Nico van Nimwegen and Gijs Beets (eds.)

SOCIAL SITUATION OBSERVATORY
DEMOGRAPHY MONITOR 2005
DEMOGRAPHIC TRENDS, SOCIOECONOMIC IMPACTS
AND POLICY IMPLICATIONS IN THE EUROPEAN UNION

netherlands interdisciplinary demographic institute

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nederlands interdisciplinair demografisch instituut



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Demography Monitor 2005

Demographic trends, socio-economic impacts and policy implications in the European Union

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Preface

The European Commission, more specifically its Employment, Social Affairs and Equal Opportunities DG, created a European Observatory on the Social Situation, with the aim to inform the social policy debate and to provide analytical input to the reporting tasks of the Commission. The Observatory functions as a network of thematic research entities in four specific domains: Demography, Social Inclusion and Income, Social Capital, and Health and Living Conditions. Bridging the gap between science and policymaking is the overarching mission of the Observatory.

The current study reports on the work of the Demography Network, which has as its main task to monitor and report on demographic and related socioeconomic trends and to analyse the policy implications of these trends. It specifically relates to the activities carried out under its 2005 work programme (contract VC/2004/0334).

The Demography Network consists of a Consortium of research institutes which is led by NIDI (coordinator Nico van Nimwegen) and further consists of the Centre for European Policy Studies (CEPS, Brussels, Belgium, www.ceps.be), the German Institute for Economic Research (DIW, Berlin, Germany, www.diw.de), the Institute for Advanced Studies (IHS, Vienna, Austria; www.ihs.at), and the Center for Social and Economic Research (CASE, Warsaw, Poland, www.case.com.pl). In addition to the Consortium, a Group of Experts is involved in the Demography Network and contributed to this report with a series of country/region specific studies.

NIDI expresses its gratitude to its partner institutes in the Consortium and the individual experts for their valuable contributions to the Network and this study, and for the fruitful and constructive collaboration of which it is the result. Also the exchange of views in the Observatory with the partner Networks as well as the support and contributions of representatives of the Commission are gratefully acknowledged. The responsibility for the current report lies with the respective authors and the views expressed therein do not necessarily reflect the position of the European Commission or the Member States.

An extended version of the report, including two contributions on related issues from the 2005 Demography work programme, which are not reproduced here, is

also available at the special website of the Social Situation Observatory (http://ec.europa.eu/employment_social/social_situation/sso_reports_en.htm). This website also includes the 2005 studies of the related Networks.

Nico van Nimwegen, Project Coordinator

The Hague, summer 2006

Nico van Nimwegen*

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1.1. Highlights

On Demography and the life course:

- Population ageing and imminent population decline signal the onset of an unprecedented demographic era for Europe. Low fertility and increasing life expectancy are the main drivers of this demographic revolution; the role of migration is hard to foresee.
- Low fertility is a root cause of population ageing and population decline. Is low fertility 'here to stay'?
- Changing mortality is the second root cause of population ageing. Life expectancies are increasing and the gender gap is slowly closing.
- International migration is a major cause of population growth in Europe and migrants (and their offspring) make up an increasing share of the population.
- Population ageing is the medium term and man-made outcome of ongoing population trends of past decades.
- Population projections are important tools for policymaking. The revised Eurostat demographic projections assume lower fertility, longer life expectancy and somewhat higher migration resulting in slightly higher population growth and less or later population decline, shrinking workingage populations and accelerating population ageing.

On Employment and the life course:

- Men are working less and women more.
- The labour force participation of the young is declining due to longer education, but it especially declines for older male workers because of early retirement.
- Will the downward trend in elderly labour force participation be halted and reversed?

Labour force participation in the family-phase of the life course is increasing
and finding a proper balance between work and family life is a major
challenge.

- The European labour force is ageing, with smaller proportions of young workers but also declining proportions of older workers. The middle ages have become dominant in the labour force and the average age of the work force increases.
- European men spend less time on the labour market: the labour-active life span is shorter (life time) and the number of working hours (working time) is lower. The labour-active life span for women, on the contrary has increased in the old Member States.
- Early retirement is common in all Member States, but recently effective retirement ages have started to increase again. Retirement may become less standard and more flexible.
- Early retirement did not increase youth employment, and seems to be conducive to policy interventions.
- Public pension schemes are becoming more restrictive to early retirement, but other social benefits play a role as well.

On Social protection and the life course:

- Population ageing has a significant impact on social protection and pension systems.
- It will lead to rising expenditure and ongoing reforms to make systems more ageing-proof.
- Longer and healthier lives of the elderly will lead to health and health care challenges. However the demand for health care will increase with population ageing and costs of health care systems will rise.

On Time-use and the life course:

- Gender and childbirth are still decisive factors if one looks at individual time-use.
- However, the gender differences in time devoted to divergent activities has diminished.
- Across Europe the variance in time devoted to paid and unpaid work, personal care and leisure is relatively small.

The Demography Monitor 2005 reviews the demographic situation and related socio-economic developments in the European Union. Also the candidate countries and Turkey are included in the analyses to the extent possible. Special emphasis is given to the policy implications of socio-economic and demographic developments. The major demographic focus in the report is on population ageing, by far the most dominant demographic challenge that the European Union is facing. From the major world regions, population ageing is most advanced in Europe. The social and policy implications of population ageing are manifold: the report pays special attention to the two broad and partly interrelated domains of employment and social protection. It discusses critical policy-relevant issues like increasing participation on the labour market, the extension of working life, retirement and pensions. It also deals with related topics like the combination of work and family, education and health as well as time-use. The life course, as this is shaped by socio-economic and demographic trends, is used as an integrative framework. Changes in the passing between and sequencing of the phases in the life course of Europeans are analysed.

1.2. Demography and the life course

 \rightarrow Population ageing and imminent population decline signal the onset of an unprecedented demographic era for Europe...

In the 20th century the world population increased from 1.6 to 6 billion and in the next half century a further increase to some 9 billion is expected for the world as a whole. In the same period the population of the current 25 Member States of the European Union (EU-25) grew from 240 to 456 million and by the year 2050 this is expected to be 449 million. A century ago some 15% of the world population lived in the area of the current EU-25; nowadays this is 7% and by the year 2050 the share of EU-25 in the total world population will be 5%. These demographic shifts do not change the ranking of the major world regions according to population size. Currently EU-25 with 456 million inhabitants ranks third after China (1.3 billion inhabitants) and India (1.1 billion), followed by the United States with 298 million inhabitants. By the year 2050 EU-25 will still rank in the third place with 449 million, after India (1.6 billion) and China (1.4 billion) and before the United States with 395 million inhabitants. It should however be noted that from the major world regions EU-25 is the only where the total population is projected to decline. This imminent population decline signals the onset of a completely new demographic era in modern history, with unprecedented implications. Within the European Union the new Member States of Central and Eastern Europe are already witnessing

population decline, but other Member States are expected to follow. Declining population growth is inevitably linked with population ageing. Although this process will affect all major world regions, population ageing is most advanced in the European Union, especially in the southern Member States.

Jointly, population ageing and imminent population decline are the major features of the demographic development of Europe which may be labelled as revolutionary in modern history.

 \rightarrow ...low fertility and increasing life expectancy are the main drivers of this demographic revolution; the role of migration is hard to foresee.

The main drivers of these developments are low fertility and increasing life expectancy. Migration is the third engine of demographic change, but as compared to fertility and mortality, its future course is hard to predict, yet its implications are far-reaching.

→ Low fertility is a root cause of population ageing and population decline. Is low fertility 'here to stay'?

Since the 1970s most Member States witnessed fertility decline, sometimes very substantial and at a fast speed. In Ireland, for instance, the average number of children per woman (measured as the total fertility rate, TFR) declined by 50% from 3.75 children in 1975 to 1.85 in 1994. In the Netherlands fertility halved from 3.17 children in 1964 to 1.58 children in 1977, in Portugal from 3.00 children in 1968 to 1.51 in 1993 and in Germany from 2.51 in 1963 to 1.25 in 1995. Also several of the new Member States saw their fertility rates halved. For example in Cyprus the rate was 3.51 in 1960 and fell below 1.75 after 1999, in Malta the rate fell from 3.62 in 1960 to below 1.80 after 1998, while it dropped in Poland from 2.98 in 1960 to below 1.50 in 1998 and in Slovakia from 3.07 in 1960 to below 1.50 in 1996. Fertility declines were less abrupt in Member States like Belgium, Denmark, Estonia, France, Greece, Latvia, Sweden and the United Kingdom. Currently women in EU-25 have on average 1.48 children (1.52 in the old Member States and 1.24 in the new Member States). By 2003 Ireland (1.98 children per woman) and France (1.89) reported the highest fertility rates, while the Czech (1.18) and Slovak (1.17) Republics had the lowest rates. All Member States have fertility levels below the so-called population replacement level (2.1 children per woman), which indicates the onset of population decline also since in many countries below-replacement fertility has become structural. The latter is substantiated when the ultimate number of children born to a woman (completed fertility of birth cohorts) is taken into account. These so-called cohort fertility rates are less sensitive to periodic

differences in the timing of children (postponement) and thus a more stable indicator of long term trends. Taking differences in postponement patterns into account, cohort fertility is slightly higher than the period rates. The average cohort fertility for the generation of women born in 1955 and 1965 in EU-25 (1.94 and 1.77 respectively) is also below replacement. However in the new Member States the average for the 1955 generation was 2.10 and so above replacement, but for the 1965 generation —women who are currently 40 years of age— it is 1.96.

Period fertility rates are below cohort rates. A slight upturn in European fertility levels might occur, especially when the postponement of childbirth beyond age 30 would diminish. It is however uncertain if and to what extent this so-called 'tempo' effect in fertility will change, as it is uncertain whether and how policies might have an impact on the tempo of fertility. Low fertility seems to be 'here to stay' and a recovery of European fertility to, for instance, replacement level is highly unlikely.

→ Changing mortality is the second root cause of population ageing. Life expectancies are increasing and the gender gap is slowly closing.

Declining mortality results in the extension of the life span, measured as the average life expectancy at birth, which is the number of years a newborn baby may expect to live when current mortality rates prevail. Primarily due to the overall decline of infant mortality in all Member States (currently 1% of newborn babies die within a year from birth), life expectancy has substantively increased in the past decades in all Member States. European women currently may expect to live 81.1 years, while the life expectancy for men is 74.8 years. Life expectancy generally is higher in the old Member States (81.6 and 75.8 for women and men respectively) than in the new Member States (78.3 and 70.0 for women and men). Currently the Baltic States report the lowest life expectancies (around 75 years for women and 65 for men), also indicating large gender differences. Relatively large gender differences are reported for France and Spain (7-8 years). Overall gender differences in mortality are nevertheless declining in the European Union as male mortality rates are catching up with women (with declining male life expectancies in some new Member States as the exception).

A further increase in life expectancy is expected for the European Union to 86.8 for women and 81.7 for men by the year 2050. The differences between the old Member States (87.3 and 82.3 for women and men) and the new Member States

(84.1 and 78.6 respectively) are likely to become smaller by 2050, especially for men. The future increase in life expectancy will primarily be caused by declining mortality at higher ages. The latter is evidenced by increasing life expectancy at age 60. Current mortality rates imply that if a European man retires at age 60, he will have an additional 20 years to live (about a quarter of his total life span). A 60 year-old European woman may expect to live an additional 24 years or nearly a third of her total life span. Although data are more scarce, there is evidence, at least in some countries, that an increasing share of life is experienced in good health.

→ International migration is a major cause of population growth in Europe and migrants (and their offspring) make up an increasing share of the population. In the second half of the 20th century many European countries witnessed a historical change from emigration to immigration, but the total number of migrants residing in Europe is unknown. United Nations estimates for the year 2000 amount to about 60 million migrants (defined as people living in another country than their country of birth) in Europe including the Russian Federation, about 4% being refugees. This share of migrants (8%) in the European total population of 728 million people is much lower than in Africa (22%) and Asia (23%), but higher than in Northern America (2%) or Oceania (1%). Other estimates put the number of (first generation) migrants at 33 million for EU-15. Member States with large shares of foreign born immigrant populations are France with 11% of the total population, Austria and the Netherlands (10%), Germany (9%), the United Kingdom (7%), Poland (5%) and Italy (3%). Despite transitional restrictions, the most recent enlargement of the European Union may lead to a short term increase in regular and irregular migration from the new Member States. With ongoing economic development in these countries, the inclination to emigrate is expected to decline. In the longer run the composition of the European population will increasingly be influenced by migration from other regions. Thus it is expected that Europe will have to compete with traditional countries of immigration like the United States, Canada and Australia, for qualified migrants to fill possible shortages on the labour market.

Population ageing, also implying the ageing of the work force, as well as imminent population and work force decline, will act as a major pull factor of international migration into the European Union. High population growth in the neighbouring countries and especially in Africa imply increasing migration pressure as a major push factor of international migration. Although international migration may serve a function with respect to solving labour

market shortages, its numerical impact on population ageing is small. Scenario calculations underpin that to halt, let alone to reverse population ageing truly massive and increasing flows of (labour) migrants would be needed. Replacement migration studies show that millions of immigrants are needed each year to keep the age-structure unchanged, for example over 3 million migrants per year in Germany alone, which is an unrealistic scenario. It follows that population ageing is here to stay.

Especially with respect to labour migration the trend of further diversification of migration flows into the European Union is expected to continue, caused by skills shortages, the opening up of the central and eastern European region, asylum seeking, globalisation and the creation of transnational communities. The gender imbalance in international labour migration seems to be shifting, with male domination (around two thirds) falling in most countries, signalling the feminisation of labour markets.

As the most volatile process of population change, international migration may play a key role in the demographic future of the European Union. A (further) harmonisation of immigration and integration policies would foster the optimization of the impact of international migration.

 \rightarrow Population ageing is the medium term and man-made outcome of ongoing population trends of past decades.

All Member States are witnessing population ageing i.e. changes in the age-structure where the older age-groups take prominence over the younger and the mean age of the population is rising. The degree of population ageing however varies among Member States, witnessing different demographic histories. As was shown before, low fertility and increasing life expectancy are the root causes of population ageing. These root causes are firmly embedded in the social, cultural, economical and medical developments of society and thus population ageing, in addition to being a natural outcome of ongoing and structural trends, basically is man-made.

The main ageing trends are the following. 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 related to the working-age population as expressed in the young-age dependency ratio (also labelled as 'green population pressure') however will rise slightly

from currently 24 to 26 in EU-25 (by 2050 the green pressure will be 27 in the old and 24 in the new Member States).

The potentially active population of 15-64 will be most numerous around the year 2010 (310 million) and will subsequently decline to about a quarter of a billion by the year 2050. It is worthwhile to note that the share of this workingage population in the total population will be slightly larger in the new Member States (currently 70% and 57% in 2050) than in the old Member States (currently 68% and 56% in 2050). This indicates that the new Member States may still benefit from the so-called 'demographic dividend', a demographic window of economic opportunity, with fewer young dependent and older people relative to the working-age population. This dividend pays off when sufficient investments are made to spur economic growth. The window of opportunity closes when population ageing continues and the relative share of both young and older dependents increases.

The population aged 65 and over will continuously increase from currently 67 million to 129 million by the year 2050. Their share relative to the working-age population in the European Union, the old-age dependency ratio (also labelled as 'grey population pressure'), has increased from 20 in 1975 to currently 25. It is projected to increase further to 51 by 2050. The different levels of 'grey pressure' (26 in the old Member States and 19 in the new Member States) indicate the different stages of population ageing within the European Union.

The relative share of the population aged 80 and over to the working-age population will even increase more sharply: from currently 6 to 20 by the year 2050 (the old Member States from 6 to 21; the new Member States from 4 to 15).

Jointly, the 'green' and 'grey' pressures constitute the overall demographic dependency. This dependency currently is 25 for the European Union as a whole and is projected to increase to 51 by the year 2050 (in the old Member States from 26 to 51 and in the new Member States from 19 to 52).

→ Population projections are important tools for policymaking.

As population projections are important instruments for policymaking and medium and long term planning, the most recent sets of European Union projections were compared. Since the 1980s 6 sets of population projections for the countries and regions of the European Union were prepared under the aegis

of the European Commission (1980, 1985, 1990, 1995, 1999 and 2004). As compared to the population projections of the National Statistical Institutes of the Member States, the EU projections are internationally consistent and based on harmonized data, a common projection model and a common set of assumptions, which gives them substantive added value for European policymaking. Acknowledging that the future is inherently unpredictable, several scenarios with contrasting variants of population development are prepared.

Each new round of projections is an update of the previous one, with improvements in the model and data as well as updated assumptions taking recent developments into account. The latter holds particularly for the latest round of projections of 2004 where information from the most recent 2000/2001 population censuses was used. The 2004 projections (EUROPOP2004) for the first time included the 10 new Member States. Five scenarios were made: a baseline scenario (describing the outcome of a continuation of current trends), a low and high scenario (two contrasting variants assuming low and high values of fertility, life expectancy and net international migration), a 'no migration' scenario (combining baseline assumptions on fertility and life expectancy with zero migration), and a high fertility scenario (combining baseline assumptions on life expectancy and migration with high fertility). As recent demographic patterns in transition countries were strongly influenced by temporary postcommunist turbulence, a continuation of current trends would be unrealistic, and thus the baseline scenario for the transition countries slightly adjusted current trends, allowing country-specific convergence to Western patterns.

 \rightarrow Lower fertility, longer life expectancy and somewhat higher migration are assumed...

For policymaking it is important to know to what extent the 1999 and 2004 projections differ. In other words, which new demographic realities become visible when comparing these two sets of projections? Generally speaking the differences in assumptions between the two sets of projections closely reflect recent demographic developments. With respect to fertility the assumptions were slightly adjusted downwards for most countries, with some upward adjustment for a few countries (France, Finland and Sweden). Also somewhat more diversity across and slightly larger differences between countries was assumed in 2004, with a 2050 total fertility rate ranging between 1.40 in Spain and Italy and 1.85 in France and Sweden (in 1999 the range was from 1.50 to 1.80). The lower fertility assumptions in 2004 seem to reflect a more pessimistic

view on the possibilities of catching up with postponed births. For mortality a continuation of increasing life expectancy was projected in all scenarios, with systematically lower life expectancy in the transition countries. Although the differences between the old Member States and the new Member States in transition are expected to decrease, it is also expected that these will not have vanished by the year 2050. In general the most recent mortality assumptions reflect a slightly more optimistic view on long term developments of life expectancy. International migration caused important differences between the two sets of projections with ultimately positive net migration for all countries. Irrespective of the assumptions, the base populations for countries like Ireland, Portugal, Greece and especially Spain were upwardly adjusted as their current populations outnumbered the ones in the 1999 projections, primarily due to international migration.

 \rightarrow ...resulting in somewhat higher population growth and less or later population decline.

For most countries and in the short, medium and longer run, the 2004 projections indicate larger populations than in 1999. Portugal (with lower fertility and lower net migration) and Denmark (with lower migration) are the exceptions, with lower projected populations in the long run. The total EU-15 population as projected in 2004 for the year 2050 numbers 384 million, as compared to 364 million in the 1999 projections. Notwithstanding the slightly more numerous populations, for most Member States the population is yet expected to decline sooner or later. The fact that Europeans will live longer and international migration will continue does not fundamentally change the perspective of emerging population decline, although this may postpone the onset of the downward trend. With the exception of Cyprus, Malta and Slovenia, all new Member States are countries where the population is already declining. They will be joined by Italy (in 2013), Germany and Slovenia (in 2014) and Portugal (in 2018) in the shorter run and by most of the remaining countries in the longer run. Ireland, Cyprus, Luxembourg and Sweden are the only countries with projected continuous population growth until the year 2050.

→ Shrinking working-age populations and accelerating population ageing. Several years before a country will experience population decline its working-age population will start to diminish. Due to the lower fertility assumptions in the most recent population projections, this process will start earlier than foreseen in the previous projections. Nevertheless the 2004 projections calculate larger working-age populations for all countries by 2050 than the 1999 edition.

The working-age population indicates the potential labour supply. Currently the EU-15 working-age population numbers 255 million; by the year 2050 this will be 217 million according to the 2004 projections (as compared to 210 million in the 1999 projections).

As a result of declining and sustained low fertility and increasing life expectancy, the pace of population ageing is set to further accelerate according to the latest projections. Except for Luxembourg, the Netherlands and Sweden the old-age dependency ratio for all Member States is higher than in the previous projections. Currently, old-age dependency ratios vary from 0.16 in Slovakia to 0.29 in Italy, with an overall ratio of 0.25 for the EU-25, 0.26 for the EU-15 and 0.20 for the new Member States. Under both scenarios, the old-age dependency ratio will rise significantly, to 0.53 according to the 2004 projections (EU-25 as well as EU-15) and to 0.49 in the 1999 projections.

In summary the new set of EU population projections indicate larger overall populations in the Member States, somewhat later but still inevitable population decline and a faster pace of population ageing. As portrayed in these projections, the new demographic realities in Europe invariably call for demographic developments to be seriously taken into account by policymakers.

1.3. Demographic and socio-economic trends and the life course

After discussing the major demographic trends, the focus will now gradually shift to the life course. Population trends are the outcome at the macro-level of the behaviour of individuals, couples, families or households. This behaviour is partly shaped by the social context, including policy interventions, and in its turn shapes the way in which the lives of people are structured into the individual life course.

In the individual life course of Europeans we will broadly distinguish three, partly overlapping phases. In the first, formative phase children grow up and are socialised into the community. Education takes priority in this phase which ends when the adolescent enters the labour market. The transition to adulthood is partly taking place in this phase. The current report does not explicitly deal with this phase in the life course. The second, labour-active phase in the life course commences with the entry into the labour market and ends upon retirement. Employment takes priority in this phase. The third phase in the life course is the retirement phase; leisure takes priority over employment in the initial stages of

this phase and gradually frailty and dependency set in. The current report focuses especially on the second and third phases of the individual life course. Although the distinction of these phases serves analytical purposes, it will become obvious that increasingly activities are not confined anymore to a single phase in the life course. Educational and formative activities, for instance, do not end upon entry into the labour market and continue throughout most of the life span. Life-long learning is the most obvious example. Alternatively, repeated entries and exits from the labour market are becoming a common reality for increasing numbers of Europeans and not only for women. Parttime labour force participation is another example of fluidity, while (early) retirement also is becoming a process rather than a single event.

Nevertheless, the distinction of the various phases in the life course may help to understand differences in the timing and sequence of events which shape the lives of Europeans.

1.4. Employment and the life course: the phase of working

As was indicated above, the working-age population (15-64) is already declining or is set to decline in the near future in several Member States due to demographic developments. The working-age population, however, gives only an indication of the number of persons that may, in principle, be active on the labour market: the potential labour supply. It does not reflect the actual labour force. Labour force participation rates, indicating the share of the working-age population that is active on the labour market (either working or seeking employment) are needed for the latter. Labour force participation rates vary over the life course. In fact the individual life course is to a large extent structured by employment as the years spent in employment cover an important part of the entire life span, particularly for men but increasingly also for women.

Several general trends may be discerned in European labour force participation from a life course perspective. First the onset of the labour career and thus the start of the working phase is increasingly being postponed. Young adolescents of today are spending more time in education than previous generations. The demands of the labour market are increasing and also strong competition on the labour market stimulates adolescents to raise their educational skills and qualifications. A prolonged stay in (fulltime) education implies a later entry into the labour market. Another general trend concerns the exit from the labour market, which increasingly is occurring earlier in life because of early retirement

although this shift seems to come to an end more recently. Later entry and earlier exit combined, result in a shortening of the working phase in the life course. These general trends are substantiated below.

 \rightarrow Trends in labour force participation: men are working less and women more...

In the last three decades, the overall labour force participation of European men declined substantively in both the old and the new Member States, with the exception of Sweden. The trends for women show a different pattern for the old and the new Member States. In the old Member States female labour force participation increased substantially from low to markedly higher levels. The opposite is the case in most of the new Member States, notably the ones in Central Europe. Here the traditionally high female labour force participation from the Soviet era substantively declined when the Iron Curtain opened and economic transformation set in.

For men, as mentioned above, two coinciding developments are causing this decline in labour force participation: later entry on the labour market of the young and earlier retirement from the labour market of older workers; the labour force participation for the middle age groups remained relatively stable. For women, the overall increase in labour force participation in the old Member States is clearly associated with higher levels of education resulting in the wish to enter and/or stay on the labour market, also in the phase of family formation. Policies that enable women to combine family and work more easily also contributed to rising labour force participation. Yet despite this, the lack of institutional arrangements to reconcile family responsibilities and occupational ambitions can still be regarded as one of the major barriers to women's continued participation on the labour market. In most of the Member States the demand for childcare at prices affordable to parents exceeds the existing supply, as has regularly been noted by the European Council.

→ Declining labour force participation of the young because of longer education...

Some thirty years ago labour force participation rates of 15-24 year old men fluctuated from a high of 85% in Portugal to a low of 47% in Greece. The corresponding rates for young women were 66% in Germany and 32% in Greece. Currently the labour force participation rates in the European Union range from 70 to 30 for young men and 70 to 25 for young women. The 'education factor' can be viewed as the dominant cause of decreasing labour

force participation of the young. The current rates of young labour force participation show less variation between countries, indicating a convergence of trends across the European Union. The data do not allow to conclude that initial differences in the length of education of young Europeans have decreased as well, although this is highly probable.

It goes without saying that education plays a key role in national development and also has a direct impact on economic growth and productivity. During the last three decades, most industrialized countries have experienced a remarkable increase in the educational attainment of their labour force, which is expected to continue over the coming decades. Recent projections for the old Member States as a whole (data for the new Member States are not yet available) indicate that the average level of educational attainment as measured by completed years of schooling of the potentially active population, will increase from 11.1 years of schooling in 2000 to 13.8 years by the year 2050 or by 2.7 years. Two driving forces determine this increase: demographic change and, more importantly, increasing educational enrolment. As to the former, younger and better educated generations will gradually replace older and lesser educated generations on the labour market. This pure demographic composition effect would account for 1.1 years of the overall increase. The remaining 1.6 years would be achieved by more enrolment in higher (upper-secondary and tertiary) education. Especially the latter enrolment effect will be conditional upon a corresponding rise of educational services needed to provide quality education. Among all Member States the scope for an increase of educational attainment over the long term will of course be considerably larger in countries where the initial level of schooling is comparatively low. Within the EU-15 the projected rise in educational attainment due to higher enrolment ranges from a low of 0.48 years in Finland to a high of 2.02 years in Portugal, where the starting point in the year 2000 was only 8.3 years as compared to 12.6 years in Germany. It should be noted that despite of this ongoing increase in the educational attainment of the European work force, it is likely to remain lower than that of the United States, where educational attainment is increasing as well.

As already indicated above and viewed from a life course perspective, the lengthening of the educational career will yield a shortening of the labour career, unless it is accompanied by a corresponding increase in the effective age at retirement. An important issue in this respect is whether the increase in schooling will have as its counterpart an increase in productivity and incomes providing the resources needed to compensate for the shortening of the labour

career and to accommodate the rising costs of an ageing society. Studies indicate that additional schooling may indeed have a positive impact on the level of GDP. But there is also evidence that the impact of additional schooling on economic growth and productivity is dependent on the quality and efficiency of the educational system and that there may be a declining rate of return on the duration of schooling. The economic returns of additional schooling in countries with already high levels of productivity may not provide as large a boost to the economy as in countries where the initial productivity is low.

 \rightarrow ...and declining labour force participation especially of older male workers because of early retirement.

For the age-group of 55-59 current labour force participation ranges from a high of 85% in Denmark and a low of 50% in countries like Belgium, Poland, Slovenia and Turkey. Some 30 years ago the range was considerably smaller (between 95% in the United Kingdom and 74% in Cyprus) and labour force participation levels higher. This trend is even stronger for the age-group 60-64 with current levels ranging from 64% in Sweden to 13% in Slovakia. Labour force participation above the age of 65 is practically non-existent in countries like Belgium, France, Spain Luxembourg and Slovakia (2%), below the 10% level in most countries, but still relatively high in for instance Portugal (26%). The substantial decrease in older male labour force participation is mainly the result of the reduction in the average age at retirement (see below), but also of the decreasing share of self-employed persons. As regards older female workers, an increase in the labour force participation of 55-59 year old women may be noted, but beyond that age no clear trends are discernible.

→ Will the downward trend in elderly labour force participation be halted and reversed?

It is interesting to note that in recent years the downward trend in elderly male labour force participation seems to have come to an end and that there are signs of a reversal in many countries (with the exception of for instance Austria, Portugal and Poland). Growing concerns among governments about the impacts of population ageing and the sustainability of pension systems have given rise to policies which foster labour force participation and make early retirement less attractive. These policies seem to have an impact on labour force participation rates, although it is still too early to conclude that the reversal of the trends is structural and mainly caused by the new policy interventions. Various studies indicate that, for instance, economic developments also have an impact on labour force participation. The relation is however a complex one. In times of an

economic downturn, employers are inclined to reduce costs and lay-off employees. Older workers, who are in general more expensive than younger workers are more at risk to be fired. Also employers may encourage older workers to make use of the early retirement exit of the labour market, especially in cases where early retirement is (partly) publicly financed and thus less expensive for the individual employer. At the macro-level, halting economic growth may thus foster lower labour force participation of older workers. At the micro-level, the rather weak economic conditions currently common to most Member States and having a direct impact on the economic well-being and living conditions of the population, may have a reverse impact, where older workers in search of economic security are less inclined to take up early retirement, which usually implies lower income levels. At any rate it is difficult to ascertain the separate impact of changes in early retirement policy on labour force participation rates, although the recent changes making early retirement less attractive are bound to have some impact. In addition to early retirement policies, also changes in the social security system, may have an impact on the labour force participation of the elderly, like policies limiting access to disability pensions and policies that raise the age at retirement.

ightarrow Labour force participation in the family-phase of the life course is increasing...

Family, fertility and household dynamics are closely related to labour force participation. Indeed, one of the great challenges for couples, and especially for women, is to combine family and working life. The so-called family phase in the life course (30-44 years), delineates the period where in most families young children are present and in need of parental care. As was described above, the average age of the mother at the birth of her first child has significantly increased in recent decades and now is around or approaches the age of 29 in a growing number of Member States. Taking a closer look at the labour force participation of women in this part of the life course, reveals that the differences in labour force participation between the Member States have substantively narrowed over the past decades. Typical examples are Spain and the Netherlands where female labour force participation in this age-group increased from respectively 14 and 22% in the early 1970s to a current 69 and 78%. Participation rates now range from 85% (Denmark) to 64% (Italy) in the old Member States and from 89% (Lithuania) to 39% (Malta) in the new Member States. Especially in the old Member States, the increase of the labour force participation of women in the family phase has been substantial. It should be noted that this does not only concern working mothers; in the younger cohorts

voluntary childlessness has become quite substantial and childless women have significantly higher labour force participation rates than women with children.

Traditionally the levels of female labour force participation were higher in the Central and Eastern European countries, but with the socio-political and economic transformations of the 1990s female labour force participation declined, also in the family phase. The latter was most probably also connected to rising parental costs for childcare.

For all Member States and candidate countries a (further) rise in female labour force participation seems feasible, also in the family phase of the life course, if institutional arrangements to reconcile work and family responsibilities improve. Indeed the demand for childcare services at affordable prices to parents still exceeds the supply, as was noted before.

 \rightarrow ...and finding a proper balance between work and family life is a major challenge.

The rising labour force participation of women in the family phase of the life course puts additional demands on individuals and families with respect to finding a proper balance of work and family life. The latter does not only concern the care for children, but also for other dependents, like frail parents. In this regard it must be noted that the overall demographic trend of delaying childbirth of course implies that parents are older in the family phase. With their increasing age, also the likelihood that they will have to provide support to frailing elderly kin, like grandparents, increases. This intergenerational support, which is a two-way process since this support is mutually provided, nevertheless adds another demand on particularly women in the family phase of the life course. In this context the so-called 'rush hour' family or 'dual carer' family is becoming a reality for increasing numbers of Europeans: balancing work, children and intergenerational support makes for a hectic phase in the life course. Giving prevailing and (lasting?) dominant gender roles where women take on the majority of care and support activities, the rush hour especially concerns women. Policies that facilitate the combination of work and care are called for. These policies go beyond the provision of affordable childcare facilities and include, for instance, also policies that enable women and men to (temporarily) retreat from the labour market during critical periods in life when care is needed most, as well as policies fostering formal and informal elderly care.

The European Employment Strategy (EES), which aims to increase overall labour force participation in the European Union, including for women, is the main policy framework in this regard. The related Employment Guidelines, for good reasons, adhere to an integrated approach to achieve the targets of the EES and extend beyond active labour market policies to social, educational, fiscal and other policies. They also address measures for finding a balance between work and family life, including for instance incentives to enter and stay in the labour market (also when children arrive in the family), the level of participation (fulltime or parttime employment) as well as re-entering the labour market after a period of absence. Also the provision of care for dependents is included.

 \rightarrow Time-use in a life course perspective: gender and childbirth are still decisive factors.

The changing life course of Europeans is also reflected in the way time is used. The analysis of time-use not only reveals how much time people spend on various activities in everyday life, but it also reveals where trade-offs between these activities are made. Time-use analysis thus may also serve to study the impact of (policy induced) changes in, for instance, the family-work balance, and give an insight into the way in which Europeans shift their time from market work to homework or leisure.

On average Europeans today have some 40 million minutes to spend during their entire life span, which is 4 million more than in 1960. As women have a higher life expectancy than men, they have some 42,600,000 minutes available compared to some 39,300,000 minutes for men.

As the available time of an individual is restricted, time-use is characterized by trade-offs: pursuing one activity implies forgoing another. Individual choices and preferences are, however, restricted by cultural, economic and institutional forces which give rise to significant differences in the use of time over the life course. Across European countries the variance of time devoted to paid and unpaid work, personal care and leisure is relatively small. The most striking feature of time-use patterns over the last decades is the declining difference in time-use of women and men: the amount of time spent on paid work in the labour market is decreasing for men and increasing for women, while the opposite holds for time spent on homework in the family. Nevertheless men still spend considerably more time than women in paid work in all phases of the life-course.

While men still pursue a rather stable and durable commitment to paid work which is hardly interrupted by events such as marriage and childbirth, women show much stronger substitution between paid work and housework, especially when they become mothers. Consequently men and women make different trade-offs between various activities: with competing activities, women tend to substitute between market work and housework, while men tend to substitute between market work and leisure.

The prevailing gender inequalities with respect to time-use thus become more visible in the phase of family formation. Especially in countries with lower compatibility of work and family, women increase their homemaking duties and decrease their labour market activities upon the arrival of a child, while the opposite holds for men.

However, demographic trends like lower fertility and later entry into parenthood decrease the level of family obligations and open the way to the labour market for women. Also the rising educational attainment of women and shifting cultural perceptions to equal opportunities for women and men play an important part, as do (policy induced) family friendly institutional arrangements. Taken together, these trends point to more equal time allocations of parents. Here, the significant and prevailing cross-country differences in time-use reveal the potential scope for policy measures addressing the work-family imbalances, such as the availability of parttime employment, adequate childcare arrangements, parental leave, fiscal policies and the like. Typically these family friendly policies have a stronger impact on the time allocation of women rather than of men.

→ The European labour force is ageing, with smaller proportions of young workers...

Overall population ageing combined with changes in age-specific labour force participation rates, inevitably results in the ageing of the European labour force. Three indicators illustrate this process: the declining share of young (15-24 years) workers, the increasing share of older (55 plus) workers in the labour force, as well as the mean age of the labour force.

In the 1970s the share of young male workers in the European labour force ranged from 14% (Sweden) to 23% (Finland, Portugal) in the old Member States and was generally higher in the new Member States. In Turkey young male workers constituted 28% of the labour force in the 1970s. The

corresponding proportions of young female workers were substantively higher in the 1970s ranging from 19% (Sweden) to 47% (The Netherlands) in the old Member States and from 19% (Poland) to 34% (Cyprus) in the new Member States. The current proportions of young male workers are substantively lower (on average about 10%) and range from 7% (Luxembourg) to 18% (Bulgaria). For young female workers the declining shares are even more striking, with declines from 47% to a current 18% in the Netherlands and from 43% to 13% in Spain. The lower shares of young workers are predominantly caused by the declining participation rates of the young and, for women, the rapidly increasing labour force participation of workers in the middle age ranges of the labour force.

 \rightarrow ...but also declining proportions of older workers. The middle ages have become dominant in the labour force and the average age of the work force increases.

As a result of early retirement the share of the older (55 and over) workers in the European labour force is declining, although the declines are smaller than for the younger workers. Only in Cyprus, Malta and Bulgaria the proportion of older male workers has increased over the past decades. For older female workers the declining trend is less visible and an increase in their share of the work force was observed in several Member States like the Scandinavian countries and Portugal. Currently the share of older workers in the labour force is between 10 and 20% in most countries. It is obvious that when the shares of workers at the edges of the age range decline, the middle ages (25-54) become more prominent. It is equally obvious that the mean age of the European labour force is increasing as well. The highest increase in the average age was noted for Finland for males: an increase of 2.6 years from 37.9 years in the early 1970s to a current 40.5 years. Also in Italy the mean age for men in the labour force rose substantively with 1.8 years. The largest increase in the mean age for women was observed in Portugal (an increase of 6.5 years) and in the Netherlands (plus 5.8 years). The overall mean age of the work force in the European Union currently is just over 40 years for men and just under 40 years for women.

→ European men spend less time on the labour market: the labour-active life span is shorter (life time) and the number of working hours (working time) is lower. The labour-active life span for women, on the contrary has increased in the old Member States.

The life span of Europeans is increasing, a trend that is expected to continue, as was discussed above. The time spent on the labour market, however, decreases

both in absolute (years and hours worked) and relative (as a share of the entire life span) terms. Especially for men the labour-active life span has decreased, but they are still spending more years of their life on the labour market than women. Women, however, are catching up, especially in the old Member States and the differences between the genders are becoming smaller. As compared to the 1970s, when men spent on average 42 years of their life on the labour market, currently the average is 38 years. The labour-active time span of men decreased for all Member States and Candidate Countries. Poland (minus 12 years), Hungary and Turkey (minus 11 years) and Belgium and Portugal (minus 10 years) saw the largest declines, while Sweden showed the lowest (less than 2 years). For women the active life span increased in the old Member States, most markedly in Portugal and the Netherlands (plus around 20 years) but also in Spain (plus 16 years) but declined in most new Member States. Currently the average labour-active life span for European women is 30 years, as compared to 20 years in the early 1970s.

The active life span as presented above in years spent on the labour market, does not take the actual number of hours worked (working time) into account. Over the past years, most Member States saw a reduction in average working time per week, both for men and women. The average working week varied in 2003 from 36 to 41 hours for men and from 25 to 41 hours for women. In all Member States women work on average fewer hours than men. The differences between the Member States in average working time do not seem to converge. It is interesting to note that the average working time decreases for women in the family phase of the life course (see below), presumably as an adaptation to the strains of combining work and family life. It is equally interesting that, both for women and men, the average working time declines in the older age groups as well, also above age 65, which leads to the assumption that reducing working hours may foster older workers to remain on the labour market longer.

In most Member States the share of parttime work increased, both for women and men, but still more women are working parttime than men. The highest proportions of parttime working women are recorded for the Netherlands (60%), the United Kingdom (46%) and Germany (37%). In countries with the lowest average working time per week (Denmark and the Netherlands) the share of parttime work of men is highest (12 to 15%). Increasingly parttime work seems to be one of the means for couples to find a proper balance between work and family life.

→ Early retirement is common in all Member States, but recently retirement ages have started to increase again. Retirement may become less standard and more flexible...

'Early' retirement refers to retirement before the standard age set for retirement. The standard retirement ages vary between countries and usually are different for men and women. In the Member States the retirement age for men is between 60 and 65 years of age. While most Western countries apply a minimum age of 65, lower ages are common in Central and Eastern European countries. Standard retirement ages for women on average are lower than for men, within the range of 55-65 years. Especially in the Western part of Europe the same standard age of 65 is applied for both genders.

Although there are different methods to compare the actual retirement age crossnationally, the outcomes do not really differ: from 1950 to 1990 the retirement age declined in all Member States. More recently this downward trend seems to have stopped and even reversed. In 1950 retirement ages ranged from around 64.8 (Belgium) to 69.1 years (Turkey) and thus were in most countries above the standard 65-year threshold which is applied today in most European countries.

The effective retirement age still varies considerably across countries. In 2003 the highest exit age was reached in Ireland (64.4) and the lowest in Slovenia (56.2). The European Union average age at retirement was 61 years in 2003. From 2001 to 2003 the overall effective retirement age increased in most countries by 1.1 years on average. Again on average, men retire one year later than women. Interpreting these indicators for actual retirement it should be noted, that they may become less reliable since trends like parttime work and partial retirement may become more common in the future. Thus, withdrawal from the labour market needs increasingly be interpreted as a gradual process instead as a one-time event. It will be evident that this will have implications for policymaking, inter alia calling for policies that foster flexibility.

It is obvious that the retirement phase in the life course has increased substantively in the past decades and also due to gender differences in longevity, more so for women than for men. While male retirees in 1970 could expect to live 8 to 15 years after retirement, the expected duration of the retirement phase was between 14 to 21 years in 1999. For women the expected duration of retirement increased from between 13 to 20 years in 1970 to about 16 to 26 years at the turn of the century. The longest expected retirement periods are recorded for France and Italy, as a result of below average retirement ages and

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comparatively high longevity in these countries. It is self evident that the lengthening of the retirement phase in the life course puts a strain on the financial sustainability of pension systems.

→ Early retirement did not increase youth employment...

When the early retirement policies were introduced in the 1970s and 1980s it was generally assumed that this would stimulate youth employment. Older (and more expensive) workers would be replaced by younger workers and help combat high levels of youth unemployment. If this was the case, then countries with the lowest retirement ages would have the highest employment rates for the young. Such a positive correlation between these two indicators can however not be found when inspecting the most recent data for 2003. Actually, countries with relatively high effective retirement ages also seem to perform well with respect to levels of youth employment (for instance Ireland, the United Kingdom, Lithuania and Sweden).

Policies to replace older workers by young therefore do not seem to have been effective; they did however help employers to reduce labour costs by reducing the total work force and especially the share of (more highly paid) older workers. As a well-performing labour market should be capable of providing employment for all productive persons, irrespective of age, policies that improve the labour market conditions for all generations, providing opportunities to work longer and allow flexibility in retirement, seem to be the best option to foster overall economic performance and financial sustainability of social security, including pension schemes.

→ ...and seems to be conducive to policy interventions...

As actual retirement is (well) below the standard age at retirement, as established by statutory pension schemes, it is important to know which are the main causes of the observed trends in retirement; how may these trends be explained? The institutional arrangements of retirement-related policies are one of the causal factors as they may include incentives for early retirement. At least two types of incentives are relevant: the replacement rate, giving the ratio of (early) retirement benefits to earnings immediately before retirement (an indicator for current economic well-being) and the change in pension wealth resulting from working an additional year (an indicator for future wealth). Public pension schemes are one of the components of this institutional framework.

→ Public pension schemes are becoming more restrictive to early retirement... Most of the European public pension schemes include early retirement arrangements, subject to conditions like for instance the minimum number of insured years and the time period between early and standard retirement. However the public pension systems of Denmark, Ireland, Latvia, Malta, the Netherlands, Turkey and the United Kingdom do not provide such incentives and mostly offer flat-rate pensions. In addition to full early retirement, many schemes provide gradual retirement options, i.e. the possibility to reduce the working time in the last years before reaching the standard retirement age. This is especially the case in the old Member States, with the exception of the United Kingdom. The new Member States, until now, do not provide gradual retirement options. In most countries special early retirement options for certain professions exist (for hard or hazardous work, but also for specific professions like teachers, local politicians, railway workers and the like). In recent years, however, most pension schemes are being harmonized. Looking at the incentives for early retirement, generally speaking the statutory pension schemes do not seem to be the major reason for early retirement in the European Union.

More recently a dominant shift in policies away from early retirement and towards promoting the extension of working life is visible in the European Union. Policies to increase the standard age at retirement, to restrict access to early retirement options or to make these options financially less attractive, are among the measures introduced. Apart from setting disincentives for early retirement, other policies aim to make postponing an early exit from the labour market financially more attractive.

\rightarrow ...but other social benefits play a role as well.

Public pension schemes have become tighter on early retirement but have had, until now, a relatively minor impact on actual retirement. This is partly caused by the long transition periods which are usual in pension reforms, but there are also other sources of income or benefits that are conducive to early retirement: unemployment benefits for older workers, disability benefits, means-tested benefits and private pension schemes.

To some extent unemployment benefits take the place of early pensions in a large number of Member States. Older workers losing their job, often receive more generous benefits and/or receive them for a longer period, which may encourage the employer to dismiss older workers and may discourage older workers from re-entering the labour market. More recently also policies in this domain have become stricter in many countries, while on the other hand policies

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were introduced stimulating higher labour force participation of the older worker. Despite relatively high initial replacement rates for older workers, there are however no strong incentives for using unemployment programs for retirement long before the minimum pensionable age.

Another major exit route from the labour market is working incapacity. In most countries over 10% of male workers in the age group up to 5 years before standard retirement receive disability benefits, and in some countries like Ireland, Cyprus, Luxembourg and the Netherlands, this exceeds 20%. These differences in disability take-up do not seem to entirely reflect the health status of European workers, but rather differences in the benefit system, entitlement conditions and labour market opportunities for older workers. As such they partly function as a bridge to (early) retirement. Again, recent policies aim to improve working conditions and medical and professional reintegration and restrict access to disability schemes.

Several forms of means-tested minimum income guarantees for older people may represent a considerable incentive for early retirement, especially for low-income earners if the eligibility age for such minimum benefits is below the standard retirement age. The larger the share of means-tested benefits in total old-age income is, the stronger will be the disincentive to continue work. However, these benefits do not seem to be widely used as bridging income until a pension is received.

Private pension schemes and in particular occupational pension schemes are a major route to early retirement in a number of Member States, such as the United Kingdom and the Netherlands, where occupational pensions build a major part of old-age income. But also in other countries private pensions may be an important bridge between early retirement and receiving a public pension. The early retirement schemes in private pensions often benefit from favourable tax treatment of the benefits and constitute a strong incentive for early retirement.

All in all early retirement is common to all Member States where the decline in the actual age at retirement, a downward trend of decades, more recently seems to have come to a stop and an increase is becoming evident. Some cohort effects are visible where younger generations tend to work longer than their predecessors. The generosity of early retirement policies, inter alia stimulated by the wish to combat youth unemployment, is shifting towards a much more

restrictive approach aimed at raising overall labour force participation as well as the labour force participation of older workers. Social benefits other than public pension schemes however still constitute major incentives for early retirement, where the various exit routes from the labour market function as communicating vessels. Both disincentives to early retirement as well as incentives for longer employment by older workers are applied as policy tools. Further reforms and adjustments seem to be necessary to structurally increase the actual age at retirement. In view of the overall negative public attitude towards later retirement, especially among retirees-in-spe, a strengthening of the incentives and possibilities to work longer should be considered, making this a more attractive option. In the same vein, also the incentives for employers to maintain older workers in the work force need to be considered. To achieve an increase in the effective retirement ages, it is of course of vital importance to improve the labour market opportunities for older workers, allowing those that want to work longer to realise this option. As to the latter it needs to be noted that a substantive share of early retirement may not be voluntary, but masquerades forced unemployment of older workers. In general, a repreciation in stead of a depreciation of the human capital embedded in older workers needs to be fostered by retirement-related policies.

1.5. Social protection and the life course: The phase of retirement

The phase of retirement is also referred to as the 'third' phase in the life course, after the first 'formative' phase and the second 'labour active' phase. There are no fixed statistical boundaries for the start of the retirement phase. Although it would be tempting to use the official age at retirement (65 years in many Member States), we have shown above that increasingly Europeans opt for early retirement (long) before this official retirement marker, making the latter less relevant as a benchmark. It may be clear that the retirement phase begins when a person withdraws from the labour market. For those who did not participate on the labour market themselves, the onset of the retirement phase is still harder to define as they mostly will experience retirement indirectly through their possible partner. It should further be noted that withdrawal from the work force increasingly takes shape as a process, and not as single event, for instance in the case of partial retirement. And finally it should be noted that, also after (early) retirement, people may go back to the labour market. In the Netherlands, for instance, the number of (early) retirees turning back to the labour market doubled over the last 4 years. At any rate it is clear that also the phase of retirement is a varied one in the life course, ranging from healthy and Executive Summary 27

resourceful retirees in their mid-fifties to dependent and frail centenarians. Increasing dependency signifies this phase of the life course where public and private benefits are the major source of income for most retirees.

→ Social protection and pension systems...

Population ageing also implies a shifting balance between the economically active and non-active populations. This balance has the tendency to become more lopsided to the advantage of the non-active, imposing major challenges to the economy and the social protection systems. Whereas the economically active generally contribute to public budgets and social security funds, the non-active are predominantly recipients of benefits. The case of pension systems and related types of expenditure is a clear example of the way in which population ageing will have an impact.

All pension systems in the Member States and candidate countries have a strong public component. Around half of the public pension systems provide a universal pension, which is usually means-tested. With the exception of the Netherlands, the public pension schemes are labour-market based, covering workers in the private and public sectors and some of the self-employed. The financing of the public schemes usually is on a pay-as-you-go basis (PAYG), making them vulnerable to population ageing, because of the shifting balance of active and non-active populations. Some schemes are still fully or partially financed directly from the public budget through transfers.

→ ... rising expenditure...

As population ageing shifts the balance between the economically active and the non-active, it directly affects the financing of public pension schemes. Thus, public old-age pension expenditure has increased in recent decades, and a further increase is expected. The variation among countries is large. In 2002 public old-age pension expenditure ranged between 1.6% of GDP to 11.4% in the old Member States and between 5.4 and 8.5% in the new Member States. On average public old-age pension expenditure increased from 8.6% of GDP in 1990 to 9.6% in 2002; the average for the enlarged EU was about the same with 9.5% in 2001. In 2002 Italy spent the largest share on public old-age pensions (11.4%) followed by Germany (10.7%) and France (10.3%), while Ireland (1.6%) spent the least. The share in the new Member States ranged from 5.4% in Estonia to 8.5% in Poland. It should be noted that old-age pensions are the largest portion of all pension expenditures, but other types, like partial pensions, disability pensions, survivor's pensions and early retirement pensions should be

taken into account as well. Taken together, the overall public pension expenditure in the EU-15 amounted to 12.6% in 2002 as compared to 11.8% in 1990.

The ageing of the population will significantly influence future public finances as the post-war baby boom generations reach retirement age. Without counteracting measures, it is expected that population ageing will lead to an increase of public spending on pensions of between 3 and 7 percentage points of GDP in most Member States by 2050. Most of this increase will be on account of pensions, health care and long term care, with potentially offsetting savings in education and unemployment benefits will be relatively small. Public spending on pensions alone is expected to increase between 3 and 5% of GDP in the coming decades. The largest increases are expected for Greece (12.2%) and Spain (7.9%) and the major part of the increases will occur between 2010 and 2030. Although data on the number of pension beneficiaries are currently insufficient, Italy has the highest number of total pension recipients (including disability pensions and the like) of 280 pensioners per 1000 inhabitants.

→ ...and ongoing reforms to make systems more ageing-proof.

In view of these developments, Member States since the 1990s have made efforts to achieve financial sustainability of public pension systems, such as increasing the effective retirement age, reducing benefit levels and diversifying the pension system. As to the latter the role of the so-called 'second pillar' was strengthened in several countries. Working in addition to the so-called 'first pillar' of PAYG-funded public pensions, the second pillar is an obligatory, privately-funded system with contributions invested in the financial markets through pension funds. The 'third pillar' of voluntary and privately funded oldage insurance still plays only a marginal role for the provision of pension benefits in the Member States. The diversification of the pension system towards a full-fledged three pillar system is generally aiming to make old-age pensions more ageing-proof and thus more sustainable. The overall direction of pension reforms in the new Member States and candidate countries is similar to that in the old Member States, signalling converging trends in response to the overall impact of population ageing across Europe.

→ Population ageing has a direct impact on the health care system...

Increasing longevity is resulting in larger numbers of the elderly in the population. As, by and large, the use of health care increases with age, population ageing yields larger demands for health facilities and increasing

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health care costs. In this respect it should be noted that in virtually all Member States the health status of the elderly has significantly improved, as is evident in increasing life expectancies. This improvement is, for instance, reflected in declining mortality rates for some of the major 'killer diseases' like diseases of the circulatory system and ischemic heart diseases. Mortality from these diseases fell to respectively 51 and 57% of their 1975 levels in the old Member states. Although the health status and longevity of the elderly is improving as well in the new Member States, there still is a considerable gap to be bridged, which according to some observers may take at least another two or three decades. Significant mortality differences between the old and the new Member States involve all major causes of death with a higher incidence of circulatory diseases, slower improvement in ischemic heart diseases and deteriorating cancer-related mortality in most of the new Member States. Also mortality due to external causes is generally higher in the new Member States, with the exception of traffic related mortality and suicide.

A substantive part of the longer life is spent in good health. Based on data of the ECHP clearly less than half of the number of years one may expect to live beyond the age of 65 will be spent in good health in countries like Greece, Spain, France, Italy, Germany and Portugal, while this is close to or over 50% in countries like Ireland, Denmark, the United Kingdom, the Netherlands and Belgium. But although the elderly are in general more healthy today than in the past and further health improvements, for instance related to improving levels of education, are to be expected, population ageing and notably a growing elderly population including the population of the oldest-old, implies a major challenge to the health care system.

 \rightarrow ... do not prevent that the demand for health care will increase with population ageing and costs of health care systems will rise.

In most of the old Member States health expenditures continued to increase in the 1990s. Also as a reaction to the even steeper rises in health expenditure during the 1970s and the 1980s, health system reforms were introduced to contain costs, inter alia utilizing incentives and stimulating competition. In many countries the growth of health expenditure as a share of GDP was significantly reduced. In 2002 the share of GDP for total health expenditure was 9.1% for the old Member States on average, with countries like Germany (10.9%), France (9.7%) and Greece (9.5%) as the highest ranking. The levels are significantly lower in the new Member States with, for instance, Poland at 6.1%.

As in most countries more concerns were expressed by governments with regard to public than to overall health expenditure, the introduction or extension of cost-sharing mechanisms was among the favourite system reforms. Consequently stronger cost containment in public as opposed to overall health expenditures can be observed. Yet public health expenditure generally is around 70 to 80% of total health expenditure in most Member States with an EU-15 average of 76.8%. It is evident that the containment of public health expenditure yielded a rise in private (out-of-pocket) expenditure.

Projections of future expenditure related to acute health care and long term care (a subset of total health expenditure indicative for the impact of population ageing) indicate a continuing rise in costs reaching an average of 6.6% of GDP by 2050. Countries like Ireland, France and Germany will have the highest expenditure rates for acute health care amounting to over 7% of GDP. In countries like the United Kingdom, Finland and the Netherlands, which are at the bottom of the list, the increase in expenditure on acute care is below average amounting to some 6% of GDP for acute care and 8% if long term care is included. From the year 2000 to 2050 the growth of public expenditure for acute care ranges from 0.7% in Denmark to 2.3% in Ireland, with a EU-average of 2.2%.

Especially long term care is sensitive to population ageing as it concerns the rapidly growing population of the elderly and specifically the oldest-old. Overall, some 40% of the growth in total health expenditure can be attributed to long term care. Here the growth in expenditure ranges from 0.2% in Ireland to 2.2% in the Netherlands. The high-expenditure countries will experience the highest future increase in long term care expenditure and the low-expenditure countries the lowest increase. Examples of high-expenditure countries are Sweden, Denmark and the Netherlands, with expenditure rates of 2.5 to 3% of GDP. Low-expenditure countries, with less than 1% of GDP for long term care expenditure are, for instance, Austria, Belgium, France and Italy. It is evident that the level of expenditure on this type of care also reflects the different ways in which health care systems are organized in the Member States.

Although up-to date comparative projections of the level of health care expenditures are not yet available for the new Member States and candidate countries, it may easily be assumed that these expenditures will rapidly increase in the coming decades, also taking the health status of the elderly population into account, which is generally lower than in the old Member States.

2. Demographic developments in the European Union

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2.1. Highlights

- Europe will be the first continent to face population decline and significant population ageing.
- As a result of the decline in the fertility rate and the postponement of the first child, together with a further increase in life expectancy, population size will come to a maximum and then decline will start, maybe offset for a while by immigration surpluses.
- This process started, roughly spoken, in the northern part of the EU, 'travelled' to the western, and then to the southern part. After the fall of the Berlin Wall also the eastern parts of Europe were 'affected' although the change to a free market economy had there an effect as well.
- Currently the EU-citizen has a 'life course' in which low and late fertility are prominent, as well as late mortality. Moreover the EU has turned into an immigration continent.
- Most EU citizens still opt for marriage, although that increasingly occurs
 after a period of non-marital cohabitation. The age at marriage is high, in
 some countries it takes place after a child has been born. Divorce has become
 a normal way of ending a marriage, although the majority of marriages still
 end due to death. Individual life courses have diversified, also if looked from
 only a demographic perspective.
- Households are small, also as an effect of population ageing. One person households have become 'popular'.
- In all these trends regional variation within the EU is large. Most specifically: the ten new Member States can still make a profit of the demographic dividend. Due to low fertility and early mortality the potential labour market population is relatively large, which may create extra stimuli to economic growth. Other EU regions have higher demographic dependency ratios.

This overview describes the components of population growth as well as population ageing in the Member States of the European Union and its candidate countries, based on the latest available information from (mainly) Eurostat,

including population projections where applicable. Additional information on nuptiality and household formation is provided as well. These demographic trends might have significant impacts on European and national level policies.

2.2. Population size and growth

In the course of the 20th century significant demographic developments took place in Europe and the EU. No demographic factor was undisturbed: fertility rates dropped; the age at first birth increased; life expectancy increased; migratory moves increased; the age at first marriage increased; cohabitation gained popularity; divorce increased. These changes had fundamental effects on societies and will continue to do so, for example on population sizes, population ageing, family structures, intergenerational relations, labour market populations, social and economic sustainability, minority populations and family norms and values.

From 1900 to 2000, the world population increased from 1.6 to 6.0 billion and in the coming 50 years a further increase to 9 billion is expected (Medium variant, United Nations, 2005). In the past century Europe's population grew from 422 to 730 million (including the Asian part of the Russian Federation). In the 20th century the population of the current 25 European Union Member States increased from around 240 to 457 million. A century ago, about one quarter of the world's population was living in Europe and some 15% in the area of the current EU-25; these shares have recently diminished to 12 and 7% respectively, i.e. they halved over the last hundred years. In the past century, overall world population growth was substantially larger than population growth in Europe. In the foreseeable future this trend will continue: the most recent projections of world population growth indicate a declining share of Europe's population to 9% in 2025 and 7% in 2050. For the current EU-25 the share will decrease to 6% by 2025 and further to 5% around 2050 (United Nations, 2005).

In this Chapter only the Medium variant will be referred to unless stated differently. To sketch the scope of variation between the UN variants: in 2050 world population is estimated at 9.1 billion persons in the Medium variant, 10.6 billion in the High variant, 7.7 billion in the Low variant and 11.7 billion in the Constant fertility variant. It means that even in the High variant the UN expects a fall in fertility from the current level.

The main reasons for this fundamental change in the coming decades are:

- the fertility levels that will remain below replacement in the EU, against much higher although decreasing levels in the world as a total,
- the mortality levels that are characterised by a high life expectancy in the EU
 and a much lower life expectancy elsewhere; both in the EU and the world
 increases in longevity are expected,
- the low to negative natural population increase in the EU as against a positive natural increase elsewhere,
- the fact that in the EU population is still slightly increasing, mainly as a result of an immigration surplus.

One of the most fundamental effects of these trends is that Europe is expected to continue its leading position in the world as the 'oldest' continent. Population ageing is a major challenge for the coming decades, and it will even be more prominent in the EU than in Europe as a total.

EU-25 now ranks third place in the world's list of most populous regions, and this is expected to stay so in the foreseeable future. Currently China is the number one with 1.3 billion inhabitants, India follows with 1.1 billion; after the EU with 457 million follow the USA (298 million), Indonesia (223 million) and Brazil (186 million) (*Figure 2.1*). By 2050 the United Nations (2005) expects the following ranking: India (1.6 billion), China (1.4 billion), EU-25 (449 million), USA (395 million), Pakistan (305 million), and Indonesia (285 million).

World population growth depends on numbers of births and deaths. For individual regions and countries, also international migration has to be taken into account. As all demographic components of population growth —fertility, mortality and migration— are closely related to the age structure of the population, it is not surprising that significant differences in age structures exist throughout the world where population ageing has become a dominant feature.

Population ageing is becoming a world wide phenomenon (see also Chapter 7). According to the 2004 UN population prospects, the median age is increasing everywhere, also in Africa (*Figure 2.2*). On a world scale, Europe has the oldest population; and within Europe, Southern Europe is the oldest. All indicators suggest that population ageing will be one of the most dominant demographic characteristics of the 21st century. While population ageing is expected to come

to a top in EU-25 around 2040, after which some rejuvenation starts, ageing will continue elsewhere also after 2040, most notably in China and Japan.

How did the average population size evolve within the European Union? The trend of decreasing average population sizes per country when new Member States enter will most likely come to an end. In 1957 the European Economic Community started with six Member States, in 1973 three new Member States joined, another in 1981, 2 more in 1986 and 3 more in 1995. In 2004 a group of 10 new Members joined.² Table 2.1 gives the increase in population size of these various EU-groupings since 1957: the EU started out to administer some 166 million Europeans, but currently accommodates 2.7 times as many inhabitants (457 million). New Member States entering the EU accounted for 64 million people in 1973, almost 10 million in 1981, 48 million in 1986, 22 million in 1995 and around 74 million in 2004. This indicates that the population of the EU mainly grew because of new Member States entering: in total 235 million inhabitants were added since its start in 1957 due to new Member States entering the EU (including the entry of the former German Democratic Republic), i.e. a much larger number than the initial 166 million inhabitants in 1957. Demographic processes (fertility, mortality and migration) only contributed to a minor extent (55 million) to the demographic extension of the EU (Monnier, 2004).

In the course of time most countries entering had relatively small populations. *Figure 2.3* shows that at each entry of new Member States the average number of inhabitants per country diminished. The most significant decline in the average country population size resulted from the 2004 extension.

Today EU-25 counts six large Member States (France, Germany, Italy, Poland, Spain, and the United Kingdom each have over 30 million inhabitants) and seven small ones (Cyprus, Estonia, Latvia, Lithuania, Luxembourg, Malta, and Slovenia each have less than four million) (*Table* 2.2). Of these smaller Member

In 1957: Belgium, West Germany (=former Federal Republic of Germany), France, Italy, Luxembourg and the Netherlands.

In 1973: Denmark, Ireland and the United Kingdom.

In 1981: Greece.

In 1986: Spain and Portugal.

In 1995: Austria, Finland and Sweden.

In 2004: Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovak Republic, and Slovenia.

Note that in 1991 'East Germany' entered the EU when Germany re-unified.

States only Luxembourg belonged to the EU already in 1957, the other six joined very recently. Three out of four EU citizens live in one of the six large Member States; eight Member States each accommodate less than 1% of all EU Member States (Monnier, 2004). If, say by 2015, the EU would consist of 29 Member States (enlarged by two bigger countries, Romania and Turkey, and two smaller, Bulgaria and Croatia), then the EU would grow from 467 million inhabitants by that time to 585 million. The average population size per EU country would then be 20.2 million, i.e. larger than currently.

Population growth within the EU has different faces across the various Member States. In the period 1960-2004, EU-15 and EU-25 always witnessed yearly population increases. However, several Member States saw population declines. For example in Malta declines occurred in the 1960s and early 1970s, in Austria and Germany in the late 1970s and early 1980s. Portugal experienced some stagnation in the 1960s and 1990s, Belgium and Ireland in the 1980s. More recently these Member States saw population increases again. Several of the new Member States, like the Baltic States, the Czech Republic, Hungary, Poland and the Slovak Republic have seen declines in population size in specific years since 1990 and that is also the case for Bulgaria, Croatia and Romania.

From 1960 to 2004 EU-15 and EU-25 populations increased by about 20%. Increases in population size were even larger in Cyprus, France, Greece, Ireland, Luxembourg, Malta, the Netherlands, Poland, Slovenia, the Slovak Republic and Spain. In 2004, no country had a lower population size than in 1960, although Hungary is close, and so is Bulgaria.

Compared to 2000 the 2003 population sizes were smaller in the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, and the Slovak Republic, and in Bulgaria, Croatia and Romania. It indicates that all the 'old' Member States, and three of the 'new' States (Cyprus, Malta and Slovenia) had positive population growth in the past few years. In this period population growth was largest in Ireland (+4.9%), and lowest in Latvia (-2.1%), although more negative in candidate countries Croatia (-2.7%) and Romania (-3.0%).

Most striking is the enormous variation in population growth in the various Member States in the coming decades. In *Figure 2.4* the Member State specific population sizes are shown in 1975, 2004 and 2050, in descending order by population size in 2004. The figures for 2050 are based on the EUROPOP 2004 baseline population projections (except for Bulgaria, Croatia, Romania and

Turkey, which are taken from the 2004 UN World Population Prospects (UN 2004)). In 2050 population size will be 25% larger than currently in Cyprus, Ireland, Luxembourg, Malta, and Turkey. If Turkey is an EU member by that time, it will then be the most populated EU Member State. France and Sweden will see their population grow between 10 and 15%, Belgium, the Netherlands and the UK between 5 and 10%. Four countries will have almost the same number of inhabitants as currently: Austria, Denmark, Finland, and Spain. A decline of 4-10% is foreseen for Germany, Greece, Italy, Portugal and Slovenia, a 10-20% decrease in Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland and Slovakia, and a more than 20% lower population size is expected in Bulgaria and Romania. The ten New Member States (NMS-10) are expected to witness a 12% decrease in population between now and 2050, while EU-15 will almost remain constant in population size. In sum, EU-25 will decrease very slightly (see also the Map in Chapter 7).

The baseline projection expects that EU-25 will have 450 million inhabitants by 2050 (384 million in EU-15, and 66 million in NMS-10). Due to different assumptions on the fertility and mortality levels and on migration flows the other variants show different numbers. Given the High and Low variants the EU-25 population will most likely be between 529 and 388 million persons, EU-15 between 446 and 335 million, and NMS-10 between 84 and 53 million. It means that in 2050 the NMS-10 share in the total EU-25 population is expected to be between 15.8% in the High variant and 13.7% in the Low variant (14.5% in the Baseline). Currently this share is 16.2%.

In the past <u>natural population growth</u> (the number of births minus deaths) was the major source of the total population increase of 55 million; more recently the share of natural growth is diminishing. Total natural growth amounts to 32 million since 1957, and the migration surplus to 23 million over this period. In the past ten years the balance shifted to migration as the most important population growth factor. According to *Figure 2.5* immigration is currently the main driving force of population growth in the EU and this has of course implications for the demographic structure of the Union (Monnier, 2004). Only in Finland, France and the Netherlands the rates of natural population increase are still larger than those by immigration (and both are positive), but also for these Member States the population projections show diminishing natural

growth and ultimately negative population growth.³ The situation in NMS-10 is opposed to that in EU-15.

Natural growth in the EU peaked in 1964 when the six Member States of that time accounted for 1.4 million additional citizens. Even though the Union extended to 25 countries, since the mid-1990s the total yearly natural growth has not been larger than 400 thousand. In contrast, the migration surplus rose significantly around 1990, mainly due to the turbulent period in Central and Eastern Europe. Moreover it is remarkable that all EU-15 Member States turned into immigration countries, while for example until recently Greece, Ireland, Italy and Spain were emigration countries (Monnier, 2004).

The extension of the EU to 25 Member States will reduce total EU population growth as several of the new Member States already have negative natural growth at the moment (a higher number of deaths than births) and several have an emigration surplus. The demographic profiles of almost all EU-15 Member States are more or less similar: low or negative natural growth, low and late fertility, increasing immigration and population ageing (rising numbers and shares of older persons, mainly due to the low fertility in the most recent decades as well as increases in life expectancy, specifically also at higher ages). Especially Ireland, Luxembourg, Portugal and Spain have relative high net immigration, while France, Ireland, Luxembourg and the Netherlands (still) have high natural increase. NMS-10 has a different profile. Except for Cyprus and Malta where positive natural growth continues together with an immigration surplus, the new Central and Eastern EU-Member States have low or negative population growth. The Slovak Republic still has positive natural population growth although small, while the other Member States all experience negative natural growth. The 'lowest low' fertility rates in these Member States are a major cause of this. In Slovenia the population is still growing due to a larger positive immigration rate than the (smaller) negative rate of natural increase. Bulgaria, Estonia, Hungary and Latvia already have substantial natural decrease.

The slowing down of population growth leads to shifts in the age structure of a population, generally referred to as population ageing. Population ageing is caused by declining fertility and increasing life expectancy. Young populations normally have relatively elevated levels of fertility and low levels of mortality

Rather unexpectedly the Netherlands has, in 2004, an emigration surplus. Immigration has decreased substantially compared to 2003, and emigration has increased significantly.

which make them grow (significant excess of births over deaths) while older populations normally have a much smaller or even negative natural increase (excess of deaths over births). The absolute number of births and deaths in a population result from the relative levels of fertility (number of children per woman) and mortality (life expectancy) in combination with the age structure, i.e. the number of individuals present in each of the age-specific bars in the population age-sex structure. In turn, changes in the absolute numbers of births and deaths have effects on the shape of the 'population pyramid'. Such changes may result from changing fertility and mortality levels, for example if the number of children per woman rises or declines, or if the life expectancy changes.

Currently all European countries are facing population ageing albeit in various degrees. In many countries population is already ageing as long as reliable population statistics are available —for the past 50 or 100 years or so—and it is expected to stay on the agenda for the coming decades. Generally the effect of fertility decline on ageing trends is much more profound than the effect of increasing life expectancy. Migration usually only has a small effect on population ageing if an effect at all. In the second half of the 21st century many EU Member States may face some 'population juvenation' as soon as the post Second World War baby boom has disappeared (see also in the next section).

Before addressing population ageing more closely, the root causes of this process—the components of population change—will be discussed.

2.3. Components of population change

2.3.1. Fertility

Fertility decline is one of the two root causes of population ageing. The European picture of fertility decline is quite diverse, and consequently the pattern of population ageing shows diversity. The average number of children per woman was about two to three in the 1960s. At that time the total period fertility rate (TFR = an indicator of the mean number of children per woman) was below 2.5 only in the Czech Republic, Germany, Greece, Hungary, Italy, Luxembourg, Slovenia and Sweden, as well as in Bulgaria, Croatia and Romania. Nowhere in Europe was the number below 2.0 (see Table 2.3). In several Member States the TFR was above 3.0: Cyprus, Ireland, Malta, the Netherlands, Portugal and the Slovak Republic. Since 1970 fertility declined in most Member States, sometimes quite substantially. In Ireland for example, the

TFR even halved between 1975 (3.75) and 1994 (1.85), in the Netherlands between 1964 (3.17) and 1977 (1.58), and in Portugal between 1968 (3.00) and 1993 (1.51). In Germany fertility also dropped 50%: from 2.51 to 1.25 (1963-1995). Fertility decline was less abrupt in other Member States like France and Sweden. Generally speaking, fertility decline is the common trend in the last quarter of the 20th century, and each country has its own fertility history.

