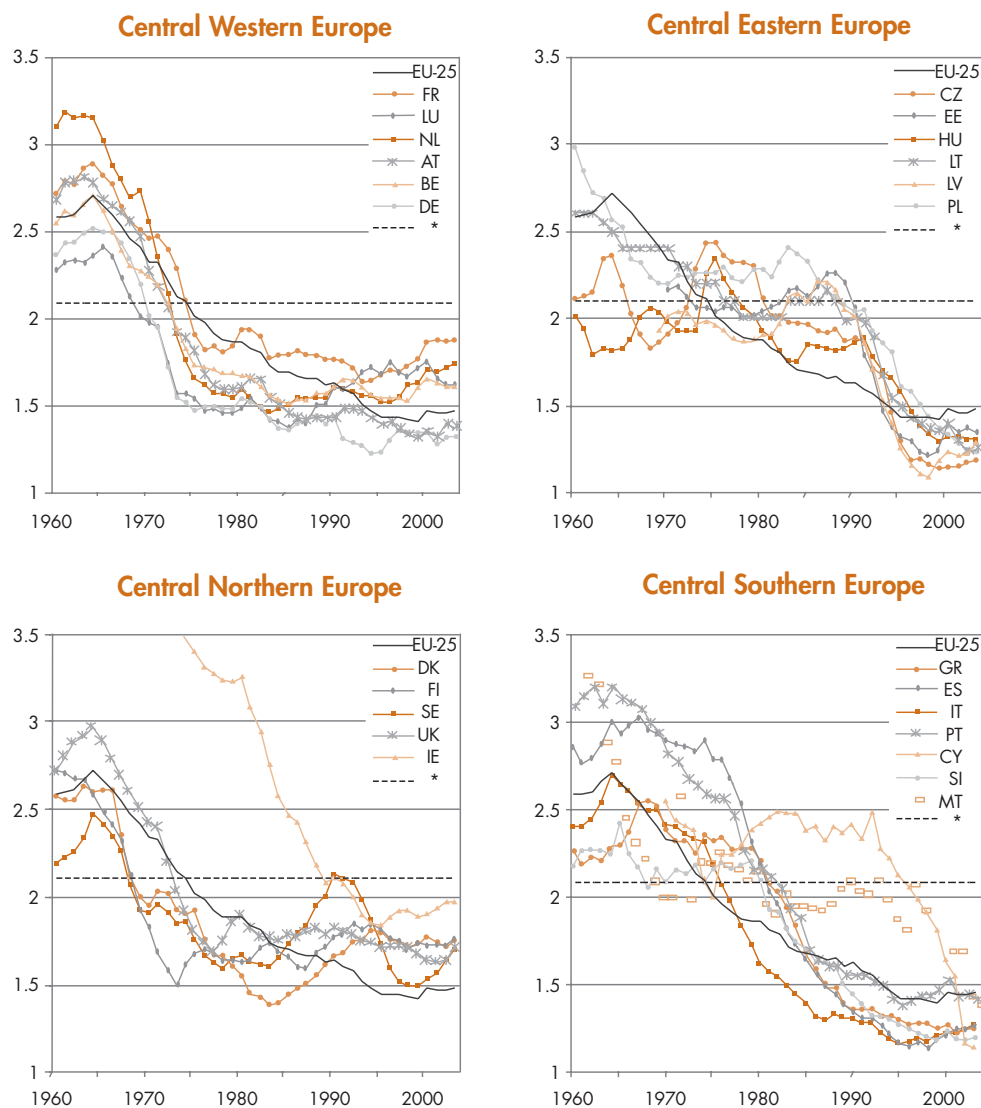


Figure 8 shows that in 1960 fertility in almost all Member States laid above the replacement level of 2.1 with a high margin, while today (2003) the rate has almost everywhere dropped well below replacement levels. What is also striking is the present gap in fertility between some of the new Member States and the rest of the EU. Most demographers expect that a catch up towards the average level in the EU-15 will be the most likely scenario.

