

2009 Ageing Report:

Economic and budgetary projections for the EU-27
Member States (2008-2060)

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The 2009 Ageing Report: economic and budgetary projections for the EU-27 Member States (2008-2060)

Joint Report prepared by
the European Commission (DG ECFIN) and
the Economic Policy Committee (AWG)

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This report has been prepared as part of the mandate the Economic and Financial Affairs (ECOFIN) Council gave to the Economic Policy Committee (EPC) in February 2006, to update and further deepen its common projection exercise of age-related expenditure projections on the basis of a new population projection provided by Eurostat.

The report presents projections of the budgetary impact of the ageing population in the 27 EU Member States over the period 2008-2060.

In accordance with its normal practice, the EPC mandated a working group, the Ageing Working Group (AWG) under the chairmanship of Henri Bogaert, to take forward the work needed to discharge this remit.

This report is presented by the EPC and the European Commission (Directorate General for Economic and Financial Affairs – DG ECFIN) after full discussion on the basis of the AWG's comprehensive work. The Directorate-General for Economic and Financial Affairs provided the necessary analysis and calculations used in the report. The demographic projections (EUROPOP2008) were carried out by Eurostat. Valuable contributions were also made by staff of the OECD, the IMF and the ECB.

The report was prepared under the supervision of Gert-Jan Koopman (Director of DG ECFIN), Christian Kastrop (Chair of the EPC), Henri Bogaert (Chair of the AWG) and Giuseppe Carone (Head of Unit-DG ECFIN). The main contributors were Per Eckefeldt, Nuria Diez Guardia, Kamil Dybczak, Bartosz Przywara, Etienne Sail and the members of the AWG (see list of Members below). The EPC and the Directorate-General for Economic and Financial Affairs would like to thank all those concerned.

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SUMMARY AND MAIN CONCLUSIONS

OVERVIEW OF THE 2009 PROJECTION OF AGE-RELATED EXPENDITURE

The mandate and broad principles

Being active, healthy and participative well into old age is now a realistic prospect for very large numbers of citizens for the first time in European history. But an ageing population also raises challenges for our societies and economies, culturally, organisationally and from an economic point of view. Policy makers worry about how living standards will be affected as each worker has to provide for the consumption needs of a growing number of elderly dependents. The seriousness of the challenge depends on how our economies and societies respond and adapt to these changing demographic conditions. Looking ahead, policy makers need to ensure long-term fiscal sustainability in the face of clearly anticipated risks, as well significant uncertainty. This is all the more true as Europe is in the midst of the deepest recession in decades, which is putting an unprecedented stress on workers and companies and is set to have a major impact on the sustainability of public finances.

In 2001, the Stockholm European Council emphasised the need for the Council to “*regularly review the long term sustainability of public finances, including the expected strains caused by the demographic changes ahead*”. In 2006, the ECOFIN Council gave a mandate to the Economic Policy Committee (EPC) to update and further deepen its common exercise of age-related expenditure projections by autumn 2009, on the basis of a new population projection by Eurostat, which was released in April 2008.

In light of this mandate, the EPC developed a work programme with broad arrangements to organise the budgetary projection and reach agreement on its assumptions and methodologies. The projections of all expenditure items are made on the basis of common macroeconomic assumptions endorsed by the EPC and of a “no policy change” assumption, i.e. reflecting only already enacted legislation. This report presents the expenditure projections covering pensions, health care, long-term care, education and unemployment transfers for all Member States.

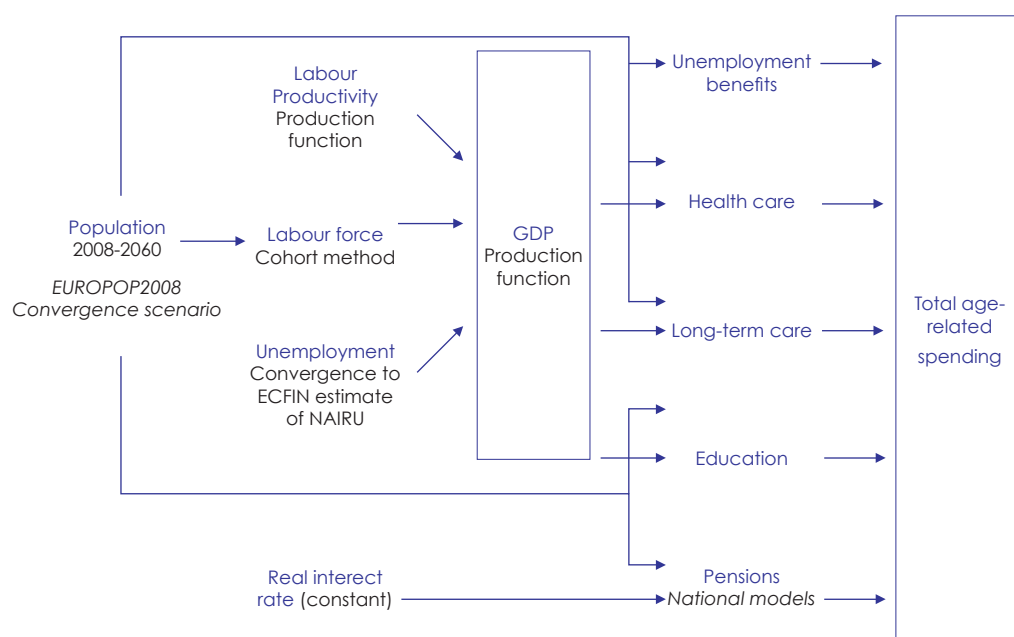
The work was carried out by the EPC Working Group on Ageing Populations (AWG), which gathered experts from the 27 Member States and Norway and the European Commission represented by the Directorate-General for Economic and Financial Affairs (DG ECFIN). DG ECFIN has provided analysis and calculations. The European Central Bank, the OECD and IMF have also contributed. Eurostat has played a central role by preparing demographic projections (EUROPOP2008). Other Commission services have also been associated with the work, especially the Directorate-General for Employment, Social Affairs and Equal Opportunities and the Health and Consumer Protection Directorate-General. The EPC and its AWG coordinated the work with their counterparts in other Council formations, in particular the Social Protection Committee. In the preparation of the population projection, Eurostat actively consulted national statistical institutes in the Member States.

This is the third time since 2001 that long-run economic and budgetary projections aimed at assessing the impact of ageing population have been released. This projection exercise builds on, updates and further improves the previous exercises so as to enhance comparability across countries, consistency across expenditure items and the economic basis for the underlying assumptions. The work has been guided by the principles of simplicity, comparability, consistency, prudence and transparency.

The projections feed into a variety of policy debates at EU level. In particular, they are used in the annual assessment of the sustainability of public finances carried out as part of the Stability and Growth Pact; in the context of the open method of co-ordination on pensions; and in the analysis on the impact of ageing populations on the labour market and potential growth. They are also of great relevance for the Lisbon strategy.

The report is structured in two parts. The first describes the assumptions underlying the population projection, the labour force projection and the other macroeconomic assumptions. The second part presents the projection of expenditure on pensions, health care, long-term care, education and unemployment transfers. A statistical annex gives a country-by-country overview of the main assumptions and results.

Graph 1 - Overview of the 2009 projection of age-related expenditure



Source: Commission services, EPC.

Coverage and general overview

Graph 1 presents an overview of the projection of age-related expenditure for the period 2008 to 2060. The starting point was the population projection EUROPOP2008, produced by Eurostat. Using this, the EPC agreed a common set of assumptions and methodologies to make projections for exogenous macroeconomic variables: the labour force (participation, employment and unemployment rates), labour productivity and the real interest rate. GDP was calculated combining these assumptions.

On this basis, separate budgetary projections were run for five age-related expenditure items. Member States run the projections for pensions using their own national models. The Commission services (DG ECFIN) ran the projections for health care, long-term care, education and unemployment on the basis of projection models for each expenditure item. For each expenditure item, the same projection model was used for the 27 Member States and for Norway. The results of this set of projections were aggregated to provide the overall age-related public expenditure over the next 50 years.

Use of and limitations of long-term projections

To understand the challenges for policy makers, it is useful to begin by considering the age-structure of the population today and how it will look in coming decades. The long-term projections provide an indication of the timing and scale of economic changes that would result from an ageing population in a “no-policy change” scenario. The projections show where, when, and to what extent, ageing pressures will accelerate as the baby-boom generation retires and the average life span continues to

increase. Hence, the projections are helpful in highlighting the immediate and future policy challenges posed for governments by demographic trends.

The long-term projections are not forecasts. Projecting demographic and economic developments over the next 50 years is one of the most daunting analytical tasks facing policy makers. The uncertainty surrounding the projections is high and the longer the projection period, the higher the degree of uncertainty. Although we know a lot, relatively speaking, about workers and pension beneficiaries for the next 20 years, substantial uncertainty remains, for example, on migration flows, the health status of the elderly or the incidence of disability. The projection results are strongly influenced by the underlying assumptions. Finally, given the current juncture of financial and economic crisis, there is also considerable uncertainty concerning medium-term economic developments.

MAIN RESULTS

Demographic projection

Demographic change is transforming the EU: longer lives, low fertility and inward migration are its key aspects. The extent and speed of population ageing depend on future trends in these three factors. Demographic factors are subject to less variation than economic factors over the short run, however they have exhibited much less stability over the medium term of say, 25 years.

Only a modest recovery in total fertility rates, which remain low...

Only a modest recovery in the total fertility rate, which is the average number of births per woman over her lifetime, is assumed for the EU, from 1.52 births per woman in 2008 to 1.57 by 2030 and 1.64 by 2060. In the euro area, a similar increase is assumed, from 1.55 in 2008 to 1.66 in 2060. In all countries, the fertility rate would remain below the natural replacement rate of 2.1 births per woman that is needed in order for each generation to replace itself. This will result in slow growth and in most cases actual declines in the population of working-age.

The fertility rate is projected to increase in all Member States, except in the few where total fertility rates are currently above 1.8, namely France, Ireland, Sweden, Denmark, the UK and Finland, where it is assumed to decrease but remain above 1.85, or remain stable. The largest increases in fertility rates are assumed to take place in Slovakia, Poland and Lithuania, which had the lowest rates in the EU in 2008; here, the increase would occur gradually, approaching the current EU average rates only in 2060.

... while life expectancy continues to increase...

Mortality risks fell dramatically during the 20th century, bringing more years of active life for both men and women. Life expectancy has been rising steadily, with an increase of two and a half years per decade in the countries holding the record of highest life expectancy. If the pace of future progress in the reduction of mortality remains the same as it has been over past decades, most people in the EU will live very long lives. For the EU as a whole, life expectancy at birth for men would increase by 8.5 years over the projection period, from 76 years in 2008 to 84.5 in 2060. For women, life expectancy at birth would increase by 6.9 years, from 82.1 in 2008 to 89 in 2060, implying a narrowing gap in life expectancy between men and women.

The largest increases in life expectancy at birth would take place in the most recent EU Member States, according to the assumptions. Life expectancy for men in 2008 is lowest in Estonia, Latvia, Lithuania, Hungary, Slovakia, Poland, Bulgaria and Romania, where it ranges between 66 and 71 years. It is assumed that some catching-up will take place, with increases in life expectancy of more than 10 years over the projection period – a bigger increase than in the rest of the EU. Overall however, life expectancy at birth is projected to remain below the EU average in all new Member States – except in Cyprus – throughout the projection period, especially for men.

A compression of the spread of life expectancy across the Member States is assumed. For life expectancy at birth for men, it would narrow from 13.1 years in 2008 (from a high of 79 years in Sweden to a low of 65.9 in Lithuania) to 5 years in 2060 (85.5 years in Italy compared with 80.4 in Lithuania). For women, the reduction in the differential is smaller, from 7.7 years in 2008 (84.3 in France to 76.6 in Romania) to 4.1 years in 2060 (90.1 in France to 86.5 in Bulgaria).

Life expectancy at the age of 65 would increase by 5.4 years for men and by 5.2 years for women over the projection period, for the EU as a whole. In 2060, life expectancy at age 65 would reach 21.8 years for men and 25.1 for women. Most children today would live into their 80s and 90s.

... and inward net migration to the EU continues, but on a decelerating trend

Over the projection period, annual net inflows to the EU are assumed to total 59 million people, of which the bulk (46.2 million) would be concentrated in the euro area. The trend is assumed to decelerate over the projection period, falling from about 1,680,000 people in 2008 (equivalent to 0.33% of the EU population) to 980,000 by 2020 and thereafter to some 800,000 people by 2060 (0.16% of the EU population). Migration already plays the predominant role in population growth today: in many Member States, the size of net migration determines whether the population still grows or has entered a stage of decline. The zero migration population scenario shows how the labour force (aged 15 to 64) would gradually fall behind the level in the baseline scenario in the absence of net migration: by 2030, the labour force would be 10% lower and 20% lower in 2060. Making the best use of the global labour supply through net migration will be increasingly important and requires ensuring that immigrants are effectively integrated into the EU's economy and society.

Net migration flows are assumed to be concentrated in a few destination countries: Italy (12 million cumulated to 2060), Spain (11.6 million), Germany (8.2 million), and the UK (7.8 million). According to the assumptions, the change of Spain and Italy from origin to destination countries is confirmed in coming decades. Estonia, Lithuania, Latvia, Poland, Bulgaria and Romania, which are currently experiencing a net outflow, would see it taper off or reverse in the coming decades.

Population structures become increasingly dominated by old people rather than young

The population of the EU as a whole would be slightly larger in 2060 than today, but much older. The population would increase (from 495.4 million in 2008) by almost 5% by 2035, when it would peak (at 520.1 million). A steady decline would then take place, with the population shrinking by nearly 3%, to 505.7 million by 2060.

Half of the population today is 40 years-old or more. In 2060, half of the population will be aged 48 years or above. The number of elderly persons aged 65 or above already surpasses the number of children (below 15) in 2008, but their numbers are relatively close. In 2060, there would be more than twice as many elderly than children. In 2008, there are about three and a half times as many children as very old people (above 80). In 2060, children would still outnumber very old persons, but by a small margin: the number of very old people would amount to 80% of the number of children.

Elderly people would account for an increasing share of the population, according to the projection; this is due to sustained reductions in mortality in past and future decades. The ageing process can be characterised as ageing from the top, as it largely results from projected increases in longevity, moderated by the impact of positive net migration flows and some recovery in fertility.

While the EU population is projected to be slightly larger in 2060 than in 2008, there are wide differences in population trends across Member States: about half of them would gain population (Belgium, Denmark, Ireland, Spain, France, Cyprus, Luxembourg, the Netherlands, Austria, Portugal, Finland, Sweden and the UK), while the population would fall in the other half (Bulgaria, the Czech Republic, Germany, Estonia, Greece, Italy, Latvia, Lithuania, Hungary, Malta, Poland, Romania, Slovenia and Slovakia).

The projections show a significant reduction in the population aged 15-64 ...

The working-age population, which is conventionally defined as aged between 15 and 64 years, would start to decline as of 2010 and, over the whole projection period, it would drop by 15 per cent in the EU. However, 7 Member States would see their working-age population expand: Belgium, Ireland, France, Cyprus, Luxembourg, Sweden and the UK, mostly due to migration (except in the case of France and Ireland where fertility is relatively high). The number of children is projected to decline gradually from 2020 onwards.

... and an increase in the number of elderly persons aged 65 or more...

The number of elderly people will increase very markedly, according to the projection. It will almost double, rising from 85 million in 2008 to 151 million in 2060 in the EU. The number of oldest-old (aged 80 years and above), is projected to increase even more rapidly, almost tripling from 22 million in 2008 to 61 million in 2060. The progressive ageing of the elderly population itself is a notable aspect of population ageing.

... leading to a doubling of the old-age dependency ratio in the EU

As a result of these unprecedented demographic trends, the old-age dependency ratio, calculated as the ratio of people aged 65 or above relative to the working-age population aged 15-64, is projected to more than double in the EU from 25.4% to 53.5% over the projection period. The largest increase is expected to occur during the period 2015-35, with year-on-year increases above 2 percentage points. This means that the EU would move from having 4 persons of working-age for every person aged over 65 to a ratio of only 2 to 1. When adding the number of children to the calculation, the ratio of dependent to active is projected to rise by nearly 30 percentage points. These population trends underpin future trends in the labour market which are of crucial importance for economic growth. An indicator of the challenges ahead is the ratio of non workers to workers, or the economic dependency ratio.

Labour force assumptions

Labour participation rates to increase ...

For the EU as a whole, the participation rate (of people aged 15 to 64) is projected to increase by 3.5 percentage points, from 70.6% in 2007 to 74.1% in 2060. For the euro area, a similar increase is projected, from 70.8% in 2007 to 74.5% in 2060. Almost all of the increase is projected to materialise before 2020.

The biggest increase in participation is projected for older workers, aged between 55 and 64 (around 20 percentage points for women and 10 p.p. for men in the EU27), and a slightly higher increase in the euro area (22 p.p. for women and 13 p.p. for men). The gap between male and female participation rates would gradually narrow, especially in countries where it is currently wide.

... but labour supply will decline because of the future population trends

The labour force in the EU would increase by 3.7% between 2007 and 2020, according to the projection. In numbers, this means roughly 8.6 million people. In the euro area, an increase of almost 5% is projected, about 7.4 million people. This is mainly due to the rise in the labour supply of women. However, the positive trend in female labour supply is projected to reverse after 2020 and, as the male labour supply drops too, the overall labour force is expected to decrease by as much as 13.6%, equivalent to around 33 million people (24.4 million if compared with the number in 2007) in the EU. In the euro area, the reduction of labour supply between 2020 and 2060 would reach 12.6%, which translates into 20.4 million people (13 million if compared with the number in 2007).

At Member State level, a majority of countries would see their labour supply expand until 2020. However, eleven Member States (Denmark, the Netherlands, Finland, the Czech Republic, Estonia, Lithuania, Latvia, Poland, Slovenia, Bulgaria and Romania) will even over the next decade record a reduction in labour supply. After 2020, most countries are projected to have a shrinking labour supply over the period 2020 to 2060, except Cyprus (+19.8%), Luxembourg (+19.5%), Ireland (+11%), the UK (+9.2%), France (+3.1%) and Sweden (+2.2%). The projected decrease in the labour force after 2020 is to be ascribed almost exclusively to negative demographic developments, given that labour participation rates are projected to continue their increase, albeit at a slower pace than during the period 2007 to 2020.

According to the assumptions, the unemployment rate would be reduced slightly...

Overall, a reduction in the EU unemployment rate of around 1 ½ percentage points is assumed (from 7.2% in 2007 to 5.7% in 2020). A fall of a similar magnitude is assumed for the euro area (from 7.5% in 2007 to 5.9% in 2020).

... the employment rate would increase...

According to the assumptions, the employment rate (of people aged 15 to 64) in the EU would increase from 65.5% in 2007 to 66.6% in 2010, 69% in 2020, and almost 70% in 2060. In the euro area, the trend would be similar and the employment rate would surpass 70% at the end of the projection period.

Reflecting recent positive trends, the employment rate of women is assumed to rise from 58.4% in 2007 to 63.4% in 2020 and to 65.1% in 2060. The increase in the employment rate will be even larger for older workers (55-64), from 44.9% in 2007 to 54.5% in 2020 and further to 59.8% in 2060. For the euro area, the increase in the employment rate of older workers (55-64) is higher than in the EU, rising by 17.7 p.p. compared with 14.9 p.p. in the EU and reaching 60%.

... but the number of workers would shrink.

However, the number of people employed¹ would record an annual growth rate of only 0.4% until 2020, before reversing to a negative annual growth rate of a similar magnitude until 2060. As a result of increasing employment rates, on the one hand, and a decreasing number of people, on the other hand, overall employment in the EU is projected to shrink by about 19 million people over the entire projection period. Increasing labour force participation rates in most countries and rising net immigration levels in some can only moderate the fall in employment caused by the ageing of the population and the negative population growth of the period 2020 to 2060.

Labour input (hours of work) is projected to decline

According to the projection, the labour input, measured by total hours of work in the EU, would increase by 5.4% until 2020. A reversal would start in 2020 and hours worked are expected to fall by 12.9% between 2020 and 2060. Over the entire projection period, total hours of work are projected to decline by 8.2%. For the euro area, a milder fall is projected (-5.7% between 2007 and 2060). In annual average growth rates, hours of work are projected to fall by 0.2% in the EU and by 0.1% in the euro area, over the period 2007 to 2060. These trends reflect projected employment trends and a composition effect, due to the increasing share of employed persons working part-time (mainly due to the increase in women in employment who are more likely to work part-time).

In line with different demographic trends, a reduction in labour input is projected in 18 Member States over the period 2007 and 2060, with drops of 20% and more in Bulgaria, the Czech Republic, Germany, Estonia, Latvia, Lithuania, Hungary, Poland, Romania, Slovenia and Slovakia. In contrast,

¹ According to the European Labour Force Survey definition.

a few Member States would see an increase in hours worked (Belgium, Ireland, Spain, France, Cyprus, Luxembourg, Sweden and the UK).

The ratio of elderly non-workers to workers will rise steeply

It is important to consider the ratio of elderly non-workers to workers, or the effective economic old-age dependency ratio, when assessing the impact of ageing on budgetary expenditure, above all for pension public schemes. For the EU27, the ratio is projected to rise sharply from 37% in 2007 to 72% in 2060. This means that Europe would move from having a ratio of nearly 4 elderly non workers for 10 workers in 2007 to a ratio of more than 7 to 10. In the euro area, a similar change is projected, with the effective old-age dependency ratio rising from 39% in 2007 to 73% in 2060. Extremely high values are projected in some EU countries. In Poland and Romania, the projections point to a situation in which by 2060, there will be as many or even more inactive old persons than people working. The ratio will be 90% or more in Bulgaria, Lithuania, Hungary, Malta and Slovakia. By contrast, it is projected to be smaller than two thirds in Denmark, Ireland, France, Cyprus, Luxembourg, Netherlands, Austria, Portugal, Finland, Sweden, the UK and Norway.

Macroeconomic assumptions: labour productivity and potential growth rates

Total factor productivity is assumed to converge to 1.1%

Total factor productivity (TFP) drives labour productivity growth in the long-run. A prudent assumption was set: Member States' TFP growth rates are assumed to converge to a long-term historical average in the EU of 1.1%, as was seen over the period 1970 to 2004, which is close to productivity growth in the US over the same period. The speed of convergence is determined by the relative income position of the Member States. Specifically, the lower the current GDP per capita, the higher the real catching-up potential, which materialises by a period of higher TFP growth.

A sharp decline in potential growth rate is projected

Even without incorporating the potential negative impact of the current economic crisis, the annual average potential GDP growth rate in the EU is projected to fall from 2.4% in the period 2007-2020, to 1.7% in the period 2021-2040 and to a meagre 1.3% in the period 2041-2060. Output growth rates in the euro area are very close to those in the EU27 over the projection period, as the area represents more than two thirds of total EU27 output. While all EU Member States would experience a future slowdown in their potential growth rates, owing to the adverse impact of demographic trends, growth rates would differ substantially from country to country.

The sources of economic growth are also projected to change: labour productivity will become the key driver of growth in the EU

For the EU, labour productivity growth is projected to remain fairly stable at close to 1.7%. The small increase in the growth rate expected until the 2030s is due to the higher productivity growth assumed in Member States that are catching up. Total hours of work – the labour input – are projected to increase up to the 2020s. Thereafter, demographic ageing, with a reduction in the working-age population, is expected to act as a drag on growth. Over time, labour productivity will become the only driver of growth in the EU.

In the first half of the projection period, the main source of the divergence across countries is productivity growth, due to different rates at the outset of the projection and different trends according to the catching-up potential. In the latter part of the projection period, developments in the labour input have a dominant role in explaining divergent patterns, working through different demographic developments.

BUDGETARY PROJECTIONS

Results of the long-term age-related public expenditure projections

The budgetary projections point to sizeable fiscal challenges coming from a higher share of the total population in older age cohorts and a decline in the economically active share of the population. The fiscal impact of ageing is projected to be substantial in almost all Member States, with effects becoming apparent already during the next decade. On the basis of current policies, age-related public expenditure is projected to increase on average by about 4 $\frac{3}{4}$ percentage points of GDP by 2060 in the EU – and by more than 5 percentage points in the euro area (see Table 1). Most of the projected increase in public spending over the period 2007-2060 will be on pensions (+2.4 p.p. of GDP), health care (+1.5 p.p. of GDP) and long-term care (+1.1 p.p. of GDP). Potential offsetting savings in public spending on education and unemployment benefits are likely to be very limited (-0.2 p.p. of GDP for each item).

In terms of the different Member States situation, the following points can be made:

- The age-related increase in public spending will be very significant in nine Member States (Luxembourg, Greece, Slovenia, Cyprus², Malta, Romania, the Netherlands, Spain and Ireland) with a projected increase of 7 p.p. of GDP or more, although for some countries the large increase will be from a fairly low level. These Member States have so far made only limited progress in reforming their pension systems or have maturing pension systems.
- For a second group of countries – Belgium, Finland, the Czech Republic, Lithuania, Slovakia, the UK, Germany and Hungary³ – the age-related increase in public spending is more limited, ranging from 4 p.p. to 7 p.p. of GDP. Several of these countries have taken significant steps in reforming public expenditure systems that contribute to limit the increase in future expenditure.⁴
- Finally, the increase is more moderate, 4 p.p. of GDP or less, in Bulgaria, Sweden, Portugal, Austria, France, Denmark, Italy, Latvia, Estonia and Poland; this is also thanks to the implementation of substantial pension reforms. For many of them, the projected increase in expenditure on health-care and generally on long-term care is higher than increases in pensions.

Coping with the challenge posed by an ageing population will require determined policy action along the three-pronged strategy decided by the Stockholm European Council in 2001, i.e.: (i) reducing debt at a fast pace; (ii) raising employment rates and productivity; and (iii) reforming pension, healthcare and long-term care systems.

These results reveal that in some countries, there is a need to take due account of future increases in government expenditure, including through modernisation of social expenditure systems. In others, policy action has been taken, significantly limiting the future increase in government expenditure. A comprehensive assessment of risks to the long-term sustainability of public finances, including the identification of relevant policy responses, will be made in the 2009 update of the Commission's Sustainability Report.

² The projections do not take into account legislation enacted on March 6 2009 involving reform of the Social Insurance Fund, including stricter criteria for eligibility for pension benefits. Details of this reforms and their significant impact on the public finances are outlined in the stability programme of Cyprus for 2008-2012 of March 13 2009.

³ A part of the increase in gross pension expenditures from 2007 to 2060 in Hungary is explained by the introduction of pension taxation as of 2013 and so does not reflect an increase in expenditures effectively burdening the budget. Taxes on public pensions in 2060 are calculated to be 0.7% of GDP.

⁴ The projection results for public spending on long term care use the methodology agreed by the AWG/EPC. In the case of Germany, it does not reflect current legislation where benefit levels are indexed to prices only. A scenario which reflects current rules projects that public spending would remain constant as a share of GDP over the projection period. The increase of the total age related costs would then be lower than 4 p.p. of GDP.

Pension reforms implemented in recent years in some Member States are having visible positive impacts (most recently in the Czech Republic, Hungary, Denmark and Portugal). They have sharply reduced the projected increase in public pension expenditure in recent years, diminishing the budgetary impact of ageing. Nonetheless, in some countries, the scale of reforms has been insufficient and they need to be pursued further to cope with the inexorable increasing share of older persons in Europe. At the same time, implementing other measures, for instance promoting higher employment rates of older workers that contribute to more adequate retirement incomes in the future might be required in order to ensure the lasting success of already implemented pension reforms.

There is an inherent degree of uncertainty when making projections over the very long-term. Sensitivity tests were carried out so as to verify the robustness of the projection results with respect to changes in key determinants of economic and budgetary variables. The sensitivity tests show that budgetary projections are relatively robust to varying assumptions on figures such as the employment rate, the labour productivity growth rate or the assumption on life expectancy, if the figures are marginally changed, as this does not fundamentally alter the conclusions drawn on the basis of the baseline projection results. These tests cannot fully capture the possible effects, however, that policy changes or changes in the relative scarcity of labour and capital may have on future factor inputs, for example, by lowering the structural rate of unemployment in individual Member States. However, the tests also show that the impact differs across the Member States. For instance, the impact on pension expenditure of changes in the assumption on life expectancy or on the productivity growth rate depends on the design of the public pension scheme. The sensitivity tests provide interesting information on the relative robustness of particular pension schemes to specific factors and may also be of use to assess the impact of possible policy changes. For the other age-related expenditure items, a set of alternative scenarios were also run in order to get a fuller understanding of the results.

At the current juncture, uncertainty over the medium-term economic prospects is exceptionally high. For this reason, additional scenarios were run to capture the potential impact of the economic crisis, by simulating both temporary and permanent shocks to economic activity. These simulations show that there might be a sizeable adverse economic and budgetary impact over the long-term compared with the baseline scenario, and that the impact would be higher the longer it takes to get back on track. Hence, these additional simulations provide useful information on the sensitivity of the projection results with respect to shocks, which is crucial for its interpretation notably at times characterized by unusually large uncertainties.

Table 1 – Age-related government expenditure, 2007-2060, percentage points of GDP

	Pensions			Pensions			Long-term care			Long-term care			Education		
	Level	Change	2007-2035	Level	Change	2007-2060	Level	Change	2007-2035	Level	Change	2007-2060	Level	Change	2007-2035
	2007	2007-2035	2007-2060	2007	2007-2035	2007-2060	2007	2007-2035	2007-2060	2007	2007-2035	2007-2060	2007	2007-2035	2007-2060
BE	10.0	4.4	4.8	7.6	1.0	1.2	1.5	0.7	1.4	1.9	-0.4	-0.4	5.5	-0.1	0.0
BG	8.3	0.7	3.0	4.7	0.6	0.7	0.2	0.1	0.2	0.1	0.0	0.0	3.3	-0.5	-0.2
CZ	7.8	-0.2	3.3	6.2	1.4	2.2	0.2	0.2	0.4	0.1	0.0	0.0	3.5	-0.5	-0.3
DK	9.1	1.4	0.1	5.9	0.8	1.0	1.7	1.1	1.5	1.0	-0.2	-0.2	7.1	0.4	0.2
DE	10.4	1.4	2.3	7.4	1.4	1.8	0.9	0.7	1.4	0.9	-0.3	-0.3	3.9	-0.5	-0.4
EE	5.6	-0.2	-0.7	4.9	0.7	1.2	0.1	0.0	0.1	0.1	0.0	0.0	3.7	-0.4	-0.2
IE	5.2	2.8	6.1	5.8	0.9	1.8	0.8	0.4	1.3	0.8	0.1	0.1	4.5	-0.4	-0.3
EL	11.7	7.7	12.4	5.0	0.9	1.4	1.4	0.8	2.2	0.3	-0.1	-0.1	3.7	-0.3	0.0
ES	8.4	3.4	6.7	5.5	1.0	1.6	0.5	0.5	0.9	1.3	-0.4	-0.4	3.5	-0.3	0.1
FR	13.0	1.4	1.0	8.1	1.0	1.2	1.4	0.5	0.8	1.2	-0.3	-0.3	4.7	0.0	0.0
IT	14.0	1.2	-0.4	5.9	0.9	1.1	1.7	0.5	1.3	0.4	0.0	0.0	4.1	-0.6	-0.3
CY	6.3	5.4	11.4	2.7	0.4	0.6	0.0	0.0	0.0	0.3	-0.1	-0.1	6.1	-1.2	-1.2
LV	5.4	0.7	-0.4	3.5	0.4	0.6	0.4	0.2	0.5	0.2	0.0	0.0	3.7	-0.6	-0.3
LT	6.8	1.9	4.6	4.5	0.7	1.1	0.5	0.2	0.6	0.1	0.0	0.0	4.0	-1.0	-0.9
LU	8.7	8.0	15.2	5.8	0.9	1.2	1.4	0.7	2.0	0.4	0.0	0.0	3.8	-0.5	-0.5
HU	10.9	0.6	3.0	5.8	0.7	1.3	0.3	0.1	0.4	0.3	-0.1	-0.1	4.4	-0.7	-0.4
MT	7.2	2.5	6.2	4.7	2.2	3.3	1.0	0.9	1.6	0.4	0.0	0.0	5.0	-1.2	-1.0
NL	6.6	3.4	4.0	4.8	0.9	1.0	3.4	2.8	4.7	1.1	-0.1	-0.1	4.6	-0.2	-0.2
AT	12.8	1.2	0.9	6.5	1.2	1.5	1.3	0.6	1.2	0.7	0.0	0.0	4.8	-0.6	-0.5
PL	11.6	-2.3	-2.8	4.0	0.7	1.0	0.4	0.2	0.7	0.1	-0.1	-0.1	4.4	-1.3	-1.2
PT	11.4	0.9	2.1	7.2	1.0	1.9	0.1	0.0	0.1	1.2	-0.4	-0.4	4.6	-0.6	-0.3
RO	6.6	5.0	9.2	3.5	0.7	1.4	0.0	0.0	0.0	0.2	0.0	0.0	2.8	-0.6	-0.5
SI	9.9	4.9	8.8	6.6	1.4	1.9	1.1	0.9	1.8	0.2	0.0	0.0	5.1	-0.2	0.4
SK	6.8	1.0	3.4	5.0	1.5	2.3	0.2	0.1	0.4	0.1	-0.1	-0.1	3.1	-1.0	-0.8
FI	10.0	3.9	3.3	5.5	0.9	1.0	1.8	1.7	2.6	1.2	-0.2	-0.2	5.7	-0.2	-0.3
SE	9.5	-0.1	-0.1	7.2	0.6	0.8	3.5	1.3	2.3	0.9	-0.1	-0.1	6.0	-0.3	-0.3
UK	6.6	1.3	2.7	7.5	1.2	1.9	0.8	0.3	0.5	0.2	0.0	0.0	3.8	0.0	-0.1
NO	8.9	4.3	4.7	5.6	1.0	1.3	2.2	1.2	2.7	0.2	0.2	0.2	7.9	0.1	0.1
EU27	10.2	1.7	2.4	6.7	1.0	1.5	1.2	0.6	1.1	0.8	-0.2	-0.2	4.3	-0.3	-0.2
EA	11.1	2.1	2.8	6.7	1.0	1.4	1.3	0.7	1.4	1.0	-0.2	-0.2	4.2	-0.3	-0.2
EU15	10.2	1.8	2.4	6.9	1.0	1.5	1.3	0.6	1.2	0.8	-0.2	-0.2	4.3	-0.3	-0.1
EU12	9.2	0.4	2.3	4.7	0.8	1.3	0.3	0.2	0.5	0.2	0.0	0.0	3.9	-0.9	-0.7
EU25	10.2	1.6	2.3	6.8	1.0	1.5	1.2	0.6	1.2	0.8	-0.2	-0.2	4.3	-0.3	-0.2
EA12	11.1	2.1	2.8	6.7	1.0	1.4	1.3	0.7	1.4	1.0	-0.2	-0.2	4.2	-0.3	-0.2
EU10	9.7	-0.5	1.0	4.9	0.9	1.4	0.4	0.2	0.6	0.2	0.0	0.0	4.2	-1.0	-0.8

Source: Commission services, EPC.

The projection results for public spending on pensions

For the EU, the projections show an increase in public pension expenditures of 2.4 p.p. of GDP over the period 2007-2060. For the euro area, a slightly larger increase of 2.8 p.p. of GDP is projected. The diversity across Member States is very large. Public pension expenditure (social security pensions) is projected to increase by more than 10 p.p. of GDP in 3 Member States (Greece, Cyprus, and Luxembourg). Spending is expected to grow by between 5 and 10 p.p. of GDP in another five Member States (Ireland, Malta, Spain, Romania, Slovenia). In most Member States (Belgium, Bulgaria, the Czech Republic, Germany, France, Lithuania, Hungary, the Netherlands, Austria, Portugal, Slovakia, Finland, the UK), the change of the ratio is below 5 p.p. By contrast, in Denmark, Sweden, Latvia, Italy, and Estonia the ratio either stays at the 2007 level or drops below it. Some countries are projecting a decrease over the entire period of projections (Poland, Estonia, Denmark, Italy and Latvia), although this masks an increase over part of the projection period (such as in the case of Italy).

The lion's share of the projected increase in public pension expenditure is due to old-age and early pensions, while, given their limited size, a smaller increase is projected for other pension expenditure, mainly disability and survivor pensions, which increase only slightly (0.1 p.p. of GDP) in the euro area. As regards disability and survivor pensions, they are projected to increase only in 8 countries (Portugal, Romania, Slovenia, Slovakia, Finland, Sweden, the UK and Norway), although these increases would be slight.

The demographic transition to an older population is the main driver behind the projected increase in public pension expenditure. This effect alone would push up expenditures very significantly in all Member States (especially in Slovenia, Romania, Poland, Greece, although more limited in the UK, Estonia, Sweden, Latvia). However, some factors, also related to past reforms of pension systems, are expected to mitigate the increase:

- *a tightening of the eligibility for a public pension* (through higher retirement age and/or reduced access to early retirement and better control of alternatives to early retirement like disability pensions) would constrain public pension expenditure in nearly every Member State. In the large majority of countries, it reflects implemented pension reforms, often phased-in over a long period, that lead to higher participation rates of older workers during the projection period. For instance, pension reforms that have strengthened the link between pension benefits and pension contributions (or raised the threshold for qualifying for a “full” pension), can also contribute to raising the retirement age. Trend increases in female labour force participation also lead to an increase in the effective retirement age in a large majority of countries;
- *higher employment rates* are projected as reforms that provide stronger work incentives reduce structural unemployment rates in a number of countries;
- *reduced generosity of pensions relative to wages*. It is captured at an aggregate level by the pension benefit ratio, i.e. the average pension as a share of the average wage. This effect shows very considerable differences across EU Member States. In some (Denmark, Ireland, Greece, Cyprus, Romania, the UK), average pensions relative to wages remain unchanged or even increase over the projection period, while in most others, and especially in Bulgaria, Estonia, France, Italy, Latvia, Austria, Poland, Portugal, Slovakia, and Sweden they are projected to have fallen significantly by 2060. While resulting in budgetary savings, the adequacy of pensions should be kept under review. Inadequate pension levels may lead to future demands for ad-hoc government interventions to address declines in public pensions relative to wage developments and the risk of poverty of pensioners. Generally, several issues merit attention: (i) removing supply-side barriers to allow persons to continue to work as they grow older; (ii) putting in place flexible mechanisms that allow older persons to choose to retire even beyond the statutory retirement age and affect the size of their eventual pension benefit; (iii) introducing incentives for employees/employers to prolong working lives/retain older workers in the workforce; (iv) allowing for part-time old-age retirement, as a way of combining adequate incomes for older persons with improving

the labour supply in the economy, as well as making more attractive the continued contribution of older workers; (v) providing relevant and accessible information on the need for people to rely on a range of different income sources once retired in the future. Incentives for private savings can take many different forms, ranging from making contributions to private pensions schemes compulsory, to providing tax breaks for regular private pension savings.

A number of countries have implemented systemic pension reforms, shifting part of the previously public pillar to a mandatory funded private pillar (Bulgaria, Estonia, Latvia, Lithuania, Hungary, Poland, Romania, Slovakia and Sweden). At present, these private pillars are making very small disbursements since they mainly only started to be implemented during the previous decade, but their importance will increase in the future. Some countries (e.g. Sweden, Denmark and the Netherlands) also rely on second pillar occupational pension to a certain extent. Third pillar non-mandatory pension schemes are increasingly being introduced, but their importance is generally small. There are potential policy issues with “privatizing pensions”. While it reduces explicit public finance liabilities and improves the sustainability of public finances, moving towards an increasing role for private sector pension provision creates new challenges and risks for both pensioners and policy makers. In particular, the importance of appropriate regulation of private pension funds and of careful surveillance of their performance for securing adequate retirement income becomes a more and more demanding political task, as the current financial and economic crisis has made adamantly clear. Furthermore, since many occupational and private pensions are to a very large part funded, their contribution to future retirement income will be affected by the crisis. Large losses in equity prices can have strong lasting effects on the future pension benefit.

In sum, the projections reveal that pension policies in a majority of EU Member States are: (i) reducing the generosity of public pension schemes to make these programmes financially more sustainable in view of the demographic trends; (ii) pushing up the statutory retirement age in a gradually phased way for old-age pensions; (iii) restricting access to early retirement schemes by strengthening the incentives to prolong working lives, which leads to a containment of the increase in old-age and early pensions spending. The projections show no increase in disability and survivor pensions, embodying an assumption of lower take-up rates of these transfers. However, a number of countries (Greece, Cyprus, Luxembourg, Malta, Spain, Romania and Slovenia) have made only limited progress so far in reforming their pension systems or are experiencing maturing pension systems and escalating spending. For them, there is an urgent need for a modernisation of pension systems, to start bending back the curve of long-term costs.

The projection results for public spending on health care

Projecting public spending on health care over the long-run for 27 Member States (and Norway) is a highly complex exercise, given the uncertainties regarding future trends in the drivers of spending, the limited availability of comparable data and the complex institutional settings of national health care systems. The model used in the exercise attempts to quantify in the most accurate way, given data limitations, the impact of demographic changes and of the evolution of a number of non-demographic drivers on public health care expenditure.

According to the “AWG reference scenario” (a prudent scenario which takes into account the combined impact of ageing, potential improvements in health status, and the effect of changes in the national income), public expenditure on health care is projected to grow by 1.5% of GDP (from 6.7% in 2007 to 8.2% in 2060) in the EU on average, while for individual countries the increase ranges from less than 1% of GDP in Cyprus, Bulgaria and Sweden to more than 3% of GDP in Malta.

The projected increase in health care spending is driven mostly by the change in the demographic structure of the population. Its impact is measured by the “pure demographic scenario” which projects an average increase of 1.7% of GDP. However, as empirical evidence suggests, it is the health status, rather than age, which is the predominant causal factor behind health care spending. Under more optimistic assumptions about the health status evolution (illustrated by the “constant health scenario”), the demographic pressure on health care expenditure could be reduced by over a half, to only 0.7%

of GDP. Caution should be exercised; however, as there is inconclusive evidence that a strong improvement in health status will benefit older persons, especially as regards chronic illnesses.

The increase in living standard conditions is another important driver of health care costs, affecting the demand for health care mainly through higher expectations on quantity and quality of care to be provided by the State. Using an estimate for income elasticity of demand of 1.1%, the projections predict that an extra 0.4% of GDP increase will be added to the pure demographic effect.

The impact of the most important demand side factors is quantified by the model with a high degree of plausibility. As for modelling supply side drivers, in particular many efforts have been devoted during this exercise to analyse the technological impact but the degree of uncertainty on the results remains too high. Stylised scenarios show that future developments both in wages and investment in technology, the two main components of health care costs, can be expected to push expenditure further up above the levels projected by the scenarios which take account of demand-side factors only. Analysis of past trends in health care expenditure suggests that technological developments are responsible for a significant part of overall costs growth, which may result in a significant increase in spending which is not captured in the projection. On the other hand, depending on budget constraints of publicly financed health systems, cost-saving technical progress might play a role in the future. In this context, the effective management of technology seems to be of utmost importance; otherwise the expenditure savings resulting from lower unit costs could easily be outstripped by the costs of meeting additional demand for new and better treatments. In any case, the increase in expenditure resulting from higher quality treatments in the future can be expected to be borne by those generations that benefit from these technological developments.

The projection results for public spending on long-term care

An ageing population will have a strong upward impact on public spending for long term care. This is because frailty and disability rise sharply at older ages, especially amongst the very old (aged 80+) which will be the fastest growing segment of the population in the decades to come.

According to the “AWG reference scenario” based on current policy settings, public spending on long-term care is projected to double, increasing from 1.2% of GDP in 2007 to 2.3% of GDP in 2060 in the EU as a whole. The projected absolute changes range from less than ¼% of GDP in Bulgaria, Estonia, Cyprus, Portugal and Romania to more than 2% of GDP in Greece, the Netherlands, Finland, Sweden and Norway, reflecting very different approaches to the provision/financing of formal care. Given that the initial level of spending affects to a large extent the projected increase in p.p. of GDP, an increase in relative terms (from 60% of the initial level in the UK to over 200% in Romania, Malta and Slovakia) illustrates somewhat better the degree of the challenge facing European societies.

There is significant uncertainty as regards future developments in public expenditure on long-term care and there may be scope for higher expenditure as the no-policy change assumption embodied in the projection does not take into account possible future societal trends. With an ageing population, the number of disabled elderly people who rely on informal care only would nearly double in the EU27, and increase by more than 120% in seven Member States: the Czech Republic, Ireland, Cyprus, Luxemburg, Poland, Romania and Slovakia. Without policy changes in the provision of long-term care, a growing gap may occur between the number of elderly citizens with disability who are in need of care and the actual supply of formal care services. On top of an ageing population, this gap could further grow as changes in family structure and the growing participation of women to the labour market may constrain the future supply of informal care provision within households and families. On the other hand, the continued increase of life expectancy would bring a higher potential supply of informal care by old partners and retired children. In brief, for countries which today have less developed formal care systems, the headline projected increase in public spending on long-term care could only partially capture the pressure on public finances, as societal demand for future policy changes in favour of more formal care provision will emerge and be difficult to resist.

Public expenditure is sensitive to trends in the prevalence of disability among the elderly. An improved disability status would lead to a lower number of disabled persons by age in the future who would have some need for care. This would moderate any future increase in expenditure due to ageing populations; compared with the AWG reference scenario, the projected change in spending would be 0.1 p.p. lower if the disability status of elderly citizens improves broadly in line with the projected increase in life expectancy. The available evidence indicates that the ageing of the population and the extended longevity of people can be expected to lead to increasing numbers of elderly with severe disability and in need of long-term care in some Member States, so it would not be prudent for policy makers to anticipate strong moderation of future expenditure on account of future reductions in disability.

The unit (per patient) cost of formal care in an institution is relatively higher than the cost of a unit of care provided in the home of the beneficiary (linked to the degree of disability), which translates into higher increases in long-term care expenditure projected when additional long-term care services are provided in institutions rather than at home.

However, improvements in health status can reduce disability and policy measures which either limit the need for formal care amongst elderly citizens with disabilities or favour more efficient formal care provision at home or in institutions may contribute to limiting the expected increase in public expenditure.

The projection results for public spending on education

The ratio of children and young people to the working-age population is expected to shrink over the coming decades, pointing to fewer students relative to the working population. The baseline scenario estimating the pure consequences of expected demographic changes indicates a potential for a small decline in public expenditure on education in the EU as a whole (from 4.3% of GDP in 2007 to 4.1% of GDP in 2060) and in almost all the Member States.

However, the baseline projection does not take into account that public expenditure on education as a share of GDP could even increase, when incorporating the assumptions that there will be changes in education policy aiming at the necessary improvement in the quality of education, reduction in class sizes, increases in the attainment level of education of future generations, implementing life long learning initiatives or attempts to prevent the outflow of qualified staff by offering faster growing salaries. Indeed, current objectives on education policy and targets in EU Member States, such as the recently adopted targets for higher educational attainment and reduced drop-out rates, suggest that educational spending might well increase rather than fall.

The projection results for public spending on unemployment transfers

In order to more broadly assess the total impact of ageing on public finances, and to guarantee consistency with the underlying macroeconomic scenario, projections on unemployment benefit expenditure were carried out. The number of unemployed persons in relation to the number of people who are working is expected to shrink over the projection period. On this basis, unemployment benefit spending in the EU is projected to be slightly lower over the long run (moving from 0.8% of GDP in 2007 to 0.6% in 2060). This figure rests on the assumption that structural unemployment will stay unaltered in the face of significant demographic change. If the structural unemployment rate, on the other hand, would fall by more than the one percentage point assumed in the sensitivity test, a correspondingly higher decrease in spending on unemployment transfers might materialize.

The potential impact of the economic crisis on the long-term budgetary projection results

The financial and economic crisis that started to take hold in 2008 has led to an unusually sharp and rapid deterioration in economic activity. The current slowdown has gradually transformed into a world recession, particularly affecting the US and also the economies of most EU countries. New risks have emerged and have made many economists fear that the crisis may continue to weigh on

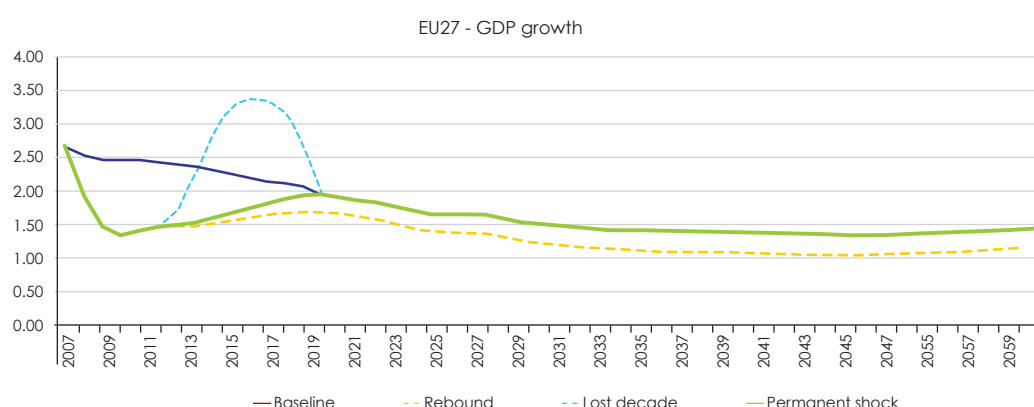
economic performance for some time to come, and that any recovery will only be in sight after a protracted period of time. This has prompted the question of the extent to which the worsened short-term outlook would also have implications over the medium – and longer-term.

The AWG/EPC macroeconomic scenario was finalized in 2008 and does not incorporate the sharp deterioration of economic activity in Europe. Factoring in this large deterioration in macroeconomic prospects would imply a downward revision of EU GDP over a number of years at the beginning of the projections, although it would only have limited effects over the remainder of the period up to 2060, at least to the extent that long-run growth potential is only temporarily affected. In order to simulate the order of magnitude of the risks related to the ongoing economic crisis, alternative simulation scenarios were devised that complement the baseline scenario of the AWG.

Two types of shocks were considered. First, temporary shocks are simulated in two alternative scenarios: a rather optimistic “rebound”, recovery included for illustrative purposes, and in addition a “lost decade” scenario. These scenarios entail two different assumptions on the duration of the shock. The “rebound recovery” assumes that the European economy will rebound soon and will already have returned to the pre-crisis level of GDP in 2020. The “lost decade” scenario, assumes that it could take until 2020 to get back to the growth rates (but not the GDP level) set in the AWG baseline. Second, a permanent shock to the growth potential of the EU economies is simulated in a “worst case” scenario. This assumes that the current crisis will lead to a permanently higher unemployment rate (1 p.p.) and a permanently lower labour productivity growth rate (about 1.5%) compared with the baseline (1.7%).

The temporary shock scenarios have an impact on the long-term growth potential. Potential GDP growth for the EU27 coincides with the AWG baseline from 2020. Over the projection period 2007-2060, the average revision of potential GDP growth in the “lost decade” scenarios is 0.2 p.p. per year for the EU27. In the “permanent shock” worst case scenario, a larger downward revision of the average annual GDP growth by 0.4 p.p. over the whole projection period would materialize (see Graph 2).

Graph 2 - Potential GDP growth under different shocks (annual growth rate)



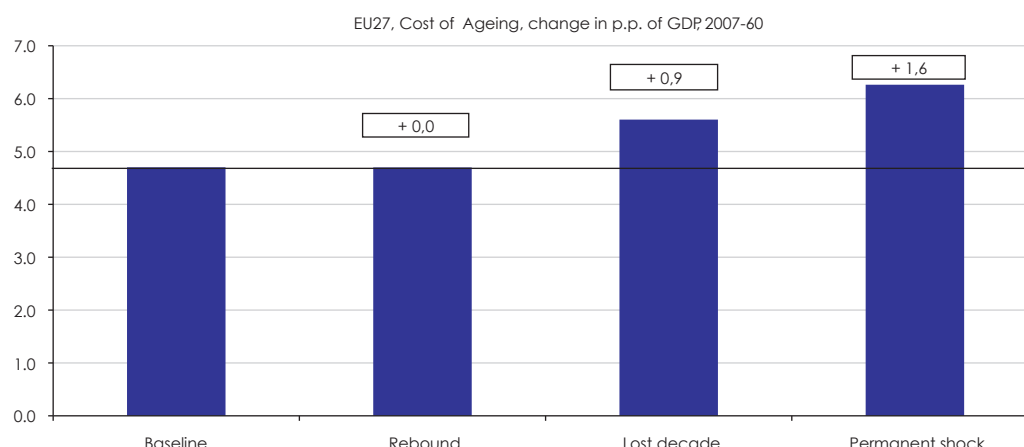
Source: Commission services.

The loss in GDP per capita in the “lost decade” scenario relative to the baseline is around 8% in 2020 and this loss is carried over the rest of the projection period, since the growth projection remains broadly unchanged as of 2020. In the “rebound” scenario, there is no loss in wealth accumulation since the recovery is assumed to be materialized completely by 2020. Finally, a more marked reduction in the GDP per capita level is observed in the “permanent shock” scenario where GDP per capita in 2060 is 18% lower than in the AWG baseline, reflecting persistently lower growth.

In terms of budgetary impact, the question of whether the shock is temporary or permanent determines its potential magnitude. An assessment of the public budget impact of these alternative scenarios has been carried out based on elasticities calculated for the sensitivity analysis. This provides only a preliminary indication of the impact of the alternative crisis scenarios. The “lost decade” scenario reveals that the age-related government expenditure increases faster over the first decade of the projection period, and then stabilises relative to the AWG baseline. Between 2007 and 2020, the total increase in age-related expenditure would be 0.9 p.p. of GDP higher relative to the AWG baseline that would persist for a number of years and vanish in the long run. The “permanent shock” scenario shows a constant widening of the expenditure-to-GDP ratio compared with the baseline. Between 2007 and 2020, age-related public expenditure would increase by 1.1 p.p. of GDP more relative to the AWG baseline. Over the entire projection period however, the public age-related spending-to-GDP ratio would be 1.6 p.p. of GDP higher compared with the AWG baseline (see Graph 3).

In sum, these simulations illustrate that at this juncture, characterized by very subdued economic activity and exceptional uncertainty as to the prospects, there is a very real need to put in place all necessary policies to avoid the current financial crisis turning into a permanent shock to the key determinants of potential growth (employment and labour productivity) as this would have a strong negative impact on future GDP, per capita income levels and budgetary conditions. Europe’s ability to get out of the slump fast and restore sound public finances will depend crucially on its ability to deploy targeted and well co-ordinated policy responses, as stressed by the European Economic Recovery Plan⁵ and illustrated by the “rebound” scenario.

Graph 3 - Potential budgetary impact of the economic crisis



Source: Commission services.

The current situation must be used as an opportunity to combine determined efforts to overcome the recession with reforms that will restore confidence in the longer-term outlook for public finances, by strengthening investment in a more sustainable economy and society and by putting ageing-related spending on a sustainable path. This is particularly important if Europe wants to exploit the narrow window of opportunity – a period of about ten years during which employment growth remains possible – before dependency ratios begin to rise rapidly. Hence, getting the policy response right in a co-ordinated manner would limit the loss of wealth creation in Europe and would also lead to less expenditure than would otherwise be the case. Indeed, delays in implementing the needed policies would require stronger measures to achieve the same fiscal outcome by mid-century. It will be particularly important, therefore, to intensify the reform agenda in view of the longer-term challenges

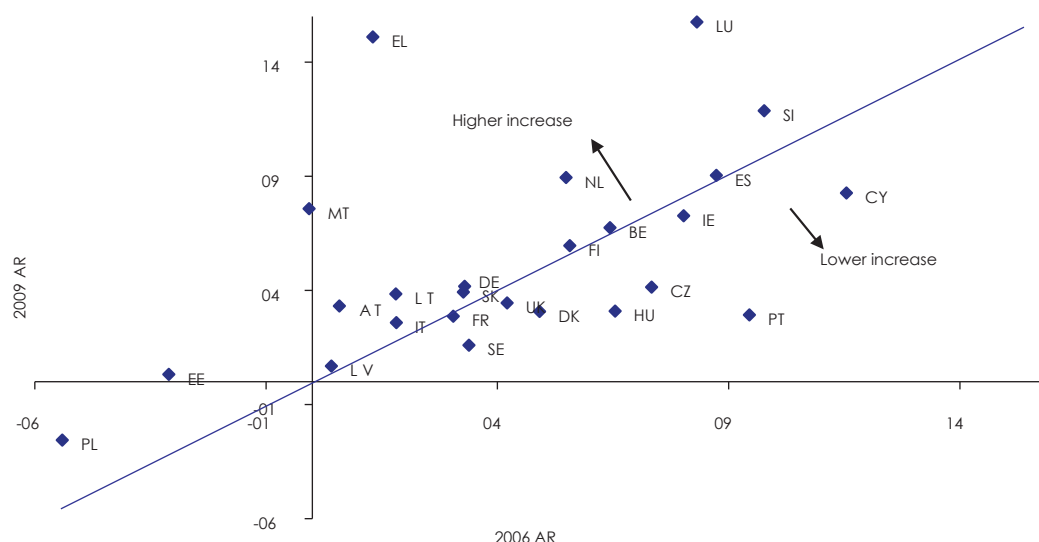
⁵ COM (2008) 800 final. 26 November 2008.

outlined above, so as to emerge stronger from the current economic crisis, and to get our economies back on a path of long-term growth. For this to happen, a comprehensive exit strategy built on structural reforms across the board will be necessary to restore credibility and confidence in the public finances. Once out of the crisis, in planning a new fiscal course, due account needs to be taken of the diagnosis of the problems related to ageing. To start to bend back the curve of long-term costs, and to get our economies back on a path of long-term growth, modernization of pensions and health care as well as expanding the degree to which existing factors of production have been used so far is the key.

Comparison with the previous projection exercise

The increase in the age-related public expenditure/GDP ratio for the EU25 and the EA12 is slightly higher compared with the previous projections in the 2006 Ageing Report. Over the period 2007-2050, the increase in the EU25 is 4.2 p.p. of GDP and in the euro area 5.0 p.p. of GDP, compared to the projected increase in the previous exercise over the same period of 3.7 and 4.1 p.p. of GDP respectively (see Graph 4).⁶

Graph 4 - The Cost of Ageing in '09 and '06 compared, p.p. of GDP, 2007-50



Source: Commission services.

Note: Bulgaria and Romania were not part of the 2006 exercise and pension projections for Greece were not available.

Compared with the projections in the 2006 Ageing Report, age-related public expenditure is now projected to increase more over the period 2007-2050 in 16 Member States (Belgium, Germany, Estonia, Greece, Spain, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Austria, Poland, Slovenia, Slovakia and Finland). By contrast, it is now projected to increase less in 9 Member States (the Czech Republic, Denmark, Ireland, France, Cyprus, Hungary, Portugal, Sweden and the UK). In some cases, the results are almost identical and the – positive or negative difference – is rather small. This is the case for all those countries where the observed rates are depicted on the line shown in the graph or very close to it.

⁶ It should be noted that the pension projection for Greece is included in the current projection exercise, which was not the case in the 2006 Ageing Report. Excluding the Greek pension projection would reduce the EU25 public pension aggregate from 2.3 p.p. of GDP to 1.9 p.p. of GDP over the period 2007-2050.

The largest downward revisions have occurred in Portugal, Hungary, Cyprus and the Czech Republic reflecting large expenditure-reducing pension reforms in Portugal and the Czech Republic. Large upward revisions (2 p.p. of GDP or more) are reported in Greece, Luxembourg, Malta, Estonia, Austria, Poland and Lithuania reflecting primarily revised projected changes in pension expenditure stemming from reform reversals and improved modelling techniques.

The budgetary projections provide the basis for assessing risks to the long-term sustainability of public finances at the EU level

Overall, the updated age-related expenditure projections provide a considerably enhanced basis for the assessment of the risks to the long-term sustainability of Member States' public finances. In the latter half of 2009, the Commission intends to present the first update of the Sustainability Report making use of this updated set of projection results.

1. MACROECONOMIC ASSUMPTIONS

1.1. POPULATION PROJECTION

Projecting demographic and economic developments in the next fifty years is one of the most daunting analytical tasks facing policy makers. A high uncertainty surrounds the projections and the longer the projection period, the highest the uncertainty. Demographic factors are subject to less variation than economic factors over the short run, however they have exhibited much less stability over the medium-long term of say 25 years. The population projection, called EUROPOP2008, is made for the 27 EU countries based on assumptions on future trends in fertility, life expectancy and migration. It was released by Eurostat in April 2008.

1.1.1. Fertility

1.1.1.1. Past trends

Fertility has declined sharply in past decades. The total fertility rate for the EU, or the average number of births per woman, has dropped from the “baby boom” peak⁷ above 2.5 births per woman in the second half of the 1960s, to well below the replacement level of 2.1 births per woman that is needed in order for each generation to exactly replace itself. Such low levels of fertility sustained for decades have triggered the process of population ageing, with smaller numbers of births leading to decreasing populations of children and, over time, of young people and adults of working age.

Total fertility rates are below the replacement level in all Member States but the pace and timing of their decline differs across countries. In some countries, it took place in the late 1960s while in others it happened in the 1990s and 2000.⁸ Postponement of the first childbirth

accounts for the reduction in total fertility rates to a large extent, but it is also accompanied by an increase in the share of children without siblings and by higher frequency of childlessness among women in their 30s and 40s.

In a few Member States, total fertility rates are above 1.8, namely Denmark, France, Ireland, Finland, Sweden and the UK. In contrast, a number of Member States have very low fertility rates, below 1.4 births per woman: Bulgaria, the Czech Republic, Germany, Estonia, Greece, Spain, Italy, Latvia, Lithuania, Hungary, Austria, Poland, Romania, Slovenia and Slovakia. Recent trends since 2000 also differ across Member States. Fertility rates are still falling in Germany, Cyprus, Lithuania, Luxembourg, Malta, Poland, Portugal, Romania and Slovakia. By contrast, there are recent increases in a large number of countries: Bulgaria, the Czech Republic, Denmark, Estonia, Greece, Spain, France, Latvia, Finland, Sweden, and the UK.

Several forces will shape the future trends in fertility, e.g. the trend in ideal family size and the strength of the desire of having children as compared to other goals in life, the trend in education and work, changing government policies and macro-level conditions such as child care facilities and housing, the changing nature and stability of partnerships and changing bio-medical conditions.

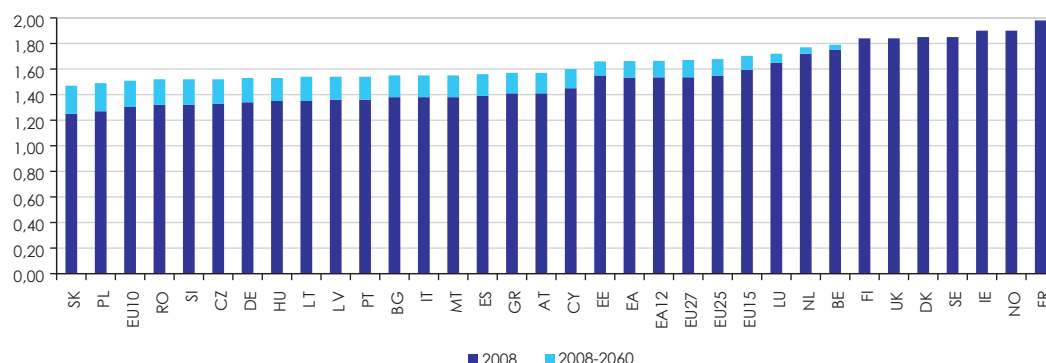
1.1.1.2. The EUROPOP2008 assumptions

Eurostat assumes the postponement of childbearing will slow down and fertility will start recuperating. By 2060, a modest recuperation of fertility would take place: for the EU, the total fertility rate would rise from 1.54 births per woman in 2008 to 1.60 by 2030 and further to 1.64 by 2060, see Graph 5. In the euro area, a similar increase would take place, from 1.55 in 2008 to 1.67 in 2060. According to the projection, the total fertility rate would increase in all Member States, except Ireland and France where it would fall, but remain above 1.85, and in Denmark, Finland, Sweden and the UK where it would remain stable. Hence, total fertility rates would remain below the natural replacement rate in all countries in the period to 2060, as the recuperation assumed is moderate. The largest

⁷The baby boom of the 1950s-1960s is an aberration rather than a precursor of the near future, see Technical Panel on Assumptions and Methods (2007).

⁸Fertility rates fell below replacement levels in the late 1960s in Sweden, Denmark, Finland, Luxembourg, Germany, Hungary, Latvia and the Czech Republic. The fall took place somewhat later in Belgium, Netherlands, Austria, the UK, France (1972-73) and Italy (1975) and much later in Greece, Spain, Portugal (1981-82) and Ireland (2000), Malta (1980), Poland and Slovakia (1989).

Graph 5 - Projection of total fertility rates in EUROPOP2008 (number of births per woman)



Source: Commission services.

increases in total fertility rates are projected to take place in Slovakia, Poland, Romania and Slovenia which have the lowest rates in the EU in 2008. The increase is projected to occur gradually, with rates in these countries approaching the current EU average only in 2060.

1.1.2. Life expectancy

1.1.2.1. Past trends

Over very long time periods, life expectancy has increased in most developed countries.⁹ In the EU, there have been significant increases in life expectancy at birth since 1960. Eurostat data for the period 1960 to 2000 show significant increases in life expectancy at birth in all Member States, especially for women. The increase is even more pronounced in euro area Member States. These increases in longevity accelerate the growth of the proportion of elderly people relative to that of children or adults in working age, which is furthermore slowed down or reduced by the sustained reduction of fertility over the past decades.

In the EU, the difference between female and male life expectancy has diminished since 1990, due to faster improvements in life expectancy for men. In the euro area, this process started in 1980, and the difference between men and women is also smaller than in the EU as a whole.

⁹ Since the 19th century, improvements in living conditions and medical advances have led to increases in life expectancy at birth. The decline in mortality rates accelerated in the early years of the 20th century, with significant improvements made in reduction of infant and child mortality and in survival rates of young adults.

The gains in life expectancy at birth have differed across countries between 1980 and 2000. Women have gained 5 years or more in Germany, Italy, Luxembourg, Malta, Austria and Portugal. Smaller increases below 2.5 years were observed in Bulgaria, Denmark, Estonia, Latvia, Lithuania and the Netherlands. Over the same period, gains in life expectancy for men have been five years or more in Germany, France, Italy, Luxembourg, Malta, Austria, Portugal, Finland and the UK, while increases below 2.5 years have occurred in Bulgaria, Estonia, Greece, Latvia, Lithuania, Hungary, Romania and Slovakia.

There is no consensus among demographers on trends over the very long term. A number of driving forces are pushing, e.g. progress in biomedical technology and whether (and at what age) there is a natural biological limit to longevity, the effectiveness of health care systems and changes in private life style such as reduction of smoking rates or increased prevalence of obesity. Possible new infectious diseases and negative environmental change could also drive future trends in mortality.

Past population projections from official sources have, however, underestimated the future gains in life expectancy at birth, and some commentators have argued that governments may be underestimating the potential budgetary impact of ageing populations because of that bias. Indeed, official projections generally assume that gains in life expectancy at birth will slow down compared with historical trends. This is because mortality rates at younger ages are already very low and future gains in life expectancy would require improvements in mortality rates at older ages, which are considered harder to achieve. On

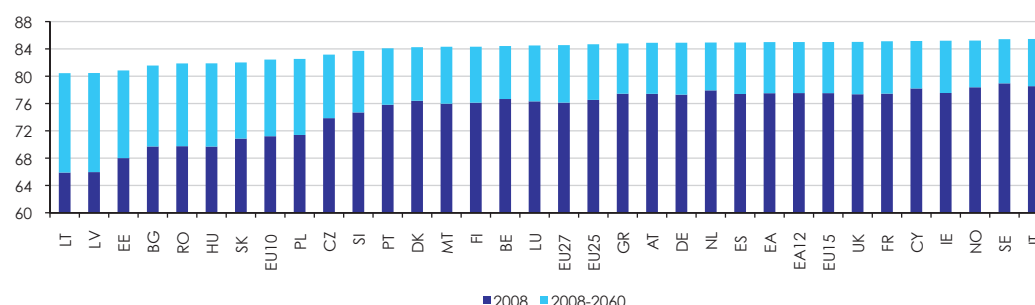
the other hand, the wide range of life expectancies across EU Member States, and also compared with other countries, points to considerable scope for future gains. In 2006, life expectancy at birth for women ranges from 76.2 in Romania to 84.4 years in Spain and France, and for men ranging from 65.3 in Lithuania to over 78.8 in Cyprus and Sweden. In contrast with past projections, the EUROPOP2008 projection assumes continuing increases in life expectancy, where improvements in mortality come from older ages.

1.1.2.2. The EUROPOP2008 assumptions

Large increases in life expectancy at birth would be sustained during the projection period, albeit with a considerable degree of diversity across Member States. In the EU, life expectancy at birth for men would increase by 8.4 years over the projection period, from 76 in 2008 to 84.5 in 2060. For women, life expectancy at birth would increase by 6.9 years for women, from 82 in 2008 to 89 in 2060, implying a continuation of the convergence of life expectancy between men and women.

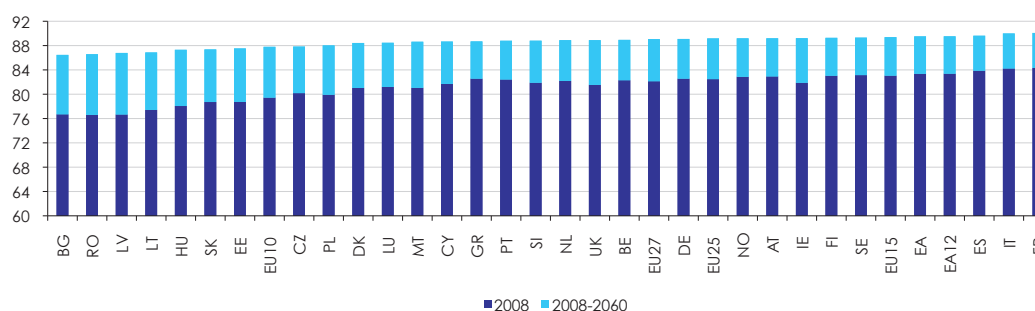
The largest increases in life expectancy at birth, for both men and women, are projected to take place in the new Member States. Life expectancy for men in 2008 is lowest in Estonia, Latvia, Lithuania, Hungary, Slovakia, Poland, Bulgaria and Romania between 66 and 71 years. Some catch-up takes place over the projection period in these countries, with projected increases in life expectancy of 12 to 14.5 years, the highest in the EU. Still, by 2060 the life expectancy in all new Member States, especially for men, would remain below the average in the EU, with the exception of Cyprus.

Graph 6 - Projection of life expectancy at birth in EUROPOP2008, men (in years)



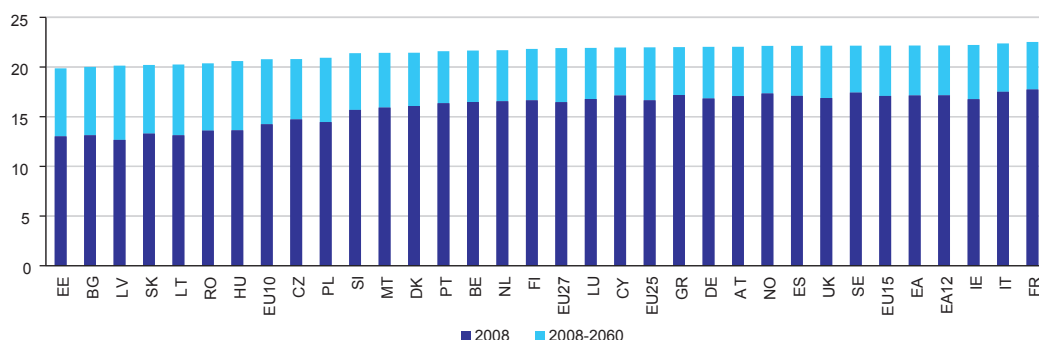
Source: Commission services.

Graph 7 - Projection of life expectancy at birth in EUROPOP2008, women (in years)



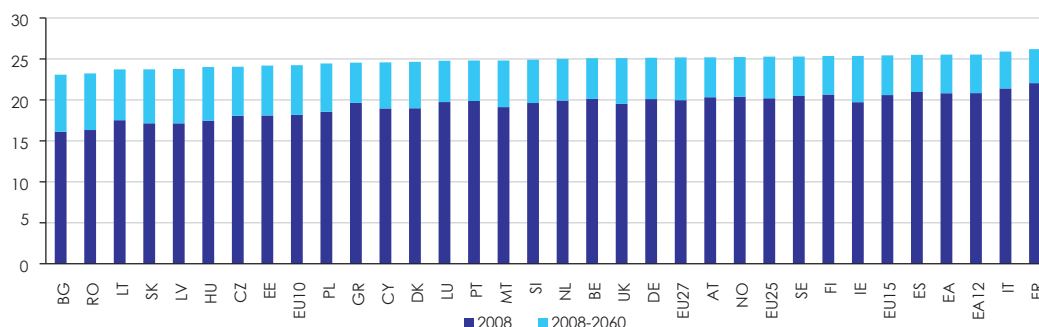
Source: Commission services.

Graph 8 - Projection of life expectancy at 65 in EUROPOP2008, men (in years)



Source: Eurostat, EUROPOP2008.

Graph 9 - Projection of life expectancy at 65 in EUROPOP2008, women (in years)



Source: Eurostat, EUROPOP2008.

Given the assumptions, the spread of life expectancy across the Member States is compressed over time, from 13.1 years in 2008 at birth for men (Sweden 79 years and Lithuania 65.9 years) to 5 years in 2060 (85.5 years in Italy compared with 80.4 years in Lithuania). For women, the reduction of the difference in life expectancy at birth is lower, from 7.7 years in 2008 (84.3 years in France and 76.6 years in Romania) to 4.1 year in 2060 (90.1 years in France and 86.5 years in Bulgaria).

In the EU, life expectancy at age 65 is projected to increase by 5.5 years for men and by 5.2 years for women over the projection period. In 2060, life expectancy at age 65 would reach 21.8 years for men and 25.1 for women, according to the projection. The difference in life expectancy between male and female in 2060 would be of 3.3 years, smaller than the 4.5 year difference in life expectancy at birth.

1.1.3. Net migration flows

1.1.3.1. Past trends

European countries gradually become a destination for migrants. Recently, southern countries became net receiving countries during the 1990s and several countries in Central and Eastern Europe are currently both source and destination of migrants. During the last decade, net inflows¹⁰ started rising, from over 500,000 people in 1998 to more than 2 million in 2003. Some of this increase, however, does not only reflect new entries of migrants, but also large-scale regularisation programmes which made parts of the immigrant population, illegally

¹⁰ Net migration is measured as the difference between the total population on 31 December and 1 January for a given calendar year, minus the difference between births and deaths (or natural increase). The approach is different from that of subtracting recorded emigration flows from immigration flows.

residing in the EU, visible in official statistics. Net flows show a recent tendency to stabilise, decreasing to a level of 1,880,000 in 2007.

The variability of net migration flows across countries is huge. Traditionally, Germany, France and the UK recorded the largest number of arrivals in the EU, but there has been a recent rise of migration flows to Italy, Spain and Ireland that have switched from countries of origin of immigrants to destination countries. Spain recorded the highest net inflows in the EU in 2006, after recording net outflows during the 1960s and most of the 1970s and 80s.

Future trends in migration are perhaps the hardest to anticipate, as they depend from future events across the world ranging from economic and social factors to political developments and family ties. The following very broad driving forces can be identified: trends in migratory pressure resulting from changes in countries of origin, trends in the attractiveness of recipient countries, costs of migration and the effectiveness of controls of undocumented migrants

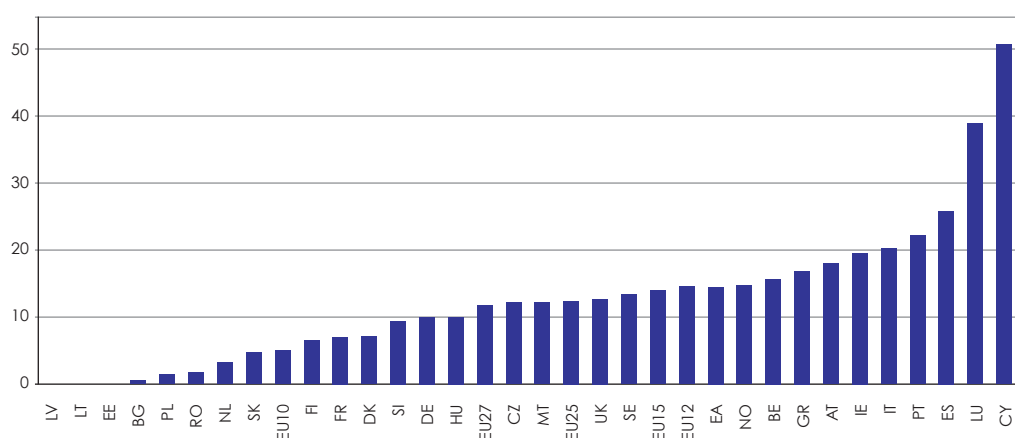
migration to the EU of 59 million people over the entire projection period, of which the bulk is concentrated in the euro area (46.2 million). The increasing trend is assumed to decelerate over the projection period, from about 1,680,000 people in 2008 (equivalent to 0.33% of the EU population) to 980,000 by 2020 and thereafter to some 800,000 people by 2060 (0.16% of the EU population).

The bulk of migration is concentrated in the euro area (46.2 millions). Net migration flows are projected to concentrate in a few destination countries: Italy (12 millions cumulated up to 2060), Spain (11.6 millions), Germany (8.2 millions), and the UK (7.8 millions). In relative terms, cumulated net migration flows would account for 12% of the 2008 population for the EU as a whole, and above 20% in a few Member States (Ireland, Italy, Portugal, Spain, Luxemburg and Cyprus). For most countries that currently experience a net outflow (Estonia, Lithuania, Latvia, Poland, Bulgaria and Romania), this is projected to taper off or reverse in the coming decades.

1.1.3.2. The EUROPOP2008 assumptions

Over the projection period, annual net inflows are assumed to add up to a cumulated net

Graph 10 - Projection of net migration flows in EUROPOP2008 over the period 2008-2060 cumulated as a percentage of the population in 2008



Source: Eurostat, EUROPOP2008.

1.1.4. EUROPOP2008 population projection

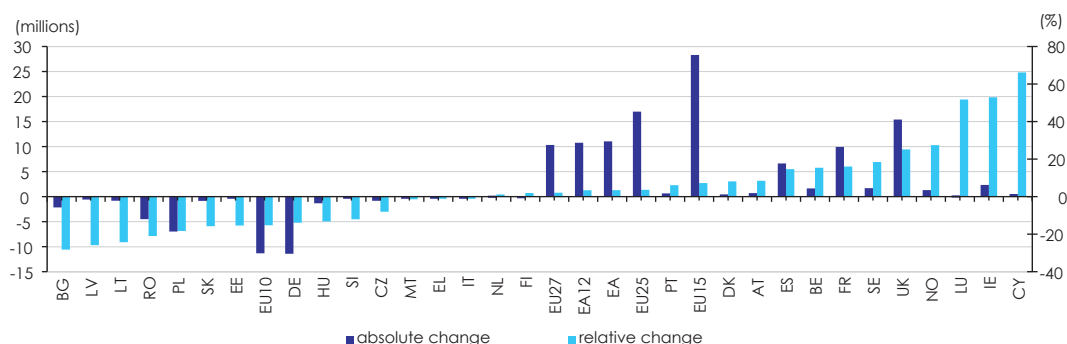
According to the projection, the population of the EU as a whole would be slightly larger in 2060, but much older than it is now. The total population is projected to increase (from 495.4 millions in 2008) up to 2035 by almost 5%, when it will peak (at 520.1 million). Thereafter, the population would shrink by nearly 3%. While about half of the EU countries would continue to grow over the projection period, the population of the other half would shrink, by 13% to 25% with the exception of Greece, Italy and Malta with reductions in total population of about 1%.

More important than the change in population size is the evolution of its age structure. The main feature over the projection period is the ageing of the population, illustrated by the population pyramids.¹¹ Elderly people would account for an increasing share of the population,

according to the projection; this is due to gains in life expectancy sustained for decades and assumed to continue over the projection period. Hence, as the elderly cohorts become more numerous, the top of the pyramid becomes larger. At the same time, the base of the age pyramid becomes smaller due to persisting below-replacement fertility rates causing the young cohorts to be smaller. As a consequence, the shape of the age-pyramids gradually changes from pyramids to pillars.

Another illustration of the ageing of the population is the change in median age projected. In the EU, the median age would rise from 40.4 years in 2008 to 47.9 years in 2060. The ageing process can be characterised as ageing from the top of the pyramid, as it will largely result from projected increases in longevity, despite projected positive net migration flows and some recuperation of fertility.

Graph 11 - Projection of the total population (percentage and absolute change for the period 2008-2060)



Source: Eurostat, EUROPOP2008.

According to the projection, the number of children would decline gradually from 2020 onwards. The population of working-age would reach a maximum in 2010 and is expected to decline steadily thereafter. It would drop by 15 per cent in the EU over the projection period. Still, the working-age population is projected to increase in seven Member States (Belgium, Ireland, France, Cyprus, Luxembourg, Sweden and the UK).

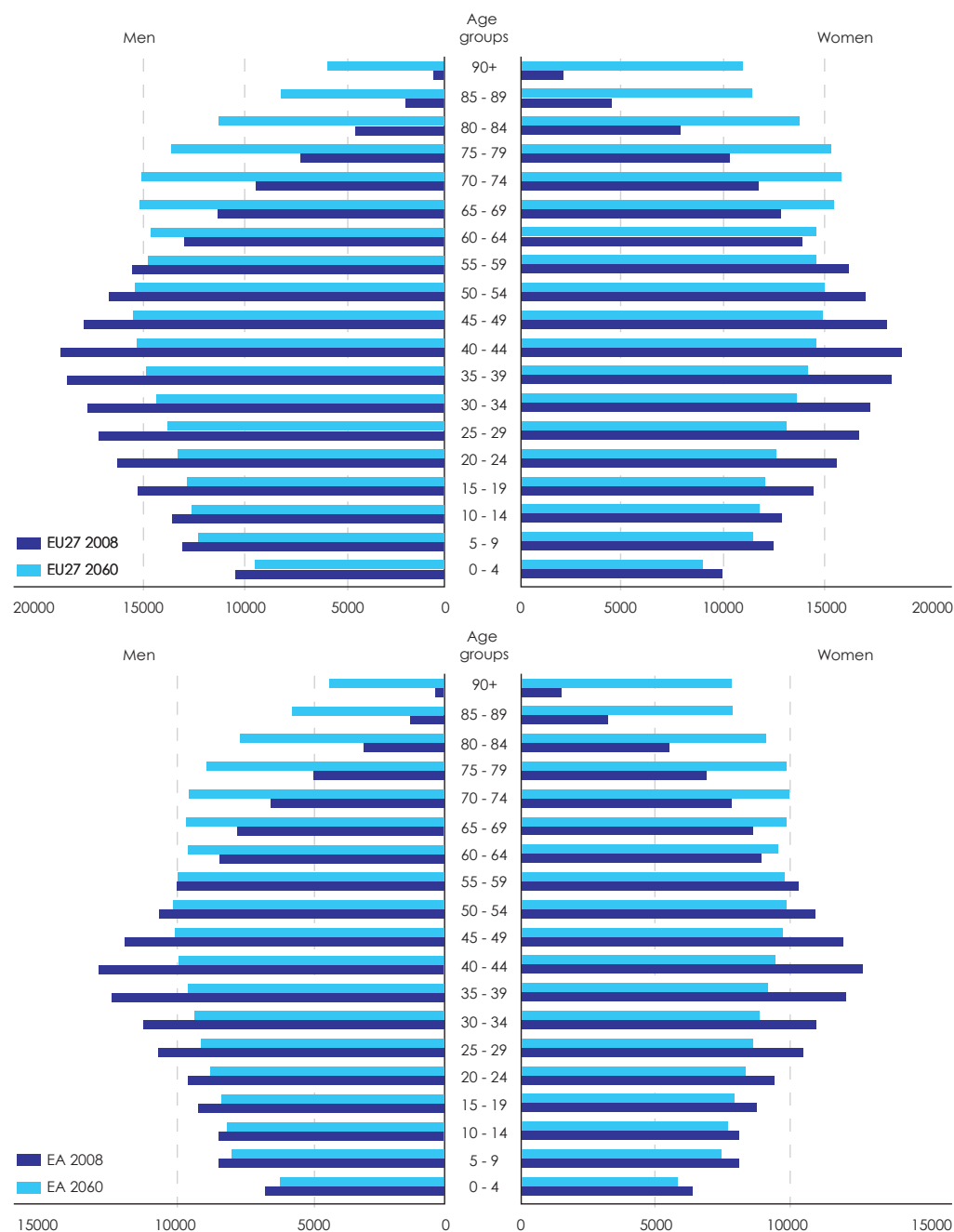
The elderly population (aged 65 and above) would increase very markedly throughout the projection period. Their number would almost double, rising from 85 million in 2008 to 151

million in 2060 in the EU. The number of very old people aged 80 years and above is projected to increase even more; from 22 million in 2008 to 61 million in 2060 in the EU, i.e. almost triple during the projection period.