In the new millennium no Member State has a TFR above 2.0, which means that fertility is below the so-called replacement level of 2.1 children per woman. In 2003 Ireland (1.98) and France (1.89) reported the highest fertility rates, while the Czech (1.18) and Slovak (1.17) Republics have the lowest. 17 out of the 25 EU Member States have fertility rates below 1.5 in 2003; the EU-25 average is 1.48 (1.52 in EU-15 and 1.24 in NMS-10) (*Figure 2.6*).

The overall fertility decline resulted in smaller fertility differences across the various Member States; the result is that a more homogeneous fertility pattern emerged over the past decades. Northern and Western Europe were the first regions where the TFR started to decline to (well) below the replacement level; currently these regions have slightly higher fertility rates than elsewhere in the EU, although still below replacement. Southern and Eastern European fertility decline occurred later.

Determinants of changing fertility levels include female labour force participation and education. However, closely related to both also is a demographic factor i.e. the rise in the mean age of the mother at the birth of her first child. Postponement of having children⁴ triggers a decline in (period) fertility rates. As soon as the postponement trend diminishes the (period) fertility rates may stabilize or even rise. An example is the Netherlands, where in the 1970s the age of the mother at first birth started to increase sharply and the TFR dropped considerably. In the course of the 1980s the TFR rose slightly due to 'catching up' of women who had not yet given birth to a first child. In the 1990s the TFR rose slightly further due to the fact that the increase in the age at first birth slowed down. Especially the rising levels of female education were important: if the educational levels had not risen, the age at first birth would

Postponing the first child should be understood in a macro context, i.e. the relative change that occurs in the mean age of the mother at first birth, when comparing fertility behaviour in successive years or to women from successive birth cohorts. Individual women may not be aware themselves that they are postponing to have a child as they may not have (had) concrete plans or a fixed timing from which they deviated.

have been lower than currently is the case. As higher educated women have their first child later in life than less educated women the mere increase in the number of women with higher education explains about half of the general rise in the age at first birth over the past decades, at least in the Netherlands (Beets *et al.*, 2001; Beets and Dourleijn, 2001).

The profound impact of educational expansion on the age at first motherhood has also been demonstrated for other countries. It appears that having a child during educational enrolment is not a preferred option for most women, and the access to and use of effective contraceptives nowadays provide the opportunity to prevent pregnancies. When education is finished family formation may become an option although there are other options as well, such as participation on the labour market. Mothers from various educational levels do not vary much in number of children. However childlessness is much more prominent among the higher educated (see also the section on Education in Chapter 3).

The trend towards postponing the first child started in the Scandinavian and Western European countries in the early 1970s; elsewhere the age at first motherhood started to rise somewhat later (Table 2.3). In Eastern Europe this trend is visible since the late 1980s or early 1990s. In the 1960s the mean age at first birth was 23 to 24 year in many EU Member States, although slightly lower in Eastern Europe. Currently the age is around 27 to 29 in most EU Member States in Northern, Western and Southern Europe, while Eastern Europe is lagging behind with levels between 24 and 26 year. The EU-25 average is 27.5, for EU-15 it is 28.0, and for NMS-10 it is 25.3.

Closer inspection of the <u>TFR in a birth cohort perspective</u> shows that women born at the end or just after the Second World War were the first to finish their fertility career with a number of children below the replacement level. Women from birth cohort 1955, who turned 50 years in 2005 (i.e. they currently are at the end of their reproductive life) finished with below replacement fertility in all countries except France (2.13), Ireland (2.67), Poland (2.19), the Slovak Republic (2.85), Romania (2.26) and Turkey (3.97). Cohorts born in the 1930s only rarely had completed fertility below replacement (*Table 2.4*). On average, women born in the 1930s had their first child earlier than women born later. Women born in 1955 still had their first child relatively early in many EU-countries, at ages between 24 and 26. Only in younger cohorts steep rises in the age at first birth occurred: women born in 1965 had their first child on average between ages 25 and 28, although a bit earlier in Eastern Europe.

Currently cohort TFRs are more elevated than period TFRs due to changes in fertility timing. If women born in a certain year (birth cohort) postpone a birth, the fertility rate for that particular year (period TFR) is lower, but the ultimate number of children born to women of that particular cohort (cohort TFR) may remain unchanged.⁵ This implies that period TFRs will fluctuate much more than cohort TFRs (a cohort TFR may, more or less, be interpreted as the moving average of the period TFR; see examples for some selected countries in *Figure 2.7*). The fact that period TFRs currently are below cohort TFRs, suggests that some increase in period TFRs may occur. As soon as the rise in the age at first birth levels off, period TFRs may increase, at least as long as the ultimate number of children per woman does not change. This is one of the main reasons that countries in Eastern and Southern Europe with currently 'lowest low fertility' will most likely have (somewhat) higher fertility in the future. An analysis of the timing of fertility is therefore highly relevant for understanding current and projected future levels of fertility, and the population ageing process.

In 2003, 16 EU governments judged their fertility levels to be too low, the other 9 governments were satisfied with the level, and no one thought it was too high⁶ (see also Chapter 6, Section 2) (United Nations, 2003). The first group of Member States will, most likely be in favour of policy interventions in order to try to raise the fertility level. But how successful could interventions be? According to Kamarás et al. (1998, p. 248) "it seems obvious that the willingness of governments to set demographic targets will be related to the discrepancies between fertility preferences and actual fertility of individual couples on the one hand, and to the acceptance of policy measures that are considered on the other." Soon new data will be available on fertility levels that women intend to realise and how successful they are in fulfilling their wishes. The data will most likely show that the total intended number of children is slightly higher than the cohort TFR (the ultimate number to be realised) but both will remain under the replacement level. Concrete introduction of policy measures that people prefer to be available before trying to have an additional child, would most likely lead to an extra 10 to 20 children per 100 women at the maximum. However it remains of course uncertain whether people will realise

Vice versa it means that if women in a birth cohort would start getting their babies earlier than in previous cohorts, the period TFR would become higher than the cohort rate

Also Bulgaria, Croatia and Romania judge their fertility levels as 'too low', Turkey as 'too high'.

what they say they are willing to do if preferred policy measures are put into practice (Gauthier, 2005; see for an overview also Chapter 6 section 2).

The drop in the TFR went together with a rise in the proportion of women that remained childless (Table 2.4). Data show that <u>childlessness</u> stood at about 10% in birth cohort 1935 in Belgium, France, and the United Kingdom, and 12-13% in Italy and the Netherlands. In Ireland and Portugal the percentage was about 5. In general, the percentages are higher in later birth cohorts, in cohort 1955 for example up to about 18% in Finland, the Netherlands and the United Kingdom, but in Belgium, Italy and Spain they are more or less stable (at about 10%) and even lower in France (8%). More recent cohorts show higher levels, but women from these cohorts are still rather young and may have children. Whether childlessness levels for women born in the 1960s, 1970s or later will really top 20% remains to be seen. In birth cohort 1965 the NMS-10 levels are lower than the EU-15 levels.

Birth cohorts in which 25% of the women already have a child at the age of 20 years —so 75% is still childless— finally end up with a childlessness level of around 10%. This 'pattern of early childbearing' is characteristic for Eastern European countries. Opposite is the 'pattern of late childbearing', where the 25% border is not reached before the age of 25, which leads to a childlessness level of 15% or over (see the examples of the Czech Republic and the Netherlands in *Figure 2.8*). Also Rowland (1998) and Toulemon (1995) showed that late childbearing leads to levels of higher childlessness.

More men than women remain without children, due to lower ever-marriage-rates for men than for women (Toulemon, 1995). Research shows that having a partner or not is the most important reason for remaining without children. Next to that education is crucial (Bloom and Trussell, 1984; Prioux, 1993; see also the section on Education in Chapter 3). Higher educated women are much more likely than lower educated women to remain childless. This does not always imply that higher educated women opt voluntarily for this situation. Difficulties in finding a partner to share parenthood with may be a reason, as well as difficulties in becoming pregnant at higher ages. However there is evidence that higher educated women conceive more easily, ceteris paribus, than lower educated women (Beets and Dourleijn, 2001; Esveldt *et al.*, 2001, p. 61). Increasingly, children are born outside marriage. In 1960 only Austria, Estonia,

Increasingly, children are born outside marriage. In 1960 only Austria, Estonia, Latvia and Sweden had over 10% of children born outside marriage (Table 2.3). Currently Cyprus and Greece (and most likely also Turkey) have a level below

10%. More than 40% of the children are born outside marriage in Denmark, Estonia, Finland, France, Latvia, Slovenia, Sweden, the United Kingdom, and Bulgaria. These levels may be slightly flattered as women may get married after discovering a pregnancy, i.e. the conception rates outside marriage are higher than the birth rates outside marriage.⁷

Remarkably, several Member States where a majority of the inhabitants adhere to the Roman Catholic Church —which explicitly preaches to conceive within marriage—show significant increases in the percentage of children born outside marriage over the past few decades, like for example Ireland, Spain and Portugal. Compared to Ireland, Italy and Spain, Portugal also has a relatively high divorce rate (see section on Household structures and living arrangements).

The number of <u>children born to immigrants</u> usually reflects the cultural background these immigrant groups have lived with previously. Over the past decades first generation immigrants from Western Asia and Northern Africa had higher fertility rates than non-immigrants. However their children, the second generation, have much lower rates, mostly only slightly more than the non-immigrants. Childlessness is rather rare among minority groups, although slightly rising. Fertility to immigrants from western countries (EU Member States, Northern America, Japan) does usually not deviate very much from non-immigrants.

2.3.2. Mortality

Changing mortality patterns provide the second root cause of population ageing. Declining mortality results in extending the duration of life, usually measured by the life expectancy at birth, i.e. the number of years a newborn baby may expect to live when current mortality rates prevail. Infant mortality used to have a significant impact on the average life expectancy level.

<u>Infant mortality rates</u> measure the numbers of newborn children that die before they turn one year (*Table 2.5*). In the 1960s rates under 25 were only observed in the Czech Republic, Denmark, Finland, the Netherlands, Sweden and the United Kingdom. By contrast, in 2003 only Turkey had a rate over 25, while Bulgaria and Romania had rates between 10 and 20 and EU-25 had a rate below 10. This means that nowadays only 1% of all newborn babies die within one

However, non-marital birth rates may not include children born to married women whose husbands are not the biological father.

year after birth; the majority of these deaths occur within the first month of life. Infant mortality rates are normally higher among immigrant groups.

The enormous decline in infant mortality rates and the fact that these rates are much more similar now across EU-25 contributed significantly to the increase of the life expectancy at birth. In EU-15 and EU-25 both male and female <u>life expectancy at birth</u> has risen considerably over the past 25 years. In 1980 male life expectancy was around 70 years as compared to currently about 75. For women the increase was from 77 to 81. The figures are somewhat higher in EU-15 than in EU-25, due to the fact that NMS-10 has much lower life expectancies, showing for males even some drops over the period 1980-2005. Here males had in 1980, on average, about 67 years to live and currently around 70, females 75 and 78 respectively. These figures indicate that the sex difference in duration of life is much larger in NMS-10 (8 years) than elsewhere in the EU (6 to 7 years).

The 2003 life expectancy in NMS-10 for males is estimated at 70.0 years, and at 78.3 for females. These averages are 75.8 and 81.6 respectively in EU-15. The EU-25 average is 74.8 for males and 81.1 for females.

In 2003 the Baltic States had the lowest life expectancy at birth (*Figure 2.9*): just above 65 years for males and around 75 for females, showing a significant sex difference. Relatively high life expectancies are observed in Austria, Belgium, Cyprus, Finland, France, Germany, Greece, Italy, Luxembourg, Malta, the Netherlands, Spain, Sweden and the United Kingdom. The sex difference in life expectancy is also large in France and Spain (7 to 8 years), whereas it is small in Sweden (only 4½ years).

For the future a further rise in life expectancy is expected, to, by 2050, 81.3 for men in EU-15 and to 77.2 in NMS-10, and to 86.9 respectively 83.8 for women. However, Denmark, Estonia, Greece, Latvia and the Netherlands are slightly more sceptical than other Member States about the future path. Expected improvements are mainly based on recently observed country-specific trends.

Life expectancies at the age of 60 years, indicating how many more years, on average, a 60-year old person may still expect to live given the age-specific mortality rates in a specific year, show less variation across the EU countries than the overall life expectancies. Around 1980 males had about 16 more years to live, females around 21, i.e. a difference of 5 years. In 2003 the numbers were

around 20 and 24 years. Obviously men benefited more from changing mortality than females. It is also clear that the sex difference in life expectancy is larger at birth than at age 60, mainly due to selection (differential mortality) before that age (infant mortality is one of these selection mechanisms as infant mortality rates are much higher for boys than for girls; males are also overrepresented in the mortality of (young) children and young adults).

The 2003 life expectancy at age 60 in NMS-10 for males is estimated at 16.9 years, and at 21.7 for females. In EU-15 these averages are 20.1 and 24.2 respectively. The EU-25 average comes then at 19.6 for males and at 23.8 for females. If males retire at the age of 60 they still have 20 additional years to live, i.e. a quarter of their life. For females this currently is even 24 years, i.e. about 29% of their life.

Relatively short lives remain after the age of 60 years in the Baltic States (around 16 years for men and 20 for women), Hungary, the Slovak Republic, Bulgaria and Romania, while Austrian, French, Greek, Italian, Spanish and Swedish men still have 20 years to live. Women in Hungary, Latvia, Bulgaria, Croatia and Romania have relative low expectancies, in Austria, Finland, France, Italy, Luxembourg, Spain and Sweden relative high.

Life expectancies at birth and at age 60 are almost perfectly correlated. The higher the life expectancy at birth, the higher the life expectancy at age 60. Currently a 60-year old woman is expected to live another 23.8 years, i.e. she is expected to live 83.8 years and that is 2.7 years more than the expectation for a newly born girl. For men these numbers are: 19.6, 79.6 and 4.8. This is even more so the case in NMS-10, where 60 year old women have a 'profit' of 3.4 years and men of 6.9 years.

There also exists a relationship with the infant mortality rate: the lower the infant mortality rate, the higher the life expectancy at birth or at age 60. It means that if countries that currently still have high infant mortality rates are successful in bringing down these rates, life expectancy at birth will most likely increase substantially.

However rises in the life expectancy at age 60 are mainly dependent on the successful fight against bad health conditions in old age. Over the past 40 years the life expectancy at birth for women rose from 72.9 to 81.6 years in EU-15, a rise of 11%. In the same period the life expectancy at age 60 increased by 27%

for women (from 19.0 to 24.2 years), a sign that medical and other treatments in old age have been successful. It also indicates that further reductions in mortality between the ages 0 and 60 may only be small. In NMS-10 these increases were 10% versus 17%.

Like in fertility research also for mortality period and cohort indicators exist: the cohort life expectancy may, more or less, be interpreted as the moving average of the period life expectancy. Research indicates that "period life expectancy has increased more slowly than its cohort counterpart. (...). The widening of the gap between the two life expectancies is primarily a consequence of the dramatic mortality decline at older ages that occurred during the 20th century." It implies "that the divergence between the two measures is likely to become even greater in the future as reductions in deaths are concentrated at older ages" (Canudas-Romo and Schoen, 2005).

Another mortality aspect that resembles fertility is the fact that mortality rates are negatively correlated with educational level (see the section on Education in Chapter 3).

What are the main <u>causes of death</u> EU citizens face and what is the variation across countries?⁸ Both for men and women the overall mortality rates are higher in NMS-10 than in EU-15. Over one third of all deaths are attributable to diseases of the circulatory system (the range goes from 26% in France to 58% in Latvia and Lithuania) and a quarter to neoplasms (ranging from 17% in Latvia to 33% in France). AIDS is only responsible for 0.2% of all deaths in EU-25 (0.3% in EU-15), endocrine, nutritional and metabolic diseases for 2% (3% in EU-15), mental and behavioural disorders as well as diseases of the nervous systems and the sense organs both for another 2%, while the diseases of the respiratory system account for some 8% (9% in EU-15). The diseases of the digestive systems come to nearly 5%, accidents to 4%. Suicide and intentional self-harm stand at 1%. Relatively elevated are the AIDS mortality levels in Portugal, Romania and Spain. Of course these figures vary per age group.

For countries with adequate mortality and causes of death registration, <u>maternal</u> <u>mortality</u> rates can be estimated (WHO, Unicef and UNFPA estimates). This rate gives the (adjusted) number of maternal deaths per 100,000 live births. The

See also Chapter 4 for a further overview of causes of death.

Even when coverage is complete and all deaths medically certified, in the absence of active case-finding, maternal deaths are frequently missed or misclassified. In many countries, periodic confidential enquiries or surveillance are used to assess the extent to

2000 estimates show low maternal mortality (under 10 per 100,000 live births) in Austria, the Czech and Slovak Republics, Denmark, Finland, Germany, Greece, Ireland, Italy, Portugal, Spain, Sweden and Croatia, and high (over 20) in Estonia, Cyprus, Latvia, Luxembourg, Malta, Bulgaria and Romania.

2.3.3. International migration: migrant stocks¹⁰

According to UN statistics and comparing all the world's countries the United States and the Russian Federation host by far the largest numbers of immigrants. In 2000 the number in the USA amounts to about 35 million persons (i.e. about one fifth of the total world population that lives in another country than the country of birth; and about 12% of the total US population), and in the Russian Federation to over 13 million (9% of its population). Within EU-25 Germany stands out with over 7 million immigrants (9%), but also France (11%), the UK (7%), Poland (5%), Italy (3%) and the Netherlands (10%) all have more than 1 million citizens born abroad. Together these EU Member States accommodate 23 million immigrants, i.e. over 7% of their population. Luxembourg has a smaller absolute number, but its share of the total population is large: 37%.

The UN estimates that the number of immigrants in Europe (including the Russian Federation) is about 60 million in 2000. About 4% of them are refugees. This percentage is much higher in Africa (22%) and Asia (23%), but Northern America (2%) and Oceania (1%) have lower shares.

"In the second half of the 20th century large parts of Europe experienced a historical shift from emigration to immigration. However the exact number of migrants residing in Europe is still unknown. This is partly due to the fact that (...) many European countries use nationality, not the place or country of birth, as the standard criterion in their demographic, economic and social statistics" (IOM, 2005, p. 141). The IOM report also overviews various other sources: Eurostat's Chronos database shows that "the 15 pre-enlargement EU Member Sates were home or host to some 18.7 million legal foreign residents" (p. 142).

misclassification and underreporting. A review shows that registered maternal deaths should be adjusted upward by a factor of 50% on average (WHO, Unicef and UNFPA estimates).

Statistics on international migration —immigration and emigration— are currently under revision at Eurostat. Therefore now and here some highlights on migration, mainly on migrant stocks, are presented based on other sources, like the IOM World Migration reports. In the next monitoring report we hope to focus on international migratory streams and stocks more extensively if accurate Eurostat statistics are available again (see Table 2.2 for the crude rate of net migration).

However other sources give other numbers and depending on the definition the range goes from 13.9 to 26.4 million. By combining data from different sources IOM judges these figures to be too low and the report (IOM, 2005, p. 144) continues to say that "the number of 'visible' first-generation immigrants in the EU-15 (2002) can be put at 33.0 million."

Despite transitional restrictions the EU enlargement will lead to short term increases in regular and irregular migration from NMS-10 due to the basic freedom of settlement and the transitional restrictions on employment and welfare (IOM, 2005, p. 145). Whether this will remain so in the longer run depends on the revival of the NMS-10 economies, countries that are confronted with population decline more heavily than EU-15. If these NMS-10 economies are developing successfully pressures to emigrate may cease. Currently studies suggest that 1% of the NMS-10 population intend to emigrate (Alvarez-Plata *et al.*, 2003). It is very likely that in the longer run migration will arrive from other world regions. "Europe will have to compete with traditional countries of immigration, in particular Australia, Canada and the US, for qualified migrants to fill their labour gabs" (IOM, 2005, p. 152).

2.4. Population structure

2.4.1. Population ageing

Together with the initial age-sex structure of the population, the fertility, mortality and migration rates in a specific period determine the age-sex structure at the end of that period. Since 'population pyramids' depict persons of 0 to about 100 years of age, these 'pyramids' illustrate the demographic history of a country in the past 100 years. In addition to population dynamics, also changing social, economical, political and policy contexts are reflected in these pyramids. To what extent does the <u>age-sex composition</u> of European populations vary? First of all, the shape of the pyramid for EU-15 and EU-25 is remarkably similar, which is also caused by the fact that the 10 new Members States only constitute 16% of the EU-25 population. Peculiarities are absorbed in the overall picture although the NMS-10 pyramid is rather rugged (*Figure 2.10*). Up to 2050 this difference between EU-15 and NMS-10 will not come to a halt.

Currently the largest age bracket in the EU-15 and EU-25 pyramids is those born in 1963 (43 years of age in 2005). Persons born in later years are less numerous and their numbers decrease almost linearly. While about 1.6% of all EU citizens were born in 1963, it is only 1.0% for those born in 2002, about as

many as today's survivors born in 1940. Some slight indentation is visible for the cohorts born during the Second World War (around 60-65 years of age now), as well as for those born during the First World War (around 85 years now); both are more related to lower fertility then than to higher mortality. The 'pyramid' for NMS-10 shows two bulges: those born just after the Second World War (1946-1955), and those born around 1972-1990. These cohorts are larger than in EU-25, other cohorts are smaller.

What then are the basic details in population ageing in the recent past (*Table 2.6*) and in the coming decades? As an introduction *Figure 2.11* shows the median age in EU-15, EU-25 and NMS-10 separately. It shows that, since 1950, NMS-10 had a substantially younger population than EU-15. However that situation will change from about 2035 onwards. While currently half of the EU-25 population is older than 39.8 years (=the median age; 37.4 in NMS-10 and 40.3 in EU-15), in thirty years time that will be at 47 years.

Obviously all other indicators are in accordance with this trend in ageing. *Figures 2.12-2.14* show the percentages of the population aged 0-14, 15-64 and 65+. They picture the decreasing shares of youngsters and increasing shares of older people over the past and in the coming decades. They clearly show that the trends in NMS-10 are fluctuating more than in EU-15 (see also Chapter 4). In a certain way NMS-10 is lagging behind in ageing trends. However that also has an advantage from the labour market perspective, as the share of the potential labour market population will be, in the years to come, much larger in NMS-10 countries than in EU-15 (the so-called 'demographic dividend'). As a consequence the demographic dependency ratios are 'much milder' in NMS-10 than in EU-15 (*Figures 2.15-2.17*. At least that is expected to be so up until about the middle of this century. The EU-15 countries can also still make a profit of their demographic bonus, since its total dependency ratio is currently at the lowest level. However that will change in the coming decade.

The absolute numbers of young people will diminish substantially and those of older persons will increase (*Table 2.7*). And while the number of youngsters will continue to diminish further, the number of people aged 15-64 is nearing its top around 2010 and will start to diminish from then onwards, while the number of 65+ will not diminish before 2050.

Over the past two decades old-age dependency —the ratio of the number of older, in general economically inactive persons (65+) to the number of persons

of working age (15 to 64)— rose in EU-15 from 21.6 in 1980 to 25.5 in 2004. The country specific trends are rather similar: after a decline in the beginning of the 1980s in most countries, caused by the baby-boom generation entering the working age population, old-age-dependency rose steadily afterwards (*Figure 2.18*). This effect was chiefly driven by a subsequent fall in fertility rates in the late 1960s and by increasing life expectancy. In 2004 Italy was the country with the highest dependency value (28.9), followed by Germany (26.8), Sweden (26.4) and Belgium (26.1). In this group of countries only Sweden shows an atypical trend, having declining ratios more recently.

On average the annual growth of the EU-15 old-age dependency ratio was 1.1% during the last 20 years, varying between 1% and 1.2% over certain periods. The country with the most rapidly ageing population over the whole period of observation is again Italy with an average annual growth of 2%, followed by Portugal (1.6%) and Spain (1.5%).

Nevertheless some countries show declining old-age dependency ratios in certain years. Ireland is the only country with a negative development (-0.4% per year) over the period of observation. Sweden and Denmark show some stagnation over the last 20 years. All other countries saw their old-age dependency ratios increase, varying from 0.3% for the United Kingdom to 2% for Italy. The country with the most rapidly ageing population during the last observation period (2000-2004) is Germany. Whereas the annual growth varied from 0.6% to 1.0% over the periods from 1985 to 1999, the old-age-dependency ratio rose by 2.8% in the period from 2000 to 2004. The recent value amounts to 26.8 for 2004, which corresponds to the second highest ratio after Italy.

According to the baseline projection of EUROSTAT the old-age dependency ratio for EU-15 will rise on average from 25.9 in 2005 to 53.2 in 2050 (see also Chapter 8). This means that in 2050 there will be two persons of 15-64 years per one person of 65+ (compared to four at present).

These general trends are rather similar across Member States. Compared to the 2005 values all ratios increase in the coming decades. Nevertheless some variation exists. Whereas the increase is relatively low for Sweden old-age-dependency ratios will rise by 43 points in for example Spain (*Table 2.8*).

According to the baseline EUROSTAT projection Spain and Ireland will, in EU-15 have the highest average annual growth rates from 2005 to 2049. Their

old-age-dependency ratios will increase by 2.3% per year. The countries with the lowest growth rates are again Sweden (1%) and Luxemburg (1.2%).

Let us now have a closer look at the various age groups, the <u>Children of 0-14 years</u> to start with. In *Figure 2.19* the share of these children in each EU Member State is given in 1975, 2004, 2010 and 2025. The countries are ordered by their share in 2004. Bulgaria, Italy, Greece, Spain and Slovenia have the lowest shares, while Luxembourg, Denmark, Cyprus, Ireland and Turkey have the highest. Over time the order is only changing to a minor extent. However, the variation between the Member States is diminishing substantially. It means that several countries witness large changes in the relative number of children over time (Turkey, Cyprus, Malta, Spain, Portugal), while others only have minor changes (Luxembourg, Sweden, Belgium, France, United Kingdom).

Young people (15-24 years) have currently small shares in Italy, Denmark, Luxembourg, Germany, and the Netherlands, while Cyprus, Ireland, Slovakia, Poland and Turkey have high shares (*Figure 2.20*). Also here the variation across countries diminished over time, although the variation over time was much lower than for 'Children'. Sweden, Denmark, the United Kingdom, France and Austria had only minor changes over time, while those in Poland, Cyprus, Romania, Greece and Slovakia were substantial.

The shares of <u>Young adults (25-39 years)</u> hardly changed over time (*Figure 2.21*). The rates slightly rose in the past few decades but will now start to decline. Spain, Turkey, Ireland, Romania and Luxembourg have the highest shares; Finland, Malta, Sweden, Estonia and Croatia the lowest. Changes over time are most substantial in Spain, Italy, Turkey, Ireland and Greece.

Adults (40-54 years) are most prominent in Slovenia, Poland, Finland, Germany and Croatia (*Figure 2.22*). Small shares are characteristic for Turkey, Ireland, Sweden, the United Kingdom and Spain. Over time the variation has diminished somewhat, and the most heavy changes are in Turkey, Cyprus, Germany, Slovakia and Spain.

Although the shares of the so called <u>Older workers (55-64 years)</u> increased, the variation was only small and did not change much over time (*Figure 2.23*). Poland, Slovakia, Bulgaria, Lithuania and Turkey have the largest increases, Sweden, the UK, Luxembourg, Belgium and France the smallest. Currently the shares are low in Turkey, Ireland, Poland, Slovakia and Cyprus, and high in Denmark, Sweden, the Czech Republic, Finland and Bulgaria.

The shares of <u>Elderly people (65-79 years)</u> are increasing substantially, however the variation per period is small. Bulgaria, Poland, Spain, Slovakia, and Romania have the largest changes, Luxembourg, Sweden, the UK, France and Belgium the smallest. *Figure 2.24* shows that currently Turkey, Ireland, Slovakia, Cyprus and Malta have low shares, while Greece, Italy, Croatia, Bulgaria and Germany have the highest.

Finally, the Oldest old people (80+ years): in EU-15 their share rose from 1.2% to currently 4.2%. In 2025 a figure of 6.6 is expected. The EU-25 figures are slightly less, which indicates that the NMS-10 figures are significantly lower. The largest changes are in Italy, Germany, Spain, Austria, and Slovenia. *Figure 2.25* shows that Sweden, Italy, France, the UK and Germany are currently the most aged nations within the EU according to this criterion, while Slovakia, Poland, Cyprus, Ireland and Malta are the least (Turkey and Romania have even lower shares but are not (yet) Member States).

What then is the conclusion? In these top-5s of low and high rankings in shares of several age groups a lot of variation is visible. Only for a few Member States it is clear that they stand out, but we cannot conclude that specific regions within the EU have a special ageing profile. The picture is too diverse: the same general trend in population ageing has many faces. However if we sum the number of times that specific countries have been mentioned in the previous overview we can conclude that Turkey, Ireland, Cyprus, Italy, Slovenia, Germany, Poland, and Sweden are mentioned most often. Turkey (with in 2005 a median age of 26.3 years), Ireland (34.2), Cyprus (35.3), Slovakia (35.6) and Poland (36.5) are the youngest countries, while Italy (42.3) and Germany (42.1) are the oldest. Surprisingly, Sweden (with high shares of Elderly and Oldest old people) has a lower median age (40.1) than Austria (40.6), Belgium (40.6), Bulgaria (40.6), Croatia (40.6), Finland (40.9) and Slovenia (40.2). That probably has to do with Sweden's stable population age structure.

2.4.2. Household structures and living arrangements

The changing household structures and numbers of households are mainly the result of demographic processes like fertility, mortality and migration, but also of changing age structures. With respect to living arrangements people make individual choices in various ways, depending on whether one chooses to live alone or not, to marry, divorce, have children, but also on children leaving the parental home, and on sequential living arrangements (for example unmarried cohabitation, which is also becoming more popular for widowed elderly). Also

the moments of start and end (duration) of each of the various life course phases are important for household developments. In general the number of households tends to increase at a faster rate than population growth, signalling that households are becoming smaller on average. Population ageing is reflected in the fact that currently more people are living in specific 'older' life course phases (with smaller household sizes) than before, for example in the 'empty nest' phase where all children have left the parental home.

Data on the <u>average household size</u> show that in EU-15 around 3.2 persons were living together around 1960; currently this is 2.4 (*Figure 2.26* and *Table 2.9*). The absolute number of household increased in EU-15 from slightly over 100 million around 1960 to currently some 190 million, indicating that the number of households increased much faster (90%) than population size (30%) in this period. There is substantial variation in household sizes within Europe, mainly echoing the moment that fertility started to decline. Currently for example Ireland, Portugal and Spain and to a lesser extent Greece and Italy —countries where the decline in fertility started later—still have much larger household sizes than elsewhere in the EU-15. In other EU-15 Member States households are smaller, between 2.0 and 2.3 persons on average. The differences also indicate that there is quite some variation in the age at leaving the parental home and the way older people live after the death of their spouse.

The share of <u>one-person households</u> is increasing. Currently many more persons than before are living alone, although sometimes only for a short period. After leaving the parental home, young people may live alone for a while before a 'living-together relationship' starts. However, cohabitation may end due to separation (after cohabitation) or divorce (after marriage). If children are involved in either separation or divorce, a one parent family may result. When the children have left the parental home the spouse's death also leads to a one person household. Since on average women live longer than men, and generally marry older partners, large shares of older one person households involve women. Widowed women may still live five or more years alone before death. In Member States where male and female life expectancies have recently come closer the duration of widowhood may have become smaller.

In EU-15 the share of one-person households increased from 16% to, currently, 28%. Portugal and Spain still have relative low shares and Sweden the highest. The Swedish share (40%) of one person households indicates that about 20% of

the population is living alone. For Spain, where currently 15% of the households are run by one person, about 5% of the population is living alone.

The overall average household size is declining due to a rising share of people living alone and a decline in the average household size for households with more than one person. This reflects fertility decline and the fact that families have become smaller over time. This trend is observed throughout the EU-15: the <u>share of large households</u> diminished, i.e. the share of households with five or more persons is dropping almost everywhere.

To a large extent household formation depends on union formation and childbearing. For most people these issues are essential in their life course. Marriage used to be a precondition for having children in all EU Member States, although the propensity to marry has always been somewhat lower in Scandinavia. Rising levels of births outside marriage indicate that the bond between marriage and childbirth is becoming weaker. A pregnancy used to be an incentive for an unmarried woman to marry the father of the child to be born (forced marriage), currently it is not exceptional anymore that the parents have their child and may marry or not after the child is born. This is especially the case in Austria, Bulgaria, Denmark, Estonia, Finland, France, Sweden and the UK where the mother's mean age at first birth is even higher than women's age at first marriage (Figure 2.27). Late first marriages are nowadays characteristic for women in Austria, Denmark, Finland, Luxembourg, the Netherlands, Slovenia and Sweden (at age 27 or over) (*Table 2.10*). Early marriages (at ages up to and including 24) are still prevalent in Bulgaria, Latvia, Lithuania, Poland and Romania. The mean ages at first marriage of men closely follow this pattern: men usually are 2 to 3 years older than their partner. A difference of more than 3 years is observed in Bulgaria, Croatia, Greece and Romania.

On average the age at first marriage is, for women, 27.8 in EU-25 (i.e. only slightly lower than the mean age at first birth (28.0)) versus 24.9 in NMS-10. However the groups of women marrying and having a first baby usually do not overlap in a given calendar year.

In many countries unmarried cohabitation has become a prominent living arrangement. Also having children has become more prominent among cohabiting couples. This is particularly the case in Scandinavia, but also in for example France and the Netherlands. This trend is not (yet) as evident in Central

and Eastern Europe. Also in Southern Europe unmarried cohabitation is still in an initial stage.

Unmarried cohabitation mirrors the decline in marriage. The <u>total (period) first</u> <u>marriage</u> rate shows, both for women and men, structural declines in the past, but there are reasons to believe that the lowest levels have been reached now. Currently levels are lowest in Belgium, the Czech Republic, Estonia, Latvia, Hungary, Slovenia, and Sweden. In other countries levels have increased to some extent, for example in Denmark and the Netherlands. The latter may mirror the levelling off of the increase in the age at first marriage. Also when looking at the proportion of ever-married women by generation one may come to such a conclusion. In the generation born in 1965 (=women currently over 35 years of age) more than 85% ever married in the Czech Republic, Greece, Hungary, Poland, Portugal, the Slovak Republic, Spain, and in Bulgaria and Romania. France, Slovenia, Finland, and Sweden have values below 75%.

Not only has the propensity to marry diminished, but also divorce has increased. The <u>total divorce rate</u> indicates how many marriages in hypothetical generations end by divorce. In 1980 about one fifth of all marriages ended by divorce, both in EU-15 and EU-25 (*Table 2.11*). Currently this is the case for about one third of all marriages (*Figure 2.28*). The EU-15 level is slightly higher than the NMS-10 level. High divorce levels are characteristic for Scandinavia, the Baltic States, but also for Austria, Belgium, and the Czech Republic. Low levels are observed in Cyprus, Greece, Italy, Poland and Spain, but for several countries recent data are lacking. The situation may have changed significantly: for example, Portugal used to have low levels as well but is now slightly above the EU average.

The mean duration of marriage at divorce does not vary much in the EU Member States. Moreover this indicator does not show much variance over time: the overall mean duration is around 11 or 12 years, but slightly higher (13 to 14 years) in Belgium, France, Italy, Portugal, and Spain, and somewhat lower in the Baltic States, Hungary, Bulgaria and Romania.

Due to the rise in divorce, but also related to population ageing —more adults are active on the sequential marriage market—non-first marriages are becoming more popular. Table 2.10 shows, that it is not exceptional for women that a quarter of all marriages in a certain year are non-first marriages. For the EU as a whole, about 1 in 5 women enter such marriages, in NMS-10 this is 1 in 6. However in Greece, Italy, Poland, Portugal, the Slovak Republic, Slovenia and Spain, and also in Bulgaria and Romania, the rate is (still?) about 1 in 10.

Although it seems that no specific shifts in timing occurred in the age at first union, the increase in unmarried cohabitation and its subsequent effect on the timing of marriage had profound effects on household formation and living arrangements. Separation and divorce created ex-families. Repartnering confronts many more EU citizens with the simultaneous existence of old and new family networks (ex-partners, ex-grandparents, ex-grandchildren, etc.). However marriage seems to remain the preferred option in union formation although there are "marked variations in the ways men and women are forming and maintaining partnerships across European nations. (...) In most western and northern European countries, cohabitation has eclipsed marriage as the marker for first partnership, and in northern countries and France there is evidence that long-term cohabitation has become more prevalent" (Kiernan, 2002). As also living alone is becoming a more prominent household feature —temporarily for many young adults, or more permanently after separation/divorce or in widowhood— EU variation in living arrangements over the life course has greatly increased while household sizes diminished. Population ageing as such also has an effect on household sizes, as the increasing numbers of older people live in smaller households (empty nest phase, or finally without partner).

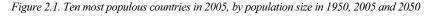
2.5. Conclusion

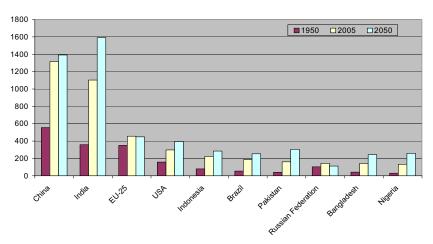
Europe will be the first continent to face population decline and severe population ageing. As a result of fertility decline and postponement and a further rise in life expectancy, population size will come to a maximum and then decline, maybe offset for a while by immigration surpluses. This process started, roughly spoken, in the northern part of the EU, 'travelled' to the western, and then to the southern part. After the fall of the Berlin wall also the eastern parts 'adopted' this pattern although the change to a free market economy had there an effect as well.

Currently the EU is characterized by low and late fertility, as well as low and late mortality. Most EU citizens still opt for marriage, although increasingly after a period of non-marital cohabitation. The age at marriage is high, in some countries even after a child has been born. Divorce has become more prominent, but the majority of marriages still end with death. Households are small, also as an effect of population ageing. One person households have become 'popular'. Moreover the EU has turned into an immigration continent.

In all these trends regional variation within the EU may be large. Postponement of marriage and childbearing causes period rates to lower. However surveys show that marriage and childbearing remain important for the majority. As a consequence period fertility rates will likely increase somewhat when postponement slows down or comes to a halt, and that would give some relief to population ageing and population decline. Although Europe will be more heavily affected by population ageing in the coming decades than other continents there is much within-Europe variation in the ageing process. Societies will have to deal with new demographic realities and normally have some time to do so. Demographic forecasts are rather accurate, compared to forecasts on future economic developments, So normally there is time to see changes coming, and within the EU several countries are much more advanced —and experienced— in population ageing than others. Combing knowledge from various backgrounds may create solutions for the socio-economic challenges Europe is facing. One of the positive elements is that currently most specifically NMS-10 can make a profit of the demographic bonus (see Section 2.4.1). Due to currently low fertility and early mortality the potential labour market population is relatively large there, and that may create extra stimuli to economic growth. The other EU regions have already much higher demographic dependency ratios.

Coming generations will be better educated (see Chapter 3) and that may be profitable as well in old age. However they will also have undergone more family changes than earlier generations (sequential marriage, divorce, fertility), and a larger share will be childless. Personal networks have become more complex, and may have become smaller. Life courses have increasingly diversified also if looked from only a demographic perspective. More and better education leads to a later start at the labour market. Postponement of fertility may continue, also because of persisting incompatibilities of work and family (Van Nimwegen and Esveldt, 2003).





Source: UN 2005 World Population Prospects, Medium variant (millions)

Figure 2.2. Median age of the population per region, 1950-2050 (UN 2004 World Population Prospects, * = Medium variant)

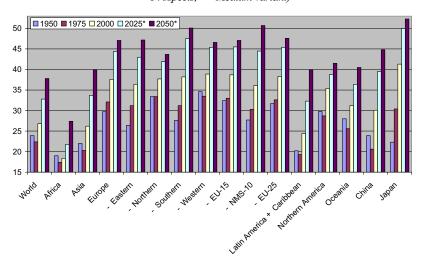


Figure 2.3. Average population size per Member State in the various EU-groupings, 1957-2004 (millions)

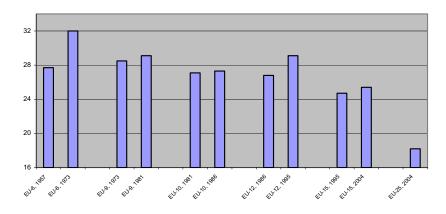
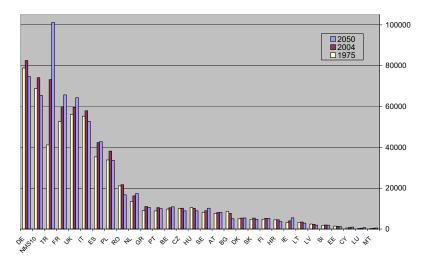


Figure 2.4. Population size per Member State, 1975, 2004 and 2050 (EUROPOP 2004) (thousands)



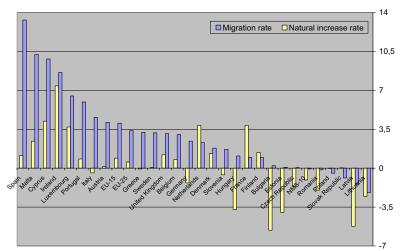


Figure 2.5. Natural increase rate and migration rate (per 1,000 population), 2000/2003

Figure 2.6. 2003 TFR in descending order in the EU-25 Member States (+ "Candidate countries"), including the 1960 and 1980 TFR, and the figure for 2050 (EUROPOP 2004 baseline; 2050 figures for Croatia and Turkey from UN prospects)

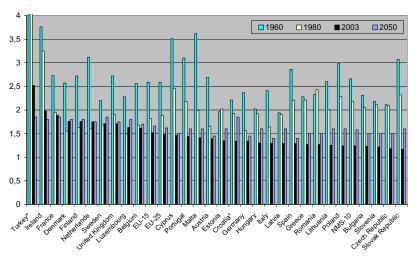


Figure 2.7. Period and cohort TFRs, France, Hungary, Italy, the Netherlands, Spain, Sweden, UK

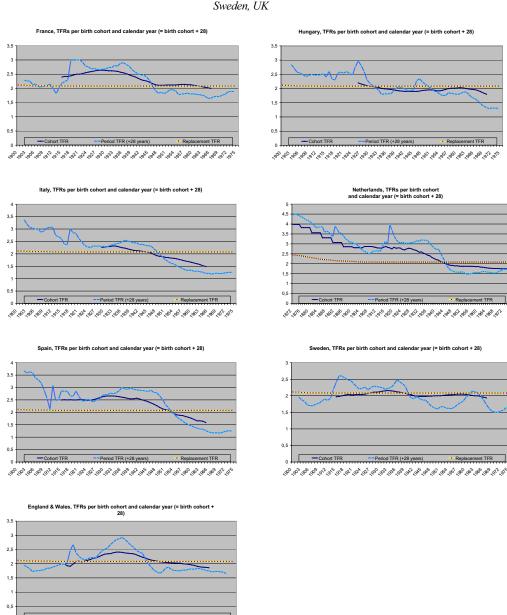


Figure 2.8. Fraction of (still) childless women by age: early (Czech Republic) and late (Netherlands) childbearing pattern, mid-1990s (Source: FFS) (Lines between the two countries mentioned are for the other FFS countries) (Note that the age at first birth in the Czech Republic shifted upwards since the 1990s)

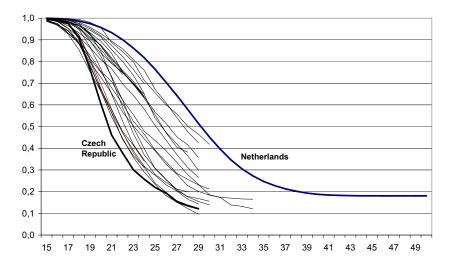
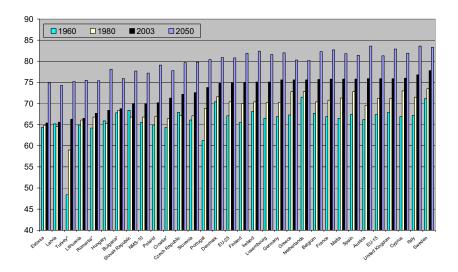


Figure 2.9. 2003 life expectancy, by sex, in descending order in the EU-25 Member States (+ "Candidate countries"), including the 1960 and 1980 life expectancy, and the figure for 2050 (EUROPOP 2004 baseline; 2050 figures for Croatia and Turkey from UN prospects)

Males



Females

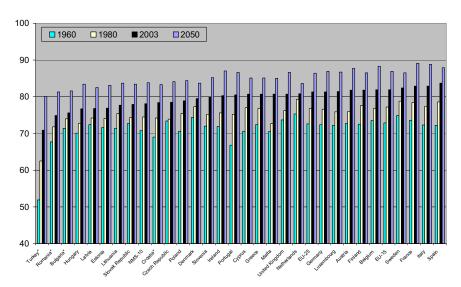
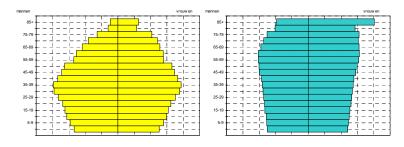
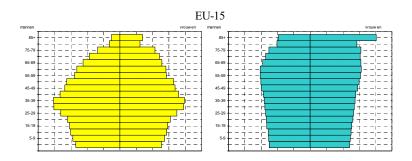


Figure 2.10. Population by sex and age, EU-25, EU-15 and NMS-10, 2000 (yellow) and 2050 (green)

EU-25







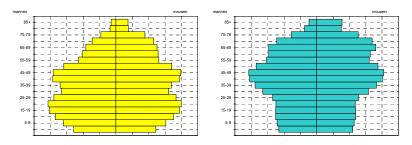


Figure 2.11. Median age, EU-15, EU-25, NMS-10 (Source: UN 2004 World Population Prospects, *=Medium variant)

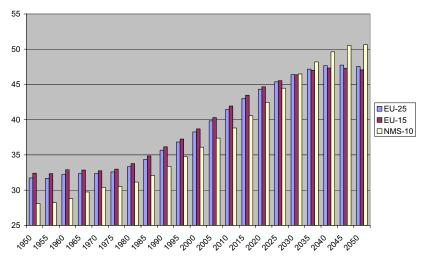
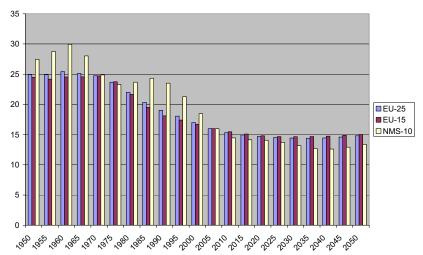


Figure 2.12. Share of population 0-14 years, %, EU-15, EU-25, NMS-10



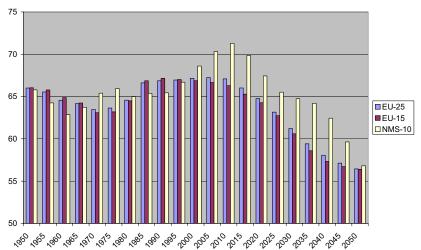
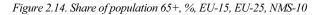
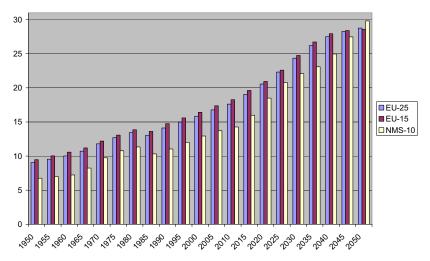
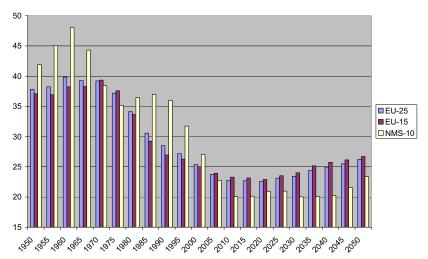


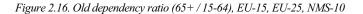
Figure 2.13. Share of population 15-64, %, EU-15, EU-25, NMS-10

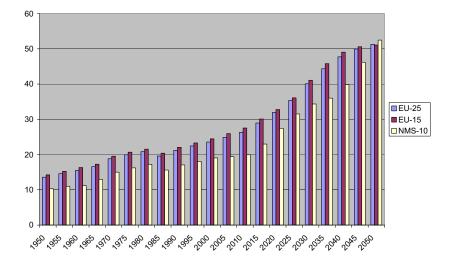


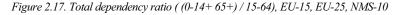




 $Figure~2.15.~Young~dependency~ratio~(0-14\,/\,15-64),~EU-15,~EU-25,~NMS-10$







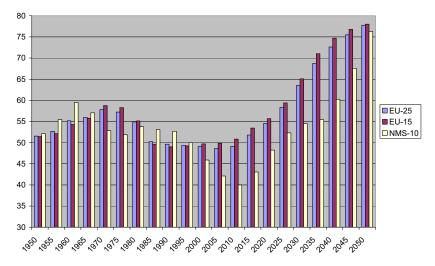


Figure 2.18. Old age dependency ratios, EU-15, 1970-2004

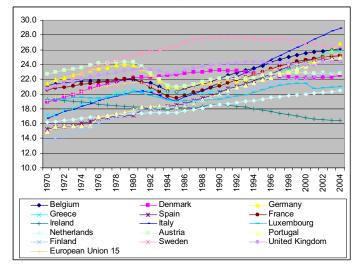


Figure 2.19. Share in population of 'Children' (0-14), 1975, 2004, 2010, 2025

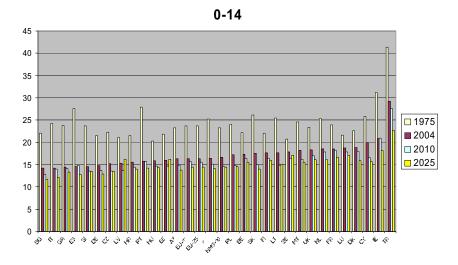


Figure 2.20. Share in population of 'Young people' (15-24), 1975, 2004, 2010, 2025

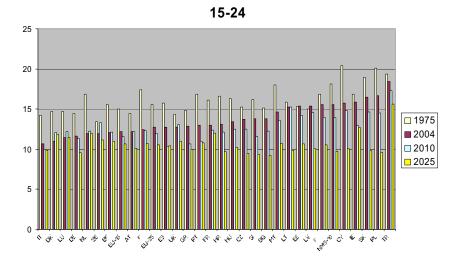


Figure 2.21. Share in population of 'Young adults' (25-39), 1975, 2004, 2010, 2025

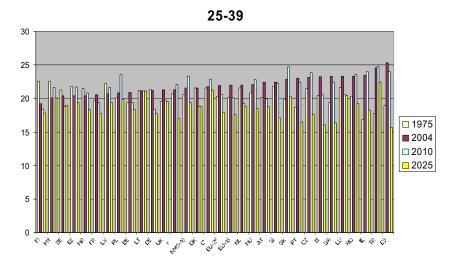


Figure 2.22. Share in population of 'Adults' (40-54), 1975, 2004, 2010, 2025

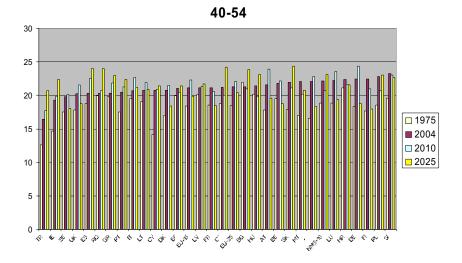


Figure 2.23. Share in population of 'Older workers' (55-64), 1975, 2004, 2010, 2025

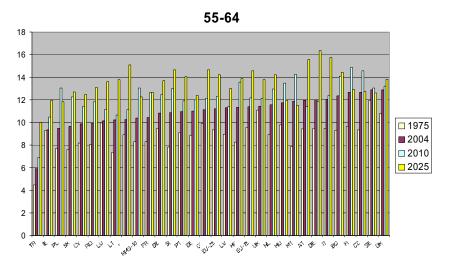


Figure 2.24. Share in population of 'Elderly people' (65-79), 1975, 2004, 2010, 2025

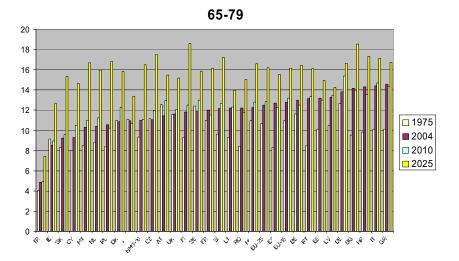


Figure 2.25. Share in population of 'Oldest old people' (80+), 1975, 2004, 2010, 2025

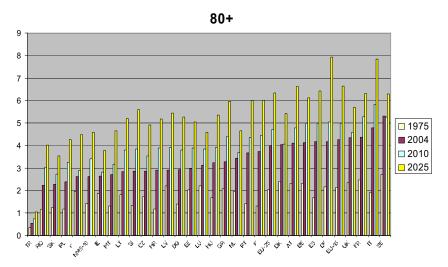


Figure 2.26. Average household size, around 1960 to around 2000 (to be completed)

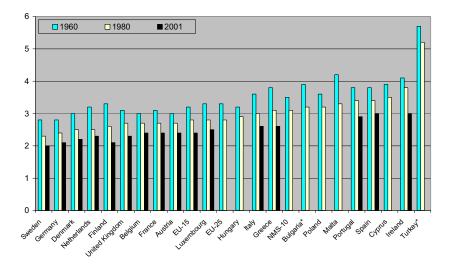


Figure 2.27. Mean age at first marriage and mean age at first birth to the mother, around 2003, women

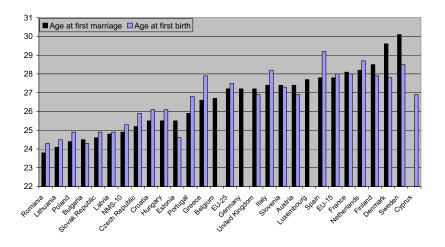


Figure 2.28. Total divorce rate, around 2003

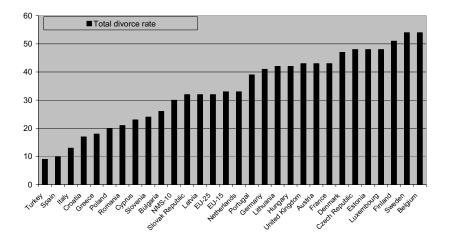


Table 2.1. Population size in the various EU stages, 1957-2004 (millions)

	EU-6*	EU-9*	EU-10*	EU-12*	EU-15	EU-25
1957	166.3					
1973	191.9	256.1				
1981	196.6	261.5	271.2			
1986	197.8	263.2	273.1	321.6		
1995	222.1	289.4	300.0	349.3	371.2	
2004	227.4	296.9	307.9	360.6	382.0	456.0

^{*} From 1957-1986 excluding 'East Germany' (=former German Democratic Republic). Source: Eurostat.

Table 2.2. Population size and growth, selected calendar years

1960 1980 1980 196423 438,647 314,826 363,719 61,597 71,512 510 572 510 572 510 572 4,413 4,614 45,465 53,731 72,543 78,269 8,300 9,588 9,961 10,710 2,836 3,393 50,026 56,389 2,104 2,509 2,756 3,404 337 330 50,026 36,389 2,756 3,404 3,500 5	2004 456,815 382,674 74,141 8,114 10,396 730	8.8 8.6 9.9 6.1 6.5	Crude rate of population increase 60/64 1980/84 2000 8.8 2.8 3.8 6.0 9.9 6.0 -1. 6.1 0.5 4 6.0 6.1 6.1 6.1 6.2 6.1 6.2 6.1 6.2 6.1 6.2 6.1 6.2 6.1 6.2 6.1 6.2 6.2 6.1 6.2 6.2 6.1 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2	2000/03 3.9 4.9	Urude rat 1960/64	Crude rate of natural increase	increase	Crude is	Crude rate of net migration 60/64 1980/84 2000/0	1gration 2000/03
1960 1980 376,423 438,647 314,826 363,719 61,597 71,512 7,030 7,546 9,129 9,835 572 510 1,209 1,472 1,209 1,472 4,413 4,614 45,465 53,731 72,543 78,269 8,300 9,588 9,961 10,710 2,836 3,393 50,026 56,389 2,104 2,509 ung 313 364	2004 456,815 382,674 74,141 8,114 10,396 730	8.8 8.6 9.9 6.1 6.5	increase 1980/84 2.8 2.2 6.0 0.5	3.9	1960/64	1000/04		9	1980/84	2000/03
1960 1980 376,423 438,647 314,826 363,719 61,597 71,512 7,030 7,546 9,129 9,855 572 510 1,209 1,472 1,209 1,472 4,413 4,614 45,465 53,731 72,543 78,269 8,300 9,588 9,961 10,710 2,836 3,393 50,026 56,389 2,104 2,509 2,756 3,404 aug 313 364	2004 456,815 382,674 74,141 8,114 10,396 730	8.8 8.6 9.9 6.1 6.5	2.8 2.2 6.0 0.5	3.9	1960/64	1000/04			1980/84	2000/03
376,423 438,647 314,826 36,3719 61,597 71,512 7,030 7,546 9,129 9,855 572 510 1,209 1,472 1,209 1,472 4,413 4,614 45,465 5,122 1,209 1,472 4,413 4,614 45,465 53,731 72,543 78,269 8,300 9,588 9,961 10,710 2,836 56,389 2,104 2,509 2,104 2,509 2,104 2,509 2,104 2,509 2,104 2,509 2,104 2,509 2,104 2,509	456,815 382,674 74,141 8,114 10,396 730	8.8 8.6 9.9 6.1 6.5	2.8 2.2 6.0 6.0	3.9		1,760//04	2000/03	1960/64	1/00/01	200002
314,826 363,719 61,597 71,512 7,030 7,546 9,129 9,855 572 510 572 510 1,209 1,472 1,209 1,472 4,413 4,614 45,465 53,731 72,543 78,269 8,300 9,588 9,961 10,710 2,836 3,393 50,026 56,389 2,104 2,509 ung 313 364	382,674 74,141 8,114 10,396 730	8.6 9.9 6.1 6.5	6.0	4.9	8.2	2.7	9.0	9.0	0.1	3.4
7,030 7,546 7,030 7,546 9,129 9,855 1 572 510 4,66 5,122 1,209 1,472 4,413 4,614 45,465 5,122 7,2543 78,269 8,300 9,588 1 9,961 10,710 1 2,836 3,393 50,026 56,389 1,276 3,404 aug 313 364	74,141 8,114 10,396 730	6.1	6.0		7.9	2.0	6.0	9.0	0.2	4.1
7,030 7,546 9,129 9,855 1 572 510 572 510 1,209 1,472 1,209 1,472 4,413 4,614 4,546 5,122 1,209 1,472 4,413 4,614 4,546 5,3731 572,543 78,269 8,300 9,588 1 2,836 3,393 50,026 56,389 50,026 56,389 50,026 56,389 1,2756 3,404 aug 313 364	8,114 10,396 730	6.1	0.5	-1.1	8.6	6.3	-1.1	0.5	-0.3	-0.1
9,129 9,855 1 572 510 573 10,316 1 1,209 1,472 4,413 4,614 45,465 5,122 72,543 78,269 8 8,300 9,588 1 9,961 10,710 1 9,961 10,710 1 2,104 2,509 0,313 3,64 0,002 5,389 0,313 3,404 0,002 1,472 0,002 1,403 1,404 0,003 1,303 1,404	10,396 730	6.5	0	4.3	0.9	0.0	0.2	0.1	0.4	4.1
Republic 9,638 10,316 1 a 1,209 1,472 d 4,413 4,614 c 45,465 5,122 nny 72,543 78,269 8 c 8,300 9,588 1 ry 9,961 10,710 1 ry 9,961 2,509 nia 2,756 3,404 boung 313 364	730	9 5	0.0	3.8	5.0	8.0	8.0	1.5	-0.7	3.0
Republic 9,638 10,316 1 urk 4,566 5,122 d 4,413 4,614 d 4,443 4,614 my 72,543 78,269 8 s 8,300 9,588 1 ry 9,961 10,710 1 ry 9,961 10,710 1 s 2,836 3,393 5,0026 56,389 5 c 2,104 2,509 mia 2,756 3,404 boung 313 364	10.212	0.0	10.8	14.1	14.9	10.1	4.2	-9.3	0.7	8.6
a 1,209 1,472 d 4,413 4,614 ny 45,465 53,731 ny 72,543 78,269 ry 9,961 10,710 ly 2,836 3,393 s,0026 56,389 c,104 2,509 nia 2,756 3,404 nbourg 313 364	717,01	2.4	0.3	-1.6	4.2	1.0	-1.7	-1.7	9.0-	0.1
a 1,209 1,472 d 4,413 4,614 ny 72,543 78,269 ry 9,961 10,710 ly 2,836 3,393 ry 9,961 2,104 ly 2,836 3,393 2,104 2,509 nia 2,756 3,404 nbourg 313 364	5,398	7.6	-0.4	3.2	7.4	9.0-	1.3	0.2	0.2	1.8
d 4,413 4,614 4,5465 53,731 my 72,543 78,269 ry 9,961 10,710 ry 9,961 10,710 ry 2,836 3,393 50,026 56,389 2,104 2,509 mia 2,756 3,404 bloung 313 364	1,351	12.1	6.9	-3.9	5.5	3.3	4.0	6.7	3.5	0.1
17,5465 53,731 17,543 78,269 18,300 9,588 19,961 10,710 1,2,836 3,393 2,026 56,389 2,104 2,509 mia 2,756 3,404 bloung 313 364	5,220	6.5	5.1	2.4	8.9	4.2	1.4	-2.5	8.0	1.0
ny 72,543 78,269 ry 8,300 9,588 ry 9,961 10,710 2,836 3,393 50,026 56,389 2,104 2,509 mia 2,756 3,404 bbourg 313 364	59,901	13.2	5.3	4.9	6.7	4.3	3.9	6.5	6.0	1.0
8,300 9,588 ry 9,961 10,710 1 2,836 3,393 50,026 56,389 2,104 2,509 nia 2,756 3,404 abourg 313 364	82,532	8.2	-1.2	1.1	0.9	-1.2	-1.3	2.2	0.0	2.4
ry 9,961 10,710 1 2,836 3,393 50,026 56,389 2,104 2,509 mia 2,756 3,404 bbourg 313 364	11,041	5.3	6.9	3.1	10.3	5.0	-0.1	-5.0	1.8	3.2
1 2,836 3,393 50,026 56,389 2,104 2,509 and 2,756 3,404 aboung 313 364 313 364 313 364 313 364 313 364 313 364 364 313 364 364 366 364 366 364 366 364 366 364 366 364 366 364 366 364 366 364 366 366	10,117	3.5	-1.0	-2.6	3.5	-1.0	-3.7	0.0	0.0	1.1
50,026 56,389 2,104 2,509 mia 2,756 3,404 abourg 313 364 327 330	4,028	2.6	8.7	16.0	10.0	10.6	7.4	4.7-	-1.9	8.6
2,104 2,509 mia 2,756 3,404 hbourg 313 364 327 330	57,888	7.4	0.7	4.2	9.2	1.2	-0.4	-1.8	-0.5	4.6
nia 2,756 3,404 hbourg 313 364 327 330	2,319	13.9	8.4	-6.7	5.8	2.3	-5.2	8.1	2.6	-1.4
327 330 364 327 330	3,446	13.9	7.2	4.8	12.9	5.2	-2.6	1.0	2.0	-2.2
327 330	452	10.6	1.5	10.2	4.0	0.4	3.7	9.9	1.0	6.5
10011	400	4.1.	9.6	12.6	14.0	7.7	2.4	-18.0	1.8	10.2
Nemerlands 11,41 / 14,091 1	16,258	13.5	5.1	6.1	13.1	4.1	3.9	0.3	1.0	2.3
Poland 29,480 35,413 3	38,191	12.2	9.1	-0.5	12.5	8.6	0.0	-0.3	-0.7	-0.5
Portugal 8,823 9,714 1	10,475	4.5	6.2	8.9	13.2	5.5	8.0	-8.7	9.0	0.9
Slovak Republic 3,970 4,963	5,380	18.3	7.2	-0.9	12.9	8.3	0.0	5.5	-1.1	-0.9
Slovenia 1,581 1,893	1,996	7.2	4.6	1:1	8.4	4.6	9.0-	-1.2	0.0	1.7

Spain	30,327	37,242	42,345	9.3	5.9	14.5	12.9	5.8	1.1	-3.6	0.0	13.3
Sweden	7,471	8,303	8,976	5.9	6.0	3.2	4.5	0.3	0.1	1.4	9.0	3.2
United Kingdom	52,164	56,546	59,651	7.5	11	4.3	6.4	1.3	1.2	1.1	-0.2	3.1
Bulgaria	7,829	8,846	7,801	8.7	2.8	-5.4	8.7	2.8	-5.6	0.0	0.0	0.2
Croatia	4,125	4,579	4,442*	9.9	2.4	-28.9	9.7	3.1	-1.4	-0.9	-0.7	-27.4
Romania	18,319	22,133	21,711	7.1	4.9	-2.1	8.1	5.8	-2.0	-1.0	-0.8	-0.2
Turkey	28,233*	46,316*	71,254*									

Turkey 4.0.1.2004 World Population Prospects.

Table 2.3. Fertility indicators, selected calendar years (in italic: estimates)

		1 aue 2	ו עטוב ב דיכו נונונץ וומוכמוטוא, אכוכרוכט כמוכחמו	acaions, sere	iea caieriaa	years (in tian	years (in tiduc, estimates)		
	Tota	Total period fertility rate	/ rate	Mean age n	Mean age mother at first birth (to the	birth (to the	% child	% children born outside marriage	e marriage
					mother)				
	1960	1980	2003	1960	1980	2003	1960	1980	2003
EU-25	2.63	1.88	1.48	24.4	24.6	27.5	4.5	1.6	28.6
EU-15	2.62	1.82	1.52	24.5	25.0	28.0	4.3	6.7	29.6
NMS-10	2.65	2.17	1.24	24.0	23.1	25.3	5.3	0.9	23.2
Austria	2.69	1.65	1.39			26.9	13.3	17.8	35.3
Belgium	2.56	1.68	1.61				2.1	4.1	
Cyprus	3.51	2.46	1.46	23.8	23.8	26.9		9.0	3.5
Czech Republic	2.11	2.10	1.18	22.9	22.4	25.9	4.9	9.6	28.5
Denmark	2.57	1.55	1.76	23.1	24.6	27.8**	7.8	33.2	44.9
Estonia	1.96	2.02	1.35		23.2	24.6*	13.7	18.3	56.3*
Finland	2.72	1.63	1.76	24.7	25.6	27.9	4.0	13.1	40.0
France	2.73	1.95	1.89	24.8	25.0	28.0**	6.1	11.4	44.3*
Germany	2.37	1.56	1.34				9.7	11.9	27.0
Greece	2.28	2.21	1.27		24.1	27.9*	1.2	1.5	4.4*
Hungary	2.02	1.92	1.30	22.9	22.5	26.1	5.5	7.1	32.3
Ireland	3.76	3.25	1.98		25.5	28.2	1.6	5.0	31.4
Italy	2.41	1.64	1.29	25.8	25.0		2.4	4.3	13.6
Latvia	1.94	1.90	1.29		22.9	24.9	11.9	12.5	44.2
Lithuania	2.60	2.00	1.25		23.8	24.5	7.3	6.3	29.5
Luxembourg	2.28	1.49	1.63				3.2	0.9	25.0
Malta	3.62	1.99	1.41					1.1	16.8
Netherlands	3.12	1.60	1.75	25.7	25.7	28.7*	1.4	4.1	30.7
Poland	2.98	2.28	1.24	25.0	23.4	24.9	4.5	4.8	15.8
Portugal	3.10	2.18	1.4		24.0	26.8*	9.5	9.2	26.9

Slovak Republic	3.07	2.32	1.17	22.7	22.7	24.9	4.7	5.7	23.3
Slovenia	2.18	2.11	1.22	24.9	22.8	27.3	9.1	13.1	42.5
Spain	2.86	2.20	1.29		25.0	29.2*	2.3	3.9	21.8*
Sweden	2.20	1.68	1.71	25.5	25.3	28.5	11.3	39.7	56.0
United Kingdom	2.72	1.90	1.71		24.7	26.9		11.5	41.5
Bulgaria	2.31	2.05	1.23	22.1	21.9	24.3	8.0	10.9	46.1
Croatia	2.21	1.93	1.34*		22.8	26.1	7.4	5.1	10.1
Romania	2.33	2.43	1.27		22.4	24.3		2.8	28.2
Turkey	6.18	4.36	2.52**		20.8			2.9	

Table 2.4. Fertility indicators, selected birth cohorts of women (in italic: estimates)

	E	-	1001	table 2.4. Fertility thaticalors, selected birth conorts by women (in tidic; estimates)	uniy man	ators, ser	ected our	1. 4	of worne	וו וווו וווווו וו	c. esturia	les)	-			
	10	tal conort	i otal conort rerunty rate	are	Mean	age mou	Mean age motner at mst birm	DILLI	W %	% women without children	nout chilk	aren	Number	Number of children per woman,	en per wo	oman,
														conort 1900 (%)	00 (%)	
	1935	1945	1955	1965*	1935	1945	1955	1965*	1935	1945	1955	1965*	0	-	2	3+
EU-25	2.37	2.11	1.94	1.77				26.3				15.7	15	18	40	27
EU-15	2.36	2.10	1.90	1.73				26.9				I6.I	91	18	39	56
NMS-10	2.40	2.16	2.10	1.96				23.2				13.4	0I	17	44	53
Austria	2.45	1.96	1.77	1.64				25.3				21.0	17	23	39	15
Belgium	2.27	1.93	1.83						9.4	8.7	10.5		17	28	34	20
Cyprus			2.31	2.56												
Czech Republic	2.12	2.03	2.07	1.93				22.5				7.0	9	15	55	23
Denmark	2.35	2.06	1.84	1.94		23.3	25.0	27.1		8.1	13.1	13.0	10	22	43	25
Estonia		1.85	2.00	1.87												
Finland	2.29	1.88	1.90	1.91		24.4	25.2	27.0		14.2	18.2	20.0	19	14	36	31
France	2.57	2.22	2.13	2.02	24.5	24.0	24.7	26.3	10.3	7.0	7.8		28	18	32	22
Germany	2.16	1.80	1.67	1.53									30	19	35	15
Greece		1.98	2.01	1.75				25.2				18.0	11	16	52	22
Hungary	1.99	1.90	1.94	1.97				23.0				10.0	7	20	49	23
Ireland	3.52	3.27	2.67	2.18	25.7	24.9	25.1	27.4	4.5	6.2	13.2	21.0	16	10	28	46
Italy	2.28	2.07	1.80	1.49	25.3	24.4	24.5	27.0	13.1	10.2	11.1	20.0	15	25	43	17
Latvia			1.84	1.77												
Lithuania		1.97	1.94	1.72												
Luxembourg		1.82	1.69	1.82												
Malta				2.00												
Netherlands	2.49	2.00	1.87	1.77	25.5	24.5	26.3	28.4	12.5	12.4	17.4	19.0	18	15	42	25
Poland	2.60	2.27	2.17	2.00				23.3				16.0	11	17	39	33
Portugal	2.88	2.42	2.04	1.82	25.2	24.6	23.9	25.2	4.1	4.9	7.5	5.0	9	30	45	21
Slovak Republic	2.72	2.38	2.22	2.04				22.7				11.0	10	13	45	32
														•		

Slovenia	2.07	1.83	1.96	1.77			23.7				0.6	4	26	54	16
Spain	2.63	2.43	1.92	1.61	25.4	25.2	27.2		6.1	10.7	14.0	10	26	47	17
Sweden	2.14	1.98	2.03	1.98	24.0	25.4	26.8		12.2	12.8	13.0	13	15	41	31
United Kingdom			2.01	1.89				11.1	8.6	17.2					
Bulgaria	2.04	2.07	2.03	1.83			22.1				5.0	3	21	09	16
Croatia	2.00	1.78	1.92	1.88			23.9				12.0	5	22	52	21
Romania	2.38	2.44	2.28	1.91			22.5				12.0	∞	24	39	28
Turkev		4.48	3.97												

* Women in this birth cohort are still in their reproductive period.