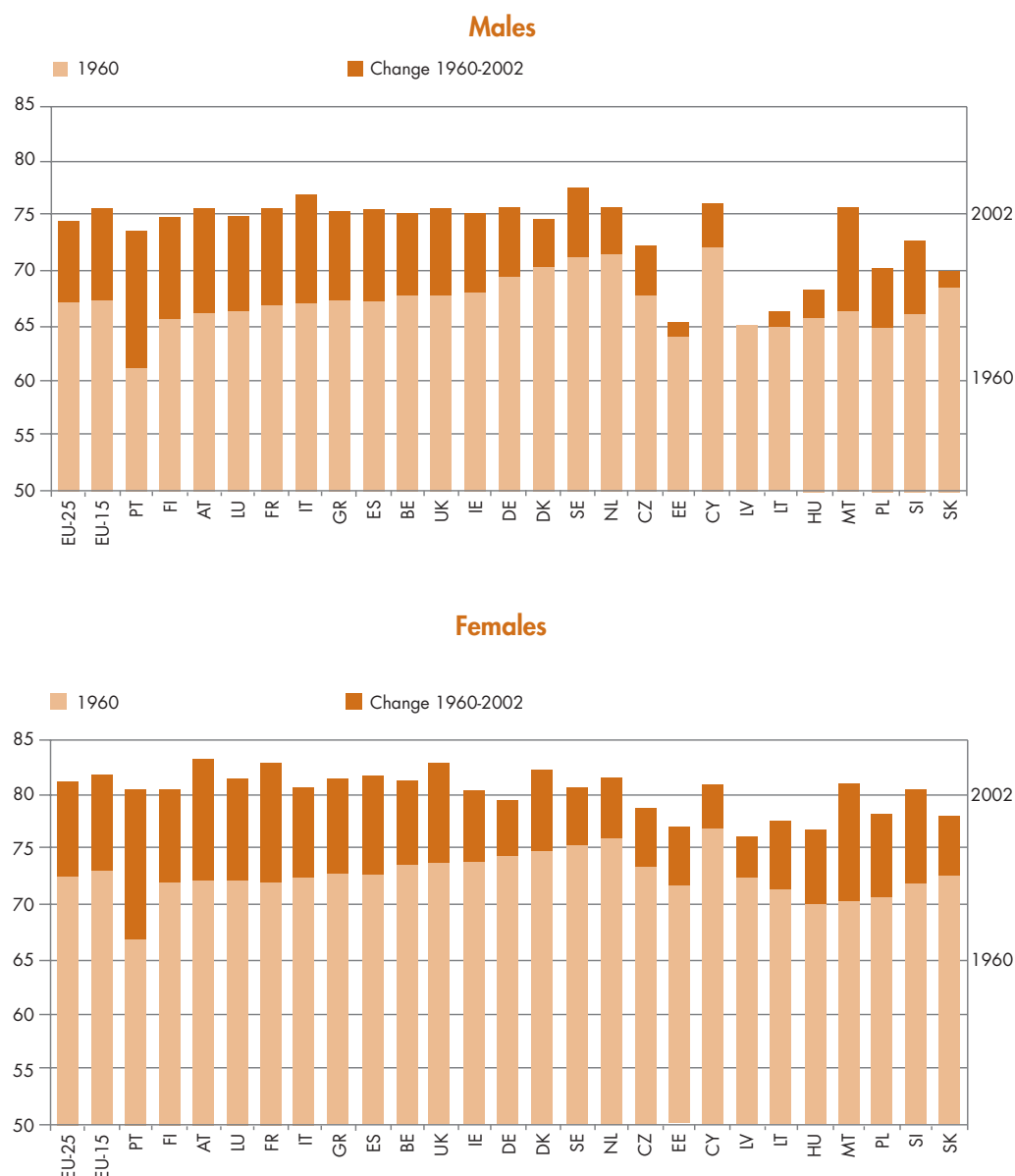
**Figure 9** Fertility trends in the EU between 1960 and 2003**Total fertility rate, 1960-2003**

Source: Eurostat.

\* Level needed for the replacement of generations.