The magnitude of changes in the share of the population in different age groups, according to the projection, would make the population in 2060 hard to recognise for a present observer. In 2008, the number of children is about 3 and a half times as large as the number of elderly aged 80 years and above. In 2060, children would still outnumber very old persons, but by a small margin: the number of oldest-old would amount to 80% of the number of children. Today, the number of persons aged 65 or above already

¹¹ Population pyramids show the population density by sex and by age group.

Graph 12 - Population pyramids (in thousands), EU27/EA, in 2008 and 2060



Source: Eurostat, EUROPOP2008.

surpasses the number of children, but their numbers are relatively close. In 2060, the number of elderly would more than double the number of children. Another notable aspect of population ageing is the progressive ageing of the older population itself, as the oldest-old are growing faster than any other segment of the population.

These changes are reflected in declining share of the working-age population and in the increasing

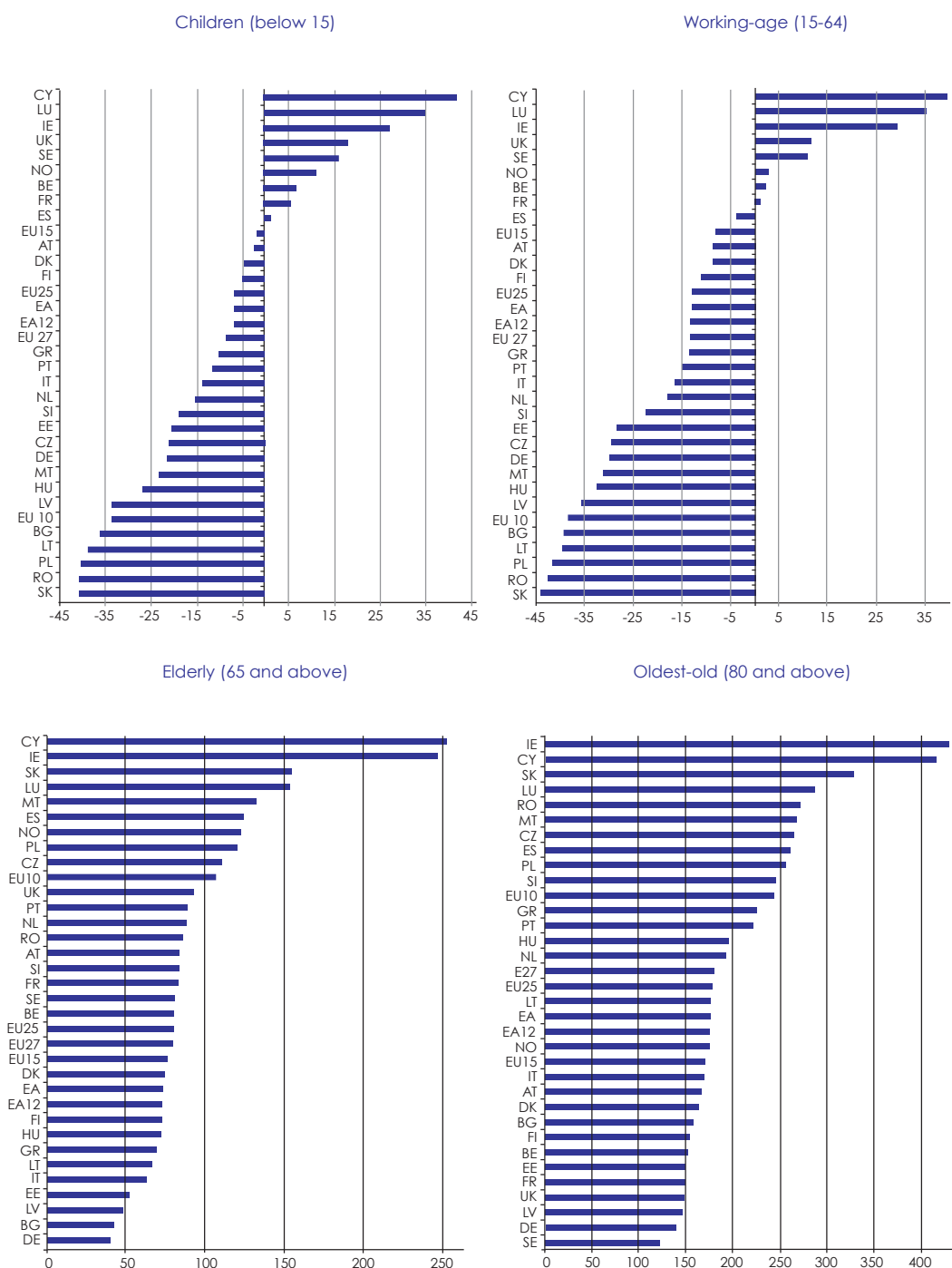
shares of the older population. The proportion of children (below 15) is projected to remain nearly constant by 2060 in the EU27 and the euro area. Those aged 65 and over would account for a much larger share in 2060 (30% of the population), and among the elderly, those aged 80 and over would account for 12% and become almost as numerous as the children (14%).

Table 2 - Peaks and troughs for the size of the total population and the working-age population

	Total population (in millions)						Working-age population (in millions)									
	Peak			Trough			Peak			Trough			% change			% change peak - trough
	2007 - value	value	year	2007 - peak	value	year	2007 - peak	value	year	2007 - peak	value	year	2007 - peak	value	year	
BE	10.6	12.3	2060	16.2%	10.6	2007	-13.9%	7.0	2022	3.5%	7.0	2007	-3.4%	7.0	2007	-3.4%
BG	7.7	7.7	2007	0.0%	5.5	2060	-28.6%	5.3	2007	0.0%	3.0	2060	-44.5%	3.0	2060	-44.5%
CZ	10.3	10.5	2021	2.5%	9.5	2060	-9.8%	7.3	2008	0.4%	5.2	2060	-29.7%	5.2	2060	-29.7%
DK	5.4	5.9	2060	8.7%	5.4	2007	-8.0%	3.6	2009	0.4%	3.4	2041	-5.4%	3.4	2041	-5.4%
DE	82.3	82.3	2007	0.0%	70.8	2060	-14.0%	54.6	2007	0.0%	38.9	2060	-28.7%	38.9	2060	-28.7%
EE	1.3	1.3	2007	0.0%	1.1	2060	-15.6%	0.9	2007	0.0%	0.6	2060	-31.4%	0.6	2060	-31.4%
IE	4.3	6.8	2060	56.5%	4.3	2007	-36.1%	3.0	2040	33.0%	3.0	2007	-24.8%	3.0	2007	-24.8%
EL	11.2	11.6	2026	3.6%	11.1	2060	-4.0%	7.5	2010	0.7%	6.2	2060	-18.4%	6.2	2060	-18.4%
ES	44.5	53.4	2045	20.1%	44.5	2007	-16.7%	30.6	2025	11.8%	28.4	2060	-17.0%	28.4	2060	-17.0%
FR	61.5	71.8	2060	16.7%	61.5	2007	-14.3%	40.1	2060	2.7%	40.1	2007	-2.6%	40.1	2007	-2.6%
IT	59.1	62.0	2038	4.9%	59.1	2007	-4.7%	39.0	2011	1.2%	32.7	2060	-17.1%	32.7	2060	-17.1%
CY	0.8	1.3	2060	69.6%	0.8	2007	-41.0%	0.5	2007	43.0%	0.5	2007	-30.1%	0.5	2007	-30.1%
LV	2.3	2.3	2007	0.0%	1.7	2060	-26.3%	1.6	2007	0.0%	0.9	2060	-42.9%	0.9	2060	-42.9%
LT	3.4	3.4	2007	0.0%	2.5	2060	-24.7%	2.3	2007	0.0%	1.3	2060	-41.9%	1.3	2060	-41.9%
LU	0.5	0.7	2060	53.7%	0.5	2007	-34.9%	0.3	2060	36.9%	0.3	2007	-27.0%	0.3	2007	-27.0%
HU	10.1	10.1	2007	0.0%	8.7	2060	-13.4%	6.9	2007	0.0%	4.8	2060	-30.3%	4.8	2060	-30.3%
MT	0.4	0.4	2028	6.2%	0.4	2060	-6.3%	0.3	2009	1.8%	0.2	2060	-23.0%	0.2	2060	-23.0%
NL	16.4	17.3	2036	5.6%	16.4	2007	-5.3%	11.0	2011	0.6%	9.6	2060	-13.6%	9.6	2060	-13.6%
AT	8.3	9.1	2046	10.1%	8.3	2007	-9.2%	5.6	2020	3.3%	5.2	2060	-10.6%	5.2	2060	-10.6%
PL	38.1	38.1	2007	0.0%	31.1	2060	-18.3%	27.0	2011	1.0%	16.3	2060	-40.0%	16.3	2060	-40.0%
PT	10.6	11.5	2045	8.3%	10.6	2007	-7.6%	7.1	2022	2.0%	6.3	2060	-12.8%	6.3	2060	-12.8%
RO	21.6	21.6	2007	0.0%	16.9	2060	-21.5%	15.0	2007	0.0%	9.1	2060	-39.7%	9.1	2060	-39.7%
SI	2.0	2.1	2019	2.4%	1.8	2060	-13.6%	1.4	2011	0.5%	1.0	2060	-32.5%	1.0	2060	-32.5%
SK	5.4	5.4	2019	0.7%	4.5	2060	-16.3%	3.9	2011	1.1%	2.4	2060	-38.9%	2.4	2060	-38.9%
FI	5.3	5.6	2031	5.5%	5.3	2007	-5.3%	3.5	2010	1.0%	3.0	2060	-13.9%	3.0	2060	-13.9%
SE	9.1	10.9	2060	19.3%	9.1	2007	-16.2%	6.0	2050	5.2%	6.0	2007	-5.0%	6.0	2007	-5.0%
UK	60.9	76.7	2060	26.0%	60.9	2007	-20.6%	40.4	2050	11.5%	40.4	2007	-10.3%	40.4	2007	-10.3%
NO	4.7	6.0	2060	29.0%	4.7	2007	-22.5%	3.1	2060	13.1%	3.1	2007	-11.6%	3.1	2007	-11.6%
EA12	314.5	336.9	2038	7.1%	314.5	2007	-6.6%	209.4	2013	1.6%	183.0	2060	-14.0%	183.0	2060	-14.0%
EA	317.7	340.4	2038	7.1%	317.7	2007	-6.7%	211.6	2013	1.6%	185.0	2060	-14.0%	185.0	2060	-14.0%
EU27	493.3	520.7	2035	5.6%	493.3	2007	-5.3%	331.9	2012	1.2%	283.3	2060	-15.6%	283.3	2060	-15.6%
EU15	389.9	425.6	2044	9.1%	389.9	2007	-8.4%	259.4	2019	1.7%	237.7	2060	-9.9%	237.7	2060	-9.9%
EU10	74.1	74.1	2014	0.1%	62.8	2060	-15.3%	52.2	2010	0.4%	33.6	2060	-35.9%	33.6	2060	-35.9%
EU25	464.0	494.7	2038	6.6%	464.0	2007	-6.2%	311.5	2012	1.4%	271.3	2060	-14.1%	271.3	2060	-14.1%

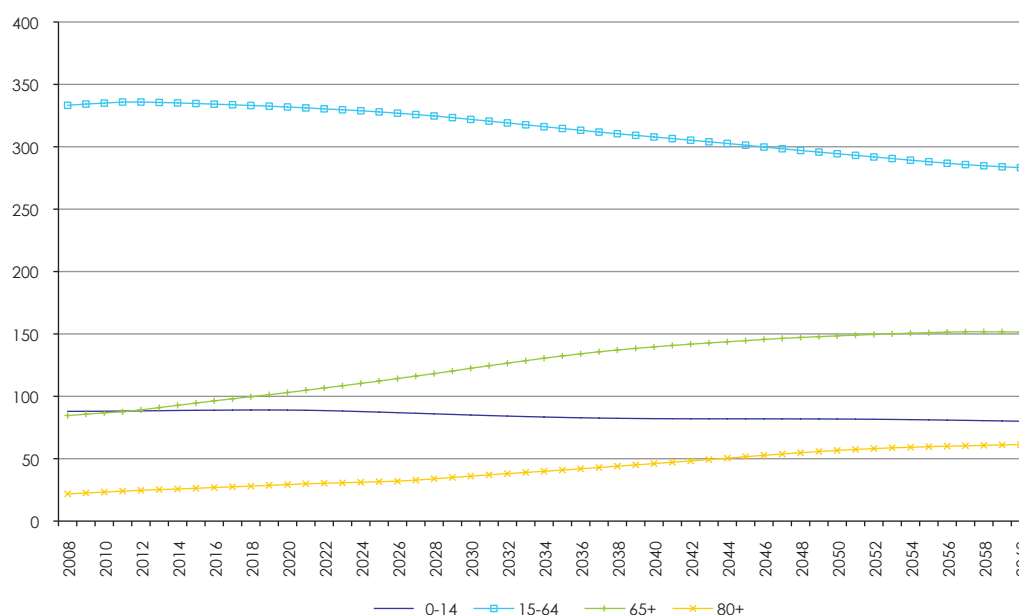
Source: Eurostat, EUROPOP2008.

Graph 13– Projected change of main population groups (in % change over the period 2008-2060)



Source: Eurostat, EUROPOP2008.

Graph 14 - Projection of population by main age groups, EU27 (in 000s)

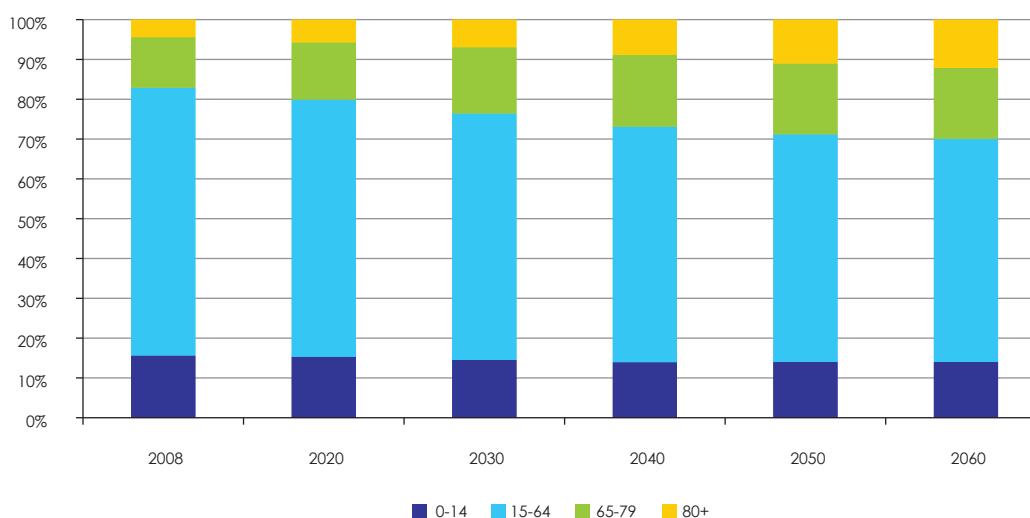


Source: Eurostat, EUROPOP2008.

As the reduction in the proportion of the working-age population and the increase in the proportion of the elderly unfold, the support ratio of dependants to people of working-age soars. The old-age dependency ratio, calculated as the ratio of people aged 65 or above relative to the working-age population, is projected to more than double from 25.4% to 53.5% in the EU over

the projection period. The largest increase is projected to occur during the period 2012 to 2035, when year-on-year increases of over 2% are projected. This entails that the EU would move from having 4 working-age people for every dependent person aged over 65 years to a ratio of 2 to 1.

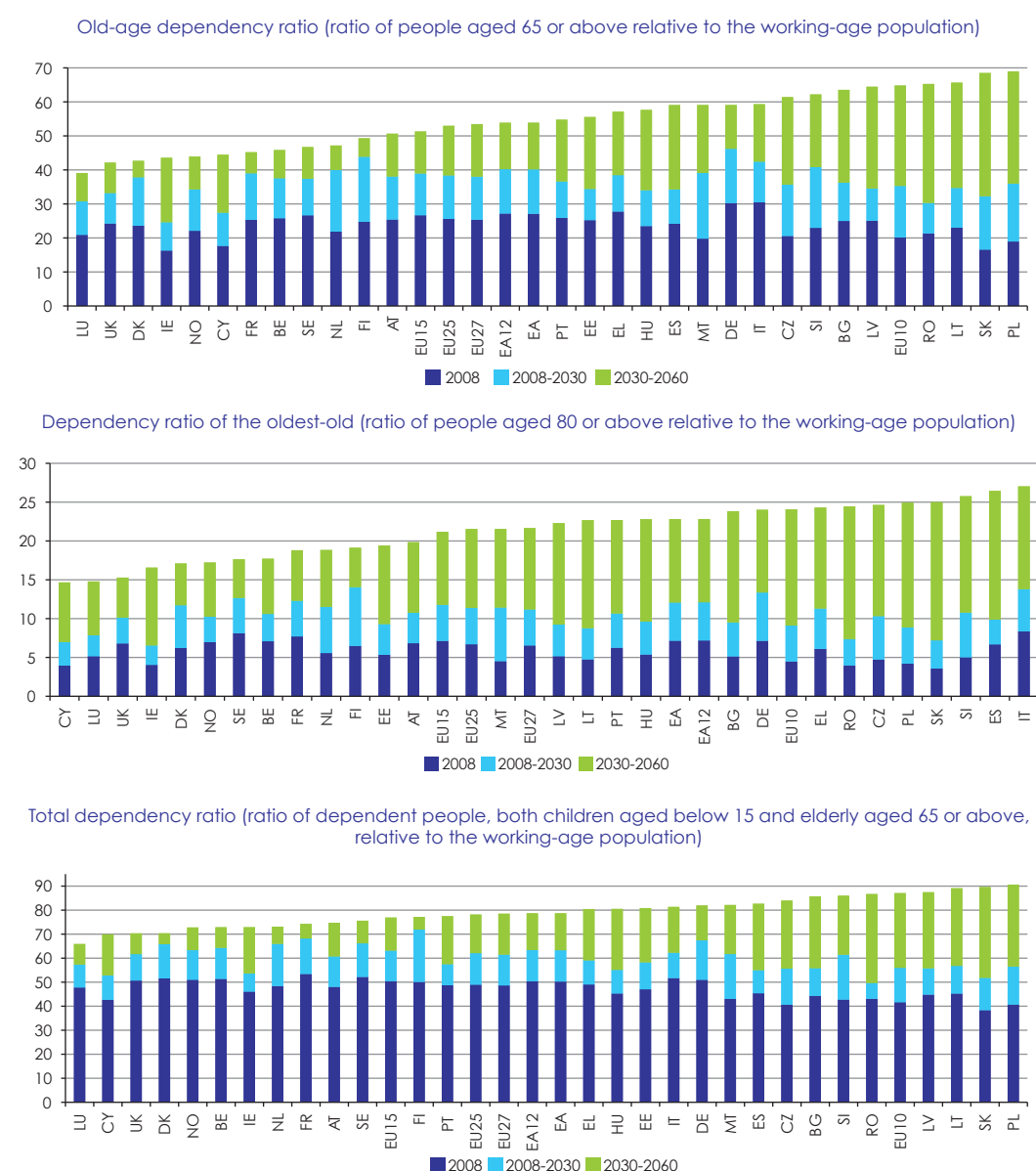
Graph 15 - Projection of changes in the structure of the population by main age groups, EU27 (in %)



Source: Eurostat, EUROPOP2008.

The dependency ratio of the oldest-old, calculated as the number of people aged 80 and above over the working-age population, is expected to increase more than three-fold, from 6.5% to 22% over the projection period. The addition of the number of children to the calculation results in further increases in the ratio of dependent to active. The total dependency ratio, calculated as the ratio of dependent people, both children aged below 15 and elderly aged 65 and above, over the population aged 15 to 64 is projected to rise by nearly 30 percentage points, from 48.7% to 78.5%.

Graph 16 - Dependency ratios (in percentage)



Source: Eurostat, EUROPOP2008.

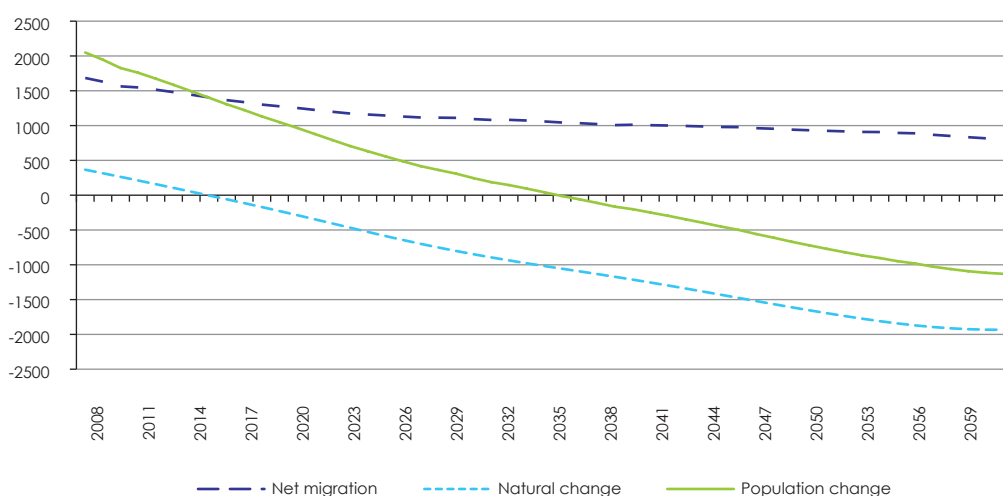
1.1.5. The role of migration

According to the projection, as of 2015, the population for the EU as a whole will no longer grow due to natural change, as the number of deaths per year will outnumber the births. As natural change becomes negative, positive net migration is the only factor driving population growth. As of 2035, net migration flows, although positive, would not be sufficiently large to compensate the natural decrease of the population and the population is expected to decline.

The role of migration in population growth is already predominant today: in many Member States, the size of net migration determines whether the country has a growing population or has entered a stage of population decline. In the beginning of the projection period, 8 Member States have shrinking populations: Bulgaria,

Germany, Estonia, Latvia, Lithuania, Hungary, Poland and Romania. While in Germany and Hungary positive net migration partially compensates the natural decrease of population, negative net migration accompanies the natural decrease in the other countries and hence further aggravates the decline in their population. In the 19 Member States where populations are growing, this is mostly due to the migration balance, with the exceptions of Ireland, France and the Netherlands where the rate of natural increase is larger than the rate of migration. By 2020, 17 Member States would see their population grow. In half of them, it would be due to net migration: the Czech Republic, Greece, Spain, Italy, Malta, Austria, Poland, Portugal and the EU27 as a whole. By 2060, of the 8 Member States with growing populations, only Ireland, Luxembourg and the UK would record a natural increase in the population.

Graph 17 - Change in overall population: natural change and net migration, EU27, in thousands



Source: Eurostat, EUROPOP2008.

The estimation of the net migration necessary to keep the ratio of working-age population-to-total population constant at their 2008 level indicates that the EU as a whole would need significant net immigration – over 25 million additional inflows over the period 2008 to 2020, which would bring the total immigration flows, including the inflows which are already incorporated in the population projection, to nearly 44 million or 9% of the population in 2008. Bulgaria, the Czech Republic, Germany, Latvia, Lithuania, Malta, Poland, Slovenia, Slovakia and Finland would need additional net

immigration flows above 8% of their 2008 population to maintain their current labour force-to-population ratios, bringing the total immigration flows to 10% or above. This exercise is an illustration of the magnitude of the migration inflows that would be necessary as a supply of labour, in absence of other changes such as increases in the labour force participation rates.

Table 3 - Estimation of net migration needs by 2020

In order to keep the ratio labour force to population in 2020 at 2008 level								
	WAP 2020	of which: cumulated migration since 2008		WAP as % 2008 POP	WAP needed	Additional migrants needed	Total migrants	
	000s	000s	in % WAP		000s	000s	as % 2008POP	as % 2008POP
BE	7218	554	7.7	66	7478	260	2.4	7.6
BG	4701	7	0.2	69	4980	279	3.6	3.7
CZ	6863	348	5.1	71	7495	632	6.1	9.5
DK	3575	117	3.3	66	3735	160	2.9	5.1
DE	52639	2098	4.0	66	53946	1307	1.6	4.1
EE	843	-1	-0.2	68	892	48	3.6	3.5
IE	3548	514	14.5	68	3699	151	:	15.1
GR	7453	507	6.8	67	7753	299	2.7	7.2
ES	33892	5451	16.1	69	35150	1258	2.8	14.8
FR	40426	1272	3.1	65	42755	2329	3.8	5.8
IT	39273	3264	8.3	66	40477	1203	2.0	7.5
CY	644	116	17.9	70	669	24	:	17.6
LV	1423	-6	-0.4	69	1485	63	2.8	2.5
LT	2178	-15	-0.7	69	2216	38	1.1	0.7
LU	368	54	14.7	68	373	4	:	12.1
HU	6468	278	4.3	69	6808	340	3.4	6.1
MT	278	14	4.9	70	298	21	5.0	8.3
NL	10901	123	1.1	67	11386	486	3.0	3.7
AT	5786	412	7.1	68	5890	104	1.3	6.2
PL	25436	31	0.1	71	26973	1536	4.0	4.1
PT	7273	645	8.9	67	7469	196	1.8	7.9
RO	14145	16	0.1	70	14557	411	1.9	2.0
SI	1346	65	4.9	70	1441	95	4.7	7.9
SK	3746	57	1.5	72	3926	180	3.3	4.4
FI	3354	122	3.6	67	3664	310	5.9	8.2
SE	6085	466	7.7	66	6473	388	4.2	9.3
UK	42025	2294	5.5	66	43588	1563	2.6	6.3
EU27	331887	18804	5.7	67	345574	13687	2.8	6.6

Source: Eurostat, EUROPOP2008.

Note: WAP is the working-age population, WAP/POP is the ratio working-age population to total population.

As another illustration of the role of migration, the zero migration population scenario prepared by Eurostat assumes no net migration. This assumption involves no migration flows at all. Assuming zero net migration, the working-age population would gradually fall behind the level in the baseline scenario: by 2030, the EU labour force would be 10% lower than in the baseline and 20% lower by 2060.

These exercises are purely illustrative and do not take into account a number of crucial factors, such as (i) the temporary nature of the alleviation, as the immigrant population itself ages over time, and (ii) the fact that it examines the size of the labour force, while for the impact on the economy, the participation rates and labour productivity of the immigrant population relative to the overall population need to be taken into account. They show that it is increasingly important to make the best use of global labour supply through immigration, which requires ensuring that immigrants are effectively integrated into the EU's labour market and society.

1.1.6. Population ageing in the EU in a global context

This section reviews the demographic prospects for the EU in a global context, based on the 2008 UN population projection.¹² The share of the population of what is the EU today halved from about 15% of the world population in 1950 to 8% in 2000, and it is projected to shrink to close to 5% in 2050. The share of populations of Japan and the US has also declined over the last five decades. In contrast, the share of the population in Africa, Asia or Latin America has risen.

Over the period 2000 to 2050, the share of the population in Asia is projected to account for close to 60% of the world population, however it will grow more slowly than the world population and its share is projected to fall by 3 p.p. This is particularly true for China, where

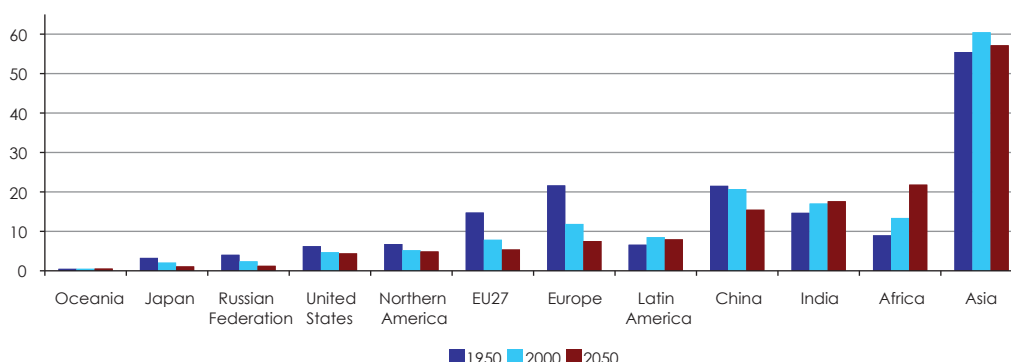
¹² The United Nations Population Division produces global population projections revised every two years. The 2008 Revision was released on 11 March 2009.

the share of the population is projected to fall by 5 p.p. The population in Africa is projected to increase much faster than during the period until 2005 and is expected to account for close to 22% of the world population in 2050. Latin America, Northern America and Oceania will roughly keep their share in the growing world population.¹³

of dependents, both children and elderly. Their ageing is projected to be moderate, with a median age increasing from 19 years in 2005 to 28.5 years in 2050.

The proportion of the population of working-age is expected to decrease in every major area of the world, except in Africa. The proportion of elderly

Graph 18 - Population of main geographic areas and selected countries as percentage of the world population, 1950, 2000, 2050



Source: UN World Population Prospects: The 2008 Revision.

Note: The UN definition of Europe is broader than the EU27; it also includes the following countries: Belarus, the Republic of Moldova, the Russian Federation, Ukraine, the Channel Islands, Faeroe Islands, Iceland, the Isle of Man, Norway, Albania, Andorra, Bosnia and Herzegovina, Croatia, Gibraltar, the Holy See, Montenegro, San Marino, Serbia, The former Yugoslav Republic of Macedonia, Liechtenstein, Monaco and Switzerland.

Most countries in Asia or in Latin America and the Caribbean have still growing working-age populations as a proportion of their total population. However, their populations are expected to age more rapidly than in developed countries due to the rapid fertility reductions experienced. The median age for Latin America and the Caribbean is projected to increase from 26 years in 2005 to 41.7 years in 2050, under the medium variant of the population projection. In Asia, the median age is expected to increase from 27.6 years to 40.2 years over the same period. In contrast to countries in other major areas, most countries in Africa still have young populations. Assuming that their fertility rates decline as projected, the increase in the number of children is projected to slow down, while their population of working-age continues to rise fast, hence they would enter a period of favourable demographics with an increase in the proportion of adults of working-age relative to the proportion

is expected to increase markedly in all regions of the world, doubling in Africa and increasing more than two-fold in Asia and Latin America and the Caribbean. As regards the old-age dependency ratio in the world, calculated as the number of people aged 65 and above over the working-age population, the UN projects the EU27 will have the highest old-age dependency ratio in the world in 2050 (48%) (compared with 50.4 according to EUROPOP2008). Other regions are expected to have ratios ranging from 11% in Africa, 27% in Asia, 31% in Latin America and 36% in Northern America.

The EU of today already had the highest old-age dependency ratio in the world in 1950 (and it was higher still in the euro area), close to that of the US, and its increase has been the fastest over the period 1950 to 2000, rising by 10 percentage points. Still sharper increases are projected during the period 2000 to 2050 everywhere. The largest increases are projected to take place in Japan (by close to 50 p.p.), China and the EU27 (by almost 30 p.p.).

¹³ The UN projects an increase in the world population from 6.1 billions in 2000 to 9.1 billions in 2050.

Graph 19 - Old-age dependency ratios by main geographic areas and selected countries (in percentage), 1950, 2000, 2050



Source: UN World Population Prospects: The 2008 Revision.

1.1.7. Comparison with the 2006 population projection

For the EU as a whole, EUROPOP2008 projects a population about 8% larger (or 43 million people) than the population projected and used in the 2006 exercise. The larger numbers mainly concern the working-age segment, but larger numbers of young and older are also projected. Most of the difference is due to significantly higher migration assumptions, which follow the recent increases observed in net migration inflows, especially in some Member States (Spain, Italy and the UK). Nevertheless, for some Member States (Germany, the Netherlands, Estonia, Lithuania, Latvia, Malta, Poland and Slovenia), net migration flows projected are lower compared to the 2006 projection. Overall, projected net migration flows to the EU are about 785,000 higher in 2010 than in the previous projection. The difference is reduced to about 90,000 in 2050. Cumulated net inward migration is projected to be 12.6 million higher in EUROPOP2008, which accounts for about a third of the (higher) total population projected by 2050.

As a result, lower increases in the old-age dependency ratio are projected in EUROPOP2008: 24.6 percentage points between 2008 and 2050 compared to 25.8 percentage points in the previous projection over the same period. Due to changes in assumptions, the projected increase in the old-age dependency ratio is significantly lower in the UK, Spain, Portugal, Cyprus, Ireland, Austria, Greece, Belgium and Italy while it is significantly higher in Malta, Latvia, Lithuania, Slovakia, Poland, the Netherlands, Germany, Slovenia and Estonia (in order of magnitude).

1.2. LABOUR FORCE ASSUMPTIONS

1.2.1. Overview

Even if the evolution of the labour force differs from one country to another, this projection caters for some common stylised facts which can be summarised as follows:

- the participation rates of prime-age male workers (aged 25 to 54 years), at around 90%, remain the highest of all groups;

- in contrast, the participation rates of men aged 55 to 64 years have declined steadily in the past decades, but there are signs of reversal in many countries since the turn of the century;
- the participation rates of women have steadily increased over the past 25 years;
- the participation rates of young people (aged 15 to 24 years) have declined, mostly due to longer schooling;
- looking forward, the increasing share of older workers in the labour force could put downward pressure on the overall participation rate.

Given these trends, the main drivers of future changes in the overall participation rate, in addition to changes in the age composition of the population, are changes in the labour force attachment of prime-aged women, older workers (especially men) and, to a lesser extent, young people.

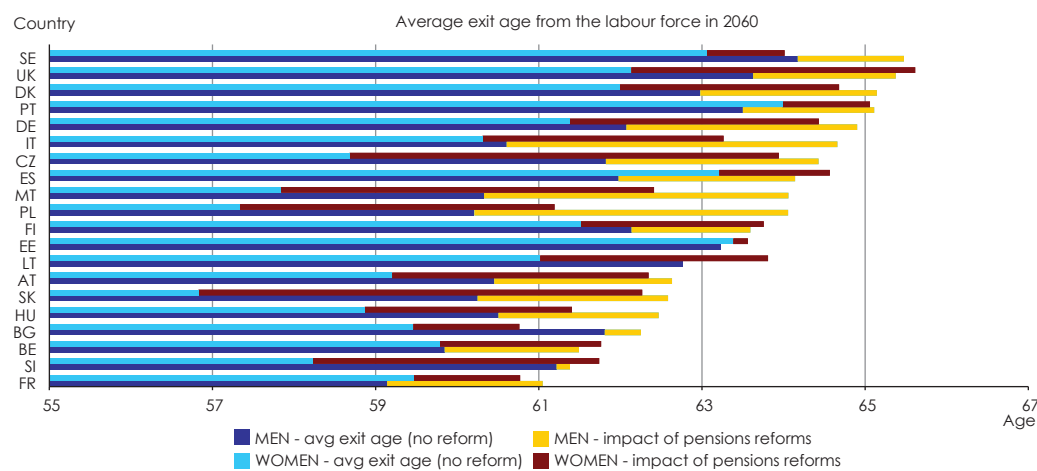
The baseline scenario takes into account the potential effect of recent pension reforms on the participation rates of older workers.¹⁴ The expected postponement of retirement is summarised by the difference in the *average exit*

age from the labour force in 2060. As a result of enacted pension reforms, the effective retirement age for men is expected to increase by more than three years in Germany, Italy, Malta and Poland and by between two and three years in Denmark, Spain, Austria, and Slovakia. The expected postponement of retirement by women is similar, or even higher than for men in some cases. This reflects in several cases a progressive alignment of the retirement age of women to that of men.

Graph 21 shows the estimated impact of pension reforms on participation rates. According to the projection, pension reforms would have a sizeable impact on the labour market participation of older workers in most of the Member States which plan the implementation of enacted pension reforms. A stronger impact is expected from changes in the parameters affecting the statutory age of retirement. In Germany, Finland, Hungary and Slovenia, the impact on the participation rate is estimated to be more than 10 p.p. by 2020. In the Czech Republic and Slovakia, the impact is estimated to be larger than 15 p.p. by 2020. Overall, in the EU, the participation rate of older people (55-64) is estimated to be about 8 p.p. higher in 2020 and 13 p.p. higher in 2060 due to the impact of pension reforms. In the euro area, the impact is estimated to be slightly larger, at about 9 p.p. in 2020 and 13.5 p.p. 2060, respectively.

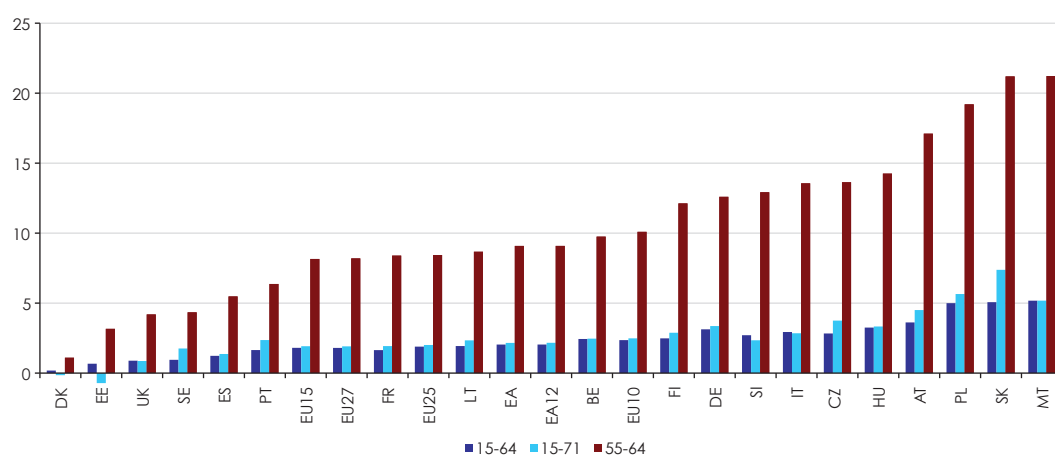
¹⁴ The findings of an international research project based on micro-estimation results are clear: changing pension plan provisions would have large effects on the labour participation of older workers, see Gruber and Wise (2005). The reforms taken into account are recently enacted in 20 EU Member States and include measures to be phased in gradually. Some countries have enacted legislation to increase the statutory retirement age for women or for both men and women. Others have changed provisions of social security programmes (and sometimes of other transfer programmes used as alternative early retirement paths) that provided strong incentives to leave the labour force at an early age. The information was provided by the Members of the EPC and AWG. For details on the pension reforms incorporated in the baseline scenario, see European Commission–EPC (2008).

Graph 20 - Impact of pension reforms on the average exit age from the labour force



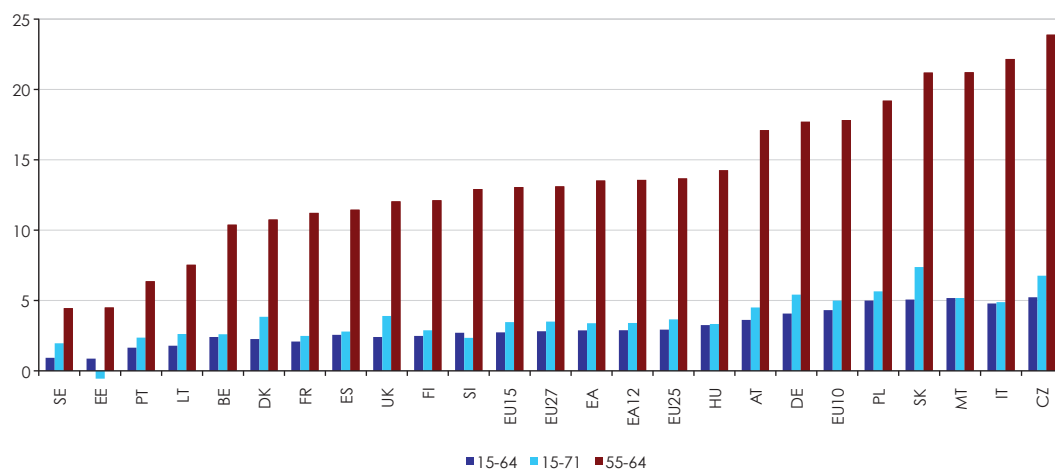
Source: Commission services, EPC.

Graph 21 - Estimated impact of pension reform on participation rates (2020), in percentage points (comparison of projections with and without incorporating recent pension reforms)



Source: Commission services, EPC.

Graph 22 - Estimated impact of pension reform on participation rates (2060), in percentage points (comparison of projections with and without incorporating recent pension reforms)



Source: Commission services, EPC.

Changes in overall participation rates are mainly driven by changes in the labour force attachment of prime-age workers, as this group accounts for more than 70% of the total labour force. Therefore, the large increases in the participation rates of older workers projected will have a rather limited impact on the overall participation rate. For example, the 17 percentage point increase in the participation rate of older workers projected in Germany leads to an increase in the overall participation rate (workers aged 15 to 64 years) of about 4 percentage points by 2060.

1.2.2. Main results of the projection of labour market participation rates

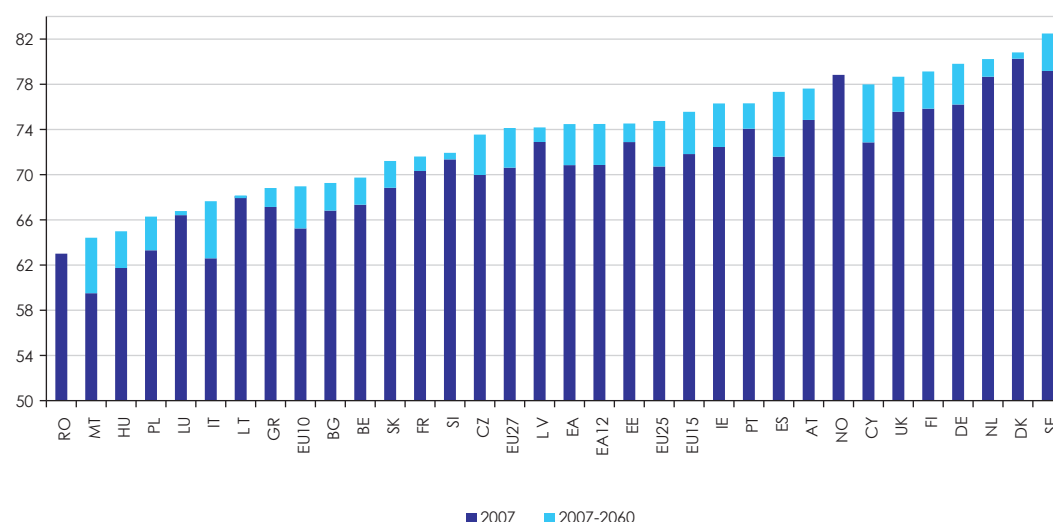
1.2.2.1. Projection of participation rates

The methodology used leads to a projected upward shift in the participation rates of older age groups (mainly from the age of 45) that is

particularly strong for women while, by assumption, the participation rate profiles of the young are assumed to remain generally stable, or increase moderately over time.

The overall participation rate (for the age group 15 to 64) in the EU27 is projected to increase by 3.6 percentage points over the period 2007-2060 (from 70.6% in 2007 to 74.1% in 2060). For the euro area, a similar increase is projected, from 70.8% in 2007 to 74.5% in 2060. For the age-group 15-71, the current and projected participation rates as well as the increase are smaller. Almost all of the increase is projected to materialize in the period up to 2020.

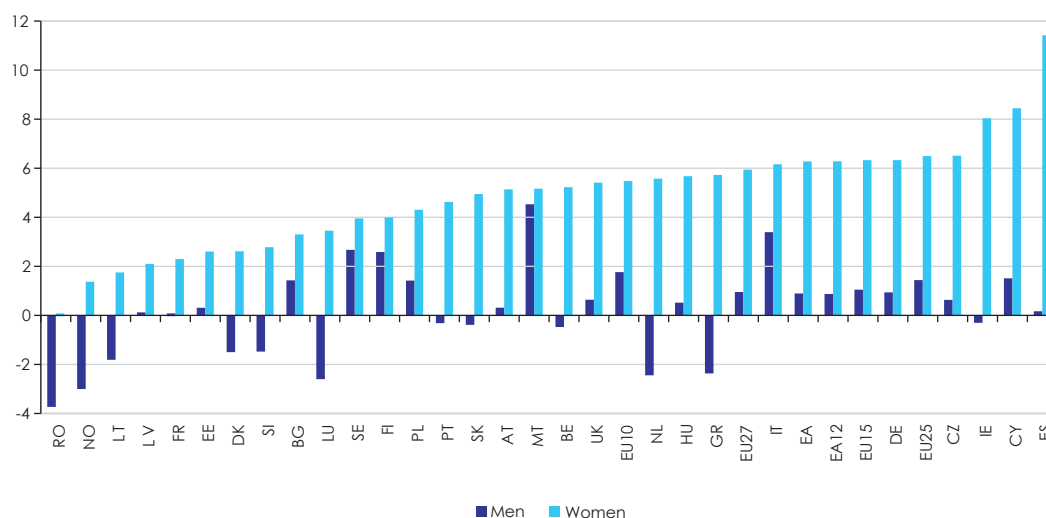
Graph 23 - Participation rates (in percentage)



Source: Commission services, EPC.

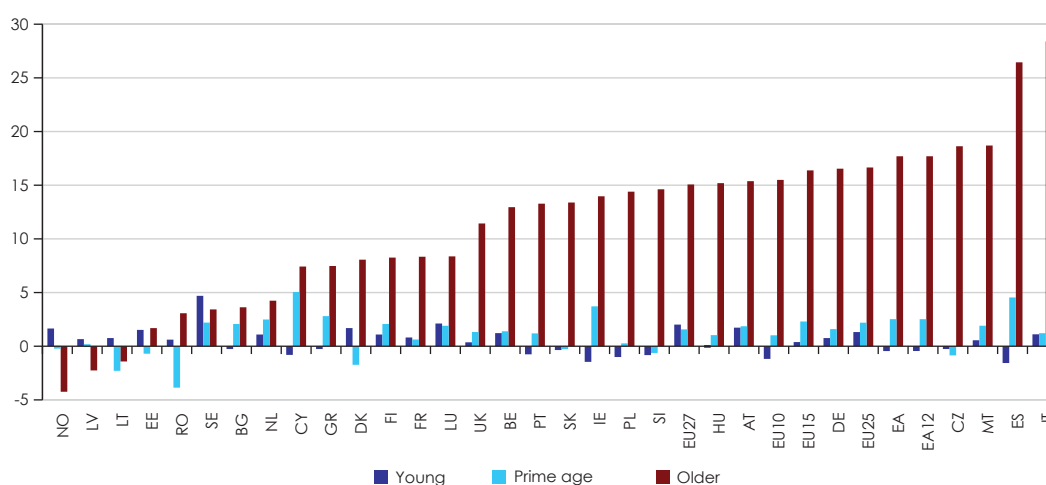
Note: For Norway and Romania, which experience a small decline in participation rates over the period 2007 to 2060, the graph shows unchanged participation rates.

Graph 24 - Participation rates by gender, projected change over the period 2007-2060 (in percentage)



Source: Commission services, EPC.

Graph 25 - Participation rates by main age groups, projected change over the period 2007-2060 (in %)



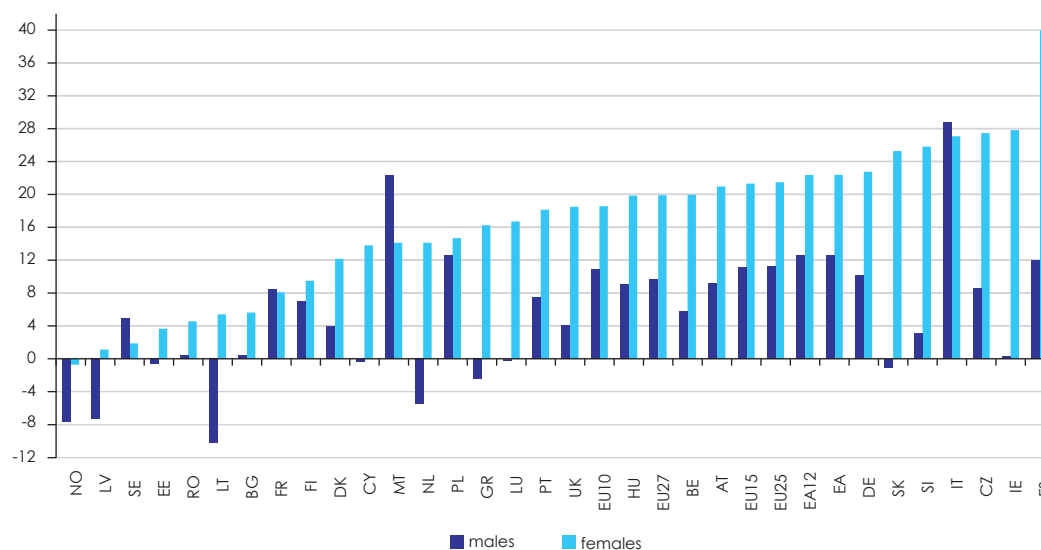
Source: Commission services, EPC.

The biggest increase in participation rates is projected for older workers (around 20 percentage points for women and 10 p.p. for men) in the EU27, and a slightly higher increase in the euro area (22 p.p. for men and 13 p.p. for women). As a result of these dynamics, the gap between male and female participation rates is projected to gradually narrow down, especially in countries with a large gap in 2007.

1.2.2.2. Projection of labour supply

The overall labour force in the EU27 is projected to increase by 3.7% from 2007 to 2020. This means an increase in labour force of roughly 8.6 million people. In the euro area, an increase of almost 5% is projected. According to the projection, the increase in labour supply over the period 2007 to 2020 is mainly due to the increase in female labour supply. The male labour force is projected to remain substantially unchanged.

Graph 26 - Participation rates of the older workers (55-64), projected change over the period 2007-2060 (in %)



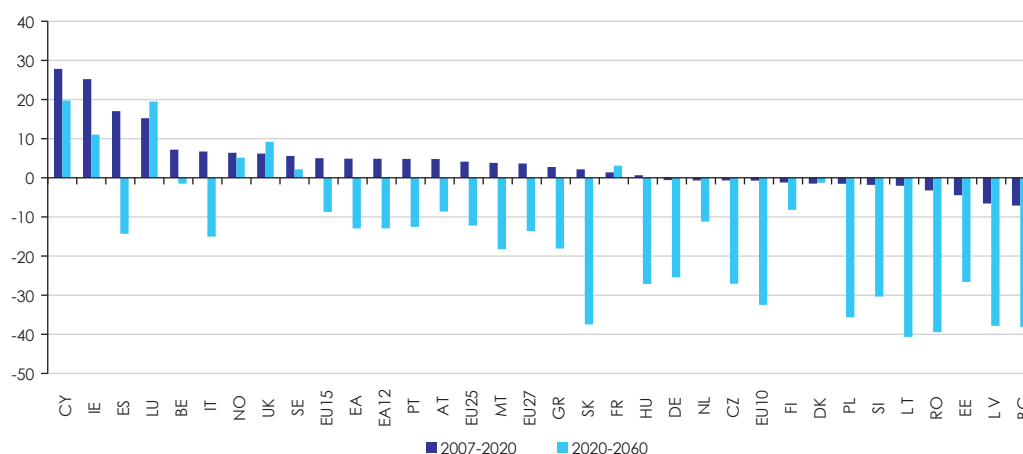
Source: Commission services, EPC.

However, between 2020 and 2060, the overall labour force is expected to decrease by as much as 13.6%, equivalent to around 33 million people (24.4 million if compared with the level in 2007) in the EU, as the positive trend in female labour supply reverses and the male labour supply also drops. In the euro area, the projected fall in labour supply between 2020 and 2060 is 12.6%, which translates into 20.4 million people (13 million if compared with the level in 2007).

Until 2020, a majority of EU countries (all except Denmark, the Netherlands, Finland, the Czech Republic, Estonia, Lithuania, Latvia,

Poland, Slovenia, Bulgaria, and Romania) are projected to record an increase in labour supply. This trend is projected to reverse after 2020, when most countries are projected to record a decrease, except for Cyprus (+19.8%), Luxembourg (+19.5%), Ireland (+11%), France (+3.1%), Sweden (+2.2%) and the UK (+9.2%). As already mentioned, the projected negative labour force growth over the period 2020-2060 in the EU is to be ascribed almost exclusively to negative demographic developments, given that the participation rates over the period 2020-2060 are projected to continue their increase, albeit at a lower pace than during 2007-2020.

Graph 27 - Labour force projections, 2007-2060 (percentage change of people aged 15 to 64)



Source: Commission services, EPC.

1.2.3. Assumptions on structural unemployment

A reduction in the unemployment rate of around 1 ½ percentage points is projected (from 7.2% in 2007 to 5.7% in 2020). A fall of a similar magnitude is projected for the euro area (from 7.5% in 2007 5.9% in 2020).¹⁵

1.2.4. Employment projection

The employment rates (of people age 15 to 64) in the EU are projected to increase from 65.5% in 2007 to 69% in 2020, to almost reach 70% in 2060. In the euro area, a similar development is projected and employment would reach 70% at the end of the projection period.

The employment rate of women is projected to rise from 58.4% in 2007 to 63.4% in 2020 and to 65.1% in 2060. The employment rate for older workers will increase even more, from 44.9% in 2007 to 54.5% in 2020 and further to 59.8% in 2060. For the euro area, the increase in the employment rate of older workers (55-64) is higher than in the EU, rising by 17.7 p.p. compared with 14.9 p.p. in the EU. The older workers employment rate in 2060 is projected to be 59.8% in the EU and 60.3% in the euro area.

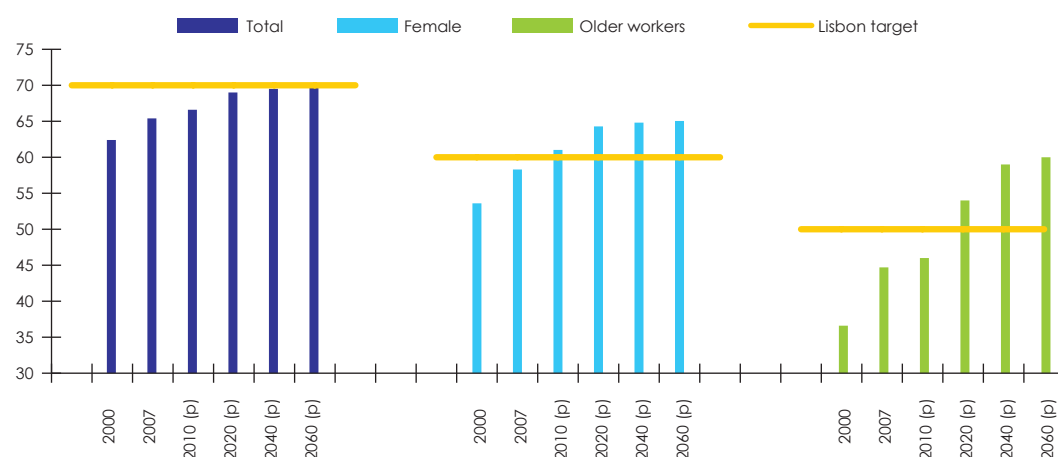
¹⁵ To avoid extrapolating forward high levels of NAIRU for countries still above the estimated medium-term EU15 average of the NAIRU (6.2%) (Belgium, Germany, Greece, Spain, France, Portugal, Hungary, Malta and Slovakia), the EPC agreed the assumption that these countries should converge to this unemployment rate by 2020.

The future increases in the employment rates of women and older workers may temporarily cushion the impact of an ageing labour force; however after 2020 both the labour force and the number of persons employed enter a downward trajectory.

Three distinct periods can be observed for the EU as a whole:

- *2007-2012 – demographic developments still support growth:* both the working-age population and the number of persons employed are projected to increase. However, the increase slows down as the effects of an ageing population take hold, even without incorporating the potential negative impact of the current financial and economic crisis. Policies need to be put in place to avoid that the crisis turns into a permanent shock to employment and labour productivity, and hence potential economic growth.
- *2013-2019 – rising employment rates offset the decline in the working-age population:* the working-age population starts to decline as the baby-boom generation enters retirement. However, the projected increase in the employment rates of women and older workers cushion the impact of demographic change, and the overall number of persons employed would continue to increase, albeit at a slower pace. This period could be characterised by tightening labour market conditions with potentially growing mismatches and the risk of heightened wage

Graph 28 - Employment rates and Lisbon targets in the EU27 (in percentage)



Source: Commission services, EPC.

Note: (p) means projected value.

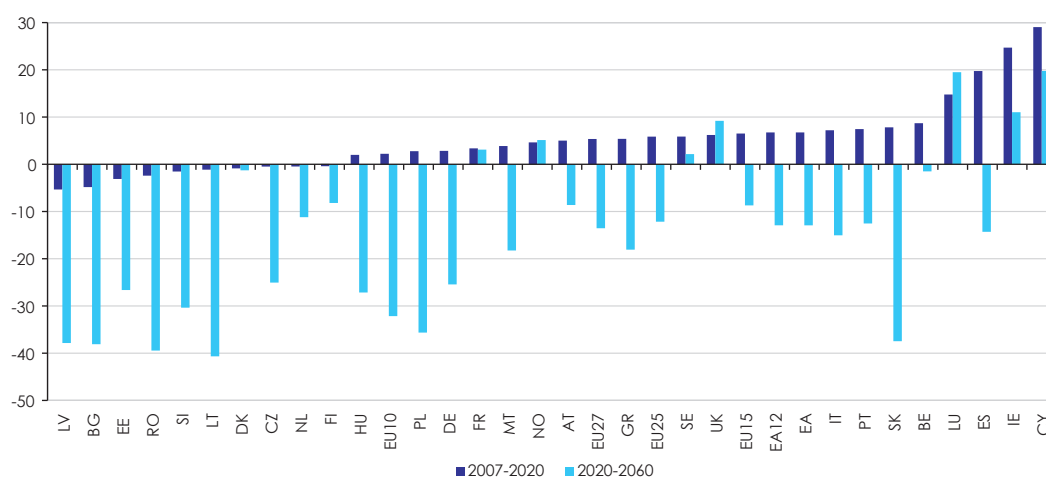
pressures. Conditions for pursuing structural reforms to prepare for the ageing of the population become less favourable;

- *the ageing effect dominates from 2020:* the trend increase in female employment rates will broadly have worked itself through. In the absence of further reforms, the employment rate of older workers is also projected to reach a steady state. Consequently, there is no counter-balancing factor to ageing, and both the working-age population and the number of persons employed enter a downward trajectory.

The number of people employed¹⁶ is projected to record an annual growth rate of only 0.4% over the period 2007 to 2020 (compared to 1.3% over the period 1998-2007), before reversing to a negative annual growth rate of a similar magnitude in the subsequent period 2020 to 2060. As a result of these opposite trends, the overall employment in the EU is projected to shrink by about 19.4 million people over the period 2007 to 2060. Rises in immigration levels in some countries and increases in labour force participation rates moderate the fall in employment owed to the ageing of the population and the negative population growth projected for the period 2020 to 2060.

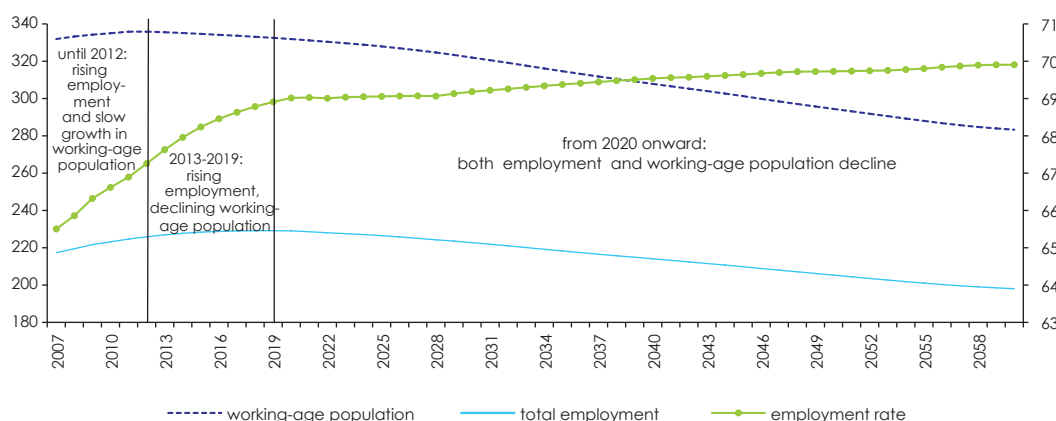
¹⁶ According to the European Labour Force Survey definition.

Graph 29 - Employment projections, changes in percentage



Source: Commission services, EPC.

Graph 30 - Population of working-age and total employment, EU27



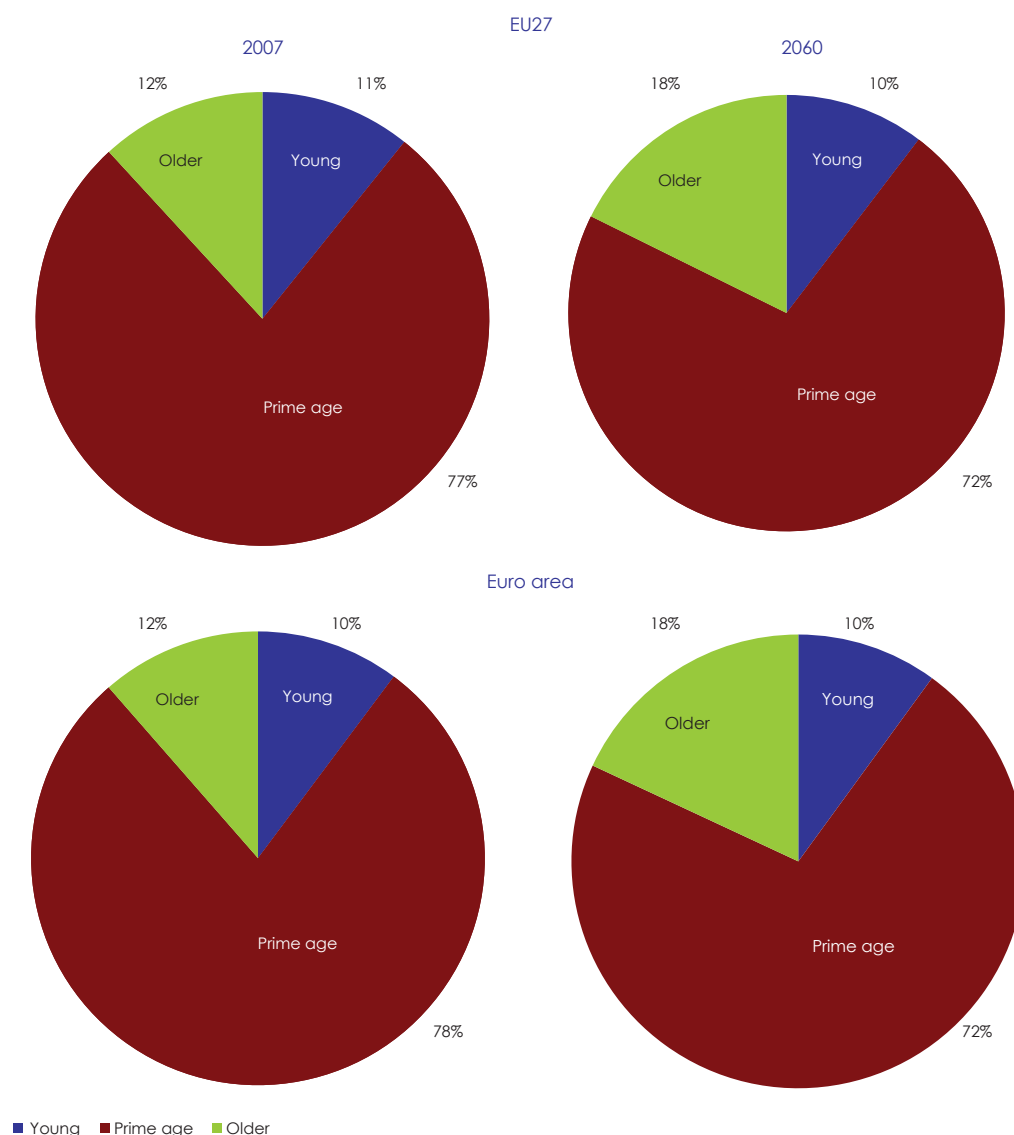
Source: Commission services, EPC.

Table 4 - Peaks and troughs for the size of the working-age population and the total number of persons employed

	2007 - value	value	year	2007 - peak	value	year	peak - through	2007 - value	value	year	2007 - peak	value	year	peak - through
BE	7.0	7.2	2022	3.5%	7.0	2007	-3.4%	4.3	4.7	2020	8.7%	4.3	2007	-8.0%
BG	5.3	5.3	2007	0.0%	3.0	2060	-44.5%	3.3	3.4	2009	2.2%	1.9	2060	-42.4%
CZ	7.3	7.4	2008	0.4%	5.2	2060	-29.7%	4.9	5.0	2013	2.9%	3.6	2060	-27.2%
DK	3.6	3.6	2009	0.4%	3.4	2041	-5.4%	2.8	2.8	2009	0.7%	2.7	2039	-4.6%
DE	54.6	54.6	2007	0.0%	38.9	2060	-28.7%	38.0	39.5	2015	3.9%	29.1	2060	-26.2%
EE	0.9	0.9	2007	0.0%	0.6	2060	-31.4%	0.6	0.7	2011	2.7%	0.5	2060	-30.8%
IE	3.0	3.9	2040	33.0%	3.0	2007	-24.8%	2.0	2.8	2040	38.9%	2.0	2007	-28.0%
EL	7.5	7.6	2010	0.7%	6.2	2060	-18.4%	4.6	4.9	2019	5.4%	4.0	2060	-18.1%
ES	30.6	34.2	2025	11.8%	28.4	2060	-17.0%	20.1	24.4	2028	21.3%	20.1	2007	-17.6%
FR	40.1	41.2	2060	2.7%	40.1	2007	-2.6%	26.0	27.7	2060	6.6%	26.0	2007	-6.2%
IT	39.0	39.5	2011	1.2%	32.7	2060	-17.1%	22.9	24.6	2024	7.4%	20.9	2060	-15.2%
CY	0.5	0.8	2060	43.0%	0.5	2007	-30.1%	0.4	0.6	2060	54.5%	0.4	2007	-35.3%
LV	1.6	1.6	2007	0.0%	0.9	2060	-42.9%	1.1	1.1	2009	1.8%	0.6	2060	-42.2%
LT	2.3	2.3	2007	0.0%	1.3	2060	-41.9%	1.5	1.5	2013	2.4%	0.9	2060	-42.7%
LU	0.3	0.4	2060	36.9%	0.3	2007	-27.0%	0.2	0.3	2060	37.1%	0.2	2007	-27.1%
HU	6.9	6.9	2007	0.0%	4.8	2060	-30.3%	4.0	4.1	2015	3.2%	2.9	2060	-28.0%
MT	0.3	0.3	2009	1.8%	0.2	2060	-23.0%	0.2	0.2	2022	4.2%	0.1	2060	-18.5%
NL	11.0	11.1	2011	0.6%	9.6	2060	-13.6%	8.4	8.5	2011	0.9%	7.5	2060	-12.0%
AT	5.6	5.8	2020	3.3%	5.2	2060	-10.6%	4.0	4.2	2020	5.0%	3.8	2060	-8.6%
PL	27.0	27.2	2011	1.0%	16.3	2060	-40.0%	15.4	16.5	2012	6.8%	10.2	2060	-38.1%
PT	7.1	7.3	2022	2.0%	6.3	2060	-12.8%	4.8	5.2	2023	7.5%	4.5	2060	-12.6%
RO	15.0	15.0	2007	0.0%	9.1	2060	-39.7%	8.8	9.0	2011	1.7%	5.2	2060	-41.9%
SI	1.4	1.4	2011	0.5%	1.0	2060	-32.5%	1.0	1.0	2009	1.3%	0.7	2060	-32.3%
SK	3.9	3.9	2011	1.1%	2.4	2060	-38.9%	2.4	2.6	2020	7.8%	1.6	2060	-37.5%
FI	3.5	3.5	2010	1.0%	3.0	2060	-13.9%	2.5	2.5	2009	1.7%	2.3	2060	-9.7%
SE	6.0	6.3	2050	5.2%	6.0	2007	-5.0%	4.4	4.9	2049	9.8%	4.4	2007	-8.9%
UK	40.4	45.0	2050	11.5%	40.4	2007	-10.3%	28.9	33.5	2060	16.0%	28.9	2007	-13.8%
NO	3.1	3.5	2060	13.1%	3.1	2007	-11.6%	2.4	2.6	2060	10.0%	2.4	2008	-9.5%
EA12	209.4	212.7	2013	1.6%	183.0	2060	-14.0%	137.9	147.2	2020	6.7%	128.1	2060	-12.9%
EA	211.6	215.0	2013	1.6%	185.0	2060	-14.0%	139.4	148.8	2020	6.7%	129.5	2060	-12.9%
EU27	331.9	335.9	2012	1.2%	283.3	2060	-15.6%	217.4	229.2	2019	5.4%	198.0	2060	-13.6%
EU15	259.4	263.9	2019	1.7%	237.7	2060	-9.9%	174.0	185.3	2020	6.5%	169.2	2060	-8.7%
EU10	52.2	52.4	2010	0.4%	33.6	2060	-35.9%	31.3	32.9	2013	5.0%	21.7	2060	-33.9%
EU25	311.5	315.9	2012	1.4%	271.3	2060	-14.1%	205.3	217.3	2020	5.9%	190.9	2060	-12.2%

Source: Commission services.

Graph 31 - Employment projections, composition of employment by age groups



Source: Commission services, EPC.

As a result of different trends in the age composition of the population, the age structure of the labour force is projected to undergo a number of relevant changes. The share of older workers (aged 55 to 64) in the total labour force is projected to rise by 50%, rising from 11.6% in 2007 to about 17.4% in 2060 in the EU. In the euro area, it is projected to rise slightly more, reaching 17.8% in 2060. The increase projected is particularly high in Italy (from 10.1% to 20.8%), Spain (from 10.3% to 19.7%) and Slovakia (from 8.6% to 16.9%).

Most of the increase materializes in the period to 2020 in the EU and in the euro area. The share of older workers is projected to fall in the latter part of the projection period between 2020 and

2060 in some other Member States (Belgium, Germany, Finland, Sweden, Estonia, Latvia and Slovenia).

1.2.5. The balance of non workers to workers: the economic dependency ratios emerging from the labour force projection

These trends are mirrored in the ratios of non workers to workers: the effective economic old-age dependency ratio, calculated as the number of inactive people aged 65 and above, as a percentage of population aged 15-64 employed, and the total economic dependency ratio, which includes the children in the calculation. It is important to consider the effective economic old-age dependency ratio when assessing the

impact of ageing on budgetary expenditure, pension public schemes above all. This indicator shows the balance between non workers and workers: the inactive elderly and the economically active (employed) population.

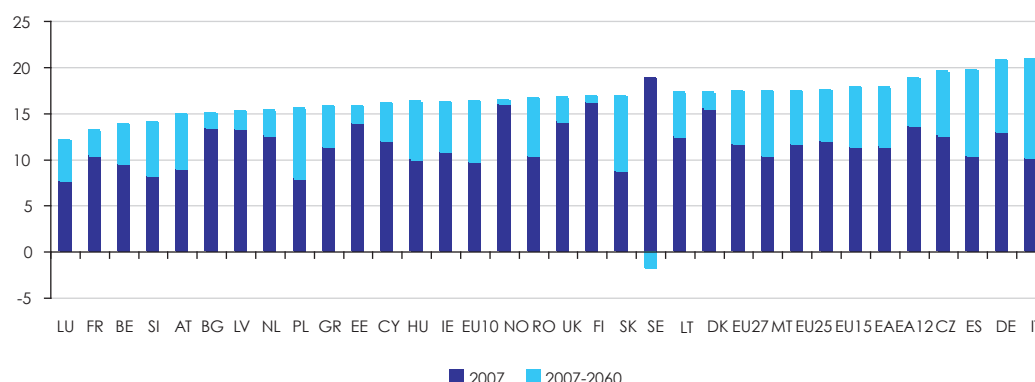
The effective economic old-age dependency ratio is projected to rise sharply for the EU27 from 37% in 2007 to 42% in 2020 and 72% in 2060. This means that we would move from a ratio of nearly 4 elderly non workers out of 10 workers in 2007 to a ratio of more than 7 non workers to 10 workers. In the euro area, a similar evolution is projected, with the effective old-age dependency ratio rising from 39% in 2007 to 45% in 2020 and 73% in 2060. Extremely high values are projected in some EU countries. In Poland and Romania, the projections point to a situation in which there will be as many or more inactive old persons as employed in 2060 (106% and 99%, respectively). The effective economic old-age dependency ratio will be 90% or more in Bulgaria, Lithuania, Hungary, Malta and Slovakia. By contrast, it is projected to be smaller than two thirds in Denmark, Ireland, France, Cyprus, Luxembourg, Netherlands, Austria, Portugal, Finland, Sweden, the UK and Norway.

The total economic dependency ratio is the total inactive population relative to the people employed (aged 15-64). It gives an indication of the average number of people that each economically active person “supports”, and thus is relevant when considering the prospects for potential GDP per capita growth. It is projected to decline in the first period of the projection (up to 2020) in the EU (from 125% in 2007 to 122%

in 2020). Thereafter, it increases to 151% by 2060. A similar development is projected in the euro area. These results need to be interpreted carefully. They show that overall economic dependency is projected to decline up to 2020 mostly due to a better labour market performance (especially the projected increase in female employment rates), but also due to low fertility (i.e. smaller numbers of young people imply a decline in the youth dependency ratio). However, these effects taper-off after 2020 and the increase in the total economic dependency ratio between 2020 and 2060 is evident for all Member States. There are however large cross-country differences. For some Member States (Lithuania, Poland, Slovakia and Romania) it increases by 60 percentage points or more between 2020 and 2060, while for some others (Denmark, France, Finland, Sweden and the UK) it is projected to rise more modestly, by 20 percentage points or less.¹⁷

¹⁷ For more detailed information on the evolution of the economic dependency ratios per Member State, see the Statistical Annex.

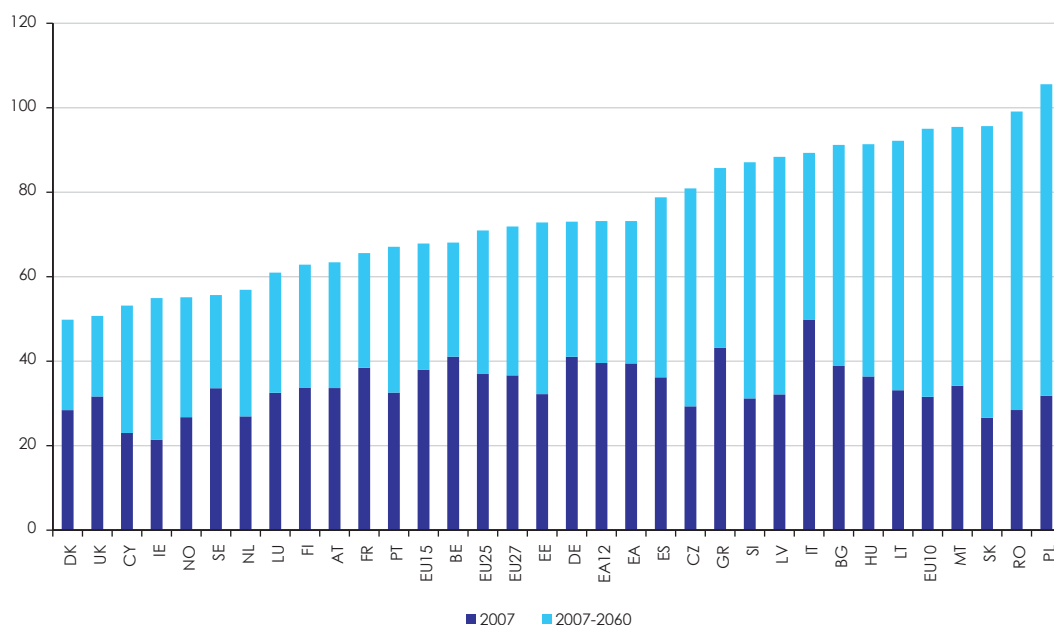
Graph 32 - Share of older workers (labour force aged 55 to 64 as a percentage of the labour force aged 15 to 64)



Source: Commission services, EPC.

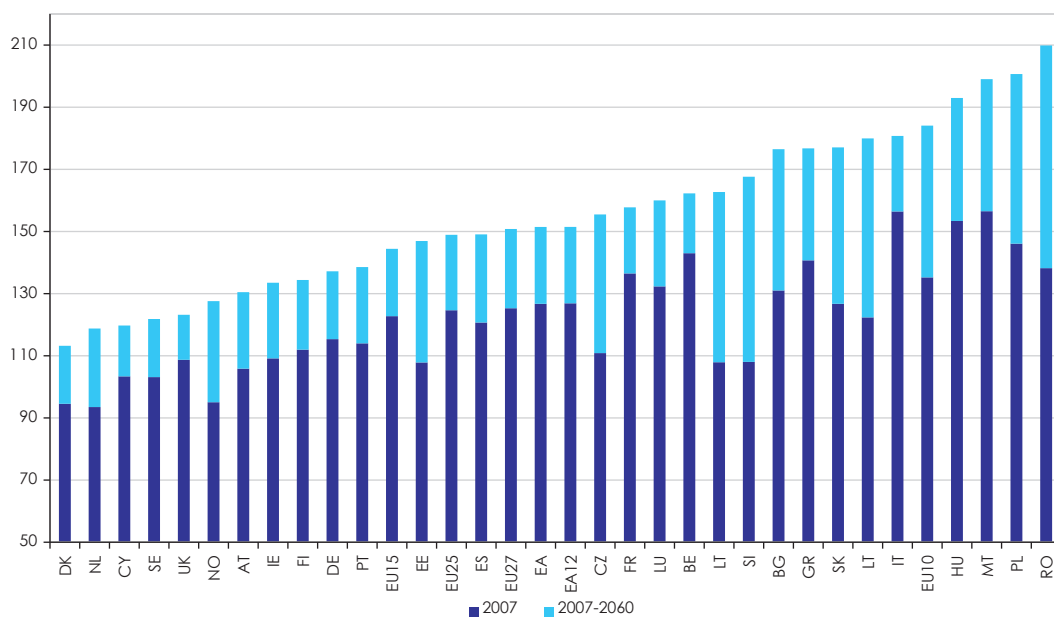
Note: For Sweden, there is a decline in the share of older workers over the period 2007 to 2060, shown by the bar below the axis.

Graph 33 - Effective economic old-age dependency ratio (inactive population aged 65 and above as a percentage of employed population aged 15 to 64)



Source: Commission services, EPC.

Graph 34 - Total inactive population (both aged 14 and below and aged 65 and above) as a percentage of employed population aged 15 to 64



Source: Commission services, EPC.

1.2.6. Projection of total hours worked

The projected evolution in employment will give rise to a 5.4% increase in the total hours of work in the period up to 2020 in the EU.¹⁸ However, from 2020 onwards the situation is projected to reverse and hours worked will fall by 12.9% between 2020 and 2060. Over the entire projection period, total hours worked are projected to fall by 8.2% in the EU. For the euro area, the projected fall is less marked (-5.7% between 2007 and 2060). In terms of annual average growth rates, hours worked are projected to fall by 0.2% over 2007-2060 in the EU and by 0.1% in the euro area.¹⁹ These trends in hours worked reflect the employment trends discussed above and also a composition effect, that is the increasing share over time of employed persons working part-time. As a result of this composition effect, average hours worked per person will change over time.

¹⁸ Compared with the projections in the 2006 Ageing Report, the labour input is defined as hours worked instead of number of employees. This definition was adopted to ensure consistency with the production function used to calculate output gaps for the purpose of, inter alia, estimating cyclically adjusted budget balances (CABs) in the context of the European Commission's multilateral budgetary surveillance.

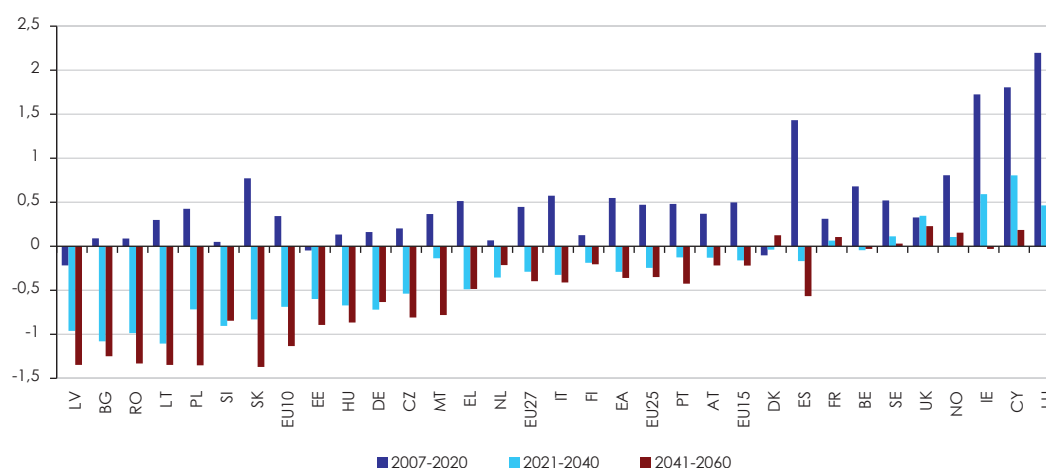
¹⁹ The total hours worked for 2007-2009 are estimated using the production function framework. For the remainder of the projection period, the cohort simulation model was used.

There are major differences between the Member States, mainly reflecting different demographic trends. A reduction in hours worked of 20% or more between 2007 and 2060 is projected for Bulgaria, the Czech Republic, Germany, Estonia, Latvia, Lithuania, Hungary, Poland, Romania, Slovenia and Slovakia. In contrast, for some other Member States (Belgium, Ireland, Spain, France, Cyprus, Luxembourg, Sweden and the UK) an increase is projected over the same period.

1.2.7. Comparison with the 2006 round of projections

The participation rate in the EU25 (15-64) is projected to increase at virtually the same pace as in the 2006 projection, by 4 p.p. until 2050. By contrast, the older workers (55-64) participation rates are projected to increase more than in the 2006 projection. The structural unemployment rate in 2007 (7.3%) is lower than in the 2006 projection, but a smaller decrease in the unemployment rate is projected this time. Similarly, the employment rate is higher in 2007 in the current projection exercise, but a smaller increase is projected in the period to 2050. The reverse is the case for the employment rate of older workers (55-64), which is projected to increase more this time.

Graph 35 - Hours worked projections, annual growth rate



Source: Commission services, EPC.