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			11	uue 2.J. 1	viorianty	uble 2.3. Mortality malcalors, selected calendar	s, seiecieu	calenda	years (m	years (in tialic, estimates)	manes				
	Infan	Infant mortality rate	y rate	Life ex _l	Life expectancy at birth,	at birth,	Life ex	Life expectancy at birth,	at birth,	Life ext	Life expectancy at age 60,	at age 60,	Life exp	Life expectancy at age 60,	ıt age 60,
					Males			Females			males			females	
	1960	1980	2003	1960	1980	2002	1960	1980	2002	1960	1980	2003	1960	1980	2003
EU-25	34.6	14.8	4.6	67.1	8.69	74.8	72.6	8.92	8I.I	15.8	16.5	9.61	0.61	20.9	23.8
EU-15	32.6	12.7	4.2	67.4	70.5	75.8	72.9	77.2	81.6	15.9	16.8	20.1	0.61	21.2	24.2
NMS-10	44.7	22.I	9.9	65.7	66.5	0.02	71.2	74.7	78.3	15.6	14.6	6.91	18.6	19.1	21.7
Austria	375	14.3	4 5	667	0 69	75.8	7 27	0.92	7 18		163	20.2		202	24.1
Delcima	3 6	; ;	; ;	1 1 1	0.00	2.00	; ;	0.07	01.1	15.5	16.5	10.2	101	1 6	23.0
Beignum	6.67	17.1	4 ن	0/./	0.07	1.07	0.67	0.0/	81.1	5.51	0.01	19.0	18./	6.07	6.67
Cyprus		14.4	4.5		72.3	76.1**		77.0	81.0**						
Czech Republic	20.0	16.9	3.9	6.79	8.99	72.1	73.4	73.9	78.7	15.6	14.3	17.3	18.4	18.2	21.5
Denmark	21.5	8.4	4.4	70.4	71.2	74.8	74.4	77.3	79.5	17.1	17.0	19.1	19.3	21.4	22.4
Estonia	31.1	17.1	8.9	64.3	64.1	65.3	71.6	74.1	77.1	15.3	14.8	15.4	19.0	19.4	21.3
Finland	21.0	9.7	3.1	65.5	69.2	74.9	72.5	9.77	81.5		15.6	19.5		20.5	24.0
France	27.7	10.0	3.9	6.99	70.2	75.8	73.6	78.4	83.0	15.6	17.3	20.6**	19.5	22.4	25.7**
Germany	35.0	12.4	4.2		9.69	75.4		76.1	81.2			19.8**			23.9**
Greece	40.1	17.9	8.4	67.3	72.2	75.4	72.4	76.8	80.7	16.9	18.2	20.1***	18.5	20.8	23.1***
Hungary	47.6	23.2	7.3	62.9	65.5	68.4	70.1	72.7	7.97			16.1			20.9
Ireland	29.3	11.1	5.1	68.1	70.1	75.2	71.9	75.6	80.3	15.8	15.9	19.2	18.1	19.5	22.9
Italy	43.9	14.6	4.3	67.2	9.07	292	72.3	77.4	82.9	16.7	16.8	20.4**	19.3	21.2	24.8***
Latvia	38.0	15.4	9.4	65.2	63.6	8.49	72.4	74.2	0.97		15.1	15.2		19.7	20.8
Lithuania	27.0	14.5	6.7	64.9	65.5	66.3	71.4	75.4	77.5	17.1	16.5	16.1	19.8	20.5	21.7
Luxembourg	31.5	11.4	4.9	66.5	69.1	74.9	72.2	75.9	81.5	15.5	15.5	19.6	18.3	19.9	24.2
Malta	38.3	15.2	5.9	66.5	68.5	75.9	70.5	72.7	81.0			19.0			23.3
Netherlands	16.5	8.6	4.8	71.5	72.7	76.0	75.3	79.3	80.7	17.7	17.5	19.5	19.7	22.6	23.5
Poland	56.1	25.4	7.0	64.9	6.99	70.4	9.07	75.4	78.7			17.1			22.0
Portugal	77.5	24.2	4.0	61.2	67.7	73.8	8.99	75.2	80.5	16.2	16.3	19.4	19.1	20.6	23.3
Slovak Republic	28.6	20.9	7.9	68.4	8.99	6.69	72.7	74.3	77.8	16.6	15.5	16.4	18.4	19.2	21.0

Slovenia	35.1	15.3	4.0	66.1	67.4	72.7	72.0	75.2	80.5			18.0			23.1
Spain	35.4	12.3	3.2	67.4	72.5	75.8	72.2	78.6	83.5	16.5	18.4	20.3***	19.2	22.1	24.9***
Sweden	16.6	6.9	2.8	71.2	72.8	7.77	74.9	78.8	82.1	17.3	17.9	20.9	19.3	22.1	24.3
United Kingdom	22.5	13.9	5.3	6.79	70.2	75.9	73.7	76.2	80.5	15.0	15.9	19.4***	18.9	20.4	23.0***
Bulgaria	45.1	20.2	12.3	8.79	68.7	6.89	71.4	74.0	75.6	16.9	16.4	16.1	18.5	18.9	19.7
Croatia	70.4	20.6	7.0*	64.3	9.99	71.2	0.69	74.2	78.3			16.2***			20.7**
Romania	75.7	29.3	16.7	64.2	66.5	67.5	67.7	71.8	74.8			16.1			19.7
Turkey	198.2	93.0	38.3												

Table 2.6. Age structure, selected calendar years (in italic: estimates)

	-	:	14016 2.	0. 71gc 3tl	uciui e, 36	table 2.0. Age stractar, selected calcidar fed s (mitalic. estimates)	ichaan yea	1 1 1 1 1 1	c. csimia		-	
	4	Median age*	6	X our	Young dependency	lency	Ĭ,	Old dependency	ncy	Tota	I otal dependency	ıncy
				ی	(0-14/15-64)	(٥	(65+/15-64)	<u></u>			
	1960	1980	2005	1960	1980	2005	1960	1980	2005	1960	1980	2005
EU-25	32.2	33.3	39.8	40	34	24	15	21	25	55	55	49
EU-15	32.9	33.8	40.3	38	34	24	91	22	26	54	55	20
NMS-10	28.5	31.0	37.4	49	36	23	II	17	20	09	53	43
;	i	į	9	;	6	Ċ	,	Č	į	Ç	,	ţ
Austria	35.4	34.7	40.6	34	32	24	18	74	24	25	99	47
Belgium	35.2	34.2	40.6	36	31	56	19	22	56	55	52	52
Cyprus	23.0	28.7	35.3	2	37	28	10	16	18	74	53	46
Czech Republic	32.8	33.0	39.0	40	37	21	13	21	20	53	28	41
Denmark	33.0	34.3	39.5	39	32	28	16	22	23	99	54	51
Estonia	32.0	33.9	38.9	34	33	23	16	19	24	50	52	47
Finland	28.2	32.8	40.9	49	30	56	12	18	24	09	48	20
France	33.0	32.5	39.3	43	35	28	19	22	25	61	57	54
Germany	34.7	36.4	42.1	32	28	22	17	24	28	49	52	49
Greece	29.1	34.2	39.7	41	36	21	13	21	27	53	99	48
Hungary	32.1	34.4	38.8	39	34	23	14	21	23	52	55	45
Ireland	29.8	26.4	34.2	54	52	31	19	18	16	73	70	47
Italy	31.3	34.0	42.3	38	34	21	14	20	59	52	55	51
Latvia	32.1	35.0	39.5	32	31	22	16	20	24	48	20	46
Lithuania	28.3	31.8	37.8	41	36	25	12	17	23	53	54	48
Luxembourg	35.2	34.8	38.1	31	28	28	16	20	21	47	48	49
Malta	23.1	30.0	38.1	99	34	56	13	15	19	79	49	45
Netherlands	28.7	31.3	39.3	49	34	27	15	17	21	2	51	48
Poland	26.5	29.5	36.5	55	37	24	6	15	19	92	52	43
Portugal	28.0	29.1	39.5	46	41	23	13	16	25	59	57	49

Slovak Republic	26.8	29.0	35.6	52	41	24	11	16	16	65	58	40
Slovenia	29.3	31.7	40.2	45	36	20	12	17	22	54	53	45
Spain	29.6	30.3	38.6	43	42	21	13	17	24	55	59	45
Sweden	36.2	36.2	40.1	33	31	27	18	25	26	51	99	53
United Kingdom	35.4	34.6	39.0	36	33	27	18	24	24	54	99	52
Bulgaria	30.4	34.2	40.6	39	34	20	11	18	25	51	52	45
Croatia*	29.4	33.6	40.6	42	31	23	11	17	56	53	49	46
Romania	28.4	30.7	36.7	43	42	23	10	16	21	54	59	4
Turkey*	19.5	19.5	26.3	78	73	45	9	8	8	85	82	53

* I IN data

Table 2.7. Population in three age groups, absolute numbers (millions)

	<u> </u>		,	(
	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	4 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: Eurostat.

Table 2.8. Old-age dependency ratio (Member States, EUROSTAT baseline variant, 2005-2050)

	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050	Growth 2005-2050
Spain	24.5	25.4	27.7	30.0	33.6	38.9	45.9	54.3	63.2	67.5	43.0
Italy	29.4	31.3	34.3	36.6	39.7	45.2	52.4	59.8	64.6	66.0	36.6
Portugal	25.2	26.5	28.8	31.5	34.7	39.0	43.4	48.9	54.7	58.1	32.9
Greece	26.8	28.0	30.3	32.5	35.5	39.1	44.3	49.8	55.2	58.8	32.0
Austria	23.6	26.3	28.1	30.3	34.5	40.8	47.1	50.4	51.5	53.2	29.6
Ireland	16.5	17.5	19.9	22.5	25.2	28.3	31.6	35.9	40.9	45.3	28.8
Germany	27.8	31.0	32.0	35.1	39.3	46.0	52.6	54.6	54.9	55.8	28.0
Finland	23.7	25.4	31.6	37.0	41.4	45.0	47.0	46.1	46.1	46.7	23.0
France	25.3	25.9	29.5	33.2	36.9	40.7	44.1	46.9	47.2	47.9	22.6
Belgium	26.3	26.4	29.1	32.2	36.5	41.3	45.1	47.2	47.8	48.1	21.8
United Kingdom	24.4	25.1	28.1	30.3	33.2	37.4	41.4	43.8	44.2	45.3	21.0
Netherlands	20.7	22.2	26.0	29.0	32.5	36.7	40.3	41.6	40.2	38.6	17.9
Denmark	22.6	24.8	28.7	31.2	33.8	37.1	40.4	42.1	42.0	40.0	17.4
Luxemburg	21.2	21.6	22.8	24.7	27.7	31.5	35.1	36.7	36.6	36.1	15.0
Sweden	26.4	28.0	32.0	34.4	36.5	38.5	40.6	41.5	41.2	40.9	14.5

Source: Eurostat, IAS

Table 2.9. Households, around selected calendar years (in italic: estimates)

Table 2				elected ca					
	Averag	e househo	ld size	% one p	erson hous	seholds	% hous	seholds wi	th 5 or
_								ore persor	
	1960	1980	2001	1960	1980	2001	1960	1980	2001*
EU-25	3.3	2.8		16	21				
EU-15	3.2	2.8	2.4	16	22	28	21	13	
NMS-10	3.5	3.1		15	18				
Austria	3.0	2.7	2.4	20	28	29	17	13	
Belgium	3.0	2.7	2.4	17	23	29	16	11	
Cyprus	3.9	3.5		11	10		37	25	
Czech Republic									
Denmark	3.0	2.5	2.2	20	29	37	15	7	
Estonia									
Finland	3.3	2.6	2.1	22	27	37	25	10	
France	3.1	2.7	2.4	20	25	31	20	12	
Germany	2.8**	2.4**	2.1	21**	31**	35	14**	8**	
Greece	3.8	3.1	2.6	10	15	22	32	17	
Hungary	3.2	2.9		15	20				
Ireland	4.1	3.8	3.0	13	17	21	35	32	
Italy	3.6	3.0	2.6	11	18	23	27	15	
Latvia									
Lithuania									
Luxembourg	3.3	2.8	2.5	12	21	26	19	12	
Malta	4.2	3.3		11	13		37	19	
Netherlands	3.2	2.5	2.3	12	22	33	27	12	
Poland	3.6	3.2		16	17				
Portugal	3.8	3.4	2.9	11	13	15	29	21	
Slovak Republic									
Slovenia									
Spain	3.8	3.4	3.0		10	15		26	
Sweden	2.8	2.3	2.0	20	33	40	13	6	
United Kingdom	3.1	2.7	2.3	13	22	30	16	11	
Bulgaria	3.9	3.2		6	17				
Croatia									
Romania									
Turkey	5.7	5.2		3	6				

^{*} Not yet available.

Source: Council of Europe (1990); Van Imhoff et al. (1995).

^{**}FRG.

Table 2.10. Marriage indicators, women, selected calendar years (in italic: estimates)

	M	ומחוב	Table 2.10. Martidge malcalors, Women, selected calendar years (in hair: estimates)	age manca	iors, worns	en, seiecieu	T-1-1	cars (mm	auc. estaman		11.	
	Mean a	Mean age at mst marriage	тападе	% O	% of inst marriages	ages	I Otal I	i otal tirst marriage rate	e rate	% ever II	% ever married by generation	eneration
	1960	1980	2002	1960	1980	2002	1960	1980	2002	1945	1955	1965
EU-25	23.9	23.1	27.2	92.5	87.6	81.8		9/	57			18
EU-15	24.1	23.3	27.8	92.9	87.8	8I.I		73	57		88	62
NMS-10	22.3	22.2	24.9	90.2	86.4	85.1		98	53			87
Austria	24.0	23.2	27.4	87.3	85.3	74.2	103	77	50	87	83	9/
Belgium	22.8	22.3	26.7	91.0	8.68	75.0	105	77	46	93	88	81
Cyprus		23.3			9.92	80.1						
Czech Republic		21.5	25.2	87.3	9.77	74.6		78	48			94
Denmark	22.8	24.6	29.6	9.98	73.9	72.7	101	53	73	94	84	77
Estonia		22.6	25.5			69.2		94	42			
Finland	23.8	24.4	28.5	91.3	87.1	77.1	96	29	2	91	82	73
France	23.0	23.0	28.1**	90.5	9.88	83.3**	103	71	**09	92	98	73
Germany	23.4	22.9	27.2**	89.1	82.0	71.3**		69	54**		87	77
Greece	25.2	23.8	26.6***	96.5	95.3	89.2***						92
Hungary	21.9	21.3	25.5			78.3	100	68	47			68
Ireland	27.6	24.7		7.86	99.1			75			87	8
Italy	24.8	23.9	27.4**	6.86	8.76	94.6***	86	78	64**	93	94	83
Latvia		22.8	24.8		74.9	73.1		26	4			
Lithuania			24.1		82.4	7.67		94	54			
Luxembourg			27.7	94.3	6.78	9.92			50			75
Malta				98.5	9.86				73**			
Netherlands	24.2	23.2	28.2	93.2	0.68	75.3	105	89	28	94	88	78
Poland		22.5	24.4			7.06		68	57			88

Portugal	24.8	23.1	25.9	7.76	95.2	91.9		98	99			96
Slovak Republic	21.8	21.9	24.6			88.7			50			68
Slovenia		22.5	27.4			89.7		79	43			73
Spain	26.1	23.5	27.8***	7.86	99.2	94.6***		9/	63***		87	85
Sweden	23.9	26.0	30.1	88.7	79.4	76.3		52	49	87	73	61
United Kingdom			27.2***	200.7	76.3	20.6**			54***		92	78
Bulgaria	21.7	21.2	24.5	88.0	9.98	89.2		76	47			93
Croatia			25.5			91.0	06	79	***59			
Romania		22.0	23.8		87.5	85.5		102	99			93
Turkey												

*2002 **2001 ***2000.

Table 2.11. Divorce indicators, selected calendar years (in italic: estimates)

		otal divorce r	<i>ected calendo</i> ate		uration of ma	
	1,	Juli di voice i	acc	TVICUIT G	divorce	arrage at
	1960	1980	2003	1960	1980	2002
EU-25		20	32			12.3
EU-15	8	20	33		11.6	12.5
NMS-10		22	30			11.8
Austria	14	26	43	9.2	9.5	11.1
Belgium		21	54*		13.6	12.8
Cyprus		4	23			13.4
Czech Republic	16	31	48			11.3
Denmark	19	40	47		11.1	11.1
Estonia		50	48*			10.1
Finland	11	28	51	10.6	12.0	12.5
France	9	22	43*		12.2	13.3*
Germany	12	25	41***	9.4	9.7	12.1*
Greece		10	18***		15.1	11.4***
Hungary	18	29	42			10.9
Ireland						
Italy		3	13*		20.4	16.7***
Latvia		54	32			10.2
Lithuania	7	32	42			11.0
Luxembourg	7	26	48	12.8	12.0	12.4
Malta						
Netherlands	7	25	33		12.8	12.8
Poland	7	14	20			12.3
Portugal	1	8	39*	18.5	16.0	12.5
Slovak Republic	7	18	32			12.0
Slovenia		16	24			12.8
Spain			10*			
Sweden	16	42	54		12.0	11.8
United Kingdom		39	43***		12.1	12.2***
Bulgaria	10	18	26			10.2
Croatia		15	17			11.8
Romania	20	21	21			10.2
Turkey		5	9			

^{*2002 **2001 ***2000.}

3. Education, employment and the life course

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3.1. Highlights

The time spent in the labour force decreased for men on average around 5 years in EU-15 (1970 - 2003) as well as in the ten new Member States (NMS-10) and the three candidate countries (CC-3) (1991 - 2003). Whereas for women in EU-15 a marked increase of around 10 years could be observed, women in the NMS-10 as well as in the CC-3 reduced their time spent in the labour force by 4 respectively 7 years. These trends were influenced by

- decreasing labour force participation of young people caused by higher participation rates in schools with higher education level and universities
- decreasing labour force participation of older workers caused by early retirement and other social benefits which can be used to bridge the period between withdrawal from the labour force and the first date of pension receipt
- increasing labour force participation of middle aged women in EU-15 caused by changes in employment behaviour and an increasing share of women with higher educational attainment.

Additionally the total hours spent in employment were influenced by

- decreasing weekly working hours of male employees,
- increasing weekly working hours of female employees, in particular for middle aged women and mothers in the old Member States,
- an increasing share of temporary employment.

This has to be kept in mind for the assessment of the total time active people spend on average in the labour force.

During the last three decades most industrialised countries have experienced a remarkable increase in the educational attainment of the labour force and this is expected to continue over the coming decades. The rise in educational attainment among the working-age population in the EU will in part result from the shift in the composition of this population. But the projected increase in attainment will accrue due to an increase in the educational enrolment of the younger generations and thus be conditional upon a corresponding rise in the supply of educational services.

Whereas increasing educational attainment is an important determinant of the transition to lower fertility in the less developed countries, trends in fertility among the EU countries seem to depend on educational attainment to a lesser extent and more on socio-economic factors.

3.2. Demographic developments and educational attainment

Education plays a key role in national development, besides being a prime component of individual well-being. Through education, individuals are empowered to have choices and make decisions, in such areas as work, place of residence, family size, health and lifestyles, and personal development. These individual choices and decisions have dramatic societal consequences. The right to education is proclaimed in the Universal Declaration of Human Rights (1948), and the importance of education with respect to population and individual development has been strongly endorsed by the governments (United Nations, 2003).

During the last three decades, most industrialized countries have experienced a remarkable increase in the educational attainment of their labour force. The average skill level is expected to increase further in the coming years as younger (and more educated) cohorts progressively replace older (and less educated) ones. In spite of this, returns to skills have also increased substantially in countries such as the US, the UK and, to a lesser extent, Canada. By contrast, in most countries of continental Europe, the skill-premium has remained constant or has decreased as in France (Croix and Docquier, 2003).

The interfacing between demography, educational attainment and economic development is, indeed, a three-way cause-effect relationship with a huge problem of identification of the direction of causality and the causes of a specific correlation. However, in a broad comparative analysis (whether between or within countries and between social groups):

- The higher the average level of educational attainment and literacy the lower the total fertility rate, the later the first marriage and the later the birth of the first child:
- The higher the level of educational attainment, the higher the life expectancy;
- The higher the level of educational attainment the higher the per capita income level.

3.2.1. Projections of educational attainment

Projections of educational attainment over the coming decades suggest that the pure demographic effects on educational attainment in the EU will be relatively small. In fact, as shown in a study by DG ECFIN (Montanino et al., 2004), the largest contribution to a likely increase in educational attainment in the EU over the coming decades is projected to accrue as a result of an increase in enrolment in upper-secondary and tertiary education.

In fact, for EU-15 as a whole (data for the new Member States are not yet available) the average level of educational attainment for the population aged 25-64 is projected to increase from 11.1 years of schooling in year 2000 to 13.8 in 2050 or by 2.7 years. The increase in educational enrolment would account for 1.6 years while pure demographic effects (with constant enrolment for the younger cohorts) would account for the remaining 1.1 years. However, the demographic effect would in itself be influenced in two different directions: an increase in the average enrolment will result from the fact that the elderly cohorts with a lower level of educational attainment are progressively replaced by cohorts with a longer period of schooling. On the other hand, due to the decline in fertility, the younger cohorts with a higher educational attainment will be smaller and thus weigh less in the average for the 25-64 year olds. According to the DG ECFIN estimates, this latter effect will however be small in proportion to the effect of the cohorts with a lower number of years of schooling being progressively eliminated from this calculation (*Table 3.1*).

Among EU Member States the scope for increase in educational attainment over the long-term will of course be considerably larger in countries where the initial level is comparatively low. The rise in educational attainment due to increase in years of schooling thus ranges from a low of 0.48 and 0.73 years in Finland and Sweden respectively to 2.02 in Portugal where the starting point in 2000 was only 8.3 years. However, as underlined in the DG ECFIN study from which this information is extracted, for some countries with a high level of schooling already (notably Sweden and Finland) the future gains will be more limited.

Despite an increase of three years in the average duration of schooling in EU-15 from 1960 to 1995 the gap of about 2 years vis-à-vis the United States in 1960 was hardly reduced during the following 35 years as the latter rose almost at the same rate with little sign of slowdown. The shortfall of duration of schooling in the EU as compared to the United States may therefore not be much reduced over the coming decades.

3.2.2. Educational attainment and fertility

The average level of education in a population has been shown to be of central importance for the long-term demographic transition from high to low levels of fertility. Caldwell (1980), in particular, has maintained that high levels of fertility would nowhere persist for long once a society had achieved "mass education", that is to say, once a large majority of children were sent to school. More recent studies have generally underpinned this observation (Lloyd, Kaufman and Hewett, 2000).

In fact, educational attainment is strongly related to differences between countries in levels of fertility and mortality. In general, such cross-national associations may reflect both the effects of education on demography and the effects of demographic factors on education, as well as the joint effects of other factors that may separately influence both education and demographic variables. Differentials in fertility by educational level appear in both more and less developed countries. However, in the more developed countries fertility differentials by education exhibit two major differences from those found in the developing countries. First, the gap in completed fertility between women in the lowest educational group and those in the highest educational group is smaller in developed countries than in developing countries —usually less than 1 child—an outcome related to the overall low level of fertility in the developed countries. Second, fertility differentials by education have become less pronounced in many countries, such as Canada, Belgium, Hungary, Italy, Latvia, Norway,

Portugal, Slovenia, Spain and Sweden, where women in the highest educational group (with a post-secondary degree) in fact have a number of children that is equal to or even greater than the number of children of women in the intermediate educational group (with a secondary school diploma).

In Eastern Europe and the other countries of the former Eastern bloc, the difference in completed fertility between women in the highest educational category and women in the lowest educational category is about 1 child or less. In the other developed countries, education affects current fertility mainly through its influence on the timing of first births: more educated women have a lower number of children at the time they are interviewed because they have had their first birth at a later age. For example, in Italy in the 1990s, the mean age at first birth among women aged 35 years or over was 22.5 in the lowest educational group compared to 28.2 in the highest educational group. In Spain, the corresponding ages were 24.4 and 25.8, respectively. In the Scandinavian countries, the mean age at first birth varied from a range of 21.0 to 21.7 in the lowest educational group to a range of 25.4 to 25.7 in the highest educational group.

Education also exerts a significant influence on childlessness in the developed countries, except in countries with economies in transition. Thus, in Northern America, Southern Europe, Western Europe and, to a lesser extent, Northern Europe, more educated women have a greater probability of remaining childless compared with women with a lower level of education.

Whereas there is a large (negative) correlation between educational attainment and fertility over a wide range of economic development, the projected increase in the years of schooling between 2000 and 2050 should perhaps not be expected in itself to lead to a further decline in the already low level of fertility in a number of EU countries. In fact, within the EU the fertility rate is already low in the countries with the lowest level of years of schooling (Portugal, Spain, Italy and Greece) and still comparatively high in the countries with the longest duration of average schooling. Consequently, within the EU the level of educational attainment does not (at least not any longer) exert a strong influence on the average rate of fertility.

3.2.3. Educational attainment and longevity

As underlined in the UN's "Concise Report" (United Nations, 2003) education is a strong predictor of the health and mortality experience of individuals and

their households in developed countries. Education differentials in health and mortality exist in all societies, irrespective of development policies, health-care systems or mortality levels. Education differentials in health and mortality are also not limited to particular ages, although the evidence discussed relates to adults.

In Denmark, Norway and Sweden, differentials with respect to the correlation between mortality and educational attainment are relatively small; they are larger for England and Wales, Finland, France and Italy (Kunst and Mackenbach, 1994). Data for Finland for the period 1971-1995 indicate a sixyear survival advantage of men with tertiary education over men with only primary education (Valkonen, 2000). Evidence for France for the period 1976-1980 suggests that men who were poorly educated experienced a 50 per cent higher mortality than more educated men.

An apparent difference between the United States and Europe is that in the United States, years of schooling affect equally the mortality of men and women, while in European countries mortality for males appears to be more responsive than that for females to additional education. There are large gender differentials in life years gained from an additional year of education for Denmark, Hungary and Sweden. In all cases, except England and Wales, males gain more longevity from an additional year of education than females. At each level of education, however, the death rates for males remain well above the death rates for females.

Cardiovascular disease is one factor closely associated with the persistence and widening of education differentials in mortality in developed countries. Martikainen *et al.* (2001), analysing social class differentials in mortality in Finland between the 1970s and the 1990s, showed that there was a slower rate of decline in mortality from cardiovascular diseases among those working in manual occupations. Education was also found to be a stronger determinant of cardiovascular disease than income or occupation and the relationship is particularly strong among women (Winkleby *et al.*, 1992). This suggests that prevention through better education is still an important source of improvements in the health status of the population.

Given the strong evidence of a positive correlation between educational attainment and longevity, the projected increase in the former in the EU over the coming decades should, other things being equal, contribute significantly to

sustaining the rise in longevity. As stressed a large part of the morbidity in the more developed countries is dependent upon life styles (smoking, drinking, bad nutrition and sedentary life) and appears to be closely related to the level of education. However, the demographic projections by Eurostat and the UN are based on assumptions on increased longevity which no doubt already incorporate at least implicitly a hypothesis concerning an increase in educational attainment. Taking the latter explicitly into account would therefore not be expected per se to justify changes in the assumptions concerning longevity. However, there may well be a need for a deeper analysis of the *timing* of the further increase in longevity in relation to the projected rise in educational attainment.

3.2.4. Education and the life course

One important effect of the projected lengthening of the duration of schooling in EU Member States will be a corresponding shortening of the duration of active life, unless accompanied by a corresponding increase in the effective age of retirement. The order of magnitude of the increased duration of schooling, 2.7 years on average for EU-15 and possibly somewhat longer for the new Member States, corresponds to more than half the increase of some five years in the effective age of retirement required to ensure sustainability of the systems of old-age income maintenance over the coming decades. An important issue is, therefore, whether this projected increase in the duration of schooling will have, as its counterpart, an increase in the productivity and incomes providing the resources needed to compensate the lowering of the duration of working life. If this were not to be the case the postponement of entry into active life would need to be accompanied by a corresponding postponement of retirement, coming *in addition* to the postponement of retirement needed to ensure sustainability of the pension schemes.

Fortunately, as argued by Montanino *et al.* (2004), there is evidence (notably provided or reviewed by De la Fuente and Antonio Ciccone (2002) in a report to DG EMPL) that the addition of years of schooling may exert a positive impact on the level of GDP. Thus according to a number of estimates one extra year of schooling (corresponding to some 2-3% of a normal working life) would boost productivity (GDP per employed) by up to 5-6% and more than compensate for the shortening of the duration of the working life.¹¹

It should be underlined in this context that the average duration of schooling in the United States even in year 2000 was some 2 years longer than the average for EU-15

Montanino *et al.* (2004), however, also underline (i) that the future impact on productivity and growth of the rise in the number of years of schooling depends also on the quality and efficiency of education, (ii) that there may be a declining rate of return on the duration of schooling and (iii) that, consequently, additional years of schooling in countries where the level is already high may not provide as large a boost to productivity as in countries where the level is still relatively low.

3.2.5. Summary and conclusions

Educational attainment, that is, years of schooling and the quality of education, is an important determinant of economic growth and productivity *and* of the demographic transition to lower fertility and mortality. During the last three decades most industrialised countries have achieved a remarkable increase in the educational attainment of the labour force and this is expected to continue over the coming decades. The average duration of schooling in the EU is expected to increase by close to 3 years between 2000 and 2050 but likely to remain lower than that of the United States where the educational attainment shows no sign of slowing down.

The rise in educational attainment among the working-age population in the EU will in part result from the shift in the composition of this population as the younger generations with a higher level of schooling years gradually replace the generations with a lower attainment. However, the projected increase in attainment will for about two thirds accrue due to an increase in the enrolment of the younger generations and thus be conditional upon a corresponding rise in the supply of educational services.

The level of educational attainment clearly is an important factor in the profile of demographic transition in the less developed countries and also in the past in the more developed part of the world. In particular, both the transition to lower fertility and the shift to lower mortality both for children and adults appear to be intimately conditioned upon an increase in the educational attainment of the adult population. This relation would also seem to hold even among and within the highly developed countries as far as morbidity and mortality is concerned. However, the more recent decline in fertility in a number of European countries does not seem to be closely related to changes in the level of education: in fact,

and that, consequently, the average age of entry into the labour market in the United States is correspondingly higher.

fertility is still comparatively high in some EU countries with the highest level of educational attainment and is also still high in the United States, which, as indicated, remains well ahead of the EU as far as the duration of schooling is concerned.

3.3. Trends in labour force participation

Global trends

The labour force participation of *men* decreased over the last three decades in all EU-15 countries (with the exception of Denmark and Sweden), and in the last decade also in the ten new Member States (NMS-10) (with the exception of Cyprus) and in the three candidate countries (CC-3). The decline accounts for 10%-points between 1971 and 2003 on average in EU-15, and for about 9%-points between 1991 and 2003 in the NMS-10 and the CC-3 (*Figure 3.1*). However, variation is large: Poland (-18%-points) and Portugal (-17%-points) experienced the highest decline while Denmark and Sweden show increases of 4%-points and 3%-points respectively. In 2003 around two thirds of the male population aged 15+ participated in the labour market in EU-15, while the activity rate in the NMS-10 was a bit lower (64%). But the range in the participation rates is still broad: Denmark has the highest activity rate with 82% and Bulgaria the lowest with 55% (*Figure 3.2*).

Whereas the global trends of labour force participation of men were nearly the same in all 28 countries, the development of the activity rates of *women* showed different trends in EU-15 and NMS-10. In the early 1970s on average only one third of the women aged 15+ participated in the labour market in EU-15, but over the intervening years the activity rates have markedly risen, on average about 14%-points, i.e. an increase of around 43%. The highest increase was observed in the Netherlands and Portugal (around 30%-points), the lowest in Finland (8%-points). Due to the former soviet system, the participation of women in the labour market has been traditionally high, but during the last decade the activity rates declined as a result of changes in the economic and political situation, on average about 7%-points (*Figure 3.3*). In 2003 48% of women aged 15+ participated in the labour force in EU-15. The activity rates were in NMS-10 a bit higher with 49% and in CC-3 with 34% significant lower (*Figure 3.4*).

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Young people

The global trend of declining labour force participation for *men* was mainly caused by developments in the younger and older age groups, whereas only moderate changes were observed for middle aged men. This is true for EU-15 and NMS-10, whereas developments in CC-3 show the same developments for the younger age groups, but there were hardly any changes in the older age groups (*Figure 3.5*). Three decades ago the labour force participation of men aged 15-24 years was on average around two thirds in EU-15, with values ranging from 85% (Portugal) to 47% (Greece). The activity rates of young men declined on average to nearly 50% in 2003 (EU 15). NMS-10 and CC-3 showed similar trends between 1991 and 2003. In NMS-10 one can observe a decline from 53% to 39% and in CC-3 from 71% to 47% (*Figure 3.6*). Significant variation remains across countries: activity rates range from 72% (Netherlands) to 29% (Luxembourg).

Similar to men the activity rates of young *women* have on average declined in the EU-15 (since 1970), as well as in NMS-10 and in CC-3 (since 1991), but with 6%-points the EU-15 changes were only moderate (the NMS-10 and CC-3 changes were similar as for young men). Despite the same global trends in young female labour force participation great differences across countries exist. Some countries showed —contrary to the global trend—increasing labour force participation for young women (Denmark, Finland, Sweden as well as the Netherlands, UK, Spain and Cyprus) and some showed marked declines (more than 20% in Belgium, Luxembourg, Turkey, Hungary, Bulgaria) (*Figure 3.7*). In 2003 the activity rates of young women ranged from 70% in the Netherlands to 25% in Belgium (*Figure 3.8*).

One can trace back the global trend of declining labour force participation of young people to increasing shares of higher educated people. In the past the share of young people enrolled in higher education or universities increased markedly. In many Member States young people begin their transition to work later (OECD 2005a, p. 320). In some countries it is common to work during study (Denmark, Sweden, Germany). The share of people aged 25 to 34 with tertiary education on average increased in the OECD countries from 20% in 1991 to 28% in 2002 (OECD 2005b, p.74/75). Finland and Sweden showed the highest share of young people with tertiary education, around 39% in 2002 (*Figure 3.9*). Compared to older cohorts (55-64 years) one can observe marked increases of higher educational attainment in Spain (27% increase), followed by Ireland (+23%) and Belgium (+20%).

Whereas the increasing share of women attending higher education or university led to a decrease in activity rates in the age group 15-19, the global trend of increasing labour supply of women led to increasing activity rates in the age group 20-24. Both effects together of course influenced the developments in the age group 15-24. In some Member States the global trend of increasing labour market participation dominated the decreasing 'educational effect'.

As a result the time young people aged 15-24 spend in the labour force decreased on average from 6.7 years in 1970 for men to around 5 years in 2003 in EU-15, and from 5 years in 1970 to 4.3 years in 2003 for women. The same trend is observed in NMS-10 and CC-3 in the last decade. In 2003 young men spend around four years in NMS-10 and around five years in CC-3 in the labour market, women three (NMS-10) and 2.7 years (CC-3) respectively.

Education and employment

Higher educational attainment of young cohorts does not only affect the labour force participation of young people, but also of workers aged 25+. Higher educated people participate more in the labour market (markedly higher employment rates and lower unemployment rates). This is true for both men and women, but the differences are significantly higher for women. In 2001 the labour force participation of men aged 25-64 varied between 77% (below upper secondary level) and 93% (tertiary education type A), while the activity rates of women lay on average between 50% (below upper secondary education) and 83% (tertiary education type A) in the OECD countries (OECD, 2003). Whereas the differences between the educational levels continued over the last decades, no global trend in participation rates in a single educational level could be observed.

For selected countries one can show the variation in labour force participation by educational attainment, gender and age group: a Nordic country (Sweden) with traditionally high female labour force participation, a Southern country (Italy) with traditionally low female labour force participation and a country between these two extremes (Germany) with remarkable changes in the labour force participation of mothers. In all countries labour force participation is higher for higher educated people, in particular for women. But the differences in female labour force participation between the education levels are significantly higher in Italy than in Sweden (*Figure 3.10*). The total labour force participation of low educated women in Italy was 22% as against 77% for high educated women in 2003, whereas the difference in Sweden was 58% to 86%

and in Germany 28% to 75%. Thus, the time women spent in the labour force ranges from 18 to 35 years in Italy, from 32 to 38 years in Sweden and from 26 to 36 years in Germany. The variation by educational level for men is not as high as for women, but also higher educated men spend more years in the labour force (around four more years in Italy and Germany and one in Sweden in 2003).

Older workers

The reduction in the participation rates for older workers had an important effect on the total labour force participation and therefore on the total time spent in the labour force. The participation rates of *men* aged 55+ changed considerably in the last three decades with the highest declines in the age group 60-64 (*Figure 3.11*). In the early 1970s labour force participation of men aged 55-59 lay in EU-15 at 83% on average and has decreased since to 73%, the activity rates of men aged 60-64 decreased from 64% to 37% and of men aged 65+ from 17% to 6% (EU 15). A declining trend is also observed in the last decades in NMS-10 and CC-3. As a result the activity rates of men aged 55-64 were lower in these countries than the average in EU-15 in 2003. Beside the global declining trend, large cross-country variation still existed in participation rates in 2003. Men aged 55-59 years in Denmark show the highest rates (85%), men in Slovenia the lowest (48%). The activity rates for men aged 60-64 range from 64% in Sweden to 13% in Slovenia and for men aged 65+ from 26% in Portugal to 2% in Slovenia (*Figure 3.12*).

The substantial decrease in the labour supply of older male workers in the last three decades resulted from the lower average retirement age and the decreasing share of self employed persons. The trends in early retirement are discussed in section 3.4 and Chapter 4. The share of self employed persons accounted for 26% in the age group 55-59 and for 36% in age group 60-64 in EU-15 in 1983 and declined to 23% respectively 33% in 2003. The downward trend of labour force participation of older workers seems to have stopped recently. Between 2001 and 2003 participation rates increased in the EU Member States (with the exception of Austria, Portugal and Poland).

Whereas male labour force participation in the three age groups decreased over the longer run, participation rates of *women* in the older age groups did not show a general trend. The activity rates of women aged 55+ decreased between 1970 and 1991 and increased over the last decade. In 2003 the activity rate was with 14.5% a bit higher than in 1970 (EU-15). This development results from

different trends in the single age groups. The age group 55-59 in all EU-countries is characterised by an increasing trend, whereas the 60-64 age group shows a decrease over the first 20 years and afterwards an increase in female labour supply. The activity rates of age group 65+ decreased (*Figure 3.13*). In NMS-10 and CC-3 the female labour supply decreased over the last decade, too, but participation is still higher than in EU-15. Beside the changes in the average retirement age the general increase in the labour force participation of women led to this EU-15 trend. But, as for men the participation rates have increased in most EU-countries more recently. In 2003 the activity rates ranged from 79% (Sweden) to 20% (Slovenia) in the age group 55-59, from 56% (Sweden) to 4% (Slovakia) in the age group 60-64, and from 16% (Romania) to 0,7% (Luxembourg and Belgium) (*Figure 3.14*).

The recent increase in labour force participation may be the result of changes in regulations in the social security systems. In Germany for example the possibility to get disability pension was restricted, the regular retirement age of women and unemployed people raised stepwise and replacement levels¹² were not met. Therefore, more older people stay in the labour market.

The time older male workers (55+) spent in the labour force declined in all Member States, on average in EU-15 from 8.2 years in 1970 to 5.8 years in 2003, whereas it increased for women from 2.8 years to 3.5 years. In the last three years the time spent in the labour force increased for both men and women by around 0.3 years. The declining trend was also observed in NMS-10 and in CC-3 in the last 10 years. But, as for the old Member States the downward trend seems to have stopped in the last years.

3.4. Trends in early retirement

Both for men and women the average age at retirement decreased markedly in the last decades. Whereas the standard EU retirement age (normal age for being entitled to a regular old-age pension) lay between 60 and 65 for men and between 55 and 65 for women, the effective retirement age is lower. Blöndal and Scarpetta (1998) estimated the average withdrawal age from the labour force over the long run with a static approach and Scherer (2002) with a dynamic approach. Both models show a decline in the age at retirement, but in

Replacement levels: the extent to which 'pensions' enable beneficiaries to maintain their previous living standard.

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general the dynamic estimates show higher retirement ages for women and lower for men than the static model. EUROSTAT started to calculate average exit ages from the labour force in 2001 using a dynamic approach similar to Scherer: the average exit age was 61.5 for men and 60.5 for women in EU-25 in 2003 (*Figure 3.15*). Contrary to the trend in the past decades an increase in the age at retirement is evidenced in more recent years.

Incentives for early retirement are related to early retirement options in the statutory pension schemes, but also to other social benefits, such as unemployment benefits for older workers, working incapacity benefits or means tested social assistance benefits. Most of the EU public pension schemes include early retirement arrangements often subjected to a minimum number of insured years and reductions in pension benefits according to the time period the pension receipt has been advanced relative to the standard pension age (*Scheme 3.1*). Some pension schemes have special early retirement options for disabled or unemployed persons. But Casey *et al.* (2003) showed for selected EU-countries that there are no financial incentives for retiring before 60 and that the picture is mixed for the age group 60 to 65.

Beside early retirement options social benefits can be used to bridge the period between withdrawal from the labour force and pension receipt. The Social Protection Committee (2004, p. 15) finds that unemployment benefits tend to take the place of early pensions in many EU Member States. Mostly special rules for the unemployed elderly exist: they receive more generous benefits and/or for a longer period, and often they do not have to be available for work. Additionally, working incapacity is a major reason for an early exit from the labour force. Of men aged 60-64 10-20% receive invalidity pensions (Social Protection Committee, 2005, Table 8). Differences in invalidity rates reflect differences in benefit systems, entitlement conditions and labour market opportunities for older workers, but mostly not differences in the health status of the elderly. Based on econometric analyses of retirement incentives Casey *et al.* (2003, p. 18) confirm that disability schemes encourage early retirement.

Thus, early retirement policies obviously led to falling retirement ages from the 1970s to the early 1990s. But more recently retirement policies have changed. Due to population ageing and the foreseen financial problems in the statutory pension schemes Member States often react by raising standard retirement ages and restricting access to special early retirement schemes and other pathways to labour force withdrawal before the standard age at retirement. Nevertheless,

social benefits other than public pension schemes still set considerable incentives to early retirement.

3.5. Labour force participation of middle aged women

Housework as well as family work (child care and nursing care for older family members) were and remain to be mostly a task for women. Female employment rates seem to be adversely related to family work, but significant differences in female labour force participation rates in the middle age groups exist across EU Member States. The focus on age group 30-44 is related to the average age at childbearing, which is 29 years in the EU. So, women in these age groups often have small children in need for care. The connection between child care and employment will be discussed in the next section. Here the development of labour force participation, the changes in the contribution of middle aged active women to the total female labour supply and the average time middle aged women spend in the labour force will be discussed.

The activity rates of women (30-44) increased in the last three decades from 40% to 76% in EU-15 on average. Also the changes in the age group 25-54 were significant (*Figure 3.16*). In the early 1970s the EU-countries could be divided into a share with low participation rates (Belgium, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain and Cyprus) and another share with relatively high participation rates (all others). Over the last three decades the participation rates increased significantly in all Member States and the differences between countries narrowed (*Figure 3.17*). For example, the labour force participation rate in Spain was 14% in 1971 and increased to 69% in 2003. Another example is the Netherlands with an increase from 22% up to 78%. The participation rates lay between 85% (Denmark) and 64% (Italy) in EU-15 in 2003 and between 89% (Lithuania) and 39% (Malta) in NMS-10.

The figures show that, with regard to the labour force participation of women, in EU-15 a substantial change in the behaviour and in the position took place, in particular for mothers. Changes in family policies and other related policies may have had an effect, too (Jaumotte, 2003). Unlike their mothers or grandmothers, young women take the compatibility of motherhood and work for granted, also in the traditionally family oriented southern EU Member States. Additionally, the proportion of childless women increased rapidly in younger cohorts (see Chapter 2), and childless women have higher participation rates than mothers.

In the countries with a former soviet system also the labour force participation of women with young children was high. Child care was organized by the state or the employer, and mostly full time care was available. The changes in the political and economic system led to reduced labour force participation rates, not only, but also for middle aged women. We may assume that the possibilities for child care were reduced and that the costs for child care day centres were raised, so that more women decided to start caring for their children themselves.

The increase in labour supply of middle aged women changed the contribution of middle aged women to the total female labour supply. In EU-15 the share of active women to the female labour supply has risen from nearly 30% in 1970 to 42% in 2003. This cohort effect was nearly the same for all EU-15 Member States, and the differences between the countries narrowed in the last three decades. In 2003 Belgium showed the highest share of middle age groups in the female labour supply, around 81%, and Finland the lowest with 36%. In NMS-10 the changes in female labour force participation led to a decline in the contribution of the middle age groups to the total female labour supply. In CC-3 no clear trends exist. Whereas in Turkey the share increased over the cohorts, Bulgaria showed a decreasing trend and Romania no clear trend (*Figure 3.18*).

As a result of the growing labour supply of women, the years spent on average in the labour force for women aged 30-44 nearly doubled (from 6 to 11.3 years) between 1970 and 2003 in EU-15. In particular in the southern Member States the increase in years spent in the labour force was markedly higher than in EU-15. In Spain, for example, in 1970 women aged 30-44 spent only 2 years, and in Portugal 3.5 years in the labour market. This changed rapidly to 10.3 years in Spain and 12.5 years in Portugal (2003). Whereas the time spent in the labour force was nearly the same in the last decade in NMS-10 (around 12 years), the years spent in the labour force decreased in CC-3 from 9 years in 1991 to 6.6 years in 2003 (*Figure 3.19*).

3.6. Women, employment and childcare

To meet the challenges of ageing societies, as part of the Lisbon Strategy, the European Union is aiming at a 60% female employment rate in 2010.¹³ A higher participation of women in the labour market would have a positive effect on

Other related targets are a 57% female employment rate in 2005 and 33% available childcare for children under 3 in 2005 and a target of 90% for children over 3 in 2010.

Europe's social systems and reduce gender inequality (see for example EU, 2002). Reducing discrepancies between actual and preferred employment patterns of women could lead to the desired increase in female employment (Jaumotte, 2003). The male breadwinner model seems, for example, to be more common among young parents than desired.

Thus, it is of crucial importance to identify the main reasons for these discrepancies (Anker, 1997). Women's labour market position is still disadvantageous: for example, women earn less than men, more often than men they work in insecure jobs and unstable employment relations, and they have more responsibilities for childcare.

Children¹⁴ are a very important factor negatively affecting female labour market performance (Uunk *et al.*, 2003; Stier and Lewin-Epstein 2001, Van der Lippe 2001). In most ECHP countries¹⁵ mothers participate in the labour market to a lesser extent (*Figure 3.20*) and work less hours than childless women (*Figure 3.21* and *Tables 3.2-3.5*). This result holds for all countries except Denmark and especially for the age group of 25-54 years.

A cross-country comparison detects large differences. While for example relatively few Portuguese mothers decide to stay from the labour market, working mothers work nearly as much as women without children. The opposite holds for the Netherlands, where relatively high numbers of mothers withdraw from the labour market. Those who do work report reduced working hours compared to childless women. One reason is the flexibility of the Dutch labour market. Germany, Ireland, and the UK also exhibit large differences in working hours between mothers and childless women in the age group 30-44 years. This gap between mothers and childless women increases with the number of children. *Figure 3.22* shows the variation in labour force status for women aged 30-44 by number of children.

In general, the pattern of employment behaviour is as expected: full time employment declines while part time employment increases. The non-active

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Family responsibilities are the most important reasons for inactivity in Europe. Half of the inactive women between 25 and 54 are inactive due to family reasons. Only one third of them do not intend to take up a job in the future.

¹⁵ European Community Household Panel (ECHP) (see for details Eurostat, 1996).

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population increases as well.¹⁶ Portugal and Denmark still have high full time employment rates while the Netherlands, Germany, the UK and Ireland show relatively low rates of full time but higher rates of part time employment which corresponds to the averages of working time in Figure 3.21.

The mean age of first motherhood in the ECHP sample is relatively similar across countries. The effect of first childbirth on employment status however varies: On the one hand, for Germany, a sharp and persistent decrease of women's labour market participation after first childbirth (60%) and a decline in average weekly working hours by seven is observed. Portugal, Belgium, Italy and Greece on the other hand exhibit small differences between the status before and after first childbirth.¹⁷

To quantify the effect of children on women's labour market behaviour a regression analysis estimating the impact of children on extensive (participation) and intensive margins (hours) is performed. Both short term and long term effects are identified. The decision to participate in the labour market as well as the decision on how many hours to work are modelled via a dynamic regression model. Figure 3.23 and Figure 3.24 report the results for Austria, Denmark, and Spain. In Austria, the effect turns out to be strong in both scenarios. For Denmark, the results show only a weak effect of children on the extensive margin. Finally in Spain, the results show only a weak effect of children on working hours. This is in line with Figures 3.20 and 3.21 reporting similar results for differences in the average working hours and participation rates respectively.

Educational attainment is another important factor influencing women's labour market position: mothers with higher education participate more frequently in the labour market than less educated mothers (*Figure 3.25*). The educational effect might reflect better opportunities to reconcile work and family life. But

In general, inactive mothers spend more time with their children than working mothers. But even when working full time, women spend up to 50 hours per week (Ireland) on looking after children, most countries ranging between 30 and 40 hours.

See for further discussions on employment and childbirth decision for example Lauer and Weber (2003).

Participation is estimated by a linear probability model. While the model is not constrained to the unity interval, coefficients should be interpreted cautiously: they rather constitute an approximation to percentages than real percentage figures. The predictive qualities prove to be better for values outside the marginal areas around unity and zero.

also opportunity costs for staying at home are higher for better educated women (Becker, 1964). The inverse holds for women with lower education: institutional childcare arrangements, for example maternal leave, might constitute adverse incentives to withdraw from the labour market. On the other hand, these women are likely to face higher economic pressures to work.

3.7. Ageing of the labour force

Population ageing as well as declining participation rates of young people led to ageing of the labour force over the past three decades. The declining elderly labour force participation had indeed a reverse influence, but the latter could not compensate both other effects (population ageing, declining labour supply of young people). Whereas the proportion of young workers (15-24 years) as well as of older workers (aged 55+ years) decreased, the mean age of the labour force increased on average.

The proportion of young people in the population (15+ years) decreased in the last three decades in all EU-countries (see Chapter 2), but the decline in the share of young workers in the total labour force was significantly higher caused by additional declines in labour force participation and —in the case of women— the increasing contribution of middle aged women to total female labour supply (which reduced the weight of the young). The proportion of young male workers decreased from 19% in 1970 to 12% in 2003 in EU-15 on average. Changes were higher for women: from 27% (1970) to 12% (2003) in EU-15. A declining trend is also visible in NMS-10 and CC-3 in the last decade, but the share of young active people was still higher in these countries than the EU-15 average in 2003, except for women in NMS-10 (*Figure 3.26*). Differences between the countries still exists in 2003 despite the global trend, with the highest share of young active people in Turkey (18% for men) and Malta (32% for women) and the lowest in Luxembourg (7% for men) (*Figure 3.27*) and Lithuania (8% for women) (*Figure 3.28*).

The proportion of older workers decreased in the last three decades, too, but to a lower degree: from 16% to 13% for men and from 14% to 11% for women in EU-15 on average between 1970 and 2003. NMS-10 also showed a declining trend, but Cyprus, Malta and candidate Member State Bulgaria showed an increase in the proportion of older *male* workers (*Figure 3.29*). Contrary to the global decreasing trend in EU-15 some countries experienced increases in the share of older *female* workers (Denmark, Finland, Portugal, and Sweden) and

also in NMS-10 some countries showed increasing shares of older female workers (*Figure 3.30*).

Declining proportions of young and older workers imply increasing proportional weights of active people in the ages range 25-55 years. But in general, one can observe in nearly all Member States increases in the mean age of the male and female active population between 1971 and 2003. The mean age of the labour force increased on average from 39.2 to 40.4 for men and from 37.2 to 39.4 for women in EU-15 over the last three decades (*Figure 3.31*). The highest increase in the mean age of male labour force was realised in Finland with 2.6 years (Cyprus 4 years), followed by Italy with 1.8 years (*Figure 3.32*). The female labour force is ageing even more profoundly. In Portugal the mean age increased by 6.5 years, followed by the Netherlands with 5.8 years (*Figure 3.33*). The changes in the age structure of the female labour force result from the increasing labour supply in middle age groups. The mean age increased by 0.5 years over the last decade in NMS-10, but labour force ageing was even faster in the candidate countries, which experienced an increase of around two years (for men and women).

EUROSTAT projected high increases in the numbers and shares of the elderly within total populations (see Chapter 2). Thus, labour force ageing will continue. The expected increase in the labour force participation of older workers (caused by limiting the access to early retirement schemes or other social benefits for the elderly) will have an additional effect on further labour force ageing. Thus, labour force ageing will show higher dynamics than population ageing.

3.8. Working time

Besides the development in labour force participation rates changes in usual working hours have an impact on the life time spent in employment. Whereas activity rates include both the employed and unemployed people, usual working hours per week are only available for employed people, not for people searching for work (wanted working time). Based on information included in labour force surveys the average usual weekly working hours and the share of part time workers (less than 30 hours) by gender and age groups was calculated for 1983, 1993 and 2003. The results of the analysis are in brief:

• in all Member States women still have lower usual weekly working hours than men, for example in 2003 on average 6.5 hours less in EU-15

- between 1983 and 2003 the average weekly working time decreased in most countries both for men and women, on average in EU-15 1.5 hours for men and 0.9 hours for women
- the differences in the weekly working hours between the countries are noticeable in all years and do not converge over time
- the share of part time workers is still higher for women (32%) in EU-15 in 2003 than for men (7%)
- the share of part time workers increased over the last twenty years in most countries for women, but also for men, on average in EU-15 by 1.7% (women) and 3% (men).

Denmark and the Netherlands have the lowest working time with each 36 hours for men (*Figure 3.34*) and 32 (Denmark) respectively 25 hours (Netherlands) for women (*Figure 3.35*). These countries showed the highest share of part time working men (12% respectively 15%), the UK had 13% part time male workers in 2003 as well (*Figure 3.36*). The Netherlands is in the vanguard of part time working women with around 60% part timers in 2003, followed by the UK with 46% and Germany with 37% (*Figure 3.37*).

The changes in the average working time in the older and intermediate age groups, in particular for women, are of special interest. The hypotheses are that women looking after small children make a break in their working life or if they stay in the labour force reduce working hours; older workers who stay in the labour market on average also reduce working hours compared to middle aged workers. But information on usual weekly working hours in single age groups are only available from (sometimes small) sample surveys. It is therefore impossible to calculate the average usual weekly hours for the middle and older age groups for all EU-countries.

Men in the middle age groups worked on average 39.4 hours in 2003 in the EU (excluding Finland and Luxembourg) and this was nearly the same for all three observed age groups (30-34, 35-39, and 40-44 years). Over the last twenty years the usual working time declined by around one hour per week (EU without Finland and Luxembourg). Men in Denmark had the shortest working time (around 38 hours per week), men in Hungary the longest (41.5 hours). Whereas men in the middle age groups worked nearly full time, the working hours for women were significantly lower and varied per age groups. In the EU-15 (without FI, LU) women aged 30-35 worked on average 32.9 hours per week in 2003, i.e. 0.4 hours more than in 1983. Compared to the average working time

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in age group 30-34 women aged 35-44 had less working hours, on average in EU-15 (without FI, LU) around 1.6 hours less in 2003 (*Figure 3.38*). Women in the latter age group mostly have one or more small or school age children. For them employment and child care are hard to combine.

Comparing the working time of the middle with the older age groups we observe a reduction in the average working time both for men and women, in particular for the age group 65+ (*Figure 3.39*). Men aged 60-64 worked 36.6 hours per week on average in 2003 in EU-15 (without FI, LU). Over the last twenty years the usual working hours reduced notably by 2.6 hours per week, but in the age group 65+ the reduction was with 2.8 hours even a little higher (from 31.5 hours to 28.7 hours per week). As mentioned above some retirement schemes provide options to combine part time work and pension benefits in the older age range, which may be a reason for increases in elderly part time work.

Women aged 60-64 worked 28 hours and women aged 65+ 22 hours on average per week in 2003 in EU-15 (without FI, LU). As for men the usual working time lowered over the last two decades by around 2.3 hours in age group 60-64 and 4.2 hours in age group 65+ respectively.

Declining labour force participation combined with a reduction in usual working hours per week led to a marked reduction in the total working hours per year for the elderly. This has to be kept in mind by interpreting labour force ageing and the time spent by the active population in the labour force.

3.9. Time spent in the labour force

Life expectancy increased in the past decades in all EU-countries for men and women, but over the last three decades the labour force participation of younger and older workers decreased markedly. By contrast, the labour supply of EU-15 women increased, in particular for mothers in the middle age groups. A longer life but a shorter time of labour market activities than previously lead to the hypotheses that the share of life spent in the labour force shortened and that the time spent in retirement increased. To proof the first hypothesis, we calculated the average time spent in the labour force based on participation rates. This indicator does not show the individual time spent in the labour force, but the average time spent in the labour force for a population. The working time is not taken into account, but considering the great share of part time workers among

women and in the older age groups changes in working time have to be kept in mind to assess the period of time spent in the labour force.

The labour force participation of men is still higher than of women, and therefore, also the time spent in the labour force. Men aged 15+ spent on average 38.4 years and women 29.9 years in the labour force in EU-15 (2003 data). Over the last three decades the time men spent in the labour force declined by around 5 years, while it increased for women by around 10 years (EU-15). For both men and women a declining trend in active years is observed in NMS-10 and in CC-3. In 2003, the average time spent in the labour force was 35.4 years (NMS-10) and 36.2 years (CC-3) for men, and 29 and 18,6 years for women, respectively. The latter was mainly a result of developments in Turkey (*Figure 3.40*).

Large differences exist in time spent in the labour force across the various Member States. According to 2003 data, men in Portugal spent 42 years and in Belgium 32 years in activity (*Figure 3.41*). For women the range goes from 37.5 years in Sweden to 14 years in Turkey (*Figure 3.42*). A noticeable reduction in the active life span of men can be observed for Poland (12 years), Hungary and Turkey (11 years), Belgium and Portugal (10 years). Sweden showed the lowest reduction (less than two years). As discussed in the previous section this development results mainly from a decrease in the labour participation in the younger and older age groups.

Contrary to the development for men the life time spent in the labour force increased between 1971 and 2003 for *women* in EU-15, whereas in NMS-10 a decline is observed (except Cyprus). Portugal and the Netherlands show marked increases in the active life span (20 and 19 years respectively), followed by Spain with 16 years. The reduction in the active life span of men and the increase in the active life span of women led to a convergence of their active life times over the last three decades. Nevertheless, women still spend a smaller share of life in the labour force than men.

But not only part-time work increased in the last decades, also the share of temporary work increased markedly and this also affects the time spent in employment. Fixed-term contracts were held by just around 12.6% of male and 14.4% of female employees in EU-15 in 2004. The NMS-10 figures were nearly the same. Between 1997 and 2004 the share of temporary contracts in the total employment increased by around one percentage-point for both male and female

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employees (EU-15). This is also observed in most NMS-10 countries. In particular, Poland shows a significant rise in fixed-term contracts, with a share of employees rising from 6% (men) and 5% (women) in 1997 to 24% (men) respectively 21% (women) in 2004 (*Table 3.6*).

Spain shows an exceptional situation with a share of 30% temporary male and 35% temporary female workers in 2004. In June 2001, for example, only 9.5% of all new employment contracts signed were permanent, the rest being non-permanent contracts — indicating the high employee turnover among such workers (EIRO, 2002, p. 5). Spain's strict legal protection against dismissals for 'permanent' employees has been one reason why companies make such extensive use of fixed-term employment and temporary agency work. There is a wide variety of different types of non-permanent contracts, including job training contracts, work-experience contracts, temporary contracts for production reasons, temporary posting contracts, contracts to replace workers who retire early or temporary agency work.

3.10. Discussion

The time spent in the labour force increased in the last decades for EU-15 women, while a declining trend exists for EU-15 men as well as for men and women in NMS-10 and CC-3. Thus, the share of women in the total labour force increased in EU-15 and declined slightly in NMS-10 and CC-3. Although the female labour supply expanded in particular in the middle age groups, the mean age of the labour force increased. Demographic developments had a large influence on labour force ageing, more so than the contrary effects of reduced labour participation of older workers and increased participation of middle aged women. Demographic projections show continued labour force ageing, and the expected increase in the exit age of the labour market for both men and women will boost the demographic effect.

To compensate for the projected fall in the numbers of working age persons, a further increase in employment rates, in particular for women and older workers, has to be encouraged together with greater investments in human capital (EC, 2005). The objectives in the Lisbon Strategy —an employment rate of 70%—has to be exceeded to compensate for the expected drop in the working age population. Great 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 (EC, 2005, p. 3.) It is essential to raise the level of education, but also to refresh the skills of older workers (life long learning). A higher labour force participation of older worker requires more adequate jobs for elderly. Therefore, companies have to focus on the expected changes in the labour force, more women and more older workers. They also have to ensure working conditions, allowing women to combine family and economic life and allowing the elderly to stay longer in the labour market. That must be self-interest to all employers.

With regard to the time spent in the labour force further analyses are essential: trying to combine information of changes in labour force participation, changes in employment rates and unemployment rates, changes in usual weekly working hours and temporary employment. Further research has to focus more on cohort effects (i.e. changes between the generations), because comparing cohorts may provide better inside in the dynamics of change. But cohort data availability may be restricted. If long time series exists for some countries such data can be used to analyse cohort effects.

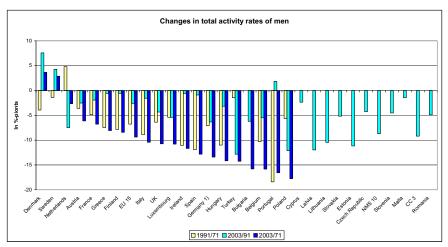
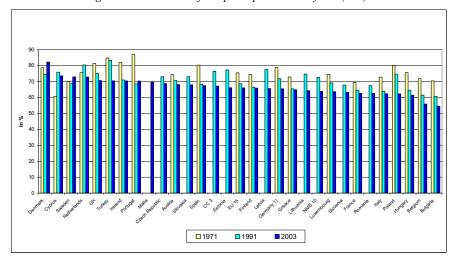


Figure 3.1. Changes in total activity rates of men

Figure 3.2. Total labour force participation rates of men (15+)



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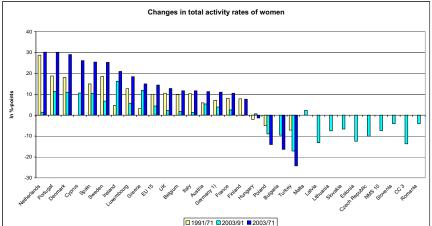
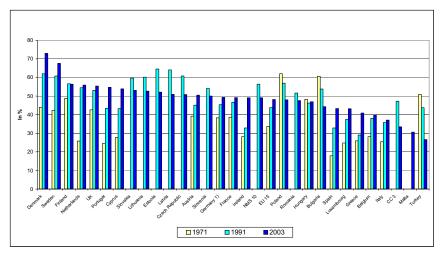


Figure 3.3. Changes in total activity rates of women

Figure 3.4. Total labour force participation rates of women (15+)



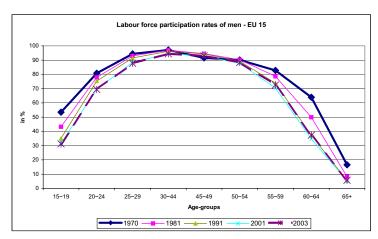
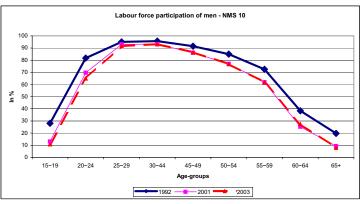
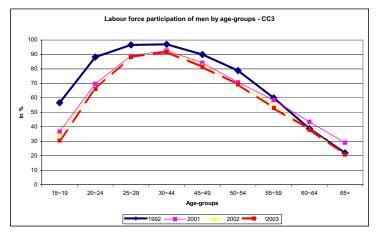


Figure 3.5. Labour force participation





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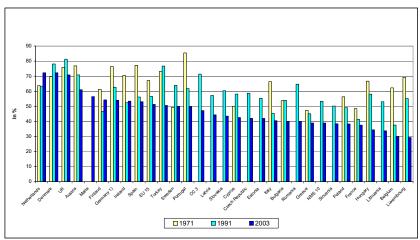
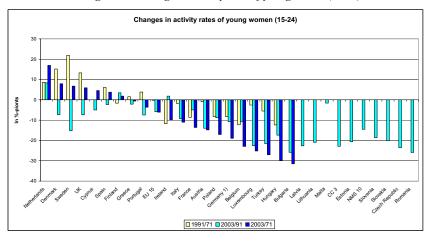


Figure 3.6. Labour force participation of men aged 15 to 24 years

Figure 3.7. Changes in activity rates of young women (15-24)



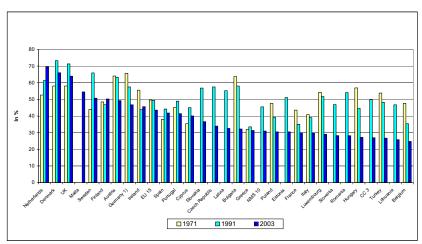
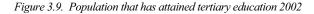
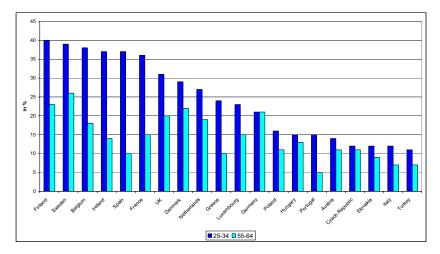


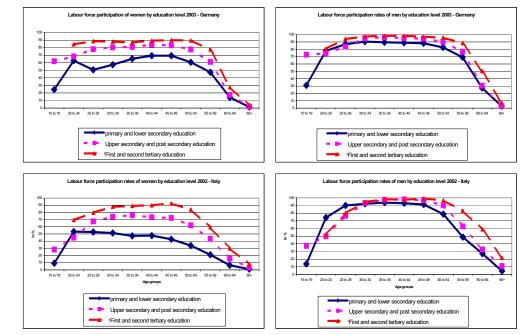
Figure 3.8. Labour force participation of women aged 15 to 24 years

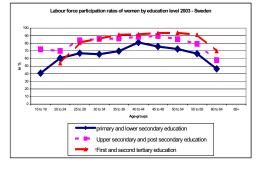




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Figure 3.10. Labour force participation by education level in selected countries 2003







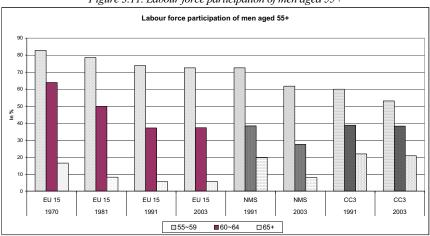
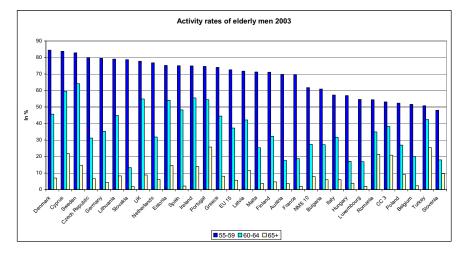


Figure 3.11. Labour force participation of men aged 55+

Figure 3.12. Activity rates of elderly men 2003



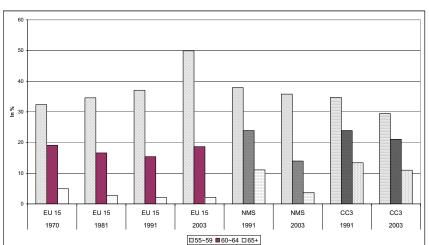
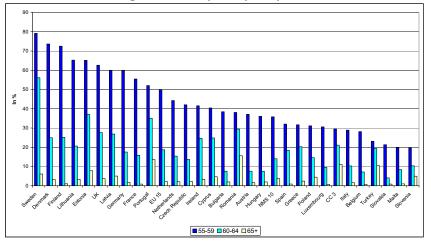


Figure 3.13. Labour force participation rates of women aged 55+





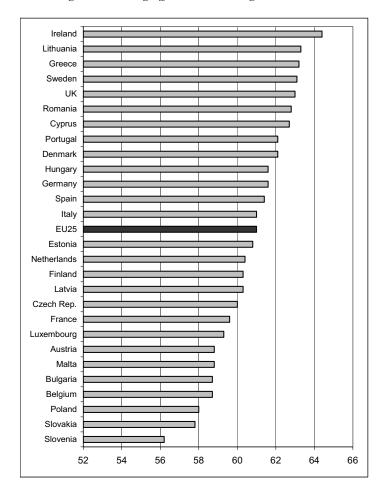


Figure 3.15. Average effective retirement age in 2003

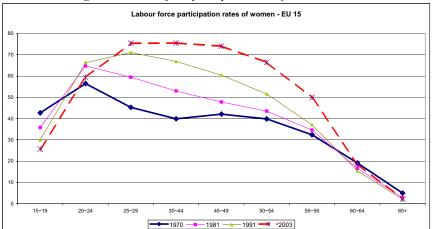
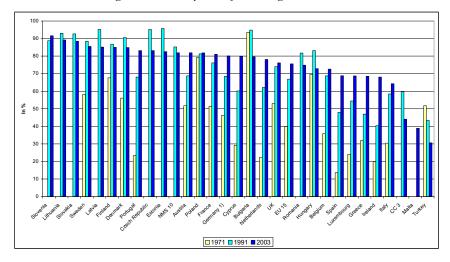


Figure 3.16. Labour force participation rates of women - $EU\,15$

Figure 3.17. Activity rates of women aged 30 to 44



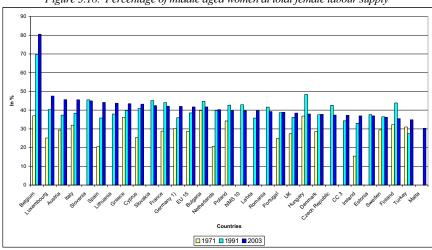
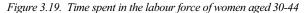


Figure 3.18. Percentage of middle aged women at total female labour supply



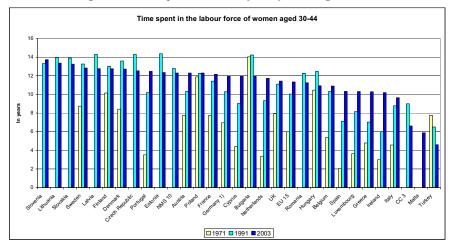


Figure 3.20. Labour force participation rates of mothers and childless women in the prime age 25-54

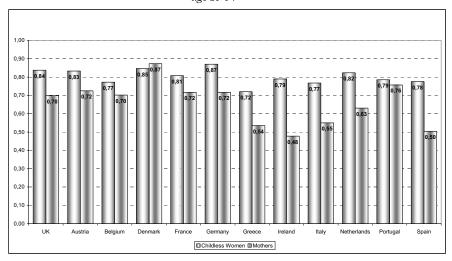


Figure 3.21. Average weekly working hours of mothers and childless women between 25 and 54 years (1994-2001)

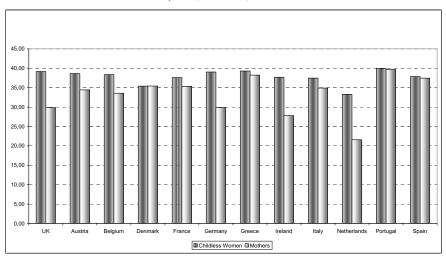


Figure 3.22. Shares of women between 30 and 44 by employment status and number of children (1999-2001)

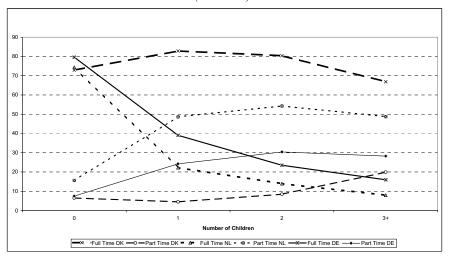


Figure 3.23. Short and long run effects of children on women's labour market participation (Denmark and Austria)

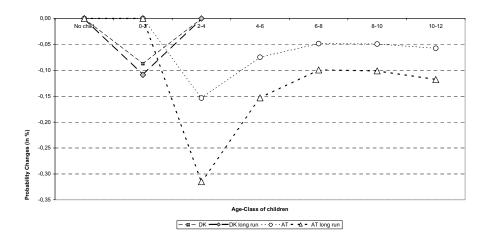


Figure 3.24. Short and long run effects of children in different age-groups on supplied working hours (Spain and Austria)

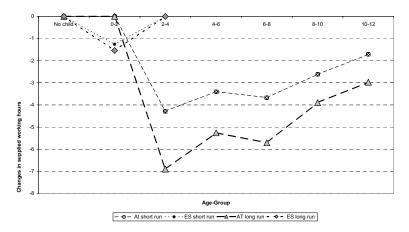
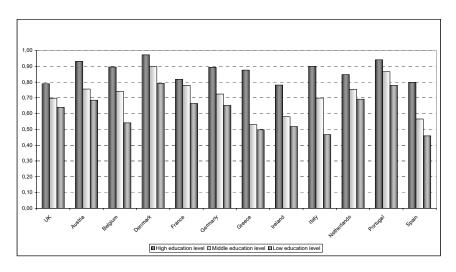


Figure 3.25. Labour force participation rates of mothers between 30-44 years by education level (1998-2001)



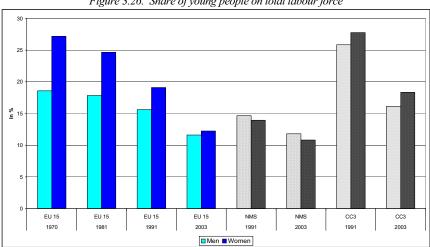
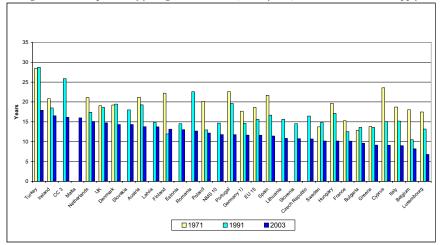


Figure 3.26. Share of young people on total labour force





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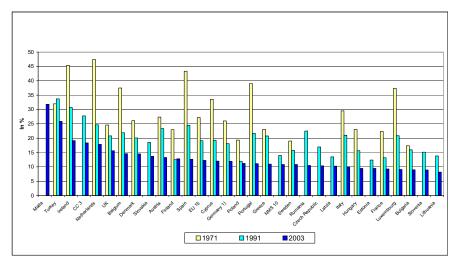
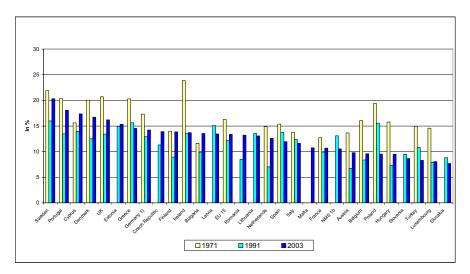
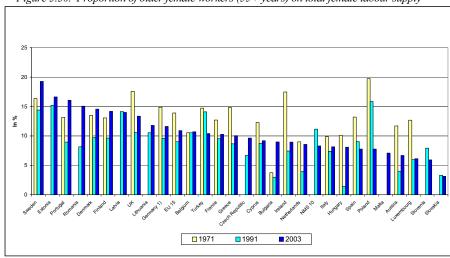
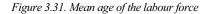


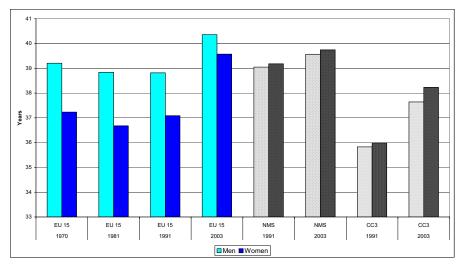
Figure 3.29. Proportion of older male workers (55+ years) on total male labour supply

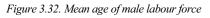




Figure~3.30.~Proportion~of~older~female~workers~(55+years)~on~total~female~labour~supply







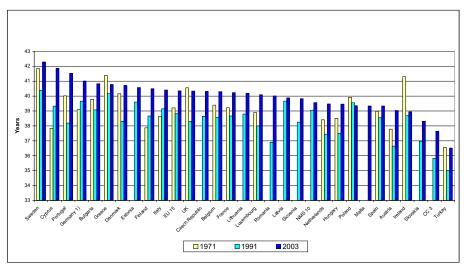
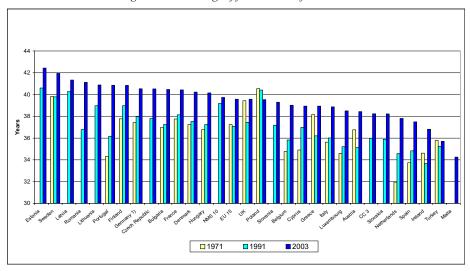


Figure 3.33. Mean age of female labour force



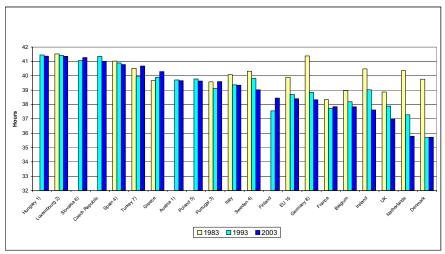


Figure 3.34. Average usual weekly working hours of men

1) 1993=1995. - 2) 2003=2002. - 3) 1983=1986. - 4) 1983=1987. - 5) 1993=1997. - 6) 1993=1994. - 7) 1983=1988. - 8) Until 1991 Germany-West.