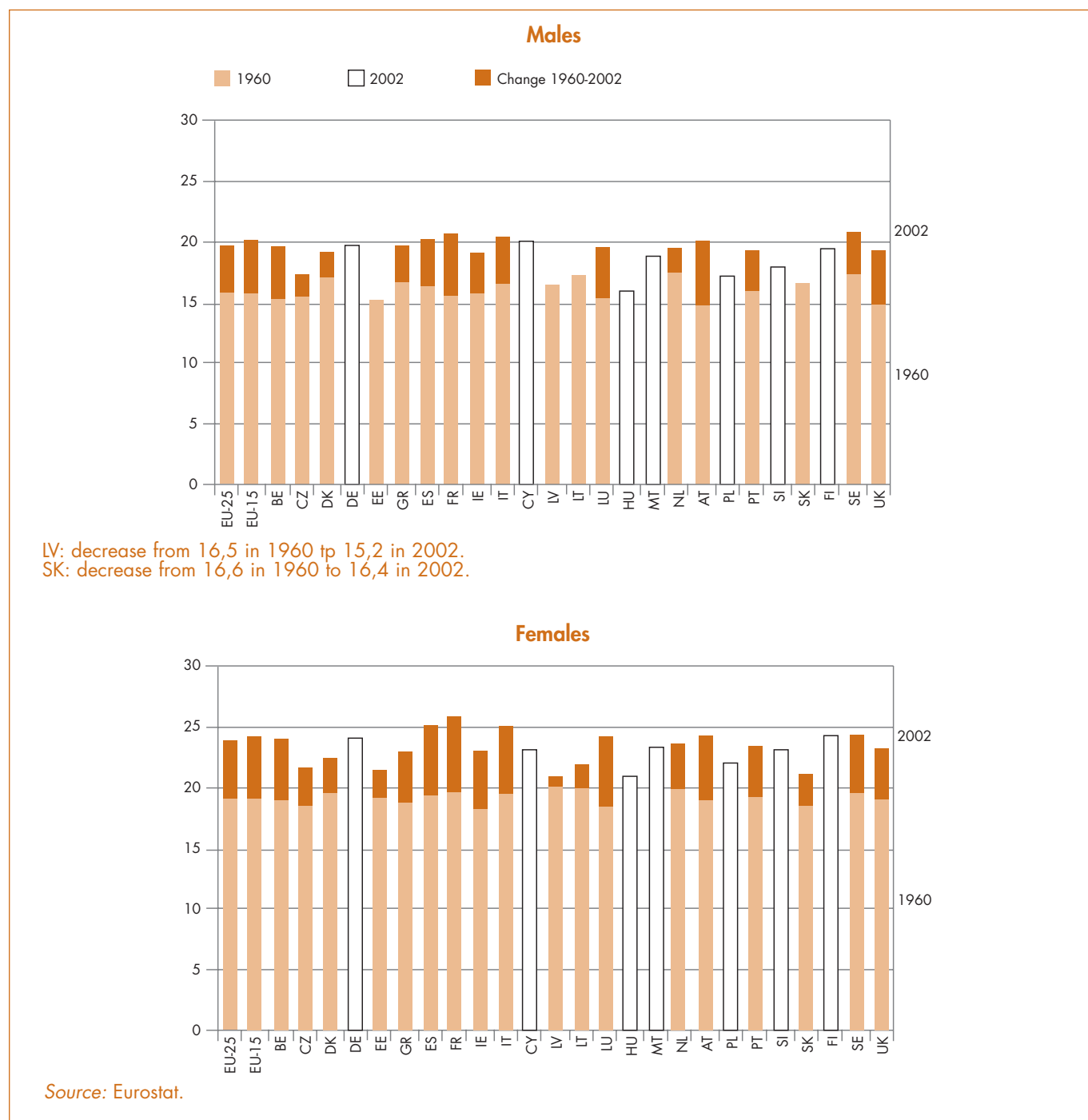
Figure 9 shows the different patterns of fertility decline in Europe. The drop in fertility took place firstly in Northern and Western Europe, and was followed by Southern Europe with almost a 10 year delay and with a 20 year delay for Central Europe. Despite these time lags fertility in Southern and Central Europe is today lower than in Western and Northern Europe. This means that the various parts of the EU are basically following the same transition albeit with important phase differences.

Figures 10 &amp; 11 Trends in life expectancy at birth



Source: Eurostat.

Important gains in life expectancy have been realised between 1960 and 2002, with the exception of men in the Baltic States. The figures also show that the average life expectancy of women is 6 years higher than that of men. For the future, demographers expect that the difference in life expectancy between men and women will narrow and that life expectancy of men in the Baltic States will within a few decades improve towards the EU. The increase in life expectancies is the result of drops in the mortality of all age groups and is not limited to the very old.