1.3. LABOUR PRODUCTIVITY AND GDP

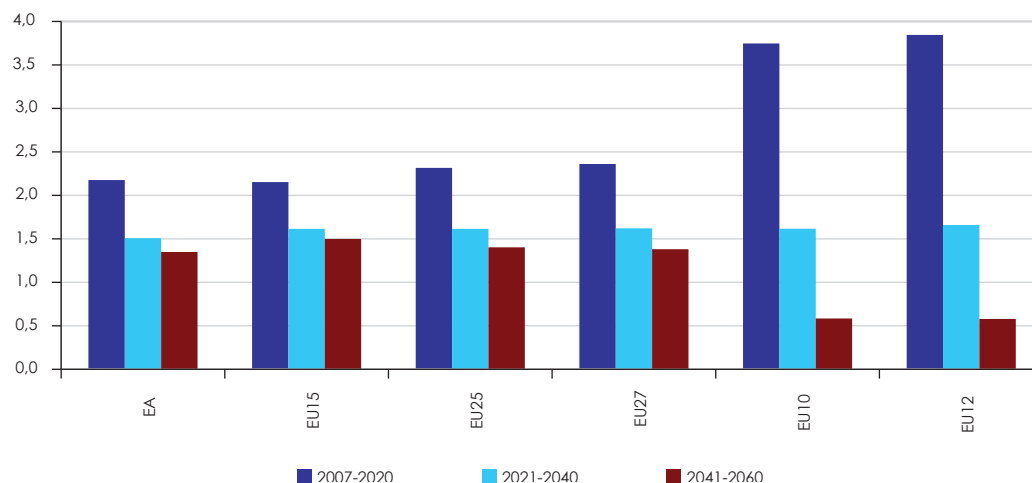
1.3.1. Main results of the projections

A sharp decline in the annual average potential GDP growth rate is projected in the EU, from 2.4% in the period 2007-2020, to 1.6% in the period 2021-30 and then 1.3% in the period 2041-2060. Over the whole period 2007-2060, output growth rates in the euro area are very close to those in the EU27, as the former represents more than 2/3 of the EU27 total output. Notwithstanding this, the potential growth rate in the euro area in the beginning of the projection period (up to 2020s) is lower than

for the EU27 and the decline is therefore less sharp.

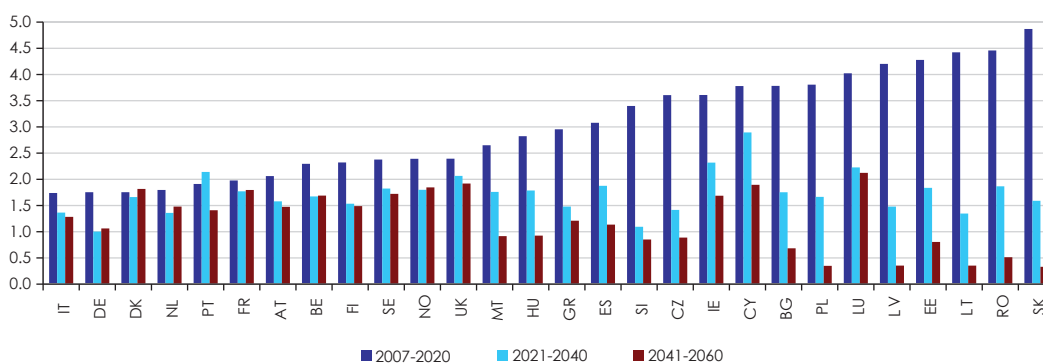
For the EU27, productivity growth is projected to remain fairly stable throughout the projection period, close to 1.7%. The small increase up to the 2030s is due to the assumed higher productivity growth in the catching up Member States, which is assumed to converge to the 1.7% growth rate by 2050. Since the starting point of productivity growth in the euro area is below the assumed long-term EU average of 1.7% annual growth, the increase in productivity growth assumed up to the 2030s is higher.

Graph 36 - Projected potential growth rates (annual average growth rates), EU aggregates



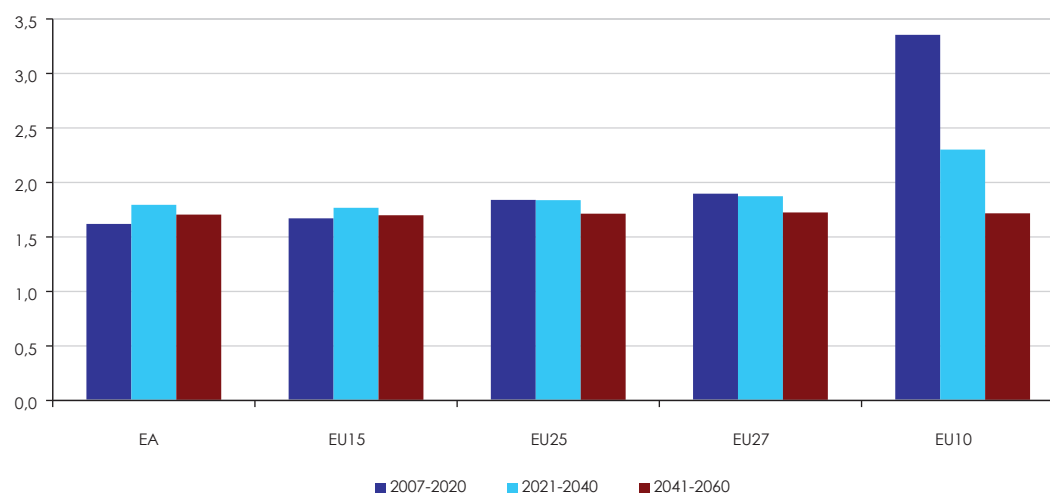
Source: Commission services.

Graph 37 - Projected potential growth rates (annual average growth rates), all Member States



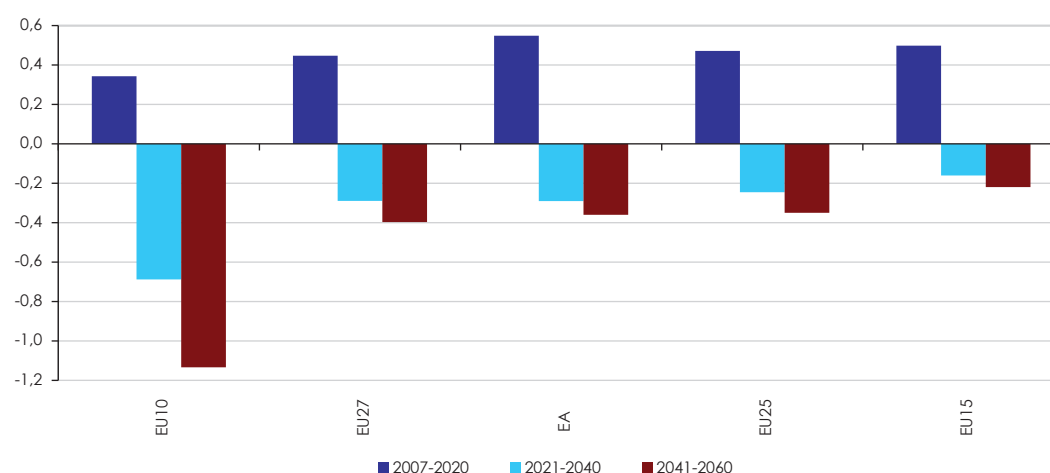
Source: Commission services, EPC.

Graph 38 - Labour productivity per hour, annual average growth rates, EU aggregates



Source: Commission services, EPC.

Graph 39 - Labour input (total hours worked), annual average growth rates, EU aggregates



Source: Commission services, EPC.

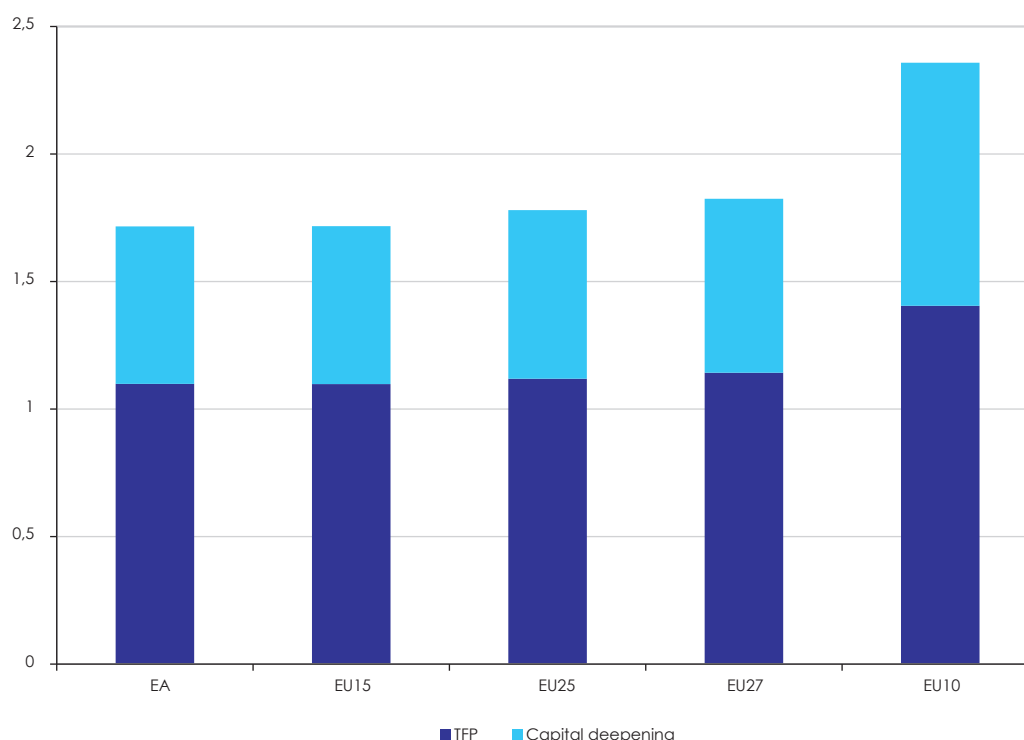
The labour input in the EU and in the euro area is projected to increase up to the 2020s. Thereafter, the demographic changes, with a reduction in the working-age population, are projected to act as a drag on growth.

Graph 40 shows the contribution of the main determinants of labour productivity (per hour worked): total factor productivity (TFP) growth and capital deepening. TFP growth explains most of productivity growth per hour worked. This follows from the fact that in the long-run, the capital deepening contribution follows TFP growth (times the labour share). By construction, TFP growth converges towards the rate of 1.1%

by 2050 for all Member States, which, given the use of the “capital rule”, implies a labour productivity growth rate of 1.7% for all countries in the steady state reached in 2050.

For the countries with a relatively low GDP per capita, the capital deepening contribution is very high in the first part of the projection period, reflecting the assumed catching-up process of converging economies. Then, the contribution gradually declines to the steady state value of 0.6 p.p., as the growth in the capital stock slowly adjusts to growth in hours worked.

Graph 40 - Determinants of labour productivity: Total factor productivity (annual average growth rates) and capital deepening (contribution in p.p.), EU aggregates, 2007-2060



Source: Commission services, EPC.

As expected, the projected decline in output per capita growth rates in both the EU27 and the euro area is a bit smaller than the projected fall in output growth rates, since total population growth rates are also projected go down over time.

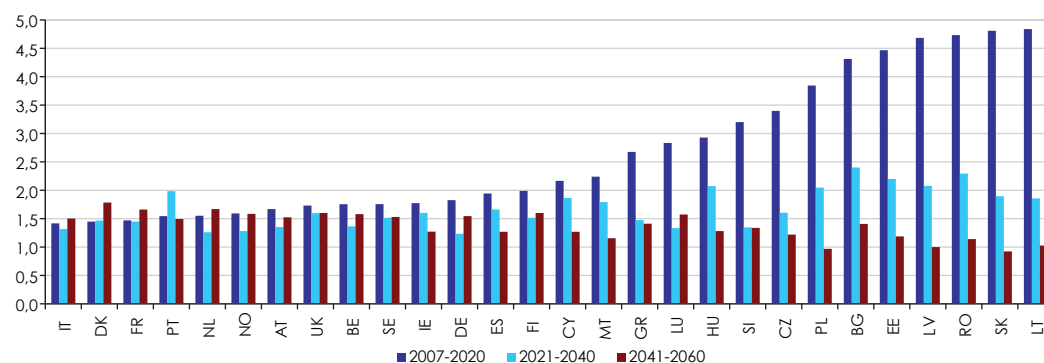
While all EU Member States are projected to experience a more or less marked slowdown in their potential growth rates in the future owing to the adverse impact of demographic developments, growth rates differ substantially from country to country. In the first half of the projection period, productivity growth is the main source of discrepancy across countries, reflecting different productivity growth rates at the outset of the projection and the differentiation of productivity growth rates according to the catching-up potential. In the latter part of the projection period, developments in the labour input have a dominant role, due to different demographic developments and the mechanical effect of productivity growth convergence.

In addition to falling potential GDP growth rates, the sources of growth will alter dramatically. The labour input will make a positive contribution to

growth in both the EU and the euro area up to 2020, but turn significantly negative thereafter. Over time, productivity will become the dominant source of growth.

In order to assess the relative contribution of labour productivity and labour utilisation to GDP growth, the standard growth accounting framework can be used. For the EU and for the euro area, a slight increase in the size of the population and an increasing employment rate (which on average contribute 0.1 percentage points each to average GDP growth over the entire projection period) is more than offset by a decline in the share of the working-age population (which is a negative drag on growth by an average of -0.3 percentage points). As a result, the labour input contributes negatively to output growth on average over the projection period (by 0.1 p.p.).

Graph 41 - Projected GDP per capita growth rates (period averages)



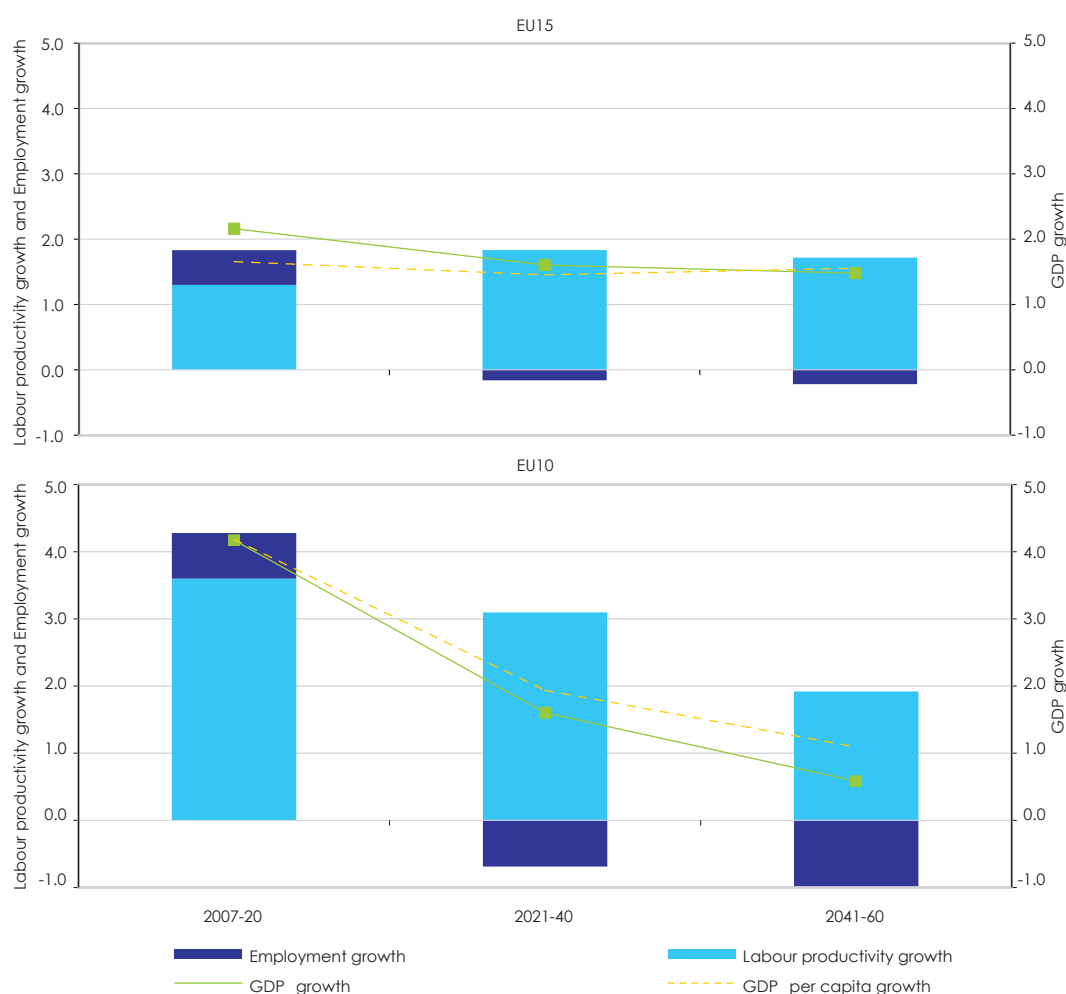
Source: Commission services, EPC.

Table 5 - Decomposition of GDP growth, 2007-60 (in percentage)

		EU27	EA	EA12	EU15	EU10	EU25
1	GDP growth in 2007-2060	1.7	1.6	1.6	1.7	1.8	1.7
	Due to % change in:						
2=3+4	Productivity (GDP per hour worked)	1.8	1.7	1.7	1.7	2.4	1.8
	of which:						
3	TFP	1.1	1.1	1.1	1.1	1.4	1.1
4	Capital deepening	0.7	0.6	0.6	0.6	1.0	0.7
5=6+7+8+9	Labour input	-0.1	-0.1	-0.1	0.0	-0.6	-0.1
	of which:						
6	Total population	0.1	0.1	0.1	0.2	-0.3	0.1
7	Employment rate	0.1	0.1	0.1	0.1	0.1	0.1
8	Share of working age population	-0.3	-0.3	-0.3	-0.2	-0.3	-0.3
9	change in average hours worked	0.0	0.0	0.0	0.0	0.0	0.0
10=1-6	GDP per capita growth in 2007-2060	1.6	1.5	1.5	1.6	2.1	1.6

Source: Commission services, EPC.

Graph 42 - Decomposition of GDP growth, EU15, EU10 (2007-20, 2021-40, 2041-60, annual average growth rate)



Source: Commission services, EPC.

Given the decline in labour supply, the annual average potential GDP growth rate for the EU27 is projected to decline from 2.4% in the period 2007 to 2020 to 1.3% in the period 2041-2060. A smaller fall in potential growth rates is projected in the euro area, chiefly reflecting lower growth rates in the beginning of the projection period. The new Member States are projected to exhibit a larger decline in potential growth rates over the projection period. This stems from the assumption that productivity growth rates converge for all Member States by 2050 and that the demographic projections are less favourable in the new Member States compared with the old Member States.

It should be borne in mind that these projections of GDP are based on projections of future growth in labour productivity and employment.

In particular, projected labour productivity growth relies on assumptions about total factor productivity growth and capital stock developments. Although such patterns may or may not happen, they are based on the reasonable principle that cross-country discrepancies in labour productivity growth should be allowed at the start of the projection but should fade away towards the end of the projection horizon.

1.3.2. Comparison with the 2006 round of projections

In the current projection, the EU population is larger than in the projection carried out in 2006: about 4 million larger in 2008 and 43 million in 2050 for the EU25 (8%). The additional population in 2050 is concentrated in the

working-age group (15-64), although all age brackets will increase in number.

As regards the demographic assumptions in EUROPOP2008, fertility rates in the initial year are slightly higher while the increase is marginally lower than in the 2006 exercise. A larger gain in life expectancy is assumed in this round and life expectancy in 2050 is now assumed to be 1.5 years higher for men at 83.3 and 1.2 years higher for women at 88.1. The net migration flows assumed in this projection round are significantly higher for the EU as a whole, although for some Member States (Germany, the Netherlands, Estonia, Lithuania, Latvia, Malta, Poland, and Slovenia) net migration flows are lower than assumed in 2006. Overall, EU net inward migration is projected to be 12.6 million higher and therefore explains about one third of the larger total population projected.

As a result, a smaller increase in the old-age dependency ratio is projected in EUROPOP2008 (by 24.6 percentage points between 2008 and 2050, compared to 25.8 percentage points in the previous projection). Due to the different demographic assumptions, the projected increase in the old-age dependency ratio is significantly lower in the UK, Spain, Portugal, Cyprus, Ireland, Austria, Greece, Belgium and Italy and significantly higher in Malta, Latvia, Lithuania, Slovakia, Poland, the Netherlands, Germany, Slovenia, Estonia (in descending order).

The participation rate (15-64) would increase at virtually the same pace in both projections, by 4 p.p. over the period up to 2050. The employment

rate in 2007 is higher in the current projection exercise and would increase less over the projection period, but still surpass 70% in 2050.

The annual average potential GDP growth over the period 2007-2050 is projected to be 1.8%, compared with 1.7% in the 2006 projection. The higher average growth rate can be attributed to a more favourable demographic outlook (higher growth in the total population and a less adverse population composition effect), which is partly offset by a worse employment outlook. The projected average annual productivity growth is 1.8%, similar to the previous projection.

There are however marked differences at Member State level between the two projections. Greece, Spain and Portugal are projected to have higher average GDP growth (by 0.3-0.4 p.p.). In the case of Greece, this is due to higher labour productivity growth assumed. For Spain and Portugal, the more favourable growth outlook is due to a more benign demographic outlook. In GDP per capita growth terms, the difference in growth rates between the two projection exercises is smaller, especially for Spain and Portugal.

By contrast, some other countries (Latvia, Lithuania and Malta) are projected to have lower annual average GDP growth, by 0.4-0.6 p.p. For Latvia and Lithuania, this is due to a downward revision of productivity growth over the medium term, while in the case of Malta it is due to lower labour input growth following less favourable demographic prospects (which is true also for Lithuania and Latvia, albeit to a lesser degree).

2. PENSION EXPENDITURE

2.1. MAIN FEATURES OF PENSION SYSTEMS IN THE EU

Pension arrangements are very diverse in the EU, due to both different traditions on how to provide retirement income, and Member States being in different phases of the reform process of pension systems.

While a strong public sector involvement in the pension system through the public pension systems is a common feature, the importance of occupational and private pension provisions varies across countries. Statutory earnings-related old-age pension schemes, either a common scheme for all employees or several parallel schemes in different sectors or occupational groups are the core of the public pension system in most countries. The public pension system often provides also a minimum guaranteed pension to those who do not qualify for the earnings-related scheme or have accrued only a small earnings-related pension. Minimum guarantee pensions are usually means-tested and are provided either by a specific minimum pension scheme or through a general social assistance scheme. In a few Member States, notably in Denmark, the Netherlands, Ireland and the United Kingdom, the public pension system provides in the first instance a flat-rate pension, which can be supplemented by earnings-related private occupational pension schemes (in the UK, also by a public earnings-related pension scheme – State Second Pension – and in Ireland by an earnings-related pension scheme for public service employees). In these countries, the occupational pension provision is broadly equivalent to the earnings-related public pension schemes in most of the EU countries.

A number of Member States, including Sweden and some new Member States such as Bulgaria, Estonia, Latvia, Lithuania, Hungary, Poland and Slovakia, have switched part of their public pension schemes into private funded schemes. Typically, this provision is statutory but the insurance policy is made between the individual and the pension fund. Participation in a funded scheme is conditional on participation in the public pension scheme and is mandatory for new entrants to the labour market (in Sweden for all

employees), while it is voluntary for older workers (in Lithuania it is voluntary for all).²⁰

The type of benefits provided by the public pension systems diverge across countries. Most pension schemes provide not only old-age pensions but also early retirement, disability and survivors' pensions. Some countries, however, have specific schemes for some of these benefit types; in particular, some do not consider disability benefits as pensions (despite the fact that they are granted for long periods), and in some cases they are covered by the sickness insurance scheme.

The financing method of the pension systems also differ across countries. Most public pension schemes are financed on a pay-as-you-go (PAYG) basis, whereby contribution revenues are used for the payments of current pensions. In addition, there is a considerable variation between countries regarding the extent to which contribution revenues cover all pension expenditure. In most countries, minimum guarantee pensions are covered by general taxes. Earnings-related schemes are often subsidised to varying degrees from general government funds. Some specific schemes, notably public sector employees' pensions sometime do not constitute a well identified pension scheme but, instead, disbursements for pensions appear directly as expenditure in the government budget. On the other hand, some predominantly PAYG pension schemes have statutory requirements for partial pre-funding and, in view of the increasing pension expenditure, many governments have started to collect reserve funds for their public pension schemes.

²⁰ According to the decision of EUROSTAT, these schemes are to be included in the private sector in national accounts because the transactions are between the individual and the pension fund. Thus, they are not recorded as government revenues or expenditure, and consequently, they do not have an impact on the government surplus or deficit. In addition, the insured persons have the ownership of the assets of the fund and, thus, they bear the risks and enjoy the rewards regarding the value of the assets. Furthermore, the EUROSTAT decision specifies that a possible government guarantee for such a fund is not an adequate condition to classify such schemes as social security (public) schemes, because such a guarantee is a contingent liability and these are not considered as economic transactions until they materialise.

While occupational and private pension schemes are usually funded, the degree of their funding relative to the pension promises may differ, due to the fact that future pension benefits can be related either to the salary and career length (defined-benefit system) or to paid contributions (defined-contribution system).

2.2. THE EU FRAMEWORK FOR PENSION PROJECTIONS

One of the most crucial parts of the joint budgetary projection exercise is the assessment of the impact of ageing population on pension expenditure. For this assessment, national pension models are used, in order to be able to reflect the institutional characteristics prevailing in each Member State. At the same time, there is a need to ensure that the projections are comparable in terms of assumptions used, so as to gauge the degree of the challenge posed by population ageing that the different Member States are facing. The commonly agreed underlying assumptions are described in Chapter 1 of this report.²¹

Using different, country-specific projection models may introduce an element of non-comparability of the projection results. Nevertheless, this approach was chosen by the EPC because pension systems and arrangements are very diverse in the EU Member States, making it extremely difficult to project pension expenditure on the basis of one common model, to be used for all the 27 EU Member States.

In order to ensure high quality and comparability of the pension projection results, an in-depth peer review was carried out when preparing the projections. The projection results were discussed and revised where deemed necessary by the AWG and the European Commission during the projection exercise. In addition, it was found that in many cases there was a need for providing additional information in the country fiches so as to better understand the different pensions systems and notably the projection results.²²

The core of the projection exercise is the *government expenditure on pensions for both the*

private and public sectors, as in the 2006 pension projection exercise. The EPC agreed to provide pension projections for the following items:

- Gross pension expenditure
- Number of pensions/pensioners
- Number of contributors
- Contributions to public pension schemes
- Assets accumulated by public pension schemes

In addition, Member States covered, on a voluntary basis as in the 2006 exercise:

- Occupational and private (mandatory) pension expenditures

Moreover, the EPC decided that for the 2009 pension projection exercise, Member States would have provided, on a voluntary basis, projections on the following items:

- Replacement rates and benefit ratios
- Taxes on pensions and net pension expenditures
- Private (non-mandatory) pension expenditures

The 2006 pension projection exercise was the solid point of departure for the current projection. In order to further improve the pension reporting framework, a few additional changes were introduced.²³ The amendments to the 2009 reporting framework mainly stem from the following considerations:

- further information on privately managed pension schemes is necessary, as the reliance on private pension provision seems to increase in the future. The reporting framework is extended to cover private pension schemes to a greater degree, i.e. it is proposed Member States provide information on both mandatory and non-mandatory private schemes;

²¹ For a more detailed description see also EC-EPC (2008), «The 2009 Ageing report: Underlying assumptions and projection methodologies», European Economy, No 7, Brussels. http://ec.europa.eu/economy_finance/publications/publication_summary13784_en.htm.

²² It is envisaged to release the country fiches in a separate publication in the latter half of 2009.

²³ All of the introduced amendments were duly discussed by AWG and EPC delegates, and reflect recent developments and the expected advancement over the projection period as regards the features of the pension systems in the Member States. However, since many of the Member States found it difficult to provide figures concerning the recently introduced amendments, the EPC (AWG) agreed that they would be voluntary (see Annex 6.1 for the complete pension questionnaire).

- there is a need to provide projections of taxes on both private and public pensions, since for some countries these can become an important source of revenue in the future;
- a large number of countries have implemented pension reforms that make the public pension systems less generous. In order to shed light on potential risks to future pension development, it is crucial to analyse the evolution of pension levels, so as to better understand the projection results. Thus, it was agreed that Member State, also on a voluntary basis, calculate the evolution of the gross average replacement rate at retirement (for both public pensions and private – second and third pillars);
- when the fiscal sustainability is assessed, it is necessary to distinguish between consolidated and non-consolidated figures. As regards assets in public pension schemes, a distinction needs to be made between national government bonds and other assets, since the former are netted out in the compilation of gross debt (Maastricht debt), while the latter are not; and,
- allowing for the fact that the same person may be a recipient of several types of pensions, the number of pensions and a number of pensioners could differ in some cases. Since each figure provides different type of information, both the number of pensioners and the number of pensions are requested.

On this basis, the 2009 pension reporting framework was considerably expanded compared with the 2006 version; in particular, (i) private pension coverage; (ii) tax on pensions; (iii) the benefit ratio; and, (iv) the gross average replacement rate.²⁴

2.3. PENSION SYSTEMS IN THE EU

The main focus of the projection exercise is on public pension expenditure. In order to understand better the development of this type of pension expenditure, further decomposition of the projections into its main components, (old-age, early retirement, disability and survivors'

pensions) has been carried out. Several Member States have introduced occupational pension schemes and/or private mandatory and voluntary schemes. Table 6 provides an overview of the existing pension schemes in Member States, including the main characteristics of these schemes.²⁵ The table also indicates the type of a pension provision i.e. if it is a flat-rate, earning-related etc.

In addition, Table 6 provides information concerning the coverage in the current projection exercise. The coverage of public pensions is almost full, with the exception of some specific public pension schemes for some countries, highlighted with grey in Table 6. For instance, 9 countries (Germany, Spain, Cyprus, Luxembourg, Malta, the Netherlands, Austria, Poland, Slovenia) do not include projections of minimum pension and/or social allowance expenditure for a variety of different reasons. However, all the countries provided at least a rough estimate of the current and future expenditure of this part of the public pension scheme. In addition, only few countries (notably France and the UK) do not fully cover disability pensions as they are partly covered by the projections of health care expenditure.

Pension projections for the voluntary pension schemes (occupational and private pension schemes) have been provided only by few countries. As the participation in these schemes is voluntary and they have been set up quite recently, there is a lack of data that has not allowed a majority of the Member States to provide historical and/or expected values of pension expenditure for such schemes. However, the country coverage of the projection of the mandatory private and occupational pension schemes seems to be satisfactory.²⁶

²⁴ A full version of the questionnaire is presented in European Commission and Economic Policy Committee (2008).

²⁵ See Annex 1 for detailed information on pension systems and its characteristics in Member States.

²⁶ See Annex 1 for a detailed account of each Member States' coverage in the projection.

Table 6 - Pension schemes in EU Member States

COVERAGE								
Public pensions						Occupational pension scheme	Private pension scheme	
	Minimum pension / social allowance	Old-age pensions	Early retirement pensions	Disability pensions	Survivors pensions		Mandatory private scheme	Voluntary Pension scheme
BE	MT - SA	ER	ER	ER (wage earner); FR (self-employed)	ER	V*	X	V*
BG	MT - SA	ER / FR	ER (before end 2010 pensions)	ER / FR	ER / FR	V*	M young (1960) M* (prof)	V*
CZ	FR	ER	ER	ER	ER	X	X	V*
DK	FR & MT	FR & MT	V	FR	FR*	V	X	V
DE	MT - SA*	ER	ER	ER	ER	V*	X	V*
EE	FR	FR (before 1999); ER (after)	X	FR (before 1999); ER (after)	FR (before 1999); ER (after)	X	M - young (1983)	V - old*
EL	MT	ER	ER	ER	ER	X	X	V*
ES	MT - SA*	ER - priv; FRw - pub.	ER - priv; FRw - pub.	ER - priv; FRw - pub.	ER - priv; FRw - pub.	V - priv; M - pub.	-	V
FR	MT	ER	ER	ER - HC	ER	V	-	V*
IE	MT - FR & SA	FR	MT - FR & SA	SA: MT - FR; Contributory: FR	SA: MT - FR; Contributory: FR	M - pub; V* - priv	X	V*
IT	MT & SA	ER	ER	ER	ER	V*	X	V*
CY	SA*	ER	ER	ER	ER	M - pub; V* - priv	X	X
LV	SA	ER	ER	ER	ER	X	M - young (1971); V - old	V*
LT	SA	ER	ER	ER	FR or ER	X	V	V*
LU	FR - SA*	ER	ER	ER	ER	V*	X	V*
HU	MT - SA	ER	ER	ER	ER	X	M - new (1998)	V*
MT	MT - FR*	ER	-	FR	ER	Exists only to a minor extent*	X	V*
NL	SA*	FR	-	ER	FR	M	X	V*
AT	MT - SA*	ER	ER	ER	ER	M*	X	V*
PL	MT*	ER	ER	ER	ER	V*	M/V	V*
PT	MT - SA	ER	ER	ER	ER	M - prof; V - others	X	V*
RO	SA	ER	ER	ER	ER	-	M	-
SI	MT*	ER	ER	ER	ER	M* - prof; V* - others	X	V
SK	MT - SA	ER	ER	ER	ER	X	M/V	V*
FI	MT	ER	ER	ER	ER	V*	X	V*
SE	MT	ER	ER	ER	ER	V	M	V
UK	FR & MT - SA	ER	X	ER HC*	-	V*	X	V*
NO	FR	ER	X*	ER	ER	M*	X*	V*

Source: Commission services, EPC.

Note: Full information concerning different pension schemes in EU Member States is provided at the end of this chapter in the Annex: Overview of pension system in the Member States. Additional information on projection coverage can be found in the Annex: Coverage of the pension projection in the Member States. Cells highlighted in grey indicate the schemes not covered by the projection.

Key:

MT Means tested

FR Flat rate

FRw Flat rate by wage categories

ER Earnings related

HC Partly covered by health care expenditure

SA Social allowance/assistance

X Does not exist

V Voluntary participation in the scheme

M Mandatory participation in the scheme

* Is not covered by the projection

public Public sector employees

private Private sector employees

new New labour market entrants

prof Only for selected professions

other Other than selected professions

young(X) Only for people born in year X and after

old Only for people other than young

A key determinant of pension expenditure dynamics is the indexation rule. Table 7 provides an overview of the indexation rules in each Member State. A majority of countries (18) in the EU relies on indexation rules for pensions that do not fully reflect development in nominal wages; in some cases due to indexation to prices (Spain, France, Italy and Austria), in others due to a mix of wages and prices (Belgium, Bulgaria, the Czech Republic, Estonia, Cyprus, Latvia, Luxembourg, Hungary, Malta, Poland, Slovakia, Finland and Sweden) or due to a mix of GDP growth and prices (Portugal).

A few Member States that reformed their pension systems in the recent past have formally introduced a “sustainability factor” and/or other “reduction coefficients” into the specification that determines the amount of pension benefit at retirement (Germany, Slovenia, Finland, Italy, Portugal and Sweden). This approach introduces a component that changes the size of the pension benefit depending on expected demographic changes such as the life expectancy at the time of retirement.

Table 7 - Legal indexation rules in EU Member States

LEGAL INDEXATION								
	Public pensions					Occupational pension scheme	Private pension scheme	
	Minimum pension / social allowance	Old-age pensions	Early retirement pensions	Disability pensions	Survivors pensions		Mandatory private scheme	Voluntary Pension scheme
BE	CPI + LSA	CPI + LSA		CPI + LSA	CPI + LSA	-	-	-
BG	50%CPI + 50% NI	50%CPI + 50% NI	50%CPI + 50% NI (before end 2010 pensions). NR (after 2010 pensions)	50%CPI + 50% NI	50%CPI + 50% NI	NR	NR	NR
CZ	NR	CPI + min 1/3 RI	CPI + min 1/3 RI	CPI + min 1/3 RI	CPI + min 1/3 RI	-	-	-
DK	NI	NI	NI	NI	NI	-	-	-
DE	In line with pensions & re-exam(5)	NI + sust	NI + sust	NI + sust	NI + sust	-	-	-
EE	80% CPI + 20% NI	80% CPI + 20% NI	80% CPI + 20% NI	80% CPI + 20% NI	80% CPI + 20% NI	-	-	-
EL	NR	NR	NR	NR	NR	-	-	-
ES	CPI	CPI	CPI	CPI	CPI	-	-	-
FR	CPI	CPI	CPI	CPI	CPI	-	-	-
IE	NR	NR	NR	NR	NR	NR - pub	-	-
IT	CPI or fixed in nominal terms	CPI - size	CPI - size	CPI - size	CPI - size	-	-	-
CY	NI	Basic: NI; Suppl.: CPI	Basic: NI; Suppl.: CPI	Basic: NI; Suppl.: CPI	Basic: NI; Suppl.: CPI	NI - pub	-	-
LV	CPI + 50% RI	CPI + 50% RI	CPI + 50% RI	CPI + 50% RI	CPI + 50% RI	-	-	-
LT	NR	NR	NR	NR	NR	-	-	NR
LU	CPI if CPI>2.5% & RI re-exam(2)	CPI if CPI>2.5% & RI re-exam(2)	CPI if CPI>2.5% & RI re-exam(2)	CPI if CPI>2.5% & RI re-exam(2)	CPI if CPI>2.5% & RI re-exam(2)	-	-	-
HU	-	50% CPI + 50% NI	50% CPI + 50% NI	50% CPI + 50% NI	50% CPI + 50% NI	-	At least 50% CPI + 50% NI	-
MT	2/3 COLA	COLA + NI (born before 1962); 70% NI + 30% CPI (born after 1962)	-	COLA	COLA + NI (born before 1962); 70% NI + 30% CPI (born after 1962)	-	-	-
NL	NI	NI	-	NI	NI	70% NI & 30% CPI	-	-
AT	CPI	CPI	CPI	CPI	CPI	-	-	-
PL	CPI + 20% RI	CPI + 20% RI	CPI + 20% RI	CPI + 20% RI	CPI + 20% RI	-	NR	NR
PT	CPI + GDP partially (GDP)	CPI + GDP partially (size and GDP)	CPI + GDP partially (size and GDP)	CPI + GDP partially (size and GDP)	CPI + GDP partially (size and GDP)	CPI for DB 1st pillar and re-exam(1) for the other plans	-	-
RO	RI	RI	RI	RI	RI	-	NR	-

LEGAL INDEXATION								
Public pensions						Occupational pension scheme	Private pension scheme	
	Minimum pension / social allowance	Old-age pensions	Early retirement pensions	Disability pensions	Survivors pensions		Mandatory private scheme	Voluntary Pension scheme
SI	In line with pensions	NI and sust	NI and sust	NI and sust	NI and sust	NR	NR	NR
SK	NR	50% CPI + 50% NI	50% CPI + 50% NI	50% CPI + 50% NI	50% CPI + 50% NI	-	NR	NR
FI	CPI	80% CPI + 20%NI + sust	80% CPI + 20%NI + sust	80% CPI + 20%NI + sust	80% CPI + 20%NI + sust	-	-	-
SE	CPI	NI + sust	NI + sust	NI + CPI	NI + CPI	-	-	-
UK	NI	CPI; NI as of 2012	-	-	CPI	-	-	-
NO	NI	NI	-	NI	NI	-	-	-

Source: Commission services, EPC.

Note: Details concerning indexation rules in Member States can be found in Annex 8.3.

Key:

NR	No rule exists
RI	Real income growth
NI	Nominal income growth
GDP	GDP growth
CPI	CPI inflation
LE	Adjustment to life expectancy.
LSA	Living standard adjustment
COLA	Adjustment to cost of living
size	Adjusted by a pension size
sust	Additional adjustment due to other mechanisms such as a sustainability factor, balancing mechanism, life expectancy, value of a pension point, maintenance of relativity between means-tested and contributory pension, etc.
re-exam(X)	Reexamination of pension value every X years
min	At least

In some cases, Member States decided to use in the projection an indexation rule which is more in line with the current and past practices, when these have not strictly followed the legislated indexation rules. For instance, Italy, Finland and Sweden, have assumed an indexation of public minimum pension/old age allowance benefits to wages in the projection, while the legal indexation rule provides for indexation to prices. In the case of few countries, there is no explicit rule guiding the indexation of (minimum) pension benefits, thus an operational

interpretation of the indexation has been made for the purpose of the long-term projection so as to reflect effective constant policy. For example, in the Czech Republic, Greece, Ireland and Slovakia indexation to wages and a mix of wages and prices has been assumed in the projection of public minimum pension benefits, while there is no legal indexation rule. Table 8 mentions these and other cases when the legal indexation rule either does not exist or differs from the rules applied in the projection.

Table 8 - Indexation rules applied in the projection exercise (when different from the legal rules)

	Public pensions					Occupational pension scheme	Private pension scheme	
	Minimum pension / social allowance	Old-age pensions	Early retirement pensions	Disability pensions	Survivors' pensions		Mandatory private scheme	Voluntary Pension scheme
BE	CPI + LSA	CPI + LSA	CPI + LSA	CPI + LSA	CPI + LSA	-	-	-
CZ	NI	CPI + 1/3 RI	CPI + 1/3 RI	CPI + 1/3 RI	CPI + 1/3 RI	-	-	-
EL	CPI + 0.5%	CPI + 0.5%	CPI + 0.5%	CPI + 0.5%	CPI + 0.5%	-	-	-
ES	6% short term, up to 2035 convergence to CPI. After 2035 CPI.					-	-	-
IE	NI + sust	NI	NI + sust	NI + sust for MT schemes	NI + sust for MT schemes	NI	-	-
IT	GDP per capita					-	-	-
LT	RI	RI	RI	RI	RI	-	-	-
NL			-			70% NI & 30% CPI	-	-
PL						-	CPI + 20% NI	-
PT						CPI for DB 1 st pillar	-	-
SI						NR	-	-
SK	NI					-	CPI	-
FI	50% CPI + 50% to NI as of 2011					-	-	-
SE	NI	NI	NI	NI	NI	-	-	-

Source: Commission services, EPC.

Note: Details concerning indexation rules in Member States can be found in Annex 8.3.

Key:

NR	No rule exists
RI	Real income growth
NI	Nominal income growth
GDP	GDP growth
CPI	CPI inflation
LE	Adjustment to life expectancy.
LSA	Living standard adjustment
COLA	Adjustment to cost of living
size	Adjusted by a pension size
sust	Additional adjustment due to other mechanisms such as a sustainability factor, balancing mechanism, life expectancy, value of a pension point, maintenance of relativity between means-tested and contributory pension, etc.
re-exam(X)	Reexamination of pension value every X years
min	At least

Pension arrangements are very diverse in the EU Member States, due to both different traditions on how to provide retirement income, and by Member States being in different phases of the reform process of pension systems. Table 9 shows the statutory retirement age in 2008 and the effective exit age from the labour market in 2001 and in 2007. In the large majority of countries, the average exit age is lower than the statutory retirement age. In many cases, this is due to the existence of early retirement schemes

and/or other government programmes that provide income support to older people before they reach the official retirement age. Also, in a number of countries (like Finland, Sweden) the retirement age is flexible, with built-in incentives to remain active in the labour market. For instance, retiring at say age 62 would lead to a reduction of a certain amount compared with a typical case of 65, while continuing working until say 68 would lead to an increase of a certain amount.

Table 9 - Statutory retirement age and average exit age

	Exit age						Statutory retirement age	
	TOTAL		MALE		FEMALE		MALE	FEMALE
	2001	2007	2001	2007	2001	2007	2008	2008
BE	56.8	61.6	57.8	61.2	55.9	61.9	65	64
BG	58.4	61.2	62.5	64.1	56.8	59.7	63	59y 6m
CZ	58.9	60.7	60.7	62	57.3	59.4	61y 10m	56 - 60
DK	61.6	60.6	62.1	61.4	61	59.7	65	65
DE	60.6	62	60.9	62.6	60.4	61.5	65	65
EE	61.1	62.5					63	60y 6m
IE	63.2	64.1*	63.4	63.5*	63	64.7*	66	66
EL		61		61.6		60.5	65	60
ES	60.3	62.1	60.6	61.8	60	62.4	65	65
FR	58.1	59.4	58.2	59.5	58	59.4	60	60
IT	59.8	60.4	59.9	61	59.8	59.8	65	60
CY	62.3	63.5					65	65
LV	62.4	63.3					62	62
LT	58.9	59.9*					62.5	60
LU	56.8						65	65
HU	57.6	59.8**	58.4	61.2**	57	58.7**	62	62
MT	57.6	58.5*					61	60
NL	60.9	63.9	61.1	64.2	60.8	63.6	65	65
AT	59.2	60.9	59.9	62.6	58.5	59.4	65	60
PL	56.6	59.3	57.8	61.4	55.5	57.5	65	60
PT	61.9	62.6	62.3	62.9	61.6	62.3	65	65
RO	59.8	64.3*	60.5	65.5*	59.2	63.2*	63	58
SI		59.8*					63	61
SK	57.5	58.7	59.3	59.7	56	57.8	62	55-59
FI	61.4	61.6	61.5	62	61.3	61.3	62-68	62-68
SE	62.1	63.9	62.3	64.2	61.9	63.6	61-67	6-67
UK	62	62.6	63	63.6	61	61.7	65	60
NO	63.3	64.4	63	64.1	63.6	64.7	62	62
EU27	59.9	61.2	60.4	61.9	59.4	60.5	:	:
EA	59.9	61.3	60.2	61.6	59.6	60.9	:	:
EA12	59.9	61.3	60.2	61.6	59.6	60.9	:	:
EU15	60.3	61.5	60.7	62	59.9	61.1	:	:
EU10	57.6	59.6	58.8	61.3	56.6	58.3	:	:
EU25	59.9	61.2	60.4	61.9	59.4	60.6	:	:

Source: Average Exit age (Eurostat), information provided by AWG delegates

Joint Commission-Council report on SPSI (2009).

Note: * represents 2006 and ** represents 2005

Source: Commission services, EPC.

In 2007, there was a wide difference in the average public pension benefit ranging from less than 3000 euro or less per year (Bulgaria, Romania, Latvia, Lithuania and Estonia) to 14000 euro or more per year (Austria, Sweden, Denmark, France, Norway and Luxembourg). These wide differences reflect that average wage income levels are very different (ranging from less than 5000 euro per year to more than 25000 euro per year) and the diversity of pension systems and arrangements (see Graph 43).²⁷

Graph 44 shows the public pension expenditure in 2000 and 2007. In the EU27, public pension expenditure was about 10.1% of GDP in 2007, see Table 50. Compared with 2000, the pension/GDP ratio has increased in eight countries

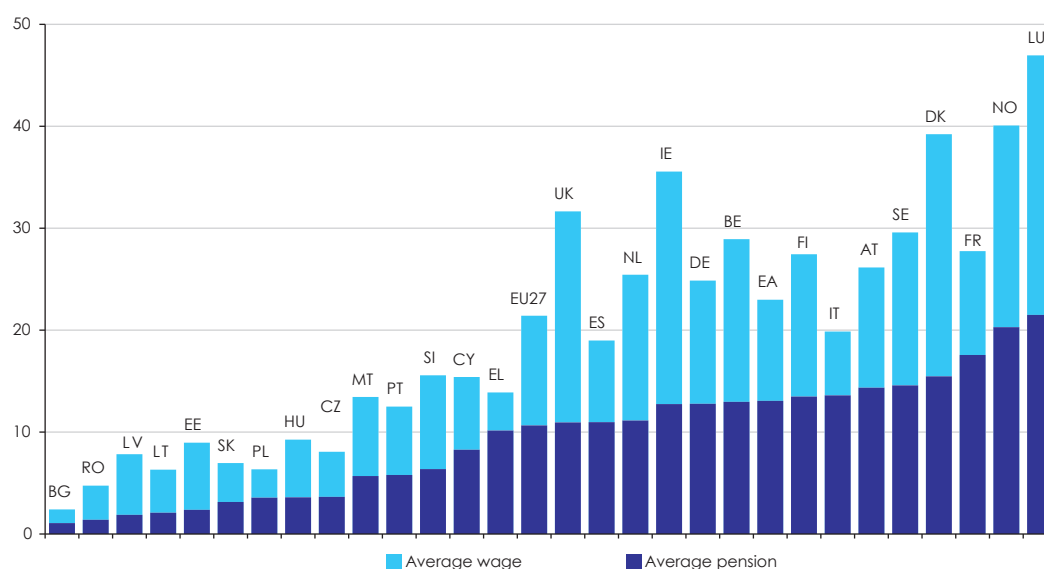
(Romania, Norway, Malta, Portugal, Denmark, Sweden, France and Italy) over this period.

A very large difference in the level of public pension spending can be observed in 2007 among Member States. It ranges from 6% of GDP or below in Latvia, Lithuania and Ireland to 14% in Italy. In many Member States (Denmark, France, Hungary, Italy, Malta, Norway, Portugal, Romania and Sweden), pension expenditure has increased faster than GDP, but in some others (Belgium, Bulgaria, the Czech Republic, Germany, Spain, Finland, Lithuania, Luxembourg, Latvia, the Netherlands, Poland, Slovenia) it has increased at a slower pace.

Half of Member States (the Netherlands, Spain, Luxembourg, Norway, Denmark, Sweden, Finland, Germany, Portugal, Poland, Austria, France and Italy), has also provided information

²⁷ In some countries (e.g. Slovenia) pension benefits are not subject to taxation so gross pensions equal net pensions.

Graph 43 - Average gross wage and average gross public pension benefit in 2007 (1000s euro)

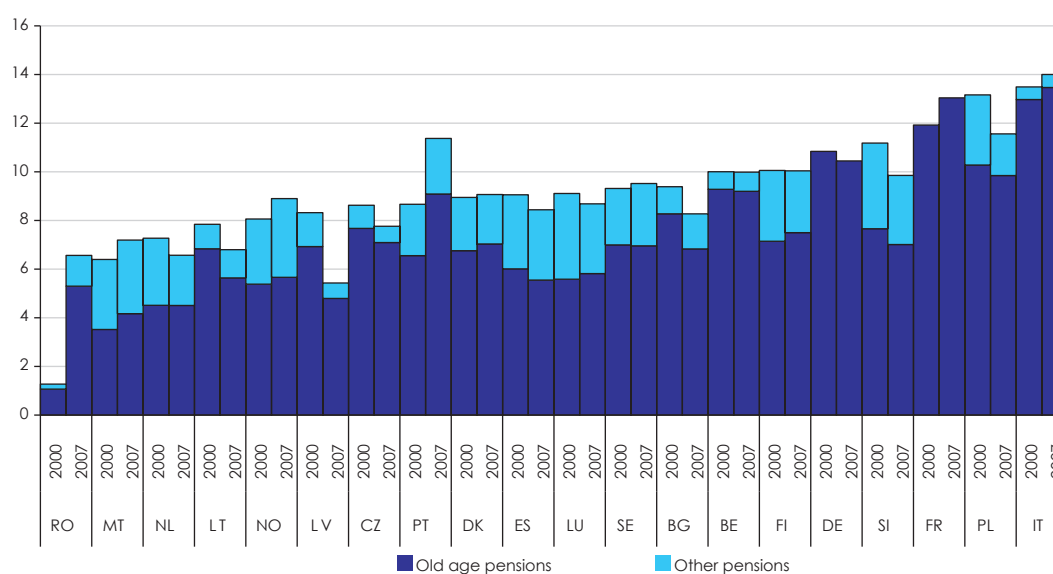


Source: Commission services, EPC.

on government tax revenues from public and private pensions. However, the incomplete coverage hampers a comparable examination across the EU. The presence of tax revenues from public pensions means that the net public

pension expenditure is lower. However, in most countries the size of these taxes is rather small, on average of the order of 1 ½ p.p. of GDP in 2000 and 2007 (see Graph 45).

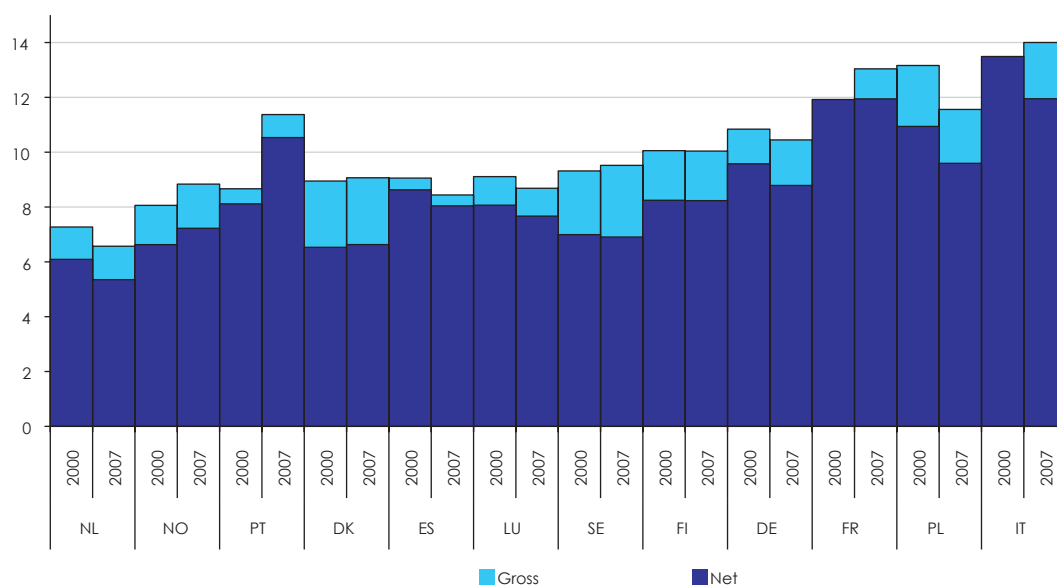
Graph 44 - Average gross public pension expenditure in 2000 and 2007 (% of GDP)



Source: Commission services, EPC.

Note: The graph presents only the countries which provided information in both years.

Graph 45 - Gross and net public pension expenditure in 2000 and 2007 (% of GDP)



Source: Commission services, EPC.

Note: The graph presents only the countries which provided data for both years and a tax on pension is non zero. France and Italy did not provide data for 2000.

In some countries, tax revenues from private pensions are large (e.g. in the Netherlands, Denmark). This is mainly due to the accumulation of pension funds.

A number of countries have implemented systemic pension reforms, shifting part of the previously public pillar to a mandatory funded private pillar (Bulgaria, Estonia, Latvia, Lithuania, Hungary, Poland, Slovakia and Sweden). At present, these private pillars are making very small disbursements, but their importance will increase in the future. Private pensions are generally small today; see Graph 48 in the following section.

2.4. PENSION EXPENDITURE PROJECTIONS

2.4.1. Public pensions

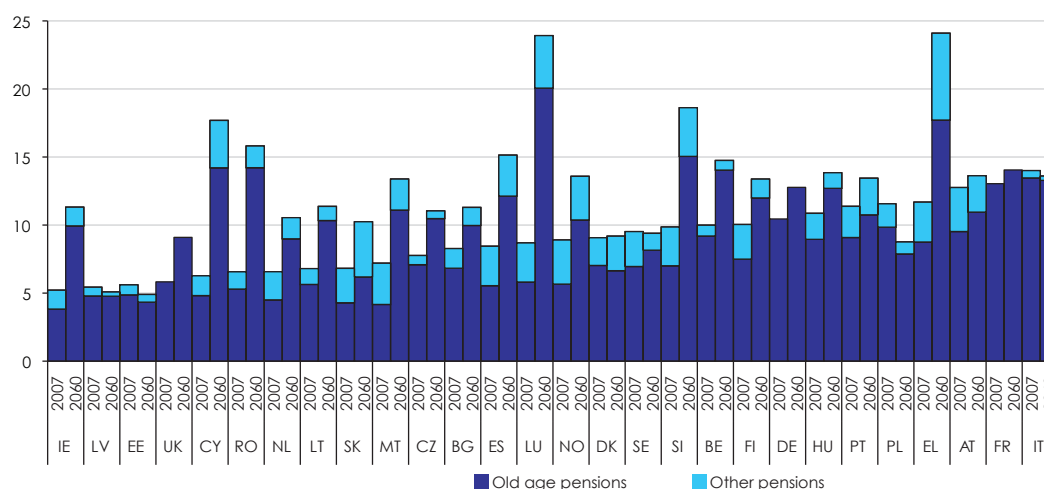
For the EU, the projections show an increase in the public pension expenditures of 2.4 p.p. of GDP over the period 2007-2060. For the euro area, the increase is projected to be slightly higher, at 2.8 p.p. of GDP. There is a very large diversity across Member States as regards the projected change in public pension expenditure, ranging from a decline of -2.8 p.p. of GDP

(Poland) to an increase of 15.2 p.p. of GDP (Luxembourg).

The lion's share of the projected increase in public pension expenditure is due to the increase in old-age and early pensions. Old-age and early pensions are projected to increase by 2.4% of GDP between 2007 and 2060 in the EU. In the euro area, the increase is projected to be slightly higher at 2.6% of GDP. A smaller increase is projected for other pension expenditure, mainly disability and survivor pensions, increasing only slightly by 0.1. of GDP in the euro area.

In three Member States (Greece, Cyprus, Luxembourg) the public pension expenditures are projected to increase by more than 10 p.p. of GDP. In other five Member States (Malta, Spain, Romania, Ireland and Slovenia) spending to GDP will grow between 5 to 10 p.p. On the contrary in case of Denmark, Sweden, Latvia, Italy, and Estonia the ratio either stays at or drops down below the initial (2007) level. For the majority of the Member States the change of the ratio is below 5%. Some countries are prospecting a decrease over the entire period of projections (Poland, Estonia, Denmark, Italy and Latvia), although this masks an increasing pattern over part of the projections period (such as in the case

Graph 46 - Gross old-age and other public pension expenditure in 2007 and 2060 (% of GDP)



Source: Commission services, EPC.

Note: The definitions of Old-age and Other pensions are provided in Annex 8.5.

Definitions used in the projections:

France: Disability pensions for individuals below a retirement age are included in health-care expenditure. After the minimum retirement age (60) disability pensions are covered by the public pension scheme. Survivors' pensions for all age are covered by the public pension expenditures.

UK: Benefits paid to disabled persons below state pension age are not included in the projection, but disability benefits for persons above state pension age are included in public pension expenditure. The UK does not have survivor pensions.

Ireland: "Old-age and other public pension expenditure" includes in addition the pension expenditure of public service occupational pension schemes.

Hungary: the projection of old-age and early pensions include an estimation of the old-age allowance (a minimum pension in Hungary), which is not a part of Hungarian authorities pension model at this stage. This projection contributes with 0.4 p.p. of GDP to the increase in old-age and early pensions ratio over the period 2007-2060. In addition, a part of the increase in gross pension expenditures from 2007 to 2060 in Hungary is explained by the introduction of pension taxation as of 2013 and so does not reflect an increase in expenditures effectively burdening the budget. Taxes on public pensions in 2060 are calculated to be 0.7% of GDP.

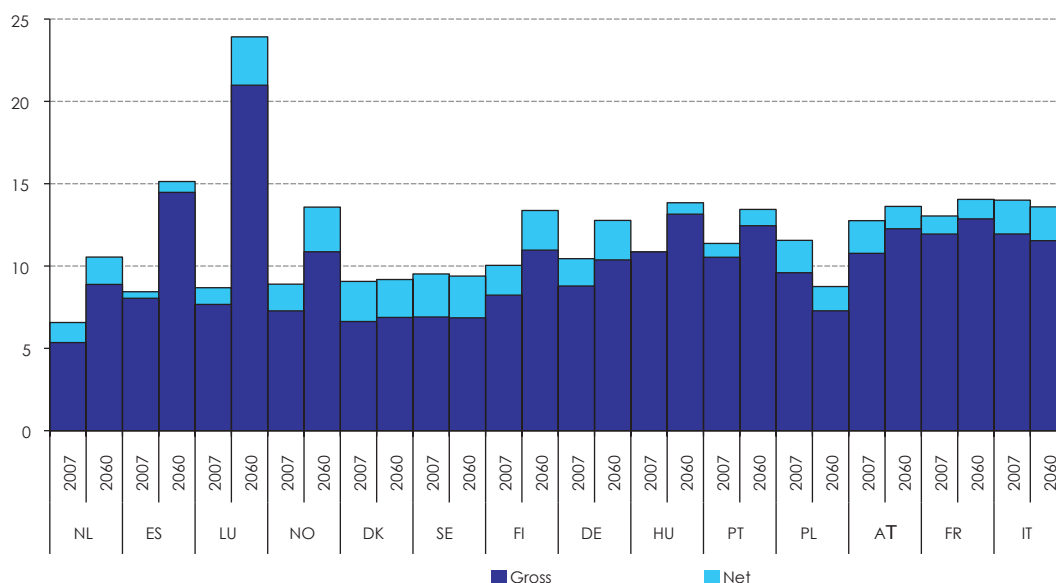
of Italy). As regards spending on disability and survivor pensions, they are projected to decrease in the majority of countries. Only in 8 Member States (Portugal, Romania, Slovenia, Slovakia, Finland, Sweden, the UK and Norway) is it projected to increase, although only slightly.

In sum, EU Member States are: (i) reducing the generosity of public pension schemes so as to make these programmes financially more sustainable in view of the demographic trends; (ii) pushing up the statutory retirement age in a gradually phased way over the long-term for old-age pensions; (iii) restricting access to early retirement schemes and strengthening the incentives to prolong working lives, which leads to a containment of the increase in old-age and early pensions spending. Also, the projections show no increase in disability and survivor pensions, embodying an assumption of lower take-up rates of these transfers over the projection period.

Gross versus net public pension expenditure

For a few Member States (the Netherlands, Spain, Luxembourg, Norway, Denmark, Sweden, Finland, Germany, Portugal, Poland, Austria, France and Italy), projections on government tax revenues from public and private pensions were also provided. However, the lack of a complete coverage of these items hampers a comparable examination across the EU. The presence of taxation revenue of public pensions means that the net public pension expenditure is lower. In most countries, the projected increase over the period 2007-2060 of these taxes is rather small (see Graph 47).

Graph 47 - Gross and net public pension expenditure in 2007 and 2060 (% of GDP)



Source: Commission services, EPC.

Note: The graph presents only the countries which provided data for both years and a tax on pension is non zero. Hungary: A part of the increase in gross pension expenditures from 2007 to 2060 in Hungary is explained by the introduction of pension taxation as of 2013 and so does not reflect an increase in expenditures effectively burdening the budget. Taxes on public pensions in 2060 are calculated to be 0.7% of GDP.

In some countries, the projected increase in taxes on private pensions is considerably larger, (e.g. in the Netherlands, Denmark). This is mainly due to contribution to private pensions being tax-exempt, while the disbursement of the pension being subject to tax. Also, private funded pension schemes are in a build-up phase in that contributions still outweigh disbursements, and disbursements will therefore increase in the future.²⁸ The size of these private funds and the taxation regime for those pensions (savings) will determine the size of the potential increase in the related tax receipts and hence the contribution to the future fiscal position of the government.

2.4.2. Private pensions

In light of fiscal pressures arising from the demographic trends, many countries have taken steps to encourage the creation of occupational

and private pension schemes.²⁹ As a result, the role of these schemes has recently increased. Still, the role of privately managed pension schemes is currently rather limited, as the major part of pension income is provided by public pension schemes. But, as shown in Graph 48, the provision of pension income by private pension funds is expected to increase in the near future.³⁰

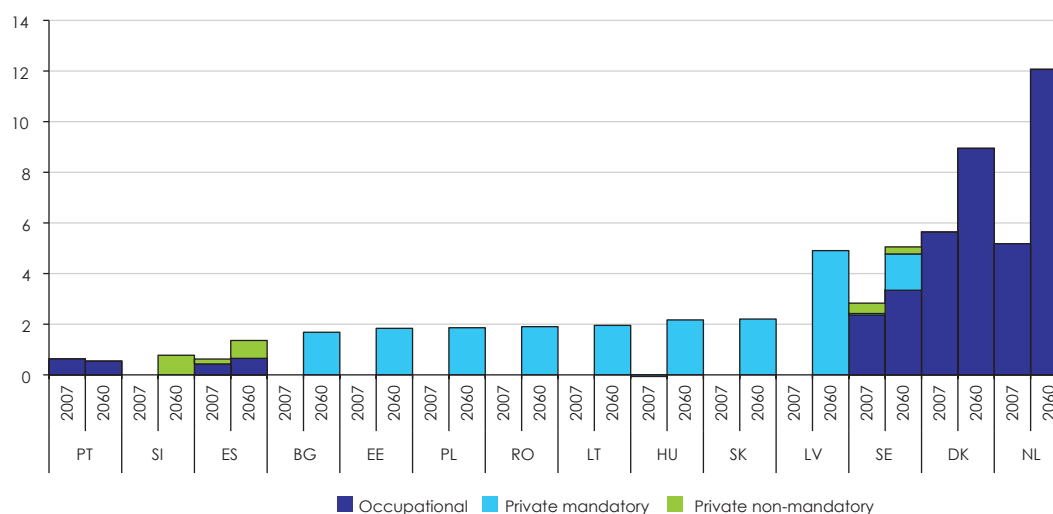
²⁹ Due to a lack of information concerning development of occupational and private schemes, only a few countries provided a projection of relevant variables. Consequently, this section combines the results provided by Member States in the pension questionnaire, in the country fiche and additional information provided by DG EMPL, in particular the 2009 SPC report. On top of that, the Netherlands provided additional information concerning the development of the privately managed funds' financial position with respect to the latest development and the impact of the financial crisis.

³⁰ Graph 48 shows the private pension projections by pillar (provided only by very few Member States). It should be pointed out that the graph is not comprehensive; private pensions may exist in a country, but it was not possible to provide a projection (see the note to the graph for detailed information). See also Table A61 in statistical annex:

“Assets in all pension schemes as a share of GDP”, which presents the current and projected value of assets in all public, occupational, private mandatory and voluntary pension schemes.

²⁸ Table 56 in Annex 1 presents a projected value of assets in public pension funds.

Graph 48 - Expenditure of non-public occupational, private mandatory and non-mandatory pension (% of GDP)



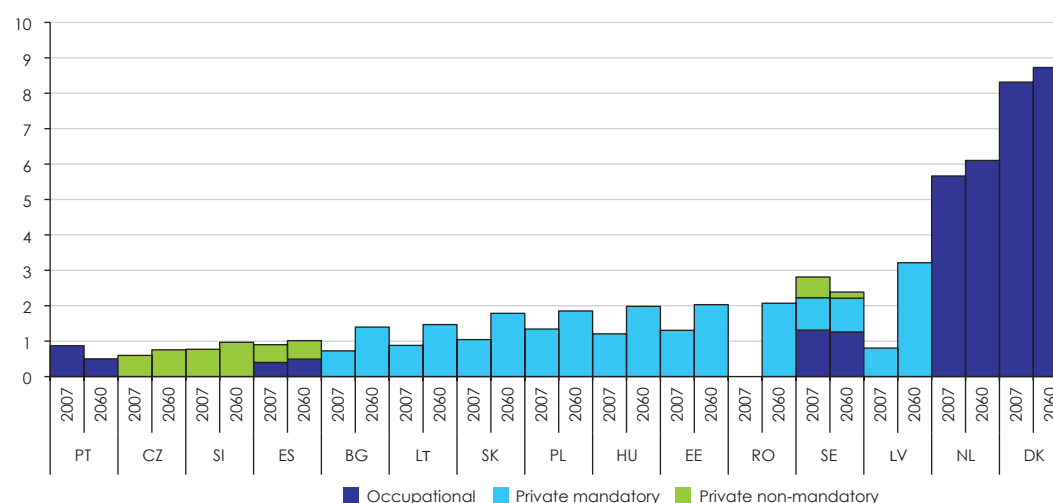
Source: Commission services, EPC.

Note: The graph presents only the countries which provided data for other pension schemes and its value is non zero. In Slovakia, the private pension pillar changed from mandatory to voluntary in 2008.

In general, net contributions to occupational and private pension funds are increasing over time and the most of occupational and private funds are still “a long way” from being mature funds. In other words, at this moment there are only a few countries with large numbers of pensioners or people who will retire soon and will rely to a substantial part on funded pensions. Thus, in most cases, contributions to the private funds

continue to exceed drawings from now-retired members, meaning there should be no need for the funds to liquidate under current difficult conditions any of their investments and sell assets at reduced prices, (see Graph 48 and Graph 49). In 2007 private pension scheme covered more than half of the retired people in Denmark (56%) and the Netherlands (59%). In Sweden the coverage by private pension schemes is 20%.

Graph 49 - Contributions to occupational, private mandatory and non-mandatory pension (% of GDP)



Source: Commission services, EPC.

Note: The graph presents only the countries which provided data for other pension schemes and its value is non zero.

Concerning pension expenditure of occupational pension funds, only 5 Member States (Denmark, Spain, the Netherlands, Portugal and Sweden) provided projections, while 9 Member States (Greece, the Czech Republic, Estonia, Hungary, Lithuania, Latvia, Malta, Poland and Slovakia) have indicated that they do not have occupational pension schemes. The presence of a high coverage of 2nd pillar pensions since a long time in e.g. Sweden, Denmark, the Netherlands provides for a sizable topping-up of the public pillar. In Denmark, pension expenditures paid by occupational pension schemes were 5.6% of GDP in 2007 and are expected to increase to 8.9% of GDP in 2060. An even higher increase is projected for the Netherlands where occupational pensions are envisaged to rise from 5.2% of GDP in 2007 to 12.1% GDP in 2060. For Sweden and Portugal the current level of occupational pension expenditure to GDP is relatively low (below 2.5% of GDP) and is projected to increase at most by 1.5 p.p. of GDP.

Several countries have made private pension mandatory

A number of countries have implemented systemic pension reforms, shifting part of the previously public pillar to a mandatory funded private pillar (Bulgaria, Germany, Estonia, Latvia, Lithuania, Hungary, Poland, Slovakia and Sweden). For private mandatory pension expenditure, 8 Member States (Bulgaria, Estonia, Latvia, Lithuania, Hungary, Poland, Slovakia and Sweden) have provided projections and 8 Member States (Belgium, Denmark, Greece, Spain, the Netherlands, Portugal, the Czech Republic and Malta) report that such pensions do not exist. At present, these private pillars are making very small disbursements, but their importance will increase in the future (see Graph 48). As these funds have not started to pay out pensions, only Hungary and Sweden provided a level of pension expenditures by mandatory private funds for 2007, although in comparison to GDP the value is close to zero. On the contrary, in 2060, the mandatory private pensions are projected to provide a considerable top-up of the public pensions in these countries. The level of pension to GDP ratio in case of private mandatory schemes in 2060 is projected to vary from 1.4% GDP in Sweden to 4.8% in Latvia.

As regards private non mandatory pension funds, while the legislative framework for has been set-up in all EU countries, the projections have

been provided only by Spain, Sweden and Slovenia. Based on the projection, under prudent assumptions and no policy change as for the rest of the exercise it seems that voluntary pension savings contribute and are projected to contribute only marginally to total pensioners' income. Concretely, in the case of Spain and Sweden the current voluntary pension expenditure to GDP in 2007 reach only 0.2% and 0.4% respectively. In 2060, the projected level is expected to reach 0.7%, 0.3% and 0.8% of GDP in case of Spain, Sweden and Slovenia.

Both occupational and private schemes are to a very large part funded, i.e. individuals accumulate their savings in the funds for a later stage of their life cycle. When reaching the retirement age, the value of the accumulated assets is paid to the individuals either in the form of an annuity, or at once, or in some other type of payment. Graph 50 shows the value of accumulated assets in both occupational and private pension schemes in 2007 and 2060 as projected by some of the Member States.

The value of pension income coming from the pension funds is affected not only by the contributions made, but also by developments in the financial markets. As a consequence, the value of the pension income may diminish in case of an adverse shock to asset prices. Still, the design of the pension scheme can limit the final effect of the shocks on the value of the fund's assets. The value of pension wealth at retirement is affected by many factors, nonetheless the distinction between defined benefit and defined contribution schemes seems to be of high relevance. The value of future pension income in a defined benefit scheme may also be affected by negative economic shocks. Still, within this type of scheme, the risks can be spread between more individuals over the longer period. On the other hand, the value of pension income is affected much more in a defined contribution scheme. In particular, part of the risk related to volatility of the value of financial assets is transferred to individuals covered by the defined contribution scheme.³¹

³¹ See also the 2009 Joint Report on Social Protection and Social Inclusion (COM (2009) 58 final) and its accompanying document (SEC (2009) 141) for a discussion of the role of parameters affecting stability and adequacy of pension income in occupational and private pension schemes.

Graph 50 - Occupational, private mandatory and non-mandatory pension assets (% of GDP)



Source: Commission services, EPC.

Note: The graph presents only the countries that provided data for other pension schemes.

Currently, occupational pension schemes are mostly defined benefit schemes. However, many of these have recently switched towards defined contribution schemes. Private pension funds were constructed as defined contribution schemes from the beginning. An increasing role of defined contribution schemes has and will have important implications for the pensioners' asset value depending on the rate of return.

income will depend on the rate of return on those funds in addition to the contributions made. The assumption made on the rate of return, being uncertain, crucially determines the future pension benefit. Moreover, in periods with large changes in equity prices, the starting point in terms of asset position can have strong lasting effects. The Box below discusses recent developments in private pension funds in a few countries with relatively developed schemes.

The financial crisis has reduced the value of private pension funds

Since private pensions are to a very large part funded, their contribution to future retirement

Box: The financial crisis and funded pension schemes in selected countries

Ireland: Ireland is one of the few countries with a strong reliance on private funded pensions for those retiring today. Most of the defined benefit funds are currently in a deficit and most of the defined contribution funds realise a negative return on assets. The average fund return in the 12 months to the end of January was substantially reduced.

The Netherlands: Dutch defined benefit pension funds guarantee security to members by a funding buffer with funds normally targeting assets to be 130% of liabilities. If the funding ratio between assets and nominal, that is non indexed, liabilities ratio fall below 130%, measures are to be taken to restore the funding position within 15 years and for funds below 105%, they must have a plan to reach 105% within 3 years, before reaching 130%. The 3 year time span has recently been temporarily extended to 5 years. The ratio (or capitalization rate) of pension funds has declined from 140% of nominal pension rights at the end of 2007 to a February 2009 value of around 90%.

Denmark: In Denmark, value of assets in the private funds has decreased from around 138 percent of GDP in 2007 to an estimated 119 percent of GDP in 2008.

Sweden: The most important element of the Swedish pension system is pensions from the Notional Defined Contribution (NDC) scheme, backed by a reserve fund (the AP funds). If the NDC pension system is in deficit, a so-called automatic balancing mechanism is triggered, leading to a lowering of the indexation of the pensions until a positive financial balance is restored. The value of the assets in the PPM system, the mandatory funded part of the Swedish pension system, has dropped by 34.5% between end-2007 to end-2008. As the system is introduced newly the effects on paid out pensions is very limited.

United Kingdom: The UK has a long history of private pension provision. Over the past year weaker equities reduced asset values by 14.5%, whilst lower bond yields resulted in a 6.5% increase in aggregate liabilities. Consequently, approximately 90% of existing Funds are in deficit.

Source: Contributions from AWG members, Commission services.

2.5. DRIVERS OF PENSION EXPENDITURE

2.5.1. Peaks and troughs in public pension expenditure

In addition to the projected changes in public pension expenditure over the entire projection period up to 2060, it is interesting to analyse the dynamics of the projections. Even if the number of older people generally increases throughout the projection period up to 2060, it is not the case for every country, and it does not necessarily lead to a monotonic increase in the public pension/GDP ratio throughout the projection period. Despite the differences between Member States, the common trend is clear. As Europe's population rises it will lead to considerable increases in pension expenditure across the continent with only a few exceptions. Table 10 shows the projected peaks and troughs in the public pension expenditure ratio.³²

In 10 countries (the Czech Republic, Germany, Greece, Latvia, Lithuania, Luxembourg, Hungary, the Netherlands, Austria and Slovakia) the public pension ratio is decreasing over the coming two decades, reaching the lowest level in the period before 2030, but then it increases to reach a peak at the end of the projection period in 7 of them (the Czech Republic, Germany, Lithuania, Hungary, the Netherlands, Slovakia, Luxembourg) or before in 3 of them (Greece, Austria and Latvia). In 12 countries (Belgium, Denmark, Estonia, Spain, France, Italy, Latvia, Poland, Portugal, Slovenia, Finland, Sweden) the public pension ratio peaks before the end of the projection period. In another 7 countries (Bulgaria, Ireland, Cyprus, Malta, Norway, Romania, and the UK) the public pension ratio increases over the entire projection period.

³² Please note that for the rest of this chapter public service occupational expenditure is not included for Ireland. This is due to the integration of the schemes which means the decomposition can only be carried out accurately on the social security element.

Table 10 - Projected trough and peak years for pension expenditure (% of GDP)

	Start year 2007	Trough year (before peak)	Trough value	Decrease from 2007 to trough	Peak year	Peak value	Increase from trough to peak	End year 2060	Change 2007 - 2060
BE	10.0				2056	14.8		14.7	4.8
BG	8.3							11.3	3.0
CZ	7.8	2016	6.8	-1.0				11.0	3.3
DK	9.1				2020	10.6		9.2	0.1
DE	10.4	2013	10.0	-0.5				12.8	2.3
EE	5.6				2009	6.5		4.9	-0.7
IE	4.0							8.6	4.6
EL	11.7	2009	11.6	-0.1	2055	24.3	12.7	24.1	12.4
ES	8.4				2053	15.6		15.1	6.7
FR	13.0				2036	14.5		14.0	1.0
IT	14.0				2041	15.6		13.6	-0.4
CY	6.3							17.7	11.4
LV	5.4	2013	4.7	-0.7	2038	6.1	1.4	5.1	-0.4
LT	6.8	2012	6.5	-0.3				11.4	4.6
LU	8.7	2010	8.6	-0.1	2059	24.2	15.6	23.9	15.2
HU	10.9							13.8	3.0
MT	7.2							13.4	6.2
NL	6.6	2008	6.3	-0.2				10.5	4.0
AT	12.8	2010	12.7	-0.1	2046	14.0	1.3	13.6	0.9
PL	11.6				2008	11.8		8.0	-3.5
PT	11.4				2053	13.6		13.4	2.1
RO	6.6							14.5	7.9
SI	9.9				2058	18.6		18.6	8.8
SK	6.8	2020	6.3	-0.5				10.2	3.4
FI	10.0				2033	14.0		13.4	3.3
SE	9.5				2009	9.7		9.4	-0.1
UK	6.6							9.3	2.7
NO	8.9	2008	8.8	-0.1				13.6	4.7
EU27	10.1							12.5	2.3
EA	11.0				2053	13.9		13.8	2.8

Source: Commission services, EPC.

Box: DECOMPOSITION OF PENSION EXPENDITURE

In order to analyse the dynamics and the factors of the pension spending to GDP ratio, the following decomposition is used:

$$\begin{aligned}
 \frac{\text{Pension Exp.}}{\text{GDP}} &= \overbrace{\frac{\text{Population 65+}}{\text{Population 15-64}}}^{\text{Dependency Ratio Effect}} \times \overbrace{\frac{\text{Number of Pensioners}}{\text{Population 65+}}}^{\text{Coverage Ratio Effect}} \\
 &\times \overbrace{\frac{\text{Population 15-64}}{\text{Working People 15-64}}}^{\text{Employment Rate Effect}} \times \overbrace{\frac{\text{Average Pension}}{\text{GDP}}}^{\text{Benefit Ratio Effect}} \\
 &\times \underbrace{\frac{\text{Working People 15-64}}{\text{Hours Worked 15-71}}}_{\text{residual}}
 \end{aligned}$$

In particular, we analyse the percentage change in the public pension expenditure to GDP ratio. The overall percentage change can be expressed as a sum of the contribution of the four main factors, i.e. the dependency ratio contribution, the coverage ratio contribution, the employment rate contribution and the benefit ratio contribution.

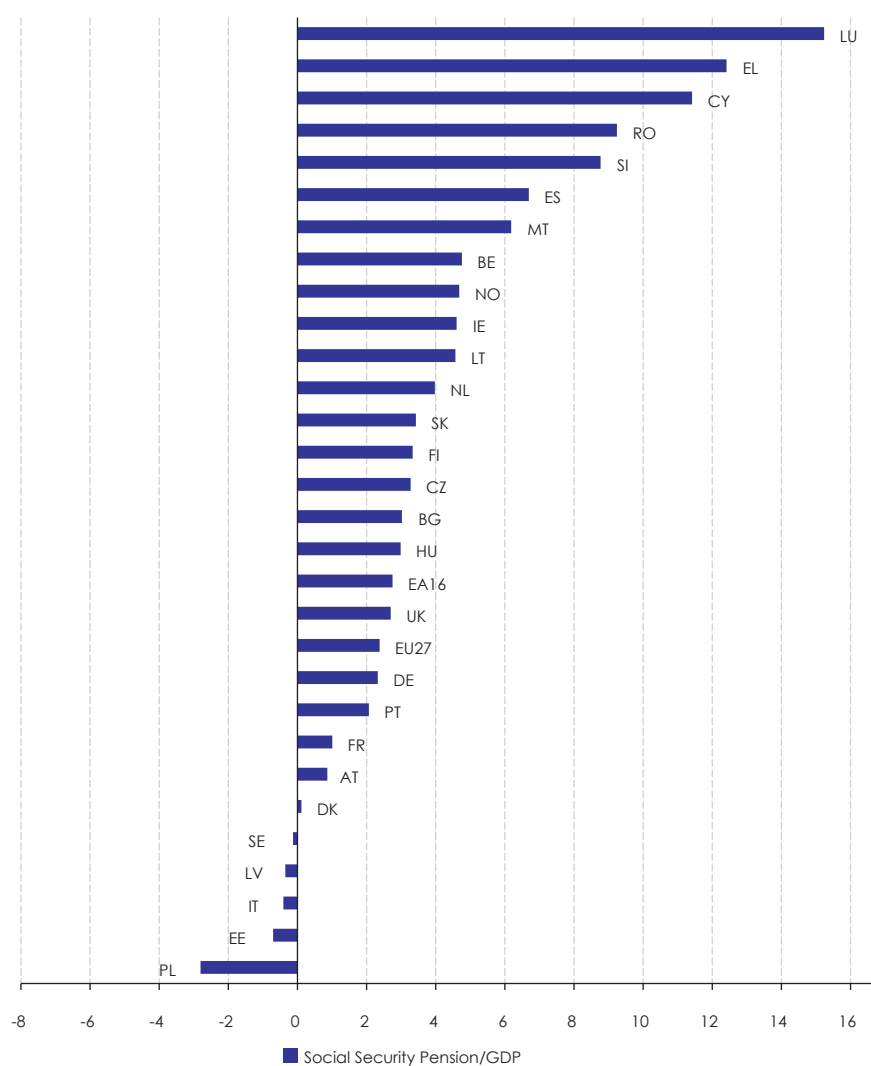
The dependency ratio effect/contribution quantifies the impact of the change in the old age dependency ratio on the pension to GDP ratio. The dependency ratio is defined as a ratio of the population aged over 65 to the population aged from 15 to 64. An increase in this ratio indicates a higher proportion of older individuals with respect to working age population, i.e. an ageing population. As the dependency ratio increases, the pension to GDP ratio moves in the same direction.

The coverage ratio effect is defined as the number of pensioners of all ages to population over 65 years. Development in the coverage ratio provides information about developments of the effective exit age and the percentage of population covered. As the coverage ratio increases, the pension expenditure to GDP ratio increases as well.

The employment rate effect is defined as a ratio of population aged 15-64 to the number of working people aged 15-64 (i.e. 1/employment rate). As the employment rate increases, the ratio of pension expenditure to GDP falls down.

The benefit ratio effect indicates the development of the relative value of the average pension (public pension spending / number of pensioners) with respect to the average wage (proxied by the change in the GDP per hours worked).

Graph 51 - Change in the Public Pension/GDP over 2007-60 (in percentage points)



Source: Commission services, EPC.

2.5.2. Decomposition of the projected pension expenditure

In order to shed light on the main drivers behind these dynamics, the decomposition of pension expenditure to GDP into its main components as outlined in the Box above is made.

Graph 51 shows the pension to GDP increases over the whole projection horizon (2007 – 2060). It should be recalled that the ratio can be pushed downwards due to a shift from public schemes towards private mandatory schemes as in Bulgaria, Estonia, Latvia, Hungary, Poland, Slovakia and Sweden.³³

In the case of many countries, as already shown in Table 10, the evolution of the pension to GDP ratio is not increasing monotonically from 2007 to 2060. Indeed, about half of the countries, reaches the peak before 2060. Thus, the analysis of the development in the sub periods of the projection horizon can provide additional information on the main drivers of changing trends over time. Table 11 shows changes in the public pension spending to GDP ratio in five sub periods of the whole projection horizon for all Member States.