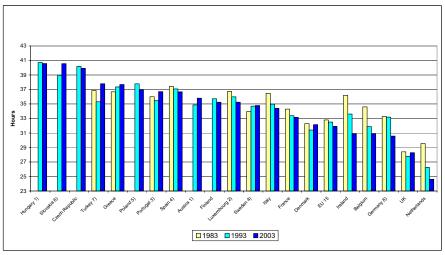
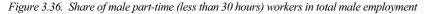


Figure 3.35. Average usual weekly working hours of women

1) 1993=1995. - 2) 2003=2002. - 3) 1983=1986. - 4) 1983=1987. - 5) 1993=1997. - 6) 1993=1994. - 7) 1983=1988. - 8) Until 1991 Germany-West.

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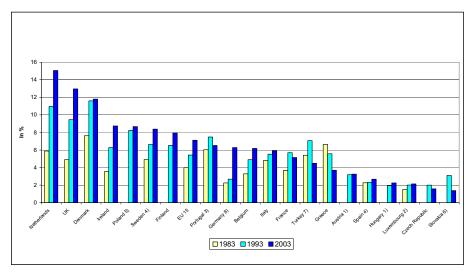
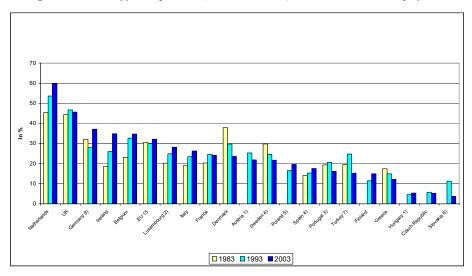


Figure 3.37. Share of female part-time (less than 30 hours) workers in total male employment



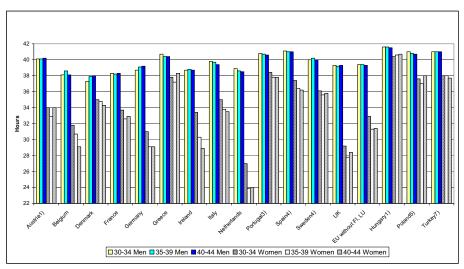
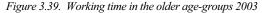
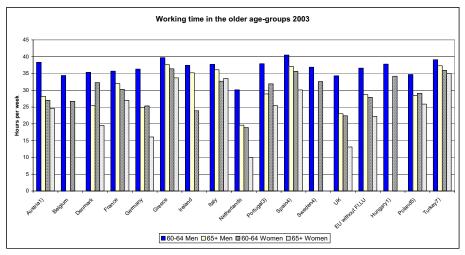


Figure 3.38. Working time in the middle age-groups 2003





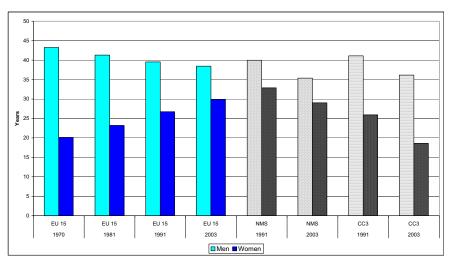


Figure 3.40. Time spent in the labour force

Figure 3.41. Average life time spent in the labour force in years (population 15+) – Men

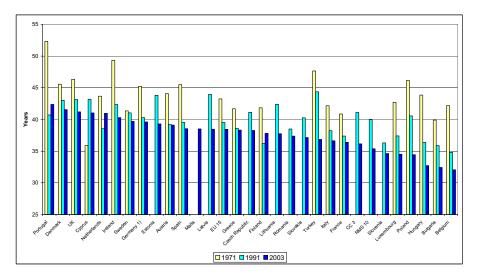


Figure 3.42. Average life time spent in the labour force in years (population 15+) – Women

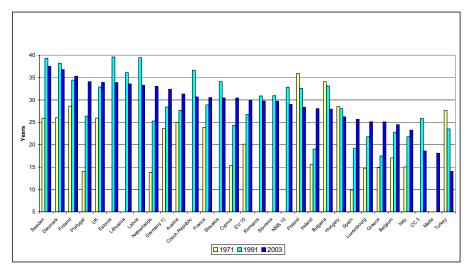


Table 3.1. Projection of educational attainment EU 15

	2000	2050	Change 2000-2050	Of which	due to
				Demography	Years of
					schooling
Belgium	11.1	13.5	2.42	1.1	1.32
Denmark	12.5	14.4	1.84	0.4	1.44
Germany	12.6	13.9	1.27	0.1	1.17
Greece	10.5	13.5	3.01	1.5	1.51
Spain	9.4	13.5	4.10	2.2	1.90
France	10.8	13.7	2.96	1.2	1.76
Ireland	10.7	14.4	3.71	1.8	1.91
Italy	9.8	12.9	3.10	1.3	1.80
Luxembourg			0.85		0.85
Netherlands	11.7	14.1	2.30	0.6	1.70
Austria	11.9	13.9	1.97	1.1	0.87
Portugal	8.3	11.4	3.12	1.1	2.02
Finland	11.9	14.2	2.18	1.7	0.48
Sweden	11.9	13.4	1.53	0.8	0.73
UK	12.0	14.8	2.81	0.8	2.01
EU-15	11.1	13.8	2.72	1.1	1.62

Source: Montanio, Przwara and Young (2004).

Table 3.2. Share of women in hours per week (grouped) looking after children and mean hours looking after children by employment status

			Does n	ot work			Part tim	ne work			Full tim	e work	
No.	Countries	less than	between	more than	mean	less than	between	more than	mean	less than	between	more than	mean
		14h	14 and 28h	28h	hours	14h	14 and 28h	28h	hours	14h	14 and 28h	28h	hours
1	Austria	2,70	10,16	87,13	56,40	4,26	16,02	79,72	47,12	9,20	24,92	65,88	39,99
2	Belgium	8,19	9,02	82,79	59,52	9,72	13,69	76,59	47,88	14,81	16,12	69,07	43,04
3	Denmark	6,99	10,72	82,29	53,63	8,71	15,02	76,27	46,66	7,29	14,57	78,14	47,54
4	France	4,88	9,57	85,55	54,31	8,10	18,57	73,33	41,38	11,99	23,55	64,46	35,84
5	Germany 1)	8,55	19,75	71,70	51,71	10,90	29,84	59,26	40,91	25,89	35,58	38,53	27,50
6	Greece	3,34	23,71	72,95	39,48	5,71	29,28	65,01	34,72	7,04	37,06	55,90	30,58
7	Ireland	0,79	3,76	95,45	71,87	1,61	4,94	93,45	62,57	1,30	9,61	89,09	51,80
8	Italy 2)	7,03	16,69	76,28	43,85	5,87	20,86	73,27	39,08	9,55	26,26	64,19	34,13
9	Netherlands	0,91	14,76	84,33	55,98	1,36	21,61	77,04	48,64	7,67	51,24	41,10	30,51
10	Portugal	10,09	16,23	73,69	43,90	9,88	28,62	61,50	35,01	10,84	35,84	53,32	30,50
11	Spain	2,32	6,07	91,61	61,51	3,63	15,21	81,17	49,07	4,20	17,55	78,25	42,83
12	UK 3)	na	na	na	na	na	na	na	na	na	na	na	na
Sou	rce: Calculation of	DIW Rerlin I	pased on EC	HP data wa	ves 1995-2	001							

Source: Calculation of DIVV Bernin Bases 5... __.

1) Germany provides information for 1995 and 1997 only
 10001 et 70 hours.

²⁾ The hours are Top Coded in 1996 until 2001 at 70 hours per week

³⁾ No information available

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Table 3.3. Labour force participation rates by age groups and mother-status (1995-2001)

			Age groups								Prime	age					
No.	Country	16-2	24	25-	29	30-3	34	35-	39	40-	44	49-	54	55	+	25-	54
		Childless	Mother	Childless	Mother	Childless	Mother	Childless	Mother	Childless	Mother	Childless	Mother	Childless	Mother	Childless	Mother
1	UK	0,74	0,33	0,93	0,50	0,94	0,64	0,90	0,70	0,81	0,78	0,74	0,74	0,16	0,28	0,84	0,70
2	Austria	0,63	0,74	0,89	0,73	0,92	0,72	0,93	0,76	0,86	0,75	0,68	0,67	0,06	0,12	0,83	0,72
3	Belgium	0,35	0,56	0,93	0,75	0,92	0,80	0,90	0,73	0,81	0,69	0,50	0,60	0,05	0,11	0,77	0,70
4	Denmark	0,71	0,42	0,83	0,71	0,86	0,84	0,84	0,92	0,89	0,92	0,83	0,88	0,20	0,40	0,85	0,87
5	France	0,35	0,53	0,84	0,68	0,90	0,71	0,85	0,75	0,80	0,76	0,74	0,68	0,08	0,15	0,81	0,72
6	Germany	0,66	0,48	0,89	0,64	0,94	0,68	0,91	0,74	0,87	0,75	0,77	0,69	0,14	0,26	0,87	0,72
7	Greece	0,42	0,34	0,85	0,48	0,86	0,54	0,78	0,60	0,72	0,60	0,46	0,47	0,09	0,12	0,72	0,54
8	Ireland	0,60	0,33	0,89	0,47	0,87	0,51	0,79	0,49	0,70	0,51	0,57	0,43	0,09	0,13	0,79	0,48
9	Italy	0,42	0,41	0,75	0,48	0,84	0,60	0,84	0,60	0,76	0,62	0,58	0,47	0,05	0,11	0,77	0,55
10	Netherlands	0,70	0,47	0,92	0,56	0,94	0,60	0,90	0,67	0,86	0,69	0,63	0,59	0,11	0,20	0,82	0,63
11	Portugal	0,48	0,68	0,82	0,82	0,92	0,81	0,85	0,79	0,75	0,79	0,61	0,66	0,20	0,30	0,79	0,76
12	Spain	0,43	0,48	0,81	0,51	0,84	0,56	0,79	0,57	0,73	0,56	0,55	0,41	0,06	0,09	0,78	0,50
Sou	ource: Calculation of DIW Berlin, based on ECHP data 1995-2001																

Table 3.4. Women with and without children by age-groups and weighted average weekly working hours (1994-2001)

			Age Groups									Prime	Age				
No.	-	16-2	24	25-29 30-34 35-39 40-44		45-54			+	25-54							
	Country	Childless	Mother	Childless	Mother	Childless	Mother	Childless	Mother	Childless	Mother	Childless	Mother	Childless	Mother	Childless	Mother
1	UK	33,33	26,41	41,65	27,25	40,86	26,99	41,78	28,69	40,86	31,22	34,85	31,74	26,47	29,96	39,16	29,88
2	Austria	37,88	36,64	38,07	33,83	40,02	32,39	39,84	32,80	38,97	34,50	37,56	37,88	35,17	40,87	38,64	34,42
3	Belgium	32,43	33,01	39,41	33,60	40,44	33,07	38,71	32,89	36,44	34,42	35,86	34,45	32,16	34,27	38,38	33,59
4	Denmark	27,82	35,09	34,96	34,82	37,16	35,50	36,80	35,96	37,45	36,33	34,84	34,49	30,87	29,52	35,40	35,43
5	France	34,73	33,34	37,37	35,26	38,04	34,95	37,46	35,38	36,22	35,90	37,55	35,55	35,44	39,59	37,61	35,36
6	Germany	35,83	31,95	38,91	28,75	40,29	29,57	42,34	29,92	38,78	30,82	37,06	29,79	30,53	27,64	39,04	29,90
7	Greece	38,30	38,45	39,46	37,48	39,75	37,01	40,18	38,65	40,02	39,34	37,70	38,17	36,99	37,33	39,30	38,24
8	Ireland	34,74	30,02	38,59	29,85	38,44	29,66	38,27	28,51	36,77	27,17	35,28	26,78	29,86	26,42	37,71	27,80
9	Italy	37,10	36,97	37,76	34,44	37,65	34,80	37,49	34,72	37,66	34,68	36,69	35,39	35,08	36,71	37,48	34,90
10	Netherlands	23,47	18,85	34,98	20,21	35,95	20,40	33,70	20,78	32,89	21,89	28,24	22,63	22,53	19,44	33,30	21,56
11	Portugal	40,18	38,90	39,77	40,19	40,71	40,23	41,27	40,72	43,53	40,20	37,68	38,39	34,17	34,74	39,96	39,70
12	Spain	36,07	35,25	37,03	37,56	38,08	36,79	37,03	36,84	39,01	37,20	40,48	38,16	38,69	38,16	37,87	37,47
Sour	ource: Calculation of DIW Berlin based on ECHP data 1994-2001																

Table 3.5. Labour force participation rates of mothers and women without children by agegroups and education (1995-2001)

					Childless								Mother						
			18-29			30-44			45-64			18-29			30-44			45-64	
No.	Countries					Edu	catior	level	(ISCED	: low	~ 0-2 ;	middle ·	~ 3 ; h	igh ~	5-7)				
		high	middle	low	high	middle	low	high	middle	low	high	middle	low	high	middle	low	high	middle	low
1	UK	0,87	0,81	0,84	0,94	0,92	0,80	0,67	0,62	0,45	0,58	0,50	0,35	0,79	0,70	0,64	0,82	0,75	0,58
2	Austria	0,99	0,80	0,65	0,99	0,93	0,85	0,71	0,41	0,34	0,70	0,76	0,75	0,93	0,76	0,69	0,77	0,59	0,41
3	Belgium	0,82	0,43	0,45	0,98	0,89	0,61	0,51	0,32	0,15	0,98	0,71	0,55	0,90	0,74	0,54	0,74	0,50	0,31
4	Denmark	0,91	0,78	0,69	0,92	0,92	0,45	0,79	0,73	0,47	0,74	0,75	0,43	0,97	0,90	0,79	0,94	0,90	0,67
5	France	0,64	0,41	0,64	0,95	0,91	0,79	0,61	0,55	0,42	0,75	0,64	0,53	0,82	0,78	0,67	0,73	0,68	0,52
6	Germany	0,89	0,83	0,68	0,91	0,96	0,77	0,65	0,48	0,41	0,66	0,69	0,40	0,89	0,72	0,65	0,85	0,59	0,46
7	Greece	0,81	0,57	0,55	0,94	0,85	0,45	0,55	0,25	0,25	0,71	0,49	0,38	0,88	0,53	0,50	0,67	0,35	0,33
8	Ireland	0,84	0,75	0,66	0,98	0,93	0,61	0,72	0,57	0,26	0,88	0,55	0,36	0,78	0,58	0,52	0,73	0,48	0,32
9	Italy	0,83	0,56	0,66	0,90	0,87	0,74	0,80	0,45	0,18	0,67	0,56	0,35	0,90	0,70	0,47	0,74	0,59	0,24
10	Netherlands	0,94	0,72	0,85	0,92	0,88	0,92	0,67	0,58	0,44	0,69	0,82	0,61	0,85	0,75	0,69	0,66	0,70	0,58
11	Portugal	0,93	0,47	0,76	0,97	0,88	0,84	0,55	0,64	0,44	0,91	0,65	0,83	0,94	0,87	0,78	0,85	0,65	0,56
12	Spain	0,76	0,40	0,76	0,92	0,85	0,62	0,78	0,69	0,24	0,76	0,51	0,41	0,80	0,57	0,46	0,70	0,49	0,27
	Source: Calculation of DIW Berlin based on ECHP data 1995-2001; weighted observations; cursive numbers indicate less than 30 observations																		

Table 3.6. Temporary employees as a percentage of the total number of employees 15+ in %)

		1997	2000	2004	1997	2000	2004
No	Countries	1007	Men	2001		Women	2001
1	Austria	:	8,3	9,9	 :	8,9	8,7
2	Belgium	4,6	6,6	6,3	8,6	12,1	11,6
	Denmark	10,6	8,8	9,1	11,6	11,7	10,6
4	Finland	15,3	14,5	13,3	18,9	20,9	20,9
5	France	12,0	14,6	10,8	14,2	16,4	13,9
6	Germany	11,5	12,5	12,7	12,1	13,1	12,2
7	Greece	10,2	12,2	11,0	11,9	16,3	14,5
8	Ireland	7,1	4,3	3,0	12,1	6,6	3,9
9	Italy	6,9	8,8	9,7	9,5	12,2	14,9
10	Luxembourg	1,8	2,6	4,1	2,7	4,6	6,0
11	Netherlands	8,8	11,5	13,2	14,9	17,2	16,3
12	Portugal	11,7	18,0	18,7	12,9	22,2	21,1
13	Spain	32,3	30,8	30,2	35,7	34,6	34,8
14	Sweden	10,1	12,3	13,7	14,0	16,9	17,7
	UK	6,5	5,9	5,2	8,4	7,7	6,3
		·					•
	EU 15	11,5	12,8	12,6	13,2	14,7	14,4
		,			,		,
16	Cyprus	:	7,6	8,2	l:	14,3	18,2
	Czech Republic	7,1	7,0	8,0	8,9	9,4	11,3
18	Estonia ·	2,6	3,1	4,1	1,8		2,0
	Hungary	7,0	7,3	7,8	6,3	6,4	6,0
20	Latvia	:	8,9	11,4	ļ.	4,6	6,9
21	Lithuania	:	4,9	9,8	l:	2,6	3,5
22	Malta	:	3,5	2,4	l:	5,3	5,0
	Poland	6,3	6,6	23,7	4,7	4,8	21,3
	Slovakia	:	3,8	5,8	l: [′]	4,3	5,1
25	Slovenia	13,6	12,4	16,4	15,1	13,5	19,8
		.,.	,	-,	',	- , -	.,-
	NMS 10						
	EU 25	:	11,9	13,0	 :	13,4	14,3
			•	•		•	·
26	Bulgaria	:	:	8,5	l:	:	7,5
	Romania	3,0	3.0	3,2	3,1	2,9	2,4
	Turkey	,-	-,-	,	l	,-	,
	CC 3						
Sour	ce: EUROSTAT, C	LFD, 2. Q	uater (Fra	nce 1. Qua	ater).		

Scheme 3.1. General early retirement options in statutory pension schemes^a

Country	Earliest retirement age	Conditions	Benefit reduction
Belgium	60 years	35 years of employment	5% per year for self-employed (except after full career, men: 45 years, women: 43 years)
Bulgaria	depending on insured period	number of insured years + age = 100 for men, 90 for women (increases to 94 by 2009)	no reduction
Croatia	men 60, women 55 years from 2007 (increase from 55/50 with standard retirement age)	40/35 years (men/women) of qualifying period from 2007 (increase from 35/30 with standard retirement age)	no reduction
Czech Republic	irement age, disability reduces retirement age		0.9% per 90 days
Denmark	ablic pension scheme 2) 65 for supplementary scheme		2) actuarial reduction
Germany	until 2011: men 63, women 60 tirement age to 62 (by 2022); disabled: 60 unemployed persons: 63 (from 2006)	35 insured years	0.3% per month
Estonia	3 years before standard retirement age	15 insured years	0.4% per month
Greece	depending on insured period no age limit after 37 years reduced pensions possible for men from	2) 12.5 insured years, insured before 1993	1) no reduction 2) reductions
Spain	60, women from 55 1) 64 years 2) insured before 1967: 60 insured from 1967: 61 if unemployed	1) Replacement by another worker	1) no reduction 2) reductions depend on the insured period (6-8% per year)
France	56 years	entry to the labour market at age 14-17, 40-42 contribution years	no reduction
Ireland	no early retirement		
Italy	1) old public pension scheme: 57 years for employees, 58 for self-employed depending on insured period, no age limit after 38 years (40 by 2008) 2) new DC scheme: 57 years	with 35 contribution years entitlements exceed 1.2 times the amount of social assistance	1) no reduction 2) actuarial reductions
Cyprus	63 years	Weekly earnings are at least 70% of insurable earnings	no reduction
Latvia	no early retirement after July 2005		
Lithuania	5 years before standard retirement age	30 insured years or unemployed for at least 12 months	0.4% per month
Luxembourg	57 years	40 contribution years (early retirement from 60 years with 40 insured years including credited periods)	no reduction
Hungary	men 60, women 55 years	38 insured years	0.1-0.5% per month, depending on the number of years before standard retirement age
Malta	no early retirement		
Netherlands	no early retirement		
Austria	increase men 61.5-65, women 56.5-60, 2004-2017, no early retirement after July 2017	35 contribution years or 37.5 insured years including credited periods	4.2% per year
Poland	1) old pension scheme until 2006: women 55, disabled persons 60 years 2) new pension scheme (implemented by 2007): no early retirement	women: 30 years of work experience, disabled: 25 years of work experience	reduction due to shorter contribution period (average accrual rate 1.3% p.a.)
Portugal	55 years	30 contribution years	4.5% per year

Scheme 3.1. (end)

Country	Earliest retirement age	Conditions	Benefit reduction
Romania	5 years before standard retirement age	10 contribution years	reductions if less than 35 (men) / 30 (women) contribution years
Slovenia	58 years	men 40, women 38 insured years	no reduction
		and unemployed or disabled	(reduction progressive with number of years for other groups)
Slovakia		10 insured years and pension entitlement of 1.2 times subsistence benefit	0.5% per month
Finland	62 years		0.6% per month
Sweden	61 years		actuarial reductions
Turkey	no early retirement		
United Kingdom	no early retirement		

^a legal status as of January 2005.

Source: European Commission (2003b), Table 10, p. 67; Social Protection Committee (2005), Table 3; Croatian Government: http://www.vlada.hr (22.04.2005).

4. Social protection and the life course

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4.1. Highlights

- Public old-age pension expenditure has been increasing in recent decades. In 2002 it ranged from 1.6% to 11.4% for EU-15 and in 2001 from 5.4% to 8.5% in NMS-10. Similar trends can be observed for the overall pension expenditures in majority of the EU Member States.
- Population ageing will affect public finances significantly in the future as the post-war baby boom generation reaches retirement age over the next decades. There are differences across Member States as regards the timing and scale of the projected changes. Without counteracting measures population ageing will lead to an increase in public spending on pensions of between 3 and 7 percentage points of GDP in most EU Member States by 2050.
- Two factors have driven the development of time spent in retirement in the
 past: the general decline in the effective retirement age, and increasing life
 expectancy. In the past the increase of time spent in retirement in EU-15
 affected men to a significantly larger extent than women.
- Efforts of Member States to achieve financial sustainability of public pension systems have led to various reforms: the effective retirement age has increased, benefit levels have become more moderate, and the role of second pillar pension benefits has been strengthened.
- Overall reforms in many new Member States and Candidate Countries changed their pension systems into similar directions: defined contribution systems have been introduced, funded pension schemes have been promoted and measures to increase the effective retirement age have been established.

• Improvements in the health status of the elderly became visible in increased life expectancy. Mortality due to diseases of the circulatory system and ischaemic heart diseases declined significantly during the past 30 years. Health status and longevity are also improving in NMS-10 and Candidate Countries, however there does exist a significant gap vis-à-vis EU-15.

- Mortality of the elderly due to selected important diseases like cancer or ischaemic heart diseases, which has been declining in EU-15, is increasing in NMS-10 or is not yet declining.
- The increase in health care costs in NMS-10 will be determined more strongly by the increase in the share of the elderly population, as they are in a worse health status than the same age group in the EU-15. The impact of ageing on health care costs is likely to be stronger for long term care than for primary and hospital care.
- Total health expenditures as a percentage of GDP could increase by around one third by 2050 only due to demographic change. About forty percent of the increase would come from increased expenditure on long-term care.
- Improving the health status of the elderly is essential to achieve an extension
 of working life. Improvements with respect to several diseases which often
 lead to early retirement were observed in the past. One of the areas with
 room for improvement seems to be mental health.
- An extension of working life most likely will increase the pressure on institutional or formal arrangements of care for the frail elderly.

4.2. Ageing and the pension systems in Europe

The end of working life (retirement of an individual from the labour force) is usually accompanied by a pension entitlement, but this phase of life is often also characterised by a deteriorating health status, even disability. Many researchers (e.g. Atchley, 2000) find that views on retirement are rather positive and that early retirement is becoming more popular (Quadango and Hardy, 1996).

The age distribution impacts on the economic structure of societies particularly with regard to the balance between economically active and non-active persons. Whereas economically active persons generally contribute to social security funds, economically non-active persons are mainly benefit recipients. As a result demographic changes influence the financing of such public expenditure related to the demographic structure by altering the balance between expenditure and income with respect to public budgets and social funds.

Old-age related expenditure includes mainly old-age pensions, but also programmes permitting early withdrawal from the labour market because of long-term unemployment, disability and early retirement, health care and long-term care for the elderly, family/child benefits and education (c.f. Thai Than Dang *et al.*, 2001, p. 7). Between 40 and 60 per cent of total public spending is sensitive to the age structure of the population (ibid.).

Although increasing labour market participation, decreasing unemployment, and structural reforms in the field of pension systems with respect to eligibility, benefits etc. can reduce age driven pressure on costs, many public expenditure types and programmes will be affected by demographic shifts. The following section focuses on old-age pension systems and related types of expenditure.

4.2.1. Trends in expenditure for public pension systems

The impact of population ageing on old age pension expenditure

All pension systems of the EU can be characterised by a strong public component (EPC, 2001, p. 15). Around half of the public pension systems provide a universal pension scheme, which is usually means-tested. Except for the Netherlands the systems are labour-market-based, covering workers in the private and public sector, and some of the self-employed. The financing of the public schemes is usually pay-as-you-go (PAYG). However, some schemes are fully or partially financed through transfers from the state budget.

Population ageing affects the balance between economically active and non-active persons and thus the financing of public pension schemes. In many new Member States and Candidate Countries stability of these systems has been additionally influenced by phenomena that began in the first half of the 1990s. Labour market changes during the transformation from the centrally planned to the market economy influenced the working life of the population. Older people laid off from the companies undergoing restructuring preferred to be pensioners rather than unemployed and the generous social security system worked in favour of their outflow from the labour force at a relatively low age (see Chapter 3).

Recent developments

Public old-age pension expenditures increased in recent decades. In 2002 they ranged from 1.6 to 11.4% for EU-15 and from 5.4 to 8.5% in NMS-10. Similar trends are observed for the overall pension expenditures, with some exceptions.

According to EUROSTAT¹⁹ public spending on old-age pensions in EU-15 has increased from 8.6% of GDP in 1990 to 9.6% in 2002. The average for the enlarged European Union was almost the same (9.5% in 2001), but the numbers for the new Member States were lower. In 2002, Italy spent the highest amount (11.4% of GDP) on old-age pensions, followed by Germany (10.7%) and France (10.3%). Ireland was the country with the smallest share of GDP (1.6%) spent on old-age pensions. The share for the NMS-10 varies from 5.4% for Estonia to 8.5% for Poland (see *Table 4.1*).

For the EU-15 the average annual growth rate of old-age pension expenditures, measured as a percentage of GDP, was 0.9% for the period 1990-2002. Portugal had the highest growth rate (+4.8%), however in this case the level of pension spending in relation to the GDP, as well as in relation to the population was comparatively low. Annual growth rates above the EU-average were also observed for Italy (+1.5%), Austria (+1.5%), Denmark (+1.2%), UK (+1.2%), Greece (+1.2%), Finland (+1.0%) and Spain (+1.0%). For NMS-10 and Candidate Countries figures are not simply comparable, as they are strongly influenced by an initial decrease in GDP connected with the transition to the market economy.

Old-age pensions are the largest subset of all pension expenditures but other types of benefits (including partial pensions, disability pensions, early retirement benefits, survivors' pensions etcetera) have to be taken into account as well. In 2002 the expenditure for all kinds of EU-15 pensions amounted to 12.6% of their combined GDP. The comparative value for 1990 is 11.8%. In 2002, again Italy and Poland spent the highest share of GDP on public pensions (respectively 14.9% and 13.9%) and Ireland and Estonia the smallest (respectively 3.6% and 6.3%) (*Table 4.2*).

Although expenditure on public pensions –measured as a percentage of GDP–has increased for EU-15 at an average rate of +0.5% per year some Member States decreased expenditures on pensions relative to GDP: Ireland (-3.6%), Sweden (-1.5%),²⁰ the Netherlands (-1.0%), Luxembourg (-0.9%) and Belgium (-0.4%).

When total pension expenditure is measured in purchasing power parities (PPP) per inhabitant all EU-15 Member States have positive rates of change over the

Some values, especially for the later years, are estimated or provisional.

The growth rate for Sweden applies to the period from 1993 to 2002.

period of 1990-2002. This trend corresponds to an average annual growth of 4.6% for EU-15. Again the highest growth rates are registered for Portugal with +8.7% per year followed by the UK (+6.0%), Greece (5.6%) and Spain (5.5%). For NMS-10 available data for recent years show a decrease in PPP of pensions for Latvia and Estonia and an increase for other countries (*Table 4.3*).

Projections of future development

Population ageing in almost all EU Member States will begin to affect public finances significantly as the post-war baby boom generation reaches retirement age over the next decades (c.f. Thai Than Dang, 2001, p. 4). There are differences across Member States as regards the timing and scale of the projected changes.

The Economic Policy Committee analysis predicts, that in a no-change-to-policy-scenario population ageing will lead to an increase in public spending of between 3 and 7 percentage points of GDP in most Member States by 2050 (EPC, 2003, p. 4).²¹ Most of the projected increase in public spending in general will be on pensions, health care and long-term care whereas potential offsetting savings in terms of public spending on education and unemployment benefits are likely to be relatively small. In most countries, the budgetary impact of ageing starts as of 2010, and the largest increases are projected to take place (without any reform) between 2010 and 2030.

Public spending on pensions is projected to increase by between 3 and 5 percent GDP in the coming decades largely driven by the increase in the old-age dependency ratios (ibid.). The highest increase is projected for Greece with a total growth of expenditure for public pensions of 12.2 percentage points of GDP, followed by Spain with 7.9 percentage points. According to the projections made by the EPC only UK will be capable of decreasing public spending on pensions. A reduction of 1.1 percentage points in relation to GDP is projected for the UK (see *Figure 4.1* and *Table 4.4*).

Generally the major part of the increases will take place between 2010 and 2030 reaching a new peak around 2040 and falling somewhat thereafter.

The EPC analysis covered only public pension schemes. 'Public' pensions involve a broad range, covering not only spending on old-age, children's' and survivors' pensions, but also other income transfers to persons aged 55 and over, i.e. early retirement schemes, disability pensions and other income transfers to the elderly. The projections were based on current legislation and did not anticipate the impact of planned reforms.

According to a decomposition of the results four explanatory factors are crucial for the net increase in expenditure (c.f. EPC, 2001, p. 14). These are the effects of population ageing, employment, eligibility and the benefit effect.

Demographic factors, in terms of increasing old-age dependency ratios, are the dominant force putting upward pressure on spending on pensions. This upward pressure is diminished by projected declines in the benefit ratio, corresponding to the average pension as a percentage of GDP per person employed. The fall in the benefit ratio reflects the effects of pensions reforms introduced in the 1990s, with the largest impact stemming from the change in the indexation of pension entitlements to inflation rather than wages (*Table 4.5*).

Based on simulations the EPC examined effects of certain types of reforms to pension systems. This encompassed the effects of 1) a reduction of indexation of benefits, 2) an increase of the activity rate by raising the effective retirement age and 3) an adjustment of benefits in line with the expected increase in life expectancy at retirement. In general the results (presented in details in *Table 4.6*) indicate that all assumed changes in the simulations had a major impact on expected pension expenditure although, as a rule, the individual reforms taken on their own would only partially absorb the expected increase in pension expenditure by 2050.

Thai Than Dang *et al.* (2001) provide results on the financial impact of ageing populations similar to those of the EPC. This analysis covers all OECD-countries, including also three new EU Member States: the Czech Republic, Hungary and Poland. According to this analysis old-age pension spending will rise on average by around 3 to 4 percentage points of GDP in the period to 2050. Pension spending is projected to fall as a share of GDP over the period for the United Kingdom and remain broadly stable for Italy, partly reflecting recent reforms. In contrast, increases of more than 4 percentage points of GDP are projected for ten countries. Spendings relative to GDP starts to rise quickly in the latter part of the current decade, but slowing down from around 2035-40, with declines in a few countries. Significant differences between the change to the peak and the change over the entire period are projected for Austria, Belgium, Denmark, Italy, Japan, the Netherlands, Sweden and the United Kingdom (*Tables 4.7* and *4.8*).

4.2.2. Trends in retirement age

In 2002 the typical official retirement age for men was 65. For women it was between 58 years in Greece and 67 years in Denmark (see *Figure 4.2* and *Table 4.9*). For most of the EU-15 Member States the effective retirement age for 2002 lies more or less beneath the official retirement age. This does not apply to

Greece, which has the lowest official retirement ages (58 years for men and for women) but the effective retirement age lied above the official. Apart from Greece this is also the case for men in Portugal as well as for women in Ireland, Italy and the UK.

Although in recent years the effective retirement age increased for some countries (see *Tables 4.10* and *4.11*) the long-term general trend from 1980 to 2002 is one of decrease.

With regard to men in 2002, Portugal, Denmark and Ireland are the countries with the highest effective retirement ages. Luxembourg, France and especially Belgium have the lowest. In Austria the effective retirement age decreased by 1.4 years between 1999 and 2002. Unfortunately, time series are incomplete for Austria. Overall the retirement ages decreased until the mid-1990s and increased afterwards. On average the EU-15 retirement age for men increased from 61 years in 1997 to 61.4 years in 2002.

With regard to females in 2002, Ireland is the country with the highest effective retirement age. On average Irish women retired at 66.2 years in 2002. Again Belgium is the country with the lowest effective retirement age. On average women retired in EU-15 at 59 in 1998 and 60.5 years in 2002 (see *Figure 4.3*). In contrast to the long-term trend, the 2001-2003 trend shows a rise in retirement age. According to EUROSTAT data the average exit age from the labour force for EU-15 increased by 1.0 year for men and by 1.1 years for women (see Chapter 3). However, the Netherlands, Austria, Portugal (for women), Poland, Slovakia and Finland show a still decreasing trend.

The number of beneficiaries

The data referring to the number of beneficiaries is currently insufficient. Nonetheless EUROSTAT (2004, p. 6) has published some data on beneficiaries. For the year 2001 these data give an impression of the number of recipients of old-age pensions and the entire number of pensioners (*Tables 4.12* and *4.13*). In EU-15 Italy is the country with the highest number of old-age pensioners per 1,000 inhabitants (210). With a population size of about 57 million this corresponds to around 12 million recipients of old-age pensions. The number of recipients is comparatively high also in France (198 recipients per 1,000 inhabitants), Sweden (189), Germany (187) and the UK (186). Greece is the country with the smallest number of recipients (140) per 1,000 inhabitants.

According to the total number of pension recipients (including partial pensions, disability pensions, early retirement benefits, survivors pensions), again Italy is the country with the highest number of beneficiaries (280 pensioners per 1,000

inhabitants). With respect to the comparatively high share of pension recipients in Luxembourg EUROSTAT points out that this result might be influenced by people who are not living in Luxembourg but nevertheless receive a pension because of entitlements acquired there.

A 2003 study provides a general overview on the number of pension beneficiaries in NMS-10 and Candidate Countries (GVG, 2003). It turns out, that the main problem in those countries is the increasing number of beneficiaries in comparison to contributors to the pension system (system dependency ratio). In several countries e.g. in Lithuania, Romania or Poland the number of pensioners increased significantly in the second half of 1990s. In 2000 in Bulgaria the number of pensioners was for the first time higher than the number of insured persons (due to a decrease in the latter group).

4.2.3. Replacement rates in the public pension systems

Replacement rates are a method for assessing the social adequacy objective agreed at the Laeken European Council in 2001, which addresses the extent to which pension arrangements enable retirees to maintain their before retirement living standard to a reasonable degree. As there still is a lack of detailed empirical measures on actual data, the approach most often used is to calculate the benefits for a 'hypothetical' worker going into retirement. OECD (2005c) compares replacement rates in the mandatory pension programs for 'hypothetical' men earning respectively half, once or twice the average and retiring at 65 (see Table 4.14). The highest gross replacement rate for a relative low-earner exceeds 100% in Portugal and Luxembourg, and the lowest is slightly less than 50% in Germany and the Slovak Republic. The mandatory system is strongly redistributive in the UK, Ireland, Denmark and the Czech Republic, which means that high earning people can expect lower replacement rates. In the reformed pension systems of NMS-10 the old-age benefits are the same regardless earnings level (net replacement rates differ due to the redistributive character of the personal income taxation) which is also the case in Greece, Italy and the Netherlands.

In another approach (only for EU-15) both statutory public (first pillar) and private occupational benefits (second pillar, where these exist) are taken into account.

The basic background stipulates that the 'hypothetical' retiree is covered by the most general pension scheme, has a career length of 40 years of full-time work, retires at age 65, has average earnings and the earnings have had a constant

relation to average earnings throughout the career. Replacement rates are calculated at the moment of pension take-up by dividing the pension income during the first year of retirement by the income during the year preceding retirement. In addition further hypothetical cases are defined by a worker with a flat low earnings profile (2/3 of average earnings) and two cases of rising earnings: one starting at average earnings and rising to the double, the other with earnings rising from 80 to 120% of the average over a 40-year career.

As well as current retirement, calculations have been projected for hypothetical retirees in 2010, 2030 and 2050, in order to assess the change in outcomes of particular countries' pension systems, under the assumption that the current state of legislation/reforms is maintained. Also a '10-years indexed replacement rate' is calculated, i.e. the pension in the tenth year after take-up divided by earnings during the ninth year after retirement.

Gross replacement rates are gross earnings in the year before retirement divided by the sum of gross pension entitlements in the first year after retirement (from first, second or third pillars). Net replacement rates are gross earnings minus the retiree's contribution to pension schemes, other social insurance contributions, and taxes, plus means-tested benefits divided by the sum of similar net pension benefits.

The Indicators Sub-group of the EU Social Protection Committee issued a caveat about cross-country comparisons, due to inconsistencies in reporting. Nevertheless, we are presenting the results at this stage of gross replacement rates, broken down into pillars for countries (see *Table 4.15*, as reported for 2002, but 2003 for Denmark, Germany, France, Italy, Austria, Portugal and Sweden). It should be noted that pensions from private schemes are mandatory in three countries (Denmark, the Netherlands and Sweden), and voluntary in five further Member States (Belgium, Germany, Ireland, Italy and the UK).

In the Appendix a brief commentary is given concerning each EU-15 Member State, plus a brief, although incomplete, overview of each system.²²

Time spent in retirement

The present section aims at highlighting the changes in time spent in retirement over time and by gender in the EU-15 Member States. As measure of the time spent in retirement a proxy is used — the life expectancy at the average effective retirement age in each EU-15 Member State.

²² cf. OECD (2004c), Policy Brief, March 2005.

Since the mid 1980s the time spent in retirement is growing, up until 2002. Moreover, this growth is higher for men than for women for almost all EU-15 Member States. However, if considering only the period 1995-2002, we observe an increase in time spent in retirement in the majority of the Member States, but with large variation by sex.

Two main interacting factors are responsible: the rise of the general life expectancy at retirement (see *Figures 4.4* and *4.5*) and the rise in the retirement age. In order to ensure the sustainability of pension systems and to reduce the tendency of shrinking labour market participation, policy measures towards increasing the official retirement age are in the process of implementation in the EU Member States. Such policies promote raising the average effective retirement age and reducing the time spent in retirement, respectively.

The repercussions of these reforms on the time spent in retirement as a whole and specifically for men and women differ across countries. With respect to the whole period 1986-2002 it seems that the reforms of the pension programs affect women to a greater extent than men. Considering only 1995-2002, the increase in the time spent in retirement is in some cases higher for women. This is most likely due to the smaller increase in the average effective retirement age for women than for men (see *Figures 4.6* and *4.7*).

However, because of lack of data and the short time period since the introduction of policy reforms, a stable clustering of countries with specific patterns regarding the time spent in retirement could not be identified.

Life expectancy at 60 years grew in the period 1986-2002 and this trend is clearly observed for both men and women. The life expectancy of women is higher than that of men in each country (see Chapter 2 on Demography).

According to the OECD methodology the average effective age at retirement is derived from observed changes in participation rates (in the labour market) over a 5-year period for successive cohorts of workers (by 5-year age groups) aged 40 and over. The level of the average effective retirement age depends on the participation rate. It is influenced also by the official level of the age at retirement in the various countries (see Chapter 3).

A trend towards a slight decrease in the average effective retirement age is observed from 1986 to 1995 followed by a slight increase from 1996 to 2002. This trend is more pronounced for men than for women. The average effective retirement age for women fluctuates to a higher extent than for men. This is most likely related to the widening of the types of atypical and flexible employment, which are especially taken up by women.

The observed slight decline of the average effective retirement age is likely due to the shift in participation rates in employment. At the same time the slow increase after 1995 could be the result of the upward movement of the official retirement age.

In general, regarding the countries and gender differences during the whole observed period and without considering the fluctuations over time, the average effective retirement age is relatively high in Portugal, Ireland, Greece and Sweden for men and women, in Denmark for men and in Spain for women. In the period after 1995 it is relatively low in Belgium, Luxembourg, Italy and Finland for men and in Belgium, Italy and Luxembourg for women.

The above mentioned increasing trend in the average effective retirement age after 1995 is observed in the majority of the EU-15 Member States and, with some exceptions, for both men and women (see *Figure 4.8*). This increase, which results from the policy of raising the level of the official retirement age, targets a reduction in the time spent in retirement. These measures have, however, different repercussions on the extent and development of the time spent in retirement by men and by women.

Life expectancy at the average effective retirement age

Life expectancy at the average effective retirement age is used as a proxy for the time spent in retirement. A clear growing trend in this life expectancy indicator is observed for men and women (although with some fluctuations) within the period from 1986 to 2002. The increase is, however, not as high as that for the general life expectancy at age 60, which is most likely due to the rise of the average effective retirement age after 1995.

The time men spent in retirement in the observed period is relatively high in Belgium, France and Italy. This is due to the relatively high general life expectancy at 60 years and the relatively low average effective retirement age in France and Italy. In Belgium, although life expectancy at 60 is at a medium level compared with other countries, the average effective retirement age is the lowest and this induces an increase in the time spent in retirement. In Ireland, Denmark and Portugal the time men spent in retirement in the observed period is relatively low, because of the comparatively lower life expectancy at age 60 and the higher average effective retirement age.

For women similar patterns are observed. The time spent in retirement is relatively high in Belgium, France and Italy, due to the fact that the general life expectancy at age 60 is relatively high in France and Italy while the average

effective retirement age is low. In Belgium life expectancy at 60 is at a medium level, but the average effective retirement age is the lowest compared with other countries and this induces an increase in the time spent in retirement. In Ireland, Denmark, Portugal and Spain the time women spent in retirement is relatively low, because of the comparatively lower life expectancy at 60 and the higher average effective retirement age. This is observed in Spain and Denmark especially at the beginning of the period.

The average annual growth rate in the life expectancy at the average effective retirement age during the period 1986-2002 is higher for men than for women in the majority of the observed countries. This is likely due to the fact that the rise of the retirement age affects women to a larger extent, given the fact that at the same time the development of the general life expectancy at 60 follows similar trends for both genders. However, an exception to this trend is visible in Spain and Portugal, where the average annual increase of the time spent in retirement is higher for women than for men (see Figures 4.6 and 4.8).

Focusing on the period 1995-2002, the time spent in retirement shows an increase in the majority of the EU Member States both for men and women, while in some cases a decline is observed. Moreover, the average annual growth rate of the time spent in retirement is higher for men than for women in some countries, while it is lower in other. It is important to compare the patterns of the average annual increase/decline of the time spent in retirement with those of the average effective retirement age (see Figures 4.7 and 4.8). A lack of data for some years in some countries should also be taken into account.

There is a close correlation between the evolution of the effective retirement age and time spent in retirement: if the average effective retirement age increases much more for women than for men, the average annual growth in time spent in retirement is less for women than for men, or even a decline is observed for women. This trend is observed in Luxembourg, Denmark, Italy, Germany, Belgium and Greece.

Likewise, in countries where the average annual growth of the average effective retirement age is less for women than for men, or where even a higher decline for women than for men is observed, the average annual growth in the time spent in retirement rises to a greater extent for women than for men (Ireland, Portugal, Sweden and Spain and to some extent in France and Finland).

4.2.4. Pension reforms in NMS-10 and Candidate Countries and their expected impact on the length of working life

In the second half of the 1990s and beginning of the current decade many of the NMS-10 Member States introduced considerable changes in their pension design, usually changing the philosophy of this part of social security. They did so at different points of time, according to political agendas and consensus building processes (see *Scheme 4.1*).

Some countries have diversified their pension schemes by improving and sometimes diminishing the PAYG component (1st pillar) and creating an obligatory privately-funded module with contributions invested in financial markets via pension funds (2nd pillar). Two countries have changed the mandatory public PAYG scheme (1st pillar) into a *defined contribution scheme* (Latvia and Poland but with various transition rules). Other 'reforms' did not shift the first public tier from defined benefit to defined contribution, and only added the funded pillar.

The countries that have reformed their pension systems are: Hungary (reformed system implemented in 1998), Latvia (2001), Poland (1999), Estonia (2002), Bulgaria (2002), Croatia (2002), Slovak Republic (2001), Lithuania (2004), and Romania (2005).

By now, the following countries do not have a mandatory 2nd pillar: Slovenia (obligatory only for certain professions), the Czech Republic, Malta, Turkey, and Cyprus (where it is mandatory only in the public sector). Slovenia, Malta and the Czech Republic have done only small 'parametric' changes.

The Czech Republic implemented incremental reforms, after which employment rates among older workers have been rising. The possibility for the unemployed to obtain two years of early retirement pension was removed and rules that allow invalidity pensions to be converted to unconditional early retirement pensions will be phased out. In Turkey, 1999 reforms have been effective to some extent, but a new reform has been proposed and legal acts discussed in the parliament. The government is committed under the IMF programme to enact a pension reform law in 2006.

The voluntary supplementary pension funds —where they exist— do not as yet play an important role for providing income in old age. In some countries (like Lithuania, Slovakia, Poland) these supplementary pension systems include tax incentives.

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The described pension reforms in Eastern Europe made the PAYG system more transparent by introducing a closer link between contributions and pensions. This modification gives people a strong incentive to work longer by making it financially more rewarding. However, due to long transition periods, no one retired in the new system yet, so it is not possible to judge correctly, what its impact will be.

To avoid poverty in old age, minimum retirement ages have been introduced and in several countries these ages are gradually increased (see Scheme 4.1). In many countries the standard retirement age is becoming similar both for men and women.

To counterbalance the options of earlier retirement, several countries introduced actuarial deductions for early retirement and bonuses for deferred retirement. Temporarily reduced and permanently reduced early pensions exist in the Czech Republic and Estonia. In Estonia since 2002 the pension benefit raises by 0.9 per cent per each month of postponed retirement. A financial incentive to postpone retirement was introduced also in Latvia, Lithuania, Slovenia and Romania. However, the possibility to postpone retirement does not yet affect the real retirement age significantly.

In some Member States (for example the Czech Republic, Hungary, Poland) special rules exist for unemployed older workers. They can receive a benefit treated as a substitute of early retirement.

To sum up, there is some evidence that the pension systems in NMS-10 and the Candidate Countries are changing in similar directions. Many of them replaced defined benefit systems with defined contribution ones, introduced funded pension schemes (obligatory or voluntary) and disincentives to early retirement, and raised the standard retirement age. Reformed systems provide financial incentives to work longer, but we do not know much about individual future preferences for leisure which could also influence retirement behaviour.

Reforms discussed in the Member States that still have old-type PAYG social security schemes are generally in line with these already implemented in other countries. Another challenge is how to raise the age at retirement in certain professions or for women (Cyprus, Bulgaria or Poland). In Bulgaria, Lithuania or Poland farmers are still exempted from the reformed social security system, which is mentioned as a potential field of future reforms. In Malta and the Czech

Republic pension reforms have been postponed. Discussion about reforms was not finalised yet due to lack of political consensus. The second phase of the reform programme in Turkey foresees, among others: the introduction of supplementary and voluntary private pension schemes, an increase in insurance coverage, and integration of three separate public pension systems.

4.3. Impacts of population ageing on health care systems

In virtually all of the former and most of the new Member States the ageing process is accompanied by improving living conditions and health status of citizens, including the elderly population. Health status improvements are reflected in decreasing mortality, especially mortality caused by circulatory system diseases. However, the health gap between the new Member States, Candidate Countries and the EU-15 is still wide.

In recent years, EU-15 Member States predominantly emphasised reforms to achieve sustainable financing of their health care systems, and recently started to increasingly emphasise quality of care issues. Challenges for the Candidate Countries include more public health actions, improvement of funding health care systems, quality and accessibility of health care services. Health policy of transition countries within NMS-10 has been oriented towards these objectives for the past decades, and that overshadowed the analysis of effects of the demographic and epidemiological transformation.

The increase in the health care costs in NMS-10 will be determined by the increase in the share of elderly population. The health status of the elderly, although improving, is not satisfactory. In communist countries the elderly grew up in the period of late industrialisation and poor nutrition, which strongly influences health outcomes. Next to demographic changes, the increasing health care costs are to a large extent driven by institutional factors, including accessibility to and level of utilisation of pharmaceuticals and the on-going process of health care system reforms. The impact of other than demographic factors on health care costs in EU-15, like medical-technical progress and its diffusion is confirmed by the OECD analysis (Bjornerud *et al.*, 2005). Such analyses indicate that the use of primary and hospital care depends on factors other than the phase of life, while long term care utilisation is strongly related to age. Thus, the impact of ageing on costs of health care may be stronger for long term care than for primary and hospital care.

4.3.1. Health situation in EU-15 and NMS-10.

Trends in the health situation of the elderly

Recent improvements in the health status of the elderly are visible via the increasing life expectancy (see Chapter 2). More specifically, the improvements are reflected in declining mortality due to some (but not all of the) 'major killers' like diseases of the circulatory system or ischaemic heart diseases. Averaged over all EU-15 Member States, mortality due to those diseases fell to 51% and 57% of its 1975 level, respectively. Figures 4.9-4.14 display this trend via standardised death rates (SDR) for the population 65+. Almost all EU-15 Member States succeeded in improving mortality due to diseases of the circulatory system (except Greece). Even though mortality due to diseases of the circulatory system in NMS-10 also improved, mortality in those countries is on average almost twice as high as in EU-15 (SDRs of 3300 and 1800, respectively).

The health status and longevity of the elderly in NMS-10 and the Candidate Countries is improving. This is not directly related to health care system improvements, but to changes in food and alcohol consumption, availability of drugs and promotion of healthier life styles. Self-assessed health status becomes worse with age, although strong cross-country variation in the share of elderly reporting poor health is observed.²³ Despite health status improvement, NMS-10 is still in the process of catching up with EU-15. Epidemiological research (Wojtyniak and Goryński, 2003) indicates that, despite rapid increases in the life expectancy of the elderly, their health status in NMS-10 and the Candidate Countries will not be as good as the health status of the elderly population in EU-15 for at least another two decades.

Mortality due to different circulatory system diseases is significantly higher in NMS-10 than in EU-15. However, in some countries (including Malta, Slovenia, Poland and the Czech Republic) the level of mortality caused by circulatory system diseases has decreased systematically since the 1990s. Only in Bulgaria and Romania no decrease started (yet). Most of the countries would need more than 30 years to reach the mortality levels due to circulatory system diseases of the current, average EU-15 level (Wojtyniak and Goryński, 2003). With respect to mortality due to ischaemic heart diseases, on the other hand, we

can distinguish two groups of countries: Sweden, Denmark, Finland, Ireland,

In Slovakia only 26.5% of the 60+ population assesses its health status as 'poor' or 'very poor' while in Poland and Estonia the share is over 50%.

UK and Austria started at a considerably high level, and succeeded in reducing this mortality remarkably. The Netherlands, starting from a medium level, even 'switched' into the low-mortality group, which otherwise mainly consists of Mediterranean countries. As NMS-10 on average did not improve, the gap between EU-15 and NMS-10 averages has been widening.

With respect to deaths due to cancer, the picture is less clear. Some countries like Finland and Austria started from relatively high levels during the 1970s, and are now among the countries with rather low cancer mortality. A second group of Member States (Portugal, Greece, Spain) started at favourable levels, but experienced an increase in cancer mortality. Some other countries do not show a uniform time trend throughout the time period presented.

On average, mortality caused by cancers in NMS-10 is slightly lower than in EU-15. This is mainly due to the low mortality levels in Bulgaria and Romania. However, the trend of mortality due to cancer is different. While in EU-15 mortality of the elderly is decreasing, it is rapidly increasing in NMS-10. This may be explained by a lack of adequate public health activities in these countries, including raising awareness on the incidence of cancers, lower access to medical services and prevention activities.

Mortality due to external causes is higher in NMS-10 than in EU-15. The only exception is the lower mortality related to mental disorders (suicides) and road accidents. However, these trends are not strongly marked among the elderly population. Mortality caused by injuries and poisoning among the elderly is on average close to the EU-15 level (the SDR varies between 280 per 100,000 population in Hungary and 100 in Bulgaria). Similarly, mortality caused by suicides and self-inflicted injuries is stable at very low levels (SDR up to 50 per 100,000 population) (*Figure 4.15*). In Hungary, where mortality due to external causes was the highest, a decreasing trend is visible since 1990.

While data on mortality are available in a fairly standardised way for many countries, availability of data on morbidity is more scarce and less standardised. Most EU-15 countries participated in the European Community Household Panel (ECHP), a survey aiming at the production of comparable data on a series of topics including self-assessed health status. The health information contained in this survey has been analysed already by a number of projects.²⁴ However, comparable panel data are not available for NMS-10. Studies in some of these countries allow only for partial analysis of self-assessed health status.

²⁴ The results in this section are taken from Ahn *et al.* (2003), Chapter 5 and Chapter 6.

Based on ECHP²⁵ data for 11 EU Member States, the results from the AGIR project confirm that self-assessed health status becomes worse with age by a similar gradient across countries. But there are large differences in the health status for given ages among the countries. For most age groups, Denmark and Ireland report the best health status while Portugal, Italy and Spain report a much worse status. The proportion of participants with good or very good health varies substantially between the countries even among the young population and the differences widen with age.

As expected, ECHP evaluations show that older people suffer more often from disability than younger persons. But cross-country differences are somewhat smaller than in the case of the general health status. Nevertheless, the differences between countries are again large enough to raise reluctance in accepting them as genuine differences across countries. Among the population aged 55-59 the disability rate is less than 25% in Ireland and Greece while it is almost 40% in Germany and Portugal. Cross-country differences in severe disability are proportionally larger, especially among the elderly population. Here, France stands out for its high prevalence. Moreover, the country ranking by disability is widely different from that by the general health status. Even though part of the cross-country differences at old ages may be due to differences in the proportion of the institutionalised population —institutionalised persons are not included in the ECHP— it is not yet clear why countries display such distinct levels of self-assessed health.²⁶

Over the period 1994-2001 the average health status stayed almost at the same level.²⁷ This is especially true for the proportions in good health. On the other hand, the proportion in bad health among the population older than 54 years

The European Community Household Survey (ECHP) includes two questions regarding the health status. One is "How is your health in general?" with possible answers "very good", "good", "fair", "bad" and "very bad". The second question addresses chronic illness or disability by asking "Are you hampered in your daily activities by any chronic physical or mental health problem?" with possible answers "Yes, severely", "Yes, to some extent", and "No". The general health status question is based entirely on respondents' own perception. The question asked is not concrete in terms of reference time period or in the description of each category of the health status, therefore leaving large room for interpretation variability by interviewees.

Ordered logit regressions for health status indicate that the calendar month of the interview cannot contribute to explain the observed cross-country differences in self-assessed health status. Larger national health surveys from Italy and Spain, countries which share similar cultural and demographic regimes and a similar language, also exhibit substantial differences in health status, see Ahn *et al.* (2003, p.33) for details.

To disentangle shifts in the health status from demographic shifts, population weights (by country and age group) in 1995 were applied for all 1994-2001 surveys.

slightly decreased. The maximal change is observed for bad health in the age group 55-64 with a drop of 3 percentage points over the six-year period. For the age groups below 54 almost no change was observed.

The tentative conclusion is that there has been almost no change or, if at all, only a slight improvement for those aged 55 and over in health and disability status over the observed period.

As better educated younger generations replace older generations with lower levels of education, the health status of the population will improve in the future. The magnitude of the improvement will be related to differences in education levels between generations and differences in health status by education levels. Calculations based upon ECHP data show that the potential health improvement owing to educational composition is highest among the 55-64 age group and lowest among the 75-84 age group, irrespective of the country considered. But variation between countries is substantial. For example, the proportion of the population aged 55-64 in good health is expected to increase from 54% (1994) to 63% (2014) in Greece, from 60% to 63% in Belgium, and from 30% to 33% in Portugal. Analogous calculations show a decreasing proportion of the population with disabilities, with Ireland (1994: 26%, 2014: 23%) reaching the lowest level in the age group 55-64 and Portugal (1994: 42%, 2014: 40%) presenting the opposite extreme.

Institutional health care use in EU-15²⁸

Long-term care-giving in institutions and professional care-giving at home is related to the oldest old. The prevalence rates (the share of long-term care recipients within the population of the same age) increase sharply from the age of 70 onwards. In the oldest age group (90+) the prevalence rates are between 20% for France and over 50% in the Netherlands. Of five countries with sufficient data available, the highest prevalence for people receiving long-term care in institutions is observed for the Netherlands, and Belgium is second. People receiving professional long-term care at home are on average younger than institutionalised persons. Women have a higher probability of being in need of long-term care than men, mainly because of the higher proportion of widowed women in the oldest age groups. The prevalence rates show no clear time trend: in Denmark the prevalence rates decreased, while they increased in Belgium, Finland and Germany, especially among the oldest age groups.

²⁸ Information for this Chapter is mainly from Schulz (2004), who restricted the analysis to Germany, Finland, Belgium, the Netherlands, and France due to data availability.

Improvements in life expectancy do not seem to be directly connected with long-term care-giving in institutions. This could be caused by political decisions. In most countries there are waiting lists for nursing homes and there is a deinstitutionalisation strategy. Therefore, an improvement of life expectancy is only one of several factors that influence institutionalisation. The prevalence rates for long-term care-giving at home by professional caregivers are stable in most countries. This may be related to two contrary effects: the deinstitutionalisation strategy, which prefers care-giving at home over care-giving in institutions, and improvements in life expectancy.

Data on both institutional care and care-giving within the household or family, are not frequently available and often not adequately comparable between countries. Data on the supply of beds for long-term care in institutions are somewhat more readily available. Even though the delineation between inpatient acute and long-term care does not follow a common definition in all countries, apparently there is a trade-off between long-term and acute care beds (see Hofmarcher et al., 2004). The Scandinavian countries have relatively few acute care beds and twice as many long-term care beds. Some new Member States, but also Austria and Belgium, have a high number of acute care beds and a markedly lower number of long-term care beds. In the 'corporate' welfare state model the family has a greater importance than in the Nordic countries, where this role is largely taken by the state. Luxembourg and Germany are outliers in this pattern: these rich social security countries afford a comparably high number of beds, with especially Germany having a high number of acute care beds. We may expect the delineation between the two fields of care to remain to a certain extent quite blurred. Nevertheless, the allocation of resources between these fields seems inefficient in some countries.

Institutional health care use in NMS-10 and the Candidate Countries

Use of institutional care, especially hospitalisation, varies significantly between NMS-10 and the Candidate Countries and is strongly influenced not only by epidemiological factors and the population age structure, but also by reforms of the sector, availability of hospital services and care as well as incentives created by different payment mechanisms. Results of the analysis for several countries²⁹ indicate that ageing is an important factor for primary care utilisation; however, while controlling for demographic and health care system factors, it turns out not

The impact of population ageing on medical services utilisation and demographically induced costs of health system are subject of the AHEAD Project implemented by the ENEPRI network (<u>www.enepri.org</u>) within the 6th Framework Programme. Analysis covers 5 new Member States and Candidate Countries.

to be crucial to increase the utilisation of specialists and hospital care. Thus, hospital care costs in NMS-10 and the Candidate Countries are to a lesser extent driven by age than by other factors, including health status, accessibility of hospital care and incentives created by the health care systems. An important driver of increasing health care costs is the growing use of medications.

In all the countries in this region long term care is not strongly institutionalised. Traditionally, spouses and families provide care, and not institutions, including hospitals, GP or social assistance. Only for the immediate period before death, patients may turn to a hospital or the like. Thus, expenditures for long term care are very low (for example 0.1% of GDP in 2002 in Hungary). Therefore, it is foreseen that long term care costs in NMS-10 and the Candidate Countries will not grow as strongly as hospital and primary care costs.

Demographically induced costs of health care

Using a common methodology and time-invariant expenditure age-profiles, projections on future public expenditures for acute health care and long-term care in 14 EU Member States were carried out in 2001.³⁰ The project covered the likely impact of demographic changes on health expenditure, but by and large did not account for likely future changes in the provision of health care and long-term care or medical-technological changes.

Throughout the EU expenditures for health care and long-term care are rising as a consequence of population ageing, reaching on average a value of 6.6% of GDP in 2050 (*Table 4.16*). Ireland, France, and Germany will have the highest expenditure rates for acute health care, amounting to more than 7.0% of GDP. Note however that these countries were already the top ranking in 2000. In the 2000 bottom end countries (United Kingdom, Finland and the Netherlands) the expenditure increase is below average, leading to acute care expenditure of less than 6% of GDP and roughly 8%, if also long-term care is included. From 2000 to 2050 the growth of public expenditure for acute care in the EU ranges from 0.7% (Denmark) to 2.3% (Ireland) of GDP with an EU-average of 2.2%.

The consequences of demographically caused changes on public expenditure for long-term care lead to an increase of 0.2% (Ireland) to 2.2% (the Netherlands) of GDP. High-expenditure countries also experience the highest future increase, and vice versa expenditures rise least in low-expenditure countries (*Table 4.17*).

See for definitions of the public expenditure the EU paper EPC/ECFIN/630-EN-final, October 2001. Due to different limitations variation in levels is only partly comparable.

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When it comes to public health care expenditure on long-term care in 2000, the Member States can generally be divided into two groups: On the one hand those countries that spend less than one percent of GDP for long-term care (like Austria, Belgium, France, Ireland and Italy) and, on the other hand, the countries that traditionally provide relatively much care to the elderly, like Sweden and Denmark as well as the Netherlands, with expenditure rates of 2.5% to 3.0% of GDP. With 1.6% and 1.7% of GDP, respectively, Finland and the United Kingdom are exceptions to this dichotomy, ranking somewhere in the middle. According to the forecasts, the level of expenditure on long-term care in 2050 will amount to 0.9% of GDP in Ireland and 5.1% of GDP in Denmark.

To date, population ageing driven comparative projections of the health care level expenditures in NMS-10 and Candidate Countries have not been made. However, based on simple relations between increases in medical services utilisation at older ages and the increasing share of the elderly in the population, basic projections were prepared within the AHEAD project. At the current stage only results for Poland are available, which can be used as an indicator of trends of expenditure increases in other countries of the region. Projections cover public insurance expenditures on in-patient and out-patient care and forecast trends that countries of the region will face in the next decades. Poland is the largest country of the region, with 38 million inhabitants and a dynamically ageing population. The results show rapid expenditure increases after 2007 and high public health insurance system deficits (*Figure 4.16*).

Health care expenditures are not high priority expenditures in Central and Eastern Europe, which leads to low levels of funding. Generally, the level of health care funding in the NMS-10 and the Candidate Countries is more than 2 percent points of GDP lower than on average in EU-15. Only in Malta and Slovenia the level of health care funding is close to the EU-15 average. Mediterranean countries (Cyprus, Malta and Turkey) strongly differ from the transition countries in Central and Eastern Europe in terms of systems of health care funding. Firstly, the level of private provision of care is significantly higher. Secondly, public care tends to be funded from general taxation. Only in Cyprus the introduction of a national health insurance is planned in the near future. Transition countries within NMS-10 and the Candidate Countries have undergone reforms in the 1990s shifting from state funded systems to contribution based systems (see *Scheme 4.2*). Successful implementation of reforms, sustainable insurance budgets, better administration of the health care system, and creation of new purchaser institutions was the main priority of the

health care systems in these countries. Other activities of governments and health ministries target towards improving the health status of the population, mainly by introducing public health activities at the central and local level. Health promotion and prevention, leading to further health status improvement, may have a positive impact on the demand side of health care systems by extending working life and the amount of health insurance contributions paid.

Health care systems and the extension of working life

If (early) retirement is to be reduced in order to extend the average working life, the question of the interrelationship between (early) retirement and health status arises. To our knowledge, no study comparing experiences in several EU Member States exists today. But a number of academic studies cover this topic using data from single EU countries.