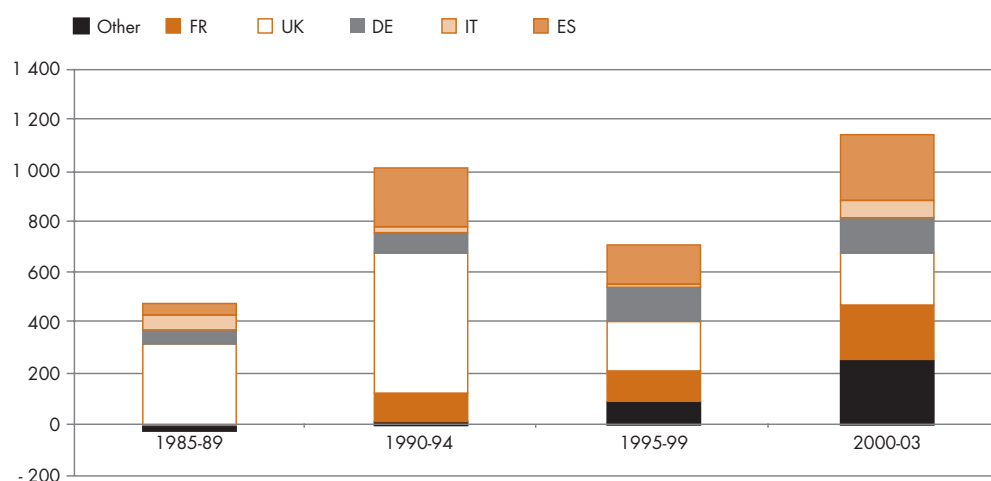
**Figures 12 & 13** Life expectancy at age of 60 (1960-2002)<sup>18</sup>

According to Figures 12 and 13, life expectancy at the age of 60 between 1960 and 2002 has increased almost everywhere, except for men in Latvia and Slovakia. The differences at the age of 60 are smaller than at birth for both men and women. It is also clear that during this period the gap in life expectancy between men and women has further increased. Nevertheless the new baseline projection assumes that this gap, measured in terms of life at expectance at birth, will start to shrink from 6.3 years in 2002 to 5.2 in 2050.

18. No 1960 figures exist for DE, CY, HU, MT, SI and FI.

Figure 14 demonstrates the growing importance of migration as a source of population growth. Furthermore, without migration our total population would have already started to decline. To the extent that migrants have higher fertility rates than the indigenous population, migration may boost the natural increase.

**Figure 14** Net immigration (x 1 000) to the EU-15 and main countries of destination, annual average



Source: Eurostat.

Figure 14 also shows that in the past, Germany was always a favourite destination of migrants who often came from Eastern Europe. However, its position has recently been taken over by the UK, Italy and Spain. A large share of the recent migrants to Spain comes from Southern America whilst the UK and Ireland are also popular destinations for migrants coming from Asia. A large share of migration comes about as a result of family reunification.





European Commission

**Europe's demographic future: Facts and figures on challenges and opportunities**

Luxembourg: Office for Official Publications of the European Communities

2007 — 177 pp. — 21 x 29.7 cm

ISBN 978-92-79-07043-3



## **SALES AND SUBSCRIPTIONS**

Publications for sale produced by the Office for Official Publications of the European Communities are available from our sales agents throughout the world.

You can find the list of sales agents on the Publications Office website (<http://publications.europa.eu>) or you can apply for it by fax (352) 29 29-42758.

Contact the sales agent of your choice and place your order.



2007 — European Year of Equal Opportunities for All

Are you interested in the **publications** of the Directorate-General for Employment, Social Affairs and Equal Opportunities?

If so, you can download them at

[http://ec.europa.eu/employment\\_social/emplweb/publications/index\\_en.cfm](http://ec.europa.eu/employment_social/emplweb/publications/index_en.cfm)

or take out a free online subscription at

[http://ec.europa.eu/employment\\_social/sagapLink/dspSubscribe.do?lang=en](http://ec.europa.eu/employment_social/sagapLink/dspSubscribe.do?lang=en)

**ESmail** is the electronic newsletter  
from the Directorate-General for Employment,  
Social Affairs and Equal Opportunities.

You can subscribe to it online at

[http://ec.europa.eu/employment\\_social/emplweb/news/esmail\\_en.cfm](http://ec.europa.eu/employment_social/emplweb/news/esmail_en.cfm)

[http://ec.europa.eu/employment\\_social/index\\_en.html](http://ec.europa.eu/employment_social/index_en.html)