Over the period 2007-2020 the increase in the public pension spending as percentage of GDP in the EU27 is rather low (+0.4 p.p.). The minimum and the maximum change over 2007-2020 is registered by Poland (-1.8 p.p.) and Cyprus, Finland, Norway (+2.6 p.p.) respectively. Over the period 2020-2030, the results deteriorate considerably, i.e. the EU27 average increases by +0.9 p.p., with a maximum increase (of +4.3 p.p.) in Luxembourg.³⁴ In the following decade (2030-2040), the dynamic of the spending is comparable

Table 11 - Development of the ratio of public pension expenditure to GDP (in percentage points)

	2007-20	2020-30	2030-40	2040-50	2050-60	2007-60
BE	1.8	2.0	0.8	0.1	0.0	4.8
BG	0.1	0.2	0.9	1.3	0.5	3.0
CZ	-0.9	0.3	1.3	1.7	0.9	3.3
DK	1.6	-0.1	-0.2	-0.8	-0.4	0.1
DE	0.0	1.1	0.5	0.2	0.5	2.3
EE	0.3	-0.3	-0.2	-0.1	-0.4	-0.7
IE	0.6	0.8	1.0	1.6	0.6	4.6
EL	1.5	3.9	4.4	2.6	0.1	12.4
ES	1.1	1.3	2.4	2.2	-0.3	6.7
FR	0.6	0.6	0.2	-0.2	-0.2	1.0
IT	0.1	0.7	0.8	-0.8	-1.1	-0.4
CY	2.6	1.9	2.1	2.7	2.2	11.4
LV	-0.3	0.7	0.3	-0.3	-0.7	-0.4
LT	0.1	1.3	0.9	1.3	1.0	4.6
LU	1.2	4.3	4.3	3.7	1.8	15.2
HU	0.2	0.0	1.2	1.0	0.6	3.0
MT	2.1	0.1	1.2	1.4	1.4	6.2
NL	1.2	1.5	1.1	-0.1	0.3	4.0
AT	0.3	0.8	0.2	0.0	-0.4	0.9
PL	-1.8	-0.3	-0.2	-0.1	-0.3	-2.8
PT	1.0	0.2	-0.1	0.8	0.1	2.1
RO	2.3	1.6	2.1	2.3	1.0	9.2
SI	1.2	2.2	2.9	2.1	0.4	8.8
SK	-0.5	1.0	1.0	1.1	0.8	3.4
FI	2.6	1.3	-0.3	-0.4	0.1	3.3
SE	-0.1	0.1	-0.1	-0.3	0.3	-0.1
UK	0.3	0.7	0.4	0.0	1.2	2.7
NO	2.6	1.2	0.7	-0.1	0.3	4.7
EU27	0.4	0.9	0.7	0.2	0.2	2.4
EA16	0.5	1.1	0.9	0.4	-0.1	2.8
EA12	0.5	1.1	0.9	0.3	-0.1	2.7
EU15	0.4	0.9	0.7	0.2	0.1	2.4
EU10	-0.9	0.2	0.6	0.8	0.3	1.0
EU25	0.3	0.9	0.7	0.2	0.2	2.3

Source: Commission services, EPC.

to the previous decade (2020-2030). The EU27 average does not grow as much as during the previous decade (+0.7 p.p.) with a minimum increase in Finland (-0.3 p.p.) and a maximum in Greece (+4.4 p.p.). The situation improves noticeably during the last two decades of the projection horizon. During 2040-2050 the EU27 average change is just + 0.2 p.p. with a maximum

³³ In case of Luxembourg, the pension projection is affected by the considerable number of cross border workers who will in the future years receive a pension from the Luxembourg social security scheme, but at the same time will not be registered as Luxembourg inhabitants. Due to this peculiar circumstance, Luxembourg can not be, in same cases, strictly compared with other Member States. Thus, in some of our analysis Luxembourg is treated as an outlier. Whenever the conclusions seem to be affected by country specific situation, this is highlighted in the text.

³⁴ For Luxembourg, the projected change in the social security pension expenditure to GDP may be biased upwards due to country specific situation, i.e. the cross border workers effect.

increase in Luxembourg (+3.7 p.p.) and a minimum in Italy (-0.8 p.p.). This tendency is even more pronounced during 2050-2060 when the increase in the EU27 is only +0.17 p.p., with a maximum value in Cyprus (+2.2 p.p.) and a substantial drop in Italy (-1.1 p.p.).

To sum up, over the next fifty years, public pension spending (as percentage of GDP) is not projected to grow completely evenly in the EU Member States. Furthermore, it seems that the development of the ratio will change more or less every twenty years. In particular, the time span up to 2020 can be characterised by a more modest increase in the public pension to GDP ratio than over the following twenty years. Finally, the last twenty years of the projection period (and especially 2050-60) is characterised by a less dynamic increase in the public pension ratio. The factors behind these different trends will be discussed below by using the decomposition described in the box “Decomposition of pension expenditure”.

The decomposition of the overall change in the public pension spending to GDP ratio over the period 2007-2060 is provided in Table 12. In particular, the table demonstrates the contribution of each of the four main factors to the change in the pension/GDP ratio. As already stressed, the main contributor to the increase in the ratio of pension to GDP is represented by demographic factors (captured by the old age dependency ratio), ranging from +4.2 p.p. to +13.7 p.p. in the case of the UK and Slovenia respectively. It needs to be stressed that for many Member States, the increase in the old age dependency ratio is the only factor pushing upward the pension to GDP ratio, while the remaining evolution of the other three factors contribute to keep down the evolution in the pension/GDP ratio. However, compared to the remaining three factors, in absolute terms the upwards contribution of the ageing population is the largest one. As a result, the significant worsening effect of demographic factors is only partly offset by projected higher employment, lower coverage rate and lower benefit rate.

In general, the projected increase in the employment rate contributes only to a very limited extent to keep down the pension/GDP

ratio in the majority of Member States,³⁵ being less than 1 p.p. in absolute terms over the projection period (0.7 for the EU27).

On the contrary, the contributions of the fall in both the coverage rate and the benefit rate are more pronounced, although generally not large enough to stabilise the pension to GDP ratio in the long run at the initial level. The overall EU27 effect of these two factors seems to be comparable, about -2.5 p.p. But variation among countries tends to be noticeable. An increase in the coverage ratio will contribute to increase the pension/GDP ratio in Luxembourg (+5.2 p.p.) and Cyprus (+1.6 p.p.). On the contrary, large falls are projected to contribute to put downward pressure on pension in Poland (-6.3 p.p.) and Romania (-4.9 p.p.).

Concerning the contribution of changes in the benefit ratio, one can observe both negative as well as positive values. An increase in the benefit ratio over the projection period will push up the pension/GDP ratio in Luxembourg (+1.2 p.p.) and Romania (+1.7 p.p.) while countries like Poland (-7.1 p.p.) and Italy (-5.5 p.p.) are expected to face a reverse trend. The mentioned differences among countries are mainly due to different degree of reforms affecting both access to pensions and generosity of future pension benefits.

As seen before, over the projection horizon 2007-2060 important differences in the evolution of the pension to GDP ratio are projected and it is important to get a better understanding of the factors behind such different trends. Graph 52 shows the decomposition of the percentage change of the public pension expenditure to GDP ratio into the four main factors during five sub periods. By construction, the sum of the contributions of each particular effect over the 5 sub periods gives the total contribution over the entire projection period 2007-2060.

In general, at the EU27 level, the effect of demographic factors is decreasing over time. The largest contribution is envisaged for the periods 2007-2020 and 2020-2030, reaching (+2.2 p.p.) and (+2.3 p.p.) respectively. At the end of the projection (2050-2060), the contribution of demographic factors levels down

³⁵ This is mainly due to the assumptions behind the macroeconomic projection and the development of aggregate employment, in particular in the long run.

Table 12 - Decomposition of the public pension spending to GDP ratio over 2007-2060 (% of GDP)

	2007 level	Dependency ratio contribution	Coverage ratio contribution	Employment effect contribution	Benefit ratio contribution	Interaction effect	2060 level
BE	10.0	7.4	-0.9	-0.5	-1.0	-0.3	14.7
BG	8.3	9.1	-3.0	-0.5	-1.8	-0.8	11.3
CZ	7.8	9.5	-3.5	-0.5	-1.2	-1.1	11.0
DK	9.1	6.5	-4.9	-0.1	-0.5	-0.7	9.2
DE	10.4	7.9	-1.9	-0.8	-2.2	-0.8	12.8
EE	5.6	4.6	-1.6	-0.2	-3.1	-0.4	4.9
IE	4.0	5.9	-1.5	-0.2	0.7	-0.3	8.6
EL	11.7	12.7	-0.4	-0.6	0.8	-0.1	24.1
ES	8.4	10.7	-0.9	-0.9	-1.7	-0.5	15.1
FR	13.0	8.4	-2.2	-0.5	-4.0	-0.7	14.0
IT	14.0	10.4	-3.2	-1.1	-5.5	-1.0	13.6
CY	6.3	10.8	1.6	-0.5	-0.3	-0.2	17.7
LV	5.4	5.7	-1.6	-0.2	-3.9	-0.4	5.1
LT	6.8	9.6	-2.4	0.0	-1.8	-0.8	11.4
LU	8.7	8.4	5.2	0.0	1.2	0.3	23.9
HU	10.9	11.3	-5.4	-0.7	-1.1	-1.0	13.8
MT	7.2	11.3	-3.1	-0.7	-0.5	-0.8	13.4
NL	6.6	6.6	-1.5	-0.2	-0.6	-0.4	10.5
AT	12.8	9.9	-2.6	-0.5	-5.0	-1.0	13.6
PL	11.6	13.4	-6.3	-1.0	-7.1	-1.8	8.8
PT	11.4	9.8	-1.7	-0.6	-4.5	-0.9	13.4
RO	6.6	13.6	-4.9	0.3	1.7	-1.5	15.8
SI	9.9	13.7	-3.5	-0.1	-0.7	-0.7	18.6
SK	6.8	11.7	-3.9	-0.6	-2.4	-1.4	10.2
FI	10.0	8.7	-3.1	-0.6	-0.9	-0.7	13.4
SE	9.5	5.6	-0.4	-0.4	-4.3	-0.6	9.4
UK	6.6	4.2	-1.4	-0.3	0.5	-0.3	9.3
NO	8.8	8.2	-1.2	0.3	-2.3	-0.2	13.6
EU27	10.1	8.7	-2.6	-0.7	-2.5	-0.6	12.5
EA16	11.0	9.0	-2.0	-0.7	-2.9	-0.7	13.8
EA12	11.1	8.8	-1.9	-0.7	-2.9	-0.7	13.8
EU15	10.2	7.7	-1.8	-0.6	-2.3	-0.6	12.6
EU10	9.7	11.8	-4.9	-0.7	-3.9	-1.3	10.7
EU25	10.2	8.5	-2.4	-0.7	-2.5	-0.6	12.5

Source: Commission services, EPC.

to +0.7 p.p. of GDP. Significant differences can be found among Member States; in particular, alternative demographic development is expected for EU10 and EU15 countries.

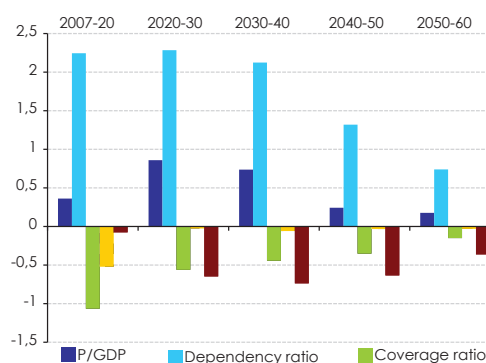
The contribution of the coverage ratio at EU27 level is expected to fade out over the projection horizon. The initial downward contribution (-1.1 p.p.) of the 2007-2020 period is estimated to fall down over the next 50 years towards zero (-0.2 p.p.).

The employment contribution is even more short-lasting, from the initial level of -0.5 p.p. during the period 2007 to 2020 to zero in the period 2020 to 2030.

Finally, the contribution of the benefit ratio development at the EU27 level is envisaged to increase in absolute terms from the initial level (-0.1 p.p.) in 2007-2020 to its maximum value in 2030-2040 (-0.7 p.p.). The expected rising contribution of the benefit ratio development seems to be affected mainly by a typical feature

of most pension system reforms, which even though enacted nowadays, will affect mainly individuals retiring in thirty to forty years.

Graph 52 - Decomposition of the public pension spending to GDP ratio over sub periods for EU27 (in percentage points)



Source: Commission services, EPC.

2.5.2.1. Old age dependency effect

As serious demographic changes are expected in the upcoming decades, demographic factors are projected to be the main driver of the future pension expenditure. The overall picture is provided by Graph 53 which shows the contribution of a change in the old-age dependency ratio to the public pension to GDP ratio. For all countries, except Cyprus and Luxembourg, the contribution of the old-age dependency ratio is bigger than the total change in the public pension to GDP. It is evident that envisaged demographic transition will affect future pensions to a remarkable extent. Hopefully, recent pension reforms have strengthened the counterbalancing impact of other factors (increase in employment rate, especially of older workers, decline in the coverage ratio, through postponement of retirement age, less generous public pension transfers). However the increase in the dependency ratio is still expected to have a considerable impact on public spending.

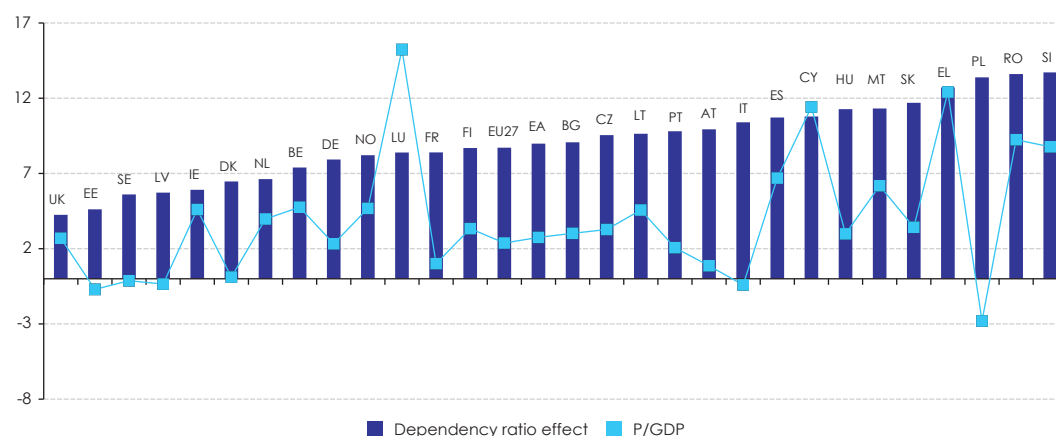
Table 13 provides information on the contribution of the demographic factors to the change in the public pension spending to GDP ratio over different periods of time. The effect of the demographic factors is projected to be the strongest over 2007-2040. The minimum impact over the 2007-2020 period is in Latvia (+0.7 p.p.) while the maximum value is recorded by Finland (+4.7 p.p.). The impact for the EU27 is +2.2 p.p. over the same period. In addition, the impact remains almost unchanged (+2.3 p.p.) during the next decade 2020-2030, when the

minimum value is in Ireland (+1.0 p.p.) and the maximum impact is in Austria (+3.8 p.p.). The situation starts to improve from 2030 onwards, i.e. the upward contribution of the demographic drivers become lower. As documented in Table 13, the EU27 average contribution drops from +2.1 p.p. over the period 2020 to 2030 to 0.7 p.p. between 2050 and 2060. In addition, over the period 2040 to 2050 the contribution of the demographic transition will become less than 0.5 p.p. in case of 8 Member States (Denmark, the Netherlands, the UK, France, Sweden, Germany, Norway and Finland). Over 2050-2060 again in case of 8 countries (Italy, Greece, Spain, France, Denmark, the Netherlands and Portugal) the contribution of the dependency ratio is expected to be of very limited extent. One should note that the countries with a low level of the old-age dependency contribution to the increase in the pension/GDP ratio are euro-area countries and EU15. On the other hand, the impact of increasing old-age dependency ratio will still be above 2.0 p.p. between 2050-2060 in 5 new Member States (Slovakia, Malta, Romania, Cyprus and Lithuania).

2.5.2.2. Coverage effect

As population is expected to become older and government is expected to spend an increasing part of public expenditures on pension benefits, several measures have been already implemented in order to stabilise future development of public pension schemes. Among others, for example, in many Member States the legal retirement age has been postponed, early retirement schemes

Graph 53 - Contribution of the dependency ratio to the change in the ratio of the public pension expenditure to GDP over 2007-60 (in percentage points)



Source: Commission services, EPC.

Table 13 - Contribution of the dependency ratio to the change in the ratio of public pension expenditure to GDP
(in percentage points)

	2007-20	2020-30	2030-40	2040-50	2050-60	2007-60
BE	1.8	2.7	1.7	0.6	0.7	7.4
BG	2.0	1.3	1.7	2.5	1.6	9.1
CZ	3.6	1.0	1.4	2.3	1.2	9.5
DK	3.3	1.9	1.3	-0.3	0.3	6.5
DE	1.8	3.1	2.1	0.4	0.6	7.9
EE	0.9	1.0	0.7	1.1	0.9	4.6
IE	1.0	1.0	1.3	2.0	0.6	5.9
EL	2.1	2.4	4.4	3.8	0.1	12.7
ES	1.1	2.3	3.7	3.4	0.1	10.7
FR	3.7	2.5	1.8	0.2	0.2	8.4
IT	2.4	2.7	3.9	1.5	0.0	10.4
CY	1.7	2.0	1.3	2.9	2.8	10.8
LV	0.7	1.2	1.0	1.5	1.4	5.7
LT	0.9	2.3	1.9	1.7	2.8	9.6
LU	1.4	2.8	2.6	0.8	0.8	8.4
HU	3.1	1.3	1.9	3.1	1.7	11.3
MT	4.3	2.2	0.6	2.0	2.2	11.3
NL	2.7	2.3	1.6	-0.3	0.4	6.6
AT	2.0	3.8	2.8	0.7	0.7	9.9
PL	4.1	2.9	1.3	3.0	2.0	13.4
PT	2.2	2.3	2.6	2.3	0.4	9.8
RO	1.6	1.6	3.5	4.0	3.0	13.6
SI	3.6	3.3	2.8	3.2	0.9	13.7
SK	2.7	2.2	1.7	3.0	2.1	11.7
FI	4.7	2.4	0.4	0.5	0.8	8.7
SE	2.5	1.0	0.8	0.3	1.0	5.6
UK	1.2	1.1	0.8	0.2	0.9	4.2
NO	2.5	2.4	2.1	0.4	0.8	8.2
EU27	2.2	2.3	2.1	1.3	0.7	8.7
EA16	2.2	2.7	2.6	1.2	0.3	9.0
EA12	2.2	2.7	2.6	1.1	0.3	8.8
EU15	2.0	2.3	2.1	0.9	0.4	7.7
EU10	3.3	2.2	1.5	2.8	2.0	11.8
EU25	2.3	2.3	2.1	1.2	0.7	8.5

Source: Commission services, EPC.

have been abolished or reduced substantially and other conditions to receive a pension have been made more restrictive. In addition, as people expect to live longer they can decide voluntarily to postpone the retirement age, i.e. they exit labour market after reaching the legal retirement age. The final impact of these measures translates into a lower level of the coverage ratio (the number of benefit recipients as % of the population of the same age, here measured as persons aged 65 or more).

Table 14 - Coverage ratio (% of population at the age of 65 or more)

	2007	2010	2020	2030	2040	2050	2060	Change 2007-2060 in p.p.
BE	140.8	142.5	141.5	136.1	132.5	133.4	132.0	-8.8
BG	168.6	167.1	147.8	140.3	138.8	130.3	121.0	-47.6
CZ	184.1	172.1	141.4	130.4	126.2	118.2	114.5	-69.6
DK	159.9	155.1	141.1	119.6	108.5	103.9	96.3	-63.5
DE	121.6	119.8	115.8	107.8	103.1	102.7	102.1	-19.5
EE	160.2	162.7	147.1	137.8	133.3	127.7	118.8	-41.5
IE	159.0	155.5	142.5	134.7	127.9	120.2	118.3	-40.7
GR	127.0	124.7	117.6	116.6	115.8	115.2	119.1	-7.9
ES	109.0	108.3	105.2	103.6	101.9	99.5	100.1	-8.9
FR	138.9	142.1	128.9	122.9	118.0	118.6	118.0	-21.0
IT	134.3	129.3	120.7	119.3	111.7	106.6	107.1	-27.2
CY	123.3	132.9	140.1	145.1	149.0	150.9	150.5	27.2
LV	147.7	141.1	130.0	127.1	123.8	120.8	110.6	-37.1
LT	173.0	171.0	172.1	156.1	144.5	143.5	130.8	-42.3
LU	218.5	226.8	253.2	269.5	286.0	314.4	319.5	101.1
HU	190.0	180.0	155.6	145.7	138.9	123.5	116.8	-73.1
MT	124.3	130.3	112.2	100.3	98.4	91.6	88.8	-35.5
NL	139.4	136.3	125.5	118.2	114.4	114.5	114.0	-25.4
AT	172.9	170.3	165.8	144.2	131.8	135.9	140.5	-32.4
PL	194.8	180.7	136.1	117.0	116.2	107.6	100.1	-94.7
PT	174.8	173.0	168.4	163.5	155.7	149.5	152.3	-22.5
RO	178.3	171.7	145.2	139.2	129.0	120.0	108.9	-69.3
SI	162.3	159.8	145.1	134.6	132.5	126.0	122.7	-39.6
SK	185.8	178.2	144.1	130.0	126.1	113.9	106.8	-79.0
FI	153.2	153.2	130.5	122.5	119.9	118.1	116.3	-36.9
SE	137.0	135.1	132.5	134.8	133.8	134.6	131.6	-5.5
UK	124.7	125.7	113.0	109.9	107.2	100.9	101.6	-23.1
NO	137.0	140.4	137.2	130.0	123.5	123.9	124.5	-12.5
EU27	140.1	137.4	125.8	119.3	114.7	111.4	110.0	-30.1
EA	131.9	130.5	123.3	117.9	113.0	111.4	111.6	-20.3
EA12	131.2	129.8	122.9	117.6	112.7	111.1	111.5	-19.6
EU15	130.7	129.6	122.0	116.9	112.3	110.1	110.3	-20.4
EU10	186.4	175.5	141.9	126.6	123.9	114.9	108.0	-78.4
EU25	138.1	135.6	124.8	118.3	113.9	110.8	109.9	-28.1

Source: Commission services, EPC.

Note: 'Coverage Ratio 65' is calculated as the total number of pensioners as a share of the population aged 65 and over. * = Austria, Portugal and the UK did not provide the number of pensioners. In order to quantify the coverage ratio, the number of pensioners was proxied by the number of pensions, as the dynamic of the two variables should be comparable at least in the long-run. In the case of Ireland, only the number of pensioners in the social security scheme is covered.

Table 14 shows the coverage ratio for all Member States at age 65, i.e. the ratio of the number of pensioners under the public scheme (all ages) divided by the number of people aged over 65 (the potential beneficiaries in an hypothetical "universal" scheme). The coverage ratio at age 65 is projected to be reduced over the projection period in all but one country (Luxembourg).³⁶ This reflects the expected general increase in the average exit age from the labour force, and also in many cases a lower number of pensioners below the retirement age (e.g. getting disability pensions). In most of the countries, the coverage will remain above 100%, with the notably exception of Denmark (as the retirement age will increase to 72 years by 2060). In the case of

Malta and Spain the current low coverage can be explained by women not entitled to their own contributory old-age benefits but that are considered covered by their spouses' pensions. In any case, coverage of pensioners over 65 years will increase over the projection in both countries.

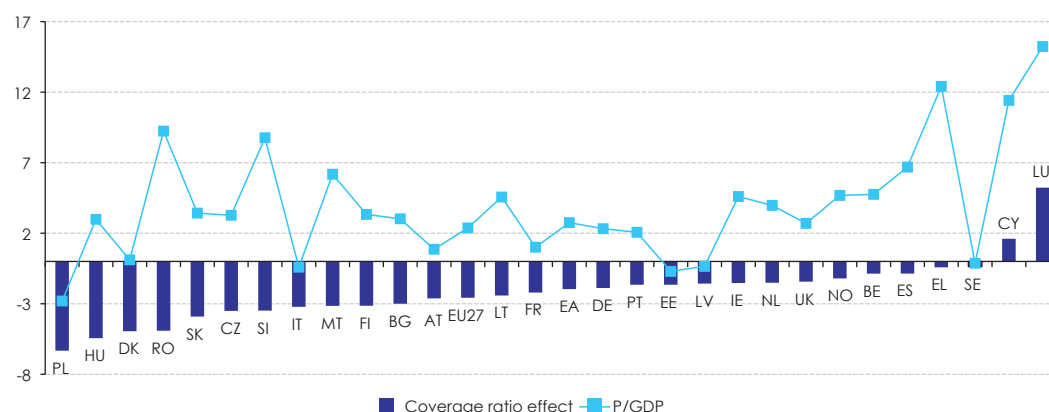
Over the projection horizon, this generalised decrease in the level of the coverage ratio translates into a downward impact on the public pension to GDP ratio, i.e. the contribution of the coverage ratio is negative for all Member States except for Luxembourg and Cyprus, see Figure 12. In 10 Member States the projected decreasing in the coverage rates is contributing to reduce the pension spending (as % of GDP) by at least 3 p.p. (Poland, Romania, Hungary, Denmark, Slovakia, the Czech Republic, Slovenia, Italy, Malta and Finland). For the remaining 18 Member States (Bulgaria, Austria, Lithuania,

³⁶ The case of Luxembourg is special due to the country-specific situation concerning the development of the number of foreign pensioners receiving a pension from the Luxembourg pension scheme.

France, Germany, Portugal, Estonia, Latvia, Ireland, the Netherlands, the UK, Norway, Belgium, Spain, Greece, Sweden, Cyprus, Luxembourg) the declining coverage rate will

contribute to limit the impact of demographic factors on pension spending, although to a lower extent. The overall EU27 contribution is -2.6 p.p. over the period 2007 to 2060.

Graph 54 - Contribution of the coverage ratio to the change in the ratio of the public pension expenditure to GDP over 2007-60 (in percentage points)



Source: Commission services, EPC.

As already suggested, the projected falling coverage rate can be at least partly attributed to the introduction of labour market and pension system reforms. Table 15 presents developments of the coverage contribution over five sub periods. In general, the effect of the coverage rate tends to decrease over time. To be specific, the EU27 coverage contribution drops down in absolute terms from -1.1 p.p. in 2007-2020 to -0.2 p.p. in 2050-2060. It also has to be mentioned that relating the number of pensioners of all ages to the (growing) population aged 65 and more tend to overstate the decrease in the coverage ratio. Consequently the increase in the coverage ratio both in the population aged 55-64 and in the population aged 65 and more observed in some countries (e.g. Belgium), despite labour market reforms, does not show in the presented coverage ratio.

Over the period between 2007 and 2020, the coverage ratio contributes to increasing pension spending by 1.3% of GDP in Luxembourg and by almost 1 p.p. in Cyprus. On the contrary the strongest downward contribution is recorded in Poland (-3.5 p.p.). In the subsequent decade (2020-2030), the dampening effect of decreasing

coverage ratios in the EU27 falls to a value -0.6 p.p., with the biggest contribution recorded in Austria (-1.8 p.p.). For Luxembourg (+0.7 p.p.) and Cyprus (+0.3 p.p.) the coverage continues to increase.³⁷ Over the last three decades of the projection period (2030-2060), the contribution of the coverage ratio development is falling further down to reach a value -0.2 p.p. in 2050-2060 in the EU27, with the highest contribution in Romania (-1.7 p.p.) and a slightly upward impact on pension spending in Greece (+0.8 p.p.), Italy, Spain, Cyprus, Austria, Portugal, the UK and Norway.

³⁷ A steadily high value of the coverage contribution in case of Luxembourg is affected by a country specific situation concerning cross-border workers and foreign pensioners.

Table 15 - Contribution of the coverage ratio to the change in the ratio of public pension expenditure to GDP (in percentage points)

	2007-20	2020-30	2030-40	2040-50	2050-60	2007-60
BE	0.1	-0.5	-0.4	0.1	-0.2	-0.9
BG	-1.1	-0.4	-0.1	-0.6	-0.8	-3.0
CZ	-1.8	-0.5	-0.2	-0.6	-0.3	-3.5
DK	-1.1	-1.7	-1.0	-0.4	-0.7	-4.9
DE	-0.5	-0.8	-0.5	-0.1	-0.1	-1.9
EE	-0.5	-0.4	-0.2	-0.2	-0.4	-1.6
IE	-0.4	-0.3	-0.3	-0.4	-0.1	-1.5
EL	-0.9	-0.1	-0.1	-0.1	0.8	-0.4
ES	-0.3	-0.1	-0.2	-0.3	0.1	-0.9
FR	-1.0	-0.6	-0.6	0.1	-0.1	-2.2
IT	-1.4	-0.2	-1.0	-0.7	0.1	-3.2
CY	0.9	0.3	0.3	0.2	0.0	1.6
LV	-0.7	-0.1	-0.2	-0.1	-0.5	-1.6
LT	0.0	-0.7	-0.6	-0.1	-1.0	-2.4
LU	1.3	0.7	1.0	1.9	0.4	5.2
HU	-2.1	-0.7	-0.5	-1.4	-0.7	-5.4
MT	-0.8	-1.0	-0.2	-0.8	-0.4	-3.1
NL	-0.7	-0.5	-0.3	0.0	0.0	-1.5
AT	-0.5	-1.8	-1.2	0.4	0.5	-2.6
PL	-3.5	-1.4	-0.1	-0.7	-0.6	-6.3
PT	-0.4	-0.4	-0.6	-0.5	0.2	-1.7
RO	-1.5	-0.3	-0.8	-0.9	-1.4	-4.9
SI	-1.1	-0.8	-0.2	-0.8	-0.5	-3.5
SK	-1.6	-0.7	-0.2	-0.8	-0.6	-3.9
FI	-1.6	-0.8	-0.3	-0.2	-0.2	-3.1
SE	-0.3	0.2	-0.1	0.1	-0.2	-0.4
UK	-0.6	-0.2	-0.2	-0.5	0.1	-1.4
NO	0.0	-0.6	-0.7	0.0	0.1	-1.2
EU27	-1.1	-0.6	-0.4	-0.4	-0.2	-2.6
EA	-0.7	-0.5	-0.5	-0.2	0.0	-2.0
EA12	-0.7	-0.5	-0.5	-0.2	0.1	-1.9
EU15	-0.7	-0.5	-0.5	-0.2	0.0	-1.8
EU10	-2.4	-1.0	-0.2	-0.7	-0.6	-4.9
EU25	-1.0	-0.6	-0.4	-0.3	-0.1	-2.4

Source: Commission services, EPC.

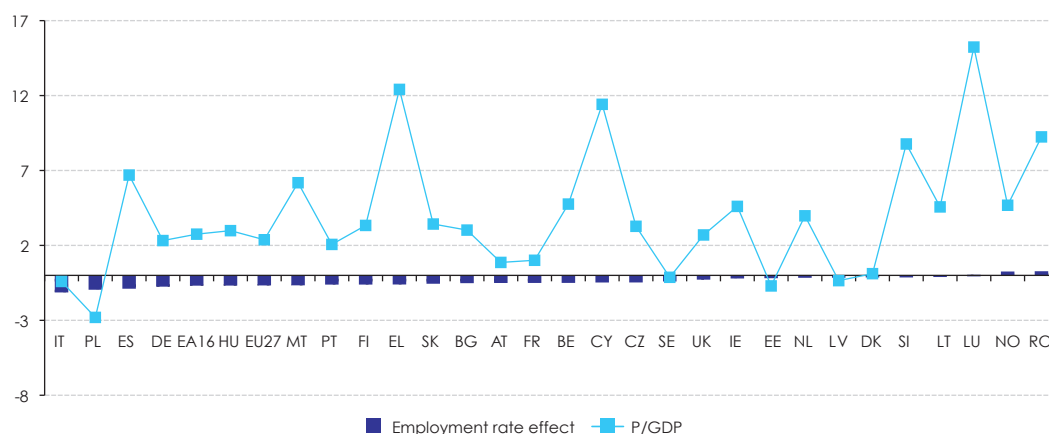
2.5.2.3. Employment effect

In order to stabilise financial sustainability of the pension system, one of the best policy measure is to stimulate people to stay longer in the labour market, i.e. to postpone exiting the labour market.³⁸ As shown in Graph 55, the projected increase in the employment rate – as sketched in the baseline scenario – will contribute limiting the increase in the social pension spending to GDP over 2007-2060.

When analysing different sub-periods, it follows that the only significant employment contribution takes place during the period between 2007 and 2020. Still, during that period the contribution of higher employment rate is below 1 p.p. in absolute terms. The overall EU27 employment contribution between 2007 and 2020 is only -0.5 p.p. Only in Norway, the pension to GDP ratio is expected to rise due to a projected decrease in the employment rate. On the contrary, the largest negative contribution within 2007-2020 is envisaged in Hungary where the pension to GDP ratio will be reduced almost by one percentage point over 2007-2020 due to the increase in the employment rate. Starting from 2020 onwards, the average contribution is almost zero for the EU27. This reflects mostly the assumption of a constant structural unemployment rate in the Member

³⁸ The Annex “Number of contributors to public pension schemes” provides information on the development of the number of contributors, as in few Member States the number of employed and contributors can be different.

Graph 55 - Contribution of the employment rate to the change in the ratio of the public pension expenditure to GDP over 2007-60 (in percentage points)



Source: Commission services, EPC.

States from that point onwards and only moderate increases in the participation rates.

2.5.2.4. Benefit effect

The stabilisation of the public pension spending can be attained also by means of reducing future generosity of pension benefits.³⁹ In general, as documented by Graph 56, a reduction in the relative value of the public pension benefit is projected to contribute to a limitation of the pension to GDP ratio over the period 2007 to 2060 in the EU. Only in 5 Member States (the UK, Ireland, Greece, Luxembourg and Romania), the contribution of the change in the benefit ratio is envisaged to be positive. In the rest of the countries, a reduction in the relative value of social security benefits (compared to the gross average wage) is projected. In the following 8 Member States (Poland, Italy, Austria, Portugal, Sweden, France, Latvia and Estonia) the contribution of a decreasing benefit ratio is in absolute terms quite significant (above 3 p.p.).

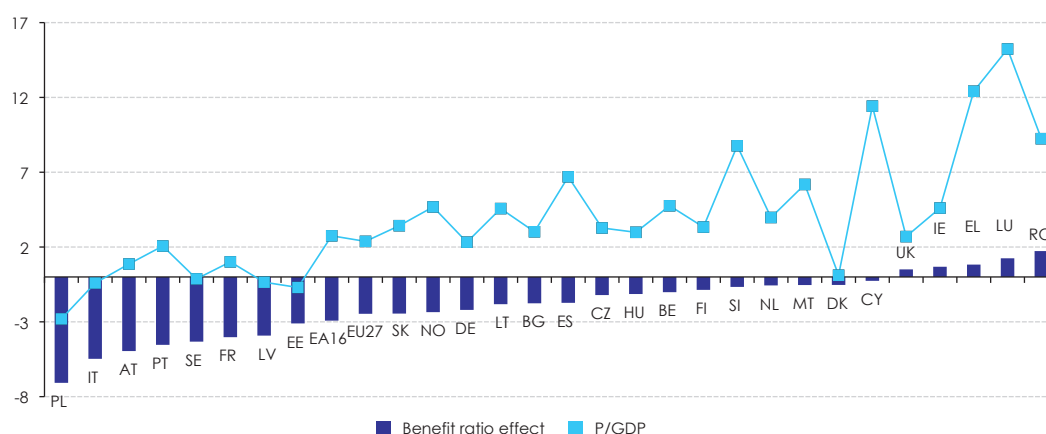
Table 16 - Contribution of the employment effect to the change in the ratio of public pension expenditure to GDP (in percentage points)

	2007-20	2020-30	2030-40	2040-50	2050-60	2007-60
BE	-0.5	0.1	-0.1	0.0	0.0	-0.5
BG	-0.6	0.2	0.1	0.0	-0.2	-0.5
CZ	-0.5	0.1	0.0	-0.1	0.0	-0.5
DK	0.0	0.0	-0.1	0.0	0.0	-0.1
DE	-0.7	0.0	-0.1	0.1	0.0	-0.8
EE	-0.3	0.1	0.0	0.0	-0.1	-0.2
IE	-0.2	0.0	0.0	0.0	0.0	-0.2
EL	-0.7	0.2	0.0	-0.2	0.1	-0.6
ES	-0.7	-0.1	-0.1	-0.1	0.1	-0.9
FR	-0.3	0.0	-0.2	0.0	0.0	-0.5
IT	-0.9	-0.2	-0.1	0.0	0.1	-1.1
CY	-0.5	0.0	0.1	0.0	0.0	-0.5
LV	-0.2	0.1	0.0	0.1	-0.2	-0.2
LT	-0.3	0.2	0.1	0.1	-0.1	0.0
LU	0.0	0.0	-0.1	0.1	0.1	0.0
HU	-0.9	0.1	0.3	-0.1	0.0	-0.7
MT	-0.5	-0.3	0.1	0.0	0.0	-0.7
NL	-0.1	0.0	-0.2	0.1	0.0	-0.2
AT	-0.2	-0.1	-0.3	0.1	0.0	-0.5
PL	-0.9	-0.2	0.3	0.0	-0.1	-1.0
PT	-0.6	0.0	0.0	0.0	0.0	-0.6
RO	-0.2	0.4	0.3	0.1	-0.2	0.3
SI	-0.3	0.3	0.2	-0.2	-0.1	-0.1
SK	-0.7	0.0	0.2	0.0	-0.1	-0.6
FI	-0.5	0.0	0.0	-0.1	0.0	-0.6
SE	-0.4	0.0	0.0	0.0	0.0	-0.4
UK	-0.1	0.0	-0.1	0.0	0.0	-0.3
NO	0.2	0.1	0.0	0.0	0.0	0.3
EU27	-0.5	0.0	-0.1	0.0	0.0	-0.7
EA16	-0.6	0.0	-0.1	0.0	0.0	-0.7
EA12	-0.6	0.0	-0.1	0.0	0.0	-0.7
EU15	-0.5	0.0	-0.1	0.0	0.0	-0.6
EU10	-0.7	0.0	0.2	0.0	-0.1	-0.7
EU25	-0.5	0.0	-0.1	0.0	0.0	-0.7

Source: Commission services, EPC.

³⁹Theoretical replacement rates (TRR) calculated by the Indicator Sub-Group of the Social Protection Committee are the agreed measure of adequacy of pensions. Analysis of future development of TRR are presented in the 2009 Joint Report on Social Protection and Social Inclusion (COM (2009) 58 final) and its accompanying document (SEC (2009) 141).

Graph 56 - Contribution of the benefit ratio to the change in the ratio of the public pension expenditure to GDP over 2007-60 (in percentage points)



Source: Commission services, EPC.

Contrary to the labour market reforms, changes of the pension schemes tend to have an impact on economic variables rather in the long run. Usually, the impact of the reforms affecting the value of pension benefits will become visible only in future years, as currently working individuals will retire under different conditions in the future. This circumstance is clearly visible in Table 17 where the contribution of falling benefit ratios at the EU27 level is the strongest from 2020 to 2050.

Focusing on development at the EU27 level, the first period 2007-2020 is characterised by a relatively low contribution of a change in the benefit ratio (-0.1 p.p.). Still, a great divergence is observed across countries, ranging from the largest positive contribution in Romania (+2.8 p.p.) and the largest negative contribution registered in Sweden (-1.5 p.p.), Luxembourg and the Czech Republic (-1.4 p.p. for both). As already noted, the effect of the pension system reforms is expected to materialise over longer horizon. Thus, not surprisingly, the EU27 contribution of the average benefit to keep pension spending under control increases over time, starting from 2020-2030. The largest positive contribution falls down reaching 1.3 p.p. in case of Greece. The largest negative benefit contribution remains unchanged at -1.4 p.p. this time registered by Portugal. As the current pension reforms adjusting adequacy of individual pension benefits will affect primarily individuals retiring in thirty to forty years, the largest contribution of the fall in benefit ratios is projected to show up over the period 2030-2040 (-0.7 p.p. in the EU27).

In some cases, a declining benefit ratio can also reflect an increase in the coverage ratio, when the number of beneficiaries of supplements provided for dependent spouses tend to decrease due to the increase in the aged population benefiting from its own pension (Belgium); in these cases, the decrease in the benefit ratio will not automatically translate into a decrease in the living standard of the household.

2.5.3. Is there a risk of pensions becoming 'too small'?

We have seen that sizable decreases in benefit ratios are projected over coming decades. It is very difficult to assess to what extent future pension benefits will be “adequate” in the

Table 17 - Contribution of the benefit ratio to the change in the ratio of public pension expenditure to GDP (in percentage points)

	2007-20	2020-30	2030-40	2040-50	2050-60	2007-60
BE	0.5	-0.1	-0.5	-0.5	-0.5	-1.0
BG	0.1	-0.8	-0.7	-0.4	0.0	-1.8
CZ	-1.4	-0.3	0.2	0.3	0.0	-1.2
DK	-0.4	0.0	-0.2	-0.1	0.1	-0.5
DE	-0.5	-0.9	-0.8	-0.1	0.0	-2.2
EE	0.1	-0.9	-0.7	-0.9	-0.8	-3.1
IE	0.3	0.1	0.1	0.1	0.0	0.7
EL	1.0	1.3	0.2	-0.8	-0.9	0.8
ES	1.0	-0.7	-0.7	-0.7	-0.7	-1.7
FR	-1.4	-1.1	-0.7	-0.5	-0.2	-4.0
IT	0.3	-1.3	-1.6	-1.5	-1.3	-5.5
CY	0.5	-0.4	0.3	-0.2	-0.5	-0.3
LV	-0.1	-0.4	-0.6	-1.6	-1.3	-3.9
LT	-0.3	-0.3	-0.4	-0.4	-0.5	-1.8
LU	-1.4	0.6	0.7	0.8	0.6	1.2
HU	0.5	-0.7	-0.3	-0.3	-0.3	-1.1
MT	-0.6	-0.6	0.6	0.3	-0.3	-0.5
NL	-0.5	-0.1	0.0	0.1	0.0	-0.6
AT	-0.9	-0.6	-0.9	-1.1	-1.4	-5.0
PL	-0.8	-1.3	-1.6	-1.9	-1.5	-7.1
PT	0.0	-1.4	-1.7	-0.7	-0.7	-4.5
RO	2.8	0.1	-0.3	-0.5	-0.3	1.7
SI	-0.6	-0.3	0.1	0.1	0.1	-0.7
SK	-0.3	-0.4	-0.6	-0.7	-0.5	-2.4
FI	0.6	-0.1	-0.4	-0.5	-0.4	-0.9
SE	-1.5	-1.1	-0.8	-0.6	-0.4	-4.3
UK	0.0	-0.1	0.0	0.4	0.3	0.5
NO	-0.1	-0.5	-0.7	-0.5	-0.5	-2.3
EU27	-0.1	-0.6	-0.7	-0.6	-0.4	-2.5
EA16	-0.2	-0.8	-0.8	-0.6	-0.5	-2.9
EA12	-0.2	-0.8	-0.8	-0.6	-0.5	-2.9
EU15	-0.2	-0.7	-0.7	-0.4	-0.3	-2.3
EU10	-0.6	-0.8	-0.8	-1.0	-0.8	-3.9
EU25	-0.2	-0.7	-0.7	-0.6	-0.4	-2.5

Source: Commission services, EPC.

future.⁴⁰ Comprehensive pension reforms have aimed at strengthening fiscal sustainability by generally including measures aimed at both tightening of eligibility for pension benefits and reducing the growth of the pension benefits in relation to income growth in the economy.

Table 18 shows the benefit ratio (the ratio between the average pension benefit and the economy-wide average wage) and the replacement rate (the average first pension as a share of the economy-wide average wage).⁴¹

⁴⁰ See for related work, e.g. Social Protection Committee (2008) on privately funded pension provision and their contribution to adequate and sustainable pensions. http://ec.europa.eu/employment_social/spsi/docs/social_protection_committee/final_050608_en.pdf

⁴¹ The average wage (the denominator of the benefit ratio) is calculated as a ratio of gross wages and employed persons (both employees and self-employed) of age 15 to 71 years.

Table 18 - Benefit ratios and replacement rates (in %)

	Benefit Ratio (%)						Gross Average Replacement Rate (%)					
	Public pensions			Public and private pensions			Public pensions			Public and private pensions		
	2007	2060	% change	2007	2060	% change	2007	2060	% change	2007	2060	% change
BE	45	43	-4				45	42	-7			
BG	44	36	-20	44	41	-8		36			49	
CZ	45	38	-17				33	27	-17	33	27	-17
DK	39	38	-4	64	75	17	33	33	0	71	84	18
DE	51	42	-17	51	42	-17						
EE	26	16	-40	26	22	-18	28	16	-41	28	31	9
IE	27	32	16									
EL	73	80	10				61	67	10			
ES	58	52	-10	62	57	-8						
FR	63	48	-25									
IT	68	47	-31				67	49	-26			
CY	54	57	5									
LV	24	13	-47	24	25	4	33	22	-33	33	33	2
LT	33	28	-16	33	32	-2	32	29	-10	32	37	15
LU	46	44	-4	46	44	-4	53	62	17			
HU	39	36	-8	39	38	-3	49	38	-23	49	43	-13
MT	42	40	-6									
NL	44	41	-7	74	81	10						
AT	55	39	-30				49	38	-22			
PL	56	26	-54	56	31	-44						
PT	46	33	-29	47	33	-31	58	56	-3			
RO	29	37	26	29	41	41	36	44	20	36	49	34
SI	41	39	-6	41	40	-2						
SK	45	33	-27	45	40	-11						
FI	49	47	-5									
SE	49	30	-39	64	46	-27	49	31	-36			
UK	35	37	7									
NO	51	47	-8									

Source: Commission services, EPC.

Note: The 'Benefit ratio' is the average benefit of public pension and public and private pensions, respectively, as a share of the economy-wide average wage (gross wages and salaries in relation to employees), as calculated by the Commission. The 'Gross Average Replacement Rate' is calculated as the average first pension as a share of the economy-wide average wage, as reported by the Member States in the pension questionnaire. Public pensions used to calculate the Benefit Ratio includes old-age and early pensions and other pensions, while public pensions used to calculate the Gross Average Replacement Rate only includes old-age and early pensions. In general, the old-age and early pensions are the major part of pension expenditure, so this difference is unlikely to affect the results substantially. The benefit ratio and the gross average replacement rate convey different information. In particular, due to differences in wage concepts used when calculating the benefit ratio and the replacement rate, the two indicators (and in specially their level) are not strictly comparable and should be interpreted with caution.

The decline in the public pension benefit ratio over the period 2008 to 2060 is substantial, 20% or more in 11 Member States (France, Italy, Austria, Portugal, Sweden, Estonia, Latvia, Lithuania, Poland, Slovakia and Bulgaria).⁴² However, taking into consideration also the projected support from pension benefits from the 2nd and 3rd pillars, the decline in the total pension benefit ratio is smaller in several of these countries (Sweden, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Bulgaria), see

also Table 18.⁴³ Notwithstanding this, it still declines by 20% or more in Portugal, Sweden, Estonia and Poland. The risk of a "too small" pension must not be overstated by focusing on the drop in the benefit ratio: in spite of the decline, benefit ratios in France and Italy, for instance, are among the highest in 2007 and remain among the highest in 2060.⁴⁴

⁴² The growing mobility of labour within the EU leads to a growing part of the retired having pension benefit from more than one country. If only pensions to inhabitants in the actual country are concerned, the benefit ratio will increase in countries with many pensioners abroad, e.g. Sweden.

⁴³ It should be noted that not all Member States were in a position to provide projection for 2nd and 3rd pillars even if they exist, indicating that the total benefit ratio is not fully comparable.

⁴⁴ Note that the decline of the benefit ratio in some cases is more due to the increase of the GDP than to the decrease of the average pension.

Table 19 - Decomposition of the public and other pension spending to GDP ratio over 2007-60 (in percentage points)

	2007 level	Dependency ratio contribution	Coverage ratio contribution	Employment effect contribution	Benefit ratio contribution	Interaction effect	2060 level
BG	8,3	9,1	-3,2	-0,5	-1,8	1,2	13,0
DK	14,7	6,5	-8,0	-0,2	-0,8	6,0	18,1
EE	5,6	4,6	-1,8	-0,2	-3,6	2,1	6,7
IE	5,2	5,9	-2,1	-0,3	0,9	1,6	11,3
ES	9,0	10,7	-0,9	-1,0	-1,9	0,5	16,4
LV	5,4	5,7	-2,0	-0,2	-5,2	6,3	10,0
LT	6,8	9,6	-2,7	0,0	-2,0	1,7	13,3
HU	10,9	11,3	-4,5	-0,7	-2,4	1,5	16,0
NL	11,7	6,6	-2,7	-0,3	-1,2	8,4	22,6
PL	11,6	13,4	-6,5	-1,0	-7,6	0,7	10,6
PT	12,0	9,8	-1,6	-0,6	-4,9	-0,7	14,0
RO	6,6	13,6	-5,1	0,3	1,7	0,7	17,7
SI	9,9	13,7	-3,5	-0,1	-0,7	0,0	19,3
SK	6,8	11,7	-4,2	-0,6	-2,7	1,4	12,4
SE	12,2	5,6	-0,5	-0,5	-6,2	3,7	14,4

Source: Commission services, EPC.

Note: Other pensions cover occupational and private pensions. This table only includes Member States that have provided private pillar pension expenditure projections in addition to public pension projections, and does consequently not include all Member States.

In the case of a declining benefit ratio over time, the replacement rates at retirement provides information on whether the reduction in average pension benefit over time is due to a decline over time in newly awarded pensions (as reflected in the replacement rate at retirement), or due to a decline in previously awarded “old” pensions, the latter being influenced by the pension indexation rule employed; also volumes of new entrants and drop-outs have an influence.

Only about half of the Member States have reported replacement rates, which hampers a mapping of the situation across the EU. Nonetheless, in a number of countries, the decline in the public pension replacement rate between 2007 and 2060 is substantial, being 15% or more in Italy, Austria, Sweden, Estonia, Hungary and Latvia. This suggests that the valorisation of the average first pension is lagging behind the average wage growth quite significantly (in some cases partly reflecting the impact of increases in life expectancy in the calculation of the pension benefit—through some kind of “adjustment coefficient” or “sustainability factor”). In a number of countries the decline in the gross average replacement rate including the contribution from 2nd and 3rd pillar pensions is smaller than concerning public pensions.

A decline in the replacement rate over time may be an explicit policy target in some cases, where the initial replacement is very high. Hence, it is informative to look not only at the change in the replacement rate over time, but also at the level,

see Table 19. If the replacement rate at a future point in time is “low”, there is a case for putting in place other sources of income in order to avoid potential future issues as regards adequacy of pensions. In countries where the social security replacement rate is low in the future, the potential inadequacy of pensions from public schemes may therefore be relatively larger and call for proper intervention by governments.

However, as pointed out above, it must be borne in mind that other sources of income for older people can make up for the lower initial pension from public schemes. First, retirement income from other pillars can support purchasing power of pensioners (for instance, this is the case in Sweden, Estonia, Hungary, Lithuania, Latvia, Poland, Slovakia, Bulgaria, who have provided projection of these private funded pillars, see Graph 48).⁴⁵ Second, other income sources can contribute to retirement income, like drawing down on accumulated assets and savings. Third, behavioural change among the population, beyond what is already assumed in the baseline projections, to further extend working lives and/or to increase their savings to enhance the future pension benefit and/or retirement incomes may occur on the assumption that individuals are well-informed of their future prospects and take

⁴⁵ However, also income from this pension pillar may be volatile and raise potential risks to long-term fiscal sustainability. See for discussions e.g. IMF (2008) Fiscal Policy for the crisis, SPN/08/01, Washington and OECD (2009) Private Pensions Outlook 2008, Paris.

a (long) forward-looking perspective. Clearly, structural reforms that fosters (or forces) the expansion of life spent working can affect this change.

In addition to issues regarding the level of the first pension awarded, as captured by the average replacement rate, indexation rules governing the evolution of the pension after retirement is an important determinant of the pension income after retirement. As noted above, pinpointing a level below which a pension may be “too low”, is a difficult task. Nonetheless, the lower the first pension benefit, the higher the reliance of price indexation (as opposed to wage indexation) after retirement is, the higher is the probability that the pension benefit for an individual risks becoming inadequate over time. This applies in particular to individuals with the lowest, or minimum, pension benefits and moreover in flat-rate systems.

The table in Section 8.3 in the Annex on Pensions shows the rules governing pensions and the indexation assumption used in the projection. In a large number of countries (Belgium, Bulgaria, the Czech Republic, Denmark, Germany, Estonia, Greece, Spain, Ireland, Italy, Latvia, the Netherlands, Portugal, Finland, Sweden, the UK),⁴⁶ the projection for minimum pensions/old age allowances assumes indexation above prices, and in some of them (Bulgaria, the Czech Republic, Greece, Spain, Ireland, Italy, Finland, Sweden, Lithuania), the pension projection for minimum pensions/old age allowances assumes a higher indexation than legislated (e.g. to wages despite the fact that the legislated indexation postulates indexation to prices). Under the assumption that the minimum pension/old age allowances are set at a level considered to ensure a minimum income for subsistence (a “basic social safety net”), this modelling choice may be considered as fairly neutral.

Therefore, assuming indexation to prices for the projection of minimum pensions⁴⁷, may underestimate the future actual spending on

minimum pensions. Indeed, potentially increasing risk for inadequate pension income for older people at the bottom of the income scale during the course of the retirement are likely to trigger ad-hoc interventions by governments in order to re-align the minimum income to the increased living standards, and thus pose a risk of underestimation of public pension expenditure. Still, since in almost all Member States the proportion of public minimum pensions in relation to total public pension expenditure is small, the size of this possible underestimation may not be very important. In addition, information on other sources of income for older people is needed in order to assess income adequacy in a meaningful way.

2.6. SENSITIVITY OF THE PROJECTION RESULTS

In order to verify the robustness of the pension projection with respect to changes in key variables, a series of sensitivity tests were carried out. Specifically, changes to the demographic (assumptions on life expectancy and migration flows) and macro-economic (productivity growth, employment rates and the interest rate) variables were applied.

The pension projections are sensitive to a number of underlying assumptions, which are necessary to project developments in government expenditure over a long period of time. Given the uncertainties surrounding the assumptions, it is important to test the robustness of the results.

As presented in Chapter 1, there is some uncertainty about assumptions regarding demographic and economic outlook over the long-term. For example, there is no consensus among experts regarding the size of the future increase in life expectancy, future labour productivity growth or the impact of enacted pension reforms on employment rates. In order to take such uncertainties into account, a set of projections under alternative assumptions is carried out in addition to the baseline scenario (labour productivity growth, employment rate, interest rate and life expectancy).

⁴⁶ Belgium assumes CPI plus an adjustment to living standards, DE assumes nominal income plus a sustainability factor, Spain assumes 6% indexation in the medium term followed by a convergence path to CPI indexation till 2035 and thereafter CPI indexation, IE assumes nominal income plus a sustainability factor.

⁴⁷ It should be noted that some countries have not provided a projection for minimum pensions or social allowance and therefore underestimate pension expenditure.

Table 20 - Description of the sensitivity scenarios

Population		Labour force		Productivity	Interest rate
High life expectancy	Zero migration	Higher employment rate	Higher employment rate older workers	Higher labour productivity	Higher interest rate
A scenario with an increase of life expectancy at birth of one year by 2060 compared with the baseline projection.	A scenario with zero migration compared with the baseline projection.	A scenario with the employment rate being 1 p.p. higher compared with the baseline projection. The increase is introduced linearly over the period 2010-2020 and remains 1 p.p. higher thereafter. The higher employment rate is assumed to be achieved by lowering the rate of structural unemployment (the NAIRU).	A scenario with the employment rate of older workers (55-64) being 5 p.p. higher compared with the baseline projection. The increase is introduced linearly over the period 2010-2020 and remains 5 p.p. higher thereafter. The higher employment rate of this group of workers is assumed to be achieved through a reduction of the inactive population.	A scenario with labour productivity growth being assumed to converge, to a productivity growth rate which is 0.25 percentage points higher than in the baseline scenario. The increase is introduced linearly during the period 2010-2020, and remains 0.25 p.p. above the baseline thereafter.	A scenario with the real interest being 1 percentage point above that in the baseline scenario, i.e. 4%.

Source: Commission services, EPC.

Life expectancy

A higher life expectancy (of 1 year at birth by 2060) would lead to higher public expenditure on pensions. Eventually, this drop in mortality at all ages leads to a larger labour force, and therefore higher contributions. The increase of the pension to GDP ratio in the EU27 on average would be above +0.3 p.p. The impact is however not uniform across countries, ranging from +0.1 p.p. by Latvia to +0.6 p.p. by Slovenia.

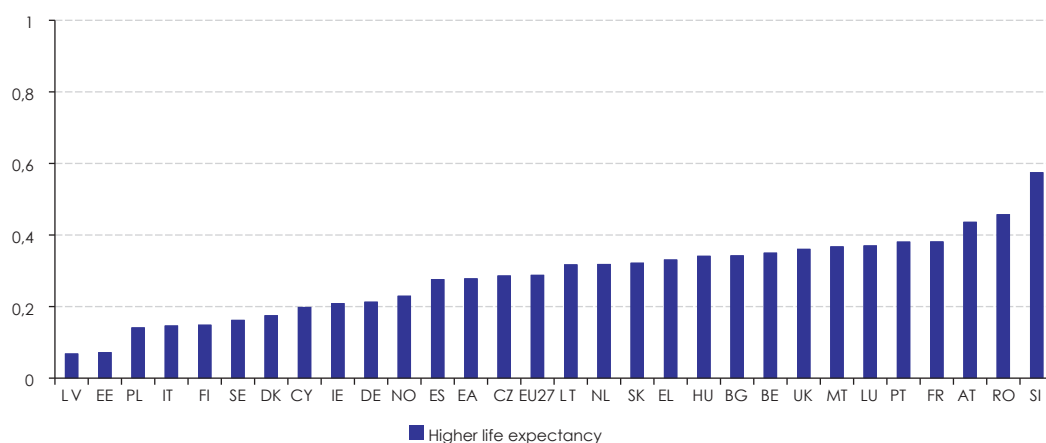
The extent to which the pension schemes react to a change in life expectancy depends on scheme design. The impact of longer life expectancy appears to be smaller in countries where the annuity explicitly depends on life expectancy at

retirement or in countries where automatic stabilizers of spending are built into the system to compensate for some fiscal imbalances (e.g. the sustainability factors in Germany, Finland and Sweden). This type of features increases the resilience of pension schemes to longevity risk. By contrast, the impact is larger in countries with a large level of pension expenditure in 2050 and where no such automatic stabilizers have been put in place (e.g. Belgium).

Higher labour productivity growth

A permanent increase of 0.25 p.p. in the productivity growth rate would reduce the increase in the pension to GDP ratio in the EU27 by -0.4 p.p. up to 2060. A larger reduction would

Graph 57 - Difference between the higher life expectancy and the baseline scenario (in percentage points)



Source: Commission services, EPC.

be the case in Greece (-2.0 p.p.), Austria (-1.1 p.p.) and Spain (-1.0 p.p.), while an increase is projected in Slovenia (+0.2 p.p.) thanks to indexation of pensions to wages or larger accumulation of pension rights.

Higher productivity growth increases income, also in per capita terms, and leads to improved living standards at the aggregate level. However, the main mechanism behind the lower increase in pension expenditure as a share of GDP is that higher productivity growth leads to a faster growth of GDP and hence a faster increase in income than in pensions (a fall in benefit ratio). As discussed in Section 3 above, this change in relative income position between the working-age population and the retired may put pressure on governments to adjust retirement income policies to avoid potential risks related to inadequate pensions.

Higher labour productivity growth has a different impact on pension expenditure across countries. It will have virtually no impact in countries where the public pension scheme provides a flat rate pension whose level is indexed to wage growth (e.g. Denmark and Ireland). By contrast, it will lead to lower increases where pension expenditure trail GDP growth. This will be the case if pensions are not fully indexed to wages after retirement. The higher the productivity growth, the higher the gap between the average pension and the average wage. It will also be the case if pensions are earnings-related and are calculated over a long period of the career. A more dynamic productivity growth will lead immediately to higher GDP growth. Workers

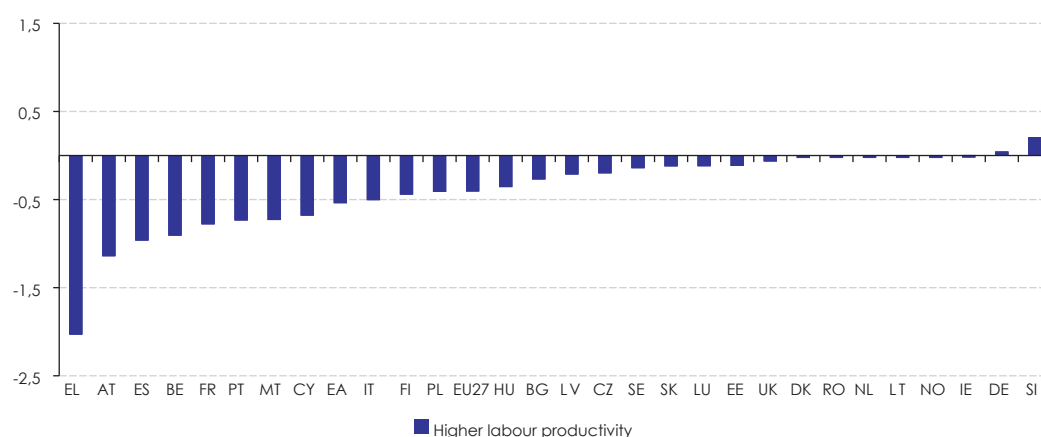
will have higher wages and therefore accumulate more pension rights but this will result in higher pension spending only when those workers retire, which can occur after the projection period.

Higher employment of older workers

An increase of the employment rates of older workers by 5 percentage points compared to the baseline would reduce the decrease in pension expenditure as a share of GDP by -0.1 p.p. over 2007-2060. This would materialize through higher employment growth raising GDP growth in a first phase. However, in a second phase it would enable workers to accumulate further pension rights, having a moderating upward impact on the pension-to-GDP ratio in the longer term. The older workers employment effect also reduces the increase in the pension ratio as it will mechanically reduce the number of retirees.

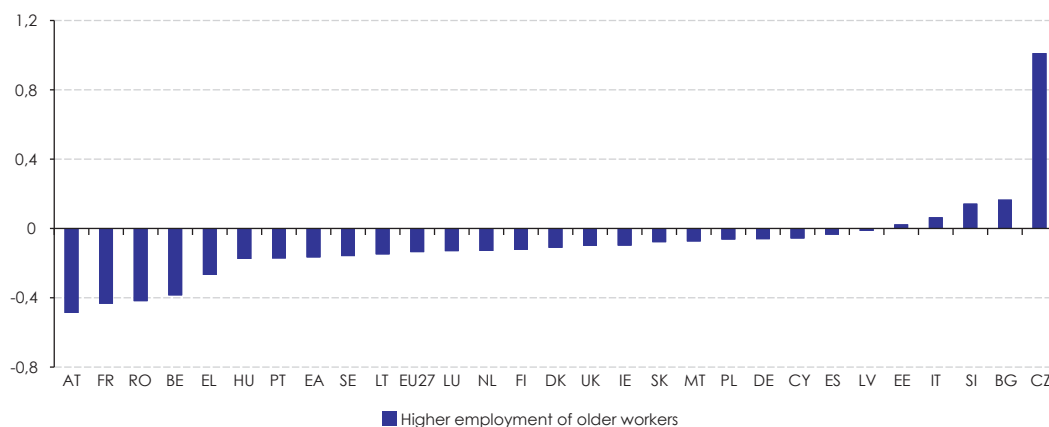
The impact of a higher employment of older workers will depend on the extent to which extending working lives will translate into higher pension entitlements. A larger reduction would occur in Austria (-0.5 p.p.), France, Romania and Belgium (all -0.4 p.p.). On the other hand, an increase is projected for the Czech Republic (+1.0). In earnings-related systems, there are counteracting effects: a decrease in the number of pensioners (due to the postponement of the retirement age) in the short term and a resulting increase in the average pension in the long term (due to larger accumulated rights) and a reduction in the average number of pension drawing years.

Graph 58 - Difference between the higher labour productivity and the baseline scenario (in percentage points)



Source: Commission services, EPC.

Graph 59 - Difference between the higher employment of older workers and the baseline scenario (in percentage points)



Source: Commission services, EPC.

Higher total employment

The impact of a higher employment for the entire workforce (assuming a reduction of the unemployment rate; activity rates are kept constant) leads to a reduction of -0.1 p.p. in the EU. A stronger impact would occur in Bulgaria, Norway, Romania and Austria all reaching (-0.3 p.p.). On the other hand, in Hungary, Latvia, Luxembourg, Estonia with almost zero impact on pension to GDP ratio, the effect is very small. In some cases this reflects the flat-rate character of the public pension scheme.

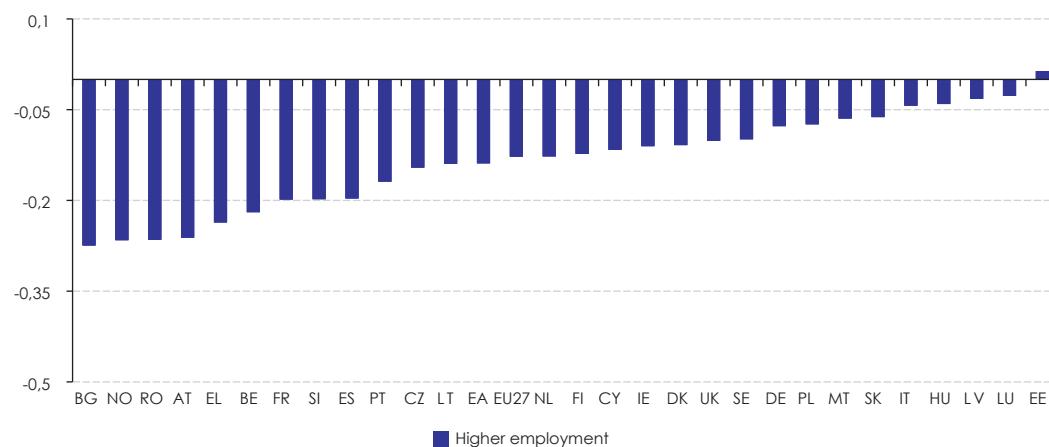
in a few countries with funded components in the public pension schemes such as Sweden (-0.02 p.p.) and Finland (+0.14 p.p.). The effect comes through a higher rate of return and its impact will depend on the extent to which assets have been accumulated. The effect of this test is generally stronger for private pension and in particular for countries that have large pensions scheme funds, such as the Netherlands, Denmark, Finland and Sweden.⁴⁸

Higher interest rates

Raising the assumption on the interest rate by 1 p.p. has an impact on public expenditure only

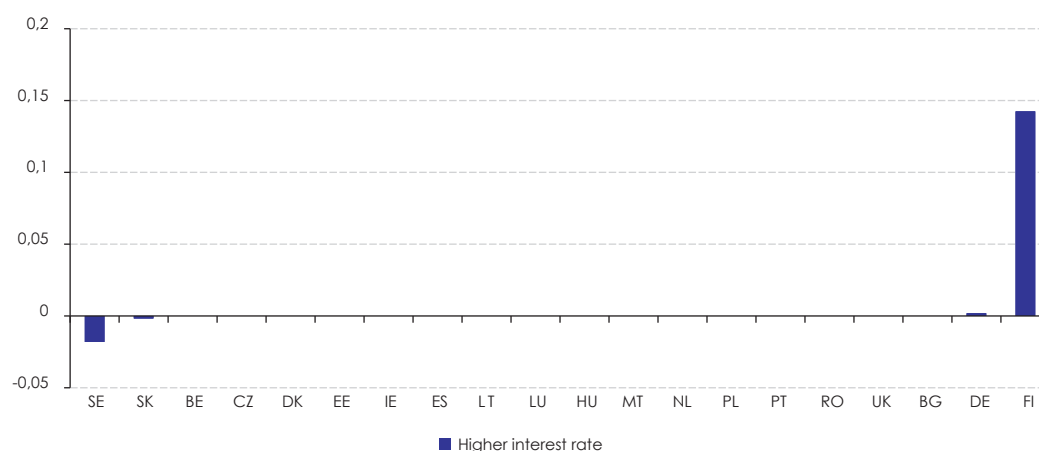
⁴⁸ Table 57 in Annex 1 provides an overview of the value of assets in all pension funds, i.e. public, occupational and both private mandatory and voluntary (when data have been provided).

Graph 60 - Difference between the higher total employment and the baseline scenario (in percentage points)



Source: Commission services, EPC.

Graph 61 - Difference between the higher interest rate and the baseline scenario (in percentage points)



Source: Commission services, EPC.

Zero migration

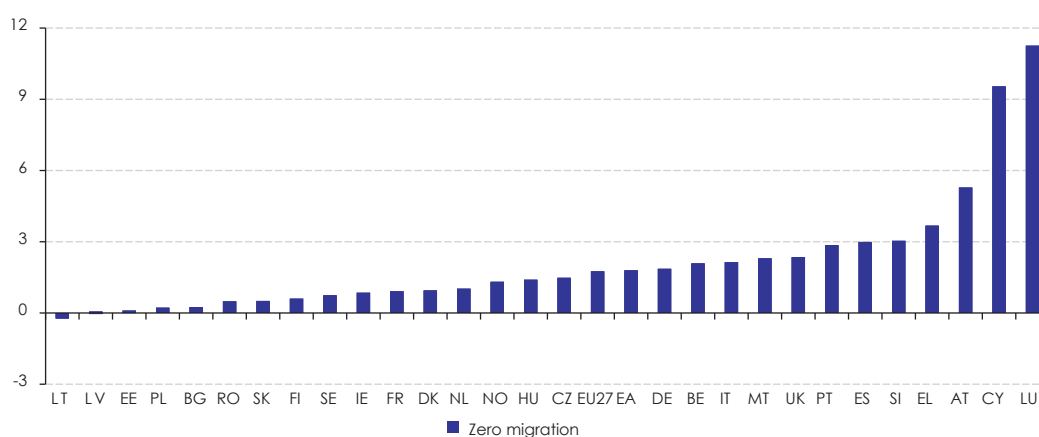
The zero migration scenario assumes the absence of both immigration and emigration between each Member State and the rest of the world. The assumptions of this scenario seem to be very strong and even unrealistic for some of the countries. As a result, the outcomes of this scenario have to be interpreted with caution. Indeed the difference between the baseline and the zero migration scenarios is the largest one among all of the sensitivity tests for majority of the Member States.

In general, due to the zero net migration assumption, the pension to GDP ratio increases. This is the case in all Member States except a very limited negative change in case of Lithuania.

The EU27 average increase in pension to GDP ratio is projected to be +1.8 p.p. above the baseline change over the projection horizon. An increase in the pension to GDP ratio mainly results from an impact of the smaller labour force and lower GDP over the projection period, as migrants generally are active in the labour market. At the same time, the number of pensioners is generally less affected by the zero net migration assumption over the projection horizon, i.e. 2007-2060.⁴⁹

⁴⁹ Beyond 2060, the number of pensioners will be affected by the assumptions of the net zero migration scenario. As the current and future (up to 2060) level of employment is lower due to lower inflow of immigrants, the number of pensioner is expected to fall in the long-horizon (beyond 2060) as well.

Graph 62 - Difference between the zero migration and the baseline scenario (in percentage points)



Source: Commission services, EPC.

2.7. COMPARISON WITH THE 2006 ROUND OF PROJECTIONS

Graph 63 presents the change in public pension expenditure as a share of GDP between 2007 and 2050 in the current projection exercises and as projected in 2006.⁵⁰ It reveals that, for most countries, the change in pension expenditure as a share of GDP has been revised over time, sometimes significantly (as reflected by the distance from the 45 degree line in Graph 63).⁵¹ Compared with the 2006 pension projection exercise, pension expenditure is now projected to be fairly similar for the EU25 (rising by 2.1% of GDP, compared with 2.2% of GDP in the 2006 Ageing Report).⁵²

Pension expenditure is now projected to increase more (or decrease less) in Estonia, Italy, Latvia, Lithuania, Luxembourg, Malta, Austria, Poland, Slovenia, Slovakia, with large upward revisions of 1.5 p.p. of GDP or more in Estonia, Lithuania, Luxembourg, Malta, Austria, Poland.⁵³ By contrast, a lower increase (or higher decrease) is now projected in Belgium, the Czech Republic, Denmark, Ireland, France, Cyprus, Hungary, Latvia, the Netherlands, Portugal, Finland, Sweden, the UK, with significant downward revisions of 1.5 p.p. of GDP or more in the Czech Republic, Denmark, Ireland, Cyprus, Hungary and Portugal.

The revisions of projected changes in pension expenditure over the long-term are due to several factors, notably but not exclusively due to reforms of pension systems. Also other factors can have an effect, such as changes in the demographic and macro-economic assumptions, changes in modelling pension expenditure over

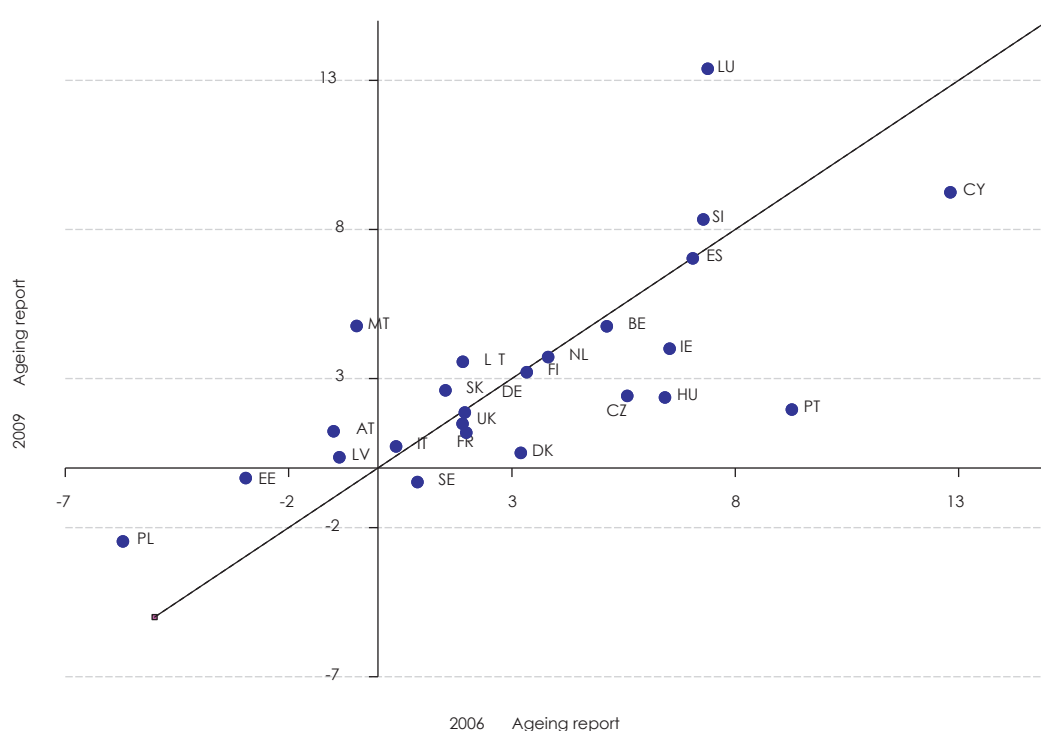
⁵⁰ See Table 59 in the Annex 1.

⁵¹ A small discrepancy between the changes in the consecutive projection exercises may be due to different starting year used; for the 2006 projection, the change is calculated over the period 2004-2050 and in the current projection it is calculated over the period 2007-2050.

⁵² It should be noted that the projection for Greece is included in the current projection exercise, which was not the case in the 2006 Ageing Report. Excluding Greece from the EU25 aggregate would lead to a lower increase in the current projection, of 1.9 p.p. of GDP.

⁵³ For Luxembourg, substantial differences between 2006 and 2009 projections results are due to the fact that a new projection methodology for cross border workers is introduced in the 2009 exercise, leading to a sensible reduction in labour input and potential growth.

Graph 63 - Change in the public pension to GDP (2007-50) compared: 2006 Ageing Report and current projection (in percentage points)



Source: Commission services, EPC.

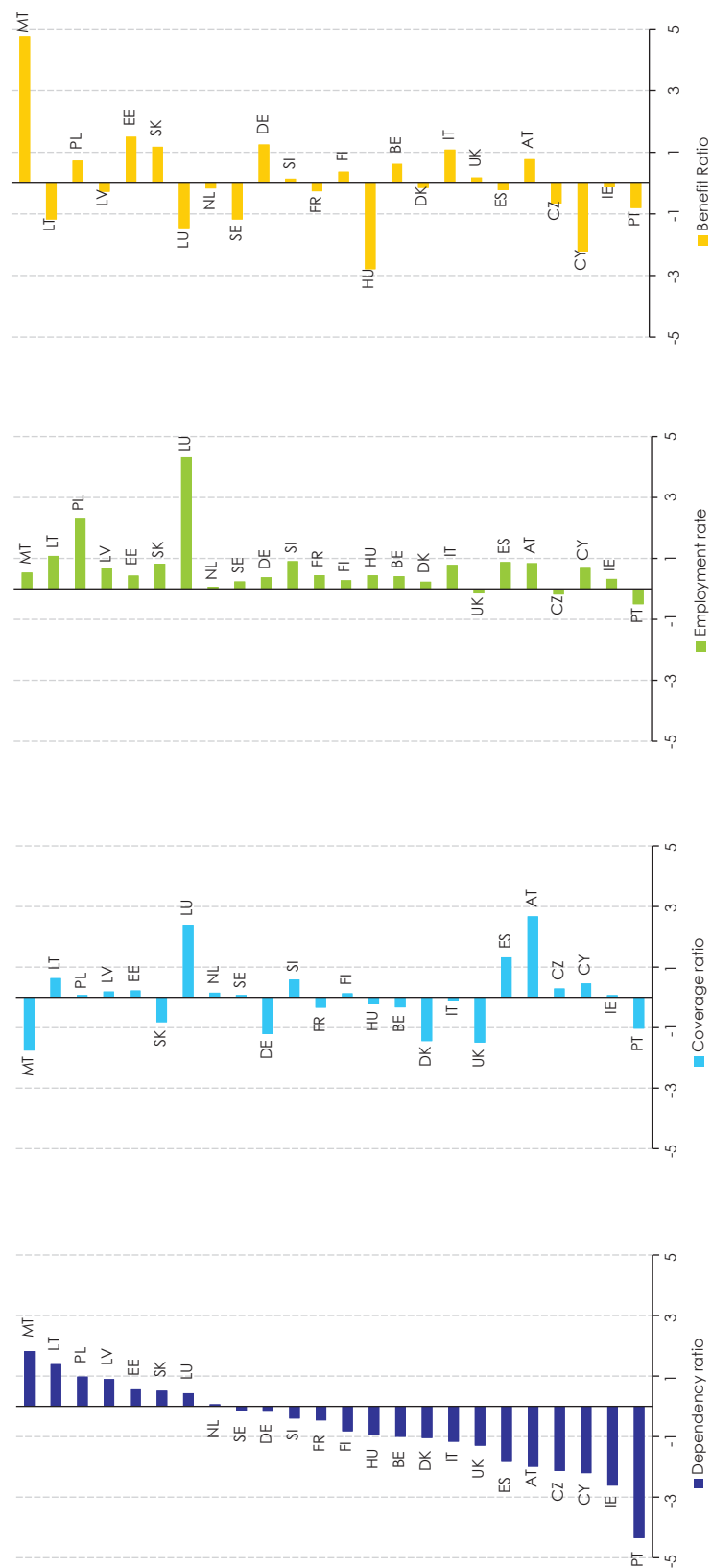
the long-term and changes in the coverage of the projection (data on pension schemes covered in the projection).

In order to shed light on the reasons behind these revisions, a comparison of a decomposition of the change in public pension expenditure between the 2006 Ageing Report and the current projection exercise into four factors is conducted, like in section 3 above.

Each effect is illustrated in Graph 64. In addition, the overview Table 21 presents a decomposition of the public pension to GDP ratio in 2006 and 2009 projections. An analysis of the reasons behind the revisions for each country is provided in the country fiches on the pension projection and results envisaged for release in the latter half of 2009. The main points may be summarized as follows:

- As shown in section 3 above, the main factor behind the projected increase in pension expenditure is the demographic transition to an older population. The dependency effect has decreased in a majority of countries Portugal, Ireland, Cyprus, the Czech Republic, Austria, Spain, the UK, Italy, Hungary, Denmark, Belgium, Finland, France, Slovenia, Germany and Sweden, and it has increased only in few the Netherlands, Luxembourg, Slovakia, Estonia, Poland, Latvia, Lithuania and Malta.
- The other factors are in general offsetting the increase that follows from the larger number and share of older people. In the 2009 projection exercise, the fall in coverage is more accentuated, thus offsetting the dependency effect to a greater extent in a majority of countries. These reflect changes in pension policies that have aimed at increasing the effective retirement age either through increases in the statutory retirement age and/or through tightening access to early and disability pension schemes. Compared with the 2006 projection exercise, the largest reductions in the coverage ratio are projected in Malta, Denmark and the UK. By contrast, it increases in Austria, Spain and Luxembourg. An increase in the coverage effect may be due to a higher take-up of pensions by women thanks to their increasing participation in the labour market even if there is a lower take-up of pensions by men due to reforms undertaken.
- The employment effect contributes to offset the dependency effect too. As already seen before, the effect is rather small in most countries and it generally offsets less in the current exercise compared with the 2006 projection. This partly follows from the fact that employment rates have generally risen in the period since the previous projection was carried out and that the structural unemployment rates have not been reduced to the same extent. This leads to lower gains in employment rates over the projection period compared with the situation at the time of the previous projection.
- The benefit effect shows the extent to which average pensions increase at a different pace than average income (proxied by output per worker). The benefit effect can offset the dependency effect if: (i) the determination of the value of (future) accrued pension rights – eventually becoming pension benefits – is changed; (ii) the evolution of the pension after retirement is slower than average income (pension indexation below wage growth). It helps to offset the dependency effect in almost all countries, reflecting in many cases reforms that have been introduced so as to make the public pension systems more robust to demographic changes. In the Czech Republic, Denmark, Ireland, Spain, France, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, the Netherlands, Portugal, Sweden, the offsetting impact of the relative benefit reduction has increased compared with the previous 2006 projection and in particular for Hungary, Cyprus, Luxembourg, Sweden, Lithuania, Portugal and the Czech Republic. A common feature for some of these latter set of countries (Hungary, Portugal, the Czech Republic) is that they have introduced strong pension reforms since the completion of the 2006 Ageing Report. As a result, the overall increase in the public pension ratio is now projected to be considerably smaller.

Graph 64 - Change in the public pension to GDP (2007-50) compared: 2006 Ageing Report and current projection (in percentage points)



Source: Commission services, EPC.