Using data from a Dutch survey on the period 1993-1995, Kerkhofs *et al.* (1999) provide evidence that health and retirement are endogenously related. Health matters but the size of the health effect crucially depends on the measure used. They find that subjective measures overstate the effect of health on retirement and that health endogeneity suppresses the health effect. Incentive effects of the pension system are relatively insensitive to alternative specifications for health. The Dutch study distinguishes different routes into retirement and finds variation in the relative importance of health and financial effects. While financial incentives are the most important when applying for early retirement, health is dominant in explaining transitions into disability insurance and retirement via unemployment insurance.

A seminal article by Bound *et al.* (1999) analyses the dynamic relationship between health and alternative labour force transitions. The evidence suggests that not just poor health, but health declines help explain retirement behaviour. Disney *et al.* (2003) find the deterioration in individual health to be strongly and positively associated with moving out of work. Sensitivity analyses, however, raise doubts about whether the respective effects of health deterioration and improvement on the transition to and from work are symmetrical. Riphahn

improvement on the transition to and from work are symmetrical. Riphann (1999) finds for older German workers that a health shock increases transition probabilities: it trebles the probability of leaving the labour force and almost doubles the risk of becoming unemployed. The financial effects of the health shocks are relatively small.

To summarise, the existing literature suggests that there is a connection between poor or deteriorating health and (early) transitions into retirement. Estimates for the strength of this relation depend upon estimation methodology and the health

measure chosen, and several research questions have not yet been solved. Furthermore, differences in specific national regulations concerning retirement make generalisations difficult. Even though data from the ECHP cannot confirm overall improvements in health status, partly because of the short time span of the data coverage, we have some indications for improvements in health, also among the elderly. Some recent evidence points to maximal changes towards bad health in the age group 55-64, i.e. a decreasing share of bad health (Ahn *et al.*, 2003). A rising share of elderly persons with higher levels of education should also contribute to improving health status. There is no reason to believe that such improvements will come to a halt in the near future. The thus expected health gains among the elderly should help to enable strategies which prolong working careers and reduce early health-related retirement.

With respect to several diseases like muscosceletal diseases which often lead to early retirement, we observe declines in the number of early retired. Perhaps those effects are at least partly due to programs promoting healthy workplaces. But one of the areas where much work still remains to be done seems to be mental health. The occurrence of mental health problems in the European population displays a clear age pattern, with the age group 65+ years showing the highest prevalence (27.2%) (EORG 2003). Furthermore, we have evidence that in some countries disability pensions are quite often awarded for mental ill health (for example Austria: 19%, Denmark: 29%, Sweden: male 22%, female 19%, see Prinz, 2003). The share of mental ill health in all new disability pensions is rising, while the number of disability pensions due to cardiovascular or muscosceletal diseases is declining in several countries. In Austria in 1999, the share of psychiatric illnesses in all disability pensions granted for persons younger than 30 years was 40% (Prinz, 2003). Even though the rising (measured) prevalence of mental illness cannot be taken at face value —awareness for mental health is rising, the stigma-effect is slowly being reduced— measures to improve the mental health situation in the workforce might contribute significantly to an extension of the working life.

While most of this Section is devoted to the issue of improving health as a means to shift retirement to higher age, we must be aware that we also face opposite effects. Informal care by —mostly female—family members is still the predominant form of care in many EU Member States, and even more so in countries with some kind of Bismarckian health care system compared to countries with a mostly tax-funded system. Therefore, an extension of working

life most likely will increase the pressure on institutional or formal arrangements of care for the frail elderly.

4.4. Discussion

Population ageing has a significant impact on the public provision of social security services. This Chapter monitors developments in the social protection systems, their costs, adequacy in providing income for the old age and their impact on prolonging individual working life. Additionally, the possible impact of demographic processes on social protection systems, mainly European pension systems and health care systems, is discussed.

The marked increase in the old-age dependency ratio constitutes a fundamental challenge for the public pension systems within the EU. Evidence for past developments points to rather unfavourable trends that have aggravated the problem for public pension schemes in Europe. Within the past twenty years time spent in retirement has increased significantly, which is partly explained by increasing life expectancy. However, reductions in the effective retirement age have also played their role in extending the time spent in retirement. The lengthening of time spent in retirement arises as a new problem within the context of the demographic change in Europe. It is related to population ageing and the need for new policies within the pension programmes in the EU Member States. Moreover, gender differences in time spent in retirement reveal the need for specific policy measures for women in old age.

Only in recent years Member States took action to reverse the trend towards early retirement. Various measures were introduced in order to extend working life. First positive results of the reforms have become visible — in many countries the long term trend towards early retirement came to a halt. If Member States succeed in increasing the time span citizens remain active at the labour market it will be possible to provide for adequate public pensions in the Union.

However, pension reforms are only one measure to apply. At the beginning of the 20th century, terminating work was connected mainly with health status — workers could not work, even if they wanted to. Today, there exist wider possibilities of choosing the age of leaving the labour force without the risk of a too large income deterioration. Additionally, next to health issues or economic incentives provided by the pension system, cultural or family factors can be

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important for choosing early retirement,³¹ making this an interesting field for further research.

Populations are ageing all over the EU. The share of the elderly population is constantly increasing. Even though the overall health situation of the elderly is improving in NMS-10 as well as in EU-15, we must expect that a health gap favouring citizens in EU-15 countries will be prevailing in the near future. Even more worrisome is the observation that elderly mortality due to selected important diseases like cancer or ischaemic heart diseases, declining in EU-15, is increasing in NMS-10 or is not yet declining.

Currently, the GDP share NMS-10 countries spend on health is approximately two thirds of the respective share in EU-15 countries, with a comparable share of public expenditure in total expenditure on health. Measured as expenditure per capita, the difference in spending is even larger. This difference in funding is especially problematic when we consider funding for health goods or services traded at international prices.

Projections for future public expenditure on health predict an increase of the GDP share spent on health by more than 2 percentage points in EU-15 due to population ageing. Expenditures for long-term care are likely to contribute more than proportionately to this increase. As it is not yet clear which impact price changes, medical-technical progress and technology diffusion will have on health care expenditure, such projection results should be interpreted with caution.

Gustman *et al.* (1994) underlined also the spouse's activity, as well as consumption and saving patterns of the society an individual belongs to.

→ B 30.0 DK D 25.0 EL -E 20.0 % of GDP 15.0 NL 10.0 5.0 S 0.0 UK EU 15 2000 2005 2010 2020 2030 2040 2050

Figure 4.1. Projections for spending on public pension as a share of GDP (current policy scenario 2000-2050)

Source: EUROSTAT.

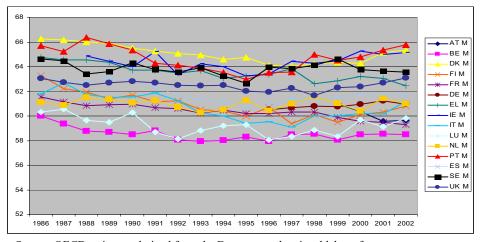


Figure 4.2. Average effective age of retirement, male

Source: OECD estimates derived from the European and national labour force surveys.

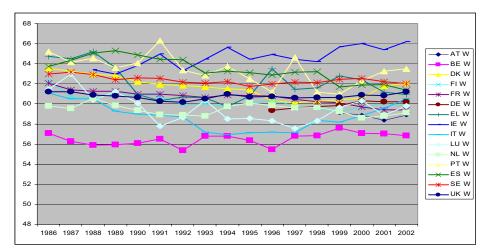


Figure 4.3. Average effective age of retirement, female

Source: OECD estimates derived from the European and national labour force surveys.

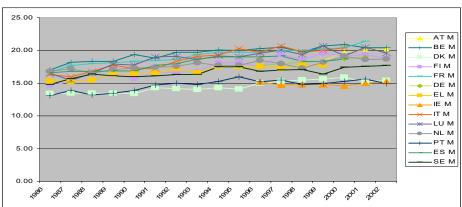
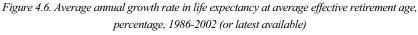


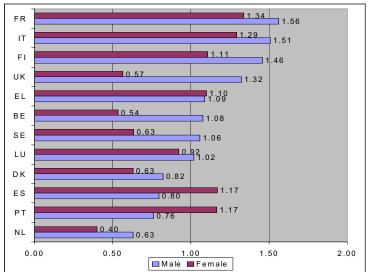
Figure 4.4. Life expectancy at average effective retirement age, i.e. time spent in retirement, male

Source: EUROSTAT.

Figure 4.5. Life expectancy at average effective retirement age, i.e. time spent in retirement, female

Source: EUROSTAT.

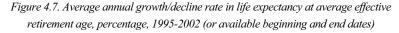


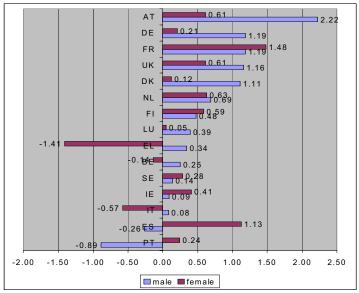


Source: EUROSTAT, own calculations.

Note: latest available-FR and DE-2001; EL-1999; IT and ES and UK-2000.F.

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Source: EUROSTAT, own calculations.

Note: AT-1999-2002; FR-1995-2001; DE-1996-2001; EL-1995-1999; IE-1996-

2002;

IT-1995-2000; ES-1995-2000; UK-1995-2000.

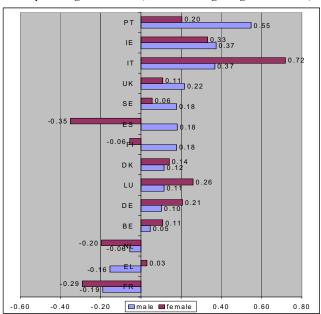


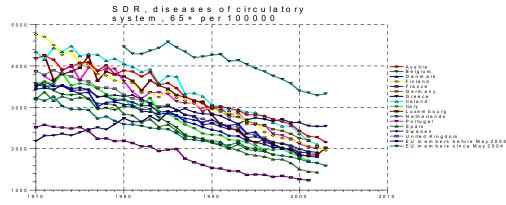
Figure 4.8. Average annual growth/decline rate in the average effective retirement age, percentage, 1995-2002 (or available beginning and end dates)

Source: OECD estimates derived from the European and national labour force surveys, own calculations.

Note: Austria is not included, because data are available only for the period from 1999-2002.

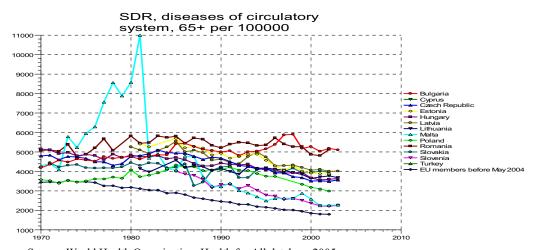
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Figure 4.9.



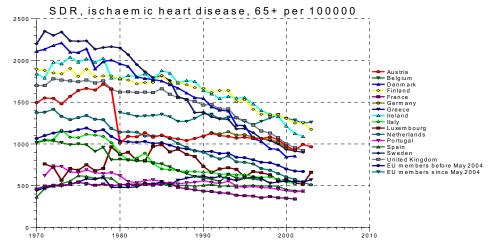
Source: World Health Organization, Health for All database 2005.

Figure 4.10.



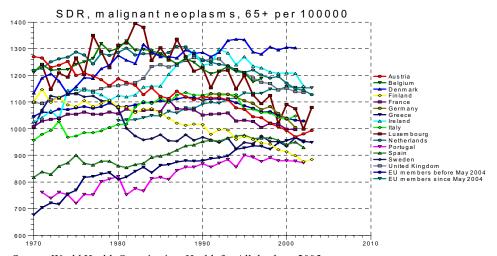
Source: World Health Organization, Health for All database 2005.

Figure 4.11.



Source: World Health Organization, Health for All database 2005.

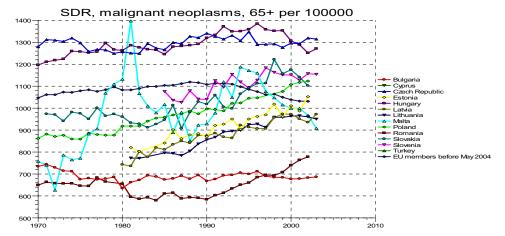
Figure 4.12



Source: World Health Organization, Health for All database 2005.

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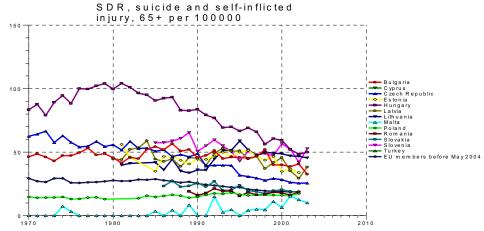
Figure 4.13.



Source: World Health Organization, Health for All database 2005.

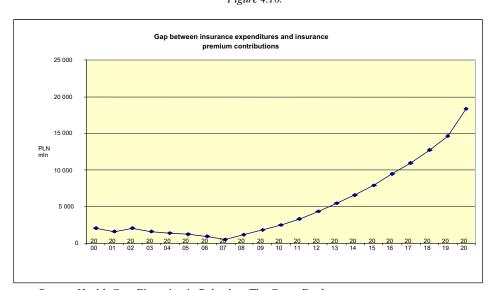
Source: World Health Organization, Health for All database 2005.

Figure 4.15.



Source: World Health Organization, Health for All database 2005.

Figure 4.16.



Source: Health Care Financing in Poland — The Green Book

Table 4.1. Old-age pension expenditure as a percentage of GDP, 1990-2002

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
EU 15	9.8	8.7	9.1	9.2	9.2	9.2	9.6	9.6	9.2	9.2	9.6	9.6	9.6
EU25											9.2	9.2	
Italy	9.2	9.7	10.4	10.8	10.8	10.6	10.7	11.2	11.1	11.3	11.1	11.2	11.4
Germany	9.7	9.3	9.2	9.8	6.6	10.1	10.2	10.2	10.2	10.3	10.3	10.5	10.7
France	9.3	9.5	9.8	10.3	10.4	10.5	10.7	10.7	10.6	10.7	10.5	10.5	10.3
United Kingdom	8.2	8.8	9.3	9.5	9.3	9.2	9.3	9.4	9.1	9.3	6.6	9.6	9.5
Austria	7.8	7.9	8.0	8.7	8.7	8.7	8.7	8.8	8.7	8.7	8.7	9.1	9.3
Sweden				10.1	9.8	9.4	9.2	9.4	9.3	9.0	8.7	8.7	8.9
Greece	7.3	8.9	8.9	7.1	7.2	7.4	9.7	7.7	8.3	8.3	8.1	8.6	8.4
Netherlands	8.2	8.1	8.3	8.4	8.0	7.7	7.9	7.8	7.9	8.0	8.0	8.0	8.1
Portugal	4.5	4.9	5.3	5.8	5.9	6.5	6.7	9.9	6.7	7.0	7.3	7.7	7.9
Spain	9.9	6.8	7.1	7.6	9.7	7.6	7.8	7.7	7.6	7.5	7.6	7.5	7.4
Belgium	7.0	7.3	7.5	8.0	7.9	7.5	7.6	7.5	7.5	7.4	7.2	7.3	7.3
Denmark	0.9	6.1	6.1	6.3	7.4	7.3	7.1	6.9	6.9	8.9	6.7	6.8	6.9
Finland	0.9	6.9	7.7	7.9	7.7	7.4	7.4	7.0	9.9	6.7	6.4	9.9	6.8
Luxembourg	8.1	8.7	8.8	8.8	8.8	9.0	8.9	8.5	7.9	7.6	7.0	4.2	4.4
Ireland	3.1	3.1	3.1	3.0	2.8	2.5	2.2	2.0	1.9	1.8	1.7	1.7	1.6
Czech Republic						6.1	6.3	7.0	8.9	6.9	6.7	9.9	9.9
Cyprus*						4.2	4.5	4.7	4.7	4.8			
Estonia											5.9	5.4	
Latvia											7.8	7.0	
Lithuania											6.7	6.2	
Hungary										7.0	6.7	6.7	6.8
Malta										5.7	5.5	6.1	6.1
Poland											7.9	8.5	
Slovenia							7.4	7.5	7.7	7.3	7.6	9.7	7.8
Slovakia						6.1	6.1	6.1	6.2	6.2	6.2	6.3	6.4

Table 4.2. Total pension expenditure as a percentage of GDP, 1990-2002

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
EU 15	11.8	12.0	12.4	12.9	12.9	12.8	12.9	12.9	12.7	12.7	12.6	12.6	12.6
EU25											12.6	12.5	
Italy	13.4	13.6	14.5	14.9	15.0	14.5	14.8	15.3	14.8	15.1	14.7	14.7	14.9
Austria	13.2	13.3	13.3	14.1	14.1	14.3	14.4	14.5	14.4	14.4	14.2	14.5	14.6
Germany	12.0	11.7	12.0	12.5	12.6	12.8	12.9	13.0	12.9	13.0	13.1	13.2	13.4
France	12.5	12.7	12.9	13.4	13.4	13.5	13.7	13.7	13.5	13.5	13.2	13.2	13.2
Netherlands	14.7	14.7	15.0	15.0	14.4	14.1	14.0	13.7	13.1	13.2	13.0	12.9	13.1
Greece	11.9	11.1	10.8	11.3	1.7	11.2	11.7	11.7	12.4	12.6	12.5	13.2	13.0
Sweden				13.8	13.5	12.8	12.8	12.5	12.3	12.1	11.7	11.7	12.0
Portugal	7.7	8.2	8.7	9.6	6.6	10.2	10.4	10.4	10.6	10.7	11.1	11.5	11.9
United Kingdom	10.2	11.2	11.9	12.2	12.0	11.9	11.9	12.0	11.5	11.6	12.3	11.8	11.7
Belgium	11.8	12.2	12.3	13.0	12.8	12.1	12.1	11.8	11.7	11.5	11.1	11.3	11.2
Finland	10.4	12.0	13.3	13.8	13.4	12.8	12.7	12.0	11.2	11.3	10.7	10.9	11.2
Denmark	9.6	9.7	8.6	10.1	11.5	11.5	11.5	11.2	1.	10.9	10.6	10.7	10.8
Luxembourg	11.8	12.6	12.5	12.5	12.3	12.7	12.5	12.0	1.	10.7	9.7	10.1	10.6
Spain	9.5	9.4	9.8	10.3	10.4	10.3	10.5	10.3	10.1	9.9	10.0	9.7	9.7
Ireland	5.6	2.8	5.8	5.6	5.4	5.1	4.7	4.3	4.1	3.8	3.7	3.7	3.6
Czech Republic						7.3	9.7	8.5	8.5	8.8	8.8	8.7	8.9
Estonia											6.9	6.3	
Latvia											9.6	9.8	
Lithuania											7.9	7.3	
Hungary										9.1	8.7	8.9	9.1
Malta										8.4	8.1	8.9	9.0
Poland											13.0	13.9	
Slovenia							11.4	11.3	11.3	11.4	11.5	11.6	11.8
Slovakia						7.4	7.3	7.3	7.4	7.5	7.5	7.5	7.5
Source: EUROSTAT	-AT												

Table 4.3. Total pension expenditure in PPPs per inhabitant 1990-2002

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
EU 15	1779.7	1885.0	2029.2	2100.0	2193.8	2262.3	2392.9	2509.5	2568.6	2697.2	2857.8	2931.9	3045.9
EU25											2477.6	2557.4	
Luxembourg	2629.1	3157.2	3249.6	3354.5	3449.8	3617.2	3733.8	3916.5	3966.3	4312.3	4390.9	4589.1	4898.2
Austria	2262.7	2451.3	2562.7	2715.1	2839.4	2951.9	3141.4	3234.9	3331.1	3544.0	3758.0	3834.1	3941.7
Italy	2074.2	2243.8	2469.4	2538.7	2653.6	2676.9	2847.2	3047.0	3103.1	3285.4	3375.6	3434.2	3588.8
Netherlands	2336.2	2495.4	2628.1	2659.6	2650.3	2704.6	2831.7	2928.4	2942.1	3100.2	3263.6	3412.8	3504.7
France	1978.3	2110.6	2240.4	2302.2	2393.0	2483.0	2624.9	2768.0	2866.6	2990.4	3110.8	3234.2	3321.6
Germany	2076.8	2008.3	2165.1	2228.6	2337.0	2442.2	2561.7	2649.5	2729.6	2851.0	3019.8	3091.8	3213.6
Sweden				2342.2	2419.3	2418.4	2520.8	2576.1	2613.6	2791.2	2884.8	2906.1	3022.8
United Kingdom	1479.4	1671.5	1824.9	1926.0	2018.6	2078.9	2204.5	2380.8	2370.7	2496.8	2831.3	2848.4	2976.5
Denmark	1559.1	1676.1	1743.8	1810.6	2206.0	2283.8	2422.8	2483.5	2549.7	2688.0	2775.9	2882.3	2930.0
Belgium	1752.6	2084.0	2181.3	2300.1	2364.6	2324.9	2412.8	2454.1	2506.4	2575.2	2683.7	2811.8	2866.3
Finland	1666.3	1881.9	2060.0	2111.3	2168.3	2162.4	2263.4	2354.3	2356.7	2442.8	2527.9	2657.1	2753.5
Greece	1193.1	1194.2	1201.8	1233.5	1257.6	1311.8	1430.5	1531.4	1691.4	1817.4	1924.9	2148.3	2295.1
Portugal	739.2	859.7	952.2	1033.7	1097.5	1188.5	1279.2	1366.0	1475.6	1595.3	1768.1	1884.9	2016.4
Spain	1053.3	1159.2	1250.1	1308.4	1371.7	1442.1	1547.0	1603.8	1668.7	1757.2	1881.6	1912.5	2007.3
Ireland	645.6	706.3	743.4	746.9	777.3	804.1	818.0	862.7	883.3	900.4	956.7	1024.5	1094.3
Czech Republic						819.6	922.4	1049.6	1056.7	1119.4	1172.1	1231.5	1327.0
Estonia											594.3	575.6	
Latvia											704.6	688.8	
Lithuania											626.3	638.1	
Hungary										925.9	922.8	1069.9	1172.4
Malta										1292.0	1330.0	1422.5	1462.1
Poland											1224.3	1349.3	
Slovenia							1329.7	1426.4	1505.1	1630.2	1741.4	1851.4	1970.7
Slovakia						523.0	570.0	609.1	9.759	9.789	743.4	781.3	847.0

Table 4.4. Projections for spending on public pension as a share of GDP (current policy scenario 2000-2050)

	2000	2005	2010	2020	2030	2040	2050	Change 2000-50
EL	12.6	12.4	12.6	15.4	19.6	23.8	24.8	12.2
E	9.4	8.8	8.9	9.9	12.6	16.0	17.3	7.9
NL	7.9	8.3	9.1	11.1	13.1	14.1	13.6	5.7
D	11.8	11.4	11.2	12.6	15.5	16.6	16.9	5.0
FIN	11.3	10.9	11.6	12.9	14.9	16.0	15.9	4.7
IRL	4.6	4.5	5.0	6.7	7.6	8.3	9.0	4.4
Р	9.8	10.9	11.8	13.1	13.6	13.8	13.2	3.4
В	10.0	9.5	9.9	11.4	13.3	13.7	13.3	3.3
DK	10.5	11.3	12.5	13.8	14.5	14.0	13.3	2.9
EU 15	10.7	10.5	10.8	12.0	13.6	14.2	13.6*	2.9*
Α	14.5	14.5	14.9	16.0	18.1	18.3	17.0	2.5
L	7.4	7.4	7.5	8.2	9.2	9.5	9.3	1.9
S	9.0	9.2	9.6	10.7	11.4	11.4	10.7	1.7
I	13.8	13.8	13.9	14.8	15.7	15.7	14.1	0.3
UK	5.5	5.3	5.1	4.9	5.2	5.0	4.4	-1.1
F	12.1	12.2	13.1	15.0	16.0	15.8		

Source: EPC (2001), IHS * without France

Table 4.5. Decomposing pension spending as a percentage of GDP between 2000 and 2050

	Depen- dency	Employ- ment	Eligibility	Benefit	Total	Residual
BE	5.2	-0.9	0.9	-2.0	3.3	0.0
DK	4.1	-0.2	0.5	-1.7	2.7	0.1
DE	6.2	-0.7	2.0	-2.7	4.8	0.2
EL	9.9	-3.6	1.4	4.0	11.7	0.5
ES	8.2	-2.4	2.0	-0.3	7.5	0.5
FR	7.7	-0.9	0.7	-3.6	3.9	-0.1
IE	4.5	-0.9	1.4	-0.7	4.3	0.1
IT	9.5	-3.1	-1.4	-4.9	0.2	0.0
LU	NA	NA	NA	NA	NA	NA
NL	5.4	-0.6	0.5	0.2	5.5	0.2
AT	10.5	-2.2	-3.0	-2.9	2.4	0.1
PT	6.7	-1.1	-2.4	0.1	3.3	0.1
FI	6.6	-0.1	-1.3	-0.1	5.0	-0.3
SE	3.9	-0.5	8.0	-2.6	1.7	0.0
UK	2.4	0.0	-0.1	-3.4	-1.0	-0.1
EU	6.4	-1.1	0.6	-2.8	3.1	-0.2

Notes

- Dependency ratio is population aged 55+ as % of population aged 15 to 64
- Employment (inverse) ratio is population aged 15-64 as % of persons employed
- Benefit ratio is average pension as % of GDP per person employed
- Eligibility ratio is number of pension beneficiaries as % of persons aged 55+ Source: EPC (2001).

Table 4.6. Illustrative simulations (EPC) on the impact of certain parametric reforms

	Increase in pension expenditure as a share	Illustrative impact of ce	ertain parametric reform 2050 (2)	s as a share of GDP in
	of GDP from 2000 to 2050 (baseline projection) (1)	Half a percentage point change in the indexation of pensions	Raising the effective retirement age by one year	Reducing benefits in line with increase in life expectancy
Flat-rate systems				
DK	2.8%	2.7	-1.0	-1.7
IRL	4.4%	1.6	-0.4	-
NL	5.7%	2.7	-1.1	-
UK	0.0%	0.6	-0.2	-0.5
Earnings-related				
systems				
A	2.5%	1.0	-	-
В	3.3%	0.5	-	-
FIN	4.6%	0.9	-0.6	-1.5
F	3.7%	-	-0.9	-
D	5.0%	-	-0.7	-1.6
l I	0.3%	1.2	-0.1	-0.4
Р	3.4%	2.0	-0.3	-1.9
E	7.9%	1.9	-	-
s	1.7%	-	-0.3	1.1

Notes:

(1) See EPC (2001). For several countries the peak change from 2000-2050 will occur before 2050 and exceed the 2050 figure: DK: 4.1%; IRL: 4.4%; NL: 6.2%; UK: -1.1%; A: 4.2%; B: 3.7%; FIN: 4.7%; IT: 2.1%; PT: 4.1%; ES: 7.9%. The present figures do not take account of future changes in tax revenue. For some countries the second tier is quite well developed. Taxes on future pension benefits (which are drawn from the private funds) are expected to be quite high and may to some extent counterbalance the rise in public pension expenditure. As noted in the original report, higher levels of inward migration could offset the projected decline of the total and working age opulations projected, but would have to reach levels far above those experienced in the past to have a significant impact on the pressure for increased spending on public pensions. The baseline projections for age related public expenditures of Spain are based on national population data of 1995 (Eurostat data of 1999). Upcoming revisions may lead to improved results.

(2) The calculation used: % deviation of GDP in 2050 from the baseline divided by the baseline in 2050 in % of GDP. Luxembourg and Greece did not participate in the exercise. For most Member States, these projections include the major public pension schemes. Note that the coverage is not fully comparable across countries. For the first simulation, some countries raised their indexation, while others lowered it. For the second simulation, some countries allowed the pension level to increase following an increase in the number of contribution years and higher ransformation coefficients under the contribution-based system. The third simulation estimates the impact of increased lifetime expectancy on pension expenditure (as Sweden has a notional definedcontribution system which takes into account changes in life expectancy, it was asked to undertake a projection where increases in life expectancy are not taken into account).

Source: EPC (2002)

				120		1 uote 7.7. Age-retated speriating - Open	- I	0	1						
		Total age-related	lated		Old-age		Ĥ	Early retirement'	nent'	1	Health care and	and	Chi	Child family benefits	enefits
		spending	5n		pension			programmes	S	-	long-term care	are		and education	ion
		Panel A			Panel B			Panel C			Panel D			Panel E	
	level	change	change	level	change	change	level	change	change	level	change	change	level	change	change
	2000	2000-	2000-50	2000	2000-	2000-50	2000	2000-	2000-50	2000	2000-	2000-50	2000	2000-	2000-50
		peak			$Peak^b$			$Peak^c$			$Peak^d$			$Peak^{e}$	
Australia	16.7	5.6	5.6	3.0	1.6	1.6	6.0	0.2	0.2	8.9	6.2	6.2	6.1	0.0	-2.3
Austriaf	10.4	4.6	2.3	9.5	4.3	2.2	,	,		,		٠			
Belgium	22.1	5.4	5.2	8.8	3.7	3.3	1.1	0.1	0.1	6.2	3.0	3.0	0.9	0.0	-1.3
Canada	17.9	8.7	8.7	5.1	5.8	5.8	,	,		6.3	4.2	4.2	6.4	0.0	-1.3
Czech Republic	23.1	6.9	6.9	7.8	5.8	8.9	1.8	-0.7	-0.7	7.5	2.0	2.0	0.9		-1.2
Denmark ^g	29.3	7.3	5.7	6.1	3.6	2.7	4.0	8.0	0.2	6.5	2.7	2.7	6.3	0.3	0.0
Finland	19.4	8.5	8.5	8.1	8.4	8.4	3.1	-0.1	-0.1	8.1	3.8	3.8	,	,	,
France ^h	٠	,		12.1	4.0	3.8	,	,		,	,	٠	,		
Germany				11.8	5.0	8.0									
Hungary	7.1	1.6	1.6	0.9	1.2	1.2	1.2	0.3	0.3						
Italy	1			14.2	1.7	-0.3						•			
Japan	13.7	3.0	3.0	7.9	1.0	9.0	,	,	,	5.8	2.4	2.4	,		,
Korea	3.1	8.5	8.5	2.1	3.0	8.0	0.3	0.0	0.0	0.7	8.0	0.5			
Netherlands	19.1	10.1	6.6	5.2	5.3	8.4	1.2	0.4	6.4	7.2	4.8	4.8	5.4	0.1	0.0
New Zealand	18.7	8.4	8.4	8.4	5.7	5.7	,		,	6.7	4.0	4.0	7.2	0.0	-1.3
Norway	17.9	13.7	13.4	4.9	5.2	8.0	2.4	1.5	1.6	5.2	3.5	3.2	5.5	0.5	0.5
Poland ^j	12.2	-2.5	-2.5	10.8	-2.5	-2.3	1.4	0.2	-0.1			٠			
Spain	٠			9.4	8.0	8.0	,					٠			
Sweden	29.0	3.4	3.2	9.2	2.2	1.6	1.9	-0.2	-0.4	8.1	3.2	3.2	8.6	0.0	-1.2
United Kingdom	15.6	8.0	0.2	4.3	0.0	-0.7	,			5.5	1.8	1.7	5.7	0.0	-0.9

	11.2	5.5	5.5	4.4	8:	1.8	0.2	0.3	0.3	2.5	11.2 5.5 5.5 4.4 1.8 1.8 0.2 0.3 0.3 2.5 4.4 4.4 3.9 0.0 -1.0	4 .	3.9	0.0	-1.0
Average of countries above ^k	16.9	5.9	5.5	7.4	3.8	3.4	1.6	0.3	0.2	0.9	16.9 5.9 5.5 7.4 3.8 3.4 1.6 0.3 0.2 6.0 3.3 3.3 6.2 -	3.3	6.2		-0.8
Average of countries which Provide all or nearly all 18.7 7.2 6.9 Spending	18.7	7.2	6.9	1	1						1	ı	1		1
Portugat	15.5	9.9	4.3	15.5 6.6 4.3 5.0 4.5 4.5 2.3 0.4 -0.4	4.5	4.5	2.3	0.4	-0.4	,	,	1		,	-

The peak values are in 2050 except for Denmark (2030), Sweden and the United Kingdom (2035) and Belgium, Norway, the Netherlands and Korea (2040). В

The peak values are in 2050 except for Japan (2015), the United Kingdom and Italy (2030), the United States, Sweden, Austria, Denmark and France (2035) and the Netherlands, Norway and Belgium (2040).

The peak values are in 2050 except for Belgium and Denmark (2025), Finland (2010), the Netherlands (2020), Poland (2035) and Sweden (2005). For Czech Republic the highest level is in 2000. ပ

The peak values are in 2050 except for Denmark and Korea (2035), Norway and the United Kingdom (2040).

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0.0 indicates the highest level is in 2000. The peak values are in 2035 for Denmark and in 2040 for Norway and the Netherlands.

Total pension spending includes over age-related spending which does not fall within the definition in Panel B to E. This represents 0.9 per cent of GDP in 2000 and rises by 0.1 percentage point in the period 2050. Total includes over age-related spending which does not classifiable under the other readings. This represents 6.3 percent of GDP in 2000 and increases by 0.2 percentage points from 2000 to 2050.

For France, the latest available year is 2040.

50

Total includes old-age pension spending and 'early retirement' programmes only.

'Early retirement' programmes only include spending on persons 55+.

OECD average excludes countries where information is not available and Portugal which is less comparable than other countries

Portugal provided an estimate for social age-related spending but could not provide expenditure for all of the spending components.

Table 4.8. Decomposition of changes in old-age spending — OECD

				Contribution	ns of:	
	Total old-	Total old-	Old-age			
	age	age				
	pension	pension				
	spending	spending				
	level is 2000	change from	dependency	employment	benefit	eligibility
		2000 to	ratio	ratio	ratio ^b	ratio
		2050				
Australia	3.0	1.6	2.5	-0.1	-0.5	-0.2
Austria	9.5	2.2	7.6	-1.9	-1.1	-2.4
Belgium	8.8	3.3	4.7	-0.7	-1.6	1.0
Canada	5.1	5.8	5.1	0.0	-0.6	1.3
Czech Republic	7.8	6.8	8.2	-0.8	-0.1	-0.1
Denmark	6.1	2.7	2.7	-0.8	-1.5	1.7
Finland	8.1	4.8	5.2	-0.1	-0.2	0.0
France ^c	12.1	3.8	7.6	-0.5	-3.4	0.4
Germany	11.8	5.0	6.4	-0.7	-2.7	2.1
Hungary	6.0	1.2	2.9	-1.0	-0.3	-0.4
Italy ^d	14.2	-0.3	10.1	-3.2	-5.5	-1.5
Japan ^d	7.9	0.6	5.1	-1.2	-3.9	0.9
Korea	2.1	8.0	4.8	-1.0	0.2	5.0
Netherlands	5.2	4.8	3.8	-0.5	0.2	1.4
New Zealand	4.8	5.7	4.7	-0.1	1.0	0.0
Norway	4.9	8.0	3.0	0.1	3.9	1.2
Poland	10.8	-2.5	7.3	-1.3	-5.9	-2.1
Spain	9.4	8.0	8.6	-2.6	0.0	2.0
Sweden ^d	9.2	1.6	3.9	-0.5	-2.1	0.4
United	4.3	-0.7	1.7	0.1	-2.5	0.1
Kingdom ^d						
United States	4.4	1.8	2.4	-0.1	-0.2	-0.3
Average of	7.4	3.4	5.2	-0.8	-1.3	0.5
countries above						
Portugal	8.0	4.5	6.1	-1.0	-2.7	1.1

a See Annex for methodology and detailed information on the lime profile Columns do not add up because linear approximations are used.

Source: OECD.

b The associated percent declines in average benefits relative to average productivity over the period 2000 to 2050 is particularly important in the following countries: Belgium (-16%), Denmark (-11%), France (-21%), Germany (-20%), Italy (-30%), Japan (-38%), Poland (-51%), Sweden (-22%) and the United Kingdom (-47%). All other countries are under 10 percent except Norway where the average benefit is projected to rise by 53.6 percent).

c For France, data are available for 2040.

d For these countries information on the number of pension recipients and average pensions was not available. These variables were estimated by the OECD Secretariat except for Italy, where refer to the number of pensions and not the number of pensioner.

e Average excludes countries where national information is not available and Portugal which is less comparable than other countries.

Table 4.9. Effective and legal retirement ages 2002

	Me	en	Won	nen	Differenc	e Eff Off.
	Effective	Official	Effective	Official	Men	Women
Austria	59.6	65	58.9	60	5.4	1.1
Belgium	58.5	65	56.8	62	6.5	5.2
Denmark	65.3	67	62.1	67	1.7	4.9
Finland	60.8	65	59.8	65	4.2	5.2
France	59.3	60	59.4	60	0.7	0.6
Germany	60.9	65	60.2	65	4.1	4.8
Greece	62.4	58	60.9	58	-4.4	-2.9
Ireland	65.2	66	66.2	66	0.8	-0.2
Italy	61.2	65	60.5	60	3.8	-0.5
Luxembourg	59.8	65	59.8	65	5.2	5.2
Netherlands	61.0	65	59.1	65	4.0	5.9
Portugal	65.8	65	63.5	65	-0.8	1.5
Spain	61.6	65	61.3	65	3.4	3.7
Sweden	63.5	65	62.0	65	1.5	3.0
United Kingdom	63.1	65	61.2	60	1.9	-1.2

Source: OECD

	Table .	Table 4.10. Development of effective retirement age – males 1990-2002	velopme	nt of effe	etive rei	irement	age – ma	ales 1991	0-2002				
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	200
Austria	6.09	6.09	6.09	61.4	61.1	60.7	8.09	61.0	8.09	61.0	60.4	59.6	59.6
Belgium	58.5	58.8	58.0	57.9	58.0	58.3	57.9	58.5	58.5	58.1	58.5	58.5	58.5
Denmark	65.5	65.3	65.1	65.0	64.6	64.7	64.1	64.1	64.3	64.4	64.3	65.1	65.3
Finland	61.7	61.2	61.2	60.5	60.4	59.9	60.7	59.4	60.1	59.5	60.1	60.3	8.09
France	61.0	60.7	9.09	60.2	60.5	60.2	60.2	60.3	60.3	59.9	9.69	59.5	59.3
Germany							60.5	60.7	8.09	8.09	61.0	61.2	6.09
Greece	63.7	63.7	63.5	63.7	63.0	63.2	63.4	63.8	62.6	62.8	63.2	63.1	62.4
Ireland	64.0	65.2	63.3	64.2	64.0	63.2	63.4	64.4	64.3	64.5	65.3	65.0	65.2
Italy	61.5	6.19	61.2	60.2	0.09	59.4	59.5	59.1	0.09	0.09	60.2	60.2	61.2
Luxembourg	60.3	58.7	58.1	58.8	59.2	59.3	58.0	58.3	58.8	58.4	59.7	59.1	59.8
Netherlands	61.1	61.3	60.7	60.3	60.5	61.3	60.5	61.0	61.6	61.0	60.4	61.4	61.0
Portugal	65.3	64.3	64.1	63.9	63.5	63.0	63.5	9.89	65.0	64.5	8.49	65.4	65.8
Spain	62.9	62.4	61.7	61.3	61.1	8.09	6.09	61.4	61.5	61.5	61.7	61.7	61.6
Sweden	64.3	63.8	9.89	63.9	63.3	62.7	63.9	8.89	64.1	64.6	8.89	9.69	63.5
UK	62.8	62.7	62.5	62.4	62.5	62.0	61.9	62.3	61.7	62.3	62.4	62.7	63.1
EUI5*	62.2	62.0	9.19	61.3	61.2	60.09	8.09	0.19	59.8	1.19	1.19	61.3	61.4

EU 13*
*ages weighted by population size.
Source: OECD, IHS.

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	table 1:11: Development of effective rememage	2		1	,,,,,	22	,	Junear 1770	7007				
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Austria	0.09	60.1	8.69	60.3	59.5	59.1	59.1	59.2	59.1	59.1	58.9	58.3	58.9
Belgium	56.1	56.5	55.4	56.8	56.8	56.4	55.5	8.99	56.8	9.75	57.1	57.0	8.99
Denmark	62.2	61.9	8.19	61.7	61.5	61.4	60.3	60.1	60.3	60.4	9.09	61.8	62.1
Finland	61.0	60.7	6.65	0.09	59.7	0.09	60.3	8.69	59.5	59.2	59.7	0.09	8.69
France	61.0	61.0	8.09	9.09	6.09	8.09	8.09	60.4	60.2	60.1	59.7	59.4	59.4
Germany							59.3	9.69	59.7	8.69	60.3	60.2	60.2
Greece	6.09	60.3	60.7	9.09	8.69	8.09	63.5	61.4	61.6	62.8	62.4	61.2	6.09
Ireland	63.8	64.9	63.3	4.4	9.59	64.5	64.9	4.4	64.2	9.59	0.99	65.4	66.2
Italy	59.0	58.9	58.7	57.1	56.9	57.1	57.2	57.1	58.4	58.1	58.8	9.69	60.5
Luxembourg	60.1	57.8	58.7	60.4	58.5	58.5	58.3	97.6	58.3	9.69	60.3	58.9	8.69
Netherlands	59.4	58.9	58.9	58.8	8.69	60.1	8.69	9.69	9.69	59.3	58.6	58.8	59.1
Portugal	0.4.0	66.3	63.3	62.8	63.7	62.5	61.2	64.6	61.2	61.0	62.3	63.3	63.5
Spain	64.9	64.5	4.49	63.1	63.2	63.1	67.9	63.1	63.2	61.7	61.9	61.9	61.3
Sweden	62.6	62.5	62.2	62.1	62.2	61.7	62.0	62.2	62.1	62.5	62.5	62.2	62.0
UK	2.09	60.3	60.2	60.5	61.0	60.7	8.09	9.09	60.7	9.09	6.09	8.09	61.2
EUI5*	0.19	60.9	9.09	60.2	60.4	60.3	1.09	1.09	59.0	1.09	60.3	60.3	60.5

£U 13*
*ages weighted by population size.
Source: OECD, IHS.

Table 4.12. Recipients of old-age pensions 2001

2001	Old-age pensions per 1,000 inhabitants	Inhabitants	Old-age pensions total
IT	210	56,967,735	11,963,224
FR	198	59,042,661	11,690,447
SE	189	8,882,792	1,678,848
DE	187	82,259,540	15,382,534
UK	186	59,862,820	11,134,485
AT	160	8,020,946	1,283,351
FI	159	5,181,115	823,797
DK	154	5,349,212	823,779
BE	153	10,263,414	1,570,302
LU	148	439,000	64,972
NL	148	15,987,075	2,366,087
EL	140	10,931,206	1,530,369
ES		40,376,384	
IE		3,832,973	
PT		10,256,658	

Source: EUROSTAT

Table 4.13. Recipients of all types of pensions, 2001

2001	Total pensions per 1,000 inhabitants	Inhabitants	Total pensions
IT	280	56.967.735	15,950,966
LÜ	260	439,000	114.140
SE	252	8.882.792	2.238.464
FI		.,,	, , .
	250	5,181,115	1,295,279
DK	236	5,349,212	1,262,414
DE	234	82,259,540	19,248,732
EL	195	10,931,206	2,131,585
BE		10,263,414	
ES		40,376,384	
FR		59,042,661	
ΙE		3,832,973	
NL		15,987,075	
AT		8,020,946	
PT		10,256,658	
UK		59,862,820	

Source: EUROSTAT

Table 4.14. Replacement rates in Mandatory Pension Progams, men

	14016 7.	T. Inspiracement	aics in transaction	taore 7.17. respuecinen i mes in manano y i ciistori i escritis, men	13, 111011	
	Ġ	Gross replacement rates	ates	Netr	Net replacement rates	
	Individual pen	Individual pension entitlement as a percentage of	a percentage of	Individual pensic	Individual pension entitlement net of taxes and	f taxes and
	individual	individual pre-retirement gross earnings	ss earnings	contributions as a	contributions as a percentage of individual pre-	vidual pre-
				retirement earning	retirement earnings net of taxes and contributions	ontributions
	Individual	Individual earnings, multiple of average	of average	Individual ear	Individual earnings, multiple of average	verage
	0.5	I	2	0.5	I	2
OECD average	73.2	57.2	47.8	84.9	69.1	61.4
Belgium	61.6	40.7	26.2	82.7	63.1	42.7
Czech Rep.	70.5	44.4	25.4	88.3	58.2	35.3
Denmark	82.4	43.3	23.8	92.6	54.1	35.5
Finland	75.9	63.3	63.3	87.3	71.5	123.1
France	84.2	52.9	47.4	0.86	8.89	59.2
Germany	47.3	45.8	37.6	61.7	71.8	67.0
Greece	84.0	84.0	84.0	6.66	6.66	6.66
Hungary	75.4	75.4	75.4	9.98	90.5	92.6
Ireland	61.3	30.6	15.3	63.0	36.6	21.9
Italy	78.8	78.8	78.8	89.3	88.8	89.1
Luxempourg	115.5	101.9	95.2	125.0	109.8	104.2
Netherlands	68.7	68.3	68.3	82.5	84.1	83.8
Poland	56.9	56.9	56.9	9.69	2.69	70.5
Portugal	103.1	299	65.5	115.9	79.8	86.3
Slovak Rep.	48.6	48.6	48.6	58.2	60.2	65.7
Spain	81.2	81.2	7.97	88.7	88.3	83.4
Sweden	87.8	64.8	66.2	90.2	68.2	74.3
Turkey	96.2	87.2	71.9	113.2	103.3	84.3
United Kingdom		37.1	22.5	78.4	47.6	29.8
Women, where dif	ifferent					
Austria		69.4	57.0	86.1	84.6	72.5
Poland	48.4	41.4	41.4	62.1	48.7	48.8
Turkey		85.2	70.2	111.0	101.1	82.4

Source: OECD(2005), Pensions at a Glance: Public Policies Across OECD Countries, 2005 Edition (www.oecd.org/els/social/ageing/PAG)

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Table 4.15. Gross Projected Replacement Rates

From 1st pillar From 2nd pillar From 1st pillar From 2nd F	Γ		4000/							In: :		D: :	
Projected average earnings Garnings Garnings Garnings Of average Of average Of average 2002/3 2050 2050 2002/3 2050 2050 2002/3 2050 2050 2002/3 2050 2050 2050 2002/3 2050								2/3 of a	verage				
Gross replacement rate from 1st pillar from 2nd pillar Gross replacement rate from 1st pillar from 2nd pillar Gross replacement rate from 1st pillar from 2nd pillar from 2nd pillar Gross replacement rate from 1st pillar from 2nd pillar from 2nd pillar from 2nd pillar Gross replacement rate from 1st pillar from 2nd pillar from 2nd pillar from 2nd pillar from 2nd pillar Gross replacement rate from 1st pillar from 2nd pillar from 2nd pillar Gross replacement rate from 1st pillar from 2nd pillar from 2nd pillar Gross replacement rate from 1st pillar from 2nd pillar Gross replacement rate from 1st pillar from 2nd pillar From 2nd pillar Gross replacement rate from 3nd pillar From 2nd pillar From 3nd 2nd 2nd 2nd 2nd 2nd 2nd 2nd 2nd 2nd 2								earn	ings				
Gross replacement rate from 1st pillar from 2nd pillar and na			_	_	_			2002/2	2050			_	_
From 1st pillar From 1st p	0												
Gross replacement rate from 1st pillar from 2nd pillar S.5 6.1 12.2 11.8 2.4 3.5 11.8 3.2 8.5 3.3 9.5		_											
Gross replacement rate from 1st pillar from 2nd pillar A1.7	· ·	ь											
From 1st pillar From 2nd pillar Sat. 10.2 27.6 35.3 3.4 3.4 3.4 3.6 3.5 3.4 3.4 3.6 3.4 3.4 3.5 3.4 3.4 3.5 3.4 3.5 3.4 3.5 3.4 3.5 3.5 3.5 3.4 3.5							2.4		11.8	3.2	8.5	3.3	9.7
Gross replacement rate from 1st pillar from 2nd pillar S.5 6.2 10.3 12.8 4.8 3.6 11.8 6.8 10.7 4.6 10.0 10.5 1		DΚ											
Gross replacement rate from 1st pillar from 2nd pillar and na	· ·	DK											
From 1st pillar From 2nd p							46.0		40.0	40.1	20.0	41.0	42.1
Gross replacement rate 108.0 106.2 108.2 294.7 101.0 112.0 94.7 92.0 64.9 105.0 92.5 108.2		n										l .	
Gross replacement rate from 1st pillar from 2nd pillar Gross replacement rate from 1st pillar from 2nd pillar Gross replacement rate Gross replacement rate from 2nd pillar Gross replacement rate Gross r	· ·	٦											
From 1st pillar From 1st pillar From 1st pillar From 1st pillar From 2nd p													
Record R	· ·	GR										l .	
Section Constraint Constr	· ·	Oik											
From 1st pillar From 2nd pillar From 1st pillar From 2nd F		 											78.0
Gross replacement rate 65.0 61.9 57.4 56.8 42.6 67.2 56.7 50.6 42.7 55.0 49.2		ΙF											
Gross replacement rate from 1st pillar from 2nd pillar fro	· ·	-											
From 1st pillar From 2nd p													
Gross replacement rate Ge.7 Ge.		F										l .	
Gross replacement rate from 1st pillar from 2nd pillar 31.4 34.0 34.0 34.0 34.7 34.7 51.0 15.7 51.0 49.7 40.5 38	· ·	١.											
From 1st pillar IRL 31.4 34.0 34.0 34.0 34.7 47.0 51.0 15.7 17.0 26.1 28.5													
Gross replacement rate 79.6 82.6 84.1 84.1 65.4 79.6 64.6 74.5 63.5 77.8 70.4 70.5 70.		IRI											
Gross replacement rate T9.6 82.6 84.1 84.1 65.4 79.6 64.6 65.4 79.6 64.6 63.5 77.8 70.4 77.6 69.2 64.6 65.4 79.6 45.1 74.5 63.5 77.8 70.4 77.8 70.4 77.8 70.4 77.8 70.4 77.8 70.4 77.8 70.4 77.8 70.4 77.8 70.4 77.8 70.4 77.8 70.4 77.8 70.4 77.8 70.4 77.8 70.4 70.5 70.5 70.0 70.	· ·											l .	
From 1st pillar From 2nd p													70.4
Gross replacement rate 89.5 89.		lт											54.2
Gross replacement rate from 1st pillar from 2nd pillar P		•											16.2
From 1st pillar L 89.5			89.5	89.5	89.5	89.5	89.5	94.7	94.7	64.4	64.4	74.5	74.5
From 2nd pillar Na		L			89.5	89.5	89.5	94.7	94.7	64.4	64.4	l .	74.5
From 1st pillar From 2nd pillar St. St.			na	na	na	na	na	na	na	na	na	na	
From 1st pillar From 2nd pillar St. St.	Gross replacement rate		70.0	70.0	70.0	70.0	67.9	70.0	70.0	70.0	59.9	70.0	66.5
Gross replacement rate	from 1st pillar	NL	32.6	32.6	32.6	32.6		48.9	48.9	16.3	16.3	27.2	27.2
Gross replacement rate													39.3
From 2nd pillar Na	Gross replacement rate		74.3	66.9	66.9	66.9	63.7	74.3	66.9	67.8	61.0	70.0	63.6
Gross replacement rate from 1st pillar from 2nd pillar Gross replacement rate from 1st pillar from 1st pillar from 2nd pillar 72.3 74.7 76.8 8.4 8.4 8.4 8.4 8.4 8.5 8.1 8.2 8.3 8.4 8.3 8.3 8.3 8.3 8.3 8.3 8.3 8.3 8.3 8.3	from 1st pillar	Α	74.3	66.9	66.9	66.9	63.7	74.3	66.9	67.8	61.0	70.0	63.6
from 1st pillar P 72.3 74.7 67.8 64.9 61.6 72.3 65.3 68.2 50.3 69.5 55.4 from 2nd pillar from 1st pillar FIN 57.6 63.2 58.1 53.8 49.5 63.7 65.4 56.0 39.4 57.0 44.0 67.0	from 2nd pillar		na	na	na	na	na	na	na	na	na	na	na
from 2nd pillar na	Gross replacement rate		72.3	74.7	67.8	64.9	61.6	72.3	65.3	68.2	50.3	69.5	55.4
Gross replacement rate from 1st pillar FIN 57.6 63.2 58.1 53.8 49.5 63.7 65.4 56.0 39.4 57.0 44.0 65.0 65.0 65.0 65.0 65.0 65.0 65.0 65	from 1st pillar	Р	72.3	74.7	67.8	64.9	61.6	72.3	65.3	68.2	50.3	69.5	55.4
from 1st pillar FIN 57.6 63.2 58.1 53.8 49.5 63.7 65.4 56.0 39.4 57.0 44.0	from 2nd pillar		na	na	na	na	na	na	na	na	na	na	na
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Gross replacement rate		57.6	63.2	58.1	53.8	49.5	63.7	65.4	56.0	39.4	57.0	44.0
from 2nd nillar	from 1st pillar	FIN	57.6	63.2	58.1	53.8	49.5	63.7	65.4	56.0	39.4	57.0	44.0
nomiznopinar na	from 2nd pillar		na	na	na	na	na	na	na	na	na	na	na
	Gross replacement rate		70.9	63.8	57.2	54.4	60.2	80.9	54.4	71.7	58.5	65.5	47.0
from 1st pillar S 57.0 49.7 42.7 40.1 48.6 67.1 40.1 39.3 25.5 52.1 33.4	from 1st pillar	S	57.0	49.7	42.7	40.1	48.6	67.1	40.1	39.3	25.5	52.1	33.4
	from 2nd pillar		13.9	14.2	14.5	14.2	11.6	13.9	14.2	32.4	33.0	13.4	13.6
	Gross replacement rate		66.6	66.1	63.9	61.4	56.7	74.4	66.1	58.3	55.7	63.7	59.3
		UK		16.1	13.9	11.4				8.3		13.7	9.3
from 2nd pillar 50.0 50.0 50.0 50.0 42.6 50.0 50.0 50.0 50.0 50.0 50.0	from 2nd pillar	<u> </u>	50.0	50.0	50.0	50.0	42.6	50.0	50.0	50.0	50.0	50.0	50.0

Table 4.16. Total and public expenditure on health

				7	7					
		Expe	Expenditure on health	ealth			Public e	Public expenditure on healtl	on health	
	% GDP		Average ch	Average change in %		% THE		Average ch	Average change in %	
	2002	90-95	95-00	00-05	90-05	2002	90-95	95-00	00-05	90-02
Austria	7.5	2.5	-1.5	0.0	0.5	8.79	9.0-	-0.7	-0.2	-0.7
Belgium	9.1	2.8	0.2	1.1	1.7	71.2	n.v.	0.2	0.3	n.v.
Denmark	8.8	9.0-	0.4	1.6	0.3	83.1	0.0	0.0	0.2	0.0
Germany	10.9	3.8	0.0	6.0	2.1	78.5	6.0	-0.4	-0.1	0.2
Finland	7.3	-0.7	-1.9	2.9	9.0-	75.7	-1:1	-0.1	0.3	9.0-
France	6.7	1.7	-0.4	4.1	1.0	0.97	-0.1	-0.1	0.1	-0.1
Greece	9.5	4.5	0.2	-0.7	2.1	52.9	-0.5	9.0	9.0-	-0.1
Ireland	7.3	1.9	-1.0	4.5	1.5	75.2	-0.1	0.4	6.0	9.4
Italy	8.5	-1.3	1.5	1.6	0.5	75.6	-1.6	0.4	6.0	-0.4
Luxembourg	6.2	8.0	-2.5	4.1	0.1	85.4	-0.1	-0.5	-1.6	-0.7
Netherlands	9.1	8.0	-0.4	3.5	1:1	n.v.	1.0	-1.9	n.v.	n.v.
Poland	6.1	2.3	0.3	2.3	1.8	72.4	-3.8	-0.7	1:1	-2.0
Portugal	9.3	4.9	2.0	0.4	3.4	70.5	-0.8	1.8	0.5	9.0
Sweden	9.2	9.0-	9.0	3.1	8.0	85.3	9.0-	-0.3	0.2	-0.4
Spain	9.7	2.2	-0.2	0.4	1:1	71.4	-1.5	-0.2	0.0	8.0-
UK	7.7	2.7	0.7	1.8	2.1	83.4	0.1	9:0-	1.0	0.0
EU15*	9.1	1.9	0.1	1.3	1.3	8.9/	-0.2	-0.2	0.5	-0.1
Euro zone	9.3	1.9	0.0	1.2	1.3	75.1	-0.2	-0.2	0.4	-0.1
* laft nanel waighted with	GDD might namel weighted with total expenditure for health:	traint	tod with to	tol avnandit	hire for he	144.				

* left panel weighted with GDP, right panel weighted with total expenditure for health;

THE Total expenditure for health

Source: WHO Health for all database, January 2005; Statistiek Austria for Austria HIS HealthEcon calculations 2005.

Table 4.17. Projections for public expenditure on acute and long term care

		1 able 4.17.	l able 4.17. Projections for public expenditure on acute and long term care	expenditure on acute a	ma long term care	
	Total health a	Total health and long-term care	Healt	Health care	Long-1	Long-Term Care
	Expenditure as a	Increase in	Expenditure as a	Increase in	Expenditure as a	Increase in
	as a share of	expenditure in	share of GDP	Expenditure in	share of GDP	expenditure in
	GDP in 2000	in percent of GDP	in 2000	percent of GDP	in 2000	in percent of GDP
		between 2000 and		between 2000 and		between 2000 and
		2005		2005		2005
В	6.1%	+2.1	5.3%	+1.3	%8.0	+0.8
DK	8.0%	+2.7	5.1%	+0.7	3.0%	+2.1
D(1)			5.7%	+1.4		
EL (1)			4.8%	+1.7		
E(1)			5.0%	+1.7		
Щ	%6.9	+1.7	6.2%	+1.2	0.7%	+0.5
IRL	%9'9	+2.5	5.9%	+2.3	0.7%	+0.2
I	5.5%	+1.9	4.9%	+1.5	%9:0	+0.4
Z	7.2%	+3.2	4.7%	+1.0	2.5%	+2.2
Ą	5.8%	+2.8	5.1%	+1.7	0.7%	+1.0
P(1)			5.4%	8.0 +		
FIN	6.2%	+2.8	4.6%	+1.2	1.6%	+1.7
S	8.8%	+3.0	%0.9	+1.0	2.8%	+2.0
UK	6.3%	+1.8	4.6%	+1.0	1.7%	+0.8
EU (2)	%9.9	+2.2	5.3%	+1.3	1.3%	+0.9
Notes:						

Notes: Source: EPC 2001.

	'Privileged' groups/	other systems		Government and	semi-government	sector												Old Age Pension	Under Favourable	Conditions before the	normal pension age	for a number of	categories, with no	reduction in benefits.	Early retirement	available for certain	professional groups.
nd CC	Possibility to work and	receive pension		No restrictions.				Income from gainful	activity (employment)	conflicts only with	early retirement	pensions.		Normal old-age	pension: no limit.			Not possible for early	retirement (in case of	occupational early	retirement no earnings	from the work in	conditions that give the	right to early pension)	The normal old age	pension no conflict.	
Scheme 4.1. Selected features of the pension systems in EU -10 and CC	Standard retirement age/	early retirement		60 (check)	early retirement	55-60 years.	63-miners.	Gradually increased to 63	for men and to 59 to 62	years for women	(depending on the	number of children) at the	end of 2006.	65 years when only 15	years of insurance.	Early pensions up to 3	years earlier.	Gradually increased since	1994: from 55 to 63 for	women (in 2016) and	from 60 to 63 for men (in	2001).	Reduced early retirement	pension up to 3 years	before the normal pension	age.	
Selected features of the po	Recent reforms			1995-increase in the	coverage of the system.			2001-change in calcu-	lation of the old	age benefit: larger	reductions for early	retirement and gains	for deferred retirement.					2002-new 3-pillar	system, to 1998	pension related to the	length of activity	period, since 1999 to	contributions; gradual	transition from the old	rules to the new rules.		
Scheme 4.1.	Coverage			Employees, self-	employed, voluntary	for some groups.		The economically	active population,	voluntary for some	Groups																
	Current pension	NEW MEMBER STATES	Compulsory public	PAYG.			Compulsory public	PAYG DB.	Voluntary funded	pension schemes.							Compulsory public	PAYG DB.	Compulsory funded	DC scheme.	Voluntary private	pensions.					
			NEW	CY				CZ										EE									

and possibility out the 2 nd pillar se bom in 1973 : ew three pillar introduced. ional provisions first 10 years07.2001, the pillar, the lony funded is scheme is nented. be end of 2003, he end of 2003, he end of 2003, nia relied on a	security beneficiaries, 1 st pillar and obligatory military or civil 2 nd pillar; transitory period and possibility to opt out the 2 nd pillar for those bom in 1973 or later. 1995-new three pillar scheme introduced. Transitional provisions for the first 10 years. From 1.07.2001, the second pillar, the mandatory funded pension scheme is implemented. Employees and self- Since 2004-funded pillar. Until the end of 2003, Lithuania relied on a	ded DC security beneficiaries, sed military or civil servants. blic blic blic blic blic blic blic blic	The retirement age for a No restrictions. Benefit at lower age full pension for men – 62, is available for for women 62 by 2009. employees involved in activities that are Early retirement for some hazardous to health. occupations.	ith early	Since 2001 gradually No restrictions. Farmers and people increased to 62,5 years working on a for men and 60 for women. exemption from the Early retirement for the compulsory
		lic ded in Employees and self- employed. ded ded		illar ions s. e	003, a e vide

	'Privileged' groups/	other systems						Farmers, lawyers and	uniformed services.							Certain groups of	professionals (army,	police corps, etc.) are	covered by special	occupational pension	schemes.		
	Possibility to work and	receive pension		Persons are allowed to	work up to the age of 65 without reduction in	pension income up to	max earnings.	Before standard	retirement age possible	up to certain threshold.	After 60/65 no	restriction.				No restrictions.							
tinued)	Standard retirement age/	early retirements		The retirement age is 61	in the case of men and 60 for women.	No early pensions.		60 for women, 65 for	men, with early	retirement possible until	2006 and for those born	before 1949.				Men 60 years, women	53-57 years of age	(related to the number of	raised children).	Proposal to increase the	age to 62 years.		
Scheme 4.1. (continued)	Recent reforms			Economically active Ad hoc measures with	respect to the welfare			1999-new 3-pillar	system introduced for	all born after 1948 and	right to opt out 2 nd	pillar for these born	between 1949 and	1968.		2004-a pension system	reform. The changes	affect areas such as	contributions, pension	calculation and the	retirement age, which	has been increased.	
	Coverage			Economically active	population.			Employed outside	agriculture, self-	employed, possible	voluntary insurance.					Employees and self-	employed, possible	voluntary insurance.					
	Current pension	system	NEW MEMBER STATES	PAYG, earnings related.				Compulsory public	PAYG NDC.		Compulsory funded DC	pension funds.	,	Voluntary pension funds	or insurance companies.	PAYG public pillar.		Voluntary private	supplementary pillar	(since 1996, amended	in 2001).		
			NEW M	MT				PL								SK							

IS	Public PAYG DB	All employees and self-employed.		Since 2000 full retirement Restrictions (pension age at 63 (2008) for men decrease) before age 6	Restrictions (pension decrease) before age 63	Under certain conditions (e.g.
	2 pillar obligatory for certain professions.	Persons, that do not have an active status		and 61 (2022) for women.	for men and 61 for women.	unemployment or\ disability) and with a pension qualifying
		in the labour market, can join the system		Early retirement possible.		period of 40 years (men) or 38 years
		voluntarily.				(women) retirement at 58 without penalties
CAND	CANDIDATE COUNTRIES					
BG	Public, compulsory	Employees and self-	2000-the major	The standard pension age	No restrictions.	Special preferences for farmers: lower
	Funded pension funds	en-fred ear	reform, continued in	2009 to 63 for men and		minimum insurance
	(i.e. 2 nd and 3 rd pillars		2004 and 2005.	60 for women.		income and lower
	in two forms: occupa-			The qualifying period (a		contributions.
	tional schemes and universal scheme for			sum of the age and the length of insurance) must		Early retirement
	persons born after			equal to at least 100		possible in profess-
	1959).			points for men and 90 (94		sional pension funds
	Supplementary			since 2005) points for		but with higher
	voluntary funded pen-			women.		contribution rates
	sion schemes.					(12% or 7%) than in
						a universal scheme
						(2%).

	Current pension	Coverage	Recent reforms	Standard retirement age/	Possibility to work and	'Privileged' groups/
	system			early retirements	receive pension	other systems
VEW]	NEW MEMBER STATES					
$\mathbb{C}\mathbf{R}$	Public PAYG.		Major reform took			
	Compulsory funded 2 nd		place since 2002.2^{nd}			
	pillar.		pillar compulsory for			
			all employees under 40			
	Voluntary funded 3 rd pillar.		at the time of the			
			reform and optional for			
			those 40-50.			
R	Public obligatory PAYG.		2001- a gradual	60 years for women and		
			increase of age and	65 years for men in 2014		
	Obligatory funded pension		contribution periods	increasing from 57 years		
	funds.		necessary for	for women and 62 years		
			retirement, flexibility	for men in 2001.		
	Voluntary, funded, privately		in the retirement			
	managed.		conditions.	Early pension and		
				partially anticipated		
			2005-the three-pillar	pension, max. 5 years		
			system.	before the standard		
				pension age.		

In 1999; the minimum	retirement age was	increased to 52 for	women and 56 for men,	for those who are already	within the system.		For the newly entering,	the retirement age for	women is 58 years and 60	years for men (with	exception for one	scheme).
1992-elimination of	minimum retirement	age and low	requirements for	number of contributory	years.	Since 2001 the govern-	ment started to	construct the legal	framework for a priva-	tely funded pillar in the	pension system	
Differences	(procedures, benefits,	etcetera) among the	three schemes,	causing inequalities	among participants.							
3 different schemes	managed by three	separate social security	institutions.									
TR												

	Sc	Scheme 4.2. Health care system performance – $EU 10$ an the candidate countries	2m performance – EU	10 an the candid	ate countries			
	Country System	System funding-sources	Size of contribution	Last reform	Funding level - total	sl - total	Pubic funding - public	g - public
	administration	of health care funding	(% of earnings)		health expenditure as %	ture as %	health expenditure as	diture as
					ofGDP	Ь	% of total health	health
							expenditure	hure
					2001	2002	2001	2002
Bulgaria	Ministry of Health,	National Health	9	1999-2001	4.73 (1994)	ı	100 (1994)	ı
	Regional Health	Insurance Fund, 28						
	Centres	Regional Health						
		Insurance Funds Taxes						
		Voluntary health						
		insurance contributions						
		Subscription by						
		employees for specific						
		health services						
		Out of pocket payments						
		Co-payment (1% of min						
		salary for outpatient, 2%						
		for hospital)						
Cyprus	Ministry of Health,	National Health	Planned (2006):	2006	6.2	6.4	34.5	34.6
	Trade Unions,	Insurance Scheme to be	1.5-2					
	Employers	implemented in 2006						
		General taxation						
		Employer based medical						
		insurance						

91.4 91.4	77.8 76.3	69.0 70.2	68.3 67.9	71.6 71.7
7.1	5.1	7.8	6.4	5.7
6.9	5.1	7.4	5.0	5.7
1993	1992	1991	1993	1661
13.5	13	23.5	n/a	n/a
Public Health Insurance, 8 health insurance agencies State and regional budget subsidies Out-of pocket payments Private health insurance Co-payment (compensation scheme for high risk) planned for 2005/2006	Health Insurance Fund Health Promotion Fund Municipalities budget Out-of pocket payments Private health insurance	Health Insurance Fund Central budget Out-of pocket payments	State compulsory health insurance agency State budget subsidies and loands Out-of pocket payments	Health Insurance Fund
Ministry of Health	Ministry of Social Affairs	Ministry of Health, Health Insurance Fund, Ministry of Finance	Ministry of Welfare	Ministry of Health
Czech Republic	Estonia	Hungary	Latvia	Lithuania

			Scheme 4.2. (end)					
	Country System administration	System funding-sources of health care funding	Size of contribution (% of earnings)	Last reform	Funding level - total health expenditure as %	el - total liture as %	Pubic funding - public health expenditure as	- public liture as
					ofGDP		% of total health expenditure	health
					2001	2002	2001	2002
Malta	Ministry of Health	National Insurance Fund	n/a	1950s	8.9	7.6	65.7	0.69
		(general taxation						
		resources)						
		Private Health Insurance						
		Out-of pocket payments						
Poland	Ministry of Health,	 National Health 	7.75 (1999)	1999, 2003	0.9	6.1	71.9	72.4
	National Health	Insurance Fund,	increasing to 9.0	partial with				
	Insurance Fund	16 Regional	(2007)	drown of the				
		Departments		reform (sickness				
		of Health Insurance		spunj				
		Funds		centralization)				
		Central budget						
		3. Local government						
		funds						
		4. Out-of pocket						
		payments						
Romania	Ministry of Health and	National Health	14	1998	4.1	4.2	100	100
	Family	Insurance House						
		State budget						
		Local budgets						
		External credits						
		Out-of pocket payments						

Cleaning	Minister of Hoolth	1 Hoolth Increases	12.05	1004	95	7.3	00 2	00 1
SIOVakia	Millisuy of reguli	1. realul msurance	13.23	1994	5.0	7.7	67.7	09.1
		Company						
		2. State budget						
		3. Co-payment (starting						
		2004)						
Slovenia	Ministry of Health,	1. National Health	13.45	1992	8.2	1	86.7	1
	National Health	Insurance						
	Insurance Institute,	2. Government						
	Institute of Public	contributions to NHI						
	Health	3. Voluntary Health						
		Insurance						
		4. Out-of pocket						
		payments						
Turkey	Ministry of Health,	State budget	n/a	n/a	6.6(2000)	1	62.9	ŀ
	Social Insurance	Social health security					(2000)	
	Organization	systems						
		Private health insurance						
		Out-of pocket payments						
EU-10					6.3	6.4	ŀ	;
(members								
since								
May 2004)								
EU-15					8.86	9.05	ı	;
(members								

Source: own comparison based on GVG, Study on the Social Protection Systems in the 13 CC, Synthesis, Country Reports; EUROSTAT data; OECD May 2004)

before

Appendix to Chapter 4: EU-15 country background information for replacement rates in public pension systems

Belgium: Replacement rates for the first pillar around and below 40% are low for an earnings related scheme; second pillar contributions are currently small, but due to rise. Total gross replacement rates will rise for all earnings profiles by between 7 and 10 percentage points by 2050. There is a definite redistributive effect built into gross replacement rates.

Denmark: The Danish system is a universal, residence-based and non-contributory statutory old-age pension scheme that is financed from general taxation. Replacement rates for the first pillar are expected to decline significantly (8 percentage points) towards 2050. Second pillar contributions are currently small, but due to rise sharply towards 2050. Total gross replacement rates will rise steeply for the average earning profile by between 23 percentage points towards 2050. There is a very strong redistributive effect built into gross replacement rates.

Germany: The general pay-as-you-go, earnings-related pension scheme covers around 82% of the employed population. Replacement rates for the first pillar are expected to decline significantly (5 to 7 percentage points) towards 2050; second pillar contributions will rise towards 2050. Total gross replacement rates will be maintained at current levels (+/- 1 percentage point) towards 2050. There is an inverse redistributive effect built into gross replacement rates (which are thus higher for higher earnings profiles).

Greece: There are several pension schemes — that of employees is of the defined-benefit type, based on length of contribution periods and earnings of the final five years of the career. Although the replacement rates for the first pillar are high (over 100% of average earnings), and are expected to fall below 10% only after 2030, actual pensions are low due to generally much lower numbers of contribution years than the base cased use, contribution evasion, and often incomplete insurance of an individuals earnings. The legal framework for the establishment of second pillar schemes was set up in 2002/3 and is not included in the calculations. There is a redistributive effect built into gross replacement rates.

Spain: The first pillar for private sector workers is a general earnings-related scheme. Replacement rates for the first pillar are high at just under 90% and are

expected to fall by about 5 percentage points by 2050. Although second pillar schemes cover nearly six million people, only 10% of these are in schemes established by collective agreement. The current inverse redistributive effect (cf. replacement rates on average earnings with rates on 2/3 of average earnings), will be smoothed out by 2050.

France: The pension system is a mandatory pay-as-you-go earnings-related scheme. There is a basic state pension plus two mandatory supplementary pay-as-you-go schemes. The results presented do not yet take account of the latest pension reform. Replacement rates for the first pillar of 65% for the average earnings profile are expected to fall by about 9 percentage points towards 2050. The replacement rate falls after 10 years of pension by more percentage points than in any other EU Member State. There is a redistributive effect built into gross replacement rates.

Ireland: Flat rate payments of the first pillar, currently over 30% for the average earnings profile, are financed by pay related contributions. There are substantial non-cash benefits in kind for people of pension age, such as free travel. Free healthcare, telephone rental, TV license, energy consumption are offered to those over 70 and subject to a means-test before that age. The gross replacement rate will remain constant at 66.7% but the composition will change by a small increase of about 2-4 percentage points in the first pillar, and a corresponding decrease in the second pillar, towards 2050. Ireland is the only Member State where the replacement rate will rise after 10 years of pension.

Italy: The defined-benefit system was reformed in 1995 – the new system will be applied to an increasing proportion of working life. The gross replacement rate on the first pillar is nearly 80% currently for the average earnings profile, but will fall by 15 percentage points towards 2050. Compensating second pillar schemes will rise to a gross replacement rate of nearly 20% towards 2050, from zero currently. The total gross replacement rate will thus rise to 84% towards 2050 for the average earnings profile. There is little redistributive effects in the pension system.

Luxembourg: The replacement rates are the highest of all OECD countries. Gross replacement rates are currently at nearly 90% for the average earnings profile. Second pillar schemes are not included, as these started in 1999, are voluntary, reliable data are not (yet) available. There is also a strong redistributive effect on the gross replacement rate.

Netherlands: The first pillar of the Dutch pension system provides flat-rate benefits to all residents over the age of 65. The second pillar of occupational schemes is the most developed in the EU. It is assumed in the data that gross replacement rate of 70% of earnings are achieved at present, and that these will be maintained for a worker with an average earnings profile. For people with a rising earnings profile, the gross replacement rate will decrease towards 2050 by up to 10 percentage points. For these persons, the second pillar dominates, whereas for low earners the state pension contributes more.

Austria: The first pillar consists of compulsory schemes. The pension depends on length of insurance career and level of insured earnings, up to a ceiling level. A full pension is 80% of the assessment base required previously 40 insurance years, but this will rise to 45 years under the 2003 pension reform. Second pillar contributions are voluntary and are still relatively low in total contribution to the pension system. As a result of the reform the gross replacement rate for the average earnings profile will fall from 74% currently by nearly 8 percentage points towards 2010, but thereafter level out. There is little redistributive effect of replacement rates.

Portugal: The first pillar is a mandatory earnings-related for all workers in the private sector. Occupational second pillar schemes are not common. Currently, new pensioners retire with a contribution of just under 28 years. Thus the theoretical replacement rates are much higher than current actual pensions would show. The gross replacement rate would, in the base case used in the calculations, provide for over 70% of average earnings profile. This will fall 9 percentage points towards 2050. There is little redistributive effect of replacement rates.

Finland: The mandatory statutory pension provides a minimum basic pension and an earnings related scheme. Due to the comprehensive coverage of the first pillar there is little demand for voluntary supplementary schemes of the second pillar. For the average earnings profile the gross replacement rate will only fall from over 57% currently after 2030. Changes in the assessment base from 2005 imply that replacement rates will rise towards 2010 before falling slowly again. There is a strong redistributive effect built into gross replacement rates.

Sweden: A new first pillar scheme introduced in 1999 consists of a guaranteed pension and an earnings-related scheme, and is gradually replacing the old defined-benefit pay-as-you-go system. The gross replacement rate of the first

pillar is expected to fall from about 57% currently to around 40% by 2050 for the average earnings profile. As the uptake of second pillar schemes is projected to stay around the current level of around 14%, the total gross replacement rate will fall from 70% to under 55% towards 2050. There is a strong redistributive effect built into gross replacement rates.

UK: The first pillar consists of a flat-rate basic pension and an earnings-related additional pension. A unique feature is the possibility of contracting out of the earnings-related pay-as-you-go financed scheme, if an occupational or private pension scheme provides better benefits. In the gross replacement rates it is assumed that the benefits from contracting out would amount to 50%. The first pillar replacement rates are thus also uniquely low, at currently under 17%. These are also expected to fall to around 11% by 2050. Thus the total gross replacement rate will fall from around 67% at present by about five percentage points towards 2050. There is a strong redistributive effect built into gross replacement rates.

5. Time-use over the life course in selected European countries

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5.1. Highlights

- Throughout the last 35 years the most striking feature of time-use patterns is the declining gender-difference in time devoted to different activities. Men spend less time on paid and more on housework, with the opposite being true for women. However, men still spent on average considerably more time on paid work and less time on housework than women.
- Significant cross-country differences in time-use trends reveal scope for
 policy measures, such as taxation, parental leave policies and the availability
 of formal childcare capacities as well as part-time employment, to shape time
 allocations. Typically, these policies have a stronger impact on the female
 than on the male allocation of time. In countries with lower compatibility of
 work and family life, upon childbirth men (women) decrease (increase) their
 housework duties and take on more (less) paid work. The simultaneous
 availability of part-time work for women and childcare arrangements is often
 crucial to reconcile motherhood and paid work.
- Trends in time-use allocations are triggered by broad economic and social changes, such as economic growth, changing labour market conditions, demographic changes, an increasing diversity in family and household structures and increasing gender equality.
- Across European countries, the variance of time devoted to paid and unpaid work, personal care and leisure is relatively small.
- Typically, men and women make different trade-offs between broad categories of time-use such as paid work, housework, childcare and leisure.
 Women (men) tend to substitute between market work and housework (leisure).
- Economic conditions influence time allocations. As such, higher economic growth contributes to more time spent on paid and housework and less time spent on leisure. Moreover, lower own-sex unemployment rates are related to more time spent on paid employment, while the converse is true for time spent on housework. Furthermore, opposite-sex unemployment rates increase own-sex time in paid work and decrease time devoted to housework.

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• Time allocations differ widely throughout the life course, which is characterized by age, parenthood, employment decisions and different living arrangements.

- Typically, individuals experience a hump-shaped pattern of labour supply that first increases until a certain age and then starts to decrease.
- Relative to women the variance of time spent on paid and unpaid work throughout the life course is small for men.
- The presence of a young child in a household gives rise to specialization. However, later entry into parenthood, rising educational attainment of mothers and positive correlations between employment, marriage and motherhood point into the direction of more equal time-use allocations between parents.
- Singles face different time constraints than cohabiting couples. An increasing number of single persons (older and parents) will increase the importance of analyses of differences in time allocations across different living arrangements.

5.2. Life course perspective and time-use

In contrast to the bulk of the analytical literature which focuses mainly on a
particular aspect of time-use in one particular country, this section delivers a
rather generic insight into the allocation of time by the use of cross-country
time-use data covering a period of 35 years and combining several analytical
approaches.

40,000,000 minutes. This is the average time that a European can expect to spend on different activities during his/her life.³² How is this time spent? Are there differences over the life course, across the sexes, countries and through time how individuals use their time? What determines the use of time?

The individual allocation of time is driven by a mix of contemporaneous changes in cultural perceptions, demographic and economic trends and social policies, which shape and constrain individual preferences for the use of time. The comprehensiveness of the topic of time allocation requires thus a broad analytical approach in order to grasp some possible answers. In contrast to the bulk of analytical literature which focuses mainly on a particular aspect of time-use in one particular country, this paper delivers a rather generic insight into the

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That corresponds to a life expectancy of 75 years, based on 365 days a year.

allocation of time by the use of cross-country time-use data covering a period of 40 years and combining several analytical approaches.

Individuals face different, often interdependent decisions over the life course, such as marriage, parenthood and employment (Willekens, 1999; Elder, 1994). Given constraints affect them differently during their life course and have varying impacts on the allocation of time to various activities. These constraints might be individual or societal and might change over time. Broad societal developments in the form of social and institutional change and economic conditions, like economic growth and unemployment, constitute the broad framework within which individuals pursue life courses. Putting these developments into perspective with the allocation of time is a way of understanding not only the former and current allocation of time in European countries, but also the ensuing sex-specific trade-offs between different time-use activities (Section 5.3).

The course of life is marked by many phases, employment, parenthood and changes in the living arrangements being the most prominent ones. Our ageing European societies with below replacement fertility levels and relatively low female labour force participation ratios in many countries show the importance of focusing on policies of work-family life reconciliation, which mitigate these problems. Unveiling cross-country differences in the allocation of time throughout the life course and with reference to the compatibility of work and family life is thus the focus of Section 5.4.

The current analysis is based on harmonized statistics from the most recent timeuse data available from Eurostat and a large cross-sectional Multinational Time-Use Study (MTUS) data set with 11 European countries and covering a period of 35 years.³³ The analysis is based on descriptive and econometric methods. Emphasis is put on analyzing the probabilities of participation in and the amount of time used in different time-use activities, such as paid work, housework, childcare and leisure. To this aim, the influence of macroeconomic conditions,

some basic characteristics remained, restricting the scope of analysis.

The Multinational Time-use Study (MTUS) data were developed by the Essex University in the UK (http://www.iser.essex.ac.uk/mtus/index.php). For the moment being the MTUS is the best harmonised cross-national time-use data set. The MTUS has harmonised data from 44 studies conducted in 21 countries from the 1960s through the 1990s into a single data set (Fisher and Layte, 2004). The major advantage of the dataset is the possibility to use it for cross-country and longitudinal comparisons of time-use. Its major disadvantage is the relative scarce availability of individual and household background variables. In order to achieve comparability across studies only

like economic growth and unemployment levels, as well as those capturing institutional differences across Europe is analyzed. Moreover, interrelatedness of employment, marriage and parenthood decisions is estimated separately.

5.3. **Daily time-use patterns**

5.3.1. Daily use of time by activity type and country

- Across European countries, the variance of time devoted to paid and unpaid work, personal care and leisure is relatively small.
- Typically, men and women make different trade-offs between broad categories of time-use such as paid work, housework, childcare and leisure. Women substitute more strongly between market work and housework, whereas men shift more between market work and leisure.

An introductory picture of time allocation in Europe is interesting by itself. First, it shows how much time people spend on average on various activities. Second, it helps to understand between the categories of time-use between which people trade time.

Based on the most recent time-use data available and comparable across European countries the following picture arises (Figure 5.1 and Table 5.1): 34

- When averaging over the whole population, i.e. employed and nonemployed individuals and the whole year including weekends and holidays, then total time spent on gainful work, study and domestic work varies between 6 and 7 hours per day. The time is lowest in Belgium and Norway and highest in Slovenia and Denmark.
- On average people spend 8 to 9 hours sleeping each day. People sleep longest in France (9 hours) and shortest in Denmark (7.8 hours). Once time spent on meals and personal care is added, then around half of each day's

Several European countries have recently conducted time-use studies following guidelines as proposed by Eurostat, for the design of time-use surveys and coding activities, which makes the data more easily comparable across countries. Eurostat (2003) presents averages of time-use in different activities for several European countries. Figure 5.1 describes the average time-use by activity type for 10 European countries. The results present the distribution of averaged daily time, where the average

is taken over the whole year that an individual spends on several broad categories of

activities.

- time is devoted to these basic activities. There is a trade-off between time spent on gainful employment and time spent sleeping.
- Typically, men and women make different trade-offs between broad categories of time-use such as paid work, housework, childcare and leisure. These trade-offs can be characterized by correlations between time-use categories (Table 5.1). There is a stronger negative correlation between market work and housework/childcare for women than for men (Table 5.1). The substitution between market work and leisure is more relevant to men (Freeman and Schettkat, 2005).

As the correlations in Table 5.1 reveal, there are trade-offs between different time-use categories, which could in principle shift the population-wide distribution of time. As will be shown later, especially the negative correlation between market- and housework is of interest for policy makers. Preferences for shifts in time between these categories can be partly shaped by policies, which ease the reconciliation of family and work and which make the participation of men and women in the labour market more accessible.

5.3.2. Trends and factors triggering changes in time-use allocations

5.3.2.1. Changing time-use patterns over the last 40 years

- The most striking feature of time-use patterns is the declining difference in time-use between the two sexes. Men spend less time on paid and more on unpaid work, with the opposite being true for women.
- Significant cross-country differences in time-use trends reveal scope for policy measures, such as taxation, parental leave policies and the availability of formal childcare capacities as well as part-time employment, to shape time allocations.

Time allocations, as described in the preceding section, are not static through time, i.e. they are changing. When observing changes in time-use in broad categories, such as paid and housework, childcare and leisure, the following trends emerge (*Figure 5.2*):³⁵

The samples are based on MTUS time-use budgets with 30 country-year observations for each sex. They consist of sex- and nation-specific averages of time-use for all employed and non-employed individuals older than 15 years. Thus, Figure 5.2 captures the broad picture of the allocation of time, not being standardized by age, sex, marital composition etc. The straight lines in Figure 5.2 result from simple OLS regressions of

- Falling time-use in paid work for men.
- Increasing time-use in housework for men and decreasing for women.
- Falling total work load (paid and housework) for both sexes.
- Decreasing time-use in childcare for women.
- Increasing leisure time for both sexes.

The most striking feature of time-use patterns is the declining difference in time-use between the two sexes. Men spend less time on paid and more on unpaid work, with the opposite being true for women. This is true of Norway, France, Italy, UK, the Netherlands and Italy — countries from different parts of Europe in terms of location, welfare state and cultural history. This fundamental trend has been observed in the literature before and documents partly changes in cultural perceptions of gender roles in society that manifests itself visibly in changing employment patterns.

Trends in these activities seem to be robust and find confirmation in related literature (Gershuny and Sullivan, 2000). They are in line with the observed correlations in section 5.3.1, in that also over time men shift stronger between market work and leisure and women between market work and housework.

The changes in population-wide time allocations result from a myriad of factors some of which can be shaped actively by policy measures. Changing demand and supply for paid labour due to macroeconomic and demographic changes, shifting cultural perceptions in gender related work-ethics, changing incentives for the take-up of paid work through a different setup of welfare states provisions impact in different ways on these trends in time-use.

As these conditions and developments differ across countries, important cross-country differences in these trends appear (*Table 5.8* and *Table 5.9*). Thus, the amount of paid work in the Netherlands increased contrary to the overall trend of decreasing time spent on paid work such as in Norway or France. For women the time spent on paid work decreased in France, while it increased in Norway, the UK and the Netherlands. France experienced a relative large decrease in time spent on childcare for both sexes, while there is a visible increase in the UK. Also gains and losses in leisure time vary strongly between the countries.

a year variable and a constant on the respective time-use activity. The coefficient numbers and t-values given in Figure 5.2 relate to the year variable.

Norway substantially increased leisure time for both sexes, with no visible trend for the Netherlands or the UK.

5.3.2.2. Social changes

• Trends in time-use allocations are triggered by broad social changes, such as demographic changes, an increasing diversity in family and household structures and increasing gender equality.

New time-use allocations are already in themselves signs of social change (Gershuny and Sullivan, 2000; Ausubel and Grübler, 1995). But rather than being a cause they may be triggered by fundamental social changes in backgrounds. Three different developments seem particularly important in the context of time-use allocations (Naegele *et al.*, 2003):

• Demographic change. Demographic change in the form of rising life expectancy and declining birth rates is a universal phenomenon in Europe (European Commission, 2004a). A rising life expectancy with unchanged retirement age means that individuals remain longer in retirement, so that the overall time in paid work decreases with longer life expectancy (see also Chapter 4). This trend is enhanced by a higher proportion of individuals using the possibility of early retirement, especially in the last decade (Börsch-Supan, 1996). Overall, longer life expectancy contributes to the trends of decreasing time in paid work and increased time in unpaid work and leisure. The relationship between fertility changes and time allocation is more complex. This has to do with a changing relationship between fertility and female employment. While up to the 1970s, the level of completed fertility was negatively correlated to the level of women's labour force participation, now completed family size is lowest in countries with lowest female labour force participation rates (OECD, 2001). Fertility in countries with low female participation has reached lower levels than in high female participation countries (Ferrari and Villota, 2001). The changing correlation between fertility and female employment implies that decreases in fertility can result either in decreases or increases in time allocated to paid work.

However, considering the situation from the 1970s onwards decreasing fertility rates seem to contribute to more time allocated to paid work by women. On the individual level results from the econometric analysis confirm this (Section 5.1). Thus, for women the presence of children in the

household decreases the probability of participation and the amount of time spent on paid work and leisure, and increases the time in unpaid work.³⁶

- Increasing diversity in family and household structures. Nowadays the traditional two-adult two-child household fits only a minority of European households (OECD, 2001). Trends in family and household structure in the forms of a growing solitarization for younger people and elderly persons, more unmarried cohabitation among young adults, higher rates of divorce and remarriage, increased childbearing outside marriage and rising numbers of families without children, contribute all to this situation. Typically different family and household structures bring variation in time allocations. Lone-parent families, mainly women headed, are characterized by low time allocations to paid work and more housework including childcare (OECD, 2001). Married couples still experience unequally shared duties in childcare and unpaid housework, even when mothers are fully employed (Schwierz, 2003).
- Increasing gender equality. Policies to promote gender equality are high on the European Agenda. They find expression in the Rome Treaty in 1957 in the directive of equal pay for both sexes as well as in the Lisbon Strategy Agenda 2000 of promoting female employment.³⁷ The convergence of female and male wage levels, higher educational attainment of women and policies to promote female employment are expressions of approaching gender equality. The move of women for equal rights and their often desired liberation from traditional roles as child-bearers and house wives have been the impetus for their increased participation in paid work, with its consequent lags in the onset of marriage and childbearing (Robinson, 1985).

Perhaps the most prominent sign of gender equality in time-use is the converging time allocated to housework by both sexes, although a huge gap between them remains (*Table 5.2*). However, cultural patterns are remaining obstacles to gender equality. 50% of European public opinion considers the reconciliation of mother's work outside the home negative to the welfare of children (European Commission, 1998a). Surprisingly, southern countries of the European Union —Greece, Spain and Italy— are more likely to consider its positive effects. Cultural trends, like those in West Germany and France, make family and professional life more incompatible (European Commission, 1998b).

For a discussion of more detailed results on the impact of children on female employment see Chapter 3.

http://europa.eu.int/comm/lisbon_strategy/reports/index_en.html.

Kalmijn *et al.* (2003), find that still a substantial part of the variation in child effects between welfare states can be attributed to differences in gender norms and values. Apparently, husbands do relatively little household work, unless both husband and wife believe in egalitarian work roles (Greenstein, 1996).

5.3.2.3. Institutional changes

• Changes in a broad area of policies, such as taxation, passive and active labour market policies and social security policies influence individual time budgets. The impact of these policies appears to have had stronger consequences for the female than for the male allocation of time.

The institutionalized context creates formal and informal barriers for the individual use of time. The barriers may come in form of rules that regulate claims to social security benefits (Naegele *et al.*, 2003). Barriers may also be erected at the level of everyday work, such as possibilities to work full- or parttime, which are differently developed across European countries.

Changes in the institutional setup of policies which determine individual time budgets occurred frequently in the last 30 years and encompass a broad area of policies, such as taxation, passive and active labour market policies and social security policies (OECD, 2001). Without laying the claim on completeness, in this study policies are selected which are believed to impact especially on the observed changes in female time allocation, and the main changes through time are presented.

- Taxation. Most OECD countries have moved towards systems of separate taxation for earnings of couples. Separate taxation partly reduces disincentives to work for partners in couple families and has positive impacts on women's allocation of time to paid work (OECD, 2001). However, part of this change has been offset by tax reliefs and benefits granted on a family basis. Moreover, upward trends in the marginal tax rates on labour income until the 1990s discouraged participation in and the amount of paid work done especially by women (Freeman and Schettkat, 2005). Recent decreases in marginal tax rates encourage the substitution of market work to household work especially for women, who have higher wage elasticities with respect to the marginal tax rate (Schwierz, 2003).
- Parental leave policies. Entitlement to maternity and childcare leave has increased in almost all countries, with the maximum leave now available

exceeding one year in at least eighteen countries (OECD, 2005d).³⁸ Variations between countries are large, however, and refer to the duration of benefits and the degree of remuneration of maternity leave (Gauthier, 2000). Paternity leave and childcare leave reserved for fathers have been introduced in a number of countries in the past decade. The idea of the provision of parental leave was to promote the labour market participation of women with young children and to make the system more attractive for men as well. However, due to financial incentives as provided by better provision of parental leave, withdrawal from paid work is enhanced. Moreover, long periods without paid work damage often future employment prospects and lead to lower labour market participation rates, and consequently to less time allocated to paid work. Thus, due to the ambiguous incentives of parental leave a broad conclusion for the allocation of time between paid and unpaid work cannot be drawn.³⁹

• Formal childcare capacities. With rising employment rates for mothers with young children and a higher education and trends towards dual job holding, the demand for childcare services grows. Delivery of childcare services varies in European countries and reflects different attempts to reconcile family and work life in the context of different welfare systems and different family traditions. For many families, the lack of viable childcare options is a major barrier to work. Couples increasingly postpone having children because they perceive that childcare facilities are insufficiently available while they want to continue dual job holding. Especially for families, where informal care (for example provided by relatives and neighbors) is lacking or that have a low family income, formal childcare is crucial for the reconciliation of family and work. Matters are complicated by school hours that are often poorly synchronized with parents' working hours.

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³⁸ Some countries have long periods of paid leave for parents – up to 3 years or more in Austria, Finland, France and Germany.

According to evaluation results in Austria longer maternity leave periods lead to an even longer withdrawal of women from the labour market. Moreover, they do not cause fathers to get more involved in the care of young children (Lutz, 2004).

5.3.2.4. Changes in macroeconomic conditions

- The achievement of higher economic growth contributes to more time spent on both paid and unpaid work. It is, however, negatively related to time spent on leisure.
- For both sexes lower own-sex unemployment rates are related to more time spent on paid employment, while the converse is true for time spent on housework.
- An increase in the female unemployment rate increases men's time in paid work and decreases their time allocation to housework. The same crosseffect is found for women.

Macroeconomic conditions, such as economic growth, unemployment rates and labour force participation rates have an impact on the allocation of time. With high economic growth, low unemployment rates and high labour force participation rates the society allocates more time to paid work. In contrast, low economic growth with high unemployment rates and low labour force participation rates result in less time allocated to paid work, more work done at home and more leisure.

There is no straightforward relationship between paid/unpaid work and economic growth/unemployment rates for men and women respectively (*Figure 5.3* and *Figure 5.4*).⁴⁰ This is not surprising, since economic growth does not automatically imply the creation of new jobs and the extension of working hours for existing jobs. On the contrary, it can come in the form of zero job growth (Topel, 1999). However, on the individual level own econometric estimations show that in our sample economic growth is positively related to the participation in and the amount of paid and unpaid work and childcare for both sexes. The achievement of higher economic growth contributes thus to more time spent on both paid and unpaid work. It is, however, negatively related to time spent on leisure.

A better relation of time allocation in paid/unpaid work is to be found when looking at unemployment rates. For both sexes lower own-sex unemployment rates are related to more time spent on paid employment, while the converse is true for time spent on housework (Figure 5.3 and Figure 5.4). Econometric

No statistically significant linear relationship between economic growth and nationwide changes in the allocation of time to paid and unpaid work can be discovered for either sex. The data for paid/unpaid work was constructed as previously, i.e. it is sex-nation-specific averages of time-use for the whole population above the age of 15.

estimations confirm this relationship on the individual level (*Table 5.9* to *Table 5.13*).

For both sexes higher own unemployment rates reduce (increase) the participation and the amount of time spent on paid work (unpaid work). In addition to own-sex unemployment rates, cross-sex unemployment rates have an impact on the allocation of time. As such, an increase in the female unemployment rate increases men's time in paid work and decreases their time allocation to housework. The same cross-effect is found for women.

5.4. Time-use over life course phases

- Time devoted to education exhibits a spike at the age lower than 25, dropping substantially thereafter, irrespective of living arrangement and parenthood.
- In all life course phases the amount of time spent on paid work is higher for men than women, while the inverse is true when unpaid work is considered.
- For men the variance of time spent on paid work across the life course phases is relatively small, while it is relatively high for women when considering unpaid work.
- Time spent on unpaid work is highest for women living in a couple with a child at the age of 0-6 years.
- For both genders the amount of paid work drops significantly for those older than 65 years.

The allocation of time to different activities varies not only over time and between sexes, as shown in previous sections, but also over the life course. At different ages individuals pursue different careers that vary in their time intensity devoted to specific activities. Changes in time-use patterns over the life course follow as a consequence from this behaviour. Dual-earner households with young children spend relatively much time on both paid and unpaid work, experiencing the peak time of work. They have little in common in terms of time-use with a pre-retired 55 year old man. Thus, time-use is unequally distributed across the life course of individuals.

The unequal distribution of time across the life course follows partly from differences in gender, age, employment status and family arrangement. These characteristics can be used as defining features of life course phases (*Table 5.7*). Based on a given definition of life course phases the following picture of differences in time-use over the life course emerges:

- Time devoted to education exhibits a spike at the age lower than 25, dropping substantially thereafter, irrespective of living arrangement and parenthood.
- In all life course phases the amount of time spent on paid work is higher for men than women, while the inverse is true when unpaid work is considered.
 This is true for both samples of employed and non-employed and employed individuals only.
- For men the variance of time spent on paid work across the life course phases is relatively small (mean being 4.6 hours with a standard deviation of 1.0 hours), while it is relatively high for women (mean 3.6, standard deviation 1.3) when considering unpaid work.
- Time spent on unpaid work is highest for women living in a couple with a child at the age of 0-6 years (life course 5). The spike in unpaid work during this life course phase corresponds to a (less than equal) drop in paid work.
- The peak time devoted to work is highest for persons with a child at the age of 0-6 (life course phase 5). Total time devoted to work is higher for women in all life course phases except 1 and 2.
- Both sexes experience a hump-shaped life-cycle pattern of labour supply that first increases until a certain age and then starts to decrease (the two lower graphs of *Figure 5.5*).⁴¹
- When isolated, age does not influence the distribution of time allocated to childcare. As discussed in the following sections, other factors have a more decisive impact on these activities. Leisure seems to be more unequally distributed over the life course for women than for men. At midlife women experience the least amount of leisure.
- For both genders the amount of paid work drops significantly, when entering life course phase 8, i.e. for those older than 65 years.

Overall, these observations confirm the unequal distribution of time devoted to productive and non-productive activities over the life time. The relatively high variance of time spent on housework for women points to the fact, that it is rather women than men, who experiences more changes over the course of their lives. These changes are connected to changes in the living arrangement, employment and parenthood, which will be analysed later in the text. While men usually enter the labour market after education and remain there without interruptions (unless unemployment is imposed), women often leave when they

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⁴¹ The two lower panels in Figure 5.5 result from truncated regression results, and show the pure, isolated age effect on the amounts of paid work, housework, childcare and leisure done for both men and women.

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marry, and in a number of European countries, when they have children. They do not always return to do paid labour (Ferrari and Villota, 2001). The fact that women have a higher total workload than men over nearly the entire life course strengthens the necessity of time-use analysis, as data measuring the average hours spent in the formal labour market show that men work more, thus skewing the perception of gender related commitment to work.

5.5. Time-use and specific life course phases

5.5.1. Parenthood

• The presence of a young child in a household gives rise to specialization. However, later entry into parenthood, rising educational attainment of mothers and positive correlations between employment, marriage and motherhood point into the direction of more equal time-use allocations between parents.

Despite the convergence of time-use patterns between men and women there is still a large gap to fill in order to equalize gender-specific time-uses, once a child enters the household.⁴² Comparisons of time allocations in different parenthood situations reveal that the biggest change comes upon the arrival of the first child (Van der Lippe, 1992). The arrival of children in a household gives rise to specialization (Becker, 1993). With a child between the age of 0-5 women spend considerably less time on paid work and leisure, which they largely shift towards housework. For men there is no effect on the participation in housework, a slight positive effect for the participation in childcare, and a rather large increase in the probability of participation in paid work. This also holds for a child of age 6-15, although with lower time effects. These time effects of young children are also lower for older parents. Thus later entry into parenthood brings about less time reallocation towards specialization of men in paid and women in housework activities.

A similar effect is found for better educated parents. Rising educational attainments of women and rising income opportunities in the formal labour market give rise to more labour market participation by women (Mincer, 1974), with the consequences of less time spent on housework by women and more by men, as was visible by the converging trend in housework done by both sexes

Not only the birth of children, but also their timing (Berinde, 1999; Alich 2004), the number of children (Kravdal, 1990), the age and the educational attainment of the children's parents (Gustafson and Wetzels, 2001) were shown in the literature to matter for outcomes in time allocation.

throughout the last 40 years. The changing pattern of female employment gives rise to the positive correlation between higher fertility and female employment (Chapter 3.2.2).

Additional children bring only slight changes in increases (decreases) of paid work for men (women) (*Figure 5.6*).⁴³ In general, the amount of housework done by men does not vary significantly with child-characteristics of the household. This is not true for women, who slightly increase the amount of housework done with each additional child. Overall more children signify more total workload for both sexes.

Parental decisions are often interrelated with changes in employment and marriage status. Typically, marriage, employment and parenthood are positively correlated for men, whereas parenthood and marriage mean for women a lower probability of being employed. Married men\fathers spend more time on paid work and less time on housework, married women\mothers commit more time to housework and less time to paid work. These correlations lead thus to more gender-specific task specialization within the household and to more differences in sex-specific time-uses for parents.

However, when correlations between employment, parenthood and marriage are analyzed in each decade from 1961 to 2000 one can see that the negative correlations between employment-parenthood and employment-marriage change the sign.⁴⁴ Overall the correlations for women match more closely those of men.

Changes in the correlations are important as they alleviate the specialization once a child enters the household. This means that becoming mother is not necessarily associated with a dropout from paid work, but on the contrary with a stronger attachment to the formal labour market, which fits well the observation of a positive relationship between fertility and female labour force participation (Chapter 3.2.2). It is also backed by an increasing probability of women for being employed now than in earlier decades, and decreases in the probability of being mother or married. Overall, later entry into parenthood, rising educational attainment of mothers and positive correlations between employment, marriage

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Figure 5.6 includes data for married couples between the age of 18 and 75 living only with their children, i.e. without other household members. The data are based on the same country-years as Figure 5.9.

It has to be kept in mind that the correlations between the periods are not directly comparable to each other, since they are based on different country-samples.

and motherhood point into the direction of more equal time-use allocations between parents.

5.5.2. Employment

- In countries with lower compatibility of work and family life, upon childbirth men (women) decrease (increase) their housework duties and take on more (less) paid work.
- The simultaneous availability of part-time work for women and childcare arrangements is often crucial to reconcile motherhood and paid work.

Changes in the employment status of men and women bring about sex-specific changes in time allocations. As such changes in the own employment status go together with the already described sex-specific substitution effects between house- and paid work for women and paid work and leisure for men (*Figure 5.7*). However, neither for men nor for women does there seem to be a systematic effect of changes in time allocation depending on the spouse's employment status (*Figure 5.8*).⁴⁵

As already shown in the previous sections, time devoted to paid work fluctuates more strongly over the life course for women than for men, one crucial reason being changes in family responsibilities, e.g. due to childbirth (Drobnic *et al.*, 1999). Cross-country variations between mother's labour market participation reveal differences between countries, which are based on opportunities for work-family reconciliation. Women in Austria, France, Italy, Germany, the UK and the Netherlands reduce their participation in the labour market and the amount of paid work done, when children arrive. In these countries with lower compatibility of work and family life, men decrease their housework duties and take on more paid work. These findings are largely corroborated by Ferrari and Villota (2001).

In contrast, a reduction in labour market attachment of women due to childbirth can not be found in Scandinavian countries. Obviously, Scandinavian countries

or three person (couple with one child) households, for whom detailed information from MTUS data on the couples' employment status, the number of children in the household and the number of household members was available. It includes in total 20025 observations from the surveys Norway 1971, 1981 and 1990, Netherlands 1975, 1980,

1985, 1990 and 1995, UK 1975, Germany 1992, France 1998 and Slovenia 2000.

Figure 5.7 and Figure 5.8 depict the time allocation of married couples without or with a young child depending on their own and their spouse's employment status. They are based on a sub-sample of all married individuals within two (couple without children)

allow for better work-family reconciliation than other European countries. The OECD (1999) attributes differences in the labour force participation of mothers to specific characteristics of the welfare state, such as the social security system, expenditures on labour market programmes, parental leave arrangements, and entry conditions to the labour market and pension schemes.

One factor identified as responsible for the above mentioned differences between the countries in the compatibility of work and family life is the availability of part-time work and childcare arrangements. In the European Union around half of mothers in employment with a child aged under 6 work part-time. Most, but not all, of those not working would like to move into employment and work part-time (OECD, 2001; Drobnic *et al.*, 1999).

The compatibility of work and family life can be tested by comparing time spent on childcare between non-employed and employed mothers for different countries. Where childcare facilities and part-time work are largely available, time spent on childcare should not vary largely as in countries where these factors are not as widely developed. While in Germany women spend less time on childcare when being employed, this does not happen in France, where the availability of part-time work for women and childcare facilities is universal (Table 5.3).⁴⁶ Also in Italy, Norway and the UK women spend less time with their children after being employed, but this refers only to 1971-1990, when part-time jobs were not yet as widely available as nowadays. These findings are confirmed by Ichino and Galdeano (2005), who find the availability of part-time employment and childcare facilities to be crucial to reconcile motherhood and work. In more detail, they find that in Sweden this reconciliation takes place, but not in Germany and Italy, which confirms results from this study.

Obviously, the general finding that changes in the employment status of men and women bring about sex-specific changes in time allocations is not necessarily connected to childbirth. This depends rather on the country-specific possibilities of work-family reconciliation, which might favour traditional patterns of gender specialization or a better integration of mothers into the formal labour market. Where childcare facilities and part-time work are largely available, it is easier for mothers to engage in paid work.

In *Table 5.3* mother's time devoted to childcare is shown in relation to the mother being employed or not. The table is based on MTUS data for married women of age 18-50 in a three head household including a child of age 0-5.

5.5.3. Living arrangement

• Singles face different time constraints than cohabiting couples. An increasing number of single persons (older and parents) will increase the differences in time allocations across different living arrangements.

The allocation of time depends partly on the type of living arrangement. Typically, singles face different time constraints than cohabiting couples. Partners can distribute housework (and childcare) among each other and bargain over intrahousehold time allocations (Beblo, 2001), facing problems of time togetherness (Hamermesh, 2002), while singles do not face these intrahousehold time allocation issues.

Tendencies to marry less and later, an increasing importance of consensual unions, implying a rise in out-of wedlock fertility and divorce rates, make the analysis of differences in time-use between single parent and cohabitating or married couples of paramount interest.⁴⁷ Single fathers spend less time on paid and more on unpaid work than men living in a couple with children. In contrast women slightly decrease time spent on paid work and increase time spent on unpaid work when changing from single to living in a couple (*Figure 5.9*).

The amount of childcare does not differ between cohabiting, married and single parents (Kalekonski *et al.*, 2002). While some authors (McLanahan and Booth, 1989; Rowland *et al.*, 1986) claim that single-parent mothers show heavier workloads and lack of sleep and leisure than married mothers, such evidence is not found in the current data set. According to Figure 5.9 single parents' total workload does not exceed that of married and cohabiting parents.

Current EU household scenarios show that the number of retired persons living alone will increase (Alders and Manting, 1999). Retirement brings a significant drop in the amount of paid work, which is partly compensated by an increase in housework and partly by an increase in leisure (Figure 5.9). In fact, leisure is relatively equally distributed throughout all life course phases except retirement, where it increases substantially. Married retired couples differ from retired singles (after divorce or widowhood) by a more unequal distribution of time between leisure and housework. In retired couples men consume significantly more leisure time and do less housework than when being alone.

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⁴⁷ See Carr (2001), Ghysels (2002) and Poortman (2005) for effects of divorce on time allocations.

Differences in time allocation among living arrangements exist and are increasing in Europe, as the number of one person and single parent households is growing faster than that of cohabiting couples. In view of conflicting results, further research especially into the effects of childbirth on cohabiting/married couples and singles is important, as living arrangements are becoming more diverse in Europe.

5.6. Discussion

The analysis of time-use over the life course in European countries brings forward a versatile and rich picture of contemporary and past societies. It helps to unveil the shaping of cultural, economic and institutional forces which guide the individual's choice of how to allocate time during the life course.

As the individual's life time is naturally restricted, time-use is characterized by trade-offs. Pursuing one activity implies forgoing another. Given preferences, the individual has to choose the time-use most suitable for him/her. The choice, however, is restricted by various individual, cultural, economic and institutional forces, which give rise to significant differences in the use of time over the life course.

While at young ages significant amounts of time are devoted to education, time for education is negligible at middle-ages and paid work dominates the field until retirement, where leisure and housework are traded-off against paid work. This implies a hump-shaped life course pattern of labour supply that increases until the mid-ages and then starts to decrease. Both genders experience a peak time of work, which is especially distinctive for persons with a young child. Childbirth contributes thus to a more unequal distribution of the work load over the life time.

On average men spend more time than women on paid work over all life course phases; the inverse is true when unpaid work in considered. While many factors are responsible for the inequality in time-use over the life course, gender and childbirth have decisive impacts. Women mostly take the responsibility of childcare and additional housework after childbirth, while men are more strongly committed to paid work. These issues show that the central goals of the redistribution of lifetime working hours and of the reconciliation of work and family life strived for by the adherents of the life course literature are far from being achieved.

Due to changes in various constraints, the distribution of time to different activities changed over the last 35 years. The most striking feature of changing time-use patterns is the declining difference in time-use within sex groups. Over the last 35 years gender equality expressed itself visibly in the convergence of time spent on paid and unpaid work between the sexes. But although equality in sex-specific time-use is on the rise, considerable gaps remain. Men still pursue a rather stable and durable commitment to paid work, in the sense of not being largely driven in their allocation of time by individual level events such as marriage and childbirth. Women, on the other hand, substitute more strongly between paid work and housework, especially when becoming mothers. Thus, to date, these life events impact on the sexes mostly in the direction of a traditional breadwinner model.

However, broad societal trends blur this simple conclusion. Demographic change in the form of lower fertility levels frees women from family obligations and opens possibilities for paid work. An increasing diversity in family and household structures adds to the diversity of time allocations. It is breaking the dominant position of a two-adult two-child household and its resulting traditional work specialization of men and women. Shifting cultural perceptions towards equal rights between the sexes are a long-term impetus towards more diverse and individual ways of time allocation. As such the correlations between employment and marriage or childbirth, which are traditionally positive for men and negative for women are changing. They are becoming less pronounced for men and more positive for women. Thus, family, marriage and paid work are becoming more compatible for women.

European countries have dealt differently with these developments. Whereas women in Scandinavian countries have the least difficulties to reconcile work with family life, women in Germany and the Netherlands typically experience a drop out or a substantial reduction of their paid working time after childbirth. This, of course, has considerable consequences for the allocation of time.

The reconciliation of work and family is a key issue in the life course discourse. Family building reshapes life courses in a significant way and changes the timeuse of women starkly. The family is policy relevant. Policy reforms shaping the institutional and economic context can and do impact on work/family decisions and thus on time-use. Changes in taxation, parental leave policies and the availability of part-time employment and formal childcare capacities have been shown to impact on time-use. The shape of these policies is crucial for women,

who feel the impact of family-related policies more strongly than men and who depend more than men on the institutionalized context of the individual use of time. Reforms in the direction of more family-friendly policies lead on average to equal opportunities and to a more equal distribution of time between the sexes. They can bring about increases in female labour force participation. With an ageing and possibly declining labour force in Europe and an increasing burden of social security costs, family-friendly policies can thus play a key role in shaping a sustainable economic future for Europe.

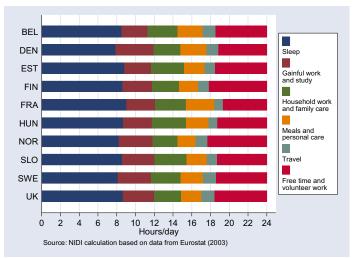


Figure 5.1. Average time-use by activity and country

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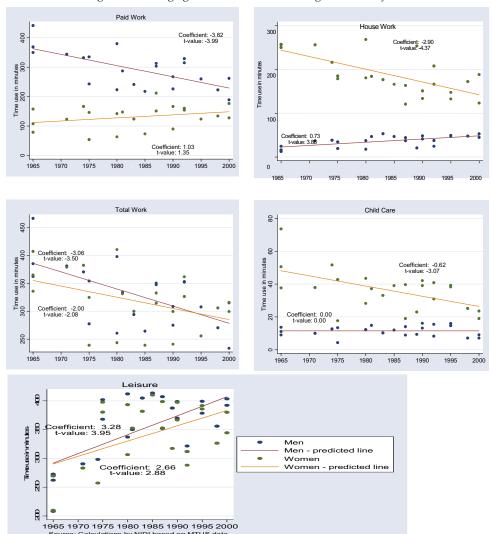


Figure 5.2. Changing time-use allocations through the last 35 years

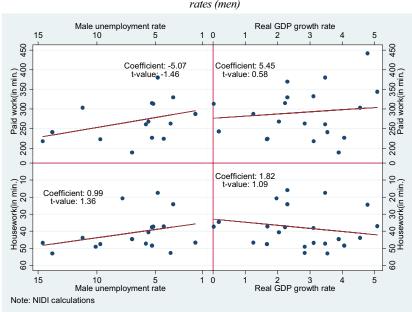
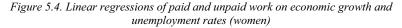
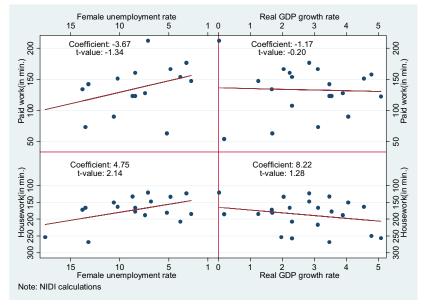


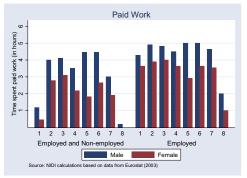
Figure 5.3. Linear regressions of paid and unpaid work on economic growth and unemployment rates (men)

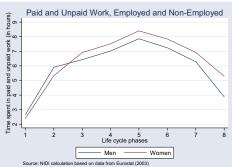


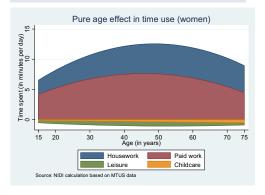


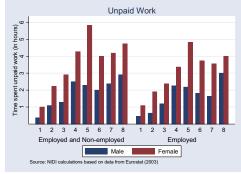
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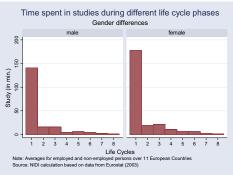
Figure 5.5 Gender differences in time allocated to paid/unpaid work and studies over 8 life course phases (Avg. in hours over 11 European Countries)

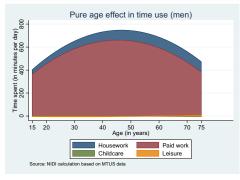












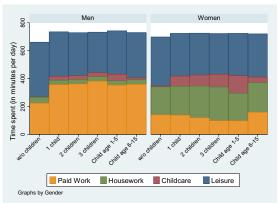
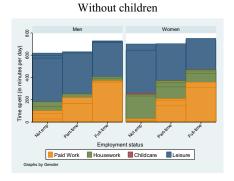
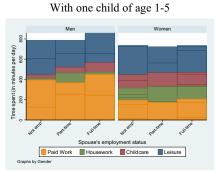


Figure 5.6. Time allocation in parenthood (by gender)

Figure 5.7 Time allocation of married couples depending on their own employment status





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Figure 5.8 Time allocation of married couples depending on spouse's employment status

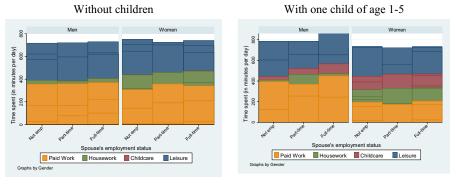


Figure 5.9. Time allocation in different living arrangements (by gender)

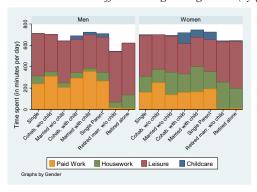


Table 5.1. Correlations between time-use activities

	Market	Household	Childcare	Leisure
Women	111111111111111111111111111111111111111	110000011010	0111144444	20100110
Market	1.00			
Household	-0.35	1.00		
Childcare	-0.15	0.14	1.00	
Leisure	-0.49	-0.1	-0.17	1.00
Men				
Market	1.00			
Household	-0.26	1.00		
Childcare	-0.04	0.08	1.00	
Leisure	-0.66	0.06	-0.07	1.00

Note: The correlations are based on the whole sample of employed and non-employed individuals from the MTUS data set.

Table 5.2. Changing correlations between employment, marriage and parenthood

	1961-1970	1971-1980	1981-1990	1991-2000
		M	en	
Employment-Parenthood	0.07	0.27	0.33	0.29
Employment-Marriage	0.03	0.23	0.21	0.15
Parenthood-Marriage	0.28	0.37	0.45	0.28
		Wo	men	
Employment-Parenthood	-0.22	-0.13	0.07	0.15
Employment-Marriage	-0.28	-0.10	0.05	0.07
Parenthood-Marriage	0.25	0.31	0.39	0.22

Note: Results all significant on 1% significance level.

Table 5.3. Maternal employment and mother's time devoted to childcare (in minutes)

	1971-	1980	1981-	1990	1991-	2000
Country	Not employed	Employed	Not employed	Employed	Not employed	Employed
France					110	103
Germany					178	138
Italy	108	99	116	97		
Norway	116	83	166	135		
UK	101	48	151	124		

Note: The lowest number of observations for an individual cell exceeded 100.

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Table 5.4. Country-years included in the study

	MTUS country code	Period 1 1961-70	Period 2 1971-80	Period 3 1981-90	Period 4 1991-2000
Austria	23				1992
Belgium	11	1965			
Denmark	2			1987	
France	3	1965	1974		1998
Germany	9 (West)	1965 (West)			1992
	22				$2000^{(1)}$
Italy	18		1980	1989	
Netherlands	4		1975, 1980	1985, 1990	1995
Norway	5		1971	1981, 1990	$2000^{(2)}$
Slovenia	34				2000
Sweden	36				<u>1991,</u>
					<u>2000</u>
UK	6		1975	1983, 1987	1995
Surveys per period		3	6	8	7-10

Note: The basic data comes from the MTUS World File as described in Appendix;

(1) German time-use study; (2) Norwegian time-use study included into the data set;
Underlined surveys to be included yet into the data set.

Table 5.5. Descriptive statistics

			omen
Mean		Mean	Standard Deviation
	Deviation		Deviation
274.00	283.99	136.07	216.78
32.58	58.82	181.31	137.76
9.89	33.53	30.00	67.69
361.03	190.70	336.88	162.86
2.37	1.32	2.41	1.30
8.70	5.46	8.70	5.38
6.25	3.13	6.36	3.24
0.06	0.23	0.06	0.24
			0.31
			0.36
0.10	0.00	0.10	0.00
0.03	0.16	0.04	0.19
0.02	0.15	0.02	0.15
39.73	18.06	40.48	18.39
1904.53	1546.73	1977.05	1633.11
1.66	0.75	1.59	0.72
0.65	0.48	0.43	0.49
0.65	0.48	0.61	0.49
0.13	0.33	0.13	0.33
0.26	0.44	0.27	0.44
0.46	0.50	0.47	0.50
4.28	11.64	3.96	10.74
0.12	0.32	0.1	0.31
rvations per per	riod)		
3004		3196	
	Mean 274.00 32.58 9.89 361.03 2.37 8.70 6.25 0.06 0.11 0.15 0.03 0.02 39.73 1904.53 1.66 0.65 0.65 0.13 0.26 0.46 4.28 0.12	Men Mean Standard Deviation 274.00 283.99 32.58 58.82 9.89 33.53 361.03 190.70 2.37 1.32 8.70 5.46 6.25 3.13 0.06 0.23 0.11 0.32 0.15 0.36 0.03 0.16 0.02 0.15 39.73 18.06 1904.53 1546.73 1.66 0.75 0.65 0.48 0.13 0.33 0.26 0.44 0.46 0.50 4.28 11.64 0.12 0.32 **Tractions per period) **Tractions per period** **Tractions per p	Mean Standard Deviation Mean 274.00 283.99 136.07 32.58 58.82 181.31 9.89 33.53 30.00 361.03 190.70 336.88 2.37 1.32 2.41 8.70 5.46 8.70 6.25 3.13 6.36 0.06 0.23 0.06 0.11 0.32 0.11 0.15 0.36 0.15 0.03 0.16 0.04 0.02 0.15 0.02 39.73 18.06 40.48 1904.53 1546.73 1977.05 1.66 0.75 1.59 0.65 0.48 0.43 0.65 0.48 0.61 0.13 0.33 0.13 0.26 0.44 0.27 0.46 0.50 0.47 4.28 11.64 3.96 0.12 0.32 0.1 rvations per

Table 5.6. Coding of variables

Time-use activity (in min.)

Paid work Paid Work + Paid Work At Home (AV1-AV2) Housework Housework + Cooking/Washing Up (AV6-AV7)

Childcare (AV11)

Leisure, but not personal care and sleep (Av10,

AV17-AVAV25, AV29-AV41)

Macroeconomic

GDP growth In percent Female unemployment rate In percent Male unemployment rate In percent

Country level

Kids 0-16 and Scandinavia or France and Italy or Germany, UK and Austria or

Netherlands or Slovenia

Interaction variables: Dummy variable for children under the age of 18 multiplied by dummy variables for a) Scandinavian countries: Norway, Sweden, b) France, Italy, c)Germany, UK, d) the Netherlands

Coded as in 0

Individual

Country dummy

Age 16-75

Educational Level Educational level coded in 3 levels:

(as in MTUS)

In paid work 0= Not in paid work, 1=In paid work

Married 0= Not living with a spouse/partner,

1=Married/Cohabitating

Kids 0-5 Dummy for the presence of children in the

household below the age of 5

Kids 6-15 Dummy for the presence of children in the

household between the age of 5 and 15

Kids 0-5 times and age Interaction variable: Dummy (Child under the age of

5) multiplied by age

Kids 0-5 and married Interaction variable: Dummy (Child under the age of

5) multiplied by married

Longitudinal

1961-70, 1971-80, 1981-1990

Table 5.7. Definition of life course phases

	Tueste Elli E ejillittett oj tije eetil se primses
Life course	Definition
1	Person<25, no children<18, living with parents
2	Person 25-44, no children<18, living with parents
3	Person<45, living in couple, no children<18
4	Single parent (all ages), youngest child,18
5	Person (all ages) living in couple, youngest child 0-6
6	Person (all ages) living in couple, youngest child 7-17
7	Person 45-64, living in couple, no children<18
8	Person 65 and above, living in couple, no children<18

Note: Eurostat (2003) provides also information on three additional life courses. These are characterized inter alia by the fact that the person fitting into this category is 'living in other arrangement'. Since this status is not defined in more detailed, it is excluded from this study. Moreover, Eurostat (2003) provided information on Portugal and Sweden, which were excluded from this study due to data deficiencies.

Table 5.8. Changes in time-use over time, employed and non-employed (in minutes)

			Men					Women		
	Paid	Housewark	Paid +	Childrane	I eighte	Paid work	Howeston	Paid +	Childrana	I eicum
	work	TO MOSCON OTIV	Housework		- Crismo	T and work	TOUSCHOIL	Housework	Cillidadio	- Crismo
Norway										
	344	37	381	10	291	123	256	379	38	283
1981-90	277	4	321	15	360	157	159	316	40	360
0	262	53	315	7	392	176	123	299	19	380
France										
	442	24	466	13	207	157	250	407	73	209
1971-80	332	38	370	12	298	166	216	382	51	257
	219	47	266	7	357	132	170	302	24	327
Netherlands										
	210	34	244	12	410	59	172	331	41	395
	211	45	256	12	407	80	152	232	37	403
	248	45	293	14	380	119	126	245	37	386
UK										
1971-80	250	16	266	3	376	116	139	255	13	379
1981-90	241	53	294	10	404	123	176	299	33	382
1991-2000		49		15	399		147		39	391
Hungary										
	501	25	526	25	178	277	260	537	45	141
	395	40	435	12	205	259	218	477	31	176
Italy										
1971-80	380	17	397	12	337	142	268	410	28	306
1981-90		17		7	402	٠	214		19	339

Source: Own calculations based on MTUS data.

Table 5.9. Changes in time-use over time, employed (in minutes)

Paid work Paid + Housework Childcare Leisure Paid work Housework Childcare Leisure Paid work Housework Childcare Childcare				Men	300		ma Condina (an	(2000)	Women		
393 34 427 11 274 275 196 471 18 349 39 388 18 327 245 141 386 35 454 22 476 14 204 351 172 379 14 352 37 40 413 9 280 271 177 448 34 nds 373 40 413 9 280 271 177 448 34 nds 373 40 413 9 280 271 146 441 27 nds 335 17 358 190 141 331 26 30 365 404 19 327 218 112 339 37 30 36 405 12 334 269 140 409 21 30 36 405 12 334 269 140 409 21 30 36 405 12 32 21 40<		Paid work	Housework	Paid + Housework	Childcare	Leisure	Paid work	Housework	Paid + Housework	Childcare	Leisure
393 34 427 11 274 275 196 471 18 349 39 388 18 327 245 141 386 35 00 341 46 387 18 327 167 379 14 00 344 22 476 14 204 351 172 379 14 00 373 40 413 9 280 271 177 448 34 00 373 40 413 9 280 271 141 331 26 00 365 37 17 358 190 141 331 26 00 365 39 404 19 327 218 112 330 37 0 369 36 405 12 334 269 140 409 27 1 417 38 455 13	Norway										
349 39 388 18 327 245 141 386 35 341 46 387 8 352 267 112 379 14 454 22 476 14 204 351 172 379 14 300 373 40 413 9 280 271 177 448 34 329 28 357 17 358 190 141 31 26 335 37 372 16 349 208 125 33 29 300 365 404 19 327 218 112 33 29 30 46 15 349 269 140 409 21 369 36 405 12 334 269 140 409 21 360 36 27 124 409 21 39 37 3	1971-80	393	34	427	111	274	275	196	471	18	258
90 341 46 387 8 352 267 112 379 14 454 22 476 14 204 351 172 523 32 352 37 389 13 289 271 177 448 34 nob 373 37 17 358 190 141 441 27 335 37 372 16 349 208 125 333 29 30 365 39 404 19 327 218 112 330 37 30 36 405 12 334 269 140 409 21 36 36 405 12 334 269 140 409 21 36 36 45 175 435 175 479 40 40 417 38 455 13 175 479 479 <t< td=""><td>1981-90</td><td>349</td><td>39</td><td>388</td><td>18</td><td>327</td><td>245</td><td>141</td><td>386</td><td>35</td><td>328</td></t<>	1981-90	349	39	388	18	327	245	141	386	35	328
454 22 476 14 204 351 172 523 32 352 37 389 13 289 271 177 448 34 nds 352 40 413 9 280 271 177 448 34 339 23 17 358 190 141 331 26 365 39 404 19 327 218 112 330 37 30 36 403 5 334 269 140 403 31 30 36 36 405 12 334 269 140 409 21 36 36 36 32 20 124 409 21 409 345 154 409 21 36 36 36 32 24 175 432 214 646 40 417 17 434 13	1991-2000	341	46	387	∞	352	267	112	379	14	340
454 22 476 14 204 351 172 523 32 352 37 389 13 289 271 177 448 34 nds 373 40 413 9 280 271 441 27 339 37 372 16 349 208 141 331 26 304 15 404 19 327 218 112 330 37 369 36 405 12 334 269 140 409 21 369 36 405 12 334 269 140 409 21 369 36 405 12 334 269 140 409 21 360 36 24 175 435 174 646 40 417 38 455 13 199 345 175 479 26	France										
352 37 389 13 289 271 177 448 34 nds 373 40 413 9 280 271 177 448 34 329 28 357 17 358 190 141 331 26 335 37 372 16 349 208 125 333 29 304 15 404 19 327 218 112 330 37 369 36 405 12 334 269 140 409 21 369 36 405 12 334 269 140 409 21 516 23 24 175 432 214 409 20 417 38 455 13 316 36 479 26 417 17 345 12 479 270 207	1961-70	454	22	476	14	204	351	172	523	32	157
nds 373 40 413 9 280 295 146 441 27 nds 329 28 357 17 358 190 141 331 26 335 37 372 16 349 208 125 333 29 36 404 19 327 218 112 330 37 369 36 405 12 334 269 140 409 21 369 36 405 12 334 269 140 409 21 516 23 24 175 432 214 409 21 417 38 455 13 199 345 175 479 26 417 17 434 13 316 303 176 479 26 417 17 434 13 345 175 479 26	1971-80	352	37	389	13	586	271	177	448	34	230
nds 329 28 357 17 358 190 141 331 26 335 37 372 16 349 208 125 333 29 36 404 19 327 218 112 330 37 369 15 405 12 334 269 140 409 21 0 36 405 12 334 269 140 409 21 8 36 24 175 432 214 646 40 417 38 455 13 199 345 175 520 20 417 17 434 13 316 333 176 479 26	1991-2000	373	40	413	6	280	295	146	44	27	245
329 28 357 17 358 190 141 331 26 335 37 372 16 349 208 125 333 29 36 404 19 327 218 112 330 37 369 36 405 12 334 269 140 409 21 0 36 405 12 334 269 140 409 21 516 23 539 24 175 432 214 646 40 417 38 455 13 199 345 175 520 20 417 17 434 13 316 333 176 479 26	Netherlands										
335 37 372 16 349 208 125 333 29 36 404 19 327 218 112 330 37 394 15 409 5 337 270 143 413 9 369 36 405 12 334 269 140 409 21 516 23 539 24 175 432 214 646 40 417 38 455 13 199 345 175 520 20 417 17 434 13 316 333 176 479 26 417 17 434 13 345 175 479 26	1971-80	329	28	357	17	358	190	141	331	79	355
-2000 365 39 404 19 327 218 112 330 37 -80 394 15 409 5 337 270 143 413 9 -90 369 36 405 12 334 269 140 409 21 -2000 . 36 20 322 . 124 409 21 -30 516 23 539 24 175 435 175 520 20 -80 417 38 455 13 199 345 175 520 20 -80 . 17 434 13 316 303 176 479 26 -90 . 17 12 345 . 207 207 26	1981-90	335	37	372	16	349	208	125	333	29	360
-80 394 15 409 5 337 270 143 413 9 -90 369 36 405 12 334 269 140 409 21 -2000 36 20 322 124 39 21 -70 516 23 539 24 175 432 214 646 40 -80 417 38 455 13 199 345 175 520 20 -80 417 17 434 13 316 303 176 479 26 -90 17 17 12 345 27 207 26	1991-2000	365	39	404	19	327	218	112	330	37	342
394 15 409 5 337 270 143 413 9 369 36 405 12 334 269 140 409 21 90 36 20 322 . 124 39 21 7 516 23 539 24 175 432 214 646 40 417 38 455 13 199 345 175 520 20 417 17 434 13 316 303 176 479 26 17 17 12 345 . 207 26	UK										
369 36 405 12 334 269 140 409 21 90 . 36 . 20 322 . 124 39 7 516 23 539 24 175 432 214 646 40 417 38 455 13 199 345 175 520 20 417 17 434 13 316 303 176 479 26 1 17 12 345 . 207 26	1971-80	394	15	409	5	337	270	143	413	6	329
00 . 36 20 322 . 124 39 7 516 23 539 24 175 432 214 646 40 417 38 455 13 199 345 175 520 20 417 17 434 13 316 303 176 479 26 1 17 12 345 . 207 26	1981-90	369	36	405	12	334	269	140	409	21	319
, 516 23 539 24 175 432 214 646 40 417 38 455 13 199 345 175 520 20 417 17 434 13 316 303 176 479 26 . 207 26	1991-2000		36		20	322		124		39	310
516 23 539 24 175 432 214 646 40 417 38 455 13 199 345 175 520 20 417 17 434 13 316 303 176 479 26 17 17 12 345 207 26	Hungary										
417 38 455 13 199 345 175 520 20 417 17 434 13 316 303 176 479 26 17 17 12 345 207 26	1961-70	516	23	539	24	175	432	214	646	40	121
417 17 434 13 316 303 176 479 26 . 17 12 345 . 207 26	1971-80	417	38	455	13	199	345	175	520	20	166
417 17 434 13 316 303 176 479 26 . 17 12 345 . 207 26	Italy										
. 17 12 345 . 207 26	1971-80	417	17	434	13	316	303	176	479	26	265
	1981-90		17		12	345		207		26	566

Source: Own calculations based on MTUS data.

6. Population related policies and implications

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6.1. Highlights

- Practically all Member States have major concerns about population ageing.
- As the future pension systems may not be sustainable, labour market participation rates should increase, especially for persons of 50 years or over. Therefore early retirement schemes are reduced and the age at retirement is rising.
- Concerns also exist about low population growth and low fertility levels. However policy measures to directly influence the fertility level hardly exist.
- Work-family policies are high on the political agendas, mainly to try to have more women (mothers) participate on the labour market, and to increase gender equality.
- Child care policies as well as elderly care policies are under revision.
- Time-use data show that there still is, in most of the countries overviewed in this Chapter, a strong gender divide in family and household work which continues to be mainly women's business.

This Chapter reviews relationships between population issues and policies. The emphasis lies on population issues that are concerns to Member States and that may be translated into concrete (population-related) policy measures. Section 6.2 focuses on the official governmental perceptions with respect to specific population issues, based on UN reports. Sections 6.3 to 6.9 result from contributions of the Network of Experts. This Network was specifically designed to gain insights in national policy reactions to population-related issues.

The Chapter indicates that practically all Member States have concerns about the ongoing process of population ageing and the future sustainability of the pension system, as well as about low population growth and low fertility. In many countries work-family policies are on the political agenda, while gender equality issues and issues around care for older people are gaining importance.

6.2. Trends in population policy perceptions (Gijs Beets*)

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- Recently more than half of all EU governments made changes in their evaluations (19 countries) on population issues.
- Currently governments are mainly concerned about population size and growth (15 countries) ('too low'), population ageing (major concern) (26), the fertility level ('too low') (20).
- A majority wants the fertility level to be raised (17).
- A 'too high' immigration level is a concern in 10 countries.

Contrasted to the developing world, where high mortality stands out as the most significant population issue, the developed countries including those in Europe are mainly concerned about low fertility, population ageing, and migration.

For the year 2003 the United Nations presented another overview of the official governmental perceptions in all world nations with respect to specific population policy issues. The initiative to monitor population policies originated from the World Population Plan of Action adopted at the 1974 UN World Population Conference in Bucharest.

Table 6.1 gives an overview of the views in Europe, and for the EU-15 and NMS-10 separately. Percentages of 50 and over are highlighted. In Annex A6 the perception in the various individual EU Member States with respect to population size and growth, population ageing, fertility, mortality and migration is given. If available the previous views since 1976 are added as well (UN, World Population Policies, 2003).

In the EU-25 and the four Candidate countries (Bulgaria, Croatia, and Romania) and Turkey the majority of countries was satisfied with their <u>population size and growth</u>, but a recent shift is visible toward concerns about a too low rate of population increase, most specifically in the NMS-10. It means that, in 2003, 15 countries have concerns on a 'too low' population size and growth. Turkey is the only European country to express its concern about a too high population size and growth.

As most Member States were satisfied it does not come as a surprise that the majority also opted for a policy of non-intervention with respect to population

size and growth. However also here the NMS-10 shifted more recently towards policies aiming at raising the population size and growth.

<u>Population ageing</u> is a major concern to most European governments, to most EU-15 Member States, and to all NMS-10 countries. The level of concern about the size of the working-age population is only slightly lower.

The <u>fertility level</u> was perceived as satisfactory but more recently there is concern about the too low level, most specifically again in the NMS-10 countries. Turkey is concerned about the 'too high' fertility. If we look at the Member States that are satisfied with the fertility level and at the current ranking of countries from high to low fertility (in Chapter 2, Figure 2.6) (excluding Turkey) we observe that the Member States that are satisfied with current fertility are all experiencing relatively high fertility and that, surprisingly, France and Luxembourg are not satisfied although their fertility rates are among the fairly high rates as well.

If the fertility level is judged as too low, most governments want the level to be raised, except for Italy, Portugal and Spain who do not opt for an intervention. Most specifically again the NMS-10 Member States opt for an intervention to raise the fertility level. A small majority of the European countries, both within the EU-15 and NMS-10 provide direct support in order to give the population access to contraceptive methods. However, the NMS-10 shifted recently towards indirect support. The level of concern about (young) adolescent fertility is low, and most Member States have programmes addressing this issue.

Several Member States, most particularly in the NMS-10, express that the mortality level is unacceptable. If we look at Figure 2.8 in Chapter 2 with a ranking of countries from high to low life expectancies it may be somewhat surprising that the UK is among the countries that evaluate the mortality level as 'unacceptable' while Estonia and Lithuania are not. The EU-governments also have major and increasing concerns about the HIV/AIDS epidemic. Relatively more NMS-10 than EU-15 countries have concerns about the under-five mortality and the maternal mortality levels.

The <u>spatial distribution</u> of the population is judged, in general, as satisfactory or governments indicate that minor changes are desired. Major changes are only opted for in a few Member States, most notably in Greece, Latvia, Luxemburg and Portugal. Policies on internal migration towards metropolitan areas do not meet much support. Currently 'no intervention' is the answer most governments

give, although the EU-15 previously had a preference to lower this migratory flow, while the NMS-10 had, in the 1970s, an aim to raise the flow.

The majority of governments are satisfied with the level of <u>immigration</u>, although to a lesser extent in the EU-15. In 2003, the immigration levels are a concern in Cyprus, Denmark, France, Hungary, Italy, Latvia, the Netherlands, Portugal, Spain, and Turkey (all 'too high' levels) and in the Czech Republic, Germany and the UK ('too low'). The other countries are satisfied. One decade ago policies to lower immigration were present in a majority of countries, most specifically in the EU-15, more recently six of the ten NMS countries have such policies, while the majority of EU-15 countries wants to maintain the immigration flows.

Also <u>emigration</u> is mainly judged as satisfactory. However Bulgaria, Croatia, the Czech Republic, Ireland, Latvia, and Romania all express that the level is too high. Remarkably, Latvia switched from a 'too low' emigration attitude in 1996 to 'too high' in 2003. Most countries opt for no intervention; Bulgaria, Croatia, Cyprus, the Czech Republic, Latvia and Romania wish to lower the level, while France and Turkey wish to raise it.

Finally, when comparing 1996 and 2003, ten countries (Denmark, France, Germany, Ireland, Malta, the Netherlands, Romania, Slovakia, Slovenia, and Sweden) turn out to have not made any fundamental change in their perception of population issues. The other 19 countries made changes in their perceptions.

These judgements are influenced by the fact that the EU is being confronted with one, two or even more decades of below-replacement fertility. And, as also life expectancy has risen, population ageing has been the result. Moreover international migration, both legal and illegal, has become more prominent. Policy reforms to accommodate a growing economically dependent old age population are thus called for, as well as measures "that help childbearing and labour force participation to be more compatible". However Demeny (2005, pp. 6-7) wonders whether they prevent countries to go "a path of ongoing population decline". He also foresees continued "very strong and increasing migratory pressure" from Africa to the EU-25 since population sizes in both geographical entities are changing in such diverse pathways (in 1950 Africa had 224 million inhabitants, the EU-25 had 350 million, i.e the EU had 1.5 more people than Africa. By 2050 Africa is expected to have 1937 million inhabitants, as against 449 million in the EU-25, i.e only 23% of the number in Africa).

Demeny further states that it is in our mutual interest to stabilise the EU-25 and the African population size and structure in the coming century. He suggests (p. 8) that "demographic 'regime change' becomes a condition for long-term international peace and stability." He also poses that "it would be foolish arrogance on the part of governments to assume that they can set some population size as the optimum and try to achieve it through appropriate policy measures." "If the aggregate of individual fertility choices (the key variable in the growth equation) results in a slow demographic decline in modern affluent societies, such societies should be capable of making the necessary adjustments to a declining population size. Such adjustments could be consistent with maintaining and indeed raising the already high material standards of living, and, if collectively so desired, exercising strict control over immigration: limiting it to modest numbers, or even closing the borders to permanent migration entirely." "Liberal immigration policies could temporarily alleviate the distortion in the age distribution that results from such a pattern of fertility, but possibly only at the price of a thorough transformation in the cultural and ethnic make-up of the receiving society."

Are policies effective to redress demographic trends, or are demographic forces so powerful that we have to learn to live with their mostly autonomous character? Recently Gauthier (2005) reviewed the recommendations at the 1993 European Population Conference: "the promotion of a more child-friendly and family-friendly environment; the support of parents in their combination of professional life and parental roles; the financial support of families, particularly those with limited resources; and the promotion of equality between men and women, including equal opportunities for employment and equality if family responsibilities." These recommendations are related to the ICPD Programme of Action: "programmes and policies to enable employees of both sexes to harmonise their family and work responsibilities; promotion of equal participation of women and men in all areas of family and household responsibilities, including, among others, responsible parenthood, (...) and shared control in, and contribution to, family income and children's welfare; provision and promotion of means to make participation in the labour force more compatible with parental responsibilities; formulation of policies which are sensitive and supportive of the family."

However, how to assess "the extent to which UNECE member states have moved closer to creating a child and family friendly society"? By analysing the effect of cash benefits Gauthier concludes that "empirical data show that in

some countries the current systems of cash transfers to families are indeed significantly reducing child poverty" (examples of Poland, Hungary, Czech Republic), but also that "child poverty remains high in several countries even after cash transfers" (examples from Italy, Turkey, UK and USA) (pp. 103-104).

According to Gauthier the effects on fertility are small (pp. 105-106): "there does indeed appear to be a positive —albeit very small— impact of cash benefits on fertility, when the analysis is carried out at the aggregate level." (...) "On the other hand mixed results are found when the analysis is carried out at the micro-level." Gauthier also stresses that there is "a need to distinguish between the short-term impacts of benefits (on the timing of births) and the long-term impact (on cohort fertility).

Finally Gauthier concludes that "there is no way of measuring the degree of child- and family friendliness in countries. However it is clear that the majority of countries have been devoting resources to improving the well-being of families and children." "Secondly, with regard to the financial support of families (...), the available data do not allow one to fully assess the extent to which programmes are successful in lifting families out of poverty." "Thirdly, with regard to the support of parents in their combination of professional life and parental roles (...), and the promotion of equality between men and women, including equal opportunities for employment and equality in family responsibilities (...), most countries have been devoting efforts to this field. (...) However, two points emerge from this analysis. First, it is clear that the provisions greatly vary across countries both in terms of duration of maternity, parental and child care leave, and in terms of cash benefits. (..) Secondly, it is also clear that different countries have not endorsed the issue of gender equality to the same extent" (pp. 106-107).