Table 21 - Decomposition of the public pension/GDP ratio over 2007-50 in the 2006 and 2009 projections
(in percentage points)

	Projection year	Dependency ratio	Coverage ratio	Employment rate	Benefit Ratio	Change 2007-2050 in %
BE	2006	7.7	-0.4	-0.9	-1.2	5.1
	2009	6.7	-0.7	-0.5	-0.6	4.8
BG	2006					
	2009	7.5	-2.2	-0.3	-1.8	2.5
CZ	2006	10.5	-3.5	-0.3	-0.6	5.6
	2009	8.3	-3.2	-0.5	-1.2	2.4
DK	2006	7.2	-2.8	-0.4	-0.5	3.2
	2009	6.2	-4.2	-0.2	-0.6	0.5
DE	2006	7.5	-0.6	-1.1	-3.5	1.9
	2009	7.3	-1.8	-0.7	-2.2	1.9
EE	2006	3.1	-1.5	-0.6	-3.8	-3.0
	2009	3.7	-1.3	-0.1	-2.3	-0.3
IE	2006	7.9	-1.4	-0.5	0.8	6.5
	2009	5.3	-1.4	-0.2	0.6	4.0
EL	2006					
	2009	12.7	-1.2	-0.7	1.8	12.3
ES	2006	12.4	-2.3	-1.8	-0.8	7.0
	2009	10.6	-1.0	-0.9	-1.1	7.0
FR	2006	8.7	-1.8	-0.9	-3.5	2.0
	2009	8.2	-2.1	-0.5	-3.8	1.2
IT	2006	11.5	-3.2	-2.0	-5.3	0.4
	2009	10.4	-3.3	-1.2	-4.2	0.7
CY	2006	10.2	1.2	-1.2	2.5	12.8
	2009	8.0	1.6	-0.5	0.2	9.2
LV	2006	3.4	-1.3	-0.7	-2.3	-0.9
	2009	4.3	-1.1	0.0	-2.6	0.4
LT	2006	5.4	-2.1	-1.0	-0.2	1.9
	2009	6.8	-1.4	0.1	-1.3	3.6
LU	2006	7.2	2.5	-4.4	2.1	7.4
	2009	7.6	4.9	0.0	0.6	13.4
HU	2006	10.5	-4.5	-1.1	2.0	6.4
	2009	9.5	-4.7	-0.7	-0.8	2.4
MT	2006	7.3	-1.0	-1.2	-5.0	-0.5
	2009	9.1	-2.8	-0.7	-0.2	4.8
NL	2006	6.3	-1.6	-0.2	-0.4	3.8
	2009	6.3	-1.5	-0.2	-0.5	3.7
AT	2006	11.3	-5.8	-1.3	-4.3	-1.0
	2009	9.3	-3.1	-0.5	-3.6	1.2
PL	2006	10.4	-5.7	-3.2	-6.3	-5.7
	2009	11.3	-5.7	-0.9	-5.6	-2.5
PT	2006	13.7	-0.9	-0.2	-3.0	9.3
	2009	9.4	-1.9	-0.7	-3.8	2.0
RO	2006					
	2009	10.6	-3.5	0.5	2.0	8.3
SI	2006	13.3	-3.6	-1.0	-0.9	7.3
	2009	12.9	-3.0	-0.1	-0.7	8.3
SK	2006	9.0	-2.5	-1.3	-3.1	1.5
	2009	9.6	-3.3	-0.4	-1.9	2.6
FI	2006	8.8	-3.1	-0.9	-0.8	3.3
	2009	7.9	-2.9	-0.6	-0.5	3.2
SE	2006	4.8	-0.2	-0.6	-2.8	0.9
	2009	4.6	-0.2	-0.4	-4.0	-0.5
UK	2006	4.7	0.0	-0.1	0.0	1.9
	2009	3.4	-1.5	-0.3	0.2	1.5
NO	2006					
	2009	7.4	-1.3	0.2	-1.7	4.5

Source: Commission services, EPC.

Note: The dependency contribution measures the impact of the changes in the dependency ratio over the projection period as the ratio of persons aged 65 and over to the population aged 15 to 64.
The employment contribution measures changes in the share of the population of working age (15 to 64) relative to the number of the employed, i.e. an inverse employment rate.
The coverage contribution of pensions measures changes in the share of pensioners relative to the population aged 65 and over.
The benefit contribution captures changes in the average pension relative to average income.
See the Box DECOMPOSITION for details.

3. HEALTHCARE EXPENDITURE

3.1. INTRODUCTION

The main objectives of the health care systems are defined as “improving the health of the population they serve; responding to people’s expectations and providing financial protection against the costs of ill-health”.⁵⁴

This chapter does not aim at assessing the quality or measuring the extent to which the objectives of health care systems are being achieved in the

Member States of the European Union. Instead, it concentrates on the financial side of the system and the impact of various factors related mainly, although not exclusively, to the ageing of the population on public spending devoted to the provision of health care.

Health care expenditure is an important and constantly rising component of total government spending.

BOX: PUBLIC HEALTH EXPENDITURE: A HISTORICAL PERSPECTIVE

The governments of all EU Member States are heavily involved in the financing, and in some cases in the provision, of health care.⁵⁵ Consequently, health care spending is a major, and over time growing, source of fiscal pressure. Table 22 presents the development of public spending on health care⁵⁶, its share in total expenditure and total government outlays over the last decades.

Over the last decades, public health spending followed similar trends as total health care expenditure, increasing rapidly during the 1960s and 1970s. In the 1980s and 1990s, the increasing trend slowed down, and even reversed in a few countries, due to overall budgetary consolidation efforts. It picked up again in late 1990s and especially in the first decade of the 21st century to reach an average level of 8% of GDP in 2007 (ranging from less than 3% of GDP in Cyprus to over 10% of GDP in Sweden). A convergence or catch-up process is evident across countries, with the largest increases over time occurring in countries with the lowest initial levels.⁵⁷ Public spending on health care now accounts for between 10 and 15% of total primary government spending in most EU countries, although the dispersion is wide ranging from 6.0% in Cyprus to 18% in Norway. However, this share has been growing, especially during the 1990s suggesting that health care budgets fared better than other expenditure items during periods of fiscal consolidation.

⁵⁴ World Health Organization (2000), The World Health Report 2000. Health Systems: Improving Performance, p.8.

⁵⁵ This may reflect a shared view on the economic rationale for public sector involvement in health care markets based on efficiency and equity considerations. Health care markets suffer from the typical problems of insurance markets such as adverse selection (which may make it difficult for persons with higher health risks to obtain affordable coverage leading to a sub-optimal consumption of health care services), moral hazard (whereby the insured person may have an incentive to over consume health care services as they do not bear the full cost) and other asymmetric information (whereby health care providers may be in a position to induce the demand for treatment and extract economic rents).

⁵⁶ The historical data do not allow for a precise distinction between health care and long-term spending, the latter concept being precisely defined and analysed only over the last decade. Consequently, the figures presented in this box include both health and long-term care.

⁵⁷ For example, public spending on health care in Portugal grew from 1.5% of GDP in 1970 to 7.3% of GDP in 2007, in Spain from 2.3% to 6.1% and Greece from 2.3% to 6.0%.

Table 22 - Past trends in public health spending (including health and long-term care) in EU Member States, 1970-2007

	Public health expenditure as % of											
	GDP						total (public plus private) health expenditure			general government total outlays		
	1970	1980	1990	2000	2006	2007	1990	2000	2006	1990	2000	2005
BE	:	:	:	6,5	7,6	9,1	:	76	73	:	13,4	13,2
BG	:	:	5,2	:	:	4,9	100	:	:	:	8,6	12,1
CZ	:	:	4,6	5,9	6,0	6,4	97	90	88	:	14,1	13,8
DK	:	7,9	6,9	6,8	8,0	7,7	83	82	84	12,3	12,7	15,7
DE	4,4	6,6	6,3	8,2	8,1	8,3	76	80	77	:	18,2	17,9
EE	:	:	:	4,1	3,7	5,0	:	77	73	:	11,3	11,5
IE	4,1	6,8	4,4	4,6	5,9	6,7	72	74	78	10,2	14,6	17,3
EL	2,3	3,3	3,5	4,7	5,6	6,0	54	61	62	7,9	10,1	13,3
ES	2,3	4,2	5,1	5,2	6,0	6,1	79	72	71	:	13,2	15,5
FR	4,1	5,6	6,4	8,0	8,8	9,5	77	79	80	13,0	15,5	16,6
IT	:	:	6,1	5,8	6,9	7,5	80	73	77	11,6	12,7	13,9
CY	0,9	1,5	1,8	2,4	:	2,7	40	42	:	:	6,4	6,0
LV	:	:	2,5	3,5	3,8	3,8	100	74	63	:	8,8	10,8
LT	:	:	3,0	4,3	4,3	5,0	90	72	70	:	14,6	11,9
LU	2,8	4,8	5,0	5,2	6,6	7,1	93	89	91	13,2	13,9	17,1
HU	:	:	:	4,9	5,9	6,0	:	71	71	:	10,6	11,2
MT	:	:	:	6,1	6,6	5,7	:	77	76	:	12,0	14,6
NL	:	5,1	5,4	5,0	7,6	8,2	67	63	82	9,8	11,4	13,2
AT	3,3	5,1	6,1	7,5	7,7	7,7	73	76	76	11,9	14,6	15,6
PL	:	:	4,4	3,9	4,3	4,4	92	70	70	:	9,4	9,9
PT	1,5	3,4	3,8	6,4	7,2	7,3	66	73	71	9,6	14,9	15,5
RO	:	:	2,9	3,9	3,9	3,5	100	100	100	:	9,9	12,4
SI	4,2	4,4	5,6	6,9	:	7,7	100	87	:	:	13,1	13,4
SK	:	:	:	4,9	5,1	5,2	:	89	68	:	9,5	13,6
FI	4,1	5,0	6,2	5,1	6,2	7,3	81	73	76	13,0	10,6	12,7
SE	5,8	8,2	7,4	7,0	7,5	10,7	90	85	82	:	12,6	13,8
UK	3,9	5,0	5,0	5,8	7,3	8,3	84	81	87	11,9	14,8	16,4
NO	4,0	5,9	6,3	6,9	7,3	7,8	83	83	84	11,9	16,4	18,0

Source: OECD Health Data 2007; European health for all database (HFA-DB), World Health Organisation Regional Office for Europe; Commission Services.

Public expenditure on health care depends on a series of factors affecting both demand for and supply of health care goods and services. Although depending to a considerably smaller extent than private expenditure on the market variables (such as prices, individual income, etc.), it is still a result of an interaction between independent market participants and public actors.

3.2. DEMAND SIDE FACTORS

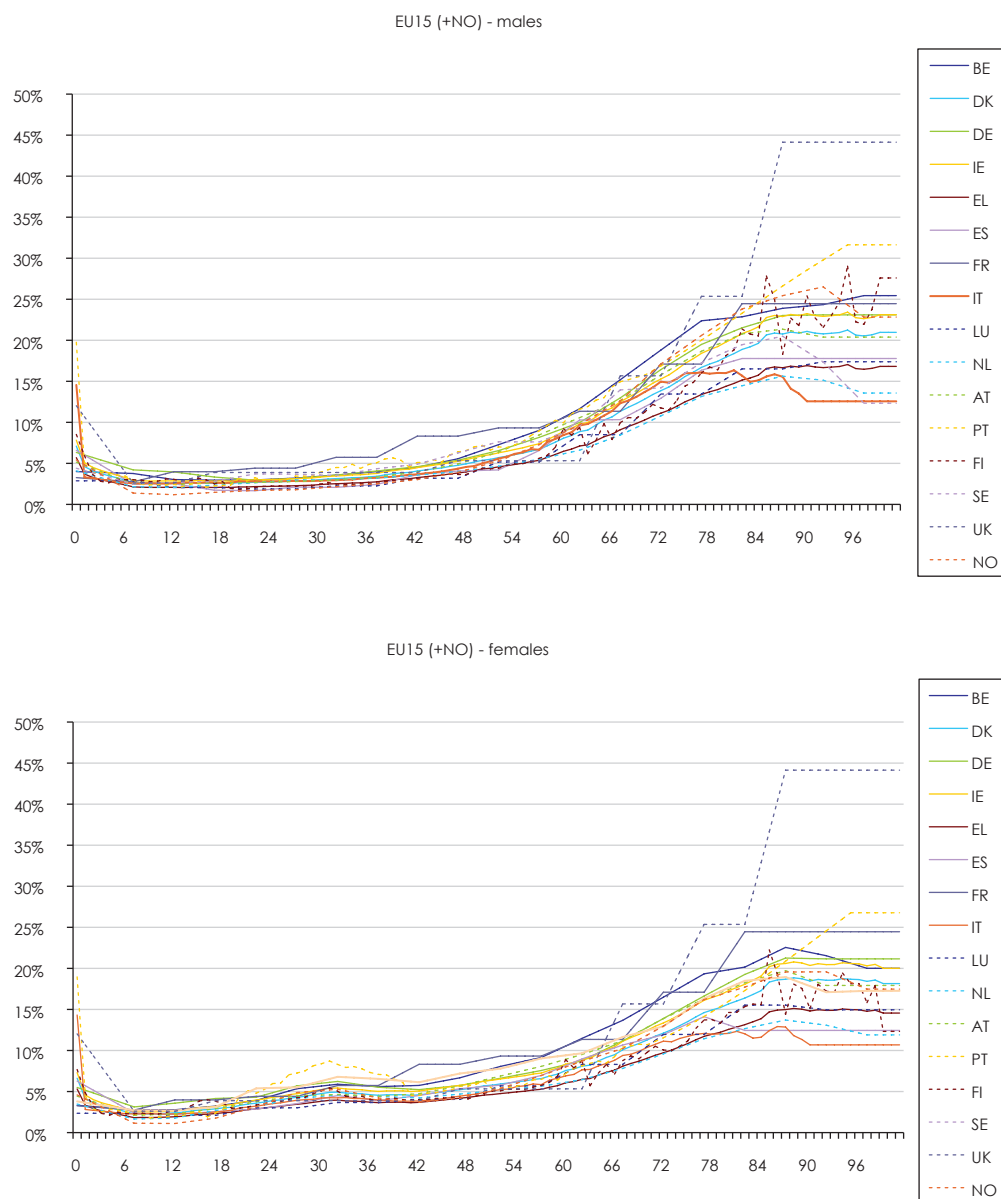
Intuitively, demand for health care is mainly driven by the number and health status of potential patients. Although generally true, this simple correlation may be affected by the legal provisions or government policy regulating the provision of care. In practical terms, in many countries the contracts between public payers and health care providers are pre-determined in terms of total budget or amount of services to be paid for. This way, health authorities can artificially reduce demand for services, and this may result in underprovision. The discrepancy can often be complemented by additional private provision. To some, although much lower degree,

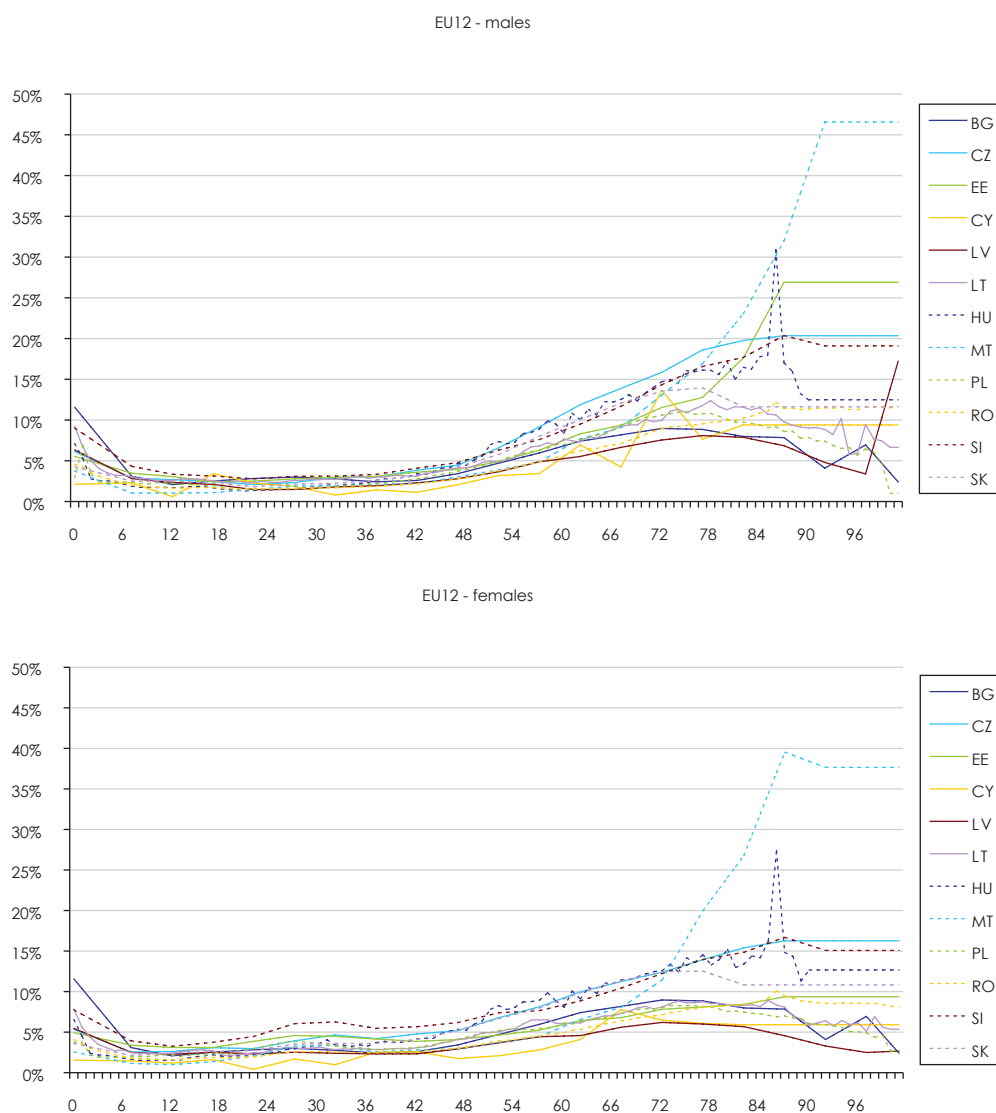
an opposite situation may take place when (excessively) easy and free access to health care leads to excessive use of health care, higher than what would be justified by the actual social needs for this kind of services.

3.2.1. Demographic structure of the population

Abstracting from the features of individual health care systems, demand for health care goods and services depends naturally on the number of people in need of care. The need for health treatment is determined by the health status of the population which, in turn, is highly correlated to, but not completely dependent on, the average age of the population. The relationship between the age of an individual and his demand for health care is well exemplified by so-called “*age-related expenditure profiles*”.

Graph 65 - Age-related expenditure profiles of health care provision (spending per capita as % of GDP per capita)





Source: Commission services, EPC.

Graph 65 plots average public per capita spending on health care against the age of health care beneficiaries in each country of the EU.⁵⁸ If spending increases generally with the age of a person, it is mainly because the prevalence of morbidity and disability grows with age. However, high spending in the early childhood and in the birth-giving period in case of women,

as much as a significant reduction in spending towards the end of the life-span⁵⁹ may be due to the fact that along with real needs driven by biological factors, social, economic and even cultural considerations affects the division of the scarce resources between different age groups of the population.

⁵⁸ The profiles have been provided by Member States and updated to the base year 2007 by applying GDP per capita growth rate.

⁵⁹ The reduction in spending at the very old age can be explained by three different phenomena: health care rationing for utilitarian (devoting limited resources to the treatment of younger age cohorts) or professional reasons (less knowledge about the treatment of the elderly); voluntary restraining from receiving health care by older people who find the investment in health will not pay back any more; generation effect which reflects differences in perceived needs, mentality and habits between older and younger generations.

An interesting phenomenon is a visible difference in the age-related expenditure profiles between EU15 and EU12. The current spending on health care is significantly higher in both absolute (as % of GDP) and relative (per capita) terms in the old Member States of the EU. While this phenomenon can be easily and quite plausibly justified by an important gap in income levels between the two groups of countries, the visible difference in the shape of per capita expenditure is much harder to interpret. In fact, the gap in per capita spending between EU15 and EU12 increases dramatically at old ages. Not only the peak in per capita spending is significantly lower in the newly acceded Member States, but it is reached at much lower age.⁶⁰

3.2.2. Developments in health status

While the changes in the demographic structure of the population are relatively straightforward to analyse, based on the observed trends in fertility and mortality rates (for detailed description of demographic trends in Europe, see Chapter 1), forecasting future evolution in the health status of a population is a considerably more challenging exercise for two main reasons. First, there are definitional problems; second, changes in morbidity and epidemiological variables are highly unpredictable.

To tell if the population is more or less healthy one needs to have an operational measure of health or, by default, of ill-health. To define this concept, a number of indicators have been

proposed⁶¹, none of which is fully satisfactory and available on a comparable basis.

Problems with establishing trends in the health status of the population derive partially from the discussed difficulties in finding appropriate indicators, but to the largest extent they are due to the lack of comparable data covering long enough periods of time. While the evolution in mortality rates and life expectancy can be estimated quite accurately on the basis of basic administrative information (censuses, surveys, etc.), more detailed epidemiological data is subject to much higher degree of uncertainty.

The researchers are almost unanimous in stating that life expectancy is constantly increasing over time all over the world due to falling mortality rates in all age cohorts and constantly growing ability of medicine to save people's life. Both average life expectancy and maximum age are rising over time, increasing the share of elderly and the oldest old in total population.

However, this increase in life expectancy usually occurs at the detriment of people's health or "quality" of life. While the medical advancement is able to save human life from a growing number of diseases, it is not as apt at keeping people in good health, which thus very often means extending the time spent in chronic illness. The observed change in the morbidity pattern in the industrialised countries confirms this statement: infectious diseases are being replaced as main sources of burden of disease by non-communicable diseases, with chronic diseases

⁶⁰ This phenomenon may be due to the gap in life expectancy in line with the death-related costs hypothesis: health care needs depend on the distance to death rather than on the biological age of a person. Thus with increasing life expectancy, average health status of each age cohort improves accordingly. However, the size of the gap, not possible to be explained solely by the difference in life expectancy, suggests that some other, probably economic or social factors may play a role. Differences in health care costs, in particular for very old persons, may also be due to differences between countries with respect to distribution of costs between health and long term care.

⁶¹ The suggested indicators range from the simplest and most aggregate (e.g. life expectancy interpreted as a measure for overall physical condition), having the advantage of including all dimensions of health but abstracting completely from the "quality" of life, through more complex (e.g. disability-adjusted life years, combining total life expectancy with years of life lost from premature death and years of life lived with disabilities) to the highly specific and precisely defined, but lacking the value of universality, indicators like causes of death or prevalence rates of a number of selected conditions.

accounting for more than 60% of deaths globally.⁶²

Three different hypotheses have been put forward to predict possible future interaction between evolution in life expectancy and changes in the prevalence of disability and ill-health. The optimistic hypothesis of “compression of morbidity” proposed by Fries (1980, 1989), suggested that disability and ill-health is compressed towards the later period of life at a faster pace than mortality, thus people are expected to live not only longer, but also in better health. The contrary hypothesis, posited by Gruenberg (1977), Verbrugge (1984), and Olshansky et al. (1991) stated that decline in mortality is largely due to decreasing fatality rate for diseases, rather than reduction in their prevalence/incidence. Consequently, falling mortality is accompanied by an increase in morbidity and disability, leading to an “expansion of morbidity”. A third hypothesis of “dynamic equilibrium”, proposed by Manton (1982) suggests counterbalancing effects of two phenomena: decreased fatality rates leading to longer prevalence of disability and decreasing prevalence/incidence of chronic diseases.

Recent empirical evidence has not discarded any of the presented hypotheses. Higher levels of some disabling conditions (dementia, musculoskeletal diseases) observed over the last years are accompanied by decreasing rates of prevalence of others (cardiovascular and chronic respiratory diseases). International evidence suggests that health may continue to improve, but some causes of disability may at the same

time become more prominent.⁶³ It is therefore still very difficult to predict the levels of morbidity and therefore potential demand for health care even in the very near future.

3.2.3. Individual and national income

Another important factor affecting health care expenditure is the level of income. The correlation between income and health care spending is observable at both individual and national level, although the transition mechanism works in a slightly different way and the elasticity of health care spending with respect to income depends on the institutional structure of the health care system.

At the individual level, spending on health care in relation to income depends on whether a treatment/medicine is covered by universal or voluntary insurance. If an individual is covered by the health insurance, marginal spending on health care does not depend on income. Consequently, the income elasticity of health care spending could be close to or even below zero. On the other hand, the situation may be reversed if a treatment or drug is not covered by universal insurance. In such case, health care may be considered as a luxury good, especially having in mind that treatments which are not covered by social insurance are those which in most cases do not save people's life, but just “improve its quality” (plastic surgery, dentistry, etc.).

Neither of these two situations described above reflect public spending at an aggregate level. On the one hand, as public health care spending is not part of a pooled fund and must be entirely covered by revenues, there is no moral hazard, no incentives for government to spend more, as is the case for individuals purchasing services and goods that are covered by universal insurance. This is why the correlation between health care spending and income is much stronger at an aggregate than at an individual level. On the other hand, given budgetary constraints and caps on spending, public expenditures are not linearly correlated to GDP, especially in periods of fluctuating economic growth. Furthermore, while comparing data for different countries, it seems that the status of health care evolves over time. As long as it is not

⁶² The nine leading causes of the burden of disease (concept using the disability-adjusted life years as an indicator allowing to assess the total loss of health from different causes) in high-income countries in 2003 have been non-communicable diseases (unipolar depressive disorders; ischaemic heart disease; cerebrovascular disease; alcohol use disorders; alzheimer and other dementias; adult-onset hearing loss; chronic obstructive pulmonary disease; trachea, bronchus and lung cancers; and diabetes mellitus), three of which (unipolar depressive disorders, adult-onset hearing loss and alcohol use disorders) have been characterised by few direct deaths but large disability. At the same time, in low and middle-income countries, five of the leading ten main causes have been communicable diseases (lower respiratory infections; HIV/AIDS; diarrhoeal diseases; malaria; tuberculosis). Source: Global Forum for Health Research (2006), Monitoring Financial Flows for Health Research 2006: The changing landscape of health research for development, p. 71.

⁶³ Global Forum for Health Research (2008), Monitoring Financial Flows for Health Research 2008: Prioritizing research for health equity, p. 65.

a universally available public good, it has some features of luxury good, and the (both public and total) spending tends to increase faster than the revenue growth. Once entire population is provided with basic health services, the latter lose the luxury character and are purchased by the governments and individuals as normal goods, in line with the increase in disposable income.

A number of empirical studies attempted to estimate the type of correlation between income and health care expenditure. Most of them led to a general conclusion that “*health care is an individual necessity and a national luxury*”⁶⁴ or in other words, health care spending is highly inelastic at an individual level, but at the national level its elasticity with respect to income exceeds unity. An average coefficient of elasticity of public spending on health care with respect to income can be estimated, based on a number of studies, as close to 1.1.⁶⁵

3.3. SUPPLY SIDE FACTORS

On the supply side, a large number of factors interact to determine the amount of health care provided to the population in response to its needs. Those factors are both external, depending on objective economic and social developments and policy-related. The main ones are technological development and medical progress, legal and institutional organisation of the health care provision system, and available resource inputs, both financial and human. The present report aims at sketching the exogenous risks for public spending, thus concentrates on the objective, no-policy driven developments.

3.3.1. Technological development

Technological development is almost unanimously quoted among the major factors behind the growth in health care expenditure.

Empirical studies suggest that the significant increase in health care expenditure observed in the recent decades across the industrialised world cannot be fully explained either by demographical or epidemiological changes, or by growth in the global well-being. This “gap” is supposedly filled by technology which, according to early studies (Newhouse 1992, Cutler 1995) was supposed to account for between 50% and 75% of health care costs increases, while currently, with health care being less and less labour-intensive sector, may contribute to the expenditure growth to an even higher degree.

According to an econometric exercise done by the Commission (see Annex 2), over the last decades almost 2 percentage points of the yearly increase in health care expenditure per capita could be attributed to non-demographic and non-income factors.⁶⁶ Assuming that institutional and policy factors partially cancel out, this amount can be mostly attributed to the effect of more expensive⁶⁷ and wider spread modern medical technologies. In a similar exercise, the OECD⁶⁸ concluded that about one third of the yearly increase in health care expenditure per capita over the past decades can be assigned to technological development.

3.3.2. Legal and institutional setting

Apart from the objective, exogenous drivers, public (and private) expenditure on health care is strongly influenced by the legal setting and institutional arrangements according to which health care is provided and financed (see the box below). As such, they play a major role in public policies by limiting the health care costs and establishing the right balance between the principles of solidarity and efficiency that each health care system is supposed to respect.

⁶⁴ For an overview of the empirical studies, see: Getzen (2000).

⁶⁵ Using historical data (OECD Health Data), the European Commission has run an econometric specification aiming at the establishment of the income elasticity coefficient in the European countries. Having specified only two (demographic and income) explanatory variables, a regression has been run resulting in an estimated coefficient of 1.19 for all the available countries. The estimates differ considerably for EU15 and EU12, mainly due to poor data quality and short time series available for four EU12 countries (Czech Republic, Hungary, Poland, Slovakia) included in the OECD database.

⁶⁶ Since technological development is naturally faster in wealthier countries, the income coefficient in the econometric estimate can explain significant part of the technological impact on health care expenditure. However, if a separate variable is specified for technology, the impact of income turns out to be much lower, suggesting that large part of the income effect works through high investment in medical research and technology. For more details, see Annex 2.

⁶⁷ Intuitively, development of new technologies should lead to more efficient (faster, less intrusive) treatment of already known diseases and conditions. This cost-reducing effect is however more than offset by higher investment in R&D and the growing demand induced by the availability of treatment for the previously incurable diseases.

⁶⁸ OECD (2006b).

Box: CLASSIFICATION OF HEALTH CARE SYSTEMS

fies existing health care systems according to the main characteristics of the schemes: (public/private) ownership and management of the entities providing health care as well as the way of financing them. The result is a general classification in which the health care systems of the OECD Member States have been divided into three groups:

- *the public-integrated model* links budgetary financing with public health care providers. It mainly concerns hospital care, with staff being employed as public-sector employees while ambulatory doctors and other health care services providers are often private or independent contractors. This model facilitates universal coverage and aggregate cost containment as the health care spending is built into overall government budget limits. However, it may be less conducive at inducing economic incentives favouring quality and efficiency. The health care systems of the Nordic (Denmark, Sweden, Finland) and Mediterranean (Italy, Greece, Portugal) countries could be characterised as falling under this model.
- *the public-contract model* combines public payers (either a State agency or social security fund) with private health care providers. The advantages with respect to the other models are not unequivocal. While the single payer enjoys strong position against providers and can negotiate lower prices and better quality of services, the functioning of independent providers requires stricter regulation and supervision by public authorities and incurs higher administrative costs. The health care systems of most continental countries could be broadly characterised as falling under this model.
- *the private insurance/provider model* is the least used in EU Member States. It involves private insurance entities contracting private health care providers. Coverage may be mandatory or voluntary. With the strongest competitive base among the mentioned approaches, the model has the potential to guarantee wide responsiveness to patient needs and incentives for quality improvement, although the evidence of this having happened is mixed. An important additional drawback is the difficulty in ensuring price and cost control. The health care systems of the US or Suisse could be characterised as falling under this model.

Source: E. Docteur, H. Oxley (2003), *Health-care systems: lessons from the reform experience*, OECD Health Working Papers, No. 9 DELSA/ELSA/WD/HEA (2003)9

The issue of the impact of the institutional organisation of health care provision and financing system is however a highly complex and controversial question and despite several studies contributing to the analysis of the possible relationship between the type of system and health care expenditure⁶⁹, it is not feasible to draw unequivocal conclusions or estimate at least approximate correlation coefficients between the qualitative features of the health care system organisation and quantitative measures of public expenditure on health care.

3.3.3. Human and physical capital

Equally problematic is the issue of human resources and physical capital devoted to the health care sector, which are mostly determined by ad hoc political decisions, often driven by current needs of fiscal stability. Those policy

decisions may affect the number of professionals allowed to execute the job or the access to basic and professional health care (qualitative limits and qualitative requirements on the access to medical schools or professional certificates, decisions on the location of hospitals and clinics, legal regulations on the density of health care staff per number of population, etc.). As in the case of institutional setting, a number of studies have attempted to find statistical correlation between the size of medical staff and health expenditure,⁷⁰ but the results are not conclusive, not allowing for a clear conclusions and policy recommendations.

⁶⁹ Gerdtham et al. (1992, 1992a and 1992b), L'Horty et al. (1997), Leu (1986), Bac (2004).

⁷⁰ Getzen (1990), Murthy and Ukpolo (1994), Bac (2004), Schulz (2005), Bac and Balsan (2001), Rochaix and Jacobzone (1997).

3.4. SHORT OVERVIEW OF THE PROJECTION METHODOLOGY

3.4.1. The model

The level of public expenditure on health care is the combined effect of a number of factors described and discussed in the previous section. Given that many of them are either not quantifiable, or depending on ad hoc policy decisions, a great deal of caution and uncertainty surround prediction of future expenditure level. The present projection exercise aims at estimating the correlation coefficients between public expenditure and a number of factors empirically found to affect it and to project the potential impact each of them can have, *ceteris paribus*, over the time span of one generation. Consequently, the results of the projections should not be interpreted as the forecast of expenditure. Instead, by presenting a series of scenarios and sensitivity tests, it should serve as a catalogue of drivers and help assess the potential impact each of them is expected to have on public spending on health care.

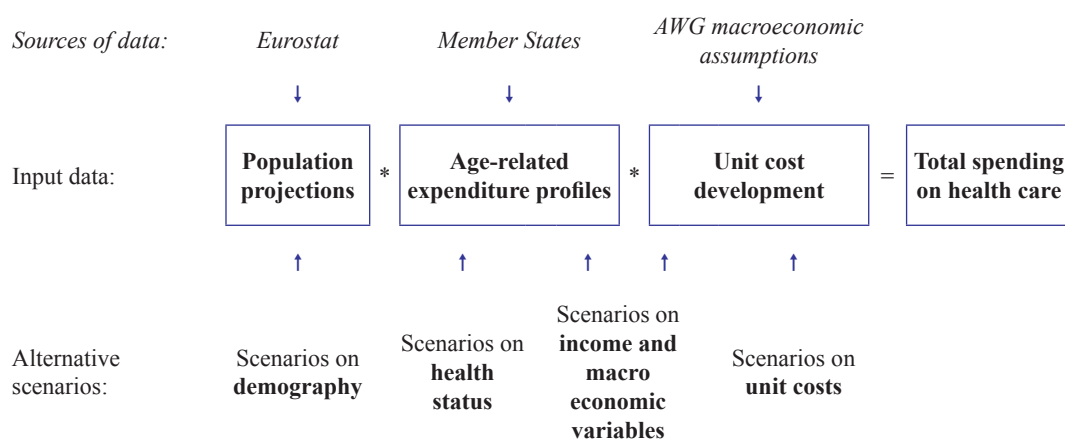
The model used to project future expenditure on health care is a traditional simulation model

whereby the overall population is disaggregated into a number of groups having a common set of features. Each group represents a combination of characteristics. As the number of individuals in each group changes over time, so do the aggregate value of the endogenous variable. The schematic methodology to project health care expenditure is presented in Graph 66 below.

The common elements of all scenarios are the macroeconomic assumptions agreed by the EC (DG ECFIN) and the EPC (AWG) and the population projections provided by Eurostat (EUROPOP2008). The age and gender-specific per capita expenditure profiles provided by the Member States are applied to the demographic projections provided by Eurostat to calculate nominal spending on health care.

The adjustments reflecting the effects of different factors on health care spending are applied by correspondingly changing one of three main inputs: the demographic projections, the development over time of the age-related expenditure profiles, and the pattern of unit cost developments (driven by the macroeconomic variables).

Graph 66 - Schematic presentation of the projection methodology



Source: Commission services, EPC.

The list of factors whose impact can be modelled is obviously not exhaustive. The EC(DG ECFIN) – EPC(AWG) model focuses on exogenous and objective factors, not depending on government policy or intentional action by any individual participant in the health care market. As such, most scenarios, including the AWG reference scenario, should be considered as “no-policy change” scenarios.⁷¹

3.4.2. Scenarios

The present projections concentrate on a number of factors whose effect on public expenditure can be modelled and expressed quantitatively. These are: changes in the demographic structure of the population, possible evolution of health status of the population, incorporation of the “death-related costs” concept, higher income elasticity of demand for health care, alternative pattern of unit cost evolution and the real convergence process leading to convergence in the age profiles of health care expenditure. The overview of the different scenarios used is presented in Table 23 below.

1. Pure demographic scenario attempts to isolate the “pure” effect of an ageing population on health care spending. It assumes that age-specific morbidity rates do not change over time or, in practical terms, that age-related public health care spending per capita (considered as the proxy for morbidity rate⁷²) remains constant in real terms over the whole projection period. Since this constancy in health status is accompanied by a gradual increase in life expectancy underlying demographic projections, all gains in life expectancy are implicitly assumed to be spent in bad health, while the number of years spent in good health remains constant. As such, this scenario is in line with the *expansion of morbidity* hypothesis discussed above. The constant age profile is applied to the population projections with an assumption that the costs evolve in line with GDP per capita. Such evolution of unit cost levels can be considered to be neutral in macroeconomic terms – if no change in the age structure of the population occur, the share of health care sector in GDP would remain the same over the projection period.

Table 23 - Overview of different scenarios used to project health care spending

	Pure demographic scenario	High life expectancy scenario	Constant health scenario	Death-related costs scenario	Income elasticity scenario	EU12 cost convergence scenario	Labour intensity scenario	AWG reference scenario
Population projection	Europop 2008	Alternative high life expectancy scenario	Europop 2008	Europop 2008	Europop 2008	Europop 2008	Europop 2008	Europop 2008
Age-related expenditure profiles	2007 age-related expenditure profiles held constant over projection period	2007 age-related expenditure profiles held constant over projection period	2007 profiles shift in line with changes in age-specific life expectancy	2007 profiles held constant but split into profiles of decedents and survivors	2007 age-related expenditure profiles held constant over projection period	Individual EU12 country profiles converging to the average EU15 profile over the projection period	2007 age-related expenditure profiles held constant over projection period	2007 profiles shift by half the change in age-specific life expectancy
Unit cost development	GDP per capita	GDP per capita	GDP per capita	GDP per capita	GDP per capita	GDP per capita	GDP per worker	GDP per capita
Income elasticity of demand	1	1	1	1	1,1 in 2007 converging to 1 by 2060	1	1	1,1 in 2007 converging to 1 by 2060

Source: Commission services, EPC..

⁷¹ The only exception is the unit cost convergence scenario showing the effect of a convergence of cost profiles of the recently acceded EU12 countries towards the average profile of the EU15 countries. However, even such evolution in unit costs may be explained as the combined effect of objective factors (increase in individual and national income, diffusion of modern technologies, higher living standards leading to higher public expectations on quantity and quality of health care provided by the government, etc.) which forces a change in the amount of goods and services provided to the population by the government.

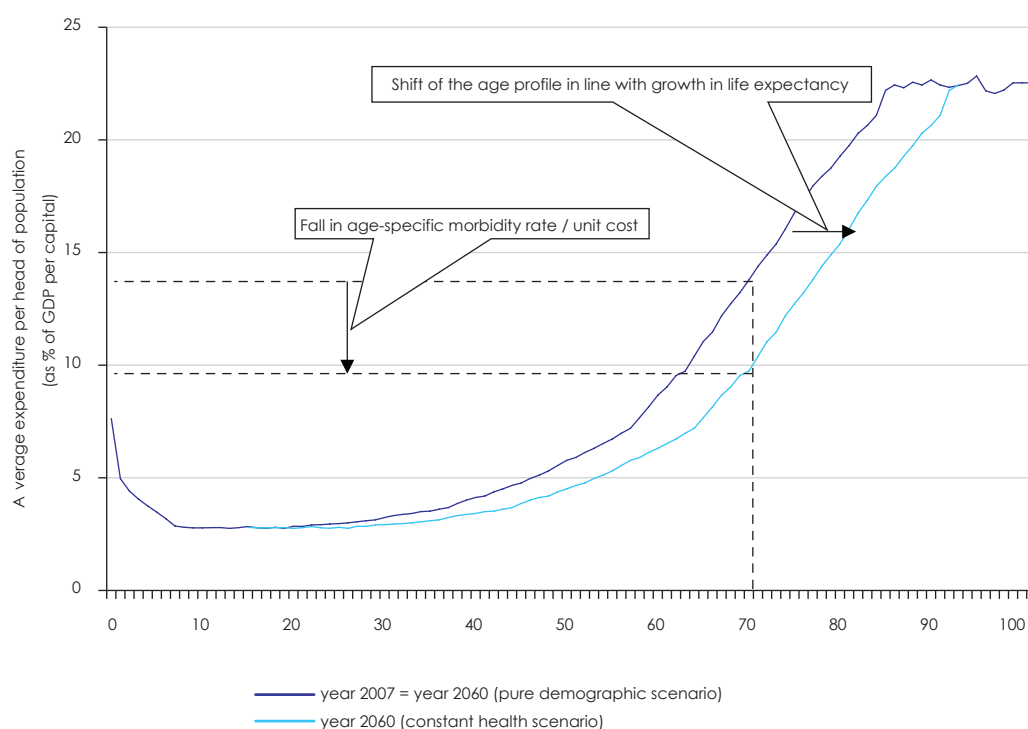
⁷² Strictly speaking, age profiles of expenditure illustrate exclusively public health care spending per person of a given age cohort. As such it is not the measure of health status or morbidity. However, given the lack of a reliable and comparable data on the latter, one can plausibly assume that the shape of the profile follows the evolution of health status over the lifespan. To avoid counterintuitive developments, it has been assumed that the decreasing segments of the curve (early childhood, old age and child-giving period for women) will be kept constant over time.

2. High life expectancy scenario is built as a sensitivity test for measuring the impact of alternative assumptions on mortality rates (life expectancy at birth being one year higher at the end of projection period than in the baseline demographic scenario). The scenario is methodologically identical to the “*pure demographic scenario*”, but alternative input data on demography and GDP are used.

3. Constant health scenario is inspired by the *dynamic equilibrium* hypothesis and captures the potential impact of possible improvements in the health status in line with projected decline in mortality rates. It assumes that the number of years spent in bad health during a life time

remains constant over the whole projection period, i.e. all future gains in life expectancy are spent in good health. As the morbidity rate (proxied by expenditure age profiles) is assumed to fall precisely in line with the decline in the mortality rate, this process is modelled by progressively shifting the age-related expenditure profile observed in the base year outwards, in direct proportion to the projected gains in age and gender specific life expectancy, embedded in the baseline population projection. This procedure is illustrated in Graph 67 below by the dotted line, which illustrates the stylised age-related expenditure profile that would be applied in the year 2060.

Graph 67 - Stylized illustration of the different scenarios on future morbidity/disability and longevity using age-profiles of health care costs



Source: Commission services, EPC.

In the 2006 projection exercise an alternative “*improved health scenario*”, based on the “*morbidity compression*” hypothesis, was performed. It has been decided to drop this scenario in the present round of exercise due to the lack of convincing empirical evidence confirming the highly optimistic hypothesis behind it and difficulties in quantifying the improvement in health status beyond the fall in mortality rates.

4. Death-related costs scenario employs an alternative method to project health care spending, taking into account probable reduction in health care spending resulting from the evolution of mortality rates. The methodology links health care spending to the number of remaining years of life, given the strong empirical evidence that a large share of total spending on health care during a person’s life is

concentrated in the final years of life. Therefore, as mortality rates decline and smaller share of each age cohort are in their terminal phase of life, the health care expenditure calculated using constant expenditure profiles may be overestimated. The reasoning behind the death-related costs theory resolves to similar arguments as in the “*constant health scenario*” presented above. Over time a growing inconsistency appears between two basic assumptions underlying the “*pure demographic scenario*” methodology. On the one hand, the assumption of constant age profiles which is a central element of the “*pure demographic scenario*” implies constant morbidity rates and constant unit cost of health care (as % of GDP per capita) at each age. On the other hand, falling mortality rates embedded in the population projections lead to a fall in the share of those in terminal phase of their lives in each age cohort which, in accordance with the empirical evidence, accounts for a disproportionately large share of total health care spending. To address this inconsistency, an average profile of *death-related costs* by age has been constructed based on available empirical data⁷³ supplied by Member States, where unit costs are differentiated between decedents and survivors. Then, using age and gender-specific mortality rates, each age group has been split into the two groups of decedents and survivors and the respective unit cost has been applied to each one. The spending for each of the two groups is then added and the usual indexation rule is applied.

5. Income elasticity scenario shows the effect of income elasticity of demand exceeding unity on the evolution of total spending over time. The strengthened impact of income growth may incorporate the effect of a number of potential

positive factors: higher living standards, fulfilment of the basic needs leading to growing expectations and social pressure to catch-up with the quality and coverage of health care provided to the populations in the neighbouring countries, and above all development of medical knowledge and technologies.⁷⁴ In practical terms, it is identical to the “*pure demographic scenario*” except that the income elasticity of demand is equal to 1.1 in the base year and converges in a linear manner to 1 by the end of projection horizon in 2060. The elasticity coefficient at the beginning of the period has been chosen on the basis of the empirical evidence gathered over the recent decades.

6. EU12 cost convergence scenario is meant to capture the possible effect of a convergence in real living standards (which emerges from the macroeconomic assumptions) on health care spending. It concerns only the recently acceded Member States (EU12) in which current spending on health care (both in nominal terms and as a % of GDP per capita) is well below the levels observed in the EU15 countries. By taking the lower and flatter 2007 age-related expenditure profiles (see Graph 65) as the basis of the health care projections, the projected budgetary impact of ageing will be less in the EU12 countries as compared to the EU15. The “*cost convergence scenario*” assumes therefore that the individual age-related expenditure profiles of the EU12 countries in the base year 2007 will progressively increase to the average age-related expenditure profile of the EU15 countries by 2060.

7. Labour intensity scenario is an attempt to estimate the evolution in health care expenditure under the assumption that health care is a highly labour-intensive sector and, consequently, unit costs are driven by changes in labour productivity, rather than growth in the national income. This assumption implies as well that, contrary to the “*pure demographic scenario*”, the cost of public provision of health care is supply – rather than demand-driven. In practical terms the scenario is similar to the “*pure demographic scenario*” except that costs are assumed to evolve in line with the evolution of GDP per worker. As wages are projected to grow in line with productivity

⁷³ The average death-related costs profile used for all the countries has been constructed as a simple average of the profiles, expressed as the ratio between the costs borne by a decedent (a person that is going to die within one year) and a survivor (a person that is going to survive at least one year), provided by nine Member States (Belgium, Czech republic, Spain, France, Italy, the Netherlands, Austria, Poland, Finland) and completed with the data coming from academic sources covering four other countries (see: Madsen (2004) for Denmark; Busse, Krauth and Schwartz (2002) for Germany; Batljan and Lagergren (2004) for Sweden; Seshamani and Gray (2004) for the UK). The reported individual country-specific profiles differ significantly (due to different samples, methodologies, definition of “time close to death, etc.”), so that using them instead of an average would negatively affect comparability of the results.

⁷⁴ The impact of technological development has been assessed in a separate scenario, which uses the econometric analysis of past trends in public health care expenditure, demographic, income and non-income variables. For details, see Annex 2.

and thus generally faster than GDP per capita, this scenario provides an insight into the effects of unit costs in the health care sector being driven mostly by increases in wages and salaries.

8. AWG reference scenario. As discussed above, actual spending on health care is a combined result of the whole set of interrelated demographic and non-demographic factors. Therefore, any measurement of separate effects of individual factors, as modelled in the sensitivity tests, can only provide a very partial view of the future. Furthermore, given the complexity of those interconnections and difficulties in defining the most probable course of development in the underlying variables, the projection is subject to high uncertainty. Nonetheless, even if highly risky, an attempt to choose a highly plausible scenario is a potentially very informative exercise, notably in the context of the analysis of sustainability of public finances policy and the public health care provision, both of which need to be based on the most reliable forecasts of the expected development in the whole range of health-related variables.

Facing the dilemma of the right choice of the factors to be taken into consideration, the Ageing Working Group took a pragmatic approach by deciding to combine the pure demographic impact of ageing population with a neutral assumption on the evolution of health status (which is broadly supported by the empirical evidence on the death-related costs) and the assumption on a moderate impact of national income on the health care spending (chosen on the basis of the past trends). In practical terms, it has been assumed that half of the extra years of

life gained through higher life expectancy are spent in good health. Furthermore, the income elasticity of demand is assumed to equal 1.1 in the base year and converge to unity by 2060.

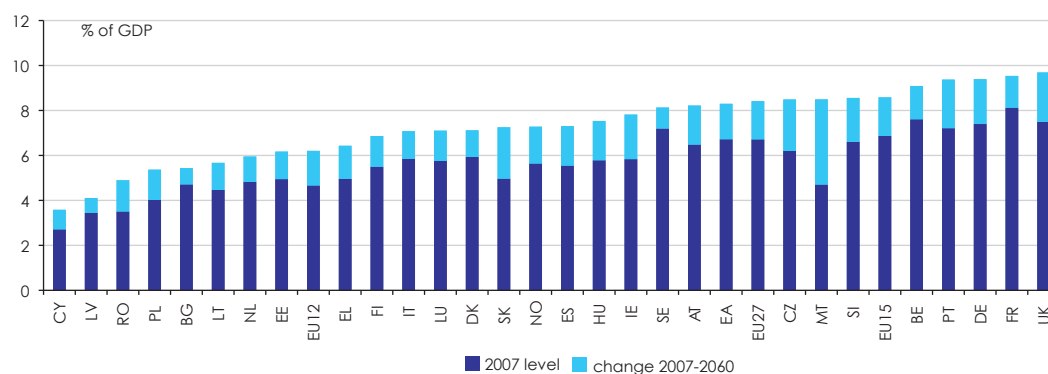
3.5. PROJECTION RESULTS

The results of the health care projection exercise should be interpreted with due caution. More emphasis should be put on the expected impact of the respective factors than on the resulting overall level of expenditure.

3.5.1. The impact of future changes in demography and the health status

The impact of demographic changes on public health expenditure is projected to be significant (an average (EU27) increase from 6.7 to 8.4% of GDP), although not equally pronounced across all countries. The increase varies from 0.4% of GDP in Bulgaria and Latvia to 3.8 % of GDP in Malta (or, in relative terms, from 6 to 80% of the initial level), but for most countries it is contained between 1 and 2.5% of GDP (or 15 and 40% of the initial level). The projected impact is relatively stronger for the EU12 (increase by 1.6% of GDP from the initial level of 4.9% of GDP) than for the EU15 (similar increase by 1.7% but from a significantly higher level of 6.9%), which is mainly due to the faster growth in national income per capita in the new Member States. The demographic impact on health care spending in each country is shown in Graph 68 and Table 24 below.

Graph 68 – Impact of demographic change on public expenditure on health care (% of GDP, 2007-2060)



Source: Commission services, EPC.

Table 24 – Pure demographic scenario (public spending on health care, % of GDP)

	Level	Change 2007-2060		Level
	2007	% points of GDP	%	2060
BE	7.6	1.5	19	9.1
BG	4.7	0.7	15	5.4
CZ	6.2	2.3	37	8.5
DK	5.9	1.2	20	7.1
DE	7.4	2.0	27	9.4
EE	4.9	1.2	25	6.2
IE	5.8	2.0	34	7.8
EL	5.0	1.5	30	6.4
ES	5.5	1.8	32	7.3
FR	8.1	1.4	17	9.5
IT	5.9	1.2	21	7.1
CY	2.7	0.9	32	3.6
LV	3.5	0.7	19	4.1
LT	4.5	1.2	27	5.7
LU	5.8	1.3	23	7.1
HU	5.8	1.7	30	7.5
MT	4.7	3.8	80	8.5
NL	4.8	1.1	23	6.0
AT	6.5	1.7	27	8.2
PL	4.0	1.3	33	5.4
PT	7.2	2.2	30	9.4
RO	3.5	1.4	40	4.9
SI	6.6	1.9	29	8.6
SK	5.0	2.3	46	7.3
FI	5.5	1.4	25	6.9
SE	7.2	0.9	13	8.1
UK	7.5	2.2	29	9.7
NO	5.6	1.6	29	7.3
EU27	6.7	1.7	25	8.4
EU15	6.9	1.7	25	8.6
EU12	4.7	1.5	33	6.2
EA	6.7	1.6	23	8.3

Source: Commission services, EPC.

The results of the sensitivity test on high life expectancy give an illustration of the impact of a marginal change in demographic assumptions. If mortality rates evolve in a way that life expectancy at birth at the end of the projection period is one year higher than assumed in the baseline population projection (EUROPOP2008), health care expenditure is projected to be on average higher by 0.5% of GDP (or 32% in absolute terms) in comparison to the scenario based on the baseline demographic assumptions (see Table 25 below).

The “*pure demographic scenario*” implicitly adopts the morbidity expansion hypothesis about the evolution of the population’s health status. Meanwhile, the alternative “*constant health scenario*” illustrates a more optimistic *dynamic equilibrium hypothesis*. Given that both scenarios are based on the same demographic projections, and the only difference is the shift in the age profile serving as a proxy for the evolution in health status, the gap in final spending projected between the two scenarios illustrates the potential

Table 25 – High life expectancy scenario (public spending on health care, % of GDP)

	Level	change 2007-60		Level	
	2007	% points of GDP	%	2060	Difference to pure demographic scenario
BE	7.6	2.0	26	9.6	0.5
BG	4.7	1.0	21	5.7	0.3
CZ	6.2	2.8	45	9.0	0.5
DK	5.9	1.6	27	7.5	0.4
DE	7.4	2.5	34	9.9	0.5
EE	4.9	1.7	34	6.6	0.5
IE	5.8	2.4	41	8.2	0.4
EL	5.0	1.8	36	6.7	0.3
ES	5.5	2.1	38	7.6	0.3
FR	8.1	1.8	23	10.0	0.4
IT	5.9	1.5	26	7.4	0.3
CY	2.7	1.2	43	3.9	0.3
LV	3.5	0.9	27	4.4	0.3
LT	4.5	1.6	36	6.1	0.4
LU	5.8	1.7	30	7.5	0.4
HU	5.8	2.5	43	8.3	0.7
MT	4.7	4.4	94	9.1	0.6
NL	4.8	1.4	29	6.2	0.3
AT	6.5	2.1	33	8.6	0.4
PL	4.0	2.0	49	6.0	0.6
PT	7.2	2.7	38	9.9	0.6
RO	3.5	1.8	52	5.3	0.4
SI	6.6	2.4	36	9.0	0.4
SK	5.0	2.7	54	7.6	0.4
FI	5.5	1.9	35	7.4	0.5
SE	7.2	1.3	18	8.5	0.4
UK	7.5	2.8	37	10.3	0.6
NO	5.6	2.1	36	7.7	0.4
EU27	6.7	2.2	32	8.9	0.5
EU15	6.9	2.2	31	9.0	0.5
EU12	4.7	2.1	44	6.7	0.5
EA	6.7	2.0	30	8.7	0.4

Source: Commission services, EPC.

savings which can be expected if the health status of population follows a more optimistic path.

As expected, public expenditure on health care calculated according to the “*constant health scenario*” is considerably lower than the spending under the pure demographic effect. It increases from 6.7 to 7.5% of GDP for EU27, thus the pure impact of demographic change (1.7% of GDP) is more than halved (see Table 26). The effect of positive health development on total expenditure drives the increase in spending down to less than 1% of GDP for 19 out of 28 countries and in case of Poland and Norway it even leads to a decrease in absolute terms. The difference compared to the “*pure demographic scenario*” varies across countries, due to their current morbidity (and age-related expenditure) profile and the expected evolution in life expectancy. The positive health effect is seen particularly strongly in the EU12 for which the additional expenditure to be made over the projection period falls from 1.6% of GDP in the

Table 26 – Constant health scenario (public spending on health care, % of GDP)

	Level	Change 2007-2060		Level	
	2007	% points of GDP	%	2060	Difference to pure demographic scenario
BE	7.6	0.3	4	7.9	-1.1
BG	4.7	0.0	-1	4.7	-0.7
CZ	6.2	1.1	18	7.3	-1.2
DK	5.9	0.3	4	6.2	-0.9
DE	7.4	0.9	12	8.3	-1.1
EE	4.9	0.4	7	5.3	-0.9
IE	5.8	1.0	16	6.8	-1.0
EL	5.0	0.7	15	5.7	-0.7
ES	5.5	1.0	17	6.5	-0.8
FR	8.1	0.4	5	8.5	-1.0
IT	5.9	0.5	8	6.3	-0.7
CY	2.7	0.1	4	2.8	-0.8
LV	3.5	0.1	2	3.5	-0.6
LT	4.5	0.3	8	4.8	-0.9
LU	5.8	0.4	8	6.2	-0.9
HU	5.8	0.2	4	6.0	-1.5
MT	4.7	2.2	48	6.9	-1.5
NL	4.8	0.4	9	5.3	-0.7
AT	6.5	0.7	11	7.2	-1.0
PL	4.0	-0.6	-14	3.5	-1.9
PT	7.2	0.9	13	8.1	-1.2
RO	3.5	0.7	19	4.2	-0.7
SI	6.6	1.0	15	7.6	-1.0
SK	5.0	1.2	25	6.2	-1.1
FI	5.5	0.2	4	5.7	-1.2
SE	7.2	0.0	0	7.2	-0.9
UK	7.5	1.0	13	8.5	-1.2
NO	5.6	0.6	11	6.3	-1.0
EU27	6.7	0.7	10	7.4	-1.0
EU15	6.9	0.7	10	7.6	-1.0
EU12	4.7	0.2	5	4.9	-1.3
EA	6.7	0.6	9	7.4	-0.9

Source: Commission services, EPC.

“pure demographic scenario” to 0.3% of GDP in constant health scenario.

As expected, incorporating the concept of death-related costs in the projection methodology reduces the health care expenditure in each year of the projection period.⁷⁵ Over the entire period, total spending results between 0.1 and 1.2% of GDP lower than in the pure demographic scenario (see Table 27).

As discussed above, “death-related costs scenario” follows a similar logic as the constant health scenario: the years spent with disability (which are obviously most costly for health authorities) are compressed towards the later period of life. However, a different

⁷⁵ In fact, using this methodological approach does not reduce the overall amount of expenditure devoted to health care. Instead, it spreads the costs of health care over time by assuming that with a decline in mortality rate the share of decedents in each age cohort is decreasing.

Table 27 – Death-related costs scenario (public spending on health care, % of GDP)

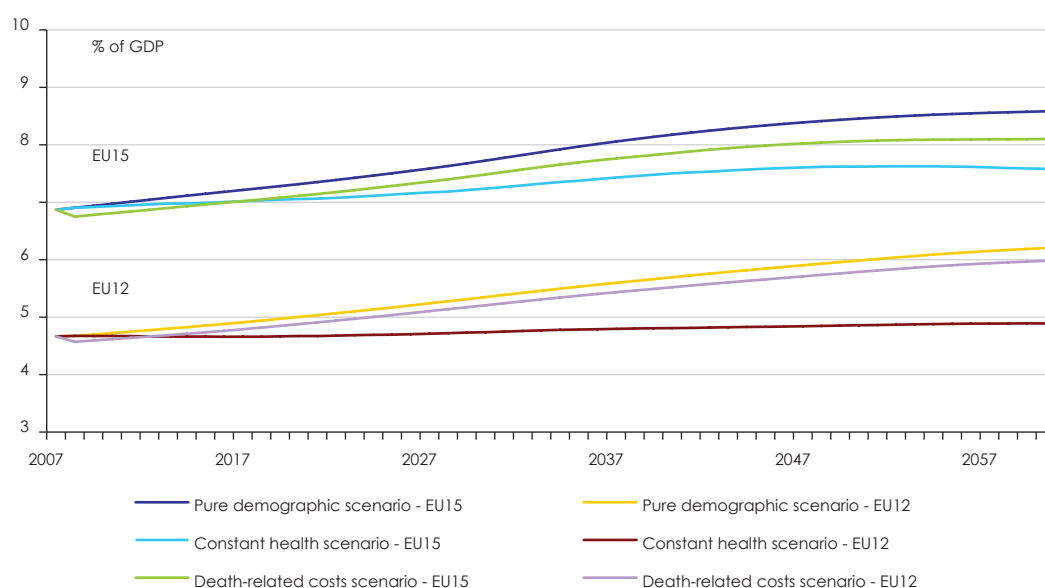
	Level	Change 2007-2060		Level	
	2007	% points of GDP	%	2060	Difference to pure demographic scenario
BE	7.6	1.2	15	8.8	-0.3
BG	4.7	0.6	13	5.3	-0.1
CZ	6.2	2.0	32	8.2	-0.3
DK	5.9	0.9	16	6.9	-0.2
DE	7.4	1.5	20	8.9	-0.5
EE	4.9	1.0	21	6.0	-0.2
IE	5.8	1.7	28	7.5	-0.3
EL	5.0	1.2	25	6.2	-0.2
ES	5.5	1.5	27	7.0	-0.3
FR	8.1	1.1	13	9.2	-0.3
IT	5.9	1.0	17	6.9	-0.2
CY	2.7	0.7	27	3.5	-0.1
LV	3.5	0.6	17	4.0	-0.1
LT	4.5	1.0	23	5.5	-0.2
LU	5.8	1.0	18	6.8	-0.3
HU	5.8	1.3	22	7.1	-0.4
MT	4.7	2.6	56	7.3	-1.2
NL	4.8	0.9	19	5.8	-0.2
AT	6.5	1.4	21	7.8	-0.4
PL	4.0	1.2	30	5.2	-0.1
PT	7.2	1.7	23	8.9	-0.5
RO	3.5	1.2	35	4.7	-0.2
SI	6.6	1.6	25	8.2	-0.3
SK	5.0	2.0	41	7.0	-0.3
FI	5.5	1.1	20	6.6	-0.2
SE	7.2	0.7	10	7.9	-0.2
UK	7.5	1.1	15	8.6	-1.0
NO	5.6	1.4	24	7.0	-0.3
EU27	6.7	1.2	18	7.9	-0.5
EU15	6.9	1.2	18	8.1	-0.5
EU12	4.7	1.3	28	6.0	-0.2
EA	6.7	1.2	19	8.0	-0.3

Source: Commission services, EPC.

methodological approach and different features of the data used lead to results varying considerably between the two scenarios. Moreover, it should be stressed that the methodology behind death-related costs scenario does not perfectly illustrate the underlying concept. In particular, the period of time defined as “close to death” is limited to one year, while several studies argue that the health care costs of decedents are higher than those of survivors up to six years before death.

Graph 69 below shows a comparison of the results of the three scenarios on health status. The comparison between the shapes of the curves for EU15 and EU12 allows for two features to be stressed. The first one is the more pronounced growing path of pure demographic scenario in the EU12 driven by more dynamic demographic developments but also faster national income growth. The second one is a stronger potential effect of (positive) health status evolution in the same group of countries represented by the wider

Graph 69 -Impact of demography and health status. Comparison between scenarios



Source: Commission services, EPC.

Table 28 – Income elasticity scenario (public spending on health care, % of GDP)

	Level	Change 2007-2060		Level	
	2007	% points of GDP	%	2060	Difference to pure demographic scenario
BE	7.6	1.8	24	9.5	0.4
BG	4.7	1.2	24	5.9	0.4
CZ	6.2	2.8	45	9.0	0.5
DK	5.9	1.5	25	7.4	0.3
DE	7.4	2.4	32	9.8	0.4
EE	4.9	1.7	34	6.6	0.5
IE	5.8	2.3	40	8.1	0.3
EL	5.0	1.8	36	6.8	0.3
ES	5.5	2.1	37	7.6	0.3
FR	8.1	1.8	22	9.9	0.4
IT	5.9	1.5	25	7.3	0.3
CY	2.7	1.1	39	3.8	0.2
LV	3.5	1.0	28	4.4	0.3
LT	4.5	1.6	37	6.1	0.4
LU	5.8	1.7	30	7.5	0.4
HU	5.8	2.2	38	8.0	0.5
MT	4.7	4.2	89	8.9	0.4
NL	4.8	1.3	28	6.2	0.2
AT	6.5	2.1	32	8.5	0.3
PL	4.0	1.7	43	5.7	0.4
PT	7.2	2.6	36	9.8	0.4
RO	3.5	1.8	51	5.3	0.4
SI	6.6	2.4	37	9.0	0.5
SK	5.0	2.9	57	7.8	0.6
FI	5.5	1.7	30	7.2	0.3
SE	7.2	1.3	18	8.5	0.3
UK	7.5	2.6	35	10.1	0.4
NO	5.6	1.9	33	7.5	0.3
EU27	6.7	2.1	31	8.8	0.4
EU15	6.9	2.1	30	8.9	0.4
EU12	4.7	2.0	42	6.6	0.4
EA	6.7	1.9	28	8.6	0.3

Source: Commission services, EPC.

gap between pure demographic and constant health scenarios at the end of the projection period.

3.5.2. The impact of future changes in income and macroeconomic variables

The pure demographic scenario implicitly includes the impact of income growth as unit health care spending at each age is kept constant in relative terms, following yearly per capita income growth. However, empirical evidence suggests that growth in both public and total health care spending exceeds the growth rate of national income, be it due to the impact of technological development, or of an improvement in living standards. Consequently, simply keeping relative weight of health care spending constant may lead to its underestimation. To address this concern, the “*income elasticity scenario*” projects health care spending by assuming an elasticity coefficient of 1.1 evolving to unity over the projection period.

The results suggest that the “*pure demographic scenario*” probably underestimates the total growth of health care expenditure by assuming a neutral relation between income and health care spending (see Table 28). Taking a conservative assumption of a relatively low elasticity which converges to one adds an extra 0.2% to 0.6% of GDP to the initial impact of demographic

changes and neutral GDP per capita development. The additional impact is similar for the EU15 and the EU12 as the gap in GDP rate of growth has already been included in the pure demographic scenario.

For the newly acceded Member States, the impact of the spread of technology, growing living standards and high expectations due to the process of real convergence linked to the last wave of accession is illustrated in the “*cost convergence scenario*”. This scenario, performed solely for the 12 recently acceded Member States suggests that achieving by 2060 the level of health care provision per person (expressed as % of GDP per capita spending) equal to that of the 15 “old” Member States of the EU can be a very costly process. Depending on the current expenditure profile, governments would need to spend from 2.5 to 5.4% of GDP over the five decades to come, while the extra expenditure over what is due to the demographic changes is expected to be between 0.6 and 4.4% of GDP (Table 29).

Table 29 – Cost convergence scenario (public spending on health care, % of GDP)

	Level	Change 2007-2060		Level	
	2007	% points of GDP	%	2060	Difference to pure demographic scenario
BG	4.7	4.2	88	8.9	3.4
CZ	6.2	2.9	46	9.1	0.6
EE	4.9	3.4	68	8.3	2.1
CY	2.7	4.9	181	7.6	4.0
LV	3.5	5.1	148	8.6	4.5
LT	4.5	4.2	94	8.7	3.0
HU	5.8	3.1	53	8.8	1.3
MT	4.7	5.4	114	10.1	1.6
PL	4.0	4.9	122	8.9	3.6
RO	3.5	5.3	151	8.8	3.9
SI	6.6	2.6	39	9.2	0.6
SK	5.0	4.1	83	9.1	1.9
EU12	4.7	4.2	90	8.9	2.7

Source: Commission services, EPC.

An alternative perspective of unit costs evolution is illustrated by the “*labour intensity scenario*”, which presents supply – rather than demand-driven evolution of health care spending. Given that the cumulated increase in productivity (and therefore real wages) exceeds the growth in per capita income in all but one (Luxembourg) Member States, while wages are in fact only one of several factors on the supply side of health care provision (the others being investment in

technological progress, legal and institutional setting, etc.), the impact of supply-side drivers is expected to exceed considerably that of demand factors. The mere effect of labour productivity/wages replacing income as the driver of unit costs of health care provision in the projections would amount to an additional spending of 0.7% of GDP (2.4 p.p. increase against 1.7 p.p. increase in the pure demographic scenario), while a number of other factors remain not quantifiable (Table 30). Again, given the assumed catching-up in terms of labour productivity, the effect is stronger in the recently acceded Member States (increase by 2.8 p.p. from the initial level of 4.9% of GDP) than in the EU15 (2.4 p.p. from 6.9 % of GDP).

The joint analysis of the three scenarios based on income and macroeconomic variables (Graph 70) allows us to draw some important conclusions. First, supply-side factors, whose impact remains still relatively unknown and very difficult to quantify, seem to push health care spending up to a considerably higher degree than relatively well specified and quantified demographic and demand-side factors. This argument is strengthened by the alternative technological scenario (see Annex 2) which, although based on highly uncertain data and set of assumptions, gives a broad idea of the range of increase that may be expected due to the technological development and medical progress. In this sense, the projected increase in public spending, as presented in this report, should be considered as probably on the low side, underestimating the likely budgetary pressures coming from the technical and economic process of producing and providing increasingly more sophisticated and advanced health care goods and services. Second, it seems highly probable that the governments of countries where the current provision of health care appears to be not considered as satisfactory by citizens or does not cover the entire population (thus mainly EU12 countries) will be pushed by their citizens to substantively increase the level of spending in order to reach – at least over the long term – the coverage and standards guaranteed already today to the citizens of most of the EU15 countries.

Table 30 – Labour intensity scenario (public spending on health care, % of GDP)

	Level	Change 2007-2060		Level	
					Difference to pure demographic scenario
	2007	% points of GDP	%	2060	
BE	7.6	2.1	28	9.7	0.7
BG	4.7	1.6	33	6.3	0.9
CZ	6.2	3.8	62	10.0	1.5
DK	5.9	1.7	29	7.7	0.5
DE	7.4	2.8	38	10.2	0.8
EE	4.9	2.3	46	7.2	1.1
IE	5.8	2.9	49	8.7	0.9
EL	5.0	2.4	47	7.3	0.9
ES	5.5	2.6	47	8.1	0.8
FR	8.1	2.1	26	10.3	0.7
IT	5.9	1.8	31	7.7	0.6
CY	2.7	1.2	45	3.9	0.3
LV	3.5	1.6	47	5.1	1.0
LT	4.5	2.5	56	6.9	1.3
LU	5.8	1.1	19	6.9	-0.2
HU	5.8	3.0	51	8.8	1.2
MT	4.7	5.0	105	9.7	1.2
NL	4.8	1.8	37	6.6	0.7
AT	6.5	2.6	40	9.1	0.9
PL	4.0	2.4	59	6.4	1.0
PT	7.2	3.1	43	10.3	0.9
RO	3.5	2.7	78	6.2	1.4
SI	6.6	4.1	62	10.7	2.2
SK	5.0	3.7	74	8.6	1.4
FI	5.5	2.0	36	7.5	0.6
SE	7.2	1.7	24	8.9	0.8
UK	7.5	2.8	37	10.3	0.6
NO	5.6	2.6	46	8.3	1.0
EU27	6.7	2.4	36	9.2	0.7
EU15	6.9	2.4	35	9.3	0.7
EU12	4.7	2.8	59	7.4	1.2
EA	6.7	2.3	35	9.1	0.8

Source: Commission services, EPC.

3.6. AWG REFERENCE SCENARIO

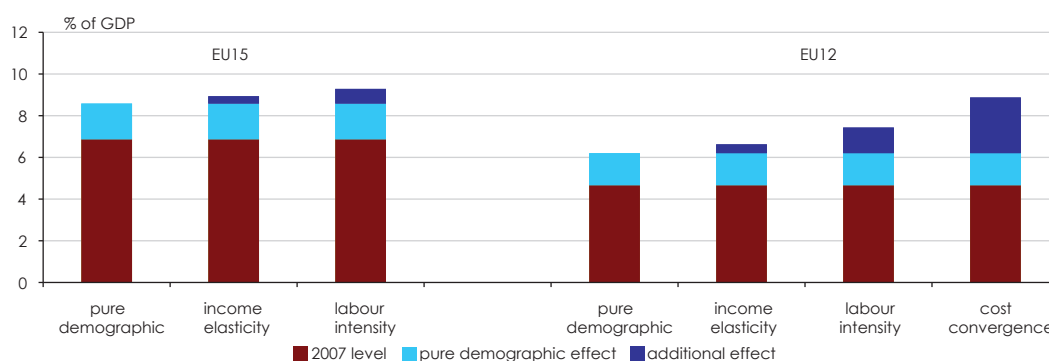
The so-called “*AWG reference scenario*” is the one that will be used as “central scenario” when calculating the overall budgetary impact of ageing. It is a combination of a number of factors affecting health care spending and, as such, it is considered by the Ageing Working Group as a plausible scenario for assessing potential future needs for public spending on health care. It incorporates the demographic impact of the changing population structure, moderately positive developments of health status and the strengthened impact of the national income incorporating a number of demand and supply factors pushing expenditure up. The joint impact of those factors results in a projected increase in spending of about 1.6% in the EU27. Individual countries’ results range between 0.2% (Norway) and 3.4% (Malta) of GDP, or between 4% and 71% of the initial level, but most of them (21 Member States) show increases by between 10 and 30% (Table 31). As such, the results are on average slightly lower than the pure demographic scenario.

3.7. CONCLUSIONS

The high level of involvement of the EU governments in the provision of health care and the steadily growing public spending over the last decades puts the issue of health care financing at the centre of the debates on the long-term sustainability of public finances and the efficiency of public spending.

Financing of health care is shared between public and private sector, but in almost all EU Member States the governments cover a large majority of

Graph 70 - Impact of income and macroeconomic variables – HC spending in 2060, different scenarios



Source: Commission services, EPC.

Table 31 –AWG reference scenario (public spending on health care, % of GDP)

	Level	Change 2007-2060		Level	Difference to pure demographic scenario
	2007	% points of GDP	%	2060	
BE	7.6	1.2	16	8.8	-0.2
BG	4.7	0.7	16	5.4	0.0
CZ	6.2	2.2	35	8.4	-0.1
DK	5.9	1.0	16	6.9	-0.2
DE	7.4	1.8	24	9.2	-0.2
EE	4.9	1.2	24	6.1	0.0
IE	5.8	1.8	30	7.6	-0.2
EL	5.0	1.4	28	6.4	-0.1
ES	5.5	1.6	30	7.2	-0.1
FR	8.1	1.2	15	9.4	-0.2
IT	5.9	1.1	19	6.9	-0.1
CY	2.7	0.6	23	3.3	-0.3
LV	3.5	1.4	39	4.8	0.7
LT	4.5	1.1	25	5.6	-0.1
LU	5.8	1.2	21	7.0	-0.1
HU	5.8	1.3	22	7.0	-0.5
MT	4.7	3.3	71	8.0	-0.4
NL	4.8	1.0	20	5.8	-0.1
AT	6.5	1.5	24	8.0	-0.2
PL	4.0	1.0	24	5.0	-0.4
PT	7.2	1.9	26	9.1	-0.3
RO	3.5	1.4	39	4.9	0.0
SI	6.6	1.9	28	8.5	-0.1
SK	5.0	2.3	45	7.2	0.0
FI	5.5	1.0	17	6.5	-0.4
SE	7.2	0.8	11	8.0	-0.1
UK	7.5	1.9	26	9.4	-0.3
NO	5.6	1.3	24	7.0	-0.3
EU27	6.7	1.5	22	8.2	-0.2
EU15	6.9	1.5	22	8.4	-0.2
EU12	4.7	1.3	29	6.0	-0.2
EA	6.7	1.4	21	8.1	-0.2

Source: Commission services, EPC.

overall payments. Private spending has a complementary character in many Member States, concentrating on the treatments that are not provided to the same extent by the public schemes, those considered as not necessary for saving human life (dentistry, plastic surgery etc.) and on (some) pharmaceutical goods. Therefore, most general trends concerning the entire health care sector affect also proportionally public expenditure.

As seen in the past trends, increases in spending on health care should be credited only to a limited degree to demographic or morbidity developments. Instead, policy decisions to expand access and improve quality, as a result of rising living standards and societal expectations, as well as technological progress, are the main factors driving expenditure up over the last decades.

Similar trends are expected to occur in the future. Continuous change in the structure of the

population is expected to have an impact on health care expenditure mainly through the parallel evolution in the health status of the population directly affecting demand for care. As shown in the “*pure demographic*” and “*constant health*” scenarios, future potential increases in spending may be significantly reduced if negative trends in morbidity rates are replaced by more optimistic assumptions about development of healthy life years, pointing to the need for cost-effective prevention policies.

The impact of the other, non-demographic factors is expected to push the spending further up. National income growth forces governments to provide more and high quality care to the population through two main channels. First, growing living standards change people’s attitude to their own health and raise expectations on the quantity and quality of care provided by the state. Second, higher income induces investment in medical research and adoption of modern technologies. The latter can have two-directional effect on spending. On one hand, they can decrease the cost of care by making it faster, less invasive and more efficient. On the other hand, the very cost of developing and adopting new technologies plus extra expenditure related to the treatments of previously unknown or incurable diseases have a strong increasing, and probably prevailing, effect on public spending.

Although considered the strongest factor behind the cost growth, technology is just one element of the total cost of health care provision. The remaining ones, wages, salaries, investment in physical capital and pharmaceutical spending, are also supposed to contribute to further increase in health care costs. Although technology has become more prevalent, health care is still highly labour-intensive and will remain so. Wages and salaries constitute still a large share of the overall costs, reflecting high market valuation of human skills and expertise as well as the labour-intensity of the sector, but also strong bargaining power of health care professionals in a number of countries. Consequently, given that over long term the wages are expected to follow the labour productivity path exceeding GDP per capita growth, they are projected to contribute to the increase in health care expenditure to an even higher degree than national income growth. This phenomenon, illustrated by the so-called “labour intensity scenario”, exemplifies the impact of the supply-side factors on public health expenditure.

Although the present set of projections is not capable of disentangling the contribution of the remaining components of costs, it is highly probable that growth in wages and salaries, combined with the increase in pharmaceutical spending, being the most market-driven and thus probably fastest growing component of costs, will constitute a strong driving force of costs, adding to the effect of growing demand due to demographic, health and income changes.

The trends described above affect each health care system to a varying extent. Different institutional and legal setting (financing mechanisms, ownership structure, organisation of health provision, etc.) does not allow to run more detailed projections for each country on a comparable basis. The results allow however to distinguish two groups of countries for which slightly different conclusions can be drawn.

The current spending on health care is significantly higher in both absolute (as % of GDP) and relative (per capita) terms in the old Member States of the EU. Moreover, the shape of the expenditure profile suggests large differences in the provision of health care due not only to the gap in life expectancy, but also to normative health and social policy considerations.

The impact of various factors on health care expenditure differs, as well between the two groups of countries. First, given the more profound demographic changes to be experienced by the new Member States, the demographic impact, quantified in the “*pure demographic scenario*” will be stronger in the EU12 than in the EU15. On the other hand, the same group of EU12 countries is expected to undergo more dynamic improvement in health status, which is

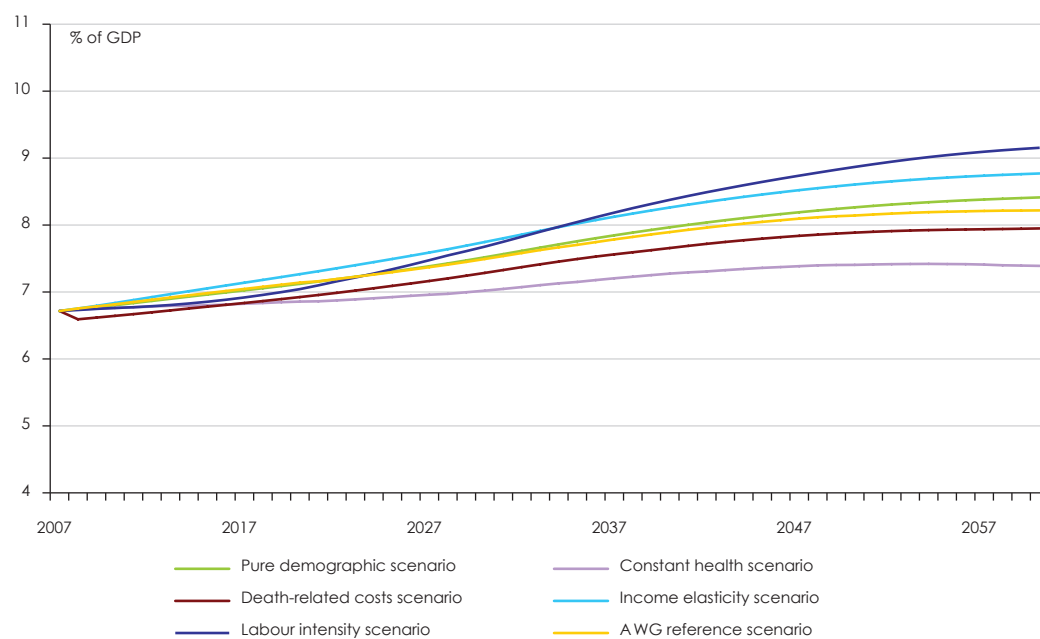
projected to partially offset the demography-driven increase in expenditure.

The EU12 countries are also expected to be affected more profoundly by the changes linked to income growth and the effect of some supply-side factors. Given the current gap in the health care provision and the ongoing process of convergence in terms of national income growth, a considerably faster growth in demand for health care is expected to occur in the decades to come as compared to EU15. The same observation applies to the supply-side factors. First, growth in wages and salaries in the EU12, following the raising path of labour productivity, is expected to exceed for at least a few decades the increase in wages experienced by the EU15 workers. Second, the ongoing process of deregulation in the market for pharmaceuticals and medical goods results in a more market-driven price-setting mechanism leading, at least in its initial phase, to a considerable increase in prices in these countries.

To conclude, predicting concrete level of expenditure over several decades to come leads to a range of outcomes reflecting the variation in drivers of costs over the projection period (see Graph 71 and Graph 72 presenting the range of projected results for EU27, EU15 and EU12).

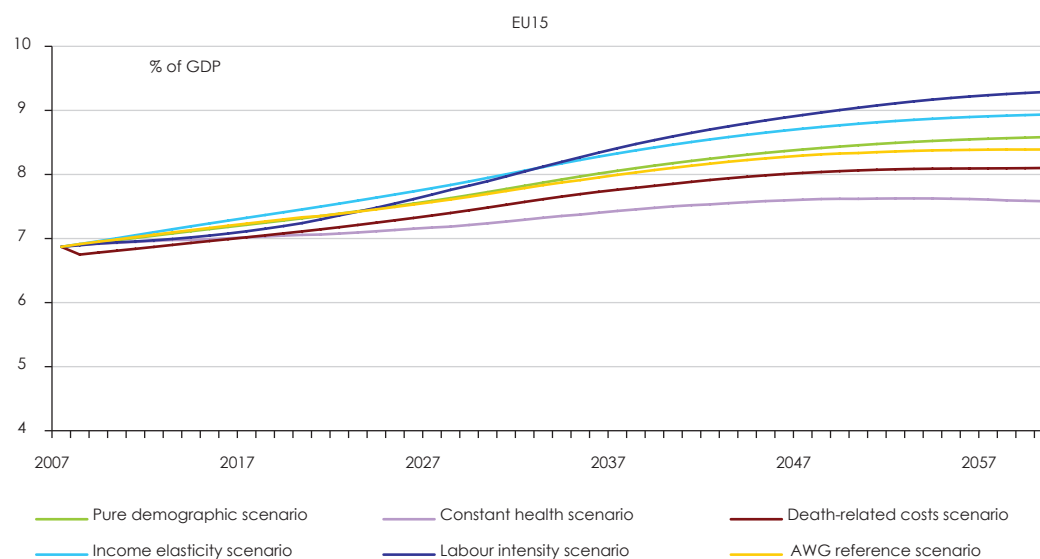
Still, the projections presented lead to the conclusion that public spending on health care across Member States is expected to follow a broadly similar pattern of convergence towards higher levels of expenditure (both in terms of both total spending and expenditure per capita). Although in nominal terms the “old” Member States are still going to spend more for a couple of decades, the rates of growth is expected to be regularly higher in the newly acceded Member States of the EU12.

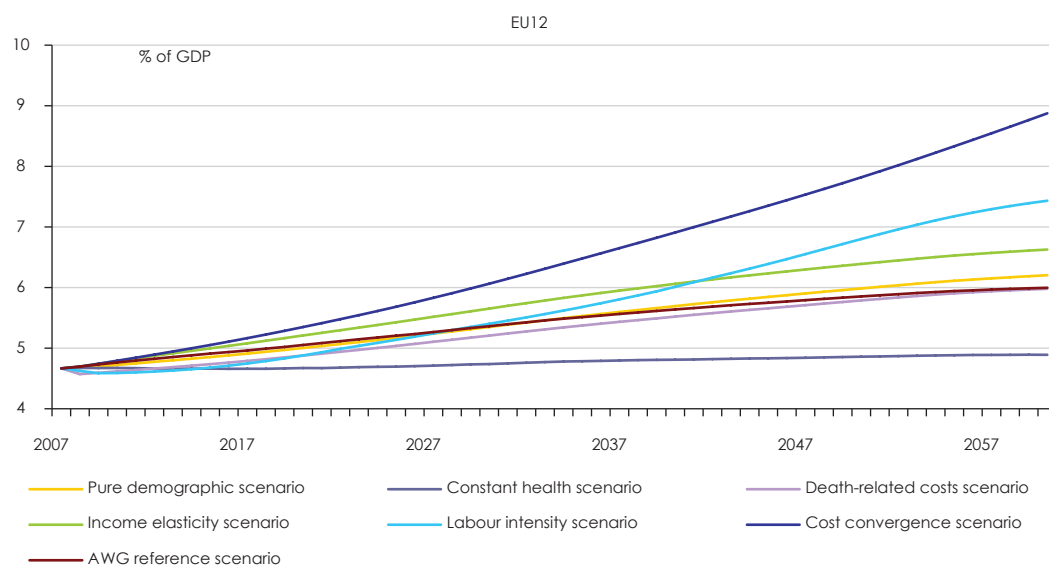
Graph 71 – Range of results from different scenarios on health care, EU27



Source: Commission services, EPC.

Graph 72 – Range of results from different scenarios on health care, comparison between EU15 and EU12





Source: Commission services, EPC.

4. LONG-TERM CARE

4.1. INTRODUCTION

Long-term care services are necessary for people who depend on help to carry out daily activities such as eating, bathing, dressing, going to bed, getting up or using the toilet.⁷⁶ Long-term care is delivered informally by families and friends – mainly spouses, daughters and step-daughters – and formally by care assistants who are paid under some form of employment contract. To be considered informal, the provision of care cannot be paid as if purchasing a service, even though an informal care giver may receive income transfers and, possibly, some informal payments from the person receiving care. Formal care is given at home or in an institution (such as care centres and nursing homes). Cash benefits are payments, which can be used to purchase formal care at home or in an institution or which can be paid to informal caregivers as income support.

The governments of most EU Member States are involved in either the provision or financing of long-term care services, or often both, although the extent and nature of their involvement differs widely across countries. In the future, the demand for formal care services by the population is likely to grow substantially. Long-term care needs start to rise exponentially from around the age of 75 or 85 years-old (OECD, 2005). The numbers of persons who reach 80 years and above are growing faster than any other segment of the population in all EU Member States and are expected to triple by 2060, according to the population projections (EUROPOP2008). The ageing of the population is expected to put pressure on resources demanded to provide long-term care services for the frail elderly and the ratio of long-term care expenditure to GDP is expected to rise in the future.

In making projections of expenditure in long-term care, it is important to bear in mind the extent to which Member States rely on the informal provision of care to the elderly, which

has no direct bearing on public finances. Some Member States rely heavily on the informal provision of long-term care and their expenditure on formal care is accordingly small, while other Member States provide extensive public services to the elderly and devote a significant share of GDP to fund their policies. Pressure for increased public provision and financing of long-term care services may grow substantially in coming decades, especially in Member States where the bulk of long-term care is currently provided informally. The current institutional arrangements for the provision and financing of long-term care by the public sector may be under strong pressure in the future, as the availability of informal carers and their propensity to provide care could diminish, due to changes in family structure and the growing participation of women in the labour market, which may constrain the future supply of informal care provision within households and families. The increase in life expectancy could also bring about a higher potential supply of informal care by elderly partners and retired children. To illustrate the impact of possible future policy changes, such as Member States deciding to provide more formal care services to the elderly, additional scenarios have been prepared.

Availability and access to formal care services will increasingly shape the welfare of elderly citizens and their families. It may also have broader economic implications as greater provision of formal care may increase labour participation among women who currently provide informal care. An additional public policy consideration concerns the impact on public finances, as the unit cost of providing care can be very high, especially when provided in an institution. Moreover, pressure for increased public expenditure (or tax expenditures) on formal care services need to be seen in conjunction with the projected impact of ageing on other expenditure items, notably pensions and health care.

⁷⁶ Long-term care brings together a range of supports and services for people who need help with basic activities of daily living over an extended period of time, often in combination with rehabilitation and basic medical services (OECD, 2005).

4.2. PUBLIC EXPENDITURE ON LONG-TERM CARE

Public expenditure on long-term care is defined, according to the System of Health Accounts classification, as the sum of publicly financed (HF1) items:⁷⁷

(i) **services of long-term nursing care (HC.3)**, which is also called “the medical component of long-term care” or “long-term health care”, and

(ii) **social services of long-term care (HC.R.6.1)**, which is the part of ‘*administration and provision of social services in kind to assist living with disease and impairment*’ (HC.R.6) that covers ‘*a range of services of care assistance aimed predominantly at providing help with instrumental activities of daily living (IADL) restrictions to persons with limited ability to perform these tasks on their own*’.

Services of long-term nursing care (HC.3) are a range of services required by persons with a reduced degree of functional capacity, physical or cognitive, and who are consequently dependent on help with basic activities of daily living (ADL), such as eating, bathing, dressing, getting in and out of bed or chair, moving around and using the toilet. The underlying physical or mental disability can be the consequence of chronic illness, frailty in old age, limitations of mental functioning and/or cognitive capacity. In addition, it includes help with monitoring the status of patients in order to avoid further worsening of their ADL status.

This main personal care component is frequently provided in combination with help with basic medical services such as wound dressing, pain management, medication, health monitoring, prevention, rehabilitation or services of palliative care. Depending on the setting in which long-term care is provided and/or the national programme design, long-term care services can include lower-level care of home help or help with instrumental activities of daily living (IADL) more generally, such as help with

activities of housework, meals, shopping, transport and social activities.

The notion of long-term health care services usually refers to services delivered over a sustained period of time, sometimes defined as lasting at least six months.⁷⁸

Social services of long term care (HC.R.6.1) comprise services of home help and residential care services: care assistance which are predominantly aimed at providing help with IADL restrictions to persons with functional limitations and a limited ability to perform these tasks on their own without substantial assistance, including supporting residential services (in assisted living facilities and the like).

4.2.1. Expenditure on home versus institutional care

Long-term care is provided in different settings: at home and in the community, or in various types of institutions, including nursing homes and long-stay hospitals. Mixed forms of residential care and (internally or externally provided) care services exist in the form of assisted living facilities, sheltered housing, etc., for which a wide range of national arrangements and national labels exist. For a vast majority of households, home care continues to be the preferred setting (OECD, 2005).

Services at home include services provided by external home care providers, both public and private, in a person’s private home on a long-lasting basis. Also included are services received on a day-case basis or in the form of short-term stays in institutions, for example in the form of respite care. During these stays, persons are not considered as “institutionalised”, but rather receiving temporarily services, which support their continued stay at home.⁷⁹

Services in institutions include services provided to people with moderate to severe functional restrictions who live permanently or for an extended period of time (usually for six months

⁷⁷ As in the case of health care, the figures on public expenditure on long-term care are available in two separate databases: the EUROSTAT database available at NewCronos Website and a parallel OECD database “OECD Health Data”, for details see European Commission-EPC (2008).

⁷⁸ For more details, see: OECD (2006a), Costs of Care for Elderly Populations. Guidelines for estimating long-term care expenditure, DELSA/HEA/DIS (2006)4, 14 February 2006, pp. 9-11.

⁷⁹ OECD (2007), Data collection on long-term care (focussing on recipients). Meeting of OECD Health Data National Correspondents, DELSA/HEA/HD(2007)7, 28 September 2007, p.12.

or longer) in specially designed institutions, or in a hospital-like setting where the predominant service component is long-term care, although this may frequently be combined with other services (basic medical services, help with getting meals, social activities, etc.). In these cases, eligibility is often explicitly assessed and defined by the level (severity) of dependency and the level of care needs.

4.2.2. Public expenditure on cash benefits

Public expenditure on cash benefits is projected separately from expenditure on long-term care services provided “in kind” at home or in the institutions. The cash benefits include social programmes offering care allowances introduced in a number of countries in order to allow households choice over care decisions, and to support care provided at home. They are addressed to persons with long-term care needs who live in their own homes. However, the design of these programmes varies widely across countries, which reduces the comparability between them.

At least three types of cash-benefit programmes and/or consumer-choice programmes can be distinguished:

- personal budgets and consumer-directed employment of care assistants;
- payments to the person needing care who can spend it as she/he likes, but has to acquire sufficient care;
- payments to informal caregivers as income support.

4.3. DEPENDENCY RATES

Dependency rates are an indicator of the need for care; however those needs may not necessarily translate into actual public expenditure, as most long-term care is provided by unpaid informal carers.

To estimate the fraction of the elderly population who may need long-term care services, we use disability rates. Disability is usually measured through the inability of performing one or more Activities of Daily Living (ADL). Disability rates are drawn from the SHARE survey conducted in 12 countries of the EU (Austria, Germany, Sweden, the Netherlands, Spain, Italy,

France, Denmark, Greece, Belgium, the Czech Republic, Poland), and, for the remaining Member States, from the Survey on Income and Living Conditions (SILC) conducted by the national statistical offices and gathered by Eurostat.

The SHARE database includes information on the percentage of people with *‘the prevalence of 1+ limitations with activities of daily living among men and women over 50 years of age’*. The SILC survey includes the percentage of people in a given age group who *‘are severely restricted in activities they usually do because of health problems for at least the last 6 months’*.⁸⁰

4.4. THE FUTURE NEED FOR LONG-TERM CARE SERVICES AND THE EXPLORATION OF DIFFERENT POLICY SETTINGS

The EC(DG ECFIN) and the EPC(AWG) used the model built for the 2006 projection exercise, based on a proposal by Comas-Herrera et al., (2005).⁸¹ The approach aims to maximise the inclusion of variables which affect long-term care expenditure that can be examined, while making sure that a large number of Member States can provide the data necessary to run the projections. Specifically, the methodology aims at analysing the impact of changes in the assumptions made about:

- the future numbers of elderly people, through changes in the population projections used;
- the future numbers of dependent elderly people, by making changes to the prevalence rates of dependency;
- the balance between formal and informal care provision;
- the balance between home (domiciliary) care and institutional care within the formal care system;
- the unit costs of care.

Data availability plays a major role in designing the methodology of long-term care expenditure

⁸⁰ More detailed information can be found on the websites of SHARE <http://www.share-project.org/> and Eurostat http://europa.eu.int/estatref/info/sdds/en/hlth/hlth_index.htm.

⁸¹ See Annex for a summary description of the model.

projections.⁸² The methodology allows projecting the future need for long-term services, in terms of numbers of people who will need long-term care services. This is done by using dependency rates, to estimate the fraction of the elderly population which is dependent, i.e. has some disability which requires the provision of a care service. Three types of long-term care are considered: (i) formal care at home, (ii) formal care in institutions and (iii) informal care.

4.5. PROJECTION RESULTS

The scenarios carried out in the projection exercise illustrate the future budgetary impact of changes in (i) demography, (ii) disability, (iii) policy setting.

4.5.1. The impact of future demographic change

The “pure demographic scenario” examines the impact of future numbers of elderly people on the public expenditure of long-term care. It is a “no policy change scenario” which assumes that the probability of receiving formal care at home and formal care in an institution remains constant at the 2007 level. Disability rates by age are also constant, so the disabled population grows at the same rate as the total elderly population. This implies that there is no improvement in the dependency status of the elderly population as its longevity increases. According to the scenario, the rate of dependency of an 80-year old in the future is the same as that of an 80-year old today, but there will be more people living up to their 80th birthday in the future than today. Arguably, it is a pessimistic scenario since it assumes that the average lifetime consumption of long-term care services will increase over time.

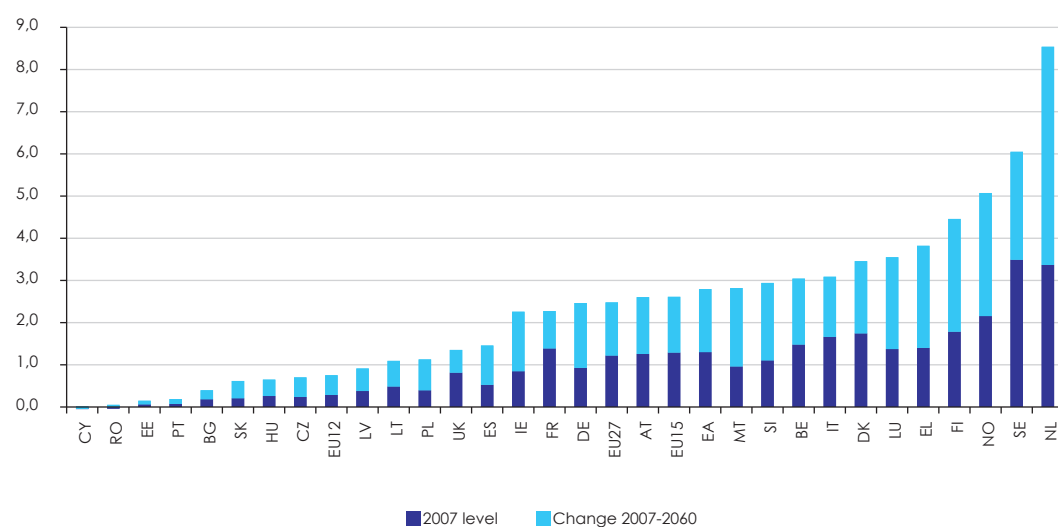
The scenario is similar to the pure demographic scenario for health care expenditure, except that the main driver of costs is GDP per worker rather than GDP per capita. Given the currently predominating deficit of formal care provision and its high labour-intensive character, public expenditure seems supply- rather than demand-driven. For that reason, GDP per worker is the main driver of unit costs, which is assumed to reflect changes in the labour productivity and, at the same time, the wage evolution in the care sector.

Given that the level of expenditure in the base year determines to a large extent the projected increase, an increase in relative terms illustrates somewhat better the degree of the challenge facing European societies. Public expenditure is projected to increase by 115% on average for the EU27. The projected increase ranges from 65% in France and the UK to 175% and above in the Czech Republic, Spain, Malta, Poland, Romania and Slovakia.

Extrapolating forward on the basis of existing policies and expenditure does not capture the full scale of the policy challenge, which goes beyond examining the future increases in public expenditure projected if policies are unchanged. Future changes in the numbers of people receiving informal or no care and whether they will receive the care services they need are also crucial policy questions. Countries with low levels of formal care provision today (and thus low levels of public expenditure) will also witness a very large increase in the projected numbers of persons in need of care, 82% on average for the EU27 and more than doubling in the EU12. Pressure is likely to emerge in the future for policy changes to increase formal care provision, especially as the future availability of informal care is likely to diminish rather than increase. The gap between the need for care and the supply of formal care will grow due to the growing numbers of elderly persons and a likely reduction in the supply of informal care within households (although the scale of this effect will depend on the starting employment rates of women, among other factors). In Denmark, Malta, the Netherlands and Sweden, current expenditure is among the highest in the EU, but the long-term care needs of the population are fully covered within the formal system and are expected to remain fully covered in the future. In contrast, large numbers of people do not receive formal care services and rely exclusively on informal care in most Member States and considerable increases of people relying in informal care are projected in the future. The projections show that with an ageing population, the number of elderly people with disability who rely on informal care only would nearly double in the EU27, and increase by more than 120% in seven EU Member States: the Czech Republic, Ireland, Cyprus, Luxemburg, Poland, Romania and Slovakia. Under no policy change, a growing gap may occur between the number of elderly citizens with disability who are in need of care and the actual supply of formal care services.

⁸² See European Commission-EPC (2008).

Graph 73 - Pure demographic scenario – public expenditure on long-term care as % of GDP



Source: Commission services, EPC.

Table 32 – Pure demographic scenario – increase of public expenditure on long-term care, 2007-60

	Level	Increase 2007-2060		Level
		% points of GDP		
	2007	%		2060
BE	1.5	1.6	105	3.0
BG	0.2	0.2	115	0.4
CZ	0.2	0.5	194	0.7
DK	1.7	1.7	98	3.5
DE	0.9	1.5	165	2.5
EE	0.1	0.1	134	0.1
IE	0.8	1.4	166	2.3
EL	1.4	2.4	172	3.8
ES	0.5	0.9	176	1.5
FR	1.4	0.9	64	2.3
IT	1.7	1.4	86	3.1
CY	0.0	0.0	102	0.0
LV	0.4	0.5	141	0.9
LT	0.5	0.6	124	1.1
LU	1.4	2.2	159	3.6
HU	0.3	0.4	149	0.6
MT	1.0	1.9	193	2.8
NL	3.4	5.2	154	8.5
AT	1.3	1.3	107	2.6
PL	0.4	0.7	184	1.1
PT	0.1	0.1	158	0.2
RO	0.0	0.0	221	0.1
SI	1.1	1.8	166	2.9
SK	0.2	0.4	197	0.6
FI	1.8	2.7	150	4.5
SE	3.5	2.6	73	6.0
UK	0.8	0.5	66	1.4
NO	2.2	2.9	135	5.1
EA	1.3	1.5	115	2.8
EU27	1.2	1.3	103	2.5
EU15	1.3	1.3	102	2.6
EU12	0.3	0.5	161	0.8

Source: Commission services, EPC.

Box: Taking account of existing policy settings in the Member States**Germany**

In the projection, unit costs are indexed to GDP per worker or GDP per capita. Under current rules in Germany, all long-term care benefits (that is the benefits paid out by the public insurance for people receiving formal care at home, care in institutions or cash benefits) are indexed to prices. The difference between the amounts financed by the State and the costs of long term care are either recovered by private insurance or are paid by the beneficiaries themselves.

To better reflect the current German legislation, an alternative projection has been run where unit costs of long-term care services remain constant in real terms. This would mean that the amounts financed by the State are adjusted in line with prices.

Assuming constant unit costs in real terms, the long-term care public expenditure is projected to remain around 1% of GDP over the whole projection period, as compared to an increase from close to 1% of GDP today up to 2.47% of GDP when assuming unit costs evolve in line with GDP per worker. The results of the two scenarios illustrate the difference between what the State is projected to spend under these two assumptions.

	2007	2010	2020	2030	2040	2050	2060	2007-2060
Unit costs are constant in real terms	0.93	0.93	0.94	0.99	1.01	1.06	0.96	0.03
Unit costs evolve in line with GDP per worker	0.93	0.97	1.18	1.49	1.82	2.28	2.47	1.54

Spain

Law 39/2006 on Long Term Care establishes the right to receive social services and cash benefits for people with Activities of Daily Living (ADL) restrictions according to their degree of dependency and their economic capacity. Accordingly, the projections incorporate an increase in the number of recipients with the concomitant spending in social services (at home and institutions) and in cash benefits.

Table 33 - Number of older people receiving informal or no care in the pure demographic scenario, 000s

Persons relying only on informal (or no) care							
Numbers of persons				relative to the number of dependent persons			
in 000s		Change 2007-2060		as % of dependent population		Change 2007-2060	
	2007	2060	Absolute	in %	2007	2060	in p.p.
BE	207	321	114	55	46	33	-13
BG	744	1023	279	38	88	85	-4
CZ	133	333	199	150	52	48	-3
DK	:	:	:	:	:	:	:
DE	1612	2359	747	46	50	39	-11
EE	71	117	46	64	88	85	-3
IE	30	83	52	172	33	22	-11
EL	100	160	60	61	29	20	-10
ES	1366	2215	849	62	79	47	-32
FR	758	1327	569	75	33	27	-6
IT	1992	3998	2006	101	79	79	-1
CY	32	122	90	284	92	91	-1
LV	110	173	63	58	90	88	-2
LT	152	281	129	85	80	77	-2
LU	7	17	10	142	48	35	-12
HU	508	910	401	79	86	83	-3
MT	:	:	:	:	:	:	:
NL	:	:	:	:	:	:	:
AT	83	125	42	51	31	21	-10
PL	1235	2884	1649	134	83	81	-3
PT	471	853	382	81	67	57	-10
RO	743	1658	915	123	76	74	-2
SI	52	95	44	85	68	61	-7
SK	208	562	353	170	87	85	-2
FI	168	260	92	55	61	50	-12
SE	:	:	:	:	:	:	:
UK	1741	3151	1410	81	56	49	-8
NO	:	:	:	:	:	:	:
EU27	12272	22328	10056	82	59	50	-9
EU15	8285	14176	5891	71	52	42	-11
EU10	2500	5471	2971	119	81	78	-3
EU12	3987	8152	4165	104	81	78	-4

Source: Commission services, EPC.

Note: The number of older people receiving formal long-term care in Denmark, Malta, the Netherlands, Sweden and Norway is higher than the disabled population estimated in the projection, so the data are not presented.

Number of dependent older persons										of which:					
Number of persons receiving formal care										Number of persons relying only on informal (or no) care					
Receiving care in an institution										Receiving care at home					
2007	2060	Change 2007-2060	in %	2007	2060	Change 2007-2060	in %	2007	2060	Change 2007-2060	in %	2007	2060	Change 2007-2060	in %
	(000s)	absolute		(000s)		absolute				absolute		(000s)		absolute	
BE	455	978	115	118	349	231	196	130	308	178	137	207	321	114	55
BG	841	1207	44	35	68	33	94	62	116	54	88	744	1023	279	38
CZ	256	687	168	51	155	105	207	73	199	126	173	133	333	199	150
DK	164	362	122	60	158	99	166	111	255	144	129	:	:	:	:
DE	3201	6036	89	561	1433	871	155	1028	2244	1216	118	1612	2359	747	46
EE	81	137	70	4	8	4	94	6	13	8	132	71	117	46	64
IE	93	383	314	22	113	92	422	40	187	147	364	30	83	52	172
EL	338	820	142	76	247	171	226	163	413	250	153	100	160	60	61
ES	1728	4721	173	180	1148	968	536	181	1357	1176	648	1366	2215	849	62
FR	2263	4833	114	552	1302	750	136	953	2204	1251	131	758	1327	569	75
IT	2515	5092	102	165	374	209	127	359	720	360	100	1992	3998	2006	101
CY	35	134	100	288	3	12	9	340	0	0	0	32	122	90	284
LV	123	197	60	12	6	6	86	6	11	5	85	110	173	63	58
LT	191	364	173	32	67	36	113	7	15	8	116	152	281	129	85
LU	14	47	32	225	3	14	11	340	4	17	12	7	17	10	142
HU	594	1098	503	45	100	56	124	41	88	47	113	508	910	401	79
MT	9	27	18	186	2	6	4	216	9	26	17	187	:	:	:
NL	387	984	598	155	123	398	275	499	1189	690	138	:	:	:	:
AT	268	607	339	63	184	121	192	122	298	176	144	83	125	42	51
PL	1485	3582	2096	141	2	2	319	250	696	446	178	1235	2884	1649	134
PT	698	1494	796	114	75	240	165	152	401	249	163	471	853	382	81
RO	971	2237	1266	130	82	213	131	159	146	366	220	743	1658	915	123
SI	76	157	81	107	9	23	14	160	16	39	24	151	95	44	85
SK	239	662	423	177	0	0	0	31	100	70	226	208	562	353	170
FI	274	525	251	91	134	84	166	56	131	75	133	168	260	92	55
SE	312	639	327	105	111	253	141	207	424	218	105	:	:	:	:
UK	3094	6465	3371	109	469	1257	168	883	2057	1174	133	1741	3151	1410	81
NO	155	385	230	149	41	124	82	200	311	191	159	:	:	:	:
EU27	20705	44473,40629	23768	115	2897	8271	5373	185	5536	8339	151	12272	22328	10502	84
EU15	15804	33985,19732	18182	115	2629	7604	4975	189	4890	12205	150	8285			

Note: The number of dependent older persons is estimated using dependency rates and projected population and differs from national statistics.

4.5.2. The impact of future changes in the prevalence of disability

Improvements in the disability status of elderly people might mitigate the rise in the demand for long-term care services, and hence the associated public expenditure, as the number and share of elderly people (aged 65 and above) continues to grow. The narrowing of the gap between female and male life expectancy, assuming both men and women live in good health and free of disability, could bring a higher potential supply of informal care by old spouses.

However, there is substantial debate about the changes in the prevalence of disability as longevity improves (Robine and Michel, 2004). Trends in ADL-dependency rates have decreased in the United States (Crimmins, 2004), and some European countries, but they have increased in several other European countries and Japan and have remained stable in Australia (OECD, 2007).

The OECD (2007) assesses the most recent evidence on trends in disability among the elderly in 12 OECD countries. It finds clear evidence of a decline in disability among elderly people in Denmark, Finland, Italy and the Netherlands, while Belgium and Sweden report an increasing rate of severe disability among people aged 65 and over during the past five to ten years. In France and the UK, the available evidence is

mixed and does not allow reaching any definite conclusion on the direction of the trend. The US reports a declining rate in disability, while Japan reports an increasing rate of severe disability and Australia reports a stable rate.

The “constant disability scenario” explores an alternative assumption, whereby trends in age-specific disability rates decline in the future. It is analogous to the constant health scenario in the health care expenditure projections. It assumes that the rate of dependency of an 80-year old in the future is lower than that of an 80-year old today. The profile of disability rates by age is assumed to shift in line with life expectancy: the future disability rate of an elderly 80-year old in the future is the same as that of a person aged (80-x) years today (x being the future increase in the life expectancy of an 80 years-old today). This results in a gradual decrease over time in the prevalence of disability for each age cohort.

The results show that an improved disability status would lead to a considerably lower number of disabled persons at each specific age in the future who would have some need for care. This moderates the expected increase in expenditure due to rising numbers of older people. Expenditure would increase by 1 p.p. for the EU as a whole (or 0.2 p.p. below the pure demographic scenario), with smaller increases in EU12 Member States (0.4 p.p. on average).

Table 35 - Number of older dependent people in the constant disability scenario, 000s, % change and difference relative to the pure demographic scenario

	Change 2007-2060									
	2007	2010	2020	2030	2040	2050	2060	in 000s	in %	Diff. to pure demographic
BE	455	475	548	647	765	841	866	411	90	-25
BG	841	840	923	995	1067	1165	1184	343	41	-3
CZ	256	274	343	417	473	516	578	322	126	-42
DK	164	168	199	252	285	304	312	148	90	-31
DE	3201	3383	3982	4469	5076	5563	5190	1989	62	-26
EE	81	81	89	97	106	115	123	42	52	-18
IE	93	101	133	175	227	291	338	246	266	-49
EL	338	368	449	490	570	649	686	348	103	-40
ES	1728	1830	2117	2523	3147	3799	4086	2358	136	-37
FR	2263	2399	2788	3336	3976	4212	4250	1987	88	-26
IT	2515	2659	3024	3362	3873	4379	4407	1891	75	-27
CY	35	37	51	68	84	104	123	88	256	-32
LV	123	124	129	143	155	170	182	59	48	-12
LT	191	197	213	245	280	306	322	131	69	-22
LU	14	16	20	25	32	38	42	27	190	-35
HU	594	612	716	783	869	973	1038	443	75	-10
MT	9	10	14	18	20	21	23	14	143	-43
NL	387	408	502	654	789	856	842	456	118	-37
AT	268	279	312	384	457	524	527	259	96	-30
PL	1485	1526	1967	2433	2738	3053	3285	1800	121	-20
PT	698	735	860	1004	1174	1326	1377	679	97	-17
RO	971	984	1123	1256	1518	1731	1928	957	98	-32
SI	76	81	101	122	139	150	148	72	95	-12
SK	239	248	319	409	478	554	604	365	153	-24
FI	274	288	374	449	479	480	484	210	77	-15
SE	312	318	359	434	479	508	539	228	73	-32
UK	3094	3197	3667	4334	4973	5418	5847	2754	89	-20
NO	155	160	190	239	292	322	348	193	125	-24
EU27	20705	21640	25321	29523	34231	38047	39331	18626	90	-25
EU15	15804	16625	19334	22539	26303	29189	29793	13990	89	-27
EU10	3089	3192	3941	4734	5343	5962	6426	3336	108	-20
EU12	4902	5016	5987	6984	7928	8858	9537	4636	95	-19

Source: Commission services, EPC.

Table 36 - Constant disability scenario – public expenditure on long-term care, % of GDP

	Constant disability				
	Level		Increase 2007-2060		Diff. to pure demographic Increase 2007-2060
	2007	% points of GDP	%	2060	
BE	1.5	1.2	81	2.7	-0.4
BG	0.2	0.2	112	0.4	0.0
CZ	0.2	0.4	163	0.6	-0.1
DK	1.7	1.3	74	3.0	-0.4
DE	0.9	1.3	141	2.2	-0.2
EE	0.1	0.1	114	0.1	0.0
IE	0.8	1.2	145	2.1	-0.2
EL	1.4	2.0	140	3.4	-0.5
ES	0.5	0.8	155	1.3	-0.1
FR	1.4	0.7	52	2.1	-0.2
IT	1.7	1.1	69	2.8	-0.3
CY	0.0	0.0	89	0.0	0.0
LV	0.4	0.5	132	0.9	0.0
LT	0.5	0.5	110	1.0	-0.1
LU	1.4	1.9	138	3.3	-0.3
HU	0.3	0.4	138	0.6	0.0
MT	1.0	1.4	149	2.4	-0.4
NL	3.4	4.2	126	7.6	-0.9
AT	1.3	1.1	84	2.3	-0.3
PL	0.4	0.7	165	1.1	-0.1
PT	0.1	0.1	145	0.2	0.0
RO	0.0	0.0	188	0.0	0.0
SI	1.1	1.7	153	2.8	-0.1
SK	0.2	0.4	175	0.6	0.0
FI	1.8	2.5	138	4.2	-0.2
SE	3.5	2.0	56	5.5	-0.6
UK	0.8	0.4	54	1.3	-0.1
NO	2.2	2.5	118	4.7	-0.4
EA	1.3	1.2	95	2.5	-0.3
EU27	1.2	1.0	85	2.3	-0.2
EU15	1.3	1.1	84	2.4	-0.2
EU12	0.3	0.4	144	0.7	-0.1

Source: Commission services, EPC.

Table 37 - Shift from informal to formal care by different types of care – public expenditure on long-term care, % of GDP

	Increase 2007-2060								
	% points of GDP			in %			Diff. to pure demographic		
	at home	mix home-institution	institution	at home	mix home-institution	institution	at home	mix home-institution	institution
BE	1.8	2.0	2.2	120	134	147	0.2	0.4	0.6
BG	0.3	0.3	0.3	163	171	178	0.1	0.1	0.1
CZ	0.5	0.6	0.7	204	238	272	0.0	0.1	0.2
DK	2.1	1.9	1.7	118	108	98	0.3	0.2	0.0
DE	1.7	1.8	2.0	180	197	215	0.1	0.3	0.5
EE	0.1	0.1	0.2	139	229	318	0.0	0.1	0.1
IE	1.5	1.7	1.8	182	200	218	0.1	0.3	0.4
EL	2.6	2.8	3.0	187	201	216	0.2	0.4	0.6
ES	1.0	1.5	2.8	185	285	524	0.0	0.6	1.8
FR	1.0	1.1	1.3	69	81	93	0.1	0.2	0.4
IT	1.9	2.2	2.5	115	133	151	0.5	0.8	1.1
CY	0.0	0.0	0.0	102	155	208	0.0	0.0	0.0
LV	0.6	1.1	1.5	162	283	404	0.1	0.5	1.0
LT	0.7	0.8	0.9	139	163	187	0.1	0.2	0.3
LU	2.4	2.7	2.9	174	194	215	0.2	0.5	0.8
HU	0.6	0.7	0.8	228	265	303	0.2	0.3	0.4
MT	1.9	2.2	2.5	195	227	259	0.0	0.3	0.6
NL	5.4	5.8	6.2	161	173	185	0.2	0.6	1.1
AT	1.5	1.5	1.4	120	116	113	0.2	0.1	0.1
PL	1.0	0.9	0.8	245	219	194	0.2	0.1	0.0
PT	0.1	0.2	0.2	171	216	261	0.0	0.0	0.1
RO	0.0	0.1	0.1	225	349	472	0.0	0.0	0.0
SI	2.1	2.2	2.4	188	203	219	0.2	0.4	0.6
SK	0.6	0.5	0.4	277	237	197	0.2	0.1	0.0
FI	2.9	3.3	3.8	162	187	211	0.2	0.7	1.1
SE	2.8	3.1	3.4	81	89	98	0.3	0.6	0.9
UK	0.6	0.6	0.7	71	76	81	0.0	0.1	0.1
NO	3.0	3.4	3.9	140	159	179	0.1	0.5	0.9
EA	1.7	1.9	2.3	128	147	174	0.2	0.4	0.8
EU27	1.4	1.6	1.9	115	131	151	0.2	0.3	0.6
EU15	1.5	1.7	1.9	114	129	151	0.2	0.4	0.6
EU12	0.6	0.6	0.6	206	209	212	0.1	0.1	0.2

Source: Commission services, EPC.

Note: According to internal Spanish projections the expenditure calculated in the scenario of shift from informal care to home care is underestimated and the expenditure of the shift to institutions is overestimated, due to differences in the definitions used.

4.5.3. The impact of future changes in policy: the effect of a shift from informal to formal care

This scenario illustrates the impact of an increase in the provision of formal care, according to the type of care provided: in institutions, at home or a mix of the two. In particular, this sensitivity test examines the budgetary impact of a yearly shift into the formal sector of care of 1% of disabled elderly who so far received only informal care. This shift takes place during the first 10 years of the projection period.

Three alternative options are envisaged:

(a) shift from informal to institutional care only: all “new” beneficiaries move into institutions and nobody into home care;

(b) shift from informal to home care only: everybody moves into formal home care and nobody into institutions;

(c) shift from informal to institutional and home care: half move to home care and half to institutions.

The unit cost of formal care in an institution is relatively higher than the cost of a unit of care provided in the home of the beneficiary, which translates into higher increases in long-term care expenditure projected when the additional long-term care services are provided in institutions rather than at home. For the EU15, public expenditure would increase by 2 p.p. between 2007 and 2060 if the population newly entitled to formal long-term care services was placed in an institution, by 1.5 p.p. if the care services were delivered in their homes and by 1.7 p.p. if half went to institutional care and half received

long-term care services in their homes. For the EU10, smaller changes in expenditure are projected, of 0.7 p.p. (in Poland and Slovakia, a higher increase is projected when home care is provided rather than institutional care, in contrast to all other Member States).

4.5.4. The impact of future changes in the cost of a unit of care

The demand-driven expenditure scenario examines the assumption that changes in long-term care provision are mainly demand-driven, and follow the general increase in national income rather than growth in unit labour costs. It is identical to the pure ageing scenario, except that costs are assumed to evolve in line with GDP per capita instead of GDP per worker. The increase in expenditure projected is somewhat smaller compared to the pure ageing scenario where unit costs evolve in line with GDP per worker, this reflects the different patterns in the evolution of GDP per capita and GDP per worker, but the differences are very small.

4.5.5. Fast/slow growth in unit cost scenario

This sensitivity test measures the impact of an external shock to the long-term care system increasing or reducing by 1% per year the underlying rate of growth in unit costs. The only difference with the pure demographic scenario concerns the evolution of unit costs, which are not assumed to evolve in line with GDP per worker. Instead, they are assumed to grow by one percentage point above/below GDP per worker growth rate for the first ten years of the projection exercise (2008-2017) and thereafter (between 2018 and 2060) according to the GDP per worker growth rate. This implies a proportional increase in total long-term care expenditure of approximately 10% with respect to the baseline.

Under the assumption of a high growth in unit costs, expenditure would increase by 1.5 p.p. for the EU, compared to 1 p.p. under the assumption of a slow growth in unit costs. The impact of changes in the unit cost assumption is stronger in EU15 than in EU10 Member States, Bulgaria and Romania, given the higher level of total expenditure in the baseline.

Table 38 - Demand-driven expenditure scenario – public expenditure on long-term care, % of GDP

	Per capita			Diff. to pure demographic Increase 2007-2060
	Level	Increase 2007-2060	Level	
	% points of GDP		2060	
	2007	%	2060	
BE	1.5	1.3	90	2.8
BG	0.2	0.2	88	0.3
CZ	0.2	0.4	147	0.6
DK	1.7	1.4	82	3.2
DE	0.9	1.3	141	2.2
EE	0.1	0.1	102	0.1
IE	0.8	1.1	135	2.0
EL	1.4	2.0	139	3.4
ES	0.5	0.8	150	1.3
FR	1.4	0.7	51	2.1
IT	1.7	1.2	71	2.8
CY	0.0	0.0	82	0.0
LV	0.4	0.4	96	0.7
LT	0.5	0.4	85	0.9
LU	1.4	2.2	163	3.6
HU	0.3	0.3	114	0.6
MT	1.0	1.5	155	2.5
NL	3.4	4.2	124	7.6
AT	1.3	1.1	86	2.3
PL	0.4	0.5	138	0.9
PT	0.1	0.1	132	0.2
RO	0.0	0.0	157	0.0
SI	1.1	1.2	111	2.3
SK	0.2	0.3	150	0.5
FI	1.8	2.3	128	4.1
SE	3.5	2.0	58	5.5
UK	0.8	0.4	54	1.3
NO	2.2	2.3	107	4.5
EA	1.3	1.2	95	2.5
EU27	1.2	1.0	85	2.3
EU15	1.3	1.1	84	2.4
EU12	0.3	0.4	118	0.7

Source: Commission services, EPC.

Table 39 - Fast/slow growth scenario – public expenditure on long-term care, % of GDP

	Change 2007-60					
	% points of GDP		in %		Diff. to pure demographic	
	Fast growth	Slow growth	Fast growth	Slow growth	Fast growth	Slow growth
BE	1.9	1.3	127	86	0.3	-0.3
BG	0.3	0.2	137	95	0.0	0.0
CZ	0.5	0.4	224	166	0.1	-0.1
DK	2.1	1.4	118	79	0.4	-0.3
DE	1.8	1.3	193	140	0.3	-0.2
EE	0.1	0.1	157	112	0.0	0.0
IE	1.6	1.2	193	142	0.2	-0.2
EL	2.8	2.1	200	147	0.4	-0.4
ES	1.0	0.8	198	156	0.1	-0.1
FR	1.1	0.7	81	48	0.2	-0.2
IT	1.7	1.1	105	68	0.3	-0.3
CY	0.0	0.0	123	83	0.0	0.0
LV	0.6	0.4	166	118	0.1	-0.1
LT	0.7	0.5	148	103	0.1	-0.1
LU	2.5	1.8	185	134	0.4	-0.3
HU	0.5	0.3	175	126	0.1	-0.1
MT	2.1	1.6	223	165	0.3	-0.3
NL	6.1	4.4	180	130	0.9	-0.8
AT	1.6	1.1	128	88	0.3	-0.2
PL	0.8	0.6	213	158	0.1	-0.1
PT	0.1	0.1	184	133	0.0	0.0
RO	0.0	0.0	254	191	0.0	0.0
SI	2.1	1.6	193	141	0.3	-0.3
SK	0.5	0.4	227	170	0.1	-0.1
FI	3.1	2.3	175	126	0.5	-0.4
SE	3.2	2.0	91	57	0.6	-0.6
UK	0.7	0.4	83	50	0.1	-0.1
NO	3.4	2.4	160	113	0.5	-0.5
EA	1.8	1.2	137	95	0.3	-0.3
EU27	1.5	1.0	124	84	0.0	-0.5
EU15	1.6	1.1	123	83	0.3	-0.2
EU12	0.6	0.4	188	137	0.0	-0.2

Source: Commission services, EPC.

4.5.6. AWG reference scenario

The “AWG reference scenario” is based on a set of prudent assumptions whose main aim is to facilitate the comparison of budgetary projections across expenditure items, and is similar to the “AWG reference scenario” for health care. It assumes that some half of projected longevity gains up to 2060 would be spent in good health and free of disability and accordingly, age-specific disability rates shift along the age profile by half of the projected increase in life expectancy. Furthermore, the unit cost is linked to GDP per worker in case of LTC services and to GDP per capita in case of cash benefits.

The projected increase in public expenditure lies midway between the results of the “pure ageing” and the “constant disability” scenario, an increase of 1.1 p.p. for the EU27. The effects of the “AWG reference scenario” are stronger for long-term care than for health care, i.e. in terms of mitigating the projected increase in public expenditure. This occurs because unlike the

health care projection exercise, there is no assumption regarding an income elasticity of demand being greater than unity. Also, the age-specific disability rates used in the long-term care projection rise at a much steeper pace compared with the (implicit) assumptions on age-specific morbidity rates used in the health care projection (which uses the age-related expenditure profile as a proxy for morbidity).

Table 40 - AWG reference scenario – Public expenditure on long-term care, % of GDP

	AWG reference scenario			Diff. to pure demographic Increase 2007-2060
	Level	Increase 2007-2060	Level	
	2007	% points of GDP	2060	
BE	1.5	1.4	93	2.9
BG	0.2	0.2	114	0.4
CZ	0.2	0.4	178	0.7
DK	1.7	1.5	86	3.2
DE	0.9	1.4	153	2.4
EE	0.1	0.1	124	0.1
IE	0.8	1.3	156	2.2
EL	1.4	2.2	156	3.6
ES	0.5	0.9	166	1.4
FR	1.4	0.8	58	2.2
IT	1.7	1.3	77	3.0
CY	0.0	0.0	96	0.0
LV	0.4	0.5	136	0.9
LT	0.5	0.6	117	1.1
LU	1.4	2.0	148	3.4
HU	0.3	0.4	144	0.6
MT	1.0	1.6	171	2.6
NL	3.4	4.7	140	8.1
AT	1.3	1.2	96	2.5
PL	0.4	0.7	175	1.1
PT	0.1	0.1	151	0.2
RO	0.0	0.0	204	0.0
SI	1.1	1.8	160	2.9
SK	0.2	0.4	186	0.6
FI	1.8	2.6	144	4.4
SE	3.5	2.3	65	5.8
UK	0.8	0.5	60	1.3
NO	2.2	2.7	127	4.9
EA	1.3	1.4	105	2.7
EU27	1.2	1.1	94	2.4
EU15	1.3	1.2	93	2.5
EU12	0.3	0.5	152	0.8

Source: Commission services, EPC.

4.6. CONCLUSIONS

An ageing population will place strong upward pressure on public expenditure on long term care. This is because frailty and disability rises sharply at older ages, especially amongst the very old (aged 80 years and above). Increasing numbers of elderly are expected to need care, as longevity increases and the numbers and share of elderly expand. However, the projections do not examine only the demographic driver of expenditure, but look also at the impact of changes in the prevalence of disability, as well as possible future policy changes to respond to the needs for long-term care.

In the “*AWG reference scenario*” based on current policy settings, public expenditure on long-term care is projected to increase by 1.1 p.p. for the EU as a whole, between less than 0.1 in Estonia, Cyprus, Portugal and Romania and more than 2 p.p. of GDP in Greece, Luxemburg, the Netherlands, Finland and Sweden between

2007 and 2060. The projected changes in public expenditure are very diverse, reflecting very different approaches to the provision/financing of formal care. Countries with very low projected increases in public expenditure have very low current levels of formal care provision. Projections of age-related expenditure increases are low as their elderly citizens in need of care currently rely on informal care. Given that initial level of expenditure determines to a large extent the projected increase, an increase in relative terms (from about 60% of initial level in France, the UK and Sweden to over 170% in the Czech Republic, Romania, Malta and Slovakia) illustrates somewhat better the degree of the challenge facing European societies.

Public expenditure is very sensitive to trends in the prevalence of disability among the elderly. The “constant disability scenario” illustrates that an improved disability status would lead to a lower number of disabled persons at each specific age in the future who would have some need for care. This would moderate the future increase in expenditure due to ageing populations, and the projected increase in expenditure would be 0.2 p.p. lower for the EU as a whole. However, the available evidence indicates that the ageing of the population and the extended longevity of people can be expected to lead to increasing numbers of elderly with severe disability and in need of long-term care, so it would not be prudent for policymakers to anticipate strong moderations in future long-term care expenditure on account of possible reductions in future disability rates.

The projections show that, with an ageing population, the number of elderly people with disability who rely on informal care only would nearly double in the EU27, and increase by more than 120% in 7 EU Member States: the Czech Republic, Ireland, Cyprus, Luxemburg, Poland, Romania and Slovakia. Under no policy change, a growing gap may occur between the number of elderly citizens with disability who are in need of care and the actual supply of formal care services. On top of an ageing population, this gap could further grow as changes in family structure and the growing participation of women in the labour market may constrain the future supply of informal care provision within households and families.

For countries with less developed formal care systems today, the headline projected increase in

public expenditure on long-term care could only partially capture the pressure on public finances, as pressure for future policy changes in favour of more formal care provision will emerge and be difficult to resist. Additional scenarios have been prepared to assess the impact of possible future policy changes, e.g. assuming an increase in the provision of more formal care services to the dependent elderly.

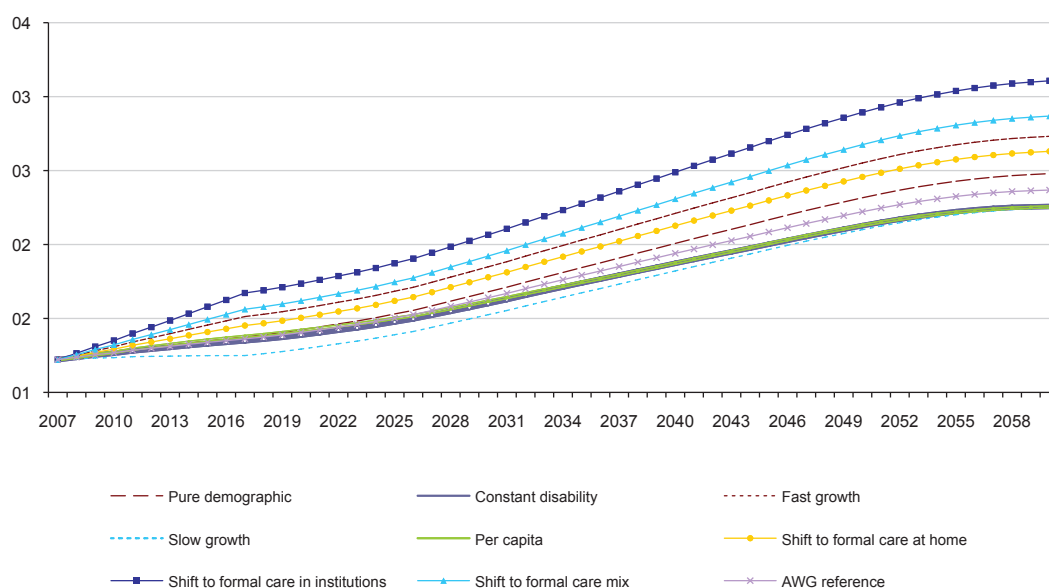
The unit cost of formal care in an institution is relatively higher than the cost of a unit of care provided in the home of the beneficiary (on average people in institutions have higher degrees of disability and are normally provided with a full set of services ranging from accommodation and food to medical care, while care at home is, in most cases, limited to a necessary selection of services), which translates into higher increases in long-term care expenditure projected when the additional long-

term care services are provided in institutions rather than at home.

Assuming an increase in the provision of formal care, public expenditure would increase by 2 p.p. between 2007 and 2060 in the EU15 if the population newly entitled to formal care services were placed in an institution, by 1.5 p.p. if the care services were delivered in their homes and by 1.7 p.p. if half went to institutional care and half received long-term care services in their homes. For the EU12, smaller changes in expenditure are projected, of about 0.7 p.p.

Improvements in the health status that may reduce disability among the elderly or policy measures which favour provision of formal care at home rather than in institutions, whenever possible, can contribute to moderating the expected future increase in public expenditure on long-term care.

Graph 74 – Projected expenditure according to the different scenarios, EU27, % of GDP



Source: Commission services, EPC.

5. EDUCATION

5.1. INTRODUCTION

Public expenditure on education is broadly related to demographic developments, as people in the young age are potential recipients of publicly funded education. However, many other factors have also a relevant impact on public expenditure on education. The level of state involvement in the educational sector, the structure of the education system, the length of obligatory education, admission criteria, evolution in wages, the level of investment in human and physical capital, the average size of classes and most other factors that are either part of a long-term education strategy or ad-hoc government decisions drive the quality and the quantity of the public provision of education.

The main aim of the present exercise is to assess the impact on public finances stemming from the demographic transition in Europe; thus, projections on future spending on education are limited to the evolution of demographic and labour market developments, under the assumption of “no policy changes”, and abstracting from the distinctive characteristics of each national system. Obviously, such an exercise has a purely informative character and does not pretend to illustrate the complexity of the Member States’ education systems and policy challenges facing each of them.

In the light of the above considerations, the baseline scenario to assess the impact of demographic changes on education expenditure takes into account only the demographic evolution underlying the changes in the number of people being recipients of publicly funded provision.

Two sensitivity tests are also presented – one related to a quality improvement and the other aimed at testing the impact of higher compensation in the education sector – in order to illustrate the budgetary impact of a stylised change in two aspects of education policy, namely the reduction in the average size of classes and growth in wages and salaries faster than labour productivity.

Furthermore, the Commission has recently released a Communication on “*An Updated*

Strategic Framework for European Cooperation in Education and Training”⁸³ presenting, inter alia, a set of policy objectives. An attempt to measure the budgetary costs of achieving two of these quantifiable targets, higher tertiary education attainment and lower number of early school leavers, has been carried out (henceforth referred to as the “Lisbon strategy scenario”).

5.2. GENERAL CHARACTERISTICS OF THE NATIONAL EDUCATION SYSTEMS

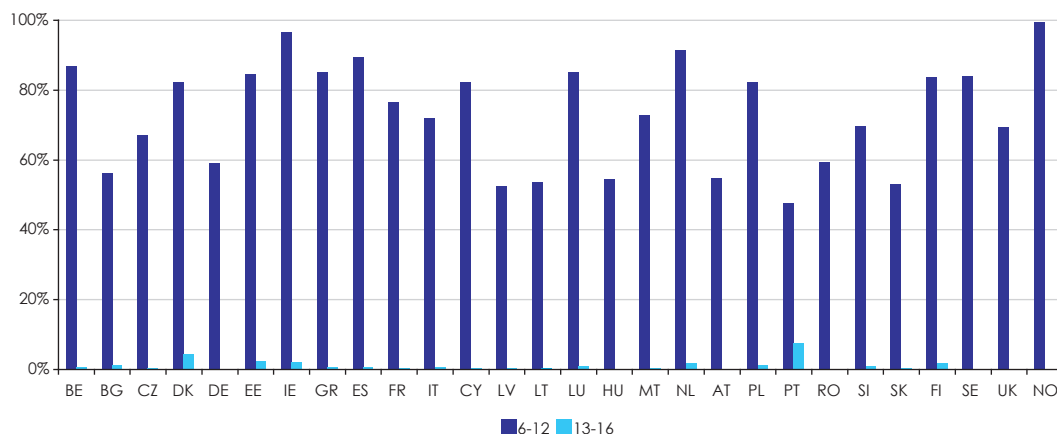
As mentioned above, the methodology used to project future education expenditure is based on a simplified model that abstracts from the distinctive characteristics of each individual Member States’ education systems. The methodology, nevertheless, allows for proper consideration of the basic features of the education systems, and in particular of those concerning enrolment and financial aspects.

5.2.1. Enrolment rates in the EU

The institutional structure of the education system varies considerably across Member States. Although the border between compulsory and non-compulsory education is generally similar across countries (compulsory education starting at the age of 5 to 7 and finishing at the age of 13 to 16), the education path a young person can follow is different in each country. This poses problems when measuring the actual enrolment rate across different levels of education given the cross-country inconsistency of the “statutory age” at which a person is attending a given level of education with the actual distribution of students across the levels of education. The phenomenon is clearly visible in Graph 75 to Graph 78, which present enrolment rate of some selected age cohorts at each level of education.

⁸³ COM(2008) 865, 16 December 2008.

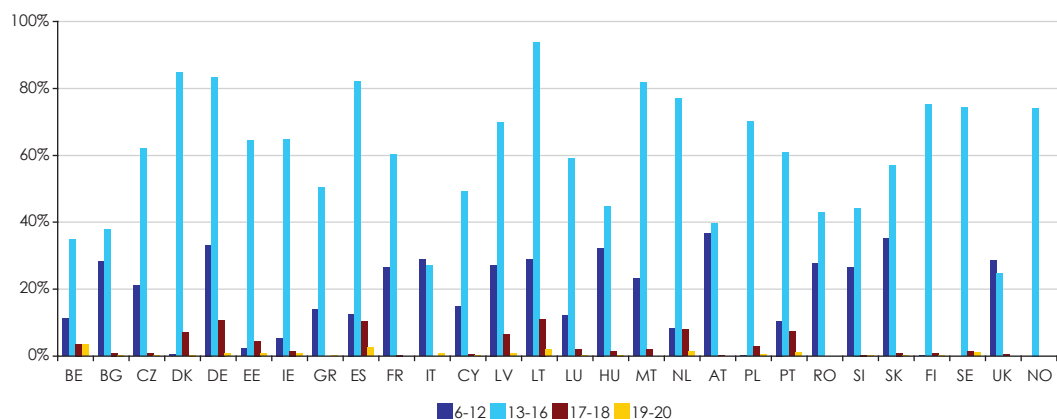
Graph 75 – Enrolment rates, % of population of a given age cohort in primary education (ISCED 1)



Source: Commission services, EPC.

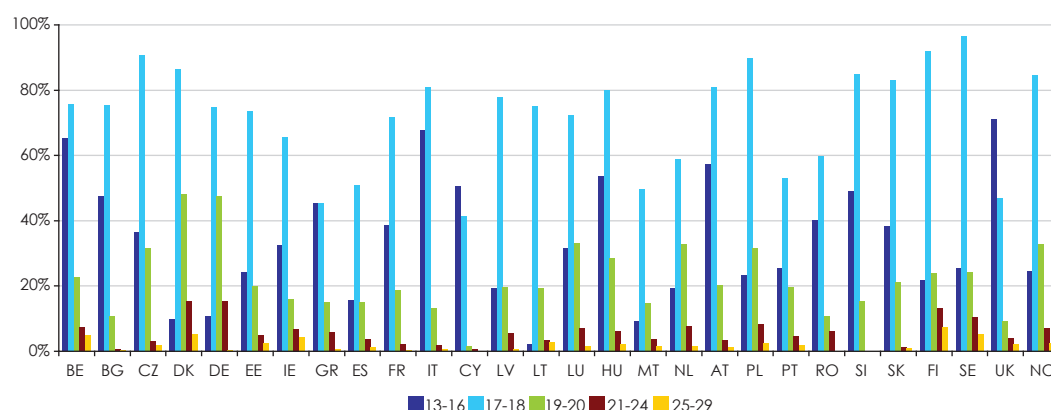
* For some countries, enrolment in ISCED 1 starts at the age of 5 but it's not captured in the above graph.

Graph 76 – Enrolment rates, % of population of a given age cohort in lower secondary education (ISCED 2)



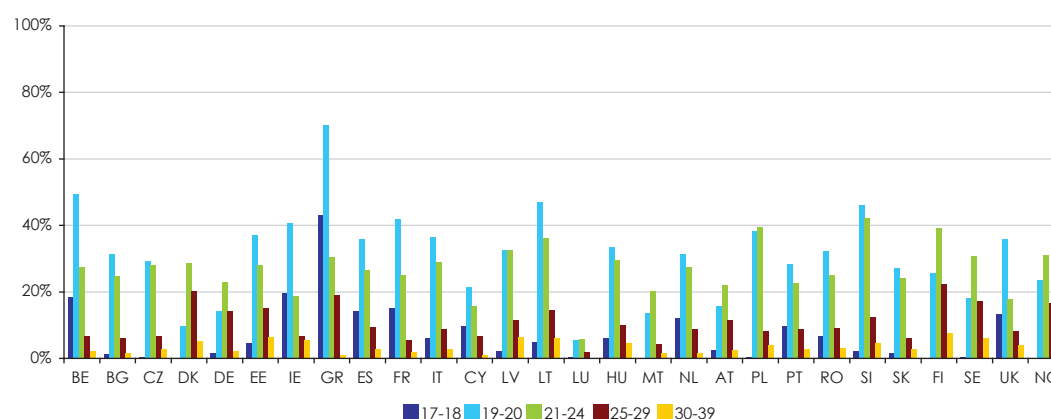
Source: Commission services, EPC.

Graph 77 – Enrolment rates, percentage of population of a given age cohort in upper secondary education (ISCED 3 and 4)



Source: Commission services, EPC.

Graph 78 – Enrolment rates (percentage of population of a given age cohort) in tertiary education (ISCED 5 and 6)



Source: Commission services, EPC.

5.2.2. Teacher/students ratio

The number of students assigned to one teacher (or, in other words, the average class size) is the broadest and most general quantitative measure of investment in the quality of education, although a number of other, mainly qualitative, factors stand behind the success of educational process.

As seen in the Graph 79 below, the ratio teacher/students varies significantly both by level of education and across countries. In most countries, the size of class is largest in tertiary education, which can be easily explained by the teaching methods, relying much more than in the lower levels on individual research and library work.

The size of primary education classes is on average slightly larger than that of secondary (both lower and upper).

When comparing individual countries, one can see a wide variety, due undoubtedly to the specific organisational features of each education system. Moreover, on average, EU15 countries have slightly less students per teacher than EU12 countries, which is probably due to the lower financial resources devoted to the sector in newly acceded Member States.

5.2.3. Staff compensation

Wages and salaries of the staff employed in the education system vary significantly across

countries (Graph 80 below). The obvious reason for such diversity is a very broad scope of the measure which includes the compensation of all types of staff, both teaching (professors, assistants) and non-teaching. The overall measure depends on the relative number of teaching and non-teaching staff employed in the educational sector and the wage gap between different types of jobs. The general finding is that wages are on average highest in the tertiary level of education, which is probably due to the fact that teaching staff is generally better qualified. Somewhat less paid are the teachers in primary education, which is probably due to specific pedagogical skills required to teach young children, while the lowest-paid levels seem to be lower – and upper secondary education. Moreover, the available data suggests that the staff compensation is slightly higher in the EU12 countries (non-weighted average) than in the EU15 for all education levels.

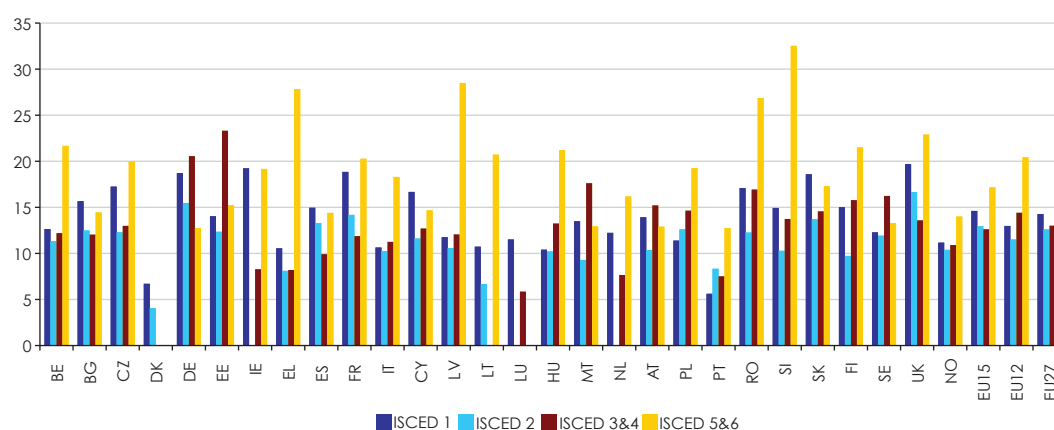
Three countries (Romania, Greece, Slovenia) do not report data on lower secondary education,

which in their systems are classified as part of primary education. In Belgium lower secondary education (ISCED 2) is reported as part of upper secondary education (ISCED 3-4). The same happens in Spain where financial data for ISCED 2 and 3-4 are combined. Luxembourg does not have on its territory any tertiary education entity (all tertiary students originating from this country are enrolled abroad), thus no public expenditure on this level of education is officially reported.

5.2.4. Total expenditure on education

Graph 81 below presents total public spending on education in 2007 decomposed into four levels of education. Total public expenditure ranges between 2.8 (Romania) and 7.9 (Norway) % of GDP. Contribution of each level to the total expenditure varies across countries although it seems that the highest spenders in general are those countries which invest most heavily in tertiary education. The differences are however not pronounced enough to draw any general conclusions.

Graph 79 – Students/Teacher ratio in different levels of education

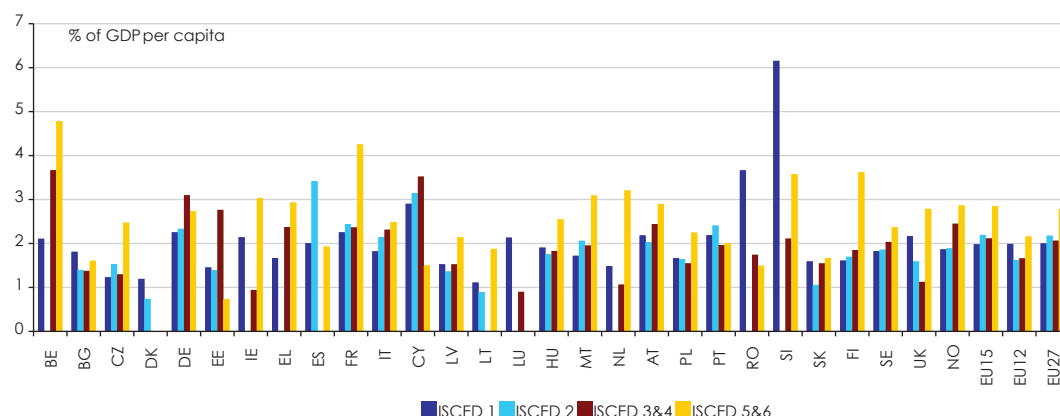


Source: Commission services, EPC.

Note: The data for ISCED 3&4 in Germany does not take into account the Dual System, a special form of apprenticeship which comprises education and training both at vocational school and in an enterprise (as students-teacher ratios are based on data on full-time equivalents, students in the Dual System are only taken into account by a factor of 0.4 relating to the proportion of school-based component (Berufsschulen)).

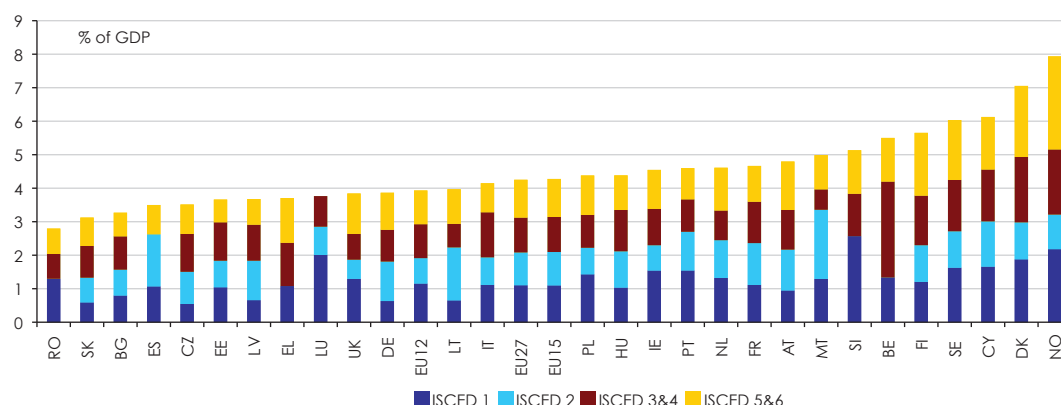
EU15, EU12 and EU27 calculated as unweighted averages.

Graph 80 – Average compensation per member of staff, different educational levels, % of GDP per capita



Source: Commission services, EPC.

Graph 81 – Structure of public education expenditure in 2007 (% of GDP)



Source: Commission services, EPC.

5.3. METHODOLOGY AND RESULTS – BASELINE SCENARIO

5.3.1. Short overview of the methodology

The methodology to project future public expenditure on education is a simple simulation model, whereby the total expenditure on education is the sum of three main components: spending on staff compensation (gross wages and salaries of teaching and non-teaching staff), other costs (capital investment plus current expenditure) and direct or indirect transfers to students and their households (scholarships and public loans, public subsidies for educational activities to private institutions or non-profit

organisations).⁸⁴ Spending on staff compensation is calculated by multiplying the unit compensation (wages and salaries, growing over time in line with labour productivity) by the number of staff, which, in turn evolves in line with the number of students (assuming constant teacher/students ratio). The number of students, which is also a driver for two other components of total costs, is calculated by matching the demographic and labour market projections with the projected enrolment rate. The available data allows performing the same calculations for each education level. As can be concluded from this short overview, the crucial element of the

⁸⁴ For a detailed presentation of the methodology used, see: «The 2009 Ageing Report: Underlying Assumptions and Projection Methodologies for the EU-27 Member States (2007-2060)», European Economy, No. 7/2008, European Commission, Brussels.

projection exercise is the number of students, which is the result of the interaction between demographic trends and evolution in the enrolment rate.

5.3.2. Projection results

The baseline scenario illustrates the pure impact of demographic changes on total education expenditure in the EU Member States and as such it does not take into account any policy changes in the public provision on education. It follows a number of general assumptions on the future evolution of costs which have been considered to be the most plausible developments of underlying variables by the AWG. The way to calculate the number of students differs according to the level of education. For the compulsory education levels (which are, by convention, primary and lower secondary education, ISCED1 and ISCED2⁸⁵), enrolment rate is projected to reach 100% over the first decade of the projection period. For the non-compulsory levels (thus, by convention, upper secondary and tertiary education, ISCED 3 and 4 and ISCED 5 and 6⁸⁶), developments in enrolment rate are assumed to depend also on developments in labour market situation. Indeed, enrolment rate is calculated as the complement to the participation rate, taking into account the share of working students and

those who neither work nor study.⁸⁷ The number of teachers and non-teaching staff is assumed to follow the same path as the number of students, so that the student-to-teacher ratio remains constant over the whole projection period. Wages of staff are projected to evolve in line with labour productivity in the whole economy, and the other costs (current expenditure plus capital investment) are assumed to remain constant as a share in total costs, thus automatically adjusting to the changes in wages and salaries.

Due to the gradual decrease in the share of the young cohorts in the overall population, the ongoing demographic change is expected to have a decreasing impact on the public spending on education. The results of the baseline scenario, aimed at presenting the impact of demographic evolution with the assumption of no changes in the education policy, are presented in Table 41 below.⁸⁸ The total public expenditure falls in all but four countries (Slovenia, Spain, Denmark and Norway) and the average decrease is of 0.2% of GDP. However, the impact varies considerably across individual countries both in absolute (from a decline of 1.2% of GDP in Cyprus and Poland to an increase of 0.4% of GDP in Slovenia) and in relative terms (from a decline of almost 30% of initial level in Poland and Slovakia to an increase of 9% in Slovenia). An interesting observation is also the difference in the demographic impact between the old and the new Member States of the EU. While the EU15 countries can expect a moderate decrease of 0.14% of GDP, the newly acceded Member States see their education expenditure falling by 0.71% of GDP as a result of a faster change in the population structure, a non-negligible factor to be taken into account when considering necessary investment in the education sector to increase its quality.

⁸⁵ Basic (primary plus lower secondary) education. Level 1 and 2 of ISCED classification. Level 1 is the start of compulsory education (the first stage of basic education) with a legal age of entry usually not lower than five years old and higher than seven years old. This level covers in principle six years of full-time schooling. Level 2 is lower secondary school (or a second stage of basic education). The end of this stage is usually after nine years of schooling after the beginning of primary education and often coincides with the end of the compulsory education. It includes general education as well as pre-vocational or pre-technical education and vocational and technical education. See Unesco, 1997.

⁸⁶ Upper-secondary education. Level 3 and 4 of ISCED classification. Level 3 is upper-secondary school and the entry is typically 15 or 16 year old. It also includes vocational and technical educational. Level 4 is post-secondary non-tertiary education and these programmes are typically designed to prepare students to the following level (university). Tertiary education. Level 5 and 6 of ISCED classification. Level 5 covers at least two years of education and the minimal access requirements is the completion of level 3 and 4. However a Master course that implies up to 6 years of tertiary education is included in level 5. Level 6 includes tertiary programmes which lead to the award of an advance research qualification. See Unesco, 1997.

⁸⁷ The calculation takes into account people who study and work simultaneously and those who follow neither of the two activities. Their share in the total number of students and in total population respectively is calculated in the base year, and kept constant over the whole projection period.

⁸⁸ The results of all scenarios for Italy take into account a recent education system reform which envisages a gradual increase of the students/teachers ratio by 1 unit over the 3-year period 2009-2011.

Table 41 - Results of the baseline scenario (public education expenditure as % of GDP)

	Level	change 2007-2060		Level
	2007	% points of GDP	%	2060
BE	5.5	0.0	-1	5.5
BG	3.3	-0.2	-8	3.0
CZ	3.5	-0.3	-9	3.2
DK	7.1	0.2	3	7.2
DE	3.9	-0.4	-10	3.5
EE	3.7	-0.2	-5	3.5
IE	4.5	-0.3	-7	4.2
EL	3.7	0.0	-1	3.7
ES	3.5	0.1	4	3.6
FR	4.7	0.0	-1	4.6
IT	4.1	-0.3	-8	3.8
CY	6.1	-1.2	-19	5.0
LV	3.7	-0.3	-9	3.3
LT	4.0	-0.9	-22	3.1
LU	3.8	-0.5	-13	3.3
HU	4.4	-0.4	-10	4.0
MT	5.0	-1.0	-20	4.0
NL	4.6	-0.2	-4	4.4
AT	4.8	-0.5	-10	4.3
PL	4.4	-1.2	-28	3.2
PT	4.6	-0.3	-7	4.3
RO	2.8	-0.5	-17	2.3
SI	5.1	0.4	9	5.6
SK	3.1	-0.8	-26	2.3
FI	5.7	-0.3	-5	5.4
SE	6.0	-0.3	-5	5.8
UK	3.8	-0.1	-2	3.8
NO	7.9	0.1	1	8.1
EU27	4.3	-0.2	-4	4.1
EU15	4.3	-0.1	-3	4.1
EU12	3.9	-0.7	-18	3.2
EA	4.2	-0.2	-4	4.1

Source: Commission services, EPC.

The evolution in spending on respective levels of education is quite similar across Member States. Comparing the contribution of each education level to total change in spending between 2007 and 2060 (see Graph 82 below), it seems a rule that secondary level of education (ISCED 2, 3 and 4) contribute most to the fall in spending (the only exception being Spain and France), followed by tertiary level (only the countries where total spending is projected to increase: Denmark, Norway plus the Netherlands will see their expenditure on tertiary education grow). At the same time, primary level is the only one having an opposite, increasing effect (it is the case in almost half of the countries: Slovenia, Estonia, Sweden, Latvia, Spain, Bulgaria, Greece, the Czech Republic, the UK, Belgium, Hungary, Finland, Austria) or at least pushing spending down to a significantly lower degree.

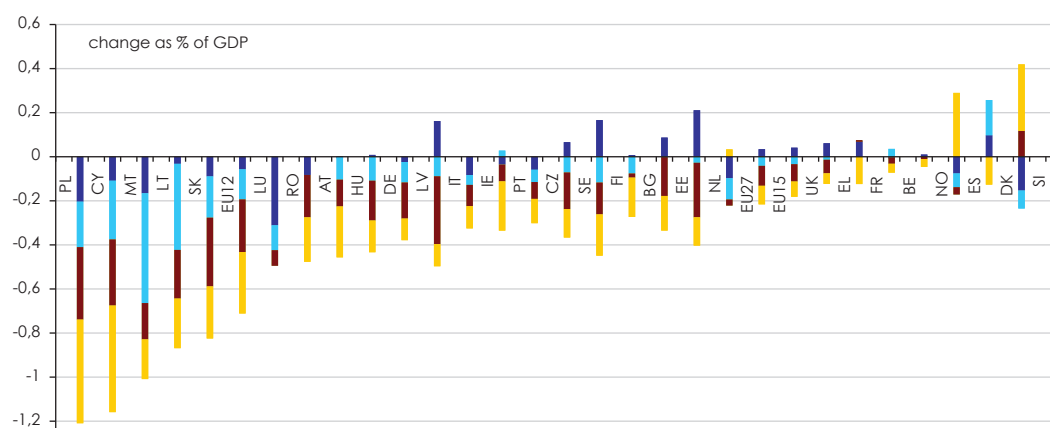
5.3.3. Decomposition of results

The forces behind the changes in education expenditure can be better explained by decomposing the total change into a series of factors. The ratio of total education spending to GDP can be indeed decomposed into four elements, according to the following formula:

$$\frac{EDU}{GDP} = \frac{S}{POP_y} * \frac{POP_y}{POP_w} * \frac{POP_w}{N} * \frac{EDUp_s}{GDPpw} \quad [1]$$

where:

Graph 82 – Changes in public spending on respective levels of education 2007-2060 (% of GDP)



Source: Commission services, EPC.

EDU is total expenditure on education,
 S is the number of students,
 POP_y is the young population (aged 5-25),
 POP_w is the working age population (aged 15-64),
 N is total employment,
 EDU_{ps} is expenditure per student,
 GDP_{pw} is GDP per worker.

In this decomposition the first component, $\frac{S}{POP_y}$ represents enrolment in education (share of young population attending studies); the second one, $\frac{POP_y}{POP_w}$ is the ratio of young population to working age population; the third one, $\frac{POP_w}{N}$ is the inverse of employment rate; and the fourth one, $\frac{EDU_{ps}}{GDP_{pw}}$ is the average cost per student as compared to national income per capita.

Table 42 above presents the results of the decomposition as percentage change in each of the elements between 2007 and 2060. It shows wide differences in the impact of various factors across the Member States, not only in terms of size, but also in direction.

Total enrolment is increasing in all but eight countries, but the impact is not strong, given the assumption of constant enrolment rate in primary and lower secondary education. The impact is in fact the effect of the changes in labour market participation in the age cohorts relative to the upper secondary and tertiary education, as well as the unavoidable inconsistency in statutory age cohorts (number of students includes all ages, while the young population covers those aged 5-25).

Demographic trends vary quite considerably across countries. Indeed, the ratio of young (5-25) population to the working age (15-64) population is increasing in 11 countries (the highest increase of 11% is projected for Spain), and declining in 17 countries (the highest decrease of over 19% is expected to take place in Slovakia and Poland).

On the contrary, the impact of employment rate is quite unequivocal. The share of workers in total working age population is projected to be growing in all but one (Norway) country and the

Table 42 – Decomposition of the change in education expenditure according to the baseline scenario (% change in total expenditure to GDP ratio and in each component)

	Enrolment	Young share	Inverse of employment	Relative cost per student	Total change 2007-2060
BE	2%	3%	-6%	1%	-1%
BG	4%	0%	-8%	-3%	-8%
CZ	2%	1%	-10%	-2%	-9%
DK	-1%	4%	-4%	4%	3%
DE	0%	-1%	-10%	1%	-10%
EE	4%	-4%	-3%	-2%	-5%
IE	2%	-3%	-7%	1%	-7%
EL	1%	5%	-6%	-2%	-1%
ES	3%	11%	-11%	3%	4%
FR	0%	4%	-5%	0%	-1%
IT	-1%	5%	-10%	-2%	-8%
CY	4%	-14%	-10%	1%	-19%
LV	6%	-9%	-2%	-4%	-9%
LT	3%	-17%	-5%	-3%	-22%
LU	-2%	2%	0%	-13%	-13%
HU	1%	-4%	-8%	1%	-10%
MT	4%	-15%	-9%	-1%	-20%
NL	-1%	-1%	-4%	2%	-4%
AT	-2%	-1%	-7%	0%	-10%
PL	1%	-19%	-12%	1%	-28%
PT	3%	-3%	-9%	3%	-7%
RO	4%	-15%	-3%	-3%	-17%
SI	4%	6%	-3%	1%	9%
SK	6%	-19%	-14%	0%	-26%
FI	-1%	4%	-7%	-1%	-5%
SE	-4%	5%	-7%	1%	-5%
UK	3%	0%	-7%	3%	-2%
NO	0%	-1%	2%	1%	1%

Enrolment is defined as total number of students over the population aged 5-25 years.
The young share is defined as the population aged 5-25 years over population aged 15-64.
The inverse of employment is defined as the population aged 15-64 over employment.
The cost level is defined as the expenditure per student over GDP per worker.
Source: Commission services, EPC.

size of the change reaches over 10% in a few of countries (Slovakia, Poland, Spain, Germany, Czech Republic). Higher employment rates result in a higher GDP and therefore reduced education expenditure as a share of it.

The last component, the ratio between education spending per student and GDP per worker has the weakest impact on the total expenditure, varying from -4% in Latvia to +3.9% in Denmark (the only outlier being Luxembourg with almost 13% decrease). Given that according to the model assumptions, both personal expenditure (wages and salaries, which account for the highest share of total expenditure) and capital investment in the education sector evolve over time in line with the number of students and labour productivity growth, the impact of this component should not differ considerably from zero. However, since the third component of education spending – transfers to households – is not assumed to follow GDP per worker growth and the cost level differs between different education levels and their relative share change over time, the average spending per student does not evolve exactly in line with labour productivity changes.

The last column shows the total change in education expenditure as a share of GDP over the period 2007-2060. It should be borne in mind that each column presents a percentage change in respective components, thus they multiply, rather than add up to the total change presented in the last column.

5.4. SENSITIVITY TESTS: TWO POLICY-CHANGE SCENARIOS

5.4.1. Impact of a higher teacher/students ratio

As the baseline scenario does not allow for any changes in the provision of education due to factors different than demographic changes, one needs additional calculations to illustrate the budgetary impact of policy changes aiming at improving the quality of the education systems, such as for example a decrease in the size of the classes. Such development may be driven by the decision to increase the quality of education, but also – at least in the short term and for some countries – due to the systemic inertia which does not allow the number of staff to adjust immediately to the changing number of students, in line with demographic and social changes.

Given that the number of staff is highly sensitive to the changes in the public policy towards education sector, no reliable data exists on the trends in this indicator over long enough time periods. Therefore, instead of relying on past trends to be extrapolated, the budgetary impact of a stylised increase of 20% in the teacher/students ratio (e.g. a reduction of the average size of classes from 30 to 24 students) spread linearly over the first 15 years of the projection period (2008-2022) is being assessed. All other elements of the projection methodology remain the same as in the baseline scenario.

As expected, an increase by 20% in the teacher/students ratio is projected to push up spending on staff compensation by the same 20%. The impact in % of GDP is then driven by the share of spending on staff compensation in total education expenditure. Instead of an almost universal decrease in public spending observed in the baseline scenario, the scenario on higher teacher/students ratio results in somewhat different outcome across Member States. Compared with the results of the baseline scenario, eight countries (Poland, Slovakia, Cyprus, Malta, Lithuania, Italy, Romania and Luxembourg) – instead of 21 – continue to see their expenditure falling over time. The results vary from -0.8% of GDP decrease (Poland) to +1.1% of GDP increase (Slovenia). In relative terms, the variation ranges from -19% (Poland and Slovakia) to +22% of the initial level (Slovenia). On average, expenditure is expected to rise by 0.30% in the EU27.

The specific additional budgetary impact of the policy measures can be assessed by comparing these results with the baseline scenario (Graph 83). The gap between this scenario and the baseline one is significant (although obviously proportional to the initial expenditure level illustrated by the baseline scenario⁸⁹), suggesting a strong impact of a fairly minor change in the education provision policy over relatively short period of time. The assumed increase (or the lower reduction) in the number of teachers results in an average (EU27) extra budgetary costs of 0.5 p.p. of GDP, while for individual countries this figure varies between 0.12 p.p. (Italy) and over 0.8 p.p. of GDP (Denmark, Norway).

⁸⁹ The gap is higher for the countries with high total education expenditure than for those which spend on education lower % of their GDP.

5.4.2. Impact of a higher compensation in the education sector

This sensitivity test is supposed to assess the budgetary impact of an increase in the relative wages and salaries of the staff employed in the education sector compared to the overall economy. Such development can be considered as one of the possible outcomes of an attempt to improve the quality of the education system by attracting most qualified people. It may also serve to illustrate the consequences of wage claims in the public education sector that goes beyond trends in the rest of the economy. Given that the analysis of past trends in wages in the education sector as compared to the overall economy does not provide a clear pattern to be reflected in all or most Member States of the EU, extrapolation of past trends does not seem to be a feasible solution. Instead, this sensitivity test analyses a stylised pattern of wages increasing 20% faster than labour productivity (which is assumed to drive wages in the overall economy) over the first 15 years of the projection period (2008-2022). All other elements of the projection methodology remain the same as in the baseline scenario.

The impact of a stronger increase in wages and salaries appears quite limited. Indeed, the results of the discussed scenario do not differ considerably from the baseline scenario, the extra budgetary impact varying from less than 0.1% of GDP (Italy, Austria, the Netherlands, Germany, Sweden, Finland, France) to almost

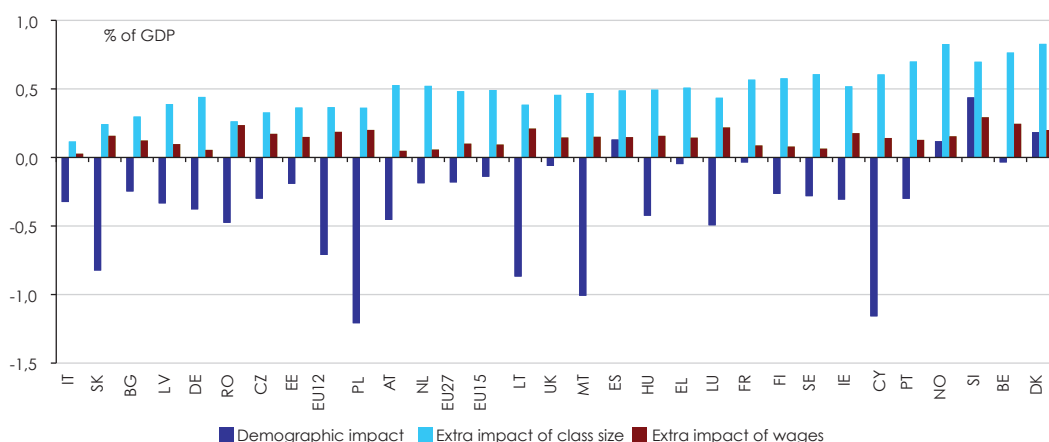
0.3% (Slovenia, Belgium, Romania) and amounting to 0.10% on average (see Graph 83 above). Consequently, the scenario projects an absolute decrease in public spending on education over the period 2007-2060 in 20 and an increase in 8 countries, the strongest fall being observed in Cyprus and Poland (over 1.0% of GDP) and the strongest increase in Slovenia (over 0.7% of GDP) with the average change (EU27) being a decrease of 0.08% of GDP.

Graph 84 below presents at EU level, the evolution of education spending in the baseline scenario and in the two sensitivity test scenarios that push up expenditures. Different demographic trends are clearly visible in the results of EU15 and EU12. New Member States, already now spending significantly over 0.3% of GDP less than the EU15 countries are additionally expected to see their expenditure fall more sharply. As a result of diverging trends, the gap between two groups of countries is projected to almost triple.

5.5. INCREASING TERTIARY LEVEL ATTAINMENT: “LISBON TARGET SCENARIO”

Contrary to the two sensitivity scenarios aimed at measuring the impact of a specific unitary policy shock, the main objective of the “Lisbon target scenario” is to measure the budgetary effect of the changes in enrolment rates necessary to reach the policy objectives set in the Commission’s Communication on *“An updated strategic framework for European cooperation*

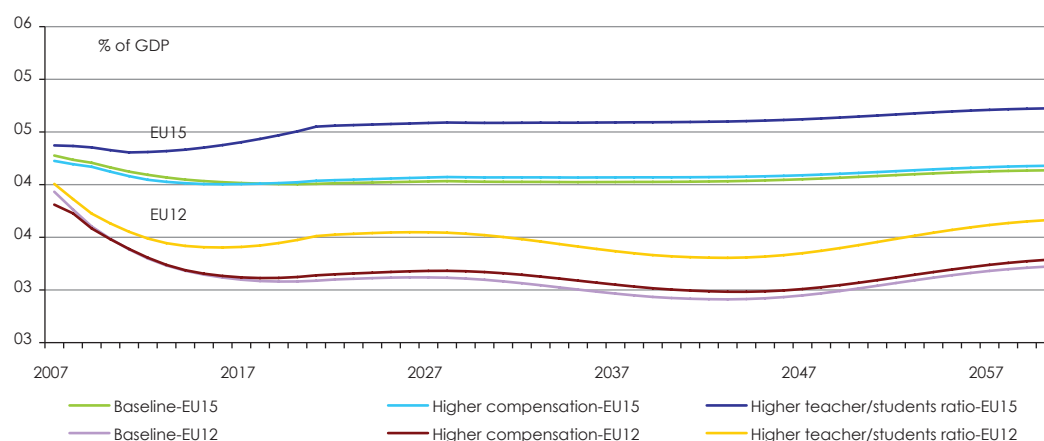
Graph 83 – Impact of the factors illustrated by the alternative scenarios, 2007-60 (in % points)



Source: Commission services, EPC.