6.3. Nordic countries (Marit Rønsen*)

- * Statistics Norway, Oslo, Norway
- Concern about the future sustainability of the pension system has led to the
 planning and implementation of reforms in most Nordic countries. New
 pension- and/or early retirement legislation has been implemented in
 Sweden (1998), Denmark (1999) and Finland (2005). Recently (May 2005)
 the Norwegian Parliament also reached consensus on the main principles of
 a reform.

- Work-family policies are still high up on the political agenda. Today most countries in the region have a paid parental leave period of about one year in Sweden even longer (69 weeks). A novelty of the 1990s has been the introduction of a special 'daddy's quota' in the parental leave system, reserving parts of the leave for the father (at present 4 weeks in Norway, 2 months in Sweden and 1/3 of the total length in Iceland).
- A disputed family policy issue in the Nordic countries is the conflict between the commitments to gender equality versus the emphasis on parental choice. Policies are intrinsically gender neutral, but are usually taken up by mothers, and therefore result in very unequal gender practices. Policies directed explicitly at fathers may thus be more effective in reaching the stated goal of gender equality of outcome.
- Within elderly care a worrying staff situation has led to various action plans
 to improve current quality and efficiency, such as replacement of traditional
 institutions with more modern forms of housing and services that are better
 suited to the wishes of the elderly. There is also a significant tendency
 towards increased privatisation of elderly care.
- Although the gap in time-use between men and women has been narrowing, the old pattern of more household time among women and more market time among men is very resistant. The pattern is especially prevalent among parents of small children, but is observed at all ages, and even among adolescents. Leisure time has increased in all age-groups, but most for people aged 60 and above, and especially for men.

6.3.1. Early retirement policies and policies related to the extension of working life

A common feature of the pension systems of the Nordic countries since the 1960s is that all citizens have a statutory right to a certain minimum subsistence amount when they reach retirement age, the so-called minimum pension. For those who have been active in the labour market there is a supplementary public earnings-related component, and in addition there are occupational private pension schemes. The public schemes are normally funded on a pay-as-you-go basis.

In 1998, public pension spending amounted to 8.8% of GDP in Denmark, 5.7% in Finland, 3.3% in Iceland, 7.8% in Norway, and 10.7% in Sweden

(Herbertsson *et al.*, 2000).⁴⁸ The ageing of the population will increase these costs significantly over time. By 2030 e.g., the elderly population is estimated to exceed 15% in all the Nordic countries, in spite of a relatively high fertility level. Governments and politicians are therefore very concerned about the future sustainability of the pension system. This has led to a review of the countries' pension schemes and to subsequent reforms that have either recently been or are in the process of being introduced.

The increased withdrawal of older workers from the labour force causes an increased burden on pension and fiscal systems. In the Nordic countries, early retirement is most common in Denmark and Finland. These countries also have the most comprehensive public retirement schemes, and the unemployment rate has been relatively high for a long period of time. Early retirement is least common in Norway and especially in Iceland, where there are no other public retirement schemes other than health-related disability pension and also a very limited unemployment problem. Sweden holds a position in the middle, both in respect of public retirement schemes and the extent of unemployment (Nordic Social-Statistical Committee, 2004).

The economic costs of early retirement are substantial. Herbertsson *et al.* (2000) estimate for example that output losses from early retirement constitute more than 3% of GDP in all the Nordic countries except Iceland. Despite the political unpopularity of reforming early retirement systems, a tightening of eligibility rules and strengthening of incentives to retire later are thus intrinsic parts of a pension reform.

The first country to undertake a fundamental restructuring of its pension system was Sweden, when in June 1994 the Parliament adopted guidelines for pension reform. The legislation was implemented four years later, and in November 2001 the first benefits generated under the new systems were paid out. In the new system pensions are financed by a fixed contribution of 18.5% of earnings. 16% is used to finance the pay-as-you-go system, but 2.5% accrue interest in fully funded individual accounts. There is no fixed retirement age, but pension

⁴⁸ Including spending on old age, early retirement, and disability pension, but excluding public sector pension expenditure.

cannot be drawn before the age of 61. As future pensions are based on lifetime earnings, there is a clear incentive to delay retirement⁴⁹ (Palme, 2003).

In Finland, a new legislation on private sector state pensions has come into force in 2005, and similar amendments will follow for public sector pensions in the near future. The primary objective of the reform is to increase the average retirement age. The general retirement age of 65 has been abolished, and workers may instead receive an ordinary old age pension any time they choose between age 63 and 68. Further the qualifying age for an early old-age pension has been raised from 60 to 62 years. The size of the pension will be determined by the employee's whole working career, and not by the last ten years of employment as in the former scheme (Kuusisto, 2004). Financial incentives for continuing at work after the age of 63 will be considerable, as pension accrual more than doubles after that age.

In Norway, a pension committee was set up in March 2001 with the mandate to consider "the main objectives and principles of an integrated future pension system". The committee announced its recommendations for a reform in January 2004. As in Sweden and Finland the main objectives are to encourage older employees to stay longer in employment and to establish a closer link between life-time income and future pensions. Parts of the proposal have met with strong criticism from the trade unions, but in May 2005 the Norwegian Parliament reached a consensus on the main principles of the reform, upon which the government will work out a detailed proposal for the new scheme. Among others the agreement obliges employers to set up supplementary pension schemes for all employees, and a longer employment career will result in a higher pension.

Denmark has not had any major pension reforms, but there have been several smaller changes that have changed the constitution of the system from purely public to partly private (Abrahamson and Wehner, 2003). The most recent major reform is the introduction of occupational pensions to the remaining two-thirds of the labour market in the beginning of the 1990s. The early retirement scheme has been one of the hottest topics in the welfare debate in Denmark, as it is very expensive, entitling almost all employees to retire at age 60 instead of at the official retirement age of 65. In April 1999, the Danish Parliament adopted

⁴⁹ Income from social insurance is also included in lifetime earnings. In addition there are special credits for child rearing, engaging in tertiary education and doing national service.

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several changes to the early retirement scheme in order to increase labour supply (Herbertsson *et al.*, 2000). The new scheme has more flexibility, as it allows people to retire gradually from the labour market, combining pension with an unlimited number of working hours against a deduction from the early retirement pay. There are more favourable deductions for pensions if one retires after age 62, and there are also other components in the new scheme that make it more advantageous to postpone early retirement.

Iceland's pension system is one of the more privately oriented among the Nordic countries, and because of its relatively favourable demographic profile and high labour force participation among the elderly, Iceland faces fewer public social security challenges than the other Nordic countries (Herbertsson *et al.*, 2000). There is a prevalence of occupational schemes, and only a modest degree of earnings-related benefits. To further encourage private provision, the government has recently set up optional individual accounts. Except for sailors, early retirement is not possible in the public pension system, and no extra benefits accrue by postponing retirement.

Since most of the reforms of the pension systems in the Nordic countries are very recent or still in the process of being implemented, it is too early to evaluate their full impacts. Sweden has, however, experienced a change of trend in the employment activity of older people since the implementation of their major reform in 1998. During the 1990s the employment rate among people aged 60-64 declined rapidly. In 1999, it was 52% among men and 45% among women. But since the turn of the millennium there has been a rapid increase to 61 and 55%, respectively, in 2004. Increasing employment activity among older men can be ascribed to postponed retirement, but it is questionable whether this can be seen as an effect of the pension reform, as these are birth cohorts that only to a limited extent are affected by the reform (Nygren, 2005).

In Denmark, however, there is some evidence that the 1999 changes in the early retirement scheme have had the intended effect. Based on two representative sample surveys in 2001 and 2003, the average age of withdrawal from the labour market is estimated to have increased with 0.4 years for men and 0.3 years for women, resulting in an average retirement age of 61.2 and 60.3, respectively (Jørgensen, 2004). For Finland, a survey carried out by the Finnish Centre for Pensions (Eläketurvakeskus, EKT) likewise suggests that the financial incentives introduced in their 2005 reform are likely to be effective. In the survey, private sector workers were asked at what age they plan to retire,

given the changes in the pension legislation. Based on this survey, it is estimated that the pension reform will raise the average retirement age with about three years in the long run (Kuusisto, 2004).

6.3.2. Work-family related policies

Work-family policies have long been high up on the Nordic political agenda, and recent reforms have mainly expanded on the core programs established in previous decades. In all Nordic countries, compensation is granted to cover loss of income in connection with childbirth (and adoption), and compensation is based on previous earnings. Except for Denmark, mothers who are not affiliated with the labour market also receive economic support, in the form of a lump sum at birth in Norway and as a fixed, small daily allowance in Finland, Iceland and Sweden, for a period corresponding to the length of the statutory parental leave period.

Traditionally, Sweden has had the most generous parental leave scheme of the Nordic countries with a full year of paid leave since 1980 and about 15 months since 1989. In 2002 another 30 days were added, resulting in a total leave period of approximately 69 weeks. This keeps Sweden in the clear lead in the Nordic parental leave division. Finland has also had a leave close to one year (10-11 months) since the 1980s, and the length today remains about the same: 44 weeks. In Norway, the main expansion of the parental leave system took place in the late 1980s and early 1990s, resulting in a full year with 80% earnings compensation or 42 weeks with full compensation in 1993. In Denmark, the paid parental leave period was prolonged to one year as from 2002 and made more flexible, allowing parents to prolong the leave with another 8 or 14 weeks. The total earnings compensation remains the same, however. Iceland is the country with the shortest leave, 35 weeks as per December 2002, but with four more weeks to be implemented shortly according to an amendment in 2001. The replacement rate (benefits-to-earnings ratio) is lowest in Finland (normally 70%), followed by Sweden and Iceland (80%, but in Sweden only SEK 60/day for the last 90 days), and highest in Denmark and Norway (up to 100%) (Nordic Social-Statistical Committee, 2004).

A novelty of the 1990s has been the introduction of special 'daddy's quota' in the parental leave system to promote the fathers' involvement in childcare. Norway was the first country to do so, designating 4 weeks of the latest extension in 1993 to fathers. Sweden followed suit in 1994, also reserving 4 weeks for fathers, but without extending the total leave period. At the latest

extension in 2002, Swedish fathers had another month added to their 'daddy quota', and at the same time mothers had a similar quota of 2 months reserved for them. This makes the Swedish system fully gender symmetric — 8 weeks are reserved for each parent, while the rest can be shared as they like.

Iceland has recently introduced an even more radical 'daddy quota', reserving 1/3 of the total leave period for fathers, 1/3 for mothers and the rest to be shared equally between the parents. Once the scheme is fully developed, fathers and mothers will receive 13 weeks each exclusively and 13 weeks in common (Nordic Social-Statistical Committee, 2004).

Another special feature of the 1990s has been the introduction of a cash benefit for the care of young children in Finland and Norway. The Finnish scheme was fully implemented in 1990 and gave parents the right to choose between a place in a public day-care institution and an extra income transfer to make their own child-care arrangements. The allowance may be granted either as a supplement towards child minding in the home or as payment for private child minding. The former is the largest (€ 252 versus € 50 in 2002) and is payable only if a family has a child under the age of three. The benefit consists of a basic amount plus a means-tested supplement and is taxable. Parents who work part-time and have a child under three may receive a partial home-care allowance, but this is a very rare arrangement. In Norway, a similar reform was introduced in 1998, granting a cash benefit of NOK 3657 (about € 450) to parents of 1-2 years olds who do not use subsidised day-care on a full-time basis. Parents of children that attend part time may receive a reduced benefit proportional to weekly attendance. Contrary to the Finnish scheme, the benefit is not taxable and there is no meanstested supplement.

A disputed family policy issue in the Nordic countries recently is the conflict between the commitments to gender equality versus the emphasis on parental choice. Apparently, Nordic work-family policies reflect and support both similar and different models of gender equality and family ideals. It has e.g. been argued that Denmark and Sweden are more on a gender equality track, while a neo-familist development is depicted in Finland, and Norway has been described as a mix of the two (Mahon, 2002 and Ellingsæter and Leira, 2005). There is for example considerable variation in the extent to which the dual breadwinner model is presented as a norm or as an option. Here Norway is often portrayed as having the most 'double-track' oriented policy regime, while Sweden is seen as the most pronounced normative supporter of the dual-

breadwinner model (Kjeldstad, 2001; Korpi, 2000). A common experience of all Nordic countries, however, is that policies that are intrinsically gender neutral, like common parental leave and cash benefits for child-care, are usually taken up by mothers, and therefore result in very unequal gender practices. A policy directed explicitly at fathers may thus be more effective in reaching the goal of gender equality as outcome, as stated as an ambition of the Nordic Council of Ministers (1995).

Another general issue is whether the generosity of the Nordic family policy programs has helped to keep fertility at a reasonably high level. While commonly agreed that there is a certain positive effect (Hoem, 1993; Kravdal, 1996; Rønsen, 2004), a recent concern is that the present pattern may not be sustainable, as there is an apparent 'gender equality deficit' in fertility behaviour. The good recuperation record of younger cohorts has e.g. been viewed to be associated with a more differential fertility pattern, where women in the female-dominated sectors of the labour market with large shares of parttime work have contributed with higher levels of fertility than women in the less segregated or male dominated sectors (Lappegård, 2005). The positive cohort trend with stable fertility close to the replacement level is thus sometimes described as collecting the 'low-hanging fruits' of generous family policies in a gender segregated labour market. Given the goals of gender equality both in the labour market and in the parental share of child care, these elements of the present pattern give reason to question the future sustainability of Nordic fertility trends (Rønsen and Skrede, 2005).

6.3.3. Elderly care and intergenerational support policies

Services for the elderly are part of the municipal responsibility in the Nordic countries. They are mainly financed by taxes and are in principle available to all needing citizens independently of their individual economic situation. A feature that distinguishes Nordic elderly care from many continental countries is the fact that adult children have no statutory responsibility to care for their parents. Nevertheless, care provided by relatives is substantial, but less prevalent than in other countries.

Services from municipalities to the elderly are manifold and include home help, home nursing, day care, special housing and institutional care (nursing homes), and care allowances for relatives. The demographic pressure creates a higher concentration of cases that demand more care, and nursing becomes increasingly important in services for the elderly. All the Nordic countries are

characterised by concerns about the number of staff within services for the elderly. This has led to various action plans for the services of elderly, initiated for example in Norway in 1998 and in Sweden in 2002. In all countries, policies are discussed and implemented to improve the current quality and efficiency of the services for the elderly, such as replacement of traditional institutions with more modern forms of old age housing or the creation of systems that better adapt the services for the elderly to the wishes of the elderly.

There is a significant tendency towards increased privatisation of elderly care in the Nordic countries. User-choice systems have also been discussed and in some cases introduced. Some Swedish municipalities were pioneers in this field in the early 1990s, but Denmark has gone furthest in this direction with the recent introduction of a general user-choice system. Denmark also has far more extensive home services than the other Nordic countries. Almost one in four oldage pensioners in Denmark receives home help compared to e.g. 8% in Sweden. However, recipients in Denmark receive relatively few hours compared to Sweden. Furthermore, home help is free of charge in Denmark, which is not the case in the other countries (Nordic Social-Statistical Committee, 2004).

6.3.4. Time-use over the life-course

Time-use surveys have been conducted in several Nordic countries each decade since 1970, but comparative studies are hard to find. One exception is Kitterød (1995) who compared time-use and division of household labour among Norwegian and Swedish parents. On the whole she found quite similar time-use patterns in the two countries, although Swedish parents worked somewhat longer hours in the labour market and used slightly less time on leisure than Norwegian parents. Time used on domestic work and personal needs was, however, very similar. In the following, data from Norway will therefore be used to illustrate how time-use has developed over the last decades and how time-use evolves over the life course.

A general trend since the 1970s has been that men spend less time on gainful work and somewhat more time on domestic work, while the opposite is true for women. Women's average hours on gainful employment has increased more than the corresponding decrease among men, by almost two and less than one hours, respectively. In 2000, Norwegian men used 6.4 hours and Norwegian women 4.2 hours in the labour market per day, computed as an average over the weekdays (Monday-Friday). The decline among men is primarily a result of a lower proportion of men employed now than before, and the increase among

women is primarily due to the fact that a larger proportion is employed today. When domestic work is concerned, women have reduced their time more than men have increased theirs, by almost $2\frac{1}{2}$ and less than $\frac{1}{4}$ hours, respectively. In 2002, women spent about 4 hours and men $2\frac{1}{4}$ hours on household work per day. The total time on work in the labour market and at home has thus declined for both men and women, but it is still highest for men (9.1 versus 8.2 hours) (Vaage, 2005).

Although time-use data show a narrowing of the gap between men and women, the old patterns are very resistant, and questions related to gender equality in paid and unpaid work over the life course remain high on the public and political agenda. This is especially true of time-use patterns among parents of small children, where the gender differences are even more marked than in the total population. This is because women more than men cut back on employment activity when they have children. Mothers of small children spend less than half of the time that fathers spend on gainful employment, and fathers with small children spend even less time on household chores relative to mothers than men in other couples (Kitterød and Vaage, 2002). The total time-use on market work and domestic work is, however, greater among parents with small children than among other men and women, and in particular childcare constitutes a large part of the domestic time-use at this stage of life.

An analysis of time-use among adolescents (12-15 years) based on the 1990 and 2000 Norwegian surveys shows that the way they use their leisure time is changing (Vaage, 2003). In total, leisure time has increased by about 20 minutes to about 5½ hours on an average school day. Watching TV or video, playing games, using the computer and surfing on the Internet have increased, and reading has decreased. Time used on physical and social activities did, on the other hand, not change. The same is true for time spent with friends, which constitutes 6½ hours per day. Time spent with parents has, however, declined and time alone (excluding sleep) has increased. In 1990, both boys and girls spent about 20 minutes on paid work. Ten years later the situation was unchanged for girls, while boys had increased their time on paid work by 10 minutes. Boys on the other hand used ten minutes less on domestic work, while girls' time-use had not changed in this field. Consequently, the gap between boys and girls in time on domestic work has widened.

At the other end of the age range, among 62-66 year olds, time spent on paid work has decreased by almost 40% over the last 30 years. Looking at men only, the decline is even bigger, 60%. This implies that there has been an increase in time spent on paid work among women at this stage of life. On average 62-66 year olds used a little less than 2 hours daily in the labour market in 2000 (counting also Sundays and holidays). The decrease in working hours is fully due to the fact that a smaller proportion is active in the labour market — among those who are at work, there has been no reduction in working hours. Time for domestic work has decreased somewhat also among 60-66 year olds, but leisure time has increased significantly, from about 5 hours in 1970 to about 7½ hours in 2002. This is for example about 30% more leisure time than among 30-39 year olds, which may indicate that there is considerable scope for intergenerational support between these cohorts.

6.4. United Kingdom (Lynda Clarke*)

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- The combined effect of low fertility and prolonged longevity will lead to substantial population ageing in the coming decades and make pension costs and the health care burden acute. There are limits to solving pensioner income issues solely via increased retirement ages. Suggestions are for making changes in the state pension system and for revitalising saving systems.
- Priorities are for achieving higher employment rates, and to enable older people to enjoy an active role with adequate and independent housing, even if experiencing health problems.
- The peak ages of care giving are between 50 and 59 years (20% provides care) and more women than men are caregivers. High proportions of caregivers live in areas with high levels of deprivation and may be in poor health themselves.
- Britain has a history of non-interference in low fertility decisions. Although
 the age at first birth is rising Britain remains to have substantial teenage
 pregnancy rates. Birth rates outside marriage are high as well. Many
 children live in lone parent families, the majority in disadvantaged
 circumstances.
- Recently commitments to increase support for families strengthened: to lower teenage pregnancies, alleviate child poverty and social exclusion, and towards better balancing family life and work. Childcare will be extended.

- The Labour Government undoubtedly challenged the traditional British distinction between public policy and the 'private' family.
- People are spending less time on obligatory tasks and more on discretionary recreational activities, but more time is spent on travel to work.

6.4.1. Ageing and policy developments

Increasing life expectancy and a low birth rate are projected to continue which means that the percentage of the adult population over the age of 65 will increase significantly in the next 50 years. Forecasting future population is an uncertain science as both the increase in life expectancy and future birth rates are difficult to predict.

The birth rate in the UK has been below replacement level since 1972 and is now about 1.7 children per woman and, despite a slight increase in 2003, shows no substantial increase (*Figure 6.1*). The official population projections assume a small rise over the next 17 years, leveling off at 1.75 after 2022 (Government Actuary's Department).

Average male life expectancy at age 65 has increased from 12 years in 1950 to an estimated 19 years today and it is expected to reach 21 years in 2030 and 21.7 years in 2050. The proportion of men reaching 65 will also increase given lower middle age mortality which will further raise the number of pensioners. Female life expectancy is currently higher and increasing but at a slightly slower rate. If life expectancy at 65 years continues to increase in line with the past 50 years' trend then average male life expectancy will reach 24.4 years by 2050 and if it rises in line with the 1980-2000 trend then it will reach 27.7 years by 2050. By 2051, people over the age of 65 will comprise over one quarter of the population compared to 12% at present and, in addition, the proportion of people who are very elderly will also increase. People over the age of 85 years are now 2% of the population but this is projected to increase to 6% of the population and will represent 4 in 10 of the over-65 population.

The combined effects of fertility and longevity are that the age distribution of the UK's population will change dramatically over the next 50 years. There will be a negligible increase in the working age population (aged 20-64) but a 78% increase in the population over the age of 65. *Figure 6.2* shows that over the last 20 years there has been a significant fall in the ratio of children to working age people and, as a result, the dependency ratio (defined as the number of people under age 20 or above age 65 divided by the number aged 20-64 years) has

fallen. The Government Actuary's Department (GAD) estimate that the dependency ratio (of people aged 65 and over to people aged 20 to 64) will increase from 27 to 48% by 2050, in contrast to the last 20 years which has witnessed a very slow increase.

This means the projections anticipate a doubling in the percentage of the population aged 65 years and over between now and 2050, with further increases thereafter. Even this 'principal' projection by GAD assumes a large decline in the rate of increase of longevity which is very optimistic and so dependency ratios are likely to be higher than the official projections suggest (see Figure 6.2 and 6.3). Further, the post-war baby boom has delayed the effect of underlying long-term trends but will now produce very rapid increases in the dependency ratio over the next 30 years as these cohorts enter retirement. Although other scenarios might produce lower life expectancy (for example, increased mortality due to obesity or higher birth rates) these are unlikely to have any major favourable impacts on the dependency ratio. It is more likely that the ratio will be less favourable than estimated. The only other unknown factor is immigration but this is unlikely to have anything but a minimal effect on dependency ratios over the next 50 years.

The establishment of a Pensions Commission in 2002 to review the UK pensions systems bears witness to the perceived urgency of this demographic challenge. The Commission has published a first report (2004) and is currently undertaking a consultation process and will publish its second report with recommendations for pension policies in Autumn 2005. There are unavoidable choices created by these inevitable developments: lower pensions, higher taxes or savings or later retirement. As lower pensions are unlikely to be considered acceptable to the large cohorts entering retirement and the Pension Commission has stated that there are considerable barriers to solving the problem through any one of the other three options alone and, therefore, a combination of higher taxes/national insurance contributions, higher savings and later average retirement is being examined. The retirement age for women is due to rise from 60 years to 65 years after April 2010 to match the current age for men, as a result of gender discrimination legislation. This will create an immediate lowering of the dependency ratio.

The Pension Commission has estimated that the present level of pension right accrual is both deficient and increasingly unequal and if left to voluntary action will not improve. The implications for pensioner income will be more serious in

20-25 years time rather than in the next 10 years. It is considered that there are limits to solving the problem solely via increased retirement ages. The suggestions are for a major revitalisation of the voluntary pension saving systems, significant changes to the state pension system and/or an increased level of compulsory private pension saving beyond that already implicit within the UK system. Policy debates have included discussion of labour policies for longer working lives and recent suggestions reported in the media include an increase in pension age to age 67 for people born after 1955 and differential systems of retirement with graduates working to age 70.

The health care burden and pension costs are becoming acute. A Department of Work and Pensions report 'Opportunity Age' (2005) documents planned Government strategy over the next 10 to 15 years to address the ageing population. The three areas cited as priorities for action are:

- to achieve higher employment rates overall and greater flexibility for the over 50s;
- to enable older people to enjoy an active role in society with adequate income and housing;
- to allow older people to maintain independence, even if experiencing health problems.

The specific proposals include achieving an 80% employment rate for people of working ages, encouraging more people to work beyond retirement age and working while drawing an occupational pension or a higher state pension if a person works longer. Age discrimination in employment and other areas will be tackled through an independent Commission for Equality and Human Rights (CEHR), active living will be encouraged through such measures as healthy living, access to leisure facilities and volunteering. Older people will be supported to remain in their own homes as long as possible and be involved in 'buying' their own care packages. The stated aims are to avoid social exclusion and facilitate an active old age. There are also obvious financial challenges to be faced by the Government and delegation to local authorities for many of these initiatives means they can be audited for performance.

6.4.2. Intergenerational support

Elder care and support in the past were considered a private matter not subject to state intervention but recently this has changed and there have been a number of interventions to support disabled, elderly people and their carers. These actions

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include the policies directed towards relieving the pension crisis outlined above but also more focussed support for carers of older people.

The latest figures on cares, from the 2001 Census (ONS 2001), showed 6 million carers throughout the UK, in other words 10% of the population or 12% of the adult population. The previous estimate and details of caring came from the General Household Study (GHS) in 2000 (Maher and Green, 2000). There is a high turnover in people caring, it has been estimated that one third of carers start or cease caring in any one year and there is a 6.6% chance of anyone becoming a carer (Hirst, 1999). The number of carers providing support for 20 or more hours per week has increased, from 1.5 million in 1990 to 1.9 million in 2001. The Census also indicates that the number of heavy-end carer, providing over 50 hours of care per week, has increased to 1.25 million, double the proportion of these carers estimated in the 2000 GHS.

The peak age for caring is between 50 an 59 years, with more than one in five people of these ages providing care. Women are more likely to be carers than men; one in 4 women in their fifties is providing some care compared with 18% of men. The 2000 GHS revealed that one in three carers (38%) were caring for a parent and 18% for a spouse. Most carers look after elderly people: 70% of those cared for are 65 years of older, and nearly two-thirds of carers look after someone with only a physical disability (62%) but 18% have both a mental and physical disability and 6% only a mental disability. The type of care provided is usually physical help (57% helped getting in and out of bed and getting up or down stairs), personal care (51% provided bathing, washing, dressing etcetera) or giving some other practical help (75%).

Recent evidence shows that the highest proportions of people providing informal, unpaid care live in areas with higher than average levels of deprivation and long-term illness. Also, carers in such areas were more likely to be in poor health themselves. Key legislation aimed to support carers are centred around the Carers (Equal Opportunities) Act 2004. This aims to ensure that work, learning and leisure are considered when carers are assessed and gives local authorities powers to help with housing, health, education and other support for carers.

There has also been some interest in grandparents, mainly for childcare and for security after family breakdown (Supporting Families, 1998). However, grandparental access to grandchildren after family breakdown has not been

addressed separately and grandparents are obliged to seek access from the courts if this is not agreed informally. The court will decide what is in the best interest of the child under the provisions of the Children Act 2004 (Department for Education and Skills).

6.4.3. Fertility and policies concerning families and work

Britain has a history of non-interference where low fertility decisions are concerned and the birth rate is not as low as in most other EU countries. In 2003 the total fertility rate (TFR) in the UK was 1.71 children per woman which was a slight increase from the record low of 1.63 in 2001. Figure 6.1 shows the long term trend.

As well as falling fertility rates, over the last 30 years there has also been a rising mean age at first birth and higher levels of childlessness. In 2003, the mean age of women having their first birth was 26.9 years, an increase of 3.2 years from 1971. However, Britain also has the highest European level of teenage pregnancy with a birth rate of 29 per 1000 girls aged 15-19. Around one in five women currently reaching the end of their fertile life are childless, compared with one in ten women born in the mid-1940s. These patterns are creating a divergence between a minority of very young parents and more affluent and qualified people either remaining childless or embarking on parenthood in their late twenties or thirties. One other important feature of family formation is the growing incidence of births outside marriage. In 2001 the majority of children were still born to a married couple but 40% were born outside marriage. Recent results from the Millennium Cohort Study of babies born in 2000/1 have shown marked ethnic group differences in the family circumstances of new mothers. Asian mothers are most likely to be married with Black mothers being the most likely to be living alone and White mothers the most likely to be cohabiting outside marriage (Kiernan and Smith, 2003).

These family formation trends, together with the increase in family break-up, have meant that the proportion of children living in lone parent families tripled between 1972 and 2004 to reach 24%. This has repercussions for children's well-being as, on average, these families are more likely to be disadvantaged and their children experience health problems and under-achieve (Botting *et al.*, 1998; Clarke and Joshi, 2003).

Historically, the UK has not had one government department with responsibility for family policy. However, when the current Labour Government came to

office one of its manifesto commitments was to increase support for families. The first policies were mainly directed to lowering teenage pregnancy, alleviating child poverty, social exclusion and more recently directed towards addressing the balance between family life and work.

Initially, a Ministerial Group on the Family was created, chaired by the Home Secretary, which launched the first consultation paper ever on the family in the UK (Home Office, 1998). In 2003 the responsibility for such policies passed from the Home Office, where it was felt there was too much emphasis on falling families, to the Department for Education and Skills, who were given an enormous budget for a programme directed towards early year's education and a major initiative for the early years of disadvantaged children called *Surestart*. The new Children and Families Directorate was set up with a Minister responsible for children's services, childcare and the provision for under-five year olds as well as family policy. A new reform agenda was set out in the Green Paper. *Every Child Matters* (2003) and in the Children Act 2004 which aims to provide universal service support for children and families, including education, health and income.

The strategy for supporting working parents with childcare (mainly designed for lone parent or poor families) were set out in the Green Paper *Meeting the Childcare Challenge* (1998) and a current consultation is underway on a new Childcare Bill, which will make local authorities responsible for delivering childcare and improving the outcomes for children in the early years, especially for poor families or those with disabled children.

Various European Union directives have resulted in better provision for parents attempting to reconcile work and family life. The *Employment Act*, 2001, gave all mothers improved rights to maternity leave including an increase in Statutory Maternity Pay, and for the first time ever fathers were eligible for two weeks of paid paternity leave, though capped at a low wage level from Spring 2003. Parents were able to make a written request for flexible working, and employers were obliged to explain why it cannot be accepted. In October 2005 a new Work and Families Bill was announced which will extend maternity leave to 9 months and father will be able to take any of this allowance as paternity leave if mothers return to work early.

The increase in cohabitation and lone parenthood had attracted policy intervention directed to link fathers into these families and take responsibility for

children. The Adoption and Children Act 2002 gave unmarried fathers who jointly register the birth of their baby with its mother and whose name is on the birth certificate the same legal rights as married fathers automatically acquire. They have been granted rights over children after separation but there is a growing lobby of separated fathers taking direct action and demanding further policy reform.

6.4.4. Time-use evidence.

There have been national studies of time-use carried out at Essex University and by the Office of National Statistics. These include evidence on trends and differentials in economic activity and domestic activity (between mothers and fathers, different family types and between generations). A recent book has summarised much of the evidence on the balance between work and family life (Gershuny, 2003).

Results from the UK 2000-01 Time-use Survey (TUS) have been used to examine the work life balance of men of different ages (Fisher and Layte, 2003) and have also shown age differentials in aspects of social capital: time spent volunteering, helping others and providing informal care and social time with family and friends. An ongoing project *Time-use and the Life course* is experimenting with data fusion methods (time diary data to non-diary panel data) to investigate daily activity patterns and the effect on subsequent life course events.

One study reports relative stability from the 1960s to the 1990s in the balance of time spent on work and leisure (Sullivan, 2000). However, the importance of socio-demographic characteristics in how different social groups allocate time to activities and the structural shifts in the organisation of daily life are also demonstrated (Warde *et al.*, 2004). People are spending less time on obligatory tasks (as cooking, work) and more on discretionary recreational activities. Travel is one of the most important changes, with everyone spending a greater proportion of their day travelling, either for work or leisure.

6.4.5. Conclusion

The Labour Government elected in 1997 has undoubtedly challenged the traditional British distinction between public policy and the 'private' world of the family. An extensive range of policies designed to provide for the ageing population and poor or disadvantaged families have been, or are being, introduced. While this has attracted criticism from being too interventionist to

not going far enough to succeed, it is clear that family policy is now regarded as a topic of import. Decisions about child-bearing, however, are still not seen as appropriate for state comment.

6.5. Poland (Irena Kotowska*)

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The recent population-related policy debates in Poland are dominated by:

- lowest-low fertility and the changes in family structures, for example the increase in the number of one-parent families
- the ageing process mostly considered in terms of the pension system, early retirement and, more recently, in terms of older workers and elderly care policies
- the labour market situation of different population groups (young persons, older workers, women). Special attention is paid to difficulties young persons face when starting employment as these affect family related behaviour significantly.

6.5.1. Brief evaluation of the main population issues in Poland

Rapid changes in the process of family formation in the 1990s resulted in considerable changes in living arrangements, illustrated extensively by data from the population census of 2002. Their importance is not adequately reflected in public debates: the shifts in household structures show how significant the changes in family related behaviour are and give indications of possible effects in the policy debate. For instance, the growing number and share of one-parent families (from 15% in 1988 to 19 in 2002; 90% of them headed by women) was reflected in some measures introduced under the family policy reforms in 2004. On the contrary, changes in living arrangements of the elderly did not get proper attention. That population issue seems to be of rising importance due to arrears in services and care for the elderly.

In brief, and taking into account the different dynamics in urban and rural areas, the changes in living arrangements can be characterised as follows:

• The share of one-family households declined (from 75 in 1988 to 69% in 2002) while that of non-family households, mainly consisting of one-person

- households, increased (from 20 in 1988 to 24% in 2002); these trends are more evident in urban than in rural regions (see *Table 6.2*).
- The number of one-person households increased by 51%, and more so in urban (56%) than rural areas (38%). Another important change concerns the age composition of one-person households: in 1988 about 52% of them were aged 60 years or over, in 2002 that percentage went down to 46%. The majority of the one-person households were formed by women (59% in 2002), more than one third of them aged 60 or over (36%). Among one-person households of males nearly 40% of them were aged up to 40 years, and around 25% were aged 60 or over. Female one-person households were mainly formed by women aged 60 or over (61%), only 16% by women aged up to 40 (see *Table 6.3*).
- The number of one-parent families increased by 29% (30 in urban areas and 27 in rural areas). The majority of them is located in urban regions (around 68%) (see *Table 6.4*).
- Marked improvements in mortality (between 1990 and 2003 life expectancy at birth increased by 4 years for males and 3 years for females) are reflected in the shifts of the elderly population by living arrangements: the percentage of males aged 65 or over living in a couple without children increased from 45 to 50%, the percentage of females from 19 to 23%. One may expect a further rise in the share of the elderly people in one-person households, especially for elderly women (see *Table 6.5*). Moreover, an assessment of the health status of the elderly, based on the Population Census data, showed that nearly 30% of the elderly females who were completely limited in their basic activities of daily living formed one-person households. Since most of the dependent elderly live either in multi-person households or in single households both families and institutional services providing care to those living alone seem to be a necessary development beside extended care institutions, currently available only on a marginal scale (see *Figure 6.4*).

Since 2002 natural population increase is negative in Poland, despite declining mortality. The low fertility rates and their determinants are attracting increasingly more attention in public debates. Also more often they are subjects of interest in newspapers. Low fertility levels, obstacles to start a family, and ageing have been included in public debates on the national development strategy in 2004 and 2005 since the first draft of that strategy did not pay adequate attention to these issues.

International migration is mostly perceived in public discussions in terms of young persons willing to leave Poland due to difficulties in the labour market. Immigration still does not receive adequate attention. Survey based studies show that on average one fifth of the respondents expressed their readiness to migrate to the EU-15 for work, both among employed and unemployed persons. The majority prefers to use official labour agencies to look for employment abroad. The fact that young persons are facing more difficulties in finding a job is reflected in higher propensities to leave the country: 40% of those aged 18-24 and almost 37% of those aged 25-34 expressed their wish to look for a job elsewhere in the EU; these percentages were even higher among the unemployed. Popular countries are Germany, Great Britain and Ireland (Kotowska *et al.*, 2005b).

6.5.2. Family related policies

Family related behaviour is strongly affected by the labour market situation, which is one of the worst in the EU. Poland has an exceptionally low employment rate for both men (57% in 2003) and women (46%) as compared to the EU-25 average (71 versus 55%); next to that the unemployment rates are the highest in the EU. The most distinctive feature of the labour market in Poland is the extremely high unemployment among young persons. Therefore, the declining inclination to start a family and have children is greatly related to difficulties young generations are facing in the labour market. Moreover, the rising competition between work and family also contributes to such family behaviour.

Rising employment rates for both men and women are among the policy priorities. However one may expect that they will not lead to higher fertility levels since reconciliation measures are not well developed and implemented. Another important issue is the rising costs of children. Evaluation of family related policies focuses on these two issues.

Rising costs of children

Since the beginning of the 1990s the state reduced its support to families both in terms of financial measures and provision of services. Changes in family related benefits and allowances resulted, on the one hand, from a pressure to cut overall social spending and, on the other hand, from a necessity to implement antipoverty measures. The major changes in the family benefits implemented until 2003 could be characterised as follows:

- some benefits linked previously to employment were transferred to the state budget or the local governments;
- a new type of social assistance was introduced to address rising poverty;
- the financial support for multi-children families was expanded;
- universal benefits were converted into income testing;
- wage indexing was replaced by price indexing;
- more restrictive eligibility conditions were introduced;
- the majority of benefits decreased in real terms.

The state delegated the responsibility for running childcare institutions to the local authorities. Due to financial shortages, they moved a number of costs of running the public childcare institutions (around 30-40%) to parents (a higher fee for meals, charges for services beyond the minimum educational program, contributions to parent's committee funds) (Balcerzak-Paradowska et al., 2003). Additional educational and recreations services (foreign languages, music lessons, swimming lessons, sports activities, etcetera) have to be paid by parents as well. Also in primary schools specific care services for small children are not free of charge. Summing up, the institutional care for children aged 0-6 years and also for children of primary school age was radically reduced, costs of services were increased while their accessibility declined. Between 1989 and 2003 the number of places in crèches declined by 76% and in nursery schools by 25%. In Poland the percentage of children aged 0-2 years attending crèches (2%) and children aged from 3 years up to the compulsory school age attending nursery schools (39%) is one of the lowest compared to other EU countries (Matysiak, 2005b).

New arrangements for financial support have been defined by a reform in November 2003, becoming effective in May 2004. In my opinion, they will result in reducing the financial support for families in general, but they may have some effects for low income families, especially for those with three or more children. The income criterion for the basic family allowance is lower now than previously (the household income per person should not exceed 504 PLN (=€ 126)). The basic allowance is dependent on the number of children (the monthly amount equals 43 PLN for the first and the second child, 53 PLN for the third child and 66 PLN for the fourth and subsequent child. Both the income limit and the amount of the allowance will be verified every three years.

The basic family allowance is supplemented by financial additions, granted under special circumstances related to care and child-rearing. They may

concern: lone mothers, lone mothers who lost their entitlement to an unemployment benefit, persons on parental leave, parents of disable children, and/or nursing allowances. Educational supplements also exist: for children attending a school outside the place of residence and lump sums paid once a year at the start of the school year for children from low income families. Since most of them are income-tested they mostly support low income families.

In 2004 the number of persons with family allowances was 5,547 million, i.e. about 7% lower than in 2003.⁵⁰ The average family allowance amounted to 46 PLN (=€ 11.50), the average supplement to 58 PLN (=€ 14.50). In April 2005 a new supplement to the basic family allowance was introduced to support families with three or more children. Poverty risks are increasing with the number of children. Families entitled to this allowance will receive an additional 50 PLN for the third and each subsequent child. This system of financial assistance mainly supports low income families with children. Other families do not have any reasonable state assistance. Therefore, the increasing costs of children are viewed as one of the main reasons for the reduction in fertility, especially among persons of 20-29 years and among the lower educated (Kotowska *et al.*, 2004). This finding is widely confirmed by other studies and opinion polls.

Selected measures for reconciliation of work and family

Rising labour market competition has been accompanied by 'unfortunate' changes in the institutional stetting which makes it more difficult for women to be flexible and mobile. The reductions in the provision of childcare facilities, underdeveloped flexibility in work patterns, and discriminatory practices made the compatibility of paid work and family commitments more difficult. The presence of children greatly reduces the labour market participation of mothers. The most prevailing practice of work-family arrangements is the two-income family, but this is less common when children are aged 0-12 years. When children are small (0-3 years) women withdraw from the labour market (Kotowska *et al.*, 2005a). Part-time employment is only available on a limited scale and more women than men are part-time employed (13 versus 8% in 2004 (LFS data)).⁵¹ Higher educated women rarely opt for part-time jobs. Also the

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The Ministry of Social Policy reported in 2004 on the implementation of the law on family allowances (preliminary estimates): www.mps.gov.pl

The analyses conducted by Matysiak (2005a) for the years 1993, 1997 and 2002 showed very low interest in part-time employment. Nearly one third of the part-timers was employed part-time involuntarily and less than 10% had chosen part-time work for

lowest educated groups do not perceive part-time work as a measure to combine work and family, probably due to the low pay (World Bank, 2004). Continuous full-time employment versus inactivity is the bipolar female employment pattern in Poland.

Another reconciliation measure is parental leave. It may be taken for 36 months, at most in four pieces, for a child up to the age of four by employees who are working for at least 6 months. An extension for another 36 months is possible if the employee is raising a child requiring care because of being disabled, chronically ill, or mentally retarded, but no longer than up to the child's age of 18. The leave (36 months as a standard) is totally assigned to the parents (or to the person who takes care of the child), and either the mother or the father may take the leave. The parents can jointly be on leave for three months at the maximum. There are gender equality guarantees for the employment status, return to work and pension rights. Additionally, there is the possibility to combine work, training, education and parental leave if these activities allow to take care for a child.

Since 2004 persons who start a job while on parental leave loose the parental allowance irrespectively of the income criterion. The parental allowance is means-tested — the monthly household income per capita cannot exceed 504 PLN (= \in 126) (or 583 PLN (= \in 146) if the child is disabled). Previously, it was possible to work and have a parental allowance when the total income of the parent on leave did not exceed 60% of the monthly average remuneration in the national economy.

The parental leave scheme in Poland has been subjected to some criticism for its inflexibility (Matysiak, 2005b), recently moderated by the possibility to replace parental leave by part-time employment. However, its moderate use is mainly related to drops in family incomes since the income criterion for the parental allowance is rather tight. One can also argue that a rigid regulation of parental allowances may affect the leave use by fathers — since father's income is usually higher than their wife's, and would affect the family welfare more heavily.

Summing up, inflexible working hours which are not compatible with care responsibilities due to insufficient child care provision, rigid regulations on parental leave and parental allowance bring employment and child care in competition. Increasing the accessibility of childcare services (nurseries and kindergartens) in terms of places and costs as well as development of care activities for school children are normally mentioned as basic measures for reconciling work and family (e.g. Balcerzak-Paradowska *et al.*, 2003; World Bank, 2004). Good quality childcare facilities, available at a reasonable price can also be considered as a policy measure aimed at decreasing both costs of children at the family level and educational inequalities which are rising steadily in Poland.

6.5.3. Responses to ageing

Despite the fact that Poland currently is less advanced in population ageing than other EU Member States, the number of pensioners recently grew rapidly also due to labour market policies (a relatively easy access to early retirement reduced the labour supply and diminished unemployment). In 2004 the number of old-age and disability pensioners amounted 7.2 million. Expenditures related to old-age pensions and disability benefits accounted for 9.2% of the GDP.

Rising numbers of persons aged 55-64, their low employment rates (35% for men and 20% for women while the EU-25 average is 49 and 29% respectively), increasing unemployment rates (11% for men and 10% for women in 2003) as well as deficits in their human capital recently became a policy concern. Policies towards removing incentives to early retirement on one hand, and aimed at increasing the employment ability of older workers on the other hand are a main response to that aspect of ageing.

Policies towards removing incentives to early retirement

The pension system reform, implemented in 1999, reflects the expected acceleration in ageing after 2010. Early retirement is gradually reduced — from January 2007 onwards old regulations will be not valid anymore. However, persons expecting to retire earlier due to difficult working conditions will be covered by a government proposal of a bridge-pension plus financial support which will be passed to the parliamentary debates. The parliament decided to continue early retirement in some branches.

Other policies aimed at removing incentives to early retirement refer either to limitations in combining old-age pensions with income from employment or to rewarding longer stay in the labour market. If early retired persons take up again any job before the standard age of retirement, their old-age pensions are paid upon some requirements related to the level of income from work. On the contrary, those who stay in employment after getting a right to retire will receive higher old-age pensions.

Measures to increase the employment ability of the older workers

Recent changes in the labour market policy give more emphasis to active labour market policies at regional and local levels, supported by the implementation of some sectoral and regional operational programs. The Act on Employment Promotion and Labour Market Institutions of April 2004 gives a special focus to active labour market measures, training institutions and incentives for employers to financially support training of employees. More attention is paid to occupational activation of persons disadvantaged in the labour market, also for older workers. Long-life learning is clearly recognised as an instrument to increase the adaptability of the labour force. The newly drafted '50+ programme' is supposed to activate older workers. The act on pre-retirement benefits (2004) reduced eligibility for them.

Efforts aimed at reducing early withdrawals from the labour market seem to have some effect already: the effective age at retirement increased from 55.5 in 2001 to 56.4 years in 2003 for women (the standard age is 60) and from 57.8 to 59.8 years for men (the standard age is 65).

Elderly care policies are not yet well developed. Most of the financial responsibility for public care and services has been delegated to the local levels. However, scarcity of resources affects their provision markedly. Currently, there is a considerable shortage in the provision of care and services for the elderly in terms of supporting them to continue living at home, to support families to take care of them, and to extending institutional care.

6.5.4. Conclusions and future prospects

Since low fertility, population ageing and population decline are in public debate one may expect rising social recognition of demographic changes and their consequences. Increasingly arguments are voiced publicly for family policy measures, but these should be coherent and stable in time with a special focus on reconciliation, and interrelated with gender inequality. The 1999 pension reform raises questions on gender differences in work careers, wages and age of retirement and their effects for future old-age pensions.

Recent debates on national development strategies also highlighted the relevance of demographic challenges, their interrelations with the labour market, and the needs to respond. The strategies will remain under revision and that will bring space to include population issues in the debates. Reforms of the social security system are among the policy priorities. A new draft of the pension strategy has recently been prepared by the Ministry of Social Policy. It follows recommendations by the European Commission to continue the modernisation of the pension system.

6.6. Portugal and Spain (Pau Baizán*)

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- Structural changes in pension reform proceeds to counter future long-term changes in the ageing of the population.
- The expansion of pre-school and day-care services does not meet the fast increase in demand.
- 691 thousand applications in the 4th extraordinary wave of legalization of foreign nationals of 2005 in Spain were received.
- Time-use surveys reveal that the division of paid and unpaid labour strongly differs between men and women, especially when children are present in the household.

6.6.1. Ageing and social security reform

The pension systems of Portugal and Spain face the challenge of providing a sufficient income to the elderly population and to ensure their future financial sustainability. Both systems are mainly based on Social Security contributions, which also provide a means-tested basic pension (or complements) financed with taxes; private pension funds play a relatively minor role (Council of the European Union, 2003; Ministerio de Trabajo y Asuntos Sociales, 2005; Ministério do Trabalho e da Solidariedade Social, 2005). In theory, each of the systems provides a high level of substitution of previous income to pensioners. However, due to low incomes and to short or insufficient career records, especially for women, the standard of living is low for an important proportion of the elderly population.⁵² In this context several increases of minimum-level

In Spain the average income of the elderly (65 or over) is close to the average of the whole population and severe poverty among the elderly has practically disappeared. Nevertheless, many seniors have incomes very close to the poverty threshold (Ministerio de Trabajo y Asuntos Sociales, 2005).

pensions have taken place in recent years, as part of a general reform of the system. This measure is clearly limited by budgetary constraints and by the effort to decrease the accumulated debt of the State, which should also contribute to the sustainability of the Social Security. The problems are particularly salient in Portugal, where in the last three years economic growth has been very slow or negative and the government budget deficit has soared.

A parallel strategy adopted in both countries is the establishment⁵³ and the expansion of a pension fund, run by the Social Security, that explicitly accounts for future declining numbers of employed persons and an increase in the number of pensioners. The deterioration of the dependency ratios is not expected to lead to a deficit in the Social Security before 2015-20. A number of factors are involved here, including the fact that the 'baby boom' took place a decade later than in most western European countries⁵⁴ and that very low fertility levels were not reached before the mid 1980s.

Several measures have been taken aimed at providing incentives to postpone the end of working life and to facilitate a more flexible access to retirement. In both countries the 'legal' age at retirement is 65 years. However, a significant proportion of the elderly in Portugal is confronted with relative high employment rates: 45% in the age group 60-64, 28% for the 65-69, and 20% for the 70-74 years old (Eurostat: Labour Force Survey, 2001). The situation is completely different in Spain, where early retirement was popular during the industrial crises in the 1980s (although this policy was later reversed). Furthermore, the employment rate of women (15-64) is much higher in Portugal (61) than in Spain (47)⁵⁶ (OECD, 2004b). The average effective age at retirement was 60.6 in Spain and 62.2 in Portugal in 2001, as against an average of 59.9 for the EU-15, according to a study carried out by the European Commission and the Council of the European Union (2003).⁵⁷

Among the measures recently adopted in Spain to provide incentives for later retirement stands the increase in the period in which individual pension level is calculated (currently 15 years); discussions are taking place to further increase

⁵³ In 1989 in Portugal and in 1997 in Spain.

The highest number of births took place in the 1960s and the 1970s.

⁵⁵ In Portugal since 2000.

This also implies an important potential for expansion of employment.

The methodology for the calculation of the average age at retirement is explained in the report.

this period. In Portugal, according to the Social Security reform of 2000, that period will progressively increase until it covers the whole period of contribution (up to a maximum of 40 years) in 2016. Flexibilisation measures taken in 1999 in Portugal include the possibility to retire from the age of 55 onwards with a reduced pension for individuals with at least 15 years of contribution, or 60 years otherwise. Postponement of retirement up to the age of 70 gives right to a higher pension. Retirement pensions are compatible with paid work, including part-time work. Also in Spain, from the reform of 2002, it is now possible to receive a (partial) retirement pension and to work (part-time) after the age of 65, giving right to an increase in its amount. Early retirement is possible from the age of 61 (or 60 according to special conditions), giving right to a reduced pension. Furthermore, employment of older workers is promoted by providing substantial reductions in Social Security contributions to enterprises hiring individuals over the age of 45.

Both Iberian countries have a system of care for dependent elderly in which the lion share of responsibility rests on families, mainly on women, and increasingly on immigrant workers. The public systems of care and social services can be characterised as underdeveloped: they lack resources, focus mainly on the very poor, and their provisions are dispersed geographically uneven (Jacobzone and Pacolet, 1998; Rodríguez Cabrero and Wall, 2004). The process of modernisation of social services in the last decade with programmes like the National Plan for Inclusion 2001 and of 2003 (Portugal) and the Plan Gerontológico Estatal 1991-2000 and the Plan de Acción para las Personas Mayores 2003-2007 (Spain), is still very limited and clearly lags behind most western European countries in terms of provision. Furthermore, there is a still a low political and social perception of the problem of dependency. This situation openly clashes with the intensity of the socio-demographic changes that are taking place. The traditional care model is being redefined by the growing proportion of women in the labour market, the increasing gender equality aspirations, and the decreasing proportion of elderly co-residing with relatives (Baizán, 1995; Wall et al., 2001; Aboim, 2003; Vasconcelos, 2002).

A political and scientific debate has taken place in Spain concerning the models and the strategies of provision for dependants (e.g. Defensor del Pueblo, 2000; Sarasa, 2003 and Rodríguez Cabrero, 2004). In this context the Government of Spain has announced the establishment of a new 'Dependency Insurance' for elderly care, in the framework of the Social Security (IMSERSO, 2005). Although not all aspects of the insurance have been defined yet, it will probably

consist of a benefit for the payment of care services, complemented with a copayment by beneficiaries according to their income level, directed to all residing persons in need (IMSERSO, 2005). In Portugal the current Plan for Inclusion (2003-2005) established as target an increase in the number of persons receiving home care and created fiscal incentives for families who take elderly persons in house.

6.6.2. Family policies and the labour market

Pre-school attendance for children of 3-5 years was 78% in Portugal and above 95% in practically all Spanish regions (school term 2003/2004). For the age range 0-2 school facilities are scarce in both countries (Ministério da Educação, 2004; Ministerio de Educación y Ciencia, 2004; Eurostat, 2002). There has been sizeable increases in the coverage in Portugal and in several Spanish⁵⁸ regions (in particular, Basque Country, Catalonia, Madrid and Galicia). However, these increases have not met the fast expansion in demand, which were determined by weakening family networks, increases in female labour force participation, expansion of the educational system for the age range 3-6 years, and the increase of infants due to international migration (González, 2003). In Spain education and infant care are the responsibility of the regions, in collaboration with municipalities. More than two thirds of the children attend public centres, and most of the pre-school private centres (age 3-5) are subsidised with public founds. After-school and meal facilities in public centres are often organised by parents' associations, while private centres organise these themselves. Such services are fundamental to achieve compatibility with parents' paid work, given the predominant time table in public centres (9-12:30 and 15-17 h.). In Portugal child care services, including after-school facilities, are mainly in the hands of the Ministry of Labour and Social Solidarity, with an important presence of private and non-profit institutions. Opening hours generally suit working hours better (from 4 to up 11 hours per day, five days a week). Pre-schools are run by the Ministry of Education (Jardins de Imfância).

Maternity leave regulations for individuals in the labour force establish a period of 17 weeks in Portugal and 16 weeks in Spain, with a wage compensation of 100%. In Spain this period can be taken by the father or by the mother⁵⁹ of the new born or adopted infant, although a period of 6 weeks following delivery are

According to provisional 2004-05 data the proportion of children enrolled in day care centres / pre-schools in Spain was 13.5 for children under three, 96.7 for three years olds and 100% for four and five years olds (Ministerio de Educación y Ciencia, 2005).

The total period of leave taken by both parents can not exceed 16 weeks.

reserved for the mother. In Portugal fathers have a right to five days of paternity leave following the birth of a child; paternity leave is obligatory since 2003. Unpaid parental leave is also possible in both countries, with the right to return to the same workplace. This parental leave may last up to 3 years in Spain (or up to 6 years for civil servants in part-time) and 6 months in Portugal (12 months in part-time); this parental leave can also be taken by fathers.

An important reform of the child benefit system took place in Portugal in 2003. The reform increased the progressivity of the system with respect to income (e.g. elimination of the entitlement for well-off households) and emphasised the need to support families with three or more children. In Spain, benefits targeted to children under 3 years (or under 6 in some cases) were recently introduced, adding to the existing benefits for very low income families.

The protracted pattern of family and household formation by young adults (Billari, 2004) has been the subject of some debate, both among researchers and in public. The pattern has been related, among other factors, to the way labour market reforms were conducted in Spain and Portugal, as these resulted in the highest proportion across EU countries in the proportion of temporary contracts and the concentration of unemployment among young people. In addition, housing market developments have also contributed to increased difficulties in starting a household (Martins and Villanueva, 2003). Several authors emphasised the important impact the labour market has on delaying family building and household formation (Golsh, 2004; Baizán, 2004; Gutiérrez-Domènech, 2005). Specifically postponement has a major impact on fertility decline in Spain (Ortega and Kohler, 2001).

Other relevant family policies adopted in Spain include the recent law establishing the marriage of homosexual couples (2005), with the same rights as granted to heterosexual couples, including the right to adopt children. This law has encountered the opposition of the Catholic Church and the main opposition party (Popular Party). An issue that furthermore attracted considerable attention from public opinion and the media was domestic violence, in particular violence against women, which was the object of a specific law (*Ley de Protección Integral Contra la Violencia de Género*, 2004). Also in Portugal the protection of children's rights and the prevention of violence between partners attracted considerable public attention.

6.6.3. Immigration and accommodation policies in Spain

During January-May 2005 the Ministry of Labour conducted a process of 'normalisation' of foreign-national workers residing illegally in Spain. It

resulted in 691 thousand applications to legally work and reside in Spain (not counting family dependants). According to the Government more than 90% of them have been accepted. It is the fourth extraordinary wave of legalisation of foreign nationals that took place in Spain (previously in 1991, 2000 and 2001), and the one involving by far the highest number of admissions. One of the main objectives of the process has been to fight underground labour relationships (Ministerio de Trabajo y Asuntos Sociales, 2005). The newly legalized immigrant population has relatively young age structure: 19% of them are in the age range 16-24, 60% between 25 and 39, and 21% are 40 to 64 years old. Their jobs are concentrated in certain sectors: domestic service (35%), building (19%), agriculture (14%), hotel and catering (10%).

Over the last five years immigration to Spain has been exceptionally high. As a result, the number of foreign nationals registered as residents in the municipal registers⁶⁰ increased from 1.5 million at the end of 2000 to 3.7 million on 1 January 2005 (Instituto Nacional de Estadística, 2005). This increase does not necessarily imply an equivalent increase in net immigration, as registration does not closely follow migration events (e.g. under-registration of emigration and recent arrivals; naturalisation). However, municipal registers offer the best estimation of the resident population and its characteristics (Izquierdo and López, 2003; Domingo, 2004). The countries of origin with the highest numbers of residents in Spain are Ecuador, Morocco, Colombia, United Kingdom and Romania.

Such sudden increases of the foreign population trigger changes in the range of social policies at various state levels (municipalities and 'autonomous communities'; regions are responsible for education, social services, health, housing) (Colectivo IOE, 2002; Zapata, 2004).

6.6.4. Review of time-use data

Only one survey with *time-use diaries* is available for Spain and two for Portugal covering the whole population (both conducted the same year). No detailed information can be provided with respect to *trends* in time-use. This is because there are no periodical surveys on the subject, except for the Basque

Registration in a municipality does not imply legal residence. The main purpose of registration is to identify the population to be supplied with education, health, or social services. Foreign citizens are required to register in order to have access to these services in a particular municipality; furthermore, registration is a 'proof' of residence required for obtaining a residence permit (in the event of a 'normalisation').

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Country (surveys of 1993, 1998, and 2003), and labour force surveys, that provide data only on paid work. The European Community Household Panel covers the period 1993-2000, with a monthly calendar of activities (that gives priority to paid activity over other activities) and a few questions on other aspects (such as care for dependants).

These time-use data are cross sectional (except ECHP). This survey design does not allow making any inference on the (mutual) impact of different events in the life course and time-use. It is however possible to relate different household and labour force positions with different patterns of time-use, according to age group and sex. For instance, in Portugal, men work on average 9:02 hours in paid work and 1:54 in unpaid work in the household (including childcare), as against 7:49 and 5 hours respectively for women (Perista, 2002, p. 451). When a child with less than 7 years is present in the household, the division of labour between the partners radically differs between them: men devote 42% of their total time on an average day to paid work, 5% to child care and 5% to domestic chores; women devote 25% to paid work, 12% to child care and 19% to domestic chores (Cardoso Torres, 2004, p. 118). In Spain, according to data provided by the National Institute of Statistics, on average 43% of men participate in paid work with an average duration of this activity of 8:22 hours, and 25% of women participate in paid work with 6:51 hours of duration. 70% of men participate in family and domestic activities, with an average duration of 3:39 hours, while 93% of women participate in this kind of activities with an average duration of 4:45 hours. If one turns to the situation of a household with two adults with dependent children the picture is as follows: 48% of men and 25% of women participate in paid work, with an average duration of 8:29 and 6:28 hours respectively. 75% of men devote time to family and household activities, as against 92% of women, with an average duration of 2:11 and 5:05 hours respectively.

The Portuguese Time-use Survey 1999

The National Institute of Statistics participated in the development of the harmonised European time-use survey, co-ordinated by Eurostat. This participation was essential with respect to methodological aspects, the classifications and concepts used. Nevertheless, some of these recommendations were not followed in the survey design: the surveyed time period, the number of diary days, as well as some variables (Correia, 2005). 8133 individuals of at least 6 years of age living in private households were interviewed. The data were collected through personal interviews. The respondents were asked to answer

some questions and to fill a time-use diary broken in 10 minutes blocks, covering the 24 hours of a working day as well as a weekend day.

The Spanish Time-use Survey 2002-03

A pilot study, conducted in 1997 and the recommendations from Eurostat were the basis for this survey (INE, 2004). Nearly 24 thousand households were contacted in order to get information on daily activities through time-use diaries and household and individual questionnaires. The sample is distributed evenly throughout the year. The time-use diary is the central piece of information. Each member of the household older than 10, should fill the questionnaire the assigned day. The day is distributed in periods of 10 minutes each, in which the individual registers the main and the secondary activity. 63% out of the original sample provided an answer to the interview. Refusals, absent households, and errors in the sample, each accounted for approximately a third of non interviewed households.

Time-use data:

Encuesta de Empleo del Tiempo 2002-03, Instituto Nacional de Estadística (Spain), (Microdata, questionnaire, methodological information and results available at:

http://www.ine.es/inebase/cgi/um?M=%2Ft25%2Fe447&O=inebase&N=&L=1)

Estudio Piloto sobre el Empleo del Tiempo 1997, Instituto Nacional de Estadística (Spain).

Encuesta de Presupuestos de Tiempo, 1993, 1998 and 2003, Eustat, Euskal Estatistika Erakundea/Instituto Vasco de Estadística, Vitoria.(www.eustat.es).

Inquérito à Ocupação do Tempo 1999, Instituto Nacional de Estatística (Portugal).

Inquérito 'Homens e Mulheres entre Família e Trabalho' 1999, (European Network for the Division of Unpaid and Paid Work Between Women and Men), Centro de Investigação e Estudos de Sociologia do Istituto Superior de Ciências do Trebalho e da Empresa, Lisboa (Portugal).

Inquérito ao Emprego (Labour Force Survey), Instituto Nacional de Estatística (Portugal). Encuesta de Población Activa (Labour Force Survey), Instituto Nacional de Estadística (Spain). European Community Household Panel, Eurostat.

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6.7. Italy (Rossella Palomba*)

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- Italy is heavily affected by population ageing, which challenges the national generous pension system. Up until recently the pension system was not homogeneous across working sectors.
- The most recent pension reforms aim at raising labour market participation rates of older workers and at postponement of the age at retirement.
- Families, in particular women, remain the most important provider of direct care. New measures aim at supporting families with dependent children and/or dependent elderly, to better reconcile work commitments and family life, but not necessarily to raise the birth rate.
- The lack of policies supporting families with children, sustaining young adults who want to start a family and encouraging mothers to continue work, creates a negative mix of constraints that result in low fertility and low female employment.
- Female labour market participation has traditionally been low. Young female cohorts are well educated. Part time jobs are rare. Even married women who do not work limit their family size, since the period for caring for children is extremely long in Italy, due to the fact that children stay at home very long as finding a job and starting an independent living are hard. Child care facilities are lacking.
- Time-use is a gender sensitive issue: The presence of children heavily affects the time-use of mothers, not of fathers. Men's contribution to family work is so small that his absence actually alleviates the total amount of house work for a woman: She is better off in a lone mother family.
- Home care measures for dependent elderly are extended.

6.7.1. Italy's road to welfare reform

Of all industrialised countries, Italy is one of the most heavily affected by population ageing. With low birth rates and increasing life expectancy more and more Italians are entering the national generous pension system. More than 40% of Italian income tax revenues is currently spent on sustaining pension costs and pension spending is currently 16% of GDP (INPS, 2004) and could reach 20% by 2030 (Paci, 2003). The recent reforms undertaken by the Italian government from the mid-1990s aimed at lessening the pension burden by raising the effective retirement age and linking retirement benefits to yearly contributions by workers entering labour force. Until the mid-1990s the Italian pension system was still characterised by heterogeneity: though all citizens were covered by the

social security system, eligibility rules for a State pension, contributions to the schemes, and formulas to compute the value of the benefit were not homogeneous across working sectors. After 1992 the overall system began to change. The reforms enforced the principle that the dynamic of the pension burden should be consistent with economic growth and it made the retirement age and eligibility criteria more restrictive, eliminating for example early retirement schemes (the so called 'baby pensions'). The 1995 and 2004 reforms gave further strength to the process: they changed the rules for retirement pensions, started the harmonisation across different pension funds, and introduced a contribution system for new employees.

Welfare reforms were also undertaken to change measures aimed at supporting families with dependent children and/or dependent elderly. From the point of view of elderly care, in fact, the family remains the most important provider of direct care and specific support actions were implemented at the local/municipality level to sustain families —economically or not— in caring for elderly people. With regard to child care recent policies do not seem to contribute to increasing fertility but to facilitate economic support particularly to poor families. Since Italian women move increasingly to the labour market, the question is who has to care for dependent persons and how work and family commitments are compatible. A new parental leave policy has been introduced and attempts are made to increase the supply of part-time jobs to better reconcile family and worker roles.

6.7.2. Targeting Italian style ageing population

Whatever measurement of population ageing we take, Italy shows values of high concern. The Italian population has aged rapidly over the last 20-30 years. The percentage of old people (over the age of 65) has already reached 18% of the total population, 22% of these being very old, and the percentage of people aged 65 or over is expected to increase up to 27% by 2025. While in Italy there are more old people than in the past, the elderly who work are few and decreasing in number. The labour force participation of older age groups and the ratio of workers to retirees is in fact very low. Traditionally the low activity rate in the old age was due to the marginal position of women in the labour market, but now the phenomenon also affects the male population. According to the *Istat* Labour Force Survey, 2002 average, 31% of men aged 60-64 years, 11% of 65-69-year-olds, and 5% of the 70-74-year-olds are still active, while for women the percentages decreased from 9% of 60-64 year-olds to less than 2% of the

over 65 years old. In the previous age group (55-59) 54% of men and 23% of women were active.

Problems to be faced

Policy-makers, industrial associations, trade unions, media and general public perceive the elderly more as beneficiaries of welfare provisions/pensions than as potential workers. The political and public concern is thus more focussed on the medium- and long-term financial sustainability of the public pension system than, for example, on unemployment rates of older people. Unemployment decreases almost consistently with increasing age, with the exception of a moderate increase —only for men— in the 55-59 age group (passing from 3.1% in the 50-54 to 4.1% in the 55-59 age group). One of the main factors underlying the general concern on pension system sustainability is the increasing life expectancy, which also involves a longer period of being retired, for men and even more so for women.

It is self-evident that an increase in the number of older people leads to an increase in pension costs which affects the sustainability of public finances. As a result the main questions addressed by the most recent pension reforms (in 1992, 1995 and 2004) are postponement of the age at retirement and a rise in the labour market participation rates of older workers.

Another important social and political aspect of the ageing process is the increase in health and care costs. Italy has a specific situation concerning elderly care, as family networks are very active here. With regard to support the elderly may rely on in case of need, the *Istat* Survey on Family Networks (2002)⁶¹ shows that more than half of the over-64-year-old parents live within 1 km from their son or daughter, and quite a few even live in the same apartment building. Intergenerational co-residence remains limited but is not unimportant (around 12% of the parents aged over 74 years). Only 1% of the sons/daughters state that they have entrusted their parents to welfare or health-care institutions. Therefore the main issues addressed by policies in the field of elderly care are related to support families who provide elderly care.

Recent policies aimed at extending active life

Since 1995 the Italian Government put priority on ensuring the extension of working lives. The minimum age at retirement was progressively raised. The 1995 pension reform radically changed the mechanism for calculating pensions:

The sample of the survey size was 20,153 households.

the amount depends more strictly on the contributions actually paid, and also on the average life expectancy at the time of retirement. Concerning the age at retirement, workers can choose to retire between the age of 57 and 65 with economic incentives to remain working up to 65. From 2002, Italians may retire at 57 years of age if they have contributed 35 years to the social security system or, independently from age, with 37 years of contributions paid; from 2008 onwards one must have paid contributions to the social security system for 40 years or be older than 60 with 35 years of contributions to social security in order to get a full pension after retirement.

As for the public pension system, also the 2001 Budget Law introduced incentives to retire later: the so called *super-bonus*. Workers eligible for pension may opt for postponing their pension for at least two years with the social contribution exemption, thus obtaining —for the additional working period— a wage increase (the *super-bonus*) of more than 30% of their salary. Pension rights matured up to the moment of the option are guaranteed. Similar incentives are envisaged for those who decide to continue working even after reaching the age at retirement (65 for men, 60 for women). Civil servants are not eligible for a super-bonus.

Recent policies for elderly care

Caring for dependent elderly is largely left to the family and in particular to women (Fondazione Brodolini, 2003). Italian social policies particularly focus on encouraging the permanence of the elderly in the family through improving home-services. Caring for older people at home leads to a substantial change in perspective, i.e. moving from a model in which the older person revolves around structures providing services (s)he requires to a model in which institutions and professionals interact and focus on older people in need. Due to the fact that during the 1990s Italy experienced a push towards decentralisation and privatisation of elderly care, the administrative responsibilities for elderly homecare services have been transferred to local authorities. Private and/or non-profit organisations are now increasingly participating in care provision. As a result, local authorities are considered the real providers of elderly social and welfare services and this fact makes it impossible to sketch an in-depth national panorama.

In general terms, Italy has:

 Home care that consists in care and/or health services (i.e. delivery of food and non food assistance but also medical and/or rehabilitative assistance);
 On average 2% of the 65+ population benefits from this type of assistance;

- 'Attendance benefit' that is the most important cash transfer for individuals with permanent disabilities. It is not mean-tested and amounts to about € 426 per month. It is granted to some 7% of the 65+ population;
- 'Service vouchers' which are provided by local authorities for various kinds
 of economic transfers that elderly could use to purchase services from a predetermined number of providers, mainly non-profit organisations. However,
 these vouchers are actually provided by only a small minority (10%) of all
 Italian municipalities.

Relevant differences between northern and southern municipalities exist, and the Italian governments did not make real efforts to overcome the fragmentation of elderly care. Various initiatives exists especially in the North of Italy to support families that take care of their elderly members. Since services are still so underdeveloped many older persons and their families are forced to purchase services in the private market, mainly from immigrant female workers.

6.7.3. Targeting Italian style family and fertility

In Italy low birth rates (the current period TFR is around 1.26; for birth cohort 1965 the cohort TFR is 1.49) are observed together with low labour market participation rates of married women. The explanation for this apparent anomaly goes to the Italian institutional structure, particularly as reflected in rigidities and imperfections of the labour market and characteristics of the publicly-funded child care system. These rigidities tend to increase simultaneously the costs of having children and to discourage the labour market participation of married women.

The Italian female labour market participation rate has traditionally been low compared to other European countries. As an example, the labour force participation rate of women was 42% in the 1990s, more than 7 points below the European Union average. In recent years, Italy experiences a fairly steady influx of women into the labour market. By 2002, 48% of women aged 15-64 were in the labour force. Young Italian women now have higher average levels of educational attainment than young men do. Does this suggest that they expect to be actively employed most of their lives? A higher proportion of women is working full-time compared to other countries. Part-time work is not as common or available to Italian women as in central or northern Europe. The fact that part-

time employment is still rare in Italy (10% of total employment) is an important factor in accounting for the low employment rates of married women, particularly those with children. As a consequence, married women are forced to choose between no work and full-time work, neither of which probably is what they prefer.

Married women who choose to work tend to have full-time work commitments, which is not compatible with having large numbers of (small) children. Moreover, even married women who do not work tend to limit their family size, due to the characteristics of the Italian family, and this depends to some extent on the labour market. Because it is hard to find a job many young people live at the parental home until they find their first 'stable' employment and then get married. This makes the period of 'caring' for children extremely long in Italy. The number of children staying in the parental home is rapidly increasing, even among over-30-year-old persons. Actually, one third of the 30-34 years young adults are still living with their parents as compared to 14% in 1990. This delay in entering adulthood affects the age at marriage, postpones family formation and limits young couples' reproductive behaviour.

Thus the labour market indirectly imposes large fertility costs on families, even when the mother does not work: the structure of the Italian labour market both directly and indirectly discourages fertility (Del Boca, 2002). The lack of policies effectively supporting families with children, sustaining young adults who want to start a family, and encouraging mothers to work creates a negative mix of constraints and conflicts which results in low fertility and low female employment.

Last but not least, child care publicly-funded services for children under 3 years are largely insufficient though less expensive as compared to private sector alternatives. Private childcare costs are on average much higher than comparable public ones. According to data from the Bank of Italy Survey on Income and Wealth, the monthly costs for private childcare for children under 3 are \in 228 for private care and only \in 102 for public care. The number of children under 3 who attend —public or private— childcare services is quite small (6% of all children aged 0-3 years) (Del Boca, 2002).

Problems to be faced

While there is a significant generosity in the transfer of central government funds to older people, there are serious drawbacks in the support and encouragement of younger families for whom it is often difficult to reconcile employment and childrearing. This is also highlighted by the fact that there is more poverty in families with dependent children than in those of older people (Saraceno, 2004). The poverty rate is, in fact, very high in families with three or more minor children and in lone parent families. In 2002, for example, 25% of the families with three or more dependent children were below the poverty threshold as compared to a national average of 11%, while 9% of the one-person households, mainly consisting of elderly people, were below this poverty line (ISTAT, 2004). Recent policies were therefore aimed at supporting large families with dependent children, mainly through increasing tax deductions and family allowances.

As said before, Italian women often do not have the opportunity to use part-time work for solving work-family conflicts. The slow progression towards a more flexible system of working hours in Italy has two main reasons. On the one hand, trade unions have traditionally opposed part-time employment fearing that potential splits in the work force (in terms of working arrangements, demographic characteristics, etcetera) could reduce workers' cohesion. On the other hand, under current regulations social contributions paid by employers are strictly proportional to the number of employees, not to their hours worked, which makes the employment of two part-time employees more costly than one full-time employee (Del Boca, 2002). Recent policies aimed at reforming the labour market (the so called *Biagi* reform) were introduced, though their effects cannot be measured yet in terms of increasing part-time posts.

Finally, there is tremendous regional variation in the Italian social policies, but, in general, childcare remained a very important but informal, normative function of the family. State policies reflect this perspective by encouraging women and more recently also men to care for their children. Parental leave is in fact quite generous, as it lasts up to the child is eight years.

Recent policies related to family and fertility

The following policies have recently been introduced in the field of family and fertility:

• *Biagi reform*: a recent law on employment and labour market reforms (2003). It introduces new forms of flexibility which may, among others,

allow a better reconciliation between family responsibilities and work commitments, in particular for women. In order to encourage firms to use part-time work, and to facilitate the labour-market entry of people who need to reconcile work with family responsibilities, education or other commitments, the law tries to foster the use of part-time work, both 'vertical' (i.e. a reduced number of working days per week), and 'horizontal' (i.e. a reduced number of working hours per day);

- Family allowances: grants to low incomes families. The amount varies in relation to the size and income of the family from € 10 to € 965 for up to seven children. Supplements for larger families: an extra 10% and € 54 for each additional child. Income ceilings are increased for single-parent families and for families with at least one totally disabled family member;
- *Tax deductibility*: the amount of tax deductions for families with children under 3 has been increased in 2000;
- Bonus for the second/third child: Children represent additional costs for families and recent policy measures tried to alleviate families from this extra economic burden. A baby bonus has been introduced in 2004 amounting to € 1,000 at the birth of a child. The bonus went to those who already had at least one child and had a second/third child by the end of 2004. The baby bonus has not been reintroduced in 2005;
- Parental leave: Italian families are organised very traditionally. Fathers should be encouraged to take over part of the tasks of rearing children. After several years of political debate, a parental leave policy became effective early 2000 that entitles either parent to take up to 10 months leave at any time until the child is eight years old, following mandatory maternity leave for five months around childbirth. The 10-month parental leave is extended by an additional month if the father takes at least three months of this leave. Only 7% of fathers took parental leave (ISTAT, 2004). During parental leave, parents receive a benefit equivalent to 30% of earnings until the child is three years old. Employers receive state incentives to offer part-time employment opportunities to parents after the leave. Small firms, having to replace workers temporarily, may receive tax benefits.

6.7.4. Time-use by family phases: a gender related issue

Recent (2002-2003) time-use data for men and women aged 25-44 and living as partner in a couple versus those of the same age group living as parent in a one-parent family show that the presence of children heavily affects time-use of mothers while father's time-use does not vary much according to these forms of family life (ISTAT, 2005). Therefore, time-use is a gender sensitive issue.

For women, after time for basic needs (i.e. sleeping, eating, personal hygiene, etcetera) it is activities for the family (whilst for men it is their job) that take up the major part of the time. All women spend some of their daily time on family commitments, but women who live in a couple with children have the heaviest load (6h 47'). Men use more time for their work, leaving themselves a large space for leisure activities (3h 23'). Only childless women manage to have free time close to that of men (3h 15'), while mothers reduce free time to about 2h per day (some of them declared to have less than 10 minutes free time per day).

The birth of a child means that the mother has to reorganize her time and dedicate more of it to her family. Mothers spend about 3 hours more than childless married women on the family, time that is usually taken from leisure hours (*Figure 6.5*). Also time spent on paid work is reduced by almost one hour (from 7h 30' to 6h 15' per day). When children are small, apart from time needed for child caring, it is mainly time spent on domestic housework which increases markedly for mothers.

And what about men? The number of men participating in family activities increases by 4% when children are around, and fathers' time-use does not vary much: their contribution in terms of time spent at home increases by about 20 minutes a day. Fathers' time-use does not show significant variation neither in terms of free time nor in time for paid work, which passes from 8h 24' to 8h 14' per day. Men's free time always exceeds the time spent on the family, as opposed to women.

Comparing 2002-2003 time-use data with data from a 1988-1989 survey, we see little change over the 14-year period. The gender divide did not reduce. Currently both men and women devote less time to family commitments, probably because the number of children has declined, and spend more time on paid work but from the point of view of daily time-use by gender, the pattern remained almost stable (ISTAT, 2005; Palomba and Sabbadini, 1995).

It is interesting to note that lone mothers do not seem to be at any particular disadvantage due to the absence of a male partner with regard to running the household. Men's contribution to housework and care for children is so small that his absence actually reduces the total amount of housework to be done by the woman overall. In fact, in the case of a married couple, it is the woman who also has to take care of the man (washing, ironing, cleaning the house, preparing meals, etcetera). This takes up a lot of her time and that time is saved in one-

parent families. If we compare mothers living in married couples and lone mothers with the same number of children and a similar working situation, we see that lone mothers spend on average 2 hours less on housework than married mothers. In the 1988-1989 survey the results pointed in the same direction.

6.7.5. To conclude

In Italy, the process of reforming welfare and coping with recent demographic trends is not yet complete and in the coming years further financial investments, fresh political and public debates as well as attention in the media are needed. Up to now Italy mainly attempted to find solutions for issues related to population ageing in terms of the sustainability of pension system.

A decision to combine work and family commitments is influenced by the available supply of public child care as well as part-time jobs. By increasing flexibility in employment relationships, as foreseen in the recent Italian reform on employment and the labour market, more women may be inclined to work and find more easily a job. It is too early to evaluate whether the new reforms will really produce new part-time posts, and their possible effect on both the fertility and female participation rates. Indeed, the reorganisation of other related issues, notably children and family care, may create positive synergies in this respect.

A major, hidden problem is the need for women to reorganise their daily timeuse when children are born. When a child is born Italian women have to spend more time on family and housework, even though they continue their paid job, while Italian men are still released from substantially contributing to running the family. The new law on parental leave will probably not alter this gender-related aspect of Italians' behaviour too much. New ways of creating an innovative cultural change should be found, in Italy as well as probably elsewhere.

6.8. Slovenia and the Balkans (Nada Stropnik* in collaboration with Blaž Pečaver*)

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- In Slovenia and many Balkan countries early retirement schemes are discouraged. Some initiatives to extend working life have recently been introduced by raising the age at retirement, allowing flexible retirement and introducing financial benefits for employment beyond the standard age at retirement.
- Pension reforms are introduced to increase the sustainability of pension systems.
- Female labour market participation is high and low fertility has now been a
 concern for some time. Increasingly families with children are supported.
 Maternity and parental leave facilities are normally generous. Child benefits
 are an important instrument to fight child poverty.
- Institutional care services for older persons do not meet demand. Other care services for the elderly are generally underdeveloped. Some home care is available, but mainly after all other sources available to the person in need and his/her family are exhausted.

6.8.1. Early retirement policies

Up to 1999, the **Slovenian** pension system allowed for early retirement under very generous conditions, i.e. with only temporary reductions in pensions until the early retiree reached the required age limit (58 years for men, 53 for women). Early retirement was conditional on the insured person reaching a minimum age (55 for men, 50 for women), minimum pension qualifying period (35 for men, 30 for women) and other conditions, such as bankruptcy of the firm or long-term unemployment, etcetera. According to the 1999 Pension and Disability Insurance Act (PDIA — Zakon o pokojninskem in invalidskem zavarovanju, 1999), early retirement without penalties is only possible for persons who are unemployed or disabled, aged 58, and with a pension qualifying period of 40 years (men) or 38 years (women). The 1999 PDIA introduced disincentives for retirement before the full pensionable age is reached; these are permanent penalties (i.e. negative accrual rates) (Stropnik *et al.*, 2003). The expected and observed result is a gradual increase in effective retirement age.

Before 1999, early retirement in **Croatia** was possible for men at age 55 with a pension qualifying period of 35 years, and for women at age 50 with a pension

qualifying period of 30 years. The reduction was by 0.11% of the pension for every month of early retirement and was applied only temporarily until the pensioner attained the required retirement age (US Social Security Administration, 2005). The new legislation increased the age for early retirement to 60 for men and 55 for women. In the transition period that started in 1999, the age limit has been increased by 6 moths per year. Between 1999 and 2002, the pension was lowered by 0.3% for every month of early retirement, and since 2002 the reduction has been by 0.34% per month. The reduction is permanent (Bagarić and Marušić, 2004).

In **Bosnia and Herzegovina**, early retirement is possible at any age, conditional on a 40 year pension qualifying period (Zakon o penzijskom i invalidskom osiguranju, 1998).

In 2000, The Law on Effectuating Early Pensions came into force in **FYR Macedonia**. It has established early retirement for men at the age of 63 years and for women at age 58.5 years with 20 years of pension qualifying period. Early retirement is also possible at any age if the person has completed 35 years of pension qualifying period. The insured person with less than 20 years (and with a minimum of 15 years) of pension qualifying period acquires the right to old age pension when turning 65 years (men) and 63 years (women). The early pension amounts to 55% of the pension base for men and 57.5% for women, and is increased by 1.67% for men and 1.5% for women for every additional year of work. However, it cannot be higher than 80% of the pension base (Gjurčilova). In order to reduce unemployment, starting from 2001, employers are allowed to encourage early retirement of workers who otherwise might be rendered technologically redundant (Vaknin, 2001).

Early retirement is allowed in **Bulgaria** till the end of 2009 for persons employed at 1st and 2nd category of work (30% of workplaces). The required age is eight and three years lower, respectively, than the standard one (European Commission, 2002a).⁶² According to the pension act introduced in 2000, early retirement results in actuarial reductions in pensions (UNICEF, 1995).

In **Romania**, full retirement is possible 5 years before the legal retirement age if the pension qualifying period exceeds the standard one (35 years for men and 30 years for women) by at least 10 years (Manea, 2004). In 2000, partial early

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Military officers and related occupations retire after 25 contribution years (2/3 of them in military service), and military pilots and submarine personnel after 15 years of working record irrespective of age (European Commission, 2002a).

retirement was established. One can partially early retire at age 50 if one's pension qualifying period exceeds the standard one by less than 10 years (European Commission, 2002a). The pension is reduced.

6.8.2. Labour policies related to extension of working life

In **Slovenia**, there are no other explicit labour policies aimed at extending working lives than those focused on the unemployed. However, the 1999 PDIA introduced incentives (bonuses for each additional month of service) for retirement after the standard age (63 for men, 61 for women). The 2000 **Romanian** pension act introduced flexibility in retirement conditions by creating incentives for insured persons to remain in the labour market. It also established the right for those old-age pensioners still employed to receive old-age pension and a salary at the same time (Vilnoiu and Abagiu, 2003).

6.8.3. Intergenerational policies

Retirement age

In the framework of the 1999 pension system reform in **Croatia**, the retirement age increased from 60 to 65 years for men, and from 55 to 60 years for women, to be achieved gradually by 2008 (Vlada Republike Hrvatske, 2005). Also in Serbia, the 2003 Law on Pension and Disability Insurance raised the age for retirement from 60 to 63 years for men, and from 55 to 58 years for women (Turner, 2004). In the period 2004-2013, the retirement age in **Montenegro** is raised by 6 months every year, reaching 65 years for men in 2014, and 60 years for women (Stijepović, 2003). In 1995 in FYR Macedonia, the retirement age was 61 years for men and 56 years for women. Accordingly to the 1993 Pension and Disability Compensation Insurance Law (with several revisions after 1993), the standard retirement age was raised by 6 months each year, for men until 2001 (to age 64), and for women until 2007 (to age 62). For women it will rise further to 63 years by 2009 (Gjurčilova). The retirement age in Bulgaria also used to be low: 60 years for men and 55 years for women (Shopov, 2002). According to the 2000 new law, the retirement age increases 6 months every beginning of the year until 2009, to reach 65 years for men then and 60 years for women (Noncheva and Satcheva, 2003). Also in Romania, the retirement age increases periodically since 2001. In 13 years time it will go from 62 years for men and 57 years for women to 65 and 60 years respectively (Vilnoiu and Abagiu, 2003).

Other features of pension reforms

The pension reform in Slovenia, implemented in December 1999 (Zakon o pokojninskem in invalidskem zavarovanju), lowered pension rights within the first pillar. Voluntary collective or individual pension schemes were introduced (Stropnik et al., 2003). The act introduced a number of elements that improved the system in terms of horizontal equity. The gender gap regarding eligibility and benefits was considerably narrowed. Not only were accrual rates equalized, but the eligibility criteria for women are now very similar to those for men. Actuarial fairness is also being more closely observed, since there are penalties for retirement prior to and bonuses for retirement after the so-called full pensionable age of 63 for men and 61 for women. The period for calculating the pension base has been extended to the best eighteen years. Benefit levels were considerably reduced. Provided an insured person is not subject to penalties, his or her pension will be 72.5% of the pension base after 40 years of work. This compares to 85% under the 1992 PDIA. Taking into consideration further that the pension base in the 1999 PDIA is the best 18-year average wage (instead of the 10-year average under the 1992 PDIA), the reduction in pensions is even greater than the ratio of 72.5 to 85% might imply. Somewhat paradoxically, an even greater emphasis was laid on the principle of vertical equity (solidarity). Thus, the ratio between two comparable pensions (i.e. for two persons entering the pension system under similar conditions, where both have met the pension qualifying period) cannot exceed 4:1. This is a considerably narrower spread than the previous 4.8:1. A further redistribution element lies in the fact that social security contributions are not capped (Stropnik and Stanovnik, 2002). Taking into account (1) a fairly stable replacement rate, and (2) measures introduced in the 1999 PDIA, one can, with a certain degree of confidence, state that the Slovenian pension system is adequately performing one of its important functions, that is providing income security in old age and reducing poverty among the elderly. This is confirmed in studies on pensioners well being, based on household expenditure surveys.

The pension systems have been reformed in **Croatia** (1999), **Bulgaria** (2000), **Serbia** (Law on Pension and Disability Insurance, 2003) as well as in **Montenegro** (2003). In **FYR Macedonia** the process has been going on since 1996. In 2002 a Law on Mandatory Funded Pension Insurance was adopted (with revisions in 2003 and 2004). A Pension Fund was introduced as an openend investment fund (http://www.mapas.gov.mk/zakoni/Revised version of the Law on Mandatory Fully Funded Pension Insurance-unofficial version.doc). A two-pillar system is expected to be launched in June 2005. The first pillar will be

financed on a PAYG basis while the second pillar will be financed through capitalization. Persons who have contributed at least once to the mono-pillar system will have the option either to remain in the mono-pillar system or switch to the new two-pillar system (http://www.mapas.gov.mk/en/index.asp?page=overview1). The **Romanian** social security system also has two pillars; it consists of collective social security at the national level and individual security. The new pension act was passed in 2000. By the full implementation of the law in 2014 (1) the standard retirement will be 60 years for women and 65 for men, (2) the minimum contribution period will have risen from 10 to 15 years, and (3) the full contribution period will have increased to 35 years for men and 30 for women (Manea, 2004).

6.8.4. Child care policies and parental leave policies

Childcare policies

Childcare services in Slovenia are widely affordable due to high subsidies from public sources. Not much has changed in the size of subsidies during the transition period. While the average subsidy amounted to 75% of the costs per child in 1990, it decreased to about 69% in 1998. All approved programmes of public and private day-care centres/providers are entitled to subsidy. Since January 1998, at least 20% of the price —including costs of education, care and meals, and excluding investments and maintenance costs— has been covered by local communities; this is a basic subsidy. The parent fee amounting to 80% of the costs is thus considered as full payment; it is paid by parents of about 4% of children. In these families, the gross monthly income per family member is over 110% of the average gross salary in Slovenia. Additional subsidy amounts to 10-70% of the price, depending on the income per family member as compared to the average salary. If more than one child from a family attends subsidised childcare programmes, the fee for older children is decreased by one income group. Families on social assistance and those with income per family member below 25% of the average salary are exempt from paying fees altogether (about 4% of all children attending organised childcare). If a local community decides to allocate more funds to childcare, it may lower parental fees.

Pre-school childcare steadily deteriorated in **Romania** after 1989 while parental fees rose continually. Public childcare for children up to age 3 was decentralized. Crèches were neglected as a consequence of extending maternity leave until children were 2 years. Many children up to 3 years are cared for at home by mothers or female relatives. Public childcare availability is different for

3-6 years olds: around 65% of them are cared for in kindergartens. The system gets very low financial support from the state or other public funds. Parents are entitled to cost deduction for pre-school childcare based on their monthly income (Fodor *et al.*, 2002; Manea, 2004) but nevertheless organised childcare does not reach many families.

Parental leave policies

Till the end of 2001, parental leave in **Slovenia** was normally one year, of which three months could be used exclusively by the mother. Either the mother or the father could use the rest of the nine months, either as 260 days of full-time leave or as 520 days of a half-time leave combined with part-time work (half of the normal working hours per day). After parental leave, return to the former job was guaranteed. The Act on Parenthood Protection and Family Benefits (Zakon o starševskem varstvu in družinskih prejemkih; adopted in December 2001) extended the parental leave by 30 days if at birth of a child parents already are caring for at least 2 children below 8 years, by 60 days in case of three children, and by 90 days in case of four or more children. Parents are now allowed to use part of the leave (up to 75 days) until the child is 8 years. If the parental leave is not fully used, one may obtain the non-received amount of wage compensation (up to 5 monthly amounts) through payment of childcare services, payment of housing rent or for a housing purchase (Stropnik, 2003). Another novelty is the right to paternity leave for 90 days. Fathers are obliged to take at least 15 days during the maternal leave, and can take the rest of 75 days before the child is 8.

Wage compensation during maternity leave, parental leave and the first 15 days of the paternal leave amounts to 100% of the average monthly gross wage of the entitled person during the 12 months prior to the leave. For the rest of the 75 days the father is only paid the social security contributions based on the minimum wage. In 1995, the wage compensation was extended to mothers whose permanent employment was terminated without their violation or fault during pregnancy and maternity leave (Stropnik, 2003).

In **Croatia**, maternity leave lasts till the child is six months. After that the parents are normally entitled to six months of paid parental leave. The National Demographic Development Programme, adopted by the Croatian Parliament in January 1996, envisaged a series of measures to help families have the desired number of children. The most important measure may have been the 1996 extension of parental leave from the first to the third birthday of the child for families with twins or 3 or more children (Križić, 1999; Puljiz and Zrinščak,

2002). Employed and self-employed parents hold the right. However, by late 2001 this leave was shortened to age 2 of the child, and only available for multiple births. Since 1996, also other parents may opt for unpaid leave if they have a child between 1 and 3 years. However, social security is not paid to the person on leave from the state budget, and a return to the former job is not guaranteed (it has to be agreed upon with an employer) (Stropnik, 2003). The parents may work part-time till the child is 1. By the end of 2001, the amount of parental benefits was lowered by approximately one-third. The new level is quite low, so that many women opt for a return to their jobs after maternity leave. The second factor negatively influencing the use of this leave is the danger of becoming unemployed (Stropnik, 2003).

According to the 2001 Labour Law in **Serbia and Montenegro**, a woman is entitled to 365 days of maternity leave (first three months) and leave for nursing the child, 100% compensated during the whole leave (Jovanović and Vukotić, 2005).

The 1999 Law on Principles of Social Protection, Protection of Civil Victims of War, and Protection of Families with Children regulates maternity leave and benefits in **Bosnia and Herzegovina**. Women are entitled to 12 months of maternity leave and may opt to work no more than 4 hours per day until the child is 3 years. However, women encounter problems with regard to the non-payment of maternity benefits and the unwarranted dismissal of pregnant women and new mothers (US Department of State, 2001).

In FYR Macedonia, women normally are entitled to nine months of maternity leave. Maternity benefits are equal to sick pay (Labour Relations Law, 1993). Women also have the right to return to their jobs within 2 years after birth (US Department of State, 2001). Women may even opt for return to work before the maternity leave ends. They are entitled then to a salary and a 50% maternity allowance (Labour Relations Law, 1993). The law does not permit overtime work nor night shifts during pregnancy or up until the child is 2. After the child turns 1 mothers may work night shifts, but only if they agree. Self-supporting parents may work longer than full-time or in night shifts but only on the basis of their written consent. Single mothers have the right to permanent financial assistance in the last month of pregnancy and as long as the child is under 3 years old.

In 1995, the duration of maternity leave in **Bulgaria** was 120-180 days, dependent on the number of children. Insured mothers were entitled to 100% of their last wage, uninsured mothers to the minimum wage (UNICEF, 1997). In December 1999, the Compulsory Public Insurance Code defined new principles for maternity benefits insurance, their calculation and payment. Maternity leave was shortened to 135 days, the wage compensation rate decreased to 90% and equals sick pay now. The benefit is between the minimum wage and the individual's average income in the last 6 months (European Commission, 2002a and 2002b). The 3-year parental leave was shortened by one year in 1999. However, as the standard of living is declining for many families, many parents shortened their parental leave and used it only till the child turned 1 year (Stropnik, 2003). The 2002 Family Benefits Act reduced the parental leave further. It is now income tested, and the eligibility is defined by the State Budget Law (Noncheva and Satcheva, 2003). The Labour Code, amended in 2001, eliminated all reasons to lay-off pregnant workers other than redundancy (European Commission, 2002b).

In 2002, maternity leave in **Romania** was extended from 112 to 126 days (UNICEF, 1997; European Commission, 2002a). The benefit used to be 50-85% of the last wage, depending on the employment record, but was higher for third and following children. Since 2002 women are entitled to 85% of the individual average monthly income received in the last 6 months before the leave (Manea, 2004). Childcare leave was implemented in 1990 for working mothers with children up to 1 year. The wage compensation rate was 65%. In 1997 the leave was extended to 20 months (Bodnárová *et al.*, 2001). The 2001 reforms introduced an even longer parental leave⁶³ (till the child is 2). The wage replacement rate was changed to 85% of the average gross national wage. Fathers are entitled to a paternity leave of 5 working days during the first 8 weeks after birth.

6.8.5. Family policies

In 1993, a clearly defined, comprehensive and integrated family policy was accepted in **Slovenia**, consisting of social, economic, legal, educational, health care, fiscal and other measures. Different from most transition countries, Slovenia managed to preserve family benefits available in the socialist period.

The possibility for either parent to take parental leave was introduced in 2000 (Manea, 2004).

Some benefits were improved, new rights were introduced. The negative issue was that the real values were not properly indexed.

In 1996, a National Programme for Demographic Development was introduced in **Croatia**.

Child benefit

Child benefit is income tested in **Slovenia**. The income threshold for entitlement was raised in 1996 (to 110% of the national average gross wage per family member), so that 70% of the children were receiving benefits. In 1999, the income threshold for entitlement was lowered (to 99% of the average wage) (Zakon o družinskih prejemkih). Child benefits progressive with birth order (up to the 3rd child) were introduced. Benefit levels were raised, particularly for children in families with low income. The variation by income was increased. The importance of child benefits increased: in 2000 they formed the largest family cash transfer. Their share in GDP was 0.6% in 1995 and around 1% in the early 2000s (Stropnik, 2003).

The 2001 Act on Parenthood Protection and Family Benefits introduced several novelties. The right to child benefit now continues till the child turns 18 years, and may even last till 26 as long as the child follows full-time education. If the child follows a university study or did not complete regular schooling within the prescribed period due to illness, injury, or military service, the right to the benefit may be extended by the length of the additional periods.

Since January 2003 child benefits for pre-school children not included in subsidized childcare programmes are 20% higher than for other children. This measure tries to compensate part of the costs of informal childcare arrangements or part of the opportunity costs for a parent that cares for the child at home. Since January 2004, child benefits for children in single parent families are 10% higher than for other children (Stropnik, 2004a).

In **Croatia**, the eligibility to child benefit was in 2000 extended to all parents irrespective of the employment status. Prior to that, eligibility was based on employment or social insurance record (Stropnik, 2004b). Targeting criteria were loosened in 2000, but were made somewhat stricter again in 2002 when also higher benefits for twins, third and higher order children were abandoned (Puljiz and Zrinščak, 2002).

The 2002 Law on Financial Support to Families with Children introduced some changes in **Serbia**. The right to child benefit became means tested rather than wage tested, and that led to a lower number of recipients. All children are entitled to the same benefit level regardless of birth order. The family is entitled to a benefit for only four children (Jovanović and Vukotić, 2005).

In 2001, the conditions for receiving child benefits changed in **Montenegro** (Jovanović and Vukotić, 2005), recently regulated by a new act (Zakon o socijalnoj i dječjoj zaštiti, 2004).

The 1999 Law on Principles of Social Protection, Protection of Civil Victims of War, and Protection of Families with Children regulates income tested child benefits in **Bosnia and Herzegovina**. Child benefits are decentralised. In 2000, only 2 out of the 10 cantons paid any child benefits at all, even though all children were legally entitled (UNICEF, 2004).

According to the Labour Relations Law, child benefits in **FYR Macedonia** are dependent on family income and the age of the child. Only insurance-based child benefits are available. Severe delays in receiving child benefits (up to three months) were reported in the late 1990s (Suzor, 1999). The share of children receiving family allowances fell from 30% of the total number of children in 1991 to 13% in 1999 (UNICEF, 2001).

Child benefits remained part of the social insurance package in **Bulgaria** till 2002.⁶⁴ Both insured and uninsured parents were entitled (Noncheva and Satcheva, 2003). Child benefits were paid irrespective of the economic position of a family and were of particular relevance for families with children. The average benefit per child was equal to a (considerably) lower percentage of the national average wage in 1999 (4.2%) as compared to 1991 (13.2%) (UNICEF, 2001). During the high inflation in the 1990s supplements were added to the basic amount (Suzor, 1999). The 2002 new Family Benefits Act raised the benefits; however the income test considerably restricted entitlement (European Commission, 2002b).

Due to inadequate uprating in the 1990s the real value of child benefits eroded and even became modest in **Romania**. If before 1989 the benefit equalled about 10% of the average wage, it represented barely 3% of a substantially lower wage

⁶⁴ Up till then, assistance-based child benefits paid by the municipalities covered the gaps (i.e. families with both parents unemployed or uninsured) (Suzor, 1999).

in 2000 (Manea, 2004). Nevertheless child benefits have been an important instrument to fight poverty. A supplementary benefit for families with two or more children (progressive with the number of children) was introduced in 1997 as the country's economy aggravated considerably (Vilnoiu and Abagiu, 2003).

Other family benefits

The flat rate parental allowance for non-insured parents in **Slovenia** was increased in 2002.⁶⁵ Based on a written agreement with the mother, after 105 days of maternity leave, an unemployed⁶⁶ father of a child may now obtain the right under similar conditions.

A universal flat rate large-family supplement has been paid once a year since 2002 to families with three or more children (Stropnik, 2003). The 2001 Act on Parenthood Protection and Family Benefits introduced the right of either of the parents with a child up to 3 and working at least half-time to have social security contributions up to full working time (based on minimum wage) paid from the state budget. The act also introduced the right to partial payment of foregone earnings to the parent that left the labour market or diminished working hours in order to take care of a handicapped child up to 18. The payment is equal to the minimum wage, or proportional to it in case of part-time employment. In 1999 an Alimony Fund was founded, in 2002 a new Act on Foster Care was accepted.

In the period 1996-2001 non-insured mothers in **Croatia** were entitled to an equally long paid parental leave as the insured ones (till the child is 3) in case of twins, or 3 or more children. By the end of 2001, maternity leave up to the child's age of 6 month was introduced for non-insured mothers available for each birth (Puljiz and Zrinščak, 2002). The benefit level was decreased, but the coverage was extended considerably (Stropnik, 2003).

In **Serbia**, the 2002 Law on Financial Support to Families with Children replaced several previously existing allowances of relatively small value by a one-time parental allowance paid after the birth of the 2nd, 3rd and 4th child. Only very wealthy citizens and parents who neglect their children do not have the right to such allowances (Jovanović and Vukotić, 2005).

In **Bosnia and Herzegovina**, the 1999 Law on Principles of Social Protection, Protection of Civil Victims of War, and Protection of Families with Children

⁶⁵ The duration of entitlement is the same as for paid maternity / parental leave for insured persons, i.e. 365 days.

⁶⁶ But not of his own volition or through his own fault.

regulates an allowance during pregnancy and childbirth for unemployed women, a birth grant, support in feeding children up to 6 months and additional food supply for nursing mothers, and the placement of children in pre-school day-care centres with provided meals.

Since 2002, eligibility to a non-insurance based parental benefit has covered all non-insured mothers in **Bulgaria**. Prior to that, only full-time student, unemployed or non-insured single mothers were eligible. The entitlement also became income tested. The flat rate benefit level is the same as the one for insured persons on parental leave. The period of receiving a benefit was shortened from 2 to 1 year in 2000 (Noncheva and Satcheva, 2003).

Child tax allowances

Till 2004, tax allowances for the first child in **Slovenia** amounted to 10% of the average wage. For each subsequent child this amount was raised by an additional 5% of the average wage. According to the 2004 Income Tax Act (Zakon o dohodnini) the child tax allowance is fixed at the level of the child's minimum costs of living and is higher than before. It increases with the child's birth order.

Child tax allowances were introduced in **Croatia** in 1994, but changed in 1995, 1999, and 2000 (Stropnik, 2003). The allowances increases with the child's birth order (Puljiz and Zrinščak, 2002).

Child tax allowances are the same for all children in **Romania**. The total amount of personal allowances and allowances for dependents is limited; the maximum amount was increased in 2002 to three times the personal tax allowance, i.e. by allowance for one dependant (Kesti and Balle, 2000; Kesti, 2002).

6.8.6. Elderly care policies

The demand for places in old people's homes has been unmet in **Slovenia**. Current policies supporting elderly people still living at home include an income tested allowance (for recipients of any kind of pension or social assistance who are incapable of work due to old age, disease or disability and thus need help in everyday living) and assistance at home (subsidized by some local communities, even free of charge; income tested in some local communities). There is no special long-term care insurance. The long-term care services are mostly paid for individually by people who receive care (46% of sources in long-term care); specialist medical services are paid by health insurance (38% of sources), while

13% of all sources are paid by local communities for poor people who are unable to pay the fee themselves. A Long-term Care Insurance Act, covering health, social and other services for the elderly, disabled persons and other persons in need, as well as allowances related to these services, is envisaged in Slovenia in the near future. It will be necessary to establish a uniform compulsory public insurance for long-term care (Stropnik *et al.*, 2003).

In addition to institutional care, old people's homes in **Croatia** organise the provision of services of assistance and care at home. The system of social welfare builds on within-family care: care is taken over by the community only after all other sources available to the individual and his/her family are exhausted (Vidovic, 2002). Old people in need of permanent help and care in everyday living are entitled to attendance benefit (Državni zavod, 2002).

According to the Labour Relations Law, the elderly in **FYR Macedonia** who are not able to look after themselves and thus need help have rights to home care. It is provided also to persons living within a family.

Until 2001, the services for the elderly in **Romania** were limited to institutions; these are generally underdeveloped. In 2000, a new law on the social protection of the elderly was passed, stipulating the right to receive medical services/care at home, household help and even a companion, depending on their needs. The implementation is slow and difficult to be accomplished since the services were transferred to local budgets that lack resources and are confronted with ever increasing financial problems. There are no policies to support families providing elderly care (Manea, 2004).

6.8.7. Review of time-use data

In 2000/2001 a Slovenian Survey on Time-use was carried out among persons of 10 years and over (Statistical Office, 2004). On average, as compared to women, men use 60 minutes per day more for employment but also 23 minutes more for culture, sport and hobbies. By contrast, women use 101 minutes more than men for household care and informal help to other households and 66 minutes more for family care. Even if only full-time employed persons are taken into account, gender differences remain considerable: women use 67 minutes more than men for household care and informal help to other households and 27 minutes more for family care; men use 39 minutes more for employment and 36 minutes more for culture, sport and hobbies. The same patterns were found among students aged 15 and over and among pensioners.

Employment is very time-consuming in the age 25-54: almost 5 hours per day. Time used for household care and informal help to other households increases continuously during the life course till age 55-64 (where it takes 5 hours per day); it decreases afterwards. Family care takes somewhat less than one hour per day in the age group 25-34; for other age groups, except 35-44, it is almost negligible.

6.9. Turkey (Banu Ergöçmen* and Erhan Özdemir*)

- * Haceteppe University, Ankara, Turkey
- As fertility levels are dropping population ageing is changing the Turkish society. Several population groups already have below replacement fertility.
- Despite convergence in recent demographic trends there are significant differences between urban and rural areas; the eastern region being the least advantaged in terms of vital rates.
- The retirement system in Turkey consists of public institutions and private establishments, covering issues related to retirement, ageing and disability.
- Conditions to retire have recently changed; the age has increased to 58 for women and 60 for men. Early retirement is possible under specified conditions.
- Politicians' attitudes are to improve conditions of employees and increase standards up to ILO and EU levels. There is positive discrimination towards women, disabled people and children. More prevention and flexibility are characteristic of the labour market as well as a more effective age policy.
- Childcare and parental leave policies are further developed and improved as well as pre-school educational programs.
- The Turkish society is based on the family. Spouses have equal rights. Family laws are reorganised as to stimulate gender equality.
- Reproductive health issues are given increasingly more attention; the official HIV/AIDS numbers indicate that this epidemic is still relatively small.
- Elderly care policies are gradually getting more attention. However basic information on older persons and their living conditions is lacking.

6.9.1. Introduction: demographic structure of Turkey

The demographic structure of Turkey underwent substantial changes in the 20th century. Past demographic developments, the causes and consequences of population trends and the future prospects have brought population issues of Turkey in a challenging status in many aspects. Currently population size stands

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at about 70 million and contrary to most other European countries Turkey has a young age structure: half of the population is under age 25. The total dependency ratio is 55%, in which the share of young-age dependency is 46 and old-age dependency is 9.

Fertility rates in Turkey have gradually declined mainly in the last quarter of the 20th century from almost 5 births per woman in the early 1970s to 2.2 births more recently, i.e. the total fertility rate (TFR) halved in the past three decades. According to the results of the 2003 Turkey Demographic and Health Survey (TDHS-2003), the TFR is 2.23 indicating the average number of children a woman would have if she were to bear children at the observed rates (HUIPS, 2004). The TDHS-2003 results also indicate that a large segment of the population has below-replacement fertility levels.

Life expectancy at birth has steadily improved and reached 67 years for males and 71 for females. The increases in recent decades have been predominated by improvements in the survival of children, although improvements in survival of the adult population have also been substantial. Specifically post-neonatal and neonatal mortality improved structurally. Recent findings show a 38% decline in the survival chances of children in the last 10 years. The estimated infant mortality rate for the most recent period (0-4 years preceding the TDHS-2003) is 29 per 1.000 live births.

As a consequence of changes in fertility and mortality rates, the age composition of the population has gained the potential for rapid ageing. Within the next 30 years, the number of children aged 0-14 will stabilize, the size of the so-called economically productive age group, ages 20-54, will increase rapidly, and almost double; the number of today's elderly (3.6 million) will increase to 10 million in 2030 and 15 million in 2050. The 'demographic window of opportunities' is likely to bring about radical changes, not only in social and economic development trends, but also in the vital rates and population structure (Hancıoğlu *et al.*, 2004).

Household sizes are also affected by the fertility decline, as well as by urbanisation and modernisation of the Turkish society. The average household size is 4.1 persons according to the TDHS-2003 findings (HUIPS, 2004).

Changes in population trends have not been uniform throughout the country. Despite the convergence in recent years, there are significant differences in

demographic trends and population structures between urban and rural settlements and across geographical regions of Turkey. The Eastern region of the country is the least advantaged in terms of number of children per woman and infant and child mortality.

Internal and international migrations are two other important demographic issues. With respect to internal migration Western Turkey in general and Istanbul in particular are receiving regions and the Black Sea area and the eastern regions of Anatolia are sending regions. Urbanisation has been the main motive for internal migration since the 1950s. The share of urban population increased from 60 to 65% between the years 1990 and 2000. A quarter of the total population lives in five cities (İstanbul, Ankara, İzmir, Bursa, Adana), each of which has over 1 million inhabitants (SIS, 2003). İstanbul has almost 10 million inhabitants.

In the past the direction and magnitude of emigration from Turkey was related to labour demands of foreign countries. For instance, 810 thousand people migrated from Turkey to European countries, especially to Germany, to fulfil labour demands of European countries in the 1960s. The number fell to 105 thousand in 1975-1980 because these countries restricted their immigration policies. The direction of Turkish emigration has shifted from West to East in the 1980s: 778 thousand people migrated to the Middle East or to former Soviet Union countries between 1981 and 1995 (İçduygu and Sirkeci, 1998). Legal immigration to Turkey has increased in the past decade, and next to that Turkey also recorded an inflow of ethnic Turkish migrants, often included in the asylum seeker and refugee categories, so-called transit migrants and foreign workers (OECD, 2004a).

Current retirement policies and early age at retirement in Turkey

The retirement system in Turkey consists of public institutions and private establishments.

Public Sector

a. Turkish Republic Retirement Fund: This institution was founded in 1950 according to the Law on Foundation of State Economic Enterprises acted in 1938. The facilities and activities of the Fund cover the employees of governmental institutions, provinces, local administration and municipality staff, employees of state banks and persons under the care of these employees (i.e. husband, wife, children, parents, and etcetera). The revenue sources of

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the Fund are formed by the fees from the employees, and profits gained by the management of the revenues. Half of the revenues are gained as a result of the sale of tickets, stamps (excluding expenditure stamps) and other aid receipts, donors and other resources (http://www.emekli.gov.tr).

- b. *Social Insurances Institute (SSK):* This institution was founded in 1945 and the field of activities was re-arranged in 1964. SSK activities are relevant for the private and public sector employees that have contracts with an employer and the persons under the care of these employees. The system is based on the revenues gained by the payments of employers and employees.
- c. *Trades and Craftsmen and Other Independent Workers Social Insurances Institute (Bağ-Kur)*: This establishment was founded in 1972 for people that are not covered by the Retirement Fund and SSK and for self-employed persons (Öztürk, 2002).

These institutions provide social insurance guarantees related to retirement, ageing, and disability. The same services are also available for the dependents of those covered by the institutions.

Private sector

- a. According to the Social Security Reform, the *private insurance establishments* were introduced into the retirement system in Turkey in 2003. The name of the network of private insurances is *Individual Retirement System*. The reform is based on experiences in Latin American countries in recent decades. The Government has made several fiscal and legal arrangements to support employers and employees for using the private insurance system. The Individual retirement system covers the issues related to retirement, ageing and disability of individuals (http://www.besonline.net).
- b. Army Assistance Institute (OYAK): It was founded in 1961 in order to provide services related to retirement, disability, death of military officials, and other services like housing credits and payments for social needs of OYAK members. The system is based on payments of military staff and revenues from dividends and interests of the establishment (Buzlupınar, 1996).

The major retirement system used in Turkey is the one provided by the public sector. The public institutions of retirement and social insurances were affected by the economic instability in the last two decades; therefore governments started to reform the social security system. Until the year 1999, persons under the service of the Retirement Fund, SSK and Bağ-Kur were able to get retired

after they completed service for 20 (women) or 25 years (men). However, according to the new Social Security Law acted in 1999 (Code 4447 for amendment of Code 5434), the retirement age increased to 58 for women and to 60 for men and the number of years spent in service was fixed to 25 years.

The purposes of the reform are to overcome public debts related to the public social security system, to prevent the informal sector by pulling unregistered employees into the formal sector, to diminish the effects of uneven income distribution and to support economic developments of the country via new financial resources for private entrepreneurs from the private social security establishments (Akalın, 1999).

Early age retirement is only applicable under the following circumstances:

- *Usual Disability:* For persons who are in need of help from others due to a disease or accidence. The person must have spent at least 10 years (5 years in special circumstances) in service and s/he is paid a pension like disabled persons that have spent 15 years in service.
- Employment Disability: For persons who become disabled while at work.
 The law excludes those who get disabled during work because of unlawful acts, alcohol or drug use, or acts that are only to provide benefits for these person's or their dependent's interests; these disabilities are classified in the 'usual disability' category.
- War Disability: For persons with disabilities due to war operations, military operations and disabilities of air force and navy staff during their services in piece time (Law on Retirement upon physical disability).

According to 2003 figures, there were 977 thousand retired individuals in the Retirement Fund and 2.8 million retired persons in the SSK. The majority of the retirees in both institutions retired by usual procedures (age and years worked), only 2% of the SSK and 3% of the Retirement Fund people retired because of usual or employment disability (www.emekli.gov.tr, www.ssk.gov.tr).

Moreover, a special group of employees, who were in service at least for 20 to 25 years when the Social Security Reform was enacted in 1999, were entitled of early age retirement by a decision of the Constitutional Court. According to this decision (provisional article 205 of Law 5434), persons that completed service or were less than 0 to 15 years away from completion could apply for early retirement. Normal retirement is now set at 60 for men and at 58 for women.

Another significant issue in the Turkish labour market is the system of syndicates and worker unions. There are trade unions for both blue and white collars in Turkey, but these organisations do not cover all employees. For instance, among blue-collar trade unions, the unionisation rate decreased from 68 to 58% in 1996-2004. The number of registered workers increased by 884 thousand in the same period and only 111 thousand of them have become trade union members. This means that the unionisation rate for newcomers in the same period is merely 11% (www.calisma.gov.tr). It should be noted that the majority of trade union members are employed in the public sector, the unionisation in the private sector is either too low or non-existing. Unemployment rates for 2003 are given in Table 6.6.

According to the 8th 5-year Development Plan, the attitude of policy makers is to improve the conditions of the employees and increase the standards up to ILO and EU levels (SPO, 2000). Positive discrimination towards women, disabled people and children is the main purpose. In addition, the informal sector plans to act more preventive and flexible on the labour market as well as more effective in wage policies. Health and job security are other issues of the working life to be improved. Moreover, support of trade unions for training and research activities, and reconstruction and institutionalisation of the labour market are also included in governmental plans. The non-agricultural sectors are given priority. Another policy is to diversify the agricultural production and so to increase employment and productivity there. Furthermore, small businesses are supported. Necessary legal and bureaucratic arrangements were recently implemented and other measures will be introduced in the near future (SPO, 2000).

Childcare policies

Childcare and parental leave policies need special attention due to the important direct effect they have on social, psychological and educational aspects of children's well-being as well as on decreasing the burden of work of mothers at home, which hinder women to work and participate in public affairs. 10% of the ever-married women aged 15-49 years are combining work and rearing children up to 5 years.

There is lack of pre-school education services in Turkey; currently only 440 thousand (of in total about 2.9 million) children attend pre-school education (about 15%) (http://www.egitimportali.com). The share of pre-school education services in the budget of Ministry of National Education is only 1% (TÜSİAD,

2005). Institutions responsible for these services are mainly private crèches and pre-school classes of schools under the Ministry of National Education. The 3-5 year age group is the major target population of pre-school services. Pre-schooling of children is more prevalent in western regions and urban settlements. Absence of a standard curriculum of pre-school services, lack of personnel, and reliable statistical knowledge about the issue are the topics which obscure the services to respond the country's needs (http://www.acev.org).

Research and projects have been started by governmental and non-governmental organisations to improve childcare policies in Turkey. The Ministry of National Education started 'Pre-school Education for Parents and Children', 'Early Childhood Grow-up and Education Project', 'Support of Primary Education', all of which are projects in the frame of EU MEDA; 'Support and Spread of Preschool Education' is a recent project of the World Bank. The Ministry also started 'Mobile Pre-school Classes' (http://ooegm.meb.gov.tr).

The Mother and Child Education Fund (ACEV) is the most influential civil society organisation in Turkey in terms of improvement of pre-school education. The project titled '7 is Too Late' aims to make pre-school education compulsory, take early childhood education into preventive intervention programs, take all pre-school education methods into action, have early childhood education on TV, spread and accredit preschool services, reduce inadequacies related to the personnel, obtain more statistical data on pre-schooling, and coordinate and cooperate with national and international organizations (http://www.acev.org).

The Turkish Association of Industrialists and Businessmen (TÜSİAD) prepared a report entitled 'True Start: Pre-school Education in Turkey' aimed at increasing public awareness about pre-school issues in the country, determining problem areas, and suggesting ways for solutions and recommendations for reorganizing and improving policies (TÜSİAD, 2005). Several other projects and policies were introduced by Social Services and Child Protection Institution, UNICEF, and the Ministry of Health to increase the quality, effectiveness, availability and coverage of pre-school education in Turkey.

Family policies

Article 41 (amended on October 17, 2001) of the Constitution of the Republic of Turkey is concerned with the protection of the family and stated that "The family is the foundation of the Turkish society and based on the equality

between the spouses. The state shall take the necessary measures and establish the necessary organisations to ensure peace and welfare of the family, especially where the protection of the mother and children is involved, and recognises the need for education in the practical application of family planning".

Turkey does not have sexual discrimination in terms of legal and political rights, family relations and other public and private affairs including economic activity, education and the like. Moreover, new amendments recently made in the Civil Code aimed at improving gender equality by reorganising laws related to marriage, divorce and decision making in the family. For instance, the new Turkish Civil Code, effective since 1 January 2002, strengthens gender equality and equality between the spouses and considers women totally equal to men in family and society. Some of the main provisions of the new law are as follows: since there is no longer a head of the family, spouses are to care jointly for the proper maintenance of the family and each spouse represents the conjugal union. Women have the right to use their former surname in front of the husband's surname. Each spouse has the freedom to choose a job and profession without permission of the partner. The previous Civil Code stated that women needed their husband's permission to enter a job or profession. This article has been considered void by the Constitutional court in 1990. The new Turkish Civil Code accepted 'participation in acquisitions' as the regular matrimonial property regime. Under this regular regime, unless the spouses agree on a different regime, property which each spouse acquires during marriage is shared equally when the marriage comes to an end. Each spouse takes his or her own property.

Upon the enactment of the New Civil Code, it became a necessity to establish specialized courts to settle conflicts arising from the Family Law. For this purpose, the Act on Establishment, Jurisdiction and Trial Procedures of Family Courts was prepared (effective as of 18 January 2003). Furthermore, if there is a serious threat for life, for the economic well-being and/or unity of the family, couples have the right to separate without getting divorced, under the control of the court decision. Another improvement by the new amendments is the removal of the 'household head' status of the husband from the Civil Law and the introduction of equal rights of husband and wife in representing the family (http://www.tbmm.gov.tr; http://www.kssgm.gov.tr).

Reproductive health is another issue directly related to both health and sexual well-being issues of individuals as well as family planning. The rapid fertility decline in Turkey is related to a number of factors such as marriage,

contraceptive use but also the economic development and urbanisation of the country. Recently marriages are being delayed, which directly affect women's exposure to pregnancies. For instance, the median age at marriage for 25-49 women increased one year in only 10 years time (HUIPS, 1994; HUIPS, 2004).

Contraceptive use is important both for family planning and safe sexual practices. According to the TDHS-2003 results the knowledge of contraceptive methods is almost universal throughout the country; overall, 71% of currently married women use contraception, 43% even depends on modern methods. In Turkey, the right of couples to choose the number and timing of their children is recognized. The principally antinatalist Population Planning Law (1965), legalising contraception and emphasising public education to avoid unwanted pregnancies, was revised into a more liberal and comprehensive law in 1983 by legalizing abortions up to the tenth week of pregnancy and voluntary surgical contraception.

Safe motherhood is another issue directly related to both mother and child health. Giving birth at younger and older ages, birth intervals less than 24 months and large families are seen as high-risk fertility behaviour. The proportion of women in any risk category decreased from 44 to 39% in 1993-2003. Moreover, teenage childbearing decreased from 9 to 7.5% in the same period.

Antenatal care, place of delivery and the person assisting with a delivery are other significant indicators for determining the level of reproductive health services of the country. The proportion of women receiving antenatal care increased from 43 to 81% in 1988-2003 and antenatal care services from a doctor increased from 81 to 93% in the same period. The proportion of adequate health facilities at the place of delivery was 78% in TDHS-2003, as against 60% in 1988 (HUIPS, 1989; HUIPS, 2004).

HIV/AIDS and other sexually transmitted diseases (STD) are seriously threatening individual and public health issues in the contemporary world. In Turkey, the officially reported HIV/AIDS cases by the end of 2004 (http://www.hatam.hacettepe.edu.tr) was 1922, 69% of them males. Despite this low number, the prevalence of this epidemic has increased gradually, since the 1980s. Most of the HIV/AIDS patients caught the disease through homosexual or heterosexual intercourse and in relative young age groups.

In the 8th 5-year Development Plan the aim was to increase the effectiveness of health register systems in order to improve information on and planning for population and health issues, to determine primary groups and fields for reproductive health services, to sustain related services, to increase the quality of reproductive health services and increase the level of coordination and corporation of relevant institutions and other establishments in the field.

Elderly care policies

In Turkey, the proportion of elderly in the total population never exceeded 5% until the end of 20th century. However, the 2000 General Population Census showed that there are 3.9 million people above the age of 65 years, i.e. 6% of the population. Due to the sex differential in mortality the elderly population is a female dominant population: 55% is female. Resulting from declining fertility and mortality the age structure changes significantly and the proportion of elderly will rise. The population of 65+ is expected to reach 10 million in 2030 and 15 million in 2050 (i.e. 19% in total population in 2050, exceeding the world average).

Turkey has to prepare itself, both intellectually and operationally, for such a fast growth of the elderly population. It is now clear from the projections that the increase is significant and inevitable. It would be safe to expect that the elderly demands will also increase and intensify, for example on the health system, the social security system, on the inter-generational equilibrium of power and on elderly care systems. Beyond basic census information little is known, currently, about the characteristics of today's elderly, or of tomorrow's elderly. There is almost no information on their living arrangements, their aspirations, their attitudes toward other generations. Little planning is undertaken to get prepared for such a profound change of the Turkish population. Two Demographic and Health Surveys (TDHS-1998 and 2003) present limited information on elderly living conditions and living arrangements since they include short modules in the household questionnaires on elderly.

The survey results indicate that traditional family bonds prevail and that institutionalisation of elderly is limited. However, there is an important inadequacy of public and private elderly care institutions. Males provide care to themselves and their spouse at earlier ages, however, children are the main providers of elderly care especially for women at higher ages (Hancıoğlu and Ergöçmen, 2001).

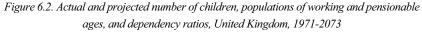
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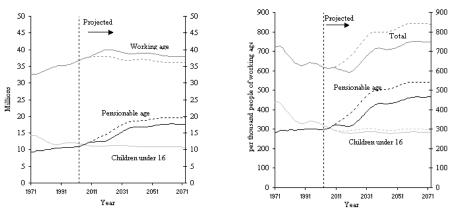
Figure 6.1. Fertility in England and Wales

Source: ONS Birth Statistics Series FM 1

Note: The definition of Total Fertility Rate, and the way in which it is influenced both by completed family size births and by decisions as to the timing of births is explained in Appendix E, which also sets out the argument for believing that a repeat of the 1945-1965 reversal of the downward trend is unlikely.

Data from birth registration on age of mother at birth is only available from 1938. Figures for the years prior to 1938 are ONS estimates.





Note: The 'working age' population is that aged between 16 and state pension age. Between April 2010 and March 2020, state pension age will change from 65 years for men and 60 years for women, to 65 years for both sexes. The dotted lines show what the projected population at working age and pensionable age (and the resulting dependency ratios) would have been, had the present pension age applied throughout.

Updated for 2003-based population projections.

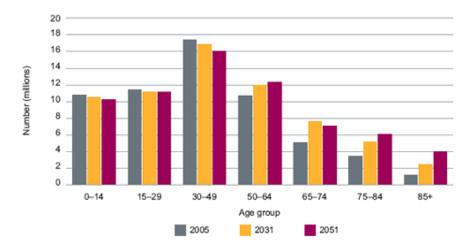
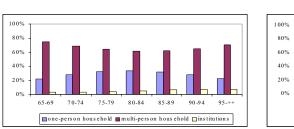
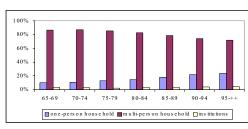


Figure 6.3. Population pyramid, United Kingdom, 2005-2051

Figure 6.4. Dependent persons by sex, age and living arrangements, Poland*



Women



Men

^{*} Persons completely limited in basic activity of daily living.Source: A. Abramowska, Projections of the dependent elderly population by age, sex, and living arrangements in Poland. Paper presented at the IUSSP general Population Conference, 18-23 July 2005, Tours.

Figure 6.5. Time spent on family activities and free time by married men and women with and without children, 2002-2003, Italy

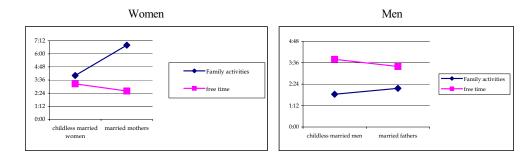


Table 6.1. European Governments, EU-15 and NMS-10 (percentages; in italics percentages of 50 or over; in between brackets number of countries):

1. Views on the rate of population growth, 1976-2003

		Too low	Satisfactory	Too high	Total
1976	Europe	38	62		100 (29)
	EU-15	36	64		100 (14)
	NMS-10		100		100 (4)
1986	Europe	21	79		100 (29)
	EU-15	14	86		100 (14)
	NMS-10	50	50		100 (4)
1996	Europe	30	67	2	100 (43)
	EU-15	13	87		100 (15)
	NMS-10	50	50		100 (10)
2003	Europe	51	47	2	100 (43)
	EU-15	27	73		100 (15)
	NMS-10	90	10		100 (10)

2. Policies on the rate of population growth, 1976-2003

		Raise	Maintain	Lower	No	Total
					intervention	
1976	Europe	28			72	100 (29)
	EU-15	21			<i>79</i>	100 (14)
	NMS-10				100	100 (4)
1986	Europe	28	21		52	100 (29)
	EU-15	21	14		65	100 (14)
	NMS-10	50			50	100 (4)
1996	Europe	26	14	2	58	100 (43)
	EU-15	13	13		74	100 (15)
	NMS-10	50			50	100 (10)
2003	Europe	40	12	2	47	100 (43)
	EU-15	13	13		74	100 (15)
	NMS-10	80			20	100 (10)

3. Level of concern about the ageing of the population, 2003

		Major	Minor	Not a	Total
		concern	concern	concern	
2003	Europe	78	22		100 (40)
	EU-15	87	13		100 (15)
	NMS-10	100			100 (10)

4. Level of concern about the size of the working-age population, 2003

		Major	Minor	Not a	Total
		concern	concern	concern	
2003	Europe	60	34	6	100 (35)
	EU-15	57	43		100 (14)
	NMS-10	60	40		100 (10)

5. Views on the level of fertility, 1976-2003

		Too low	Satisfactory	Too high	Total
1976	Europe	24	76		100 (29)
	EU-15	29	71		100 (14)
	NMS-10		100		100 (4)
1986	Europe	31	69		100 (29)
	EU-15	29	71		100 (14)
	NMS-10	50	50		100 (4)
1996	Europe	42	56	2	100 (43)
	EU-15	33	67		100 (15)
	NMS-10	60	40		100 (10)
2003	Europe	63	37		100 (43)
	EU-15	53	47		100 (15)
	NMS-10	90	10		100 (10)

6. Policies on the level of fertility, 1976-2003

		Raise	Maintain	Lower	No	Total
					intervention	
1976	Europe	24	24		52	100 (29)
	EU-15	29	7		64	100 (14)
	NMS-10		50		50	100 (4)
1986	Europe	28	21		52	100 (29)
	EU-15	21	14		64	100 (14)
	NMS-10	50	25		25	100 (4)
1996	Europe	37	9	2	51	100 (43)
	EU-15	27	7		67	100 (15)
	NMS-10	70			30	100 (10)
2003	Europe	47	9		44	100 (43)
	EU-15	27	7		67	100 (15)
	NMS-10	90			10	100 (10)

7. Policies on providing access to contraceptive methods, 1976-2003

		Limits	No support	Indirect	Direct support	Total
				support		
1976	Europe	10	14	17	59	100 (29)
	EU-15	14	7	28	50	100 (14)
	NMS-10		50		50	100 (4)
1986	Europe	10	14	21	55	100 (29)
	EU-15	7	7	35	50	100 (14)
	NMS-10		25		75	100 (4)
1996	Europe	2	28	14	56	100 (43)
	EU-15		20	20	60	100 (15)
	NMS-10		20	20	50	100 (10)
2003	Europe	2	14	33	51	100 (43)
	EU-15		7	43	50	100 (14)
	NMS-10		10	60	30	100 (10)

8. Level of concern about adolescent fertility, 1996-2003

		Major	Minor	Not a	Total
		concern	concern	concern	
1996	Europe	25	32	43	100 (28)
	EU-15	36	36	27	100 (11)
	NMS-10		43	57	100 (7)
2003	Europe	30	49	22	100 (37)
	EU-15	33	47	20	100 (15)
	NMS-10	30	40	30	100 (10)

9. Policies and programmes addressing adolescent fertility, 1996-2003

		Yes	No	Total
1996	Europe	46	54	100 (28)
	EU-15	63	37	100 (11)
	NMS-10		100	100 (8)
2003	Europe	64	36	100 (39)
	EU-15	73	27	100 (15)
	NMS-10	60	40	100 (10)

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10. Views on the acceptability of the mortality level, 1976-2003

		Acceptable	Unacceptable	Total
1976	Europe	76	24	100 (29)
	EU-15	71	29	100 (14)
	NMS-10	100		100 (4)
1986	Europe	76	24	100 (29)
	EU-15	71	29	100 (14)
	NMS-10	75	25	100 (4)
1996	Europe	65	35	100 (43)
	EU-15	87	13	100 (15)
	NMS-10	50	50	100 (10)
2003	Europe	67	33	100 (43)
	EU-15	93	7	100 (15)
	NMS-10	60	40	100 (10)

11. Level of concern about HIV/AIDS, 1996-2003

		Major	Minor	Not a	Total
		concern	concern	concern	
1996	Europe	61	39		100 (28)
	EU-15	75	25		100 (12)
	NMS-10	50	50		100 (6)
2003	Europe	71	29		100 (41)
	EU-15	67	33		100 (15)
	NMS-10	70	30		100 (10)

12. Views on the acceptability of the level of under-five mortality, 1996-2003

		Acceptable	Unacceptable	Total
1996	Europe	54	46	100 (24)
	EU-15	92	8	100 (13)
	NMS-10	60	40	100 (5)
2003	Europe	71	29	100 (42)
	EU-15	93	7	100 (15)
	NMS-10	70	30	100 (10)

13. Views on the acceptability of the level of maternal mortality, 2003

		Acceptable	Unacceptable	Total
2003	Europe	76	24	100 (42)
	EU-15	92	8	100 (13)
	NMS-10	80	20	100 (10)

14. Views on the spatial distribution of the population, 1976-2003

	•	Major change	Minor change	Satisfactory	Total
		desired	desired		
1976	Europe	7	59	34	100 (29)
	EU-15	14	57	28	100 (14)
	NMS-10		50	50	100 (4)
1986	Europe	7	52	41	100 (29)
	EU-15	14	57	28	100 (14)
	NMS-10	25	25	50	100 (4)
1996	Europe	23	30	47	100 (43)
	EU-15	20	33	47	100 (15)
	NMS-10	20	30	50	100 (10)
2003	Europe	23	42	35	100 (43)
	EU-15	20	40	40	100 (15)
	NMS-10	10	50	40	100 (10)

15. Policies on internal migration into metropolitan areas, 1976-2003

		Raise	Maintain	Lower	No	Total
					intervention	n
1976	Europe	11		58	32	100 (19)
	EU-15	9		72	18	100 (11)
	NMS-10	67		33		100 (3)
1986	Europe	6	6	50	38	100 (16)
	EU-15	13		50	37	100 (8)
	NMS-10			25	75	100 (4)
1996	Europe	12	12	27	50	100 (26)
	EU-15	20	20	10	50	100 (10)
	NMS-10			60	40	100 (5)
2003	Europe	6	9	14	71	100 (35)
	EU-15	8	8	8	77	100 (13)
	NMS-10			10	90	100 (10)

16. Views on the level of immigration, 1976-2003

		Too low	Satisfactory	Too high	Total
1976	Europe		83	17	100 (29)
	EU-15		79	21	100 (14)
	NMS-10		100		100 (4)
1986	Europe		76	24	100 (29)
	EU-15		57	43	100 (14)
	NMS-10		100		100 (4)
1996	Europe		63	37	100 (43)
	EU-15		40	60	100 (15)
	NMS-10		80	20	100 (10)
2003	Europe	9	67	23	100 (43)
	EU-15	13	47	40	100 (15)
	NMS-10	10	60	30	100 (10)

17. Policies on immigration, 1976-2003

		Raise	Maintain	Lower	No	Total
					intervention	
1976	Europe		83	17		100 (29)
	EU-15		79	21		100 (14)
	NMS-10		100			100 (4)
1986	Europe		55	45		100 (29)
	EU-15		36	64		100 (14)
	NMS-10		100			100 (4)
1996	Europe		35	65		100 (43)
	EU-15		7	93		100 (15)
	NMS-10		30	70		100 (10)
2003	Europe	7	56	37		100 (43)
	EU-15	7	53	40		100 (15)
	NMS-10	10	40	60		100 (10)

18. Views on the level of emigration, 1976-2003

		Too low	Satisfactory	Too high	Total
1976	Europe	3	79	17	100 (29)
	EU-15	7	57	36	100 (14)
	NMS-10		75	25	100 (4)
1986	Europe	3	90	7	100 (29)
	EU-15	7	79	14	100 (14)
	NMS-10		100		100 (4)
1996	Europe	2	72	26	100 (43)
	EU-15		93	7	100 (15)
	NMS-10	10	80	10	100 (10)
2003	Europe		74	26	100 (43)
	EU-15		93	7	100 (15)
	NMS-10		80	20	100 (10)

19. Policies on emigration, 1976-2003

		Raise	Maintain	Lower	No	Total
					intervention	
1976	Europe	3	79	17		100 (29)
	EU-15	7	57	36		100 (14)
	NMS-10		75	25		100 (4)
1986	Europe	3	83	14		100 (29)
	EU-15	7	64	29		100 (14)
	NMS-10		100			100 (4)
1996	Europe	2	70	28		100 (43)
	EU-15		13	20	67	100 (15)
	NMS-10	10	20	10	60	100 (10)
2003	Europe	2	70	28		100 (43)
	EU-15	7	7		87	100 (15)
	NMS-10		10	30	60	100 (10)

Source: UN (2005), World Population Policies 2003. Population Division, DESA. New York: United Nations.

Table 6.2. Households by the family number in 1970-2002, Poland

Households		1970		à	1978			1988			2002	
	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural
Total (thousands) (=100%)	9,376		3,986	10,948	6,790		11,970	7,864		13,337	8,965	4,373
One-family	77.8		80.0	77.9	75.7	81.3	75.0	75.1		0.69	9.79	71.9
Two-family	4.6	2.3	7.9	3.8	2.4		4.9	2.8	9.1	4.4	2.8	9.7
Three-family and more	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1		0.2	0.1	0.4
Non-family	17.5	21.5	12.0	18.2	21.8	12.4	19.9	22.0		26.4	29.5	20.1
Source: Own calculations based on Population Censuses of 1970, 1978, 1988 and 2002.	ased on P	opulation	Censuse	s of 1970,	, 1978, 19	88 and 2	002.					

Table 6.3. One-person households by sex, age and place of residence, Poland, Population Census 2002

Age		Total			Urban			Rural	
•	Total	Men	Women	Total		Women	Total	Men	Women
Total (in thousands) (=100%)	3,307	1,353	1,953	2,487	966	1,491	820	358	463
Up to 29 years	14.9	19.8	11.5	16.9		13.5	8.8	13.4	5.3
30-39	11.0	18.2	0.9	11.8		6.7	9.8	15.1	3.5
40-49	13.2	21.0	7.8	13.5		8.9	12.2	22.4	4.4
50-59	14.7	16.3	13.6	15.2		14.9	13.1	18.3	9.1
69-09	17.3	11.6	21.3	17.1		21.2	18.1	13.6	21.5
70+	29.0	13.2	39.9	25.6		34.8	39.2	17.2	56.3

Source: own calculations based on the Population Census 2002

Poland
1970-2002,
by type,
Families .
<i>Table 6.4. 1</i>

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Family type		1970			1978			1988			2002	
	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural
Married couple without children *	20.5	20.2 21.0 22.3 21.7 23	21.0	22.3	21.7	23.3	22.8	23.3 22.8 22.3 23.6 22.7 23.4	23.6	22.7	23.4	21.4
Unmarried couple without children	•	•	•	•	•	ı	1	•	1	8.0	1.1	9.4
Married couple with children *	8.99	65.9 65.9	67.7	64.3	63.4	65.5	8.19	6.09	63.4	56.0	53.2	6.09
Unmarried couple with children	•	1	1	1	•	ı	•	•	•	1.1	1.2	6.0
Mothers with children	11.3	12.	6.6	11.9	13.3	8.6	13.6	15.0 11.3	11.3	17.2	18.8	14.4
Fathers with children	1.4	4 1.4	1.4	1.5	4 1.4 1.5 1.6 1.4 1.8	1.4	1.8	1.8	1.7	2.2	2.3	2.0

According to the Population Census 2002 the percentage of persons in cohabitation and other informal relationships was 1.6% for men and 1.9% for women. * Until 2002 married and unmarried couples were jointly included into that category.

Source: own calculations based on the Population Census 2002.

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		<i>Table</i> 6.5. <i>I</i>	lable 6.3. Population by ag	e, sex and ho.	by age, sex and household position, 1	r, 1988 and 2002, Poland	12, Poland		
Age	Child in two-	Child in one-	One-person	Childless	Couple with	Lone parent	Non-family related	Other	Total
	parent family	parent family	household	couple	children		members		
				Males 1988	: 1988				
0-19	9.08	7.5	0.1	0.0	0.1	0.0	0.5	11.2	100
0-19	9.08	7.5	0.1	0.0	0.1	0.0	0.5	11.2	100
20-64	12.5	5.3	4. 4.	10.6	52.8	8.0	1.0	12.7	100
65+	0.0	0.1	10.1	45.1	17.0	2.8	8.1	17.0	100
Total	35.1	5.6	3.4	9.5	31.8	0.7	1.4	12.5	100
					2002				
0-19	75.7	12.4	0.3	0.0	0.0	0.0	8.0	10.8	100
20-64	15.1	7.4	9.6	10.3	45.5	1.3	8.0	10.0	100
+59	0.0	0.1	13.9	49.7	16.4	3.3	4.6	12.0	100
Total	30.7	8.1	7.4	11.3	29.7	1.1	1.2	10.4	100
				Female	38 I 988				
0-19	78.8	7.7	0.1	0.2	0.3	0.0	8.0	12.1	100
20-64	5.9	2.1	5.3	11.8	52.1	7.1	1.8	13.8	100
+59	0.0	0.2	28.5	19.4	5.6	6.6	21.8	14.6	100
Total	28.1	3.6	6.4	9.1	30.3	5.2	3.9	13.4	100
					2002				
0-19	75.0	12.4	0.4	0.1	0.1	0.1	6.0	11.1	100
20-64	9.1	3.6	7.9	11.9	45.4	6.7	1.4	11.0	100
+59	0.0	0.2	34.1	23.2	0.9	11.9	14.2	10.3	100
Total	24.4	5.3	10.0	10.6	27.9	7.6	3.2	11.0	100
	111	11 11	7117	1 . 0	1.001		2000		

Source: own calculations based on the Household Demographic Survey 1991 and the Population Census 2002; In calculations based on the census data persons with an unknown age are excluded. Household positions: except for the category Other they refer to the household position of members of one-family households and one-person households, the category Other includes persons living in multi-family households and in non-family, multi-person households. A family comprises a couple without children, or a couple with one or more children, or a lone parent with one or more children.

Table 6.6. Sex and age specific unemployment rates, 2003,

	Turkey	
Age	Men	Women
15-19	18.7	16.3
20-24	23.1	20.4
25-29	12.6	13.2
30-34	8.7	9.8
35-39	7.6	6.9
40-44	7.1	5.0
45-49	7.4	3.9
50-54	7.2	2.6
55-59	6.1	1.1
60-64	3.2	1.2
65+	0.8	0.5
Total	10.7	10.1

Source: State Institute of Statistics (http://www.die.gov.tr).

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To inform the social policy debate in the European Union and to provide insights into the social situation in the Member States, the European Commission established a European Observatory on the Social Situation. One of the dimensions that this Observatory covers is demography and to assist the Commission a Demography Network was created. The general task of this Network is to monitor demographic trends and the demographic situation, as well as population-related socio-economic developments and to analyse the policy implications of these trends in the 25 Member States of the European Union. To the extent possible, also the Candidate Countries and Turkey should be included in this monitoring.

The Demography Network is led by the Netherlands Interdisciplinary
Demographic Institute (NIDI) and further consists of the Centre for European
Policy Studies (CEPS, Belgium), the Centre for Social and Economic
Research (CASE, Poland), the German Institute for Economic Research
(DIW, Germany) and the Institute for Advanced Studies (IHS, Austria).
In addition to these research institutes, a group of national experts contributes
to the Demography Network.

The present report (Demography Monitor 2005) reviews the demographic situation and related socio-economic developments in the European Union. The report particularly focuses on three broad and partly related dimensions of the social situation: employment, education and social protection.