Note: Countries are ordered according to the size of combined effect of two policy-driven changes.

Graph 84 – Evolution of education spending in EU15 and EU12 according to three alternative scenarios (in % of GDP)



Source: Commission services, EPC.

in education and training” released in December 2008⁹⁰. The document proposes a series of indicators and benchmarks to be attained by the national education systems, being either the updated version of the indicators developed in the context of the previous “Education and Training 2010” work programme, or newly established indicators.

The budgetary implications of achieving most of those benchmarks cannot be measured in the framework of the present budgetary projections exercise because of either their qualitative character or the difficulty of incorporating them in the stylised education projection model. Therefore, given the relatively basic nature of the education model, only two benchmarks can be incorporated into the projection framework. The first one is a target level for tertiary level attainment: “the share of 30-34 year olds with high educational attainment should be at least 45%”, while the second one deals with early school leavers and states that “not more than 10% of the population aged 18-24 should have only lower-secondary education and not be in education and training”. According to the Commission’s Communication, both targets should be achieved by all Member States by 2020.

5.5.1. Tertiary level attainment

The target established in the Commission’s Communication concerns the average education attainment in the overall population. It states that by 2020 at least 45% of adult population (age 30-34)⁹¹ should have obtained high education diploma. Given that the current attainment rate varies between 13 and 46%⁹² (although it exceeds the target level in only two countries: Finland and Cyprus), most countries need a higher number of graduates to complete tertiary education over the next decade. An increase in the number of graduates may be reached in two ways: through an increase in graduation rate⁹³ (or, in other words, a reduction in drop-out rate) or through an increase in enrolment rate leading to a higher overall number of students. Although it is very difficult to predict future changes in the

⁹¹ The age cohort 30-34 year olds has been chosen because this cohort is considered old enough for having completed tertiary education in the case of all countries while, at the same time, it is considered a good framework for measuring the impact of recent and planned policy initiatives in relation to higher education.

⁹² The current attainment rates used in the exercise are taken from Labour Force Survey (2008) and as such may differ from the national estimates.

⁹³ Graduation rate is the ratio of number of graduates from a given level of education to the number of students of this level over a given period of time. Although its increase is generally associated with an improvement in education system efficiency, it does not necessary have to be a sign of positive developments. In fact, it can be a result of an improvement in the quality of education leading to a higher number of students meeting the criteria for obtaining a university degree, but also of a loosening of those criteria leading to more students obtaining diplomas without improving their knowledge and skills.

⁹⁰ COM(2008) 865, 16 December 2008.

quality of education and evolution of criteria for graduation, a simple methodology has been used allowing to project the budgetary impact of an increase in the number of graduates driven by parallel (and equally significant) improvement in the efficiency of education spending and increase in the number of students.

The methodology projects the future graduation rates based on the values observed in the recent past. Using constant graduation rates, enrolment rates and demographic projections, the number of tertiary education graduates and projected attainment rate over the whole projection period is obtained under a *ceteris paribus* condition. This value is then compared to the target level (45% for the age group 30-34). If it is lower, the process of convergence towards the target requires an increase in the number of graduates. This increase is supposed to result from both an increase in enrolment rates (thus the number of students) and from an (additional) increase in graduation rates (conventionally driven by an improvement in education system efficiency). Given that no indication is available on the relative importance of the two effects, an equal contribution has been assumed. In practical terms, the extra amount of graduates needed to achieve the target has been divided equally into two groups: (1) the current students who otherwise (without policy change) would not have graduated, but will do so because of the improvement in the education system efficiency and (2) the new graduates coming from an extra contingent of students enrolled. The former serves as a base for calculating “adjusted” graduation rates, while the latter is used to recalculate enrolment rates over the whole convergence period (2007-2020). Using new graduation and enrolment rates, the “adjusted” number of students is then used to calculate additional public expenditure necessary to reach the target levels of attainment.

Given that the growth in enrolment in tertiary education implies also a proportional increase in the earlier levels of education (the “extra” students entering the universities must have been in the upper-secondary education), an extra effect on upper secondary graduation and enrolment rates is added to the already calculated impact of tertiary education⁹⁴.

⁹⁴ This effect is estimated by using a coefficient (similar in the way it is calculated, although proportionally lower than the one used to adjust tertiary enrolment) also for upper secondary education.

5.5.2. Early school leavers

The second target set up in the Commission’s Communication states that not more than 10% of the population aged 18-24 should have only lower-secondary education and not be in education and training. In practical terms⁹⁵, it can be translated into a requirement that at least 90% of young population in the respective age cohorts should be enrolled in the upper-secondary education. While its impact could be projected separately, already a glimpse at the results of the previous simulation allows concluding that an increase in upper secondary education enrolment due to the process of meeting the tertiary attainment target more than fulfils the 90% enrolment target in all the EU Member States. The two targets are therefore complementary, while the tertiary attainment target is a more ambitious and costly one.

5.5.3. Projection results

Table 43 presents the results of the “Lisbon target scenario” in comparison to the baseline scenario. The scenario has not been run for three countries: Cyprus, Finland and Luxembourg. Cyprus and Finland have been excluded as their current tertiary education attainment rate is already higher than the target set to be reached by 2020. Luxembourg has been excluded because tertiary education institutions do not exist in this country (individuals pursue university education abroad) and it is not possible to estimate public expenditure on this level of education (the same is the case for baseline scenario).

As expected, reaching quite ambitious targets set in the Commission’s Communication may result more costly for the countries whose current attainment rates are relatively low. Overall, the additional increase in education spending, compared to the baseline scenario, ranges from less than 0.02 (Denmark, Lithuania, Spain, Greece) to 0.5 (Austria) % of GDP. Although relatively small in absolute terms, the impact of the analysed policy measure changes considerably the overall picture of education expenditure projections. Out of 24 countries, which could expect an overall reduction in expenditure according to the no-policy change scenario (reflecting pure demographic effects),

⁹⁵ The simplified structure of the model does not allow to project the number of the people in training outside the main education path.

only 17 Member States can still count on savings from education expenditure if the impact of achieving tertiary attainment targets is accounted for. In the EU, an average decrease of 0.2% of GDP in the baseline scenario over the period 2007-2060 is replaced by an almost unchanged spending in education in the “Lisbon target scenario”.

Graph 85 shows the extra spending required to reach the attainment rate target against the initial distance from the target. The dark bars (and left hand side scale) show the extra budgetary impact of meeting the attainment target. The light bars (and right hand side scale) show the gap between the 45% target and the actual attainment rate in 2006. The visible feature is relatively weak correlation between the two variables, due to the obvious fact that the relation between spending and attainment rate is a very indirect one, with a number of other factors (demographic changes, number of students, spending per student) playing an important role as a transmission channel.

When analysing the results of the “Lisbon target scenario”, it should be borne in mind that only half of the expected growth in the number of graduates is assumed to result from an increase in enrolment rate, resulting in direct budgetary costs. The other half is driven by an improvement in the efficiency of education spending. Moreover, cross country effects (significant number of students studying abroad lowering demand for education services at home) and overall migratory effects (migratory outflows of people with tertiary education to other Member States where they become part of the labour force), which can be quite considerable,

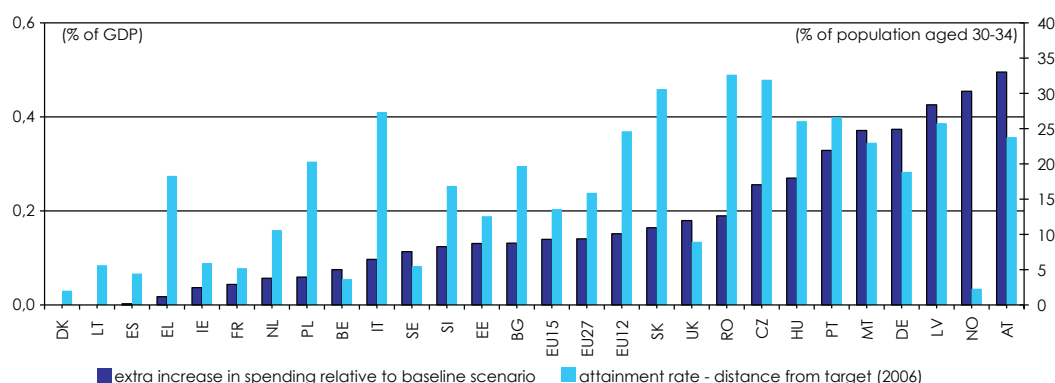
Table 43 - Results of the scenario on increased tertiary attainment rate
(public education expenditure as % of GDP)

	2007	2020	2060	Change 2007-2060	Difference from baseline in 2060
BE	5.6	5.3	5.6	0.04	0.08
BG	3.5	3.2	3.4	-0.12	0.13
CZ	3.8	3.5	3.8	-0.04	0.26
DK	7.1	7.4	7.2	0.18	0.00
DE	4.2	3.9	4.2	-0.01	0.37
EE	3.8	3.5	3.8	-0.06	0.13
IE	4.6	4.5	4.3	-0.27	0.04
EL	3.8	3.4	3.8	-0.03	0.02
ES	3.5	3.5	3.6	0.13	0.00
FR	4.7	4.8	4.7	0.01	0.04
IT	4.1	3.8	3.9	-0.23	0.10
LV	4.0	3.7	4.1	0.09	0.43
LT	4.0	2.8	3.1	-0.87	0.00
HU	4.6	4.2	4.5	-0.16	0.27
MT	5.4	4.8	4.8	-0.64	0.37
NL	4.7	4.5	4.5	-0.13	0.06
AT	5.2	5.1	5.3	0.04	0.50
PL	4.7	3.6	3.5	-1.15	0.06
PT	5.0	5.0	5.0	0.03	0.33
RO	3.1	2.7	2.8	-0.29	0.19
SI	5.2	5.1	5.8	0.56	0.12
SK	3.5	2.7	2.8	-0.66	0.16
SE	6.1	5.7	5.9	-0.17	0.11
UK	4.0	4.1	4.1	0.12	0.18
NO	8.2	8.3	8.8	0.57	0.45
EU27	4.4	4.2	4.4	-0.04	0.14
EU15	4.4	4.3	4.4	0.00	0.14
EU12	4.2	3.5	3.6	-0.56	0.15
EA	4.4	4.2	4.4	0.0	0.13

Source: Commission services, EPC.

especially in the new Member States, are not taken into account while measuring the current attainment rate and the remaining gap from the target. This drawback may in fact lead to an underestimation (in the “outflow countries”) or an overestimation (in the “inflow countries”) of

Graph 85 – Extra increase in spending due to meeting the tertiary attainment rate target as compared to the initial distance from the target



Source: Commission services, EPC.

education expenditures and of the number of people with tertiary education. Finally, no improvement in labour productivity is projected as an effect of increase in tertiary attainment rate (which would probably be the case in the real world), the impact of the policy change being limited to the budgetary sphere.

6. UNEMPLOYMENT BENEFIT EXPENDITURE

Projections on unemployment benefit expenditure were prepared to give a comprehensive assessment of the impact of ageing on public finances and to guarantee consistency with the macroeconomic scenario. The projections assess whether and by how much unemployment benefit expenditure would be affected by future changes in unemployment in Member States, which stem from the macroeconomic and labour market assumptions. The projection methodology was developed in the previous two projection exercises (2003 and 2006).

6.1. MAIN FEATURES OF THE PROJECTION METHODOLOGY

The decomposition of total unemployment benefit expenditure illustrates the drivers of changes in unemployment benefit expenditure in the future (see the annex for details). The only driver of unemployment benefit expenditure is the future unemployment rate, under the assumption that there are no policy changes and replacement rates, duration of benefits, entitlement conditions, eligibility criteria, take-up rates and tax structure remain constant.

Furthermore, as for the pension projections, wages are assumed to grow at the same rate as

labour productivity, so the share of wages in the income distribution remains constant over time. With this methodology, average expenditure per head grows at the same rate as GDP per worker.

The basic approach applied to run projections for unemployment benefit expenditure (as percentage of GDP) is as follows. The starting point is the estimation of average per-capita unemployment insurance expenditure in the base year, which is then combined with the projections of unemployed persons.

6.2. PROJECTIONS OF UNEMPLOYMENT BENEFIT EXPENDITURE

Table 45 shows expenditure on unemployment benefits in the period 2005-2006 and the unemployment rate projection.

The driver of the evolution of unemployment benefit expenditure is the assumption on employment and unemployment. The unemployment rates stabilize after 2020, in line with the agreed assumptions.⁹⁶

In order to reflect changes in the number of unemployed and employed the average unemployment benefit is multiplied with the ratio of unemployed and employed over time.

⁹⁶ The change in the unemployment rate is non-zero for some countries after 2020 because the unemployment rates for the age-group 15-71 is shown here, while the stabilisation of the unemployment rate is assumed to remain unchanged after 2020 for the age-group 15-64, since the NAIRU estimates (used in the medium-term) are based on the latter age-group.

Table 44 - Different kinds of unemployment benefit expenditure, % of GDP, 2006

	EU27	EA	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	NO
Social protection benefits:																														
unemployment (1)+(2)	1.4	1.7	3.4	0.3	0.6	2.0	1.7	0.1	1.3	1.1	2.6	2.0	0.5	1.1	0.4	0.2	1.0	0.7	0.6	1.4	1.6	0.6	1.3	0.4	0.7	0.5	2.2	1.6	0.6	0.4
(1) Cash benefits	1.3	1.6	3.4	0.3	0.5	1.9	1.6	0.1	1.1	0.4	2.2	2.0	0.5	1.1	0.3	0.2	1.0	0.6	0.5	1.4	1.2	0.6	1.3	0.3	0.6	0.5	1.9	1.4	0.5	0.3
Periodic cash benefits	1.1	1.3	3.4	0.2	0.2	1.9	1.3	0.1	0.9	0.3	1.6	1.7	0.5	0.4	0.3	0.2	0.9	0.5	0.5	1.4	1.1	0.6	1.3	0.3	0.5	0.3	1.9	1.4	0.2	0.3
Full unemployment benefits	0.9	1.1	1.8	0.2	0.2	1.0	1.1	0.1	0.8	0.3	1.4	1.4	0.3	0.4	0.3	0.1	0.4	0.3	0.4	1.4	0.7	0.2	1.1	0.3	0.3	0.1	1.4	1.0	0.2	0.3
Partial unemployment	0.0	0.0	0.3	;	;	;	0.0	;	;	0.0	0.0	0.0	0.1	;	;	;	0.0	;	;	0.0	0.0	;	0.0	;	0.0	;	0.0	0.0	0.0	;
Placement services and job search assistance	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	;	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.1
Early retirement benefit for labour market reasons	0.1	0.1	0.4	;	0.0	;	0.0	;	;	0.0	0.0	0.1	0.1	;	;	0.0	0.2	0.1	0.1	0.0	0.1	0.2	0.0	;	0.2	0.2	0.4	0.0	0.0	0.0
Periodic benefit vocational training	0.1	0.1	0.1	0.0	0.0	1.0	0.2	0.0	0.2	0.0	0.0	0.1	0.0	;	;	0.0	0.0	;	0.0	0.0	0.2	0.1	0.1	;	0.0	0.0	0.1	0.4	0.0	;
Other periodic cash benefits	0.0	0.0	0.7	0.0	;	;	0.0	;	;	;	0.1	;	0.0	;	;	;	0.3	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	;	;	0.0	;
Lump sum cash benefits	0.2	0.2	0.0	0.1	0.3	;	0.3	0.0	0.1	0.1	0.6	0.3	0.0	0.7	0.0	;	0.0	0.1	;	0.0	0.1	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.3	;
Lump sum benefit vocational training	0.0	0.0	;	0.0	;	;	0.1	;	0.0	;	;	;	0.0	;	;	;	0.0	;	;	0.0	;	;	0.0	;	;	;	;	;	0.0	;
Lump sum benefit redundancy compensation	0.2	0.1	0.0	0.1	0.2	;	0.0	0.0	0.1	0.0	0.6	0.3	0.0	0.7	;	;	0.0	0.1	;	0.0	;	;	0.0	0.0	;	0.2	0.0	0.0	0.3	;
Other lump sum cash benefits	0.0	0.1	;	0.0	0.2	;	0.2	0.0	;	0.0	0.1	0.0	0.0	0.0	0.0	;	0.0	;	;	0.0	0.1	0.0	0.0	;	0.1	;	;	;	0.0	;
(2) Benefits in kind	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.2	0.7	0.3	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.4	0.0	0.0	0.1	0.1	0.0	0.2	0.3	0.1	0.1
Mobility and resettlement benefits	0.0	0.0	0.0	0.0	;	;	0.1	;	;	0.1	0.0	;	0.0	;	;	;	0.0	;	;	0.0	0.1	0.0	0.0	;	;	0.0	0.0	0.0	0.0	0.0
Vocational training	0.1	0.1	0.0	0.0	0.0	;	0.0	0.0	0.1	0.5	0.3	;	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0
Other benefits in kind	0.0	0.0	;	;	0.0	;	0.0	;	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	;	0.0	0.0	0.1	;	0.0	;	0.0	;	;	0.0	0.0	;

Source: Eurostat, ESSPROS database.

Table 45 - Total unemployment benefit expenditure and unemployment rate projection

	Unemployment benefit expenditure		Unemployment rate projection in %		
	average 2005-06		2007	2060	p.p. change 2007-2060
BE	2.20	13.5	7.5	6.1	-1.4
BG	0.20	1.9	7.0	4.6	-2.3
CZ	0.20	2.5	5.3	4.3	-1.0
DK	1.15	25.1	3.8	3.2	-0.6
DE	1.20	10.0	8.6	6.0	-2.7
EE	0.10	1.4	4.7	3.4	-1.3
IE	0.75	16.4	4.6	4.9	0.3
EL	0.35	3.3	8.4	6.1	-2.3
ES	1.40	14.4	8.3	6.1	-2.2
FR	1.50	14.1	8.0	6.1	-1.8
IT	0.40	5.1	6.1	5.6	-0.5
CY	0.40	7.2	4.3	3.3	-1.0
LV	0.30	3.6	6.0	4.8	-1.2
LT	0.10	1.4	4.3	3.3	-1.0
LU	0.45	9.2	4.2	4.6	0.4
HU	0.30	3.8	7.4	6.1	-1.3
MT	0.40	5.3	6.2	6.1	-0.1
NL	1.50	33.3	3.2	3.0	-0.2
AT	0.75	14.3	4.4	4.1	-0.3
PL	0.20	1.1	9.7	5.7	-4.0
PT	1.15	13.5	8.2	5.8	-2.4
RO	0.25	3.2	6.5	5.5	-1.0
SI	0.30	4.5	4.9	4.5	-0.3
SK	0.15	0.8	11.1	5.9	-5.2
FI	1.45	16.4	6.9	5.6	-1.3
SE	1.10	14.1	6.1	5.8	-0.3
UK	0.20	3.7	5.4	5.3	-0.1
NO	0.40	9.6	2.5	4.1	1.6
EA12	1.15	12.1	7.4	5.7	-1.7
EA	1.15	12.1	7.4	5.7	-1.7
EU27	0.95	10.0	7.2	5.5	-1.6
EU15	0.95	10.9	7.0	5.6	-1.4
NMS10	0.22	1.6	8.2	5.3	-2.9
EU25	0.95	10.0	7.2	5.5	-1.7

Source: Eurostat, ESSPROSS database, Commission services.

Table 46 shows the projection of unemployment benefits expenditure in percentage of GDP. In the EU27, expenditure in unemployment benefits is projected to fall from 0.8% of GDP in 2007 to 0.6% of GDP in 2060.⁹⁷ Most of the reduction in unemployment expenditure takes place over the period 2008 to 2015. The reduction is mainly driven by the assumptions that unemployment rates in all countries with unemployment rates above the EU15 average would converge to the EU15 average by 2020. Indeed, after 2020, very small changes are projected.

⁹⁷ Making the projection for the age-group 15 to 64 shows a very similar reduction in unemployment benefit expenditure over the period 2007-2060.

Table 46 - Projected unemployment benefit expenditure. % of GDP. 2007-2060. baseline scenario

	2007	2020	2040	2060	p.p. change 2007-60
BE	1.9	1.5	1.5	1.5	-0.4
BG	0.1	0.1	0.1	0.1	0.0
CZ	0.1	0.1	0.1	0.1	0.0
DK	1.0	0.8	0.8	0.8	-0.2
DE	0.9	0.6	0.6	0.6	-0.3
EE	0.1	0.0	0.0	0.0	0.0
IE	0.8	0.9	0.8	0.8	0.1
EL	0.3	0.2	0.2	0.2	-0.1
ES	1.3	0.9	0.9	0.9	-0.4
FR	1.2	0.9	0.9	0.9	-0.3
IT	0.4	0.3	0.3	0.3	0.0
CY	0.3	0.3	0.2	0.2	-0.1
LV	0.2	0.2	0.2	0.2	0.0
LT	0.1	0.0	0.0	0.0	0.0
LU	0.4	0.4	0.4	0.4	0.0
HU	0.3	0.2	0.2	0.2	-0.1
MT	0.4	0.3	0.3	0.3	0.0
NL	1.1	1.0	1.0	1.0	-0.1
AT	0.7	0.6	0.6	0.6	0.0
PL	0.1	0.1	0.1	0.1	-0.1
PT	1.2	0.9	0.8	0.8	-0.4
RO	0.2	0.2	0.2	0.2	0.0
SI	0.2	0.2	0.2	0.2	0.0
SK	0.1	0.1	0.1	0.1	-0.1
FI	1.2	1.0	1.0	1.0	-0.2
SE	0.9	0.9	0.9	0.9	-0.1
UK	0.2	0.2	0.2	0.2	0.0
NO	0.2	0.4	0.4	0.4	0.2
EA12	1.0	0.7	0.7	0.7	-0.2
EA	1.0	0.7	0.7	0.7	-0.2
EU27	0.8	0.6	0.6	0.6	-0.2
EU15	0.8	0.7	0.6	0.6	-0.2
EU10	0.1	0.1	0.1	0.1	-0.1
EU25	0.8	0.6	0.6	0.6	-0.2

Source: Commission services. EPC.

In most countries, a small reduction in unemployment benefit expenditure, below 0.1 p.p., is projected. A larger reduction of 0.3 to 0.4 p.p. of GDP is projected in Belgium, Germany, Spain, France and Portugal. In Ireland, Luxemburg and Norway, unemployment benefit expenditure would increase marginally by less than 0.2 p.p., which stems from the increase in the unemployment rate estimated up to 2009 and the faster growth in the number of unemployed relative to the employed over this period. These countries' structural unemployment rates are below the medium-term estimate of the EU15 average in 2009 and therefore remain constant throughout the projection period. Hence, no further reduction in unemployment rates is assumed.

Projections for unemployment benefit expenditure in the alternative scenarios are provided in Annex 4.

7. THE TOTAL COST OF AGEING AND THE POTENTIAL IMPACT OF THE CURRENT ECONOMIC CRISIS

In this section the different expenditure items are summarized so as to provide an overview of the total impact on government expenditure of the demographic trends. It also looks at the sensitivity of all the budgetary items with respect to changes in key demographic and macro-economic variables. Finally, it considers the potential long-term economic and budgetary impact of the current financial and economic crisis.

7.1. THE IMPACT OF AN AGEING POPULATION ON PUBLIC SPENDING

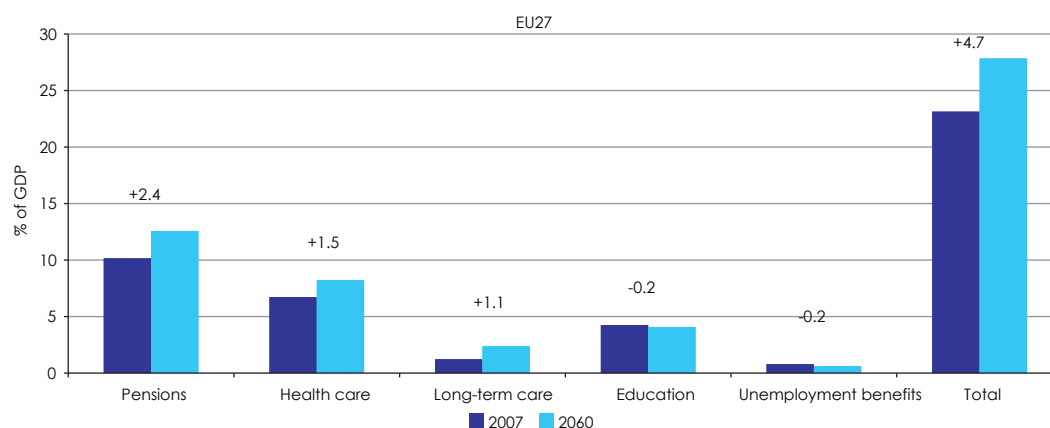
7.1.1. The total impact of population ageing on public expenditure

Graph 86 presents the increase in public age-related expenditure (pensions, health care, long-term care, education and unemployment benefits) between 2007 and 2060. In the EU as a whole and in the euro-area, the cost of ageing is 4 ¾%

and 5 ¼% of GDP, respectively, in the period to 2060. The largest increase relates to public pension expenditure, rising by 2 ½ p.p. and 2 ¾ p.p. of GDP in the EU and the euro area, respectively. Health care and long-term care spending is rising by about 1 ½ and 1 p.p. of GDP, respectively, in the EU and the euro area. Finally, education and unemployment benefits are projected to be reduced by ¼ p.p. of GDP (see also Table 1 for more details).

The EU aggregates however mask considerable variety between Member States. There are large differences of the budgetary impact of ageing across countries and notably the largest difference between countries regards changes in pension expenditure to 2060 – ranging from a very limited increase in Estonia and Latvia (and even a decrease in Poland) to an increase of more than 10% of GDP in Greece, Cyprus, Luxembourg, Malta and Slovenia.

Graph 86 – Cost of Ageing in EU27, % point change of GDP



Source: Commission services, EPC.

The large difference between Member States reflects primarily the diversity in public pension arrangements, their degree of maturity and the effects of pension reforms enacted so far. A reduction in public pension spending is projected in Estonia, Italy, Latvia, Poland, Sweden, due to significant reforms that have been implemented in the past. By contrast very strong increases of 7 p.p. of GDP or more is projected in Greece, Cyprus, Luxembourg, Romania and Slovenia.

Differences in other age-related expenditure items projections are smaller; the projected increase in health care expenditure ranges from + ½ p.p. of GDP in Cyprus, to +3 ½ p.p. in Malta; for long-term care it ranges from a zero p.p. increase in Cyprus, to a +3 ½ p.p. in Sweden. For education, the difference in the projected change is smaller; -1 p.p. of GDP in Poland and Cyprus and + ½ p.p. in Slovenia. For unemployment benefits, the spread is even

smaller, ranging from $-1/2$ p.p. in Belgium, Spain, Portugal to $+1/4$ p.p. in Ireland.

In terms of the different Member States situation, the following points can be made:

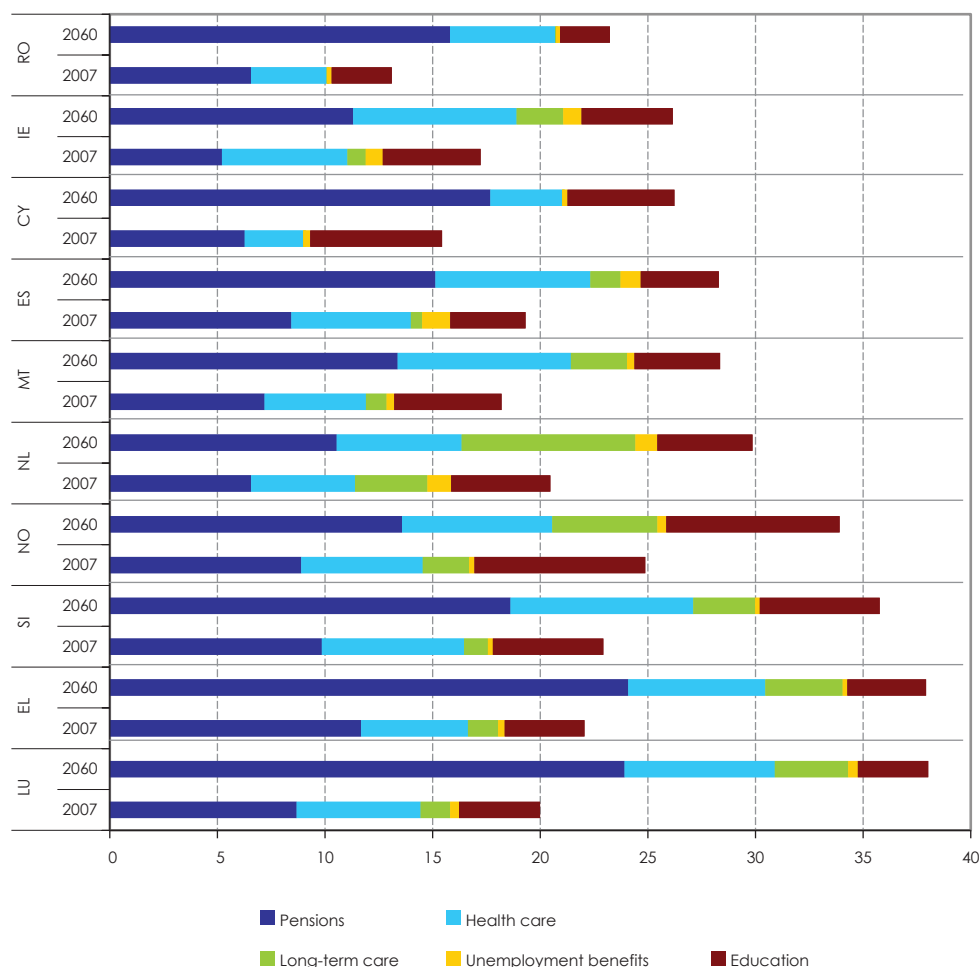
- The increase in public ageing-related spending is likely to be very significant in nine EU Member States (Luxembourg, Greece, Slovenia, Cyprus, Malta, Romania, Spain, the Netherlands and Ireland), with a projected increase of 7 p.p. of GDP or more although for some countries the large increase will be from a fairly low level. These countries have so far made only limited progress in reforming their pension systems or are experiencing maturing pension systems.

For a second group of countries – Belgium, Finland, the Czech Republic, Lithuania,

Slovakia, the UK, Germany⁹⁸ and Hungary – the cost of ageing is more limited, but still very high, ranging from 4 p.p. to 7 p.p. of GDP. Several of these countries have taken significant steps in reforming public expenditure systems that contribute to limit the increase in future expenditure.

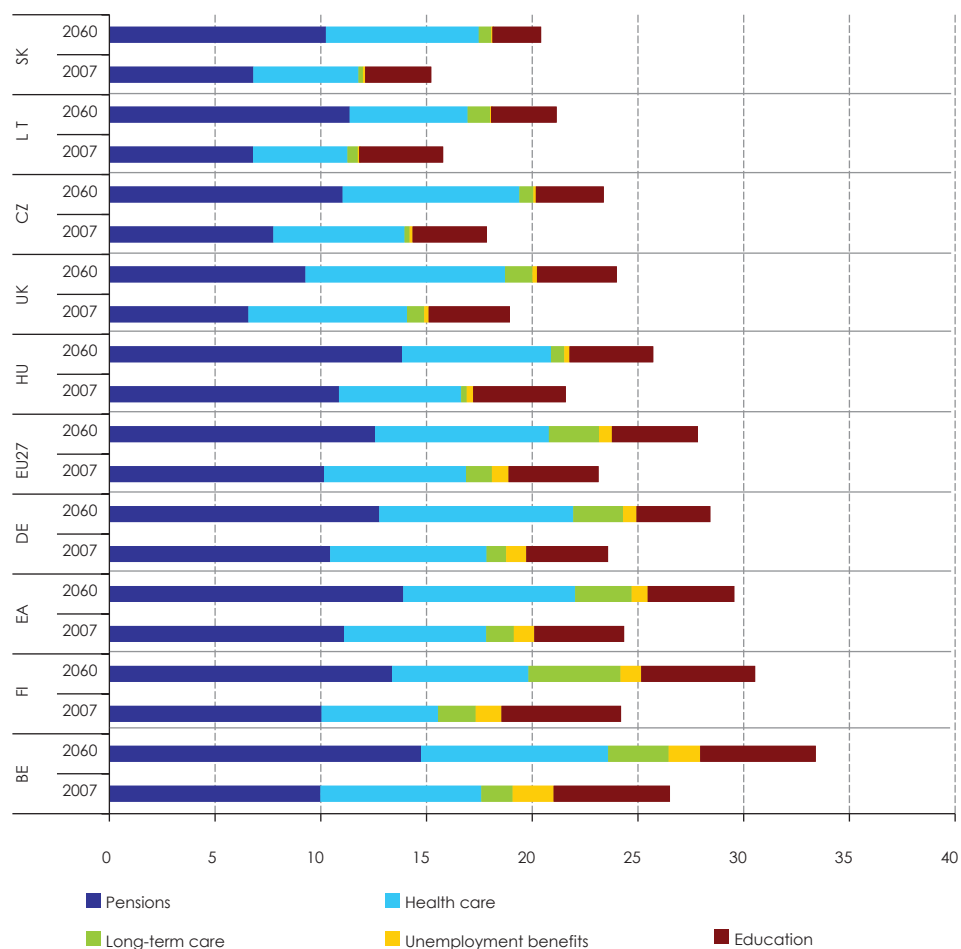
⁹⁸ The projection result for public spending on long term care based in the methodology agreed by the EPC does not reflect current legislation in Germany where benefit levels are indexed to prices only. The agreed methodology used in the AWG reference scenario assumes an increase in line with GDP per worker. A scenario which reflects current rules projects an increase in total age related public spending significantly below 4 p.p.

Graph 87 – Member States with high ageing costs, % of GDP



Source: Commission services, EPC.

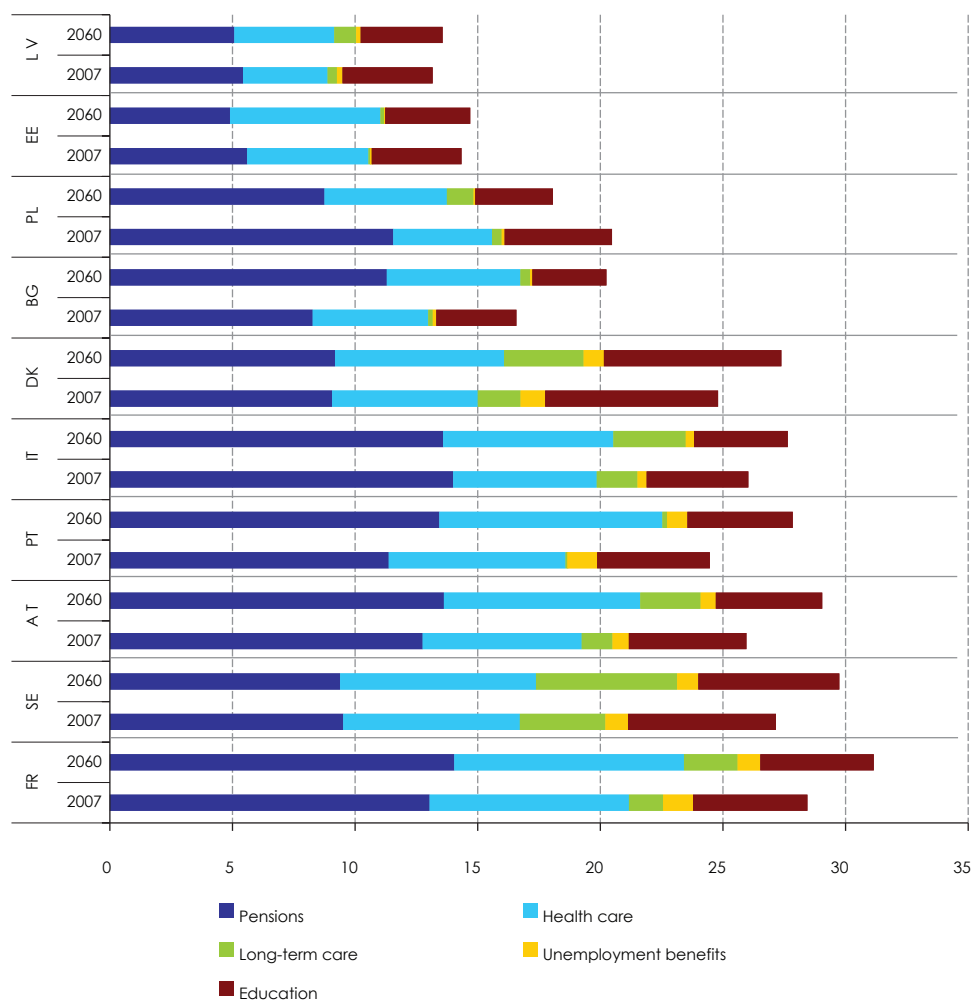
Graph 88 – Member States with medium ageing costs, % of GDP



Source: Commission services, EPC.

- Finally, the increase is more moderate, 4% p.p. of GDP or less, in Bulgaria, Sweden, Portugal, Austria, France, Denmark, Italy, Latvia, Estonia and Poland. Most of these countries have implemented substantial pension reforms, in several cases also involving a partial switch to private pension schemes (Bulgaria, Estonia, Latvia, Poland and Sweden).

Graph 89 – Member States with low ageing costs, % of GDP



Source: Commission services, EPC.

7.2. UNCERTAINTY WITH LONG-TERM PROJECTIONS

7.2.1. Sensitivity of changes to demographic and macro-economic variables

Progress made in the EU both concerning fiscal consolidation and structural reforms, notably pension reforms, suggest that sustainable public finances may be within reach for a number of countries. However, this optimistic outlook rests on the assumption that age-related expenditure evolves as projected by the Commission and the AWG/EPC. Long-term budgetary projections are sensitive to a number of necessary underlying assumptions. Given the uncertainties surrounding the assumptions, it is important to test the robustness of the results.

In order to provide a comprehensive impact on government expenditure of changing certain assumptions, the budgetary projections were re-run under the alternative scenarios. Table 47 shows the deviation from the baseline projection of the change in age-related expenditure up to 2060 under the five alternative scenarios.

The sensitivity tests do not have a uniform impact on the EU Member States. For instance, the impact of changes in life expectancy on pension expenditure is affected by the design of

Table 47 – Sensitivity of the projection results

Total cost of ageing, change 2007-60, p.p. of GDP						
Difference from Baseline (scenario - baseline)						
Country	Baseline	Higher productivity	Higher employment	Higher empl older workers	Higher life expectancy	Zero migration
BE	6.9	-0.9	-0.6	-0.5	1.1	3.3
BG	3.7	-0.2	-0.3	0.1	1.0	0.5
CZ	5.5	-0.2	0.3	1.0	1.1	2.5
DK	2.6	0.0	-0.5	-0.2	1.1	1.4
DE	4.8	0.1	-0.3	-0.1	1.0	3.5
EE	0.4	-0.1	0.0	0.0	1.0	0.5
IE	8.9	0.0	-0.4	-0.2	1.0	2.4
EL	15.9	-2.0	-0.4	-0.4	0.7	5.0
ES	9.0	-0.9	-0.5	-0.1	1.1	4.3
FR	2.7	-0.7	-0.5	-0.5	1.2	1.4
IT	1.6	-0.5	-0.2	0.0	0.6	3.6
CY	10.8	-0.7	-0.3	-0.1	1.1	10.3
LV	0.4	-0.2	-0.1	-0.1	0.7	0.3
LT	5.4	0.0	-0.2	-0.2	1.0	-0.2
LU	18.0	-0.1	-0.3	-0.2	1.0	14.6
HU	4.1	-0.3	-0.2	-0.2	1.7	2.6
MT	10.2	-0.7	-0.2	-0.2	1.3	3.8
NL	9.4	0.0	-0.7	-0.3	0.4	1.4
AT	3.1	-1.1	-0.5	-0.6	1.1	7.5
PL	-2.4	-0.4	-0.1	-0.1	1.1	0.8
PT	3.4	-0.7	-0.4	-0.2	1.5	4.5
RO	10.1	0.0	-0.3	-0.5	1.2	0.9
SI	12.8	-0.5	-1.1	-0.7	0.9	3.2
SK	5.2	-0.1	-0.1	-0.1	1.0	0.9
FI	6.3	-0.4	-0.5	-0.2	1.3	1.1
SE	2.6	-0.1	-0.4	-0.3	0.6	1.5
UK	5.1	0.0	-0.2	-0.1	1.4	4.5
NO	9.0	-1.2	-1.7	:	0.4	0.6
EU27	4.7	-0.4	-0.3	-0.2	1.1	3.1
EA	5.2	-0.5	-0.4	-0.3	1.0	3.1
EA12	5.2	-0.5	-0.4	-0.3	1.0	3.1
EU15	4.8	-0.4	-0.4	-0.3	1.1	3.3
EU10	2.1	-0.3	-0.1	0.1	1.2	1.3
EU25	4.7	-0.4	-0.3	-0.2	1.1	3.1

Source: Commission services, EPC.

the pension schemes. However, the relative position of countries in terms the projected increase in age-related expenditure appears to be relatively robust, with the exception of the zero migration scenario. Hence, the uncertainty mainly concerns the exact size of the long-term sustainability challenge.

7.3. THE POTENTIAL LONG-TERM IMPACT OF THE CURRENT ECONOMIC CRISIS

Drastically changed economic developments and prospects

Worse macro-economic developments – and prospects – than expected last year

The financial and economic crisis that started taking hold in 2008 has led to an unusually sharp and rapid deterioration in economic activity. The current slowdown has gradually transformed into a world recession, particularly affecting the US and also the economies of most EU countries.

New risks have emerged and have made many economists fear that it may still weigh on economic performance for some time to come, and that a recovery will only be in sight after a protracted period of time. This has prompted the question of the extent to which the worsened short-term outlook would have implications also over the medium- and longer-term.

There is a risk that the recovery will be characterised by a protracted period of weak potential GDP growth due to:

- Wide-ranging lack of confidence, which could lead to postpone household consumption and efficient and profitable investments by firms;
- Real economy effects of balance sheet adjustment in the financial sector; downsizing of banks' assets including writing off "impaired" or "toxic" assets, is likely to push

up the cost of capital even in the presence of large recapitalisation packages;

- Pervasive credit constraints and higher borrowing costs in the non-financial sector in light of the restructuring of banks; generally in the EU, deleveraging needs for households are lower than in the US, but firms are more heavily indebted than in the US. A persistent credit squeeze was one of the key factors of the long Japanese slump recorded in the 1990s and 2000s;
- A persistent impact on the EU's growth potential might occur if there is a shift in the attitude to risk and a higher cost of capital;
- Slower growth in (total factor) productivity in the short and medium terms, induced by the reduction in ICT investment and knowledge-based investment such as R&D. this postponement of key innovation-prone investments may have a lasting effect on productivity and growth;
- Permanent destruction in human capital caused by a surge in long-term unemployment induced by a protracted recession. This permanent negative effect in terms of "know-how" or professional knowledge is often called "hysteresis" effect;
- The collapse of world trade poses risks for a higher degree of protectionism. Given the global nature of the recession, an eventual revival of growth would require a rebalancing of growth from high-leverage countries to low-leverage countries. Failing to achieve such a rebalancing would have an adverse impact on EU growth, especially for export-oriented countries.

The AWG/EPC baseline macro-economic projections are based on the Commission's forecast made in Spring 2008 (up to 2009). Unfortunately, the current slowdown has led the Commission and other prominent policy makers to substantially revise their short-term forecast downwards. The much bleaker outlook currently prevailing among economists have also led to a downward revision of the estimated potential GDP growth rates, e.g. as calculated using the EU commonly agreed production function method (See Annex 5). The AWG/EPC baseline scenario does not incorporate this sharp deterioration of economic activity in Europe.

Factoring in these much deteriorated macroeconomic prospects would imply a downward revision of the EU GDP over the first 5-10 years of the projections, although it would only have limited effects over the remainder of the period up to 2060, at least to the extent that long-run growth potential is only temporarily affected. In order to simulate the order of magnitude of the risks over the long-term related to the ongoing economic crisis, alternative simulation scenario need to be devised to complement the baseline scenario of the AWG. In view of the large uncertainty regarding the length of the slump in economic activity, two types of shocks may be considered: (i) a temporary shock; and, (ii) a permanent shock.

7.3.1. Defining additional macro-economic scenarios

Two temporary shock scenarios is considered, a *"lost decade"* and a *"rebound" scenario* which use the latest available estimates for the growth potential and respects the main AWG assumptions, but postpone the attainment of them, to take account of the deterioration in the economic environment. These scenarios respects the spirit of the AWG baseline by primarily considering potential growth – driven by the supply side, i.e. by the medium-term factors – rather than actual growth, affected by business cycles which are impossible to project over the AWG horizon up to 2060. The *"lost decade"* and *"rebound" scenarios* are based on the following assumptions:

- In the short and medium term, the projections are based upon current Commission projections (Interim forecast of January 2009) up to 2010, extended until 2013 with the EPC Output Gap Working Group method that extrapolates the trends for the components of potential GDP. Those figures are much lower than the AWG baseline projection for 2007-2013; the annual potential GDP growth is revised downward by around -0.9 p.p. in the EU27 in both scenarios.

The potential growth components will then gradually converge to reach the growth rate projected in the AWG baseline. Specifically,

- in the *"lost decade"* scenario, labour productivity is assumed to reach the AWG baseline growth rate in 2020. Labour input (total hours worked) is assumed to reach the baseline growth rate in 2020.

- in the “rebound” scenario, labour productivity is assumed to reach the AWG baseline level in 2020. Labour input (total hours worked) is assumed to reach the baseline level in 2020.

The “permanent shock” scenario reflects a permanent deterioration in EU economies’ growth potential

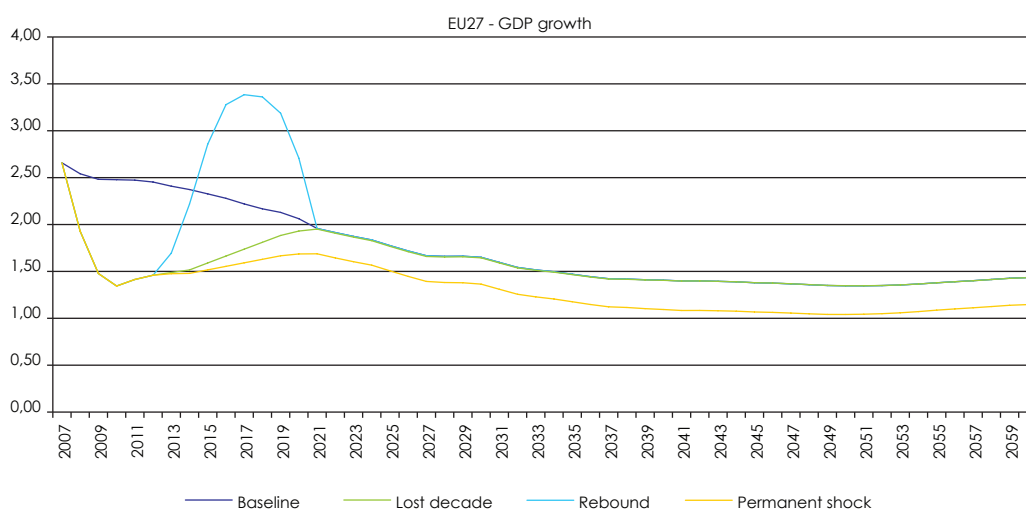
Given that the potential scale of the current economic crisis is surrounded by a very considerable degree of uncertainty, the impact of a permanently worse situation of the growth potential can also be analyzed. The “permanent shock” scenario draws upon the sensitivity scenarios embedded in the long-term projection exercise.

As for the temporary shock scenarios above, it respects the spirit of the AWG baseline by

considering potential growth – driven by the supply side (medium-term factors) – rather than actual growth, affected by cyclical factors which are impossible to project over the AWG horizon up to 2060. The “permanent shock scenario” is based on the following assumptions:

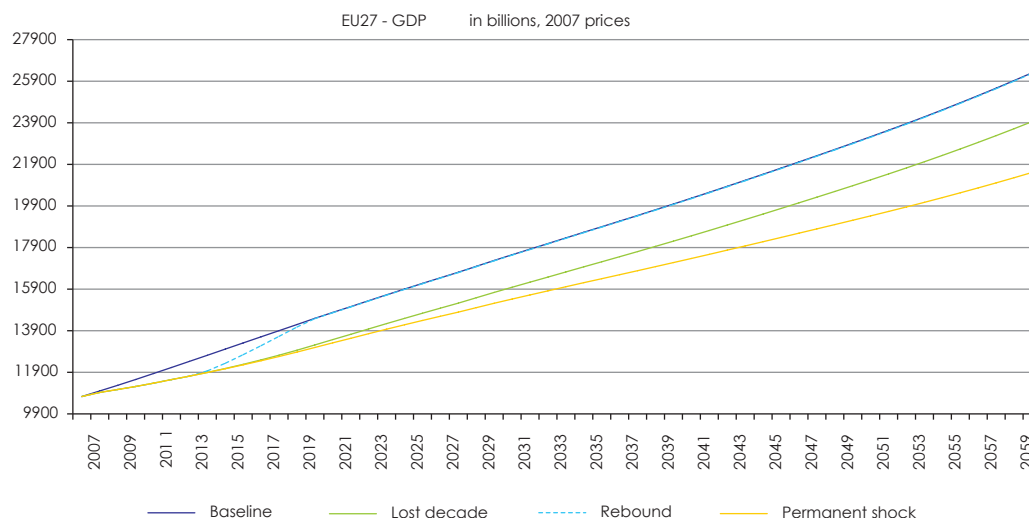
- It incorporates the Commission projections (Interim forecast of January 2009) up to 2013.
- From 2014 to 2020, labour productivity growth and labour input growth (total hours worked) will reach the: (i) the labour input growth rate assuming that the unemployment rate is permanently 1 p.p. higher than in the AWG baseline from 2020 onwards; (ii) the labour productivity growth rate is 0.25 p.p. lower from 2020.

Graph 90 – Potential GDP growth under different shocks



Source: Commission services, EPC.

Graph 91 – Potential GDP under different shocks



Source: Commission services, EPC.

The “lost decade scenario” implies a reduction in the per-capita GDP level in 2060 compared with the baseline, which mirrors the lower expected potential growth in the decade up to 2020. This period is “lost” in terms of accumulated wealth creation. The loss in GDP per capita in the EU27 is around 8% in 2020 and this loss is carried over the rest of the projection period, since the growth projection remains broadly unchanged between 2020 and 2060. In the “rebound” scenario, the GDP per capita by 2060 is the same as in the AWG baseline (the deterioration relative to the baseline up to 2014 is offset by the improvement between 2015 and 2020).

Finally, a more marked reduction in the GDP per capita level is observed in the “permanent shock” scenario, where GDP per capita is 10% lower than in the AWG baseline in 2020, 14% lower in 2040 and 18% lower in 2060, reflecting lower growth throughout the projection period.

Table 48 – GDP per capita developments in EU27, difference from the AWG baseline

EU27, GDP per capita, diff. from baseline (in %)			
	2020	2040	2060
Rebound	0	0	0
Lost decade	-8	-8	-8
Permanent shock	-10	-14	-18

Source: Commission services, EPC.

7.3.2. Estimating the budgetary impact of the financial and economic crisis

Based on the three scenarios above, it is possible to estimate the budgetary impact of those shocks as compared to the AWG baseline.

- For public pension expenditure, the sensitivity tests of the projections to a change in the structural unemployment rate and to the productivity growth rate is used to calculate an elasticity of public pension with respect to changes in output.⁹⁹
- For the other age-related government expenditure items, the projections were re-run with the respective alternative macro-economic scenarios.

It should be recalled that the budgetary impact of an economic crisis in the short-term may be larger than indicated by the analysis in this chapter. In particular, it is assumed that the budgetary items respond fairly strongly to changes in GDP (there is in general a non-zero elasticity with respect to changes in GDP). However, in the (very) short-term some government expenditures might be (nearly)

⁹⁹ The sensitivity tests are inverted as follows. The labour productivity growth rate is assumed to be 0.25 p.p. lower than in the AWG baseline by 2020, implemented linearly over the period 2010-2020. The structural unemployment rate is assumed to be 1 p.p. higher than in the AWG baseline by 2020, implemented linearly over the period 2010-2020.

inelastic to GDP changes (e.g. health-care expenditure may grow at its trend increase for one or a few years on current policies even if GDP does not grow at trend rates, or even falls, depending on institutional setup in the different countries). Hence, there may be an upside risk to public expenditure in relation to GDP in times of a sharp slowdown of economic growth.

On the other hand, a sharp slowdown, or even a drop of GDP may also bring about a corrective fiscal policy response. In previous recessions or “crisis”, some countries have introduced far-reaching “crisis measures”, for instance consisting of broad cuts in public expenditure across the board, thus mitigating possible trends increases in public spending.

Box: ESTIMATING THE IMPACT ON PENSION SPENDING OF CHANGES IN MACRO-ECONOMIC VARIABLES

In this report, the potential budgetary impact of varying underlying assumptions (productivity, employment) on pension spending, were carried out by the Commission using the sensitivity scenarios on the labour productivity growth rate and the structural unemployment rate and not by the Member States using the national pension models.

The elasticity of public pension expenditure with respect to changes in GDP is calculated as follows:

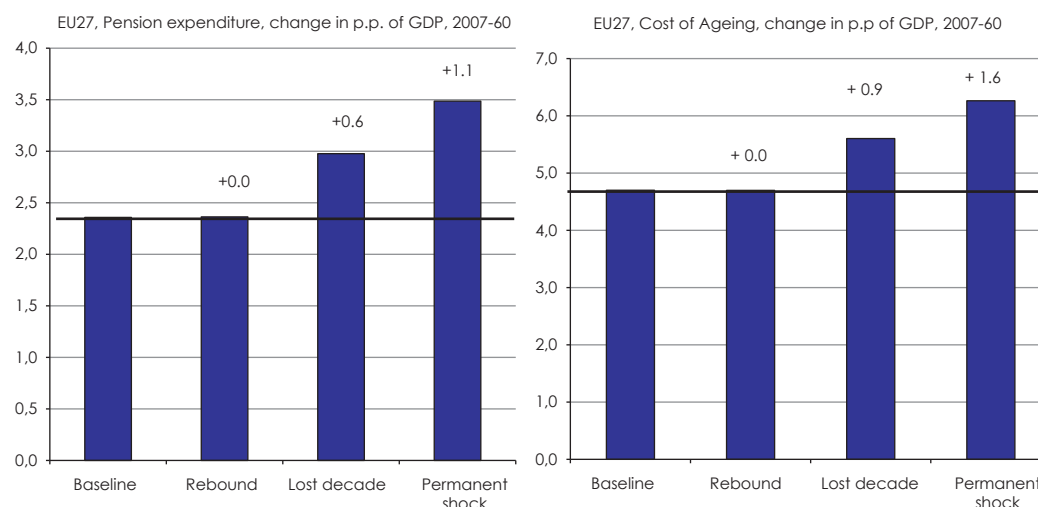
$$\varepsilon_t^{alt.scenario} = \frac{\left(\frac{P_t^{alt.scenario} - P_t^{baseline}}{P_t^{baseline}} \right)}{\left(\frac{GDP_t^{alt.scenario} - GDP_t^{baseline}}{GDP_t^{baseline}} \right)} \quad (1)$$

where: P : pension expenditure (level)
 GDP : GDP (level)
 $alt.scenario$: the higher labour productivity scenario and the higher employment rate scenario, respectively

This elasticity is time-varying so as to capture potential changes in the relationship between GDP growth and pension expenditure over time that pension reforms might have induced.

Once the elasticity is calculated, the alternative “crisis” scenario is imposed as the ‘*alt.scenario*’, and the change in pension expenditure vis-à-vis the baseline is solved for. It should be recalled that the alternative scenarios for pension expenditure carried out in the projection exercise relate to specific shocks (the 0.25 p.p. higher labour productivity growth rate and 1 p.p. lower structural unemployment rate scenarios). For shocks of a different size, the calculated elasticity above can be used as a proxy of the effect a shock on pension expenditure. However, it should be noted that the elasticity with respect to a shock of a different size might be different.

Graph 92 – The potential budgetary impact of the crisis



Source: Commission services, EPC.

In terms of budgetary impact, the nature of the shock determines its magnitude. All of the shocks, being negative, lead to higher age-related expenditure as a share of GDP. When considering the entire projection period up to 2060, the permanent shock to potential growth has a stronger adverse impact on the public expenditure ratio than the temporary shock – the lost decade scenario – and the rebound scenario is neutral in terms of budgetary impact up to 2060.

There are however different dynamics of the budgetary impact depending on whether the shock is temporary or permanent. The “lost decade” scenario reveals that the public pension spending ratio increases faster in the first ten years of the projection period, and then slowly converges to the AWG baseline. Between 2007 and 2020, public pension expenditure in the EU would increase by 0.7 p.p. of GDP more relative to the AWG baseline. Over the whole period up to 2060, public pension expenditure would increase by 0.6 p.p. of GDP more relative to the AWG baseline, but this effect is expected to fade somewhat before 2060.

Considering the full budgetary impact of ageing, i.e. including also government expenditure on health-care, long-term care, education and unemployment benefits, the “lost decade” scenario reveals that the age-related spending ratio would increase by 0.9 p.p. of GDP more relative to the AWG baseline between 2007 and 2020. Overall, age-related expenditure would increase by 0.9 p.p. of GDP more relative to the

AWG baseline over the period 2007-2060 in the “lost decade” scenario, but a convergence towards the levels of the baseline scenario is expected by the end of the projection period.

The permanent shock, by contrast, shows a constant widening of the public expenditure ratio compared with the baseline. This reflects the fact that a permanently lower labour productivity growth rate leads to age-related government expenditure rising faster than GDP. Between 2007 and 2020, public pension expenditure would increase by 0.8 p.p. of GDP more relative to the AWG baseline. Over the entire projection period however, the public pension spending-to-GDP ratio would be 1.1 p.p. of GDP higher in the “permanent shock” scenario compared with the AWG baseline.

The total increase in age-related expenditure between 2007 and 2020 would be 1.1 p.p. of GDP higher than in the AWG baseline. Over the entire projection period however, the age-related public spending-to-GDP ratio would be 1.6 p.p. of GDP higher in the “permanent shock” scenario compared with the AWG baseline. Annex 5 provides more details by Member State on the potential economic and budgetary impact of the economic crisis.

This illustrates that a permanent shock assumed to occur to the key determinants of potential growth (employment and labour productivity growth), over the very long-term, has a stronger effect on future GDP and per capita income

levels than even a very protracted period of sluggish growth. The estimations show that the budgetary impact is stronger in the case of a permanent shock than in the case of a temporary shock, even if the latter is stretched over an entire decade. Moreover, the risk of sluggish growth and higher age-related government spending in the “lost decade” scenario up to 2020 can be offset if timely, targeted and well

coordinated policies would not only bring Europe out of the slump, but would also lead to a rebound of growth such that the temporary shock is also reverted, as illustrated in the “rebound” scenario. Hence, getting the policy response right in a coordinated manner would limit the loss of wealth creation in Europe and would also lead to less expenditure than would otherwise be the case.

Table 49 - Age-related government expenditure under the AWG baseline and difference to the alternative scenarios, p.p. change of GDP

Age-related expenditure-to-GDP ratio, p.p. of GDP								
Change 2007-2020					Change 2007-2060			
Difference from baseline					Difference from baseline			
Country	Baseline (% of GDP)	Rebound - Baseline	Lost decade - Baseline	Permanent shock - Baseline	Baseline (% of GDP)	Rebound - Baseline	Lost decade - Baseline	Permanent shock - Baseline
BE	1.7	0.0	1.5	2.1	6.9	0.1	2.0	3.6
BG	-0.1	0.0	-0.6	-0.5	3.7	0.0	-1.2	-0.8
CZ	-0.7	0.0	0.4	0.5	5.5	0.0	0.6	0.9
DK	2.6	0.0	0.3	0.7	2.6	0.0	0.2	0.6
DE	0.0	0.0	0.1	0.3	4.8	0.0	0.2	0.3
EE	0.2	0.0	0.3	0.3	0.4	0.0	0.2	0.3
IE	1.4	0.0	1.4	1.5	8.9	0.0	2.2	2.2
EL	1.9	0.0	1.5	1.9	15.9	-0.1	1.3	3.9
ES	1.4	0.0	1.3	1.6	9.0	0.0	1.8	3.2
FR	0.9	0.0	1.4	1.9	2.7	0.0	1.2	2.4
IT	0.3	0.0	1.1	1.4	1.6	0.0	0.5	1.1
CY	1.3	0.1	1.9	2.3	10.8	0.0	1.1	2.0
LV	-0.7	0.0	1.0	1.1	0.4	0.0	0.7	1.0
LT	-0.7	0.0	0.4	0.4	5.4	0.0	0.5	0.6
LU	1.2	0.0	1.2	1.4	18.0	0.0	0.5	0.6
HU	-0.3	0.0	1.6	1.9	4.1	0.0	0.7	1.2
MT	2.3	0.0	1.0	1.2	10.2	0.0	0.8	1.8
NL	2.1	0.0	0.4	0.9	9.4	0.0	0.5	1.1
AT	0.3	0.0	0.8	1.3	3.1	0.0	0.8	2.4
PL	-2.7	0.0	1.0	1.1	-2.4	0.0	0.6	1.1
PT	0.8	0.0	1.0	1.4	3.4	0.0	1.2	2.3
RO	2.0	0.0	-0.2	-0.1	10.1	0.0	-0.3	-0.2
SI	1.9	0.0	-0.2	-0.2	12.8	0.0	-0.2	-0.3
SK	-0.7	0.0	0.5	0.6	5.2	0.0	0.6	0.7
FI	3.0	0.0	1.0	1.4	6.3	0.0	0.7	1.5
SE	-0.3	0.0	1.4	1.7	2.6	0.0	1.6	2.0
UK	0.8	0.0	0.5	0.6	5.1	0.0	0.8	0.9
NO	3.0	0.0	0.1	0.3	9.0	0.0	0.2	0.5
EU27	0.5	0.0	0.9	1.1	4.7	0.0	0.9	1.6
EA	0.7	0.0	0.9	1.2	5.2	0.0	0.9	1.8
EA12	0.7	0.0	0.9	1.3	5.2	0.0	0.9	1.8
EU15	0.7	0.0	0.9	1.2	4.8	0.0	0.9	1.6
EU10	-1.4	0.0	0.8	0.9	2.1	0.0	0.7	1.1
EU25	0.5	0.0	0.9	1.2	4.7	0.0	0.9	1.6

Source: Commission services, EPC.

8. ANNEX 1: PENSIONS

8.1. OVERVIEW OF PENSION SYSTEMS IN THE MEMBER STATES

	Public pensions	Occupational pension schemes (private sector schemes)	Individual (private) pension schemes (private sector schemes)
BE	<p><i>Minimum guarantee pensions:</i> Means-tested minimum pensions through social assistance (GRAPA-IGO).</p> <p><i>Earnings-related social security pensions:</i> Separate schemes for private and public sector employees, self-employed; schemes cover old-age and survivors' pensions, and disability pensions in the case of civil servants (which are included in public (social security) pensions in this report). These schemes include minimum pensions based on career conditions. The wage earner scheme includes the minimum claim per working year. Disability pension schemes for private sector employees and self-employed. Prepension (early retirement) through an unemployment benefit and a supplement from the employer.</p>	Legal framework has been established: the Law on additional pensions of 28 April 2003, centred on sectoral pension scheme, improving the access to them and giving more guarantees to workers. Pensions: 1.1% of GDP in 2007.	Voluntary private schemes exist only to a minor extent.
BG	<p><i>Minimum guarantee pensions:</i> Social pension for old age. Disability pensions.</p> <p><i>Earnings-related social security pensions:</i> One PAYG pension scheme covering all employees and self-employed. Minimal pension for periods of insurance and old age (stipulated in the annual Law on the PSI Budget). Social insurance contributions of civil servants, military and police - at the expense of the state. Self-insured persons pay the whole contributions amount at their own expense. Social insurance contributions of judges and magistrates - at the expense of the Budget of the Judicial Power. Teachers Pension Fund. Survivors' pensions (stipulated in the Social Insurance Code (SIC)).</p> <p><i>Non-contributory pensions:</i> Special merits pensions</p>	Supplementary voluntary pension funds under occupational schemes (3rd pillar). Legal framework established in 2006. Funded DC scheme.	Supplementary mandatory private schemes (2nd pillar) - Universal and Professional Pension Funds. Individual pension savings plans (2.6 million contributors end of 2007). Statutory private schemes transferred from the social security pension scheme, mandatory for persons born after 1.1.1960. The transferred contribution rate is 5%. Funded DC schemes. - Professional Pension Funds - Professional early retirement pensions for a limited period for people working under the conditions of 1st and 2nd labour category (labour under risk). Supplementary voluntary private schemes (3rd pillar).
CZ	<p><i>Minimum guarantee pensions:</i> No special scheme, it is embedded in the pension formula (flat-rate component).</p> <p><i>Earnings-related social security pensions:</i> One scheme covering the whole population, covering old-age, disability and survivors' pensions.</p>	Do not exist.	Voluntary private pension scheme at an early accumulation stage; low replacement rate (contribution 2.1% of wage; covers about half labour force).

Public pensions		Occupational pension schemes (private sector schemes)	Individual (private) pension schemes (private sector schemes)
DK	<p><i>Minimum guarantee pensions:</i> Universal flat-rate pensions for every citizen 65+ (subject to the time lived in Denmark), means-tested supplements, tax-financed. Disability pensions to those below 65.</p> <p><i>Earnings-related social security pensions:</i> Voluntary early retirement pensions (requires 30 years of contributions; pension benefit dependent on age, not on contributions). Civil servants' pensions for central and local government employees (in coming years these schemes are replaced by ordinary labour market (occupational) pensions).</p>	<p>Labour market (occupational) pensions (private sector covering 90% of the employees), Labour market supplementary pensions (ATP). Special pension savings plan (SP). Labour market supplementary pensions for recipients of disability pension (SAP). Employees' capital fund (LD). All these schemes are fully funded.</p>	<p>Individual pension savings plans (1.1 million contributors).</p>
DE	<p><i>Minimum guarantee pensions:</i> No special scheme but disabled and older people without sufficient income are entitled to means-tested benefits (social assistance).</p> <p><i>Earnings-related social security pensions:</i> General scheme covering private and public sector employees, the scheme covers old-age, disability, early retirement and widow's pensions; specific schemes for life-time civil servants as well as farmers and miners.</p>	<p>Occupational pension provision existing, benefits account for 1.4% of GDP; supported by SSC exemptions up to 4% of SSC ceiling, equal to 2520€ in 2007, and by tax exemption up to 4320€. In 2007, about 64% of the employees contribute to occupational schemes.</p>	<p>Individual funded pensions of growing importance since the 2001 reform (supported by tax exemptions and direct allowances; contribution rate 4% of wages since 2008. Currently, about 12 mill. so-called Riester-contracts exist.</p>
EE	<p><i>Minimum guarantee pensions:</i> National pension equal to the base amount of the pension ins. scheme, available to those not qualifying for insurance scheme. And have lived at least 5 years in Estonia</p> <p><i>Earnings-related social security pensions:</i> One scheme covering the whole population; covering old-age, disability and survivors' pensions; benefits are flat-rate + a length-of-service supplement for careers before 1999, as of 1999 benefits are earnings-related.</p>	<p>Do not exist.</p>	<p>Statutory private schemes for the switched part of the social security pension scheme, mandatory for persons born 1983 or later and voluntary for old persons; in 2005, over 50% of workers had joined the funded scheme. The switched contribution rate 4% + an additional 2% contribution paid by the insured person.</p>
EL	<p><i>Minimum guarantee pensions:</i> Means-tested minimum pensions (non-contributory) for uninsured people aged 65+.</p> <p><i>Earnings-related social security pensions:</i> A great number of separate pension insurance and auxiliary funds for different sectors and occupational groups; schemes cover old-age, early retirement, disability and survivors' pensions; benefit levels differ across schemes.</p>	<p>Do not exist (legal framework has been established but no scheme was operational yet in 2004).</p>	<p>Voluntary private pension schemes cover about 5% of the population.</p>

	Public pensions	Occupational pension schemes (private sector schemes)	Individual (private) pension schemes (private sector schemes)
ES	<p><i>Minimum guarantee pensions:</i> Means-tested minimum pension scheme (non-contributory).¹ Means-tested minimum pension (contributory).</p> <p><i>Earnings-related social security pensions:</i> One main social insurance scheme, covering the private sector employees, self-employed and the regional and local public administrations, providing earnings-related old-age, disability and survivors' pensions.</p> <p>Public sector employees' (contributory) pension scheme (CPE) for the civil servants of the central public administration and the military, providing mainly flat-rate old-age, disability and survivors' pensions, though 5 different levels of pensions according to the career level.</p> <p>¹This is a minimum income for the elderly and the disabled that have not contributed before. It includes old-age pensions (65+) and disability pensions (64). The part of old-age is 57% of total non contributory pensions. It amounts to 0,1% of GDP in 2007. Total non contributory pensions amount to 2,119 million euro in 2007; 2,137 million euro in 2008.</p>	<p>Voluntary enterprise pension schemes for private sector employees (funded DC schemes and collective insurance DB). Mandatory supplementary pension scheme for public sector employees of the central administration (funded DC scheme). Schemes are of some importance.</p>	<p>Voluntary private schemes (funded DC schemes).</p>
FR	<p><i>Minimum guarantee pensions:</i> Means-tested minimum pension scheme.</p> <p><i>Earnings-related social security pensions:</i> A great number of separate pension insurance schemes for different sectors and occupational groups providing earnings-related pensions, additionally mandatory "second tier" supplementary funds that complement the pension provision; schemes cover old-age, early retirement and survivors' pensions; benefit levels across insurance schemes were aligned in the 2004 reform.</p> <p>Disability pensions (benefits) covered by the health insurance scheme.</p>	<p>Voluntary occupational pension schemes for private sector employees (PERE and PERCO) introduced by 2003 reform covering 250 thousands people for a total amount of contributions of 769 million € in 2006. Also an old occupational pension scheme (art. 82 and 83, and art. 39 of CGI) covering roughly 2.7 million of people for a total amount of contributions of 59 billion € in 2006. Self-employed occupational pension scheme (Madelin law n° 94 and law n°97) covering 1 million of people for a total amount of contributions of 15 billions € in 2006.</p>	<p>Voluntary Individual pension scheme (PERP) introduced by 2003 reform is now covering 1.8 million of people for a total amount of contributions of 2.3 billion € in 2006. Voluntary individual pension schemes for civil servants (PREFON, COREM, ...) covering 816 thousands of people for a total amount of contributions of 11 billion € in 2006.</p>
IE	<p><i>Minimum guarantee pensions:</i> Means-tested minimum flat-rate pensions and age-related benefits (old-age, widows, disability, carers and blind persons and pre-retirement allowances) through non-contributory social assistance scheme.</p> <p><i>Contributory social insurance pensions:</i> Contributory social insurance scheme provides flat-rate pensions and age-related benefits (old-age, transition, and widow(er)'s pensions, carers, invalidity and disability benefits).</p> <p><i>Public service (occupational) pensions:</i> Public service occupational pension scheme.</p>	<p>Voluntary occupational schemes for private sector employees. 31.6% of current pensioners receive also occupational pensions, amounting to 24.2% of total pension income. Pension coverage for workers aged between 20 and 69 was 54% in the first quarter of 2008.</p>	<p>Voluntary individual schemes also play a role in the Irish pension system. Incentives to encourage private pension provision are in place.</p>

Public pensions		Occupational pension schemes (private sector schemes)	Individual (private) pension schemes (private sector schemes)	
IT	<i>Minimum guarantee income to the elderly:</i> Means-tested old age allowance (5,143 euro per year, in 2008) and social assistance additional lump sums: provided to the elderly with a personal income (including social security pensions) below certain limits and up to them. In 2008, income limits are 5,311 euro per year, in the age bracket 65-69, and 7,540 in the age bracket 70+. For married people, the amount of social assistance benefits, determined as above, is provided as long as the total income of the couple falls below 11,071 euro per year, in the age bracket 65-69, and 12,683 in the age bracket 70+ and, in any case, up to these income limits.	Occupational, supplementary pension schemes exist. They are funded and never mandatory. The 2004 reform (law 243/2004) and its 2005-implementation (law decree 252/2005) increased the provisions for occupational pensions through the possibility to transform TFR (end-of-service allowance) into an occupational pension scheme. Contributors and contributions have increased significantly. Current pension expenditure is 0.1% as a share of GDP.	Voluntary private pension schemes are of limited importance.	
	<i>Social security pension system:</i> One main social security pension scheme covering the whole population, providing old-age, early retirement, disability and survivors' pensions. It is composed of three schemes: DB (earnings-related), Mixed and NDC (contributions-based).			
	<i>DB and Mixed pension schemes:</i> Old DB scheme fully applied to workers with at least 18 years of contributions at the end of 1995. Transition scheme (mixed regime: partly DB and partly NDC, according to the pro rata rule) for workers with less than 18 years of contribution in 1995; Means-tested topping-up to a minimum pension (5,761 euro per year, in 2008) is foreseen, subject to the fulfilment of the general eligibility requirements.			
	<i>NDC pension scheme:</i> Fully applied to persons entering the labour market as of 1996. Means-tested topping-up to a minimum pension, foreseen under DB and Mixed schemes, is no longer provided. Pensions awarded to workers with an age below 65 must be at least 1.2 times the old age allowance.			
CY	<i>Minimum guarantee pensions:</i> Through Social (means-tested) Pension scheme and special allowances to pensioners.		Voluntary Provident Funds (providing defined-contribution lump-sum benefits), covering about 103,000 employees.	
	<i>Earnings-related social security pensions:</i> One general social insurance scheme covering all employees and self-employed persons, providing old-age, disability and survivors' pensions. Government Employees Pension Scheme (paid from the Government budget) and other public sector (local gov.) employees pension schemes.			

	Public pensions	Occupational pension schemes (private sector schemes)	Individual (private) pension schemes (private sector schemes)
LV	<p><i>Minimum guarantee pensions:</i> Through the state social security benefit, if the person's insurance record <10 years.</p> <p><i>Earnings-related social security pensions:</i> The minimum of the earnings-related pension system is paid with a length-of-service supplement to the amount of the state social security benefit, if the contribution record exceeds 10 years. One social insurance old-age pension scheme, which is a defined-benefit scheme for those, retired before 1996 and a notional defined contribution scheme for those retired as of 1996, providing old-age pensions. Also survivors' pensions are based on NDC contributions (except for those retired before 1996). Separate provisions for disability pensions, though under the general social security system. Specific public sector service pensions (selected professions) paid from the state budget.</p>	Do not exist.	<p>Statutory private schemes for the switched part of the social security pension scheme (mandatory for persons under the age of 30 on 1st July 2001, voluntary to persons aged 30-49. The contribution rate to be raised from 2 to 10% of wages between 2001 and 2011.</p> <p>Voluntary private schemes.</p>
LT	<p><i>Minimum guarantee pensions:</i> Through a social assistance pension (also to young disabled persons and orphans).</p> <p><i>Earnings-related social security pensions:</i> One social insurance pension scheme covering all employees and the self-employed, providing old-age, disability and survivors' pensions, and early retirement pensions as of 2004. Special state (old-age, disability and survivors') pensions paid from the state budget to specific groups: scientists, judges, officers and military personnel.</p> <p><i>Non-contributory pensions:</i> State pensions for meritorious persons and casualties: state pensions of the first and second degree of the Republic of Lithuania (State budget); state pensions of deprived persons (State budget).</p>	Do not exist.	<p>Voluntary switch of a part of the Social Insurance pension to a private fund (started in 2004 with a contribution rate of 2.5% of wages, which will increase to 5.5% by 2007).</p>
LU	<p><i>Minimum guarantee pensions:</i> Through means-tested minimum income provision (RMG)</p> <p><i>Earnings-related social security pensions:</i> A general social insurance pension scheme for private sector workers, providing old-age, disability and survivors' pensions.</p> <p>A special pension scheme for public sector employees (10% of pensioners).</p>	Exists for some sectors such as banking and for large foreign companies.	
HU	<p><i>Minimum guarantee pensions:</i> Through means-tested social assistance.</p> <p><i>Earnings-related social security pensions:</i> One social security pension scheme covering all employees and the self-employed, providing old-age, early retirement, disability and survivors' pensions.</p>	Do not exist.	<p>Statutory private schemes for the switched part of the social security pension scheme (mandatory for new entrants to the labour market as of 1998, voluntary to workers already in the labour market). The contribution rate is 8% of wages. The scheme covers 60% of all workers. Voluntary private pension schemes cover 30% of all workers.</p>

Public pensions		Occupational pension schemes (private sector schemes)	Individual (private) pension schemes (private sector schemes)
MT	<p><i>Minimum guarantee pensions:</i> Means-tested minimum pensions through social assistance (non-contributory) scheme to persons not qualified for the contributory scheme.</p> <p><i>Earnings-related social security pensions:</i> One social security (contributory) pension scheme covering all employees and the self-employed, providing old-age, disability and survivors' pensions (apart from unemployment, sickness and work injury benefits).</p>	Exists only to a minor extent.	Exists only to a minor extent.
NL	<p><i>Minimum guarantee pensions:</i> Social assistance to those not qualifying (not lived in the Netherlands for 50 years) to contributory flat-rate scheme.</p> <p><i>Contributory social insurance pensions:</i> General flat-rate old-age pensions (AOW) to all citizens. Separate disability benefits (WAO) and survivors' pensions (ANW); flat-rate or earnings-related benefits.</p>	A high number of funds (industry-wide, company-specific and professional group specific) for the provision of occupational old-age pensions and early retirement schemes (VUT), covering over 90% of employees.	Exists to some degree.
AT	<p><i>Minimum guarantee pensions:</i> Means-tested minimum pensions through social assistance scheme ("Ausgleichszulagen").</p> <p><i>Earnings-related social security pensions:</i> Harmonised social security pension schemes covering all employees (incl. civil servants) and the self-employed (gradually harmonised as of 2005), providing old-age, disability and survivors' pensions.</p>	<p>The 2002 reform increased occupational pension provision through the obligation to transform the earlier severance pay into a supplementary occupational scheme (with a contribution rate of 1.53% of wages).</p>	Exists only to a minor extent but the introduction of tax-favoured private scheme (Zukunftsvorsorge) will increase their importance.
PL	<p><i>Minimum guarantee pensions:</i> Means-tested minimum pensions financed from the state budget, topping-up benefits paid out from mandatory pension schemes.</p> <p><i>Earnings-related social security pensions:</i> One social insurance pension scheme (ZUS), covering all employees and the self-employed (except farmers), which is a defined-benefit scheme to those born before 1949 and a notional defined contribution scheme to those born after 1948, providing old-age pensions. Separate schemes for disability and survivors' pensions under the social sec. system. A separate scheme for farmers (KRUS), providing old-age, disability and survivors' pensions. Specific public sector service pensions (armed forces, police, judges etc.) paid from the state budget. Pre-retirement benefits paid out from the state budget.</p>	Exists only to a very minor extent, with a very low coverage (2% of employees).	<p>Statutory private schemes for the switched part of the social security pension scheme as of 1999 (mandatory for new entrants; voluntary switch already closed).</p> <p>Contribution rate is 7.3% of wages.</p>

Public pensions	Occupational pension schemes (private sector schemes)	Individual (private) pension schemes (private sector schemes)
<p>PT</p> <p><i>Minimum guarantee pensions:</i> Means-tested minimum pensions through social assistance scheme. It includes all types of minimum pensions: non-contributory/social pensions and contributory scheme (the pension amount depends on the contributory career length).</p> <p><i>Earnings-related social security pensions:</i> A general social security pension scheme covering all employees and the self-employed in the private sector and public sector employees since January 2006 providing old-age, disability and survivors' pensions (apart from short-term benefits). A separate pension scheme (CGA) for other public sector employees.</p>	<p>Exists mainly for banking, insurance and telecommunication sectors as a substitute for the general social security scheme. Also exists as complementary schemes for other DB and DC pensions.</p>	<p>Exists only to a very minor extent.</p>
<p>RO</p> <p><i>Minimum guarantee pensions:</i> Does not exist in this form, only through Minimum Guarantee Income Scheme (social assistance for extreme poverty, addressed to poor people and not special related to elderly people)</p> <p><i>Earnings-related social security pensions:</i> Starting 2001, a single scheme covering all employees and self-employed, providing old-age, early retirement, disability and survivors' pensions</p>	<p>Exists only to a very minor extent, with a very low coverage (Lawyers Insurance Office, less than 0,1% of total employees).</p>	<p>Statutory private schemes for the switched part of the social security pension scheme (mandatory for employees of 15-35 years old, voluntary for those of 35-45 years old. Starting May 2008, the contribution rate is gradually increasing from 2% up to 6% in 2016 from gross earnings. Coverage-about 65% of employees in September 2008</p> <p>Voluntary private schemes - individual supplementary pensions. Started in 2007, up to 15% of monthly revenues can be directed to this scheme (at this moment of very minor importance, about 2% of employees entered this scheme until September 2008)</p> <p>Voluntary individual supplementary pensions (of minor importance in 2003).</p>
<p>SI</p> <p><i>Minimum guarantee pensions:</i> National, means-tested pensions.</p> <p><i>Earnings-related social security pensions:</i> One social security pension scheme covering all employees and the self-employed, providing old-age, disability and survivors' pensions. Flat-rate pensions to farmers, military personnel of the Yugoslav army and for retirees from other republics of the former SFRY.</p>	<p>Mandatory supplementary insurance for some high-risk professions (about 26000 workers, minor importance), voluntary collective supplementary pensions (covering half the employees).</p>	
<p>SK</p> <p><i>Minimum guarantee pensions:</i> No special minimum pension scheme, minimum subsistence for old people and widows provided through means-tested social assistance paid out from the state budget.</p> <p><i>Earnings-related social security pensions:</i> One PAYG DB social security pension scheme covering all employees and the self-employed, providing old-age, disability and survivors' pensions. First pillar of the pension scheme.</p>	<p>Do not exist.</p>	<p>Statutory private funded DC scheme for the switched part of the social security pension scheme as of 2005. At the beginning it was compulsory for new entrants and voluntary for current employees. As of 2008, this scheme is voluntary for new entrants. Contribution rate is 9% of wages. Second pillar of the pension scheme.</p> <p>Voluntary pension funded DC scheme introduced in 1996. Third pillar of the pension scheme.</p>

Public pensions		Occupational pension schemes (private sector schemes)	Individual (private) pension schemes (private sector schemes)
FI	<p><i>Minimum guarantee pensions:</i> National pension scheme provides means-tested (against other pensions) minimum pensions to all citizens, a full national pension after 40 years of living in Finland. Also means-tested housing allowances for pensioners.</p> <p><i>Earnings-related social security pensions:</i> Several but harmonised social security pension schemes for different sectors of employees and the self-employed, covering all gainfully employed, providing old-age, early retirement, disability and survivors' pensions.</p>	<p>Supplementary occupational pensions, accounting for about 2 % of total pension benefits.</p>	<p>Voluntary individual private pension insurance, accounting for about 1% of total pension benefits but the insured people account for about 15% of working-age population. Contributions are roughly 4 % of total social security pension contributions.</p>
SE	<p><i>Minimum guarantee pensions:</i> National pension scheme provides means-tested (against other pensions) minimum pensions to all citizens, a full national pension after 40 years of living in SE. Also means-tested housing allowances for pensioners (BTP).</p> <p><i>Earnings-related social security pensions:</i> The PAYG general social security (NDC) pension scheme covering all employees and the self-employed, providing old-age pensions. The old earnings-related ATP scheme works in parallel during the phasing-out period. Separate disability and survivors' pension schemes. The former formally counted as health insurance. The widow's pension (part of survivors' pensions) is being phased out.</p>	<p>Supplementary occupational old-age pensions for all sectors, covering 80-90% of employees.</p>	<p>Statutory private schemes (premium pension) for the funded part of the social security pension scheme; contribution rate is 2.5% of wages. (Note: Reported as social security pension in the AWG pension report 2006.)</p>
UK	<p><i>Minimum guaranteed and contributory social insurance pensions:</i> Flat-rate (contributory) state basic (old-age) pensions to all citizens and means-tested supplements through pension credits and Council taxes (financed out of taxes).</p> <p><i>Earnings-related social security and other public pensions:</i> State second pension scheme, of which people can opt out of occupational pensions. Public service pensions paid from the state budget. Separate disability and widows' allowance schemes.</p>	<p>A high number of funds for the provision of occupational pensions (about 60% of employees are contributing either to occupational or personal pension schemes).</p>	<p>Personal pension provisions with tax subsidies for persons without access to occupational schemes were introduced in 1998. Stakeholder pension provision with tax subsidies without access to company (occupational) pension schemes was introduced in 2001.</p>
NO	<p><i>Minimum guarantee pensions:</i> Minimum income guarantee.</p> <p><i>Earnings-related social security pensions:</i> Earnings-based benefit. Disability pensions. Voluntary early retirement pensions.</p>	<p>Central government occupational pension scheme financed by employee contributions and transfers from State budget. Supplement to social security old age pension. Local government occupational pension schemes are funded systems. Supplement to social security old age pension. Mandatory private sector occupational schemes are funded defined contribution systems. Supplement to social security old age pension.</p>	<p>Yes.</p>

8.2. COVERAGE OF THE PENSION PROJECTION IN THE MEMBER STATES

	Schemes covered in the 2009 projections (*E-r = earnings-related)	Schemes <u>not</u> covered
BE	<p>Social security pensions: old age and early pensions Old age pension: w64 (65 by 2009)/m65. E-r old-age 60+ and widows, public sector. E-r old-age 60+ and widows, private sector. E-r old-age 60+ and widows, self-employed. Prepension (early retirement embedded in the unemployment scheme): 60+, private sector. Prepension (heavy jobs): 58+, private sector. Prepension for labour market reasons: 52-55, private sector. Means-tested minimum benefit: guaranteed income for elderly persons (assistance scheme) 64+ (65+ by 2009).</p> <p>Social security pensions: other Disability pensions -64, private sector. Disability pensions -64, self-employed.</p>	<p>Prepensions include only the part paid from unemployment benefit scheme, not the complement paid by the employer.</p> <p>Occupational pension schemes: (pensions 1.1% of GDP in 2007). Private pensions: (non-mandatory).</p>
BG	<p>Old Age Pensions: Old Age and Periods of Insurance Pensions (including farmers, COOP, military officials) - 63m; 59.5w for 2008. Social pension for old age - 70m; 70w. Survivors pensions according to relationship with the deceased: Widows - 58+m, 55.5+w; Child; Widows aged 50/60; Non-working Widows – all ages; Disabled Children; Non-working Parents - 63m, 55.5w; Parents; Other Survivor; Orphans up to 26. Disability Pensions: Disability (including farmers, COOP, military officials); Disability due to Work Injury and Professional Disease (including farmers, COOP, military officials) - persons at working age. Supplementary mandatory insurance - universal pension schemes providing supplementary life-long old-age pension.</p>	<p>Teachers Pension Fund of the social security scheme.</p> <p>Professional Pension Funds of the private mandatory scheme.</p> <p>Supplementary voluntary pension funds.</p> <p>Supplementary voluntary pension funds under occupational schemes.</p>
CZ	<p>Social security pensions: old age and early pensions Minimum and e-r old-age pensions, 62+ (65+ as of 2030), all sectors. Proportional old-age pensions, 65+, all sectors. Widows and disability pensions, 55+. Early pensions (with permanent reductions).</p> <p>Social security pensions: other Widows and disability pensions -54. Orphans pensions.</p>	
DK	<p>Social security pensions: old age and early pensions Public flat-rate old-age pensions and means-tested supplements, all citizens 65+. Civil servants old-age pensions 65+, central and local government. Voluntary early retirement schemes, all wage earners.</p> <p>Social security pensions: other Disability and survivors' pensions, -64.</p> <p>Occupational pensions Labour market pensions: Labour market supplementary pensions (ATP), Labour market supplementary pensions (SP)</p> <p>Private pensions Individual pension savings plans</p>	<p>Occupational pensions Labour market pensions: Labour market supplementary pensions for recipients of disability pension (SAP) <i>Social security pensions: other</i> Survivors' pensions</p>
DE	<p>Social security pensions: old age and early pensions E-r old-age, widows and disability schemes, all ages. General scheme and life-time civil servants. Early pensions for long-time workers. Early pensions for severely handicapped.</p> <p>Social security pensions: other (covered above; not shown separately).</p>	<p>Social security: Minimum benefits to elderly (social assistance); 0.1% of GDP. Farmers and miners pensions (0.5% of GDP).</p> <p>Occupational pensions: Of growing importance, pension expenditure 1.4% of GDP in 2007. Currently 64% of the employees contribute to occupational schemes.</p> <p>Individual funded pensions: Schemes at a building stage, only contributions to the schemes.</p>

Schemes covered in the 2009 projections (*E-r = earnings-related)		Schemes <u>not</u> covered
EE	<p><i>Social security pensions: old age and early pensions</i> Minimum flat-rate pensions, all citizens. E-r old-age pensions; length-of-service component to 60+w and 63+m in 2007, 63+ for both sexes as of 2016, all sectors (Pension Ins. Fund). Early pensions (possible to retire 3 years before the statutory retirement age), all sectors.</p> <p><i>Social security pensions: other</i> Disability and widows' pensions, all ages, all sectors (Pension Insurance Fund).</p> <p><i>Private mandatory pensions</i> Mandatory funded pensions, mandatory for young persons born 1983.</p>	
EL	<p><i>Social security pensions: old age and early pensions</i> Minimum pensions (State budget and EKAS (Pensioners Social solidarity Fund)). Old-age flat-rate pensions, uninsured people aged 65+ (OGA). Old-age pensions, other self-employed (OAEE). E-r old-age and supplementary old-age pensions, private sector (IKA and merged funds). E-r old-age pensions, public sector (civil servants, army, public power corporation). E-r supplementary pensions, public sector (auxiliary funds). Disability pensions, all ages. Widows pensions, all ages. Early pensions, fund-specific age.</p> <p><i>Social security pensions: other</i> Orphans pensions.</p>	Occupational and Individual Private pension schemes.
ES	<p><i>Social security pensions: old age and early pensions</i> E-r old-age and early retirement pensions for private sector employees, the self-employed, regional and local government. Means-tested minimum pension (contributory) Flat-rate old-age and early retirement pensions for central government employees and the military, including war pensions.</p> <p><i>Social security pensions: other</i> Disability (-64) and survivors' pensions (all ages) for private sector employees, self-employed, regional, local and central government and the military. Means-tested minimum pension (contributory). Private (supplementary and voluntary) pension schemes: occupational and individual.</p>	<p>Means-tested minimum pension scheme (non-contributory).¹</p> <p>¹ This is a minimum income for the elderly and the disabled that have not contributed before. It includes old-age pensions (65+) and disability pensions (-64). The part of old-age is 57% of total non contributory pensions. It amounts to 0,1% of GDP in 2007. Total non contributory pensions amount to 2,119 million euro in 2007; 2,137 million euro in 2008 (0,19% GDP). Indexation by Annual Budget Law (2% in 2009).</p>
FR	<p><i>Social security pensions: old age and early pensions.</i> Minimum old-age and widows' pensions (State budget). E-r old-age pensions, 60+, private sector (CNAVTS, national pension fund for salaried workers). E-r old-age pensions, 60+, agricultural workers (MSA, mutual agricultural solidarity fund). Mandatory supplementary funded old-age pensions, all workers in the private sector (ARRCO, association of suppl. pension schemes for non-executive employees). Mandatory supplementary funded old-age pensions, executive workers, private sector (AGIRC, general association of pension institutions for executives). E-r old-age pensions, 60+, public sector (Civil and military pension code, CNRACL, local government and hospitals), specific funds for public sector enterprise workers). E-r old-age pensions, self-employed (CANCAVA (craftsmen), ORGANIC (tradesmen), CNBF (lawyers), CNAVPL (independent professions)). Disability and widows pensions, 60+, all sectors (FSV). Anticipated old-age and early retirement pension (UNEDIC).</p>	<p>Small anticipatory pension schemes: The new disability scheme (within health insurance), established in 2004.</p>

	Schemes covered in the 2009 projections (*E-r = earnings-related)	Schemes <u>not</u> covered
IE	<p>Social security pensions: old age and early pensions Minimum flat-rate old-age non-contributory pensions, 66+¹ (also includes widow(er)s non-contributory pensions, blind persons, lone parents, 66+), all sectors.² Carers non-contributory, 66+, all sectors.² Flat-rate contributory 66+ and transition pensions, 65+(also includes invalidity) 1, private sector, self-employed and some public servants.³ Widow(er)s contributory pensions, 66+, all sectors. Carers contributory, 65+, private sector, self-employed and some public servants.³</p> <p>Social security pensions: others Widow(er)s non-contributory pensions, 65-, all sectors.² Blind persons, carers, non-contributory, 65-, all sectors.² Pre-retirement allowance, 55-65, all sectors.² Disability pensions, 65-, and invalidity pensions 64-, private sector, self-employed, some public servants.³ Carers, contributory, 64-, private sector, self-employed, some public servants.³ Widow(ers) contributory pension, 65-, all sectors.</p> <p>Public service (occupational) pensions Pensions, lump sums and spouses, Civil service, defence, police, education, health and local authorities, non-commercial state bodies.</p> <p>¹ Includes dependent adults of all ages. ² While individuals from all sectors of the economy are eligible to apply for these pensions, some sectors may not be eligible to receive them due to the means-tested nature of the schemes. ³ Public servants hired on or after 6 April 1995 pay the standard full-rate social insurance contribution, thereby (in general) becoming entitled on retirement to a contributory social security pension, along with a public service occupational pension which is "integrated". They also qualify for a range of other social welfare benefits. By contrast, most public servants hired before 6 April 1995 pay a lower "modified" social insurance contribution and as such, do not qualify for a contributory social security pension (they do normally qualify for a public service occupational pension on retirement) but may qualify for some other social welfare benefits.</p>	<p>Occupational pensions: Private sector schemes and public sector commercial bodies</p>
IT	<p>Social security pensions and social assistance benefits: Old-age, disability and survivors' pensions, w60+/m65+, all sectors, all social security schemes (DB, Mixed, NDC)). Early retirement, disability and survivors' pensions, w-59/m-64, all sectors, all social security schemes (DB, Mixed, NDC)- Old age allowances and social assistance additional lump sums (State budget).</p>	<p>Occupational pensions: They are not part of the public pension system definition to be utilised for the analysis of the sustainability of public finances insofar as: i) they are never mandatory; ii) they provide a supplement of pension which corresponds to a minor fraction of that provided by the public pension system. No risk is taken by the State on investment returns.</p>
CY	<p>Social security pensions: old age and early pensions General Social Insurance scheme covering e-r old-age and widows' pensions. Early old-age pensions, 58-64. Invalidity and disablement pensions, -62. Government Employees Pension scheme covering old-age, widows' and disability pensions.</p>	<p>Social security pensions: old age and early pensions Social (minimum) pension scheme and special allowances to pensioners</p> <p>Occupational pensions: Voluntary provident Funds.</p>
LV	<p>Social security pensions: old age and early pensions Old-age minimum guaranteed pension, 62+. E-r old-age DB pensions, granted -1995, all sectors. E-r old-age NDC pensions, 62+, granted 1996+, all sectors. Special service pensions (early pensions), selected professions, public sector. Disability pensions, granted -1995 and not transformed to old-age pensions, all sectors. Survivors' pensions (for widows during the transition period).</p> <p>Social security pensions: other Disability pensions, -62, all sectors. Survivors' pensions -24. Special service, public sector.</p> <p>Private mandatory pensions Individual funded old-age pension, mandatory for persons born 1971+.</p>	

Schemes covered in the 2009 projections (*E-r = earnings-related)		Schemes <u>not</u> covered
LT	<p><i>Social security pensions: old age and early pensions</i> Social assistance pensions, w60+/m62.5+ ; (State budget) Old-age, disability and widows pensions, w60+/m62.5+, all sectors (Soc insurance scheme) Officials and military personnel disability and widows pensions, w60+/m62.5+, public sector (State budget) Special public service (state) pensions for selected professions (scientists, judges) (State budget); state pensions of the first and second degree of the Republic of Lithuania (State budget); state pensions of deprived persons (State budget); Early retirement unemployment benefit (Unemployment fund), changed into early retirement pension as of mid 2004 (Social insurance scheme as of mid 2004). Officials and military personnel pensions for service (State budget); length of service pensions, compensation for extraordinary working conditions (Soc. insurance. scheme);</p> <p><i>Social security pensions: other</i> Social assistance pensions (disability and widows pensions), -w59/-m62.4 (State budget) Disability and widows pensions, -w59/-m62.4, all sectors (Soc. Insurance scheme)</p> <p><i>State pensions : other</i> Officials and military personnel disability and widows pensions, -w59/-m62.4, public sector (State budget)</p> <p><i>Private mandatory pensions</i> Individual funded old-age pension, voluntary, all sectors</p>	
LU	<p><i>Social security pensions: old age and early pensions</i> E-r old-age, early retirement and disability pensions, 65+, private sector & self-employed (RGAP (general pension insurance scheme). E-r old-age, early retirement and disability pensions, 65+, public sector (RSP, special pension scheme), state budget.</p> <p><i>Social security pensions: other</i> Disability (-64 years) and survivors' pensions, all sectors.</p>	Minimum benefits (RMG, social assistance).
HU	<p><i>Social security pensions: old age and early pensions</i> Social allowances equivalent to pensions to persons 62+. E-r old-age and anticipatory old-age pensions, all sectors. Survivor's pensions, 62+, all sectors. Disability pensions, 62+, all sectors.</p> <p><i>Social security pensions: other</i> Disability pensions, -61, all sectors. Survivor's pensions, -61, all sectors. Pension-like regular social allowances, -61.</p> <p><i>Private mandatory pensions</i> Individual funded pensions, mandatory to persons entering the labour market.</p>	
MT	<p><i>Social security pensions: old age and early pensions</i> Two-thirds pension scheme (incorporating two-thirds retirement pension, national minimum pension, increased national minimum pension, increased retirement pension, decreased national minimum pension), currently w60+/m61+, 62+ in 2012, 63+ in 2018, 64+ in 2022 and 65+ in 2026.</p> <p><i>Social security pensions: other</i> Pensions other than those listed above, notably disability and survivors' pensions and some pensions, which will be phased out over a transition period, to specific groups of pensioners.</p>	
NL	<p><i>Social security pensions: old age and early pensions</i> Public flat-rate old-age pensions, 65+, all citizens (AOW). Widows pensions, w55+, all sectors (ANW).</p> <p><i>Social security pensions: other</i> Disability benefits, all sectors (WAO).</p> <p><i>Occupational pensions</i> Occupational old-age pensions, 65+, all sectors. Occupational early retirement pensions, all sectors (VUT).</p>	

	Schemes covered in the 2009 projections (*E-r = earnings-related)	Schemes <u>not</u> covered
AT	<p>Social security pensions: old age and early pensions E-r old-age and early retirement pensions, w60+/m65+, private sector (ASVG, gen. soc. ins. Scheme, also including farmers and self-employed). E-r old-age and early retirement pensions, w60+/m65+, public sector (civil service).</p> <p>Social security pensions: other Survivors' pensions, all ages, all sectors. Disability pensions, all ages, all sectors.</p>	<p>Social security pensions: old age and early pensions: Minimum pensions (Ausgleichszulagen), financed by general tax revenues (in 2007 approximately 0.3% of GDP).</p> <p>Other pension related expenditures: Some pension expenditures not directly linked to pension benefits (as for rehabilitation, administrative costs, etc.) are not included in the projections. These other pension expenditures make up for approximately 0.9% of GDP.</p>
PL	<p>Social security pensions: old age and early pensions:</p> <p>General pension scheme: Persons born before 1949 E-r DB old-age, w60+/m65+ and early retirement pensions w55-59/m55-64, and to those people who earned fully their pension rights before the end of 2008, private and public sector, self-employed (ZUS, Social ins. institute) Persons born after 1948 E-r NDC old-age (with the exception of the transitional group), private and public sector, self-employed (ZUS, Social insurance fund) Pre-retirement benefits and allowances (State budget)</p> <p>Farmers E-r DB old-age and early retirement pensions w55-59/m55-64, (KRUS, Farmers social ins. scheme)</p> <p>Security provision systems: old-age pensions (State budget)</p> <p>Social security pensions: other General pension scheme: disability, survivors' pensions and other benefits Other systems : disability and survivors' pensions</p> <p>Private mandatory pensions Individual funded old-age pensions, mandatory to persons born 1969+ and voluntary to those born 1949-68 joining the scheme by the end of 1999</p>	<p>Social security pensions: old age and early pensions: Minimum means-tested pensions.</p> <p>Occupational pensions: (of minor importance).</p>
PT	<p>Social security pensions: old age and early pensions: Social pensions (minimum, means-tested and non- contributory), old-age, 65+, disability pensions, 65+. General Contributory (social insurance) scheme (employees and self-employed of the private sector and public employees since 2006): old-age and early pensions; disability pensions, 65+. Includes supplements to ensure minimum pensions value. RESSAA (Spec. soc. sec. scheme for agriculture workers): e-r old-age, 65+, disability pensions, 65+. CGA (Pension scheme of civil servants hired until December 2005): old-age and early pensions, disability pensions, all ages. Includes supplements to ensure minimum pensions value.</p> <p>Social security pensions: other Social pensions (means-tested non-contributory): disability pensions, -64, survivors' pensions, all ages. General contributory scheme & RESSAA: disability pensions, -64, survivors' pensions, all ages. CGA scheme: survivors' pensions, all ages.</p> <p>Occupational pensions: 1st pillar schemes for some sectors (banking and insurance for example) and complementary schemes for other DB and DC pensions.</p>	<p>Private pensions: Individual (non-mandatory) private pension schemes (of minor importance).</p>
RO	<p>Social security pensions: old age and early pensions Old age pensions. E-r old-age (w58-60+/m63-65+). Disability and widows pensions, all ages, all sectors.</p> <p>Social security pensions: other Pensions for farmers. Pensions for the military</p> <p>Private mandatory pensions</p>	<p>Occupational pensions – of minor importance</p> <p>Private non-mandatory pensions: Voluntary pension funded scheme introduced in 2007 as third pillar of the pension scheme.</p>

	Schemes covered in the 2009 projections (*E-r = earnings-related)	Schemes <u>not</u> covered
SI	<p>Social security pensions: old age and early pensions Old age pensions. E-r old-age (w58-63+/m58-65+). Disability and widows pensions, all ages, all sectors. Special compulsory pensions to workers in high-risk occupations, private and public sector.</p> <p>Private non-mandatory pensions (including mandatory pensions to workers in high risk occupations) Collective (semi – mandatory) and individual supplementary pensions.</p>	<p>National (state) pensions (State budget). Flat-rate pensions for farmers. Pensions (supplements) for the military personnel of the Yugoslav army and retirees from other republics of former SFRY.</p> <p>Occupational pensions : Collective supplementary pensions.</p>
SK	<p>Social security pensions: old age and early pensions E-r old-age, w53-57+/m60+ (w62+ 2024 and m62+ 2008), disability and widows pensions, all sectors (Social insurance scheme).</p> <p>Social security pensions: other Disability and widows pensions, orphans. Pensions.</p> <p>Private mandatory pensions: Individual funded old-age pension, voluntary to persons entering labour market 2008+ (assumed entry rate 95%).</p>	<p>Voluntary pension funded DC scheme introduced in 1996. Third pillar of the pension scheme.</p>
FI	<p>Social security pensions: old age and early pensions National (minimum) pension (Nat. pension insurance), 65+. E-r old-age, 63+, early pensions, private sector and the self-employed: (TyEL, private sector employees), (YEL, self-employed), (MYEL, farmers), and the public sector: (VaEL (central government employees), KuEL (municipal sector employees), KiEL (church empl.). Unemployment pensions, 60-62, to be phased out by 2014.</p> <p>Social security pensions: other National (minimum) disability and survivors' pensions, -64. E-r disability and survivors pensions, -62, all sectors (early pensions change into old- age pensions at the age of 63 and then included in the above category).</p>	<p>Occupational pensions: Collective mandatory and voluntary supplementary schemes.</p>
SE	<p>Social security pensions: old age and early pensions: Minimum pensions and housing supplement for pensioners (State budget). E-r NDC old-age and anticipated pensions, flexible age, all sectors (Social insurance scheme).</p> <p>Social security pensions: other Disability pensions, 19-64, and survivors benefits, all ages.</p> <p>Occupational pensions: Occupational (supplementary) pensions, private and public sector employees (old and new schemes). Individual mandatory funded old-age pensions, premium pensions.</p>	
UK	<p>Social security (and other public) pensions: old age and early pensions: Basic state (minimum) pensions + their additions (winter fuel allowance), State Pension Age and above, all citizens (National insurance scheme). Pension credits and Council tax benefits, 60+, all citizens (State budget). State second pension (S2P)/ State earnings-related pensions (SERPS), State Pension Age, all sectors (National insurance scheme). Widow's benefits are covered for individuals above State Pension Age. E-r old-age pensions, 60+, public sector employees (State budget)</p> <p>Social security pensions: other</p>	<p>Public pensions: Disability benefits to people below State Pension Age. Above State Pension Age all individuals are covered by social security pensions.</p> <p>Occupational pensions: Supplementary old-age pensions, private sector; important part of the pension system.</p>
NO	<p>Social security pensions: old age and early pensions Minimum income guarantee. Earnings-based benefit.</p> <p>Social security pensions: other Disability pensions.</p>	<p>Central government occupational pension scheme financed by employee contributions and transfers from State budget. Supplement to social security old age pension. Local government occupational pension schemes are funded systems. Supplement to social security old age pension. Mandatory private sector occupational schemes are funded defined contribution systems. Supplement to social security old age pension. Labour market supplementary pensions for recipients of anticipatory pension. Voluntary early retirement pensions.</p>

8.3. INDEXATION RULES IN THE MEMBER STATES

	Legislated indexation rule	Indexation rule used in the projection
BE		
Minimum guarantee pensions:		
	CPI indexation and a partial indexation to living standards within a total budget corresponding to the necessary budget required for a 1% increase of all social assistance benefits	CPI indexation + 1% indexation to living standards
Old-age pensions:		
	Wage earners: CPI indexation and a partial indexation to living standards within a total budget corresponding to the necessary budget required for an increase (of all replacement benefits in the scheme) of: + 1.25% indexation of the wage ceilings + 1.25% indexation of the minimum claim per year + 1% indexation of lump-sum benefits + 0.5% indexation of the earning-related benefits; Self-employed: CPI indexation and a partial indexation to living standards within a total budget corresponding to the necessary budget required for an increase (of all replacement benefits in the scheme) of: + 1.25% indexation of the wage ceilings + 1% indexation of lump-sum benefits + 0.5% indexation of the earning-related benefits; Civil servants: CPI and a real wage indexation.	Wage earners : CPI indexation, + 1.25% indexation of the wage ceiling + 1.25% indexation of the minimum claim per year + 1% indexation of the minimum pension + 0.5% indexation of the wage earning-related pension; Self-employed: CPI indexation, + 1.25% indexation of the wage ceiling + 1% indexation of the minimum pension + 0.5% indexation of the earning-related pension; Civil servants: CPI indexation, + real wage indexation minus 0.5% wage drift
Widow's/Survivor's pensions:		
	As Old-age pensions	As Old-age pensions
Early retirement pensions		
	CPI indexation and a partial indexation to living standards within a total budget corresponding to the necessary budget required for an increase (of all replacement benefits in the wage earners scheme) of: + 1.25% indexation of the wage ceilings + 1.25% indexation of the minimum claim per year + 1% indexation of lump-sum benefits + 0.5% indexation of the earning-related benefits	CPI indexation, + 1.25% indexation of the wage ceiling + 1% indexation of the lump-sum benefit + 0.5% indexation of the earning-related benefit
Disability pensions		
	Wage earners: CPI indexation and a partial indexation to living standards within a total budget corresponding to the necessary budget required for an increase (of all replacement benefits in the scheme) of: + 1.25% indexation of the wage ceilings + 1.25% indexation of the minimum claim per year + 1% indexation of lump-sum benefits + 0.5% indexation of the earning-related benefits; Self-employed: CPI indexation and a partial indexation to living standards within a total budget corresponding to the necessary budget required for an increase (of all replacement benefits in the scheme) of: + 1.25% indexation of the wage ceilings + 1% indexation of lump-sum benefits + 0.5% indexation of the earning-related benefits;	Wage earners: CPI indexation, + 1.25% indexation of the wage ceiling + 1% indexation of the lump-sum benefit + 0.5% indexation of the earning-related benefit; Self-employed: CPI indexation, + 1% indexation of the lump-sum benefit
BG		
Minimum guarantee pensions:		
	They are indexed by the same percentage as for all other types of pensions, through the so called "golden Swiss rule" – 50% of CPI annual growth and 50% of insurance income growth for the previous calendar year.	Indexation of pensions follows the so called "golden Swiss rule" – 50% of CPI annual growth and 50% of insurance income growth for the previous calendar year
Old-age pensions:		
	Indexation of pensions follows the so called "golden Swiss rule" – 50% of CPI annual growth and 50% of insurance income growth for the previous calendar year	As legislated
Widow's/Survivor's pensions:		
	As Old-age pensions	As legislated
Early retirement pensions		

	Legislated indexation rule	Indexation rule used in the projection
	As Old-age pensions (for pensions granted before end 2010). After end 2010 new pensions will be transferred to the mandatory private scheme (PPF) where the indexation rules are stipulated in the pension contract and/or the PPF Rules.	As legislated (for pensions granted before end 2010). Pensions granted after end 2010 are not covered by the projection (see the left column), and no projection indexation is applied to them.
Disability pensions		
CZ	As Old-age pensions	As legislated
Minimum guarantee pensions:		
	There is no rule on the indexation. Government increases the minimum pension in order to maintain its relative level.	Average wage growth.
Old-age pensions:		
	An inflation growth (CPI) plus at least a third of the growth in real average wage. If the inflation rate exceeds 5%, there is special adjustment of pension benefits added.	An inflation growth (CPI) plus at least a third of the growth in real average wage.
Widow's/Survivor's pensions:		
	As Old-age pensions	As Old-age pensions
Early retirement pensions		
	As Old-age pensions	As Old-age pensions
Disability pensions		
	As Old-age pensions	As Old-age pensions
DK		
Minimum guarantee pensions:		
	Indexed to the nominal wage growth according to the Rate Adjustment Percentage Act.	As legislated
Old-age pensions:		
	Indexed to the nominal wage growth according to the Rate Adjustment Percentage Act.	As legislated
Widow's/Survivor's pensions:		
	Indexed to the nominal wage growth of civil servants	Not included in the model
Early retirement pensions		
	As Old-age pensions	As legislated
Disability pensions		
	As Old-age pensions	As legislated
DE		
Minimum guarantee pensions:		
	In general, social assistance is indexed in line with pensions. In addition, every 5 years poverty line is re-examined on the basis of a sample survey of households income and expenditure (EVS).	Not included in the model
Old-age pensions:		
	The indexation of pensions (more precisely, the pension point value) depends on the increase of gross wages (in this case given by the AWG), changes in the contribution rate and the sustainability factor, which evolves with the change in the contributors/pensioner ratio.	As legislated
Widow's/Survivor's pensions:		
	As Old-age pensions	As legislated
Early retirement pensions		
	As Old-age pensions	As legislated
Disability pensions		
	As Old-age pensions	As legislated
EE		
Minimum guarantee pensions:		
	As Old-age pensions	As legislated
Old-age pensions:		
	Up to 2008 the pension index was based on social tax increase (close to wage growth) and on CPI with equal weights (50% and 50%). The indexation system in place currently is a sum of 80% of social tax increase and 20% of the annual increase in CPI.	As legislated
Widow's/Survivor's pensions:		
	As Old-age pensions	As legislated
Early retirement pensions		
	As Old-age pensions	As legislated
Disability pensions		

	Legislated indexation rule	Indexation rule used in the projection
	As Old-age pensions	As legislated
EL		
Minimum guarantee pensions:		
	No legislated indexation rule	Inflation+0.5%
Old-age pensions:		
	No legislated indexation rule	Inflation+0.5%
Widow's/Survivor's pensions:		
	No legislated indexation rule	Inflation+0.5%
Early retirement pensions		
	No legislated indexation rule	Inflation+0.5%
Disability pensions		
	No legislated indexation rule	Inflation+0.5%
ES		
Minimum (contributory-means tested) pension:		
	Target inflation. If actual inflation is above, the difference is paid to all existing pensioners (threshold included in all type of pensions). If actual inflation is below, the government can make the corresponding adjustment.	Considering effective recent policy and political commitments, in the pension projection an annual 6% average increase is projected in the medium term, and afterwards a convergence to price indexation (after 2035 CPI indexation).
Old-age pensions:		
	Target inflation. If actual inflation is above, the difference is paid to all existing pensioners. If actual inflation is below, the government can make the corresponding adjustment.	As legislated
Widow's/Survivor's pensions:		
	As Old-age pensions	As legislated
Early retirement pensions		
	As Old-age pensions	As legislated
Disability pensions		
	As Old-age pensions	As legislated
FR		
Minimum guarantee pensions:		
	indexed on CPI	As legislated
Old-age pensions:		
	indexed on CPI	As legislated
Widow's/Survivor's pensions:		
	indexed on CPI	As legislated
Early retirement pensions		
	indexed on CPI	As legislated
Disability pensions		
	indexed on CPI	As legislated
IE		
Minimum flat-rate old-age non-contributory pensions, 66+¹ (also includes widow(er)s non-contributory pensions, blind persons, lone parents, 66+), all sectors² Carers non-contributory, 66+, all sectors²		
	No formal indexation criteria exist in the Irish social welfare system - social welfare increases are decided upon each year as part of the budgetary cycle.	For the purpose of the pension projection exercise, the State Pension Contributory rate is indexed to nominal earnings with all other rates rising at the same flat rate. However, increases for means-tested pensions are adjusted downwards in line with the current means adjustment mechanism in place for the State Pension Non-Contributory and Widow / Widower's Non-Contributory schemes. As such, the difference between contributory and non-contributory payment rates that applies in 2007 is maintained throughout the projection period. Nominal earnings are calculated using the productivity and inflation assumptions agreed by the AWG.
Flat-rate old-age contributory 66+ and transition pensions 65 (also includes invalidity)¹, private sector, self-employed and some public servants³		
	No formal indexation criteria exist in the Irish social welfare system - social welfare increases are decided upon each year as part of the budgetary cycle.	For the purpose of the pension projection exercise, the State Pension Contributory rate is indexed to nominal earnings with all other rates rising at the same flat rate. Nominal earnings are calculated using the productivity and inflation assumptions agreed by the AWG.
Widow(er)s contributory pensions, 66+, all sectors		
	As flat-rate contributory pensions	As flat-rate contributory pensions
Carers contributory, 65+, private sector, self-employed and some public servants³		
	As flat-rate contributory pensions	As flat-rate contributory pensions

	Legislated indexation rule	Indexation rule used in the projection
Widow(er)s non-contributory pensions, 65-, all sectors ²	As flat-rate contributory pensions	As minimum flat-rate non-contributory pensions
Blind persons, carers, non-contributory, 65-, all sectors ²	As flat-rate contributory pensions	As minimum flat-rate non-contributory pensions
Pre-retirement allowance, 55-65, all sectors ²	As flat-rate contributory pensions	As minimum flat-rate non-contributory pensions
Disability pensions, 65-, and invalidity pensions 64-, private sector, self-employed, some public servants ³.	As flat-rate contributory pensions	As minimum flat-rate non-contributory pensions
Carers, contributory, 64-, private sector, self-employed, some public servants ³	As flat-rate contributory pensions	As flat-rate contributory pensions
Widow(ers) contributory pension, 65-, all sectors	As flat-rate contributory pensions	As flat-rate contributory pensions
Public Service pensions, lump sums and spouses (Civil service, defence, police, education, health and local authorities, non-commercial state bodies).	There is no legislative guarantee in relation to indexation of the occupational pensions of retired public servants in Ireland.	For the purpose of the pension projection exercise, public service occupational pensions are assumed to grow in line with nominal earnings. Nominal earnings are calculated using the productivity and inflation assumptions agreed by the AWG.

¹ Includes dependent adults of all ages.

² While individuals from all sectors of the economy are eligible to apply for these pensions, some sectors may not be eligible to receive them due to the means-tested nature of the schemes.

³ Public servants hired on or after 6 April 1995 pay the standard full-rate social insurance contribution, thereby (in general) becoming entitled on retirement to a contributory social security pension, along with a public service occupational pension which is "integrated". They also qualify for a range of other social welfare benefits. By contrast, most public servants hired before 6 April 1995 pay a lower "modified" social insurance contribution and as such, do not qualify for a contributory social security pension (they do normally qualify for a public service occupational pension on retirement) but may qualify for some other social welfare benefits.

IT

Old age-allowances and social assistance additional lump sums:		
	i) old-age allowances: CPI indexation;	i) old-age allowances: GDP per capita;
	ii) social assistance additional lump sums: fixed in nominal terms	ii) social assistance additional lump sums: GDP per capita
All social security pension schemes (DB, Mixed, NDC) and typologies of pension (old age, early retirement, disability and survivors¹):		
	Pensions (including minimum) are indexed to CPI. The percentage of indexation is differentiated by pension amount brackets: 100% of the inflation rate for the amount of pension up to three times the minimum, 90% for the amount between three and five times the minimum, and 75% for the part above five times the minimum. Before 1992, partial indexation to real wage was acknowledged to private sector pensioners. Since then pensions (including minimum) have been indexed only to prices.	Pensions are indexed to prices as foreseen by current legislation. Minimum pension utilised in topping-up and indexation calculations is updated according to GDP per worker
Widow's/Survivor's pensions:	As Old-age pensions	As Old-age pensions
Early retirement pensions	As Old-age pensions	As Old-age pensions
Disability pensions	As Old-age pensions	As Old-age pensions

CY

Minimum guarantee pensions:		
	Average Insurable Earnings	As legislated
Old-age pensions:	Basic: Average Insurable Earnings; Supplementary: CPI	As legislated
Widow's/Survivor's pensions:	As Old-age pensions	As legislated
Early retirement pensions	As Old-age pensions	As legislated
Disability pensions	As Old-age pensions	As legislated

LV

Minimum guarantee pensions:		
	State (social security) benefits (those with less than 10 years insurance records), 67+: discretionary adjustment. Old-age minimum guaranteed pension, 62+: Since 2002 – indexation to CPI and share of real wage sum growth (since 2004 – 50%).	Old-age minimum guaranteed pension, 62+: Until 2002 - indexation to the CPI. Since 2002 – indexation to the CPI and 50% of a wage sum growth. Indexation to CPI and share of real wage sum growth (since 2004 – 50%).

	Legislated indexation rule	Indexation rule used in the projection
Old-age pensions:	Until 2002 - indexation to the CPI. Since 2002 – indexation to the CPI and share of real wage sum growth (since 2004 – 50%).	As legislated
Widow's/Survivor's pensions:	As Old-age pensions	As legislated
Early retirement pensions	As Old-age pensions	As legislated
Disability pensions	As Old-age pensions	As legislated
LT		
Minimum guarantee pensions:	Pensions are adjusted discretionary by Government decision by approving a new amount of the basic pension	In the projection the indexation to productivity growth (real wage growth) was used
Old-age pensions:	Social insurance old age pensions are adjusted discretionary by Government decision by approving a new amount of the basic pension and the average insurable income in the country (based on income on which social insurance contributions were paid). During post reform period (1995-2008) pensions were indexed in line with wage growth with a few year exception). Non earnings related state pensions which depend on special state pension base and earnings related state pensions are raised with discretionary decisions of the Government, while the later pensions are also affected by higher new pensions that have accrued in line with earnings increases.	Social insurance pensions and E-r state pensions - adjustment to productivity growth (real wage growth). Non E-r state pensions - indexation to price index
Widow's/Survivor's pensions:	Pensions are adjusted discretionary by Government decisions;	As early retirement pensions indexation
Early retirement pensions	Social insurance pensions are adjusted discretionary by Government decisions each year by approving a new amount of the basic pension and the average insurable income in the country (based on income on which social insurance contributions were paid). Official's and military personnel state pensions for service (State budget) are adjusted discretionary by Government decisions and also affected by higher new pensions that have accrued in line with earnings increases.	In the projection pensions were indexed in line with the productivity growth (real wage growth). As early retirement pensions indexation
Disability pensions	As early retirement pensions	As early retirement pensions indexation
LU		
Minimum guarantee pensions:	As Old-age pensions	Not modelled
Old-age pensions:	Whenever prices increase by more than 2.5% - price indexation. Every two years - Real wage indexation (must be confirmed by the government and the parliament).	Whenever prices increase by more than 2.5% - price indexation. Every two years - Real wage indexation
Widow's/Survivor's pensions:	As Old-age pensions	As legislated
Early retirement pensions	As Old-age pensions	As legislated
Disability pensions	As Old-age pensions	As legislated
HU		
Minimum guarantee pensions:	People who have the right to pension are entitled at least to the so called "minimum pension". It is adjusted discretionary by Government decision. People, who fail to obtain enough rights that would qualify them for a social security pension, get no any guaranteed pension, but might become entitled to a social assistance benefit (old-age allowance). The amount of old-age allowance is determined in percentage of the minimum pension.	Old-age allowance not modelled (in the supplementary calculation the indexation is the same as the old age pension indexation.)

	Legislated indexation rule	Indexation rule used in the projection
Old-age pensions:	50% CPI and 50% average wage growth	As legislated
Widow's/Survivor's pensions:	As Old-age pensions	As legislated
Early retirement pensions	As Old-age pensions	As legislated
Disability pensions	As Old-age pensions	As legislated
MT		
Minimum guarantee pensions:	Non-contributory Old Age Pensions are indexed to 2/3 of Cost of Living Allowance (COLA).	Not included in the model
Old-age pensions:	Persons born before 1962 have their pension updated on the basis of COLA as well as any increases in wages presently awarded through collective bargaining. Following the implementation of the pension reform, indexed to 70 per cent Nominal Wage growth and 30 per cent inflation rate for persons retiring from 2026 onwards.	As legislated
Widow's/Survivor's pensions:	Indexation similar to that of the contributory Old-Age pensions.	As legislated
Early retirement pensions		
Disability pensions	Indexed to COLA	As legislated
NL		
Minimum guarantee pensions:	The Netherlands features a flat rate system of public pensions (AOW). This functions as a minimum provision. The AOW is indexed to wages.	As legislated
Widow's/Survivor's pensions:	Wage indexation	As legislated
Disability pensions	Wage indexation	As legislated
Occupational pensions	Indexation by pension funds is customary but not mandatory. 70% of the pension funds aim at wage indexation and 30% at price indexation.	It is assumed in the model that 70% of the pension funds aim at wage indexation and 30% at price indexation.
Early retirement occupational pensions	Not known	Same assumption as for occupational pensions: 70% to wages and 30% to prices.
AT		
Minimum guarantee pensions:	Annual CPI indexation.	No projection.
Old-age pensions:	Annual CPI indexation. Occasionally, (September 08) the Parliament can adjust pensions above CPI indexation.	As legislated
Widow's/Survivor's pensions:	Annual CPI indexation.	As legislated
Early retirement pensions	Annual CPI indexation.	As legislated
Disability pensions	Annual CPI indexation.	As legislated
PL		
Minimum guarantee pensions:	As Old-age pensions	As Old-age pensions
Old-age pensions:	Annual CPI (for pensioners' households) indexation + 20% real wage growth	Annual CPI + 20% real wage growth
Widow's/Survivor's pensions:	As Old-age pensions	As Old-age pensions
Early retirement pensions	As Old-age pensions	As Old-age pensions
Disability pensions	As Old-age pensions	As Old-age pensions

	Legislated indexation rule	Indexation rule used in the projection
PT		
Minimum guarantee pensions:	Full CPI and a partial GDP growth indexation depending on the average GDP growth of the 2 previous years.	As legislated
Old-age pensions:	Full CPI and a partial GDP growth indexation depending on the average GDP growth of the 2 previous years and the size of pension differentiated by reference to a social support index (IAS): pensions under 1.5 IAS; pensions between 1.5 and 6 IAS; and, pensions between 6 and 12 IAS. Pensions above 12 IAS have been frozen.	Full CPI and a partial GDP growth indexation depending on the size of a pension and GDP growth. To have the distribution of pensions by size, in the case of CGA, it was assumed the 2007 distribution: 32% in the first bracket, 60% in the second one and 8% in the highest one; in the case of Social Security it takes the 2005 distribution: 72% in the first bracket, 24% in the second and 4% in the highest one, and assumes a distribution change (with higher pensions) in the next 15 years, keeping it constant afterwards.
Widow's/Survivor's pensions:	Widows/Survivors' pensions are established as a percentage of the old-age or disability pensions that originate them and, in the case of Social Security General Regime, the indexation rule is the same: full CPI and a partial GDP growth indexation depending on the size of a pension and GDP growth of the 2 previous years.	Widows/Survivors' pensions are established as a percentage of the old-age or disability pensions that originate them and the indexation rule is the same applied to old age and disability pensions (in both cases of Social Security and CGA).
Early retirement pensions	As Old-age pensions	As Old-age pensions
Disability pensions	As Old-age pensions	As Old-age pensions
Occupational pensions:	There is not a specific rule for indexing occupational pension's benefits but benefit indexation under collective labour agreements is usually mandatory and related to the consumer price index. For the remaining plans pension indexation is not guaranteed and is usually made on a discretionary basis.	For projection purposes, different pension's growth rates were assumed for each one of the three pension plan "systems" modelled: 1st pillar DB plans (CPI), other DB plans and DC plans.
RO		
Minimum guarantee pensions:	If seen as part Minimum Guarantee Income Scheme – there are lump sums fixed each year	As legislated
Old-age pensions:	Indexed in line with average gross wage in the current year, as the value of the base point is established by the Social Insurance Law as percentage of the yearly gross wage in economy	As legislated
Widow's/Survivor's pensions:	As Old-age pensions	As legislated
Early retirement pensions	As Old-age pensions	As legislated
Disability pensions	As Old-age pensions	As legislated
SI		
Minimum guarantee pensions:	Minimum guarantee for Old age pension is 35 % of minimal pension base. Minimal pension base is indexed by same rule as pension, but without reduction coefficient which is applied for old pension. Minimum guarantee for other types of pension depends also on age and could be slightly higher than Minimum guarantee for Old age pension	As Old-age pensions
Old-age pensions:	The old-age net pension is indexed: 1. yearly by the same growth rate as it is estimated growth rate of average gross wage in the current year. Estimation of the yearly gross wage rate is done in November of the current year.	As legislated

	Legislated indexation rule	Indexation rule used in the projection
	2. The estimated growth rate is reduced by the coefficient between total accrual rate for man for 40 years of service in year before the current year and total accrual rate for man for 40 years of service in the two years before the current year.	
	This indexation is applied for all pensions, except for those assigned in the current year.	
Widow's/Survivor's pensions:	As Old-age pensions	As legislated
Early retirement pensions	As Old-age pensions	As legislated
Disability pensions	As Old-age pensions	As legislated
SK		
Minimum guarantee pensions:	No minimum pension. Social assistance benefit indexed roughly to CPI in short run (although no automatic indexation rule does exist).	Nominal wages
Old-age pensions:	50%CPI + 50% nominal wage growth	As legislated
Widow's/Survivor's pensions:	As Old-age pensions	As legislated
Early retirement pensions	As Old-age pensions	As legislated
Disability pensions	As Old-age pensions	As legislated
FI		
Minimum guarantee pensions:	National pensions - full indexation to the CPI. Occasional ad-hoc pension adjustment. The indexation rule pertains in addition to basic old-age pensions also unemployment, disability, widows/survivor pension within the national pension system	The index used in the projection has a weight of 50% to wages and 50 % to prices from 2011 onwards). The indexation rule pertains in addition to basic old-age pensions also unemployment, disability, widows/survivor pension within the national pension system
Old-age pensions:	Earnings related pensions - adjustment index has a weight of 80 % on CPI and 20 % on wages. Life expectancy is reflected in addition. The reference wage is calculated by an index, where the weight of wages is 80 per cent and that of prices is 20 per cent.	As legislated
Widow's/Survivor's pensions:	As Old-age pensions	As legislated
Early retirement pensions	As Old-age pensions	As legislated
Disability pensions	As Old-age pensions	As legislated
SE		
Minimum guarantee pensions:	CPI indexation. Occasional ad-hod adjustments of the housing supplement for pensioners.	Income indexed.
Old-age pensions:	PAYG: Income indexed. Also the automatic balancing mechanism may affect the indexation.	PAYG: Income indexed. The automatic balancing mechanism not activated.
Widow's/Survivor's pensions:	Income and CPI indexed	Income indexed
Early retirement pensions	As PAYG	Income indexed.
Disability pensions	Income and CPI indexed	Income indexed
UK		
Minimum guarantee pensions:	Pension Credit - earnings indexation until 2015 then Guarantee Credit (the main element that guarantees minimum income) continues to be indexed with earnings, but the Savings Credit (the element that smoothes withdrawal rates) is indexed with prices.	As legislated
Old-age pensions:	Currently - CPI indexation. From 2012 - National Average Earnings indexation.	As legislated

	Legislated indexation rule	Indexation rule used in the projection
Widow's/Survivor's pensions:	BSP and the minimum income guarantee of the Pension credit are indexed in line with earnings.	As legislated
Early retirement pensions		
Disability pensions		
NO	Does not apply in the case of UK.	Does not apply in the case of UK.
Minimum guarantee pensions:		
	Wage	Wage
Old-age pensions:		
	Wage	Wage
Widow's/Survivor's pensions:		
	Wage	
Early retirement pensions		
Disability pensions		
	Wage	Wage

8.4. ADDITIONAL PENSION PROJECTION RESULTS

Table 50 - Public pension expenditure (% of GDP)

	2007	2010	2020	2030	2040	2050	2060	Change 2007 - 2060 in p.p.
BE	10.0	10.3	11.8	13.9	14.6	14.7	14.7	4.8
BG	8.3	9.1	8.4	8.6	9.5	10.8	11.3	3.0
CZ	7.8	7.1	6.9	7.1	8.4	10.2	11.0	3.3
DK	9.1	9.4	10.6	10.6	10.4	9.6	9.2	0.1
DE	10.4	10.2	10.5	11.5	12.1	12.3	12.8	2.3
EE	5.6	6.4	5.9	5.6	5.4	5.3	4.9	-0.7
IE	4.0	4.1	4.6	5.4	6.4	8.0	8.6	4.6
GR	11.7	11.6	13.2	17.1	21.4	24.0	24.1	12.4
ES	8.4	8.9	9.5	10.8	13.2	15.5	15.1	6.7
FR	13.0	13.5	13.6	14.2	14.4	14.2	14.0	1.0
IT	14.0	14.0	14.1	14.8	15.6	14.7	13.6	-0.4
CY	6.3	6.9	8.9	10.8	12.8	15.5	17.7	11.4
LV	5.4	5.1	5.2	5.9	6.1	5.8	5.1	-0.4
LT	6.8	6.5	6.9	8.2	9.1	10.4	11.4	4.6
LU	8.7	8.6	9.9	14.2	18.4	22.1	23.9	15.2
HU	10.9	11.3	11.0	11.0	12.2	13.2	13.8	3.0
MT	7.2	8.3	9.3	9.3	10.5	12.0	13.4	6.2
NL	6.6	6.5	7.8	9.3	10.3	10.3	10.5	4.0
AT	12.8	12.7	13.0	13.8	13.9	14.0	13.6	0.9
PL	11.6	10.8	9.7	9.4	9.2	9.1	8.8	-2.8
PT	11.4	11.9	12.4	12.6	12.5	13.3	13.4	2.1
RO	6.6	8.4	8.8	10.4	12.6	14.8	15.8	9.2
SI	9.9	10.1	11.1	13.3	16.1	18.2	18.6	8.8
SK	6.8	6.6	6.3	7.3	8.3	9.4	10.2	3.4
FI	10.0	10.7	12.6	13.9	13.6	13.3	13.4	3.3
SE	9.5	9.6	9.4	9.5	9.4	9.0	9.4	-0.1
UK	6.6	6.7	6.9	7.6	8.0	8.1	9.3	2.7
NO	8.84	9.57	11.46	12.70	13.39	13.33	13.58	4.7
EU27	10.1	10.2	10.5	11.4	12.1	12.3	12.5	2.4
EA	11.0	11.1	11.5	12.6	13.5	13.9	13.8	2.8
EA12	11.1	11.2	11.6	12.6	13.6	13.9	13.8	2.7
EU15	10.2	10.3	10.7	11.6	12.3	12.4	12.6	2.4
EU10	9.7	9.3	8.8	9.0	9.6	10.4	10.7	1.0
EU25	10.2	10.2	10.5	11.4	12.1	12.3	12.5	2.3

Source: Commission services, EPC.

Table 51 - Number of pensioners in public pension schemes (in 1000)

	2007	2010	2020	2030	2040	2050	2060	Change 2007 - 2060	Change 2007 - 2060 (in %)
BE	2548	2646	3126	3655	3992	4180	4303	1755	69
BG	2234	2209	2160	2205	2346	2412	2271	37	2
CZ	2729	2754	3015	3119	3375	3619	3637	908	33
DK	1334	1400	1607	1585	1584	1500	1428	94	7
DE	19822	20236	21502	23861	24929	24251	23456	3634	18
EE	367	369	362	380	394	414	413	46	12
IE	759	813	1023	1270	1541	1863	2013	1254	165
GR	2635	2658	2871	3262	3804	4158	4192	1557	59
ES	8075	8438	9775	12080	15017	17002	16805	8730	108
FR	14048	14885	17075	19382	20908	21595	21973	7925	56
IT	15807	15780	16819	19299	21335	21304	20802	4995	32
CY	118	138	201	279	347	439	520	402	341
LV	576	551	519	573	602	645	640	64	11
LT	912	916	974	1065	1108	1166	1157	244	27
LU	146	160	226	320	417	504	551	405	277
HU	3049	2996	3050	3087	3242	3285	3252	202	7
MT	68	80	97	105	107	110	117	48	71
NL	3302	3447	4201	4903	5301	5158	5158	1856	56
AT									
PL	9968	9336	9415	9941	10599	11325	11275	1307	13
PT									
RO	5710	5469	5271	5652	6307	6736	6445	735	13
SI	519	540	610	688	754	769	730	211	41
SK	1189	1184	1287	1475	1633	1751	1754	566	48
FI	1331	1395	1609	1742	1735	1724	1748	417	31
SE	2167	2284	2716	3117	3400	3552	3807	1640	76
UK	12139	12769	13575	15632	17329	17251	19263	7124	59
NO	939	1016	1286	1504	1683	1783	1909	970	103

Source: Commission services, EPC.

Table 52 - Number of contributors to public pension schemes (in 1000)

	2007	2010	2020	2030	2040	2050	2060	Change 2007 - 2060	Change 2007 - 2060 (in %)
BE	4406	4541	4817	4785	4783	4786	4780	374	8
BG	2864	2974	2837	2622	2389	2121	1857	-1006	-35
CZ	4878	5052	5045	4814	4546	4178	3873	-1005	-21
DK	2822	2842	2798	2779	2774	2838	2844	22	1
DE	31816	32415	33499	31201	29158	27549	25681	-6135	-19
EE	659	676	631	593	562	511	470	-189	-29
IE	2715	2926	3392	3667	3789	3717	3775	1059	39
GR	4608	4726	4856	4691	4443	4210	4107	-500	-11
ES	21510	22967	25326	25769	24544	22630	21911	402	2
FR	25399	25778	26637	26719	26969	27182	27525	2127	8
IT	23550	24220	25404	25304	23835	22687	21922	-1628	-7
CY	392	433	509	551	591	603	607	215	55
LV	1202	1235	1113	997	916	787	707	-496	-41
LT	1467	1501	1477	1330	1212	1076	940	-527	-36
LU	342	371	447	468	491	517	536	194	57
HU	3987	4056	4129	3923	3615	3286	3036	-951	-24
MT	159	160	169	172	170	159	146	-13	-8
NL	10981	11343	12015	12464	12725	12463	12259	1278	12
AT	3705	4206	4352	4311	4269	4186	4092	387	10
PL	15333	16544	16373	15196	13828	11939	10518	-4814	-31
PT	4296	4293	4315	4127	3879	3633	3496	-800	-19
RO	6136	6348	6630	6464	6185	5689	5297	-839	-14
SI	878	887	875	806	734	666	620	-258	-29
SK	2386	2468	2662	2501	2260	1964	1715	-671	-28
FI	2376	2435	2427	2355	2331	2295	2233	-142	-6
SE	5569	5679	5693	5761	5801	5923	5849	279	5
UK									
NO									

Source: Commission services, EPC.

Table 53 - Pension system dependency ratio: number of pensioners relative to the number of contributors in public pension schemes (in %)

	2007	2010	2020	2030	2040	2050	2060	Change 2007 - 2060 in p.p.
BE	58	58	65	76	83	87	90	32
BG	78	74	76	84	98	114	122	44
CZ	56	55	60	65	74	87	94	38
DK	47	49	57	57	57	53	50	3
DE	62	62	64	76	85	88	91	29
EE	56	55	57	64	70	81	88	32
IE	28	28	30	35	41	50	53	25
GR	57	56	59	70	86	99	102	45
ES	38	37	39	47	61	75	77	39
FR	55	58	64	73	78	79	80	25
IT	67	65	66	76	90	94	95	28
CY	30	32	40	51	59	73	86	56
LV	48	45	47	57	66	82	91	43
LT	62	61	66	80	91	108	123	61
LU	43	43	51	68	85	97	103	60
HU	76	74	74	79	90	100	107	31
MT	43	50	58	61	63	69	80	37
NL	30	30	35	39	42	41	42	12
AT								
PL	65	56	58	65	77	95	107	42
PT								
RO	93	86	80	87	102	118	122	29
SI	59	61	70	85	103	115	118	59
SK	50	48	48	59	72	89	102	52
FI	56	57	66	74	74	75	78	22
SE	39	40	48	54	59	60	65	26
UK								
NO								

Source: Commission services, EPC.

Table 54 - Pension contributions to public pension schemes as a share of GDP (in %)

	2007	2010	2020	2030	2040	2050	2060	Change 2007 - 2060 in p.p.
BE								
BG	5.0	7.6	7.5	7.4	7.3	7.3	7.4	2.4
CZ	8.3	8.3	8.3	8.3	8.3	8.3	8.3	0.0
DK								
DE	7.2	7.1	6.9	7.8	8.3	8.4	8.6	1.4
EE	6.1	6.1	5.9	5.7	5.6	5.6	5.6	-0.5
IE	4.6	4.6	4.5	4.5	4.5	4.5	4.5	-0.1
GR	8.5	8.8	9.1	9.4	8.3	8.3	8.5	0.0
ES	10.7	10.7	10.7	10.7	10.6	10.5	10.4	-0.3
FR	12.6	12.6	12.7	12.7	12.7	12.7	12.7	0.0
IT	10.4	10.6	10.6	10.6	10.5	10.6	10.6	0.2
CY	4.2	4.3	4.5	4.5	4.6	4.6	4.7	0.5
LV	6.8	6.2	6.0	5.8	5.8	5.7	5.8	-1.0
LT	6.6	6.6	6.5	6.4	6.4	6.3	6.4	-0.2
LU	9.6	9.6	9.8	9.9	9.8	9.8	9.9	0.3
HU	8.6	8.9	8.6	8.6	8.7	8.6	8.6	0.0
MT	5.9	5.8	6.0	6.0	6.0	5.9	5.8	-0.1
NL								
AT	9.0	9.0	9.0	9.0	9.1	9.1	9.1	0.1
PL	6.9	5.6	5.4	5.1	5.1	5.0	5.1	-1.8
PT	9.9	10.3	9.7	9.0	8.7	8.6	8.5	-1.3
RO	6.7	6.3	6.2	6.4	6.6	6.9	7.2	0.5
SI	8.7	8.2	8.5	8.6	8.6	8.6	8.5	-0.2
SK	4.6	4.7	4.6	4.5	4.4	4.3	4.2	-0.4
FI	9.3	9.6	10.5	11.3	11.4	11.4	11.5	2.2
SE	6.3	6.2	6.1	6.1	6.0	6.0	6.0	-0.3
UK								
NO								

Source: Commission services, EPC.

Table 55 - Social security pension contributions relative to public pensions (in %)

	2007	2010	2020	2030	2040	2050	2060	Change 2007 - 2060 in p.p.
BE								
BG	60.6	83.8	89.0	86.5	77.5	68.1	65.5	4.9
CZ	107.1	117.8	121.4	116.4	98.5	81.7	75.4	-31.8
DK								
DE	68.6	69.3	65.5	67.5	68.4	68.4	67.1	-1.5
EE	108.7	95.2	99.9	102.5	104.1	106.3	113.3	4.6
IE	114.9	111.3	98.1	83.4	69.8	56.3	52.3	-62.6
GR	72.8	75.9	69.2	55.0	38.7	34.6	35.1	-37.7
ES	127.0	119.7	112.9	99.3	80.5	68.0	68.6	-58.4
FR	97.0	93.9	92.7	89.1	87.7	89.0	90.1	-6.9
IT	74.3	75.4	75.2	71.6	67.5	71.7	78.1	3.8
CY	66.7	62.7	50.7	42.1	35.8	29.7	26.5	-40.2
LV	125.8	121.8	116.7	98.9	93.9	99.1	113.9	-11.9
LT	97.5	101.9	94.1	78.4	70.5	61.3	56.2	-41.3
LU	110.1	111.6	99.1	69.7	53.4	44.5	41.4	-68.8
HU	79.3	79.0	78.5	78.4	71.1	65.1	62.1	-17.2
MT	82.2	69.7	65.1	64.7	57.1	49.4	43.2	-38.9
NL								
AT	70.3	70.8	69.2	65.5	65.0	64.9	66.8	-3.5
PL	59.5	51.6	55.9	54.5	55.3	55.3	57.7	-1.8
PT	86.8	86.7	78.1	71.5	69.6	64.2	63.6	-23.2
RO	102.0	75.4	70.6	61.1	52.2	46.2	45.3	-56.7
SI	88.8	81.0	76.8	64.9	53.4	47.1	45.8	-43.0
SK	68.1	71.4	73.4	61.3	53.5	46.1	41.5	-26.6
FI	92.8	89.4	83.2	81.0	83.9	86.1	86.1	-6.7
SE	66.0	64.5	65.2	64.3	64.3	66.7	64.1	-1.9
UK								
NO								

Source: Commission services, EPC.

Table 56 - Assets in public pension schemes as a share of GDP (in %)

	2007	2010	2020	2030	2040	2050	2060	Change 2007 - 2060 in p.p.
BE	4.7	5.7	20.8	15.5	:	:	:	:
CZ	0.4	3.4	17.1	32.6	45.0	42.3	24.2	23.8
DE	0.6	1.3	0.5	0.2	0.2	0.2	0.2	-0.5
EE	2.5	1.0	:	0.2	1.3	3.3	6.8	4.3
IE	10.8	12.9	20.9	29.0	31.5	25.1	9.1	-1.7
ES	4.4	:	:	:	:	:	:	:
FR	1.8	2.1	3.9	2.8	1.5	0.0	:	:
CY	36.9	38.2	32.3	9.9	-24.1	-79.4	-166.5	-203.4
LV	3.9	5.2	8.4	5.0	-1.8	-7.1	-9.0	-13.0
LU	21.8	28.0	46.0	39.3	-14.4	-116.0	-258.4	-280.2
PL	0.3	0.4	0.4	0.4	0.5	0.6	0.8	0.5
PT	4.5	6.6	12.3	12.9	9.1	:	:	:
SI	6.9	6.7	6.6	7.7	9.7	12.1	14.7	7.8
FI	67.9	68.0	75.9	73.8	68.1	65.2	62.7	-5.2
SE	29.3	30.4	30.0	31.0	31.5	35.4	40.5	11.2

Source: Commission services, EPC.

Table 57 - Assets in public, occupational and private pension schemes as a share of GDP (in %)

	2007	2010	2020	2030	2040	2050	2060	Change 2007 - 2060 in p.p.
BG	2.2	4.2	14.2	26.0	37.2	51.4	69.9	67.7
CZ	5.1	3.4	17.1	32.6	45.0	42.3	24.2	19.1
DK	138.2	122.2	157.0	194.6	226.0	240.6	250.9	112.7
DE	0.6	1.3	0.5	0.2	0.2	0.2	0.2	-0.5
EE	6.9	9.0	23.8	40.8	57.0	66.2	76.7	69.7
LV	5.7	12.5	39.7	60.9	76.1	80.8	87.0	81.3
LT	1.7	3.5	12.9	24.1	37.3	51.6	64.1	62.4
LU	21.8	28.0	46.0	39.3	-14.4	-116.0	-258.4	-280.2
HU	7.8	10.7	24.4	39.0	52.8	65.4	74.3	66.5
PL	9.7	13.5	27.5	40.6	55.9	69.1	75.2	65.5
PT	17.8	20.8	28.9	30.5	26.9	19.0	20.7	2.9
RO	:	1.1	11.5	28.2	47.0	62.7	63.3	:
SI	10.4	12.0	18.8	25.7	32.3	38.0	41.9	31.5
SK	2.5	5.5	16.5	28.4	41.7	53.4	61.2	58.7
FI	67.9	68.0	75.9	73.8	68.1	65.2	62.7	-5.2
SE	52.8	59.8	74.1	82.8	83.4	84.7	85.1	32.3
UK	6.6	6.7	6.9	7.6	8.0	8.1	9.3	2.7

Source: Commission services, EPC.

Table 58 - Decomposition of the public pension to GDP ratio by country in different sub periods

BE	2007-20	2020-30	2030-40	2040-50	2050-60	2007-60
% change in pension to GDP	1.8	2.0	0.8	0.1	0.0	4.8
Dependancy contribution	1.8	2.7	1.7	0.6	0.7	7.4
Coverage contribution	0.1	-0.5	-0.4	0.1	-0.2	-0.9
Employment contribution	-0.5	0.1	-0.1	0.0	0.0	-0.5
Benefit ratio contribution	0.5	-0.1	-0.5	-0.5	-0.5	-0.1
BG	2007-20	2020-30	2030-40	2040-50	2050-60	2007-60
% change in pension to GDP	0.1	0.2	0.9	1.3	0.5	3.0
Dependancy contribution	2.0	1.3	1.7	2.5	1.6	9.1
Coverage contribution	-1.1	-0.4	-0.1	-0.6	-0.8	-3.0
Employment contribution	-0.6	0.2	0.1	0.0	-0.2	-0.5
Benefit ratio contribution	0.1	-0.8	-0.7	-0.4	0.0	-1.8
CZ	2007-20	2020-30	2030-40	2040-50	2050-60	2007-60
% change in pension to GDP	-0.9	0.3	1.3	1.7	0.9	3.3
Dependancy contribution	3.6	1.0	1.4	2.3	1.2	9.5
Coverage contribution	-1.8	-0.5	-0.2	-0.6	-0.3	-3.5
Employment contribution	-0.5	0.1	0.0	-0.1	0.0	-0.5
Benefit ratio contribution	-1.4	-0.3	0.2	0.3	0.0	-1.2
DK	2007-20	2020-30	2030-40	2040-50	2050-60	2007-60
% change in pension to GDP	1.6	-0.1	-0.2	-0.8	-0.4	0.1
Dependancy contribution	3.3	1.9	1.3	-0.3	0.3	6.5
Coverage contribution	-1.1	-1.7	-1.0	-0.4	-0.7	-4.9
Employment contribution	0.0	0.0	-0.1	0.0	0.0	-0.1
Benefit ratio contribution	-0.4	0.0	-0.2	-0.1	0.1	-0.5
DE	2007-20	2020-30	2030-40	2040-50	2050-60	2007-60
% change in pension to GDP	0.0	1.1	0.5	0.2	0.5	2.3
Dependancy contribution	1.8	3.1	2.1	0.4	0.6	7.9
Coverage contribution	-0.5	-0.8	-0.5	-0.1	-0.1	-1.9
Employment contribution	-0.7	0.0	-0.1	0.1	0.0	-0.8
Benefit ratio contribution	-0.5	-0.9	-0.8	-0.1	0.0	-2.2
EE	2007-20	2020-30	2030-40	2040-50	2050-60	2007-60
% change in pension to GDP	0.3	-0.3	-0.2	-0.1	-0.4	-0.7
Dependancy contribution	0.9	1.0	0.7	1.1	0.9	4.6
Coverage contribution	-0.5	-0.4	-0.2	-0.2	-0.4	-1.6
Employment contribution	-0.3	0.1	0.0	0.0	-0.1	-0.2
Benefit ratio contribution	0.1	-0.9	-0.7	-0.9	-0.8	-3.1
IE	2007-20	2020-30	2030-40	2040-50	2050-60	2007-60
% change in pension to GDP	0.6	0.8	1.0	1.6	0.6	4.6
Dependancy contribution	1.0	1.0	1.3	2.0	0.6	5.9
Coverage contribution	-0.4	-0.3	-0.3	-0.4	-0.1	-1.5
Employment contribution	-0.2	0.0	0.0	0.0	0.0	-0.2
Benefit ratio contribution	0.3	0.1	0.1	0.1	0.0	0.7

EL	2007-20	2020-30	2030-40	2040-50	2050-60	2007-60
% change in pension to GDP	1.5	3.9	4.4	2.6	0.1	12.4
Dependancy contribution	2.1	2.4	4.4	3.8	0.1	12.7
Coverage contribution	-0.9	-0.1	-0.1	-0.1	0.8	-0.4
Employment contribution	-0.7	0.2	0.0	-0.2	0.1	-0.6
Benefit ratio contribution	1.0	1.3	0.2	-0.8	-0.9	0.8
ES	2007-20	2020-30	2030-40	2040-50	2050-60	2007-60
% change in pension to GDP	1.1	1.3	2.4	2.2	-0.3	6.7
Dependancy contribution	1.1	2.3	3.7	3.4	0.1	10.7
Coverage contribution	-0.3	-0.1	-0.2	-0.3	0.1	-0.9
Employment contribution	-0.7	-0.1	-0.1	-0.1	0.1	-0.9
Benefit ratio contribution	1.0	-0.7	-0.7	-0.7	-0.7	-1.7
FR	2007-20	2020-30	2030-40	2040-50	2050-60	2007-60
% change in pension to GDP	0.6	0.6	0.2	-0.2	-0.2	1.0
Dependancy contribution	3.7	2.5	1.8	0.2	0.2	8.4
Coverage contribution	-1.0	-0.6	-0.6	0.1	-0.1	-2.2
Employment contribution	-0.3	0.0	-0.2	0.0	0.0	-0.5
Benefit ratio contribution	-1.4	-1.1	-0.7	-0.5	-0.2	-4.0
IT	2007-20	2020-30	2030-40	2040-50	2050-60	2007-60
% change in pension to GDP	0.1	0.7	0.8	-0.8	-1.1	-0.4
Dependancy contribution	2.4	2.7	3.9	1.5	0.0	10.4
Coverage contribution	-1.4	-0.2	-1.0	-0.7	0.1	-3.2
Employment contribution	-0.9	-0.2	-0.1	0.0	0.1	-1.1
Benefit ratio contribution	0.3	-1.3	-1.6	-1.5	-1.3	-5.5
CY	2007-20	2020-30	2030-40	2040-50	2050-60	2007-60
% change in pension to GDP	2.6	1.9	2.1	2.7	2.2	11.4
Dependancy contribution	1.7	2.0	1.3	2.9	2.8	10.8
Coverage contribution	0.9	0.3	0.3	0.2	0.0	1.6
Employment contribution	-0.5	0.0	0.1	0.0	0.0	-0.5
Benefit ratio contribution	0.5	-0.4	0.3	-0.2	-0.5	-0.3
LV	2007-20	2020-30	2030-40	2040-50	2050-60	2007-60
% change in pension to GDP	-0.3	0.7	0.3	-0.3	-0.7	-0.4
Dependancy contribution	0.7	1.2	1.0	1.5	1.4	5.7
Coverage contribution	-0.7	-0.1	-0.2	-0.1	-0.5	-1.6
Employment contribution	-0.2	0.1	0.0	0.1	-0.2	-0.2
Benefit ratio contribution	-0.1	-0.4	-0.6	-1.6	-1.3	-3.9
LT	2007-20	2020-30	2030-40	2040-50	2050-60	2007-60
% change in pension to GDP	0.1	1.3	0.9	1.3	1.0	4.6
Dependancy contribution	0.9	2.3	1.9	1.7	2.8	9.6
Coverage contribution	0.0	-0.7	-0.6	-0.1	-1.0	-2.4
Employment contribution	-0.3	0.2	0.1	0.1	-0.1	0.0
Benefit ratio contribution	-0.3	-0.3	-0.4	-0.4	-0.5	-1.8
LU	2007-20	2020-30	2030-40	2040-50	2050-60	2007-60
% change in pension to GDP	1.2	4.3	4.3	3.7	1.8	15.2
Dependancy contribution	1.4	2.8	2.6	0.8	0.8	8.4
Coverage contribution	1.3	0.7	1.0	1.9	0.4	5.2
Employment contribution	0.0	0.0	-0.1	0.1	0.1	0.0
Benefit ratio contribution	-1.4	0.6	0.7	0.8	0.6	1.2
HU	2007-20	2020-30	2030-40	2040-50	2050-60	2007-60
% change in pension to GDP	0.2	0.0	1.2	1.0	0.6	3.0
Dependancy contribution	3.1	1.3	1.9	3.1	1.7	11.3
Coverage contribution	-2.1	-0.7	-0.5	-1.4	-0.7	-5.4
Employment contribution	-0.9	0.1	0.3	-0.1	0.0	-0.7
Benefit ratio contribution	0.5	-0.7	-0.3	-0.3	-0.3	-1.1
MT	2007-20	2020-30	2030-40	2040-50	2050-60	2007-60
% change in pension to GDP	2.1	0.1	1.2	1.4	1.4	6.2
Dependancy contribution	4.3	2.2	0.6	2.0	2.2	11.3
Coverage contribution	-0.8	-1.0	-0.2	-0.8	-0.4	-3.1
Employment contribution	-0.5	-0.3	0.1	0.0	0.0	-0.7
Benefit ratio contribution	-0.6	-0.6	0.6	0.3	-0.3	-0.5
NL	2007-20	2020-30	2030-40	2040-50	2050-60	2007-60
% change in pension to GDP	1.2	1.5	1.1	-0.1	0.3	4.0
Dependancy contribution	2.7	2.3	1.6	-0.3	0.4	6.6
Coverage contribution	-0.7	-0.5	-0.3	0.0	0.0	-1.5
Employment contribution	-0.1	0.0	-0.2	0.1	0.0	-0.2
Benefit ratio contribution	-0.5	-0.1	0.0	0.1	0.0	-0.6
AT	2007-20	2020-30	2030-40	2040-50	2050-60	2007-60
% change in pension to GDP	0.3	0.8	0.2	0.0	-0.4	0.9
Dependancy contribution	2.0	3.8	2.8	0.7	0.7	9.9
Coverage contribution	-0.5	-1.8	-1.2	0.4	0.5	-2.6
Employment contribution	-0.2	-0.1	-0.3	0.1	0.0	-0.5
Benefit ratio contribution	-0.9	-0.6	-0.9	-1.1	-1.4	-5.0

PL	2007-20	2020-30	2030-40	2040-50	2050-60	2007-60
% change in pension to GDP	-1.8	-0.3	-0.2	-0.1	-0.3	-2.8
Dependancy contribution	4.1	2.9	1.3	3.0	2.0	13.4
Coverage contribution	-3.5	-1.4	-0.1	-0.7	-0.6	-6.3
Employment contribution	-0.9	-0.2	0.3	0.0	-0.1	-1.0
Benefit ratio contribution	-0.8	-1.3	-1.6	-1.9	-1.5	-7.1
PT	2007-20	2020-30	2030-40	2040-50	2050-60	2007-60
% change in pension to GDP	1.0	0.2	-0.1	0.8	0.1	2.1
Dependancy contribution	2.2	2.3	2.6	2.3	0.4	9.8
Coverage contribution	-0.4	-0.4	-0.6	-0.5	0.2	-1.7
Employment contribution	-0.6	0.0	0.0	0.0	0.0	-0.6
Benefit ratio contribution	0.0	-1.4	-1.7	-0.7	-0.7	-4.5
RO	2007-20	2020-30	2030-40	2040-50	2050-60	2007-60
% change in pension to GDP	2.3	1.6	2.1	2.3	1.0	9.2
Dependancy contribution	1.6	1.6	3.5	4.0	3.0	13.6
Coverage contribution	-1.5	-0.3	-0.8	-0.9	-1.4	-4.9
Employment contribution	-0.2	0.4	0.3	0.1	-0.2	0.3
Benefit ratio contribution	2.8	0.1	-0.3	-0.5	-0.3	1.7
SI	2007-20	2020-30	2030-40	2040-50	2050-60	2007-60
% change in pension to GDP	1.2	2.2	2.9	2.1	0.4	8.8
Dependancy contribution	3.6	3.3	2.8	3.2	0.9	13.7
Coverage contribution	-1.1	-0.8	-0.2	-0.8	-0.5	-3.5
Employment contribution	-0.3	0.3	0.2	-0.2	-0.1	-0.1
Benefit ratio contribution	-0.6	-0.3	0.1	0.1	0.1	-0.7
SK	2007-20	2020-30	2030-40	2040-50	2050-60	2007-60
% change in pension to GDP	-0.5	1.0	1.0	1.1	0.8	3.4
Dependancy contribution	2.7	2.2	1.7	3.0	2.1	11.7
Coverage contribution	-1.6	-0.7	-0.2	-0.8	-0.6	-3.9
Employment contribution	-0.7	0.0	0.2	0.0	-0.1	-0.6
Benefit ratio contribution	-0.3	-0.4	-0.6	-0.7	-0.5	-2.4
FI	2007-20	2020-30	2030-40	2040-50	2050-60	2007-60
% change in pension to GDP	2.6	1.3	-0.3	-0.4	0.1	3.3
Dependancy contribution	4.7	2.4	0.4	0.5	0.8	8.7
Coverage contribution	-1.6	-0.8	-0.3	-0.2	-0.2	-3.1
Employment contribution	-0.5	0.0	0.0	-0.1	0.0	-0.6
Benefit ratio contribution	0.6	-0.1	-0.4	-0.5	-0.4	-0.9
SE	2007-20	2020-30	2030-40	2040-50	2050-60	2007-60
% change in pension to GDP	-0.1	0.1	-0.1	-0.3	0.3	-0.1
Dependancy contribution	2.5	1.0	0.8	0.3	1.0	5.6
Coverage contribution	-0.3	0.2	-0.1	0.1	-0.2	-0.4
Employment contribution	-0.4	0.0	0.0	0.0	0.0	-0.4
Benefit ratio contribution	-1.5	-1.1	-0.8	-0.6	-0.4	-4.3
UK	2007-20	2020-30	2030-40	2040-50	2050-60	2007-60
% change in pension to GDP	0.3	0.7	0.4	0.0	1.2	2.7
Dependancy contribution	1.2	1.1	0.8	0.2	0.9	4.2
Coverage contribution	-0.6	-0.2	-0.2	-0.5	0.12	-1.4
Employment contribution	-0.1	0.0	-0.1	0.0	0.0	-0.3
Benefit ratio contribution	0.0	-0.1	0.0	0.4	0.3	0.5
NO	2007-20	2020-30	2030-40	2040-50	2050-60	2007-60
% change in pension to GDP	2.6	1.2	0.7	-0.1	0.3	4.7
Dependancy contribution	2.5	2.4	2.1	0.4	0.8	8.2
Coverage contribution	0.0	-0.6	-0.7	0.0	0.1	-1.2
Employment contribution	0.2	0.1	0.0	0.0	0.0	0.3
Benefit ratio contribution	-0.1	-0.5	-0.7	-0.5	-0.5	-2.3

Source: Commission services, EPC.

Note: The dependency contribution measures an impact of the changes in the dependency ratio over the projection period as the ratio of persons aged 65 and over to the population aged 15 to 64. The employment contribution measures changes in the share of the population of working age (15 to 64) relative to the number of the employed, i.e. an inverse employment rate. The coverage contribution of pensions measures changes in the share of pensioners relative to the population aged 65 and over. The benefit contribution captures changes in the average pension relative to average income. See Box DECOMPOSITION for details.

Table 59 - Comparison of the public pension expenditure to GDP between 2006 and 2009 projections (in p.p.)

	Public pensions		Old-age & Early Pension Expenditure		Other Pension Expenditure	
	Change 2007 - 2050	Change 2007 - 2050	Change 2007 - 2050	Change 2007 - 2050	Change 2007 - 2050	Change 2007 - 2050
	2009 projection	2006 projection	2009 projection	2006 projection	2009 projection	2006 projection
BE	4.8	5.1	4.8	5.3	-0.1	-0.2
BG	2.5	:	2.6	:	-0.1	:
CZ	2.4	5.7	2.6	5.7	-0.2	0.0
DK	0.5	3.0	0.2	3.0	0.3	0.1
DE	1.9	2.2	1.9	2.2	:	:
EE	-0.3	-3.3	-0.2	-2.8	-0.1	-0.5
IE	4.0	6.2	4.0	6.1	0.0	0.1
EL	12.3	:	9.2	:	3.1	:
ES	7.0	6.9	6.8	6.5	0.3	0.4
FR	1.2	2.0	1.2	2.0	:	:
IT	0.7	0.4	0.9	0.5	-0.2	-0.1
CY	9.2	12.2	7.5	12.2	1.7	:
LV	0.4	-0.2	0.7	-0.2	-0.3	0.0
LT	3.6	2.0	3.6	1.8	-0.1	0.2
LU	13.4	7.5	12.5	7.8	0.9	-0.4
HU	2.4	6.0	3.1	6.8	-0.7	-0.8
MT	4.8	-0.9	5.4	2.1	-0.7	-3.0
NL	3.7	3.8	4.2	4.4	-0.5	-0.6
AT	1.2	-1.0	1.6	0.1	-0.4	-1.1
PL	-2.5	-5.0	-1.7	-4.1	-0.7	-0.9
PT	2.0	9.1	1.7	7.9	0.3	1.2
RO	8.3	:	8.1	:	0.2	:
SI	8.3	7.3	7.7	7.3	0.6	:
SK	2.6	2.0	1.3	1.2	1.3	0.9
FI	3.2	3.2	4.2	3.9	-1.0	-0.7
SE	-0.5	1.2	0.6	2.5	-1.1	-1.3
UK	1.5	2.0	2.0	2.0	:	:
NO	4.4	:	4.5	:	-0.1	:
EU27	2.2	2.3	2.3	2.4	0.0	-0.1
EA	2.8	2.7	2.7	2.8	0.1	0.0
EA12	2.8	2.7	2.7	2.7	0.1	0.0
EU15	2.2	2.4	2.3	2.5	0.0	-0.1
EU10	0.7	0.6	0.9	1.0	-0.3	-0.5
EU25	2.1	2.3	2.2	2.4	0.0	-0.1

Source: Commission services, EPC.

8.5. DEFINITIONS USED IN THE PROJECTIONS

■ **Pension expenditures** should cover pensions and equivalent cash benefits granted for a long period (over one year) for old-age, early retirement, disability, survivors (widows and orphans) and other specific purposes which should be considered as equivalents or substitutes for above-mentioned types of pensions, i.e. pensions due to reduced capacity to work or due to labour market reasons. Pensions should include earnings-related pensions, flat-rate and means-tested pensions that aim at providing a social minimum pension, supplements which are a part of the pension and are granted for an indefinite period on the basis of certain criteria but which are not directly linked to the remuneration of costs such as supplements aimed at supporting the purchase of home or health care services. Pensions and benefits can be paid out from specific schemes or directly from government budgets. In particular, social assistance should be included if it is equivalent

to minimum pension. Instead, housing subsidies should be excluded from pensions and considered as other means-tested social transfers.

■ Pensions should be recorded as **gross pension expenditure**, i.e. without a deduction of tax and compulsory social security contributions by beneficiaries paid on benefits. In those countries where pensions are not taxable income, the gross pensions are equal to net pensions.

■ Pensions should be recorded as **net pensions**, once deducting tax on pension and compulsory social security contributions paid by beneficiaries on pensions from the gross pensions. It was suggested that it should be possible to provide consistent and comparable projections of tax on pension for both public and private pensions for all Member States. Especially, attention ought to be paid to progressivity of the tax system on this source of public revenue.

■ **Social security pensions and other public pensions** are the schemes that are statutory and that the general government sector administers. Usually, there is a specific social security contribution to the scheme, which is defined as part of total taxes in the national accounting system but the scheme can also be financed, either partially or fully, by general taxes and thus, ultimately, the government bears the financial cost and risk attached to the scheme. The pensions provided by the social security schemes can be either earnings-related, flat-rate or means-tested. Cash benefits equivalent to pensions, notably social assistance to older persons, should be included in this category. As to the statutory funded part of the old-age pension schemes that are attached to notional defined contribution schemes in some countries, this should be excluded from social security schemes and included in the private sector schemes in accordance with the Eurostat decision¹⁰⁰.

■ **Occupational pensions** are pensions provided by schemes that, rather than being statutory by law, link the access of an individual to such a scheme to an employment relationship between her/him and the scheme provider and that are based on contractual agreements between employers and employees either at the company level or their organisations at the union level. The schemes are run by private sector pension funds, insurance companies or the sponsoring companies themselves (in balance sheets).

■ For the most part, **private individual pension** schemes are non-mandatory but they can be also mandatory.¹⁰¹ Consequently, the insured persons have the ownership of pension assets. This means that the owner enjoys the rewards and bears the risks regarding the value of the assets. The insurance contract specifies a schedule of contribution in exchange of which benefits will be paid when the members reach a specific retirement age. The scheme provider administers the scheme by managing the pension assets through a separate account on behalf of its members. The access to such a scheme does not require an employment relationship, even though

in some cases the contribution may be set on the basis of the wage.

■ **Mandatory private pension** schemes are close to social security schemes. The transactions are between the individual and the insurance provider and they are not recorded as government revenues or government expenditure and, therefore, do not have an impact on government surplus or deficit. The pension expenditure projections should cover the individual schemes that switch a part either voluntarily or statutorily (especially to new entrants to the labour market) from the current social security scheme to private funds. Such schemes have an increasing relevance in the future in a number of countries.

■ **Non-mandatory private pension** are based on individual insurance contracts between the individual and the private pension scheme provider, usually an insurance company or a pension fund. The category of individual schemes includes pension schemes for which membership is not required by law and is independent of any employment link (even if members are mostly employed people). However, employers or the state may in some cases contribute to the plan. Such schemes may also be adhered to through membership in an association.

■ **Old-age and early pensions** should be considered as a single category of pension due to the fact that in many countries a proper distinction between these two components cannot be made, either because the early retirement is built-in in the old-age pension system, or because the standard retirement age varies between sexes and will increase or become more flexible with time. Early pensions should include in addition to genuine (actuarial) early retirement schemes also other early pensions that are granted to a specified (age) group at an age below the statutory retirement age, primarily on the basis of reduced work capacity or labour market reasons. In addition, disability and widow's pensions paid out to persons over the standard retirement age shall also be included in this category in order to reflect properly the expenditure related to old-age. Pensions of this category shall include both earnings-related pensions and flat-rate or means-tested minimum pensions.

■ **Other pensions** should include disability, survivors' and partial pensions paid to persons

¹⁰⁰ Classification of funded pension schemes in case of government responsibility and guarantee, Eurostat 30/2004, 2 March 2004.

¹⁰¹ See definitions of mandatory and non-mandatory pension funds below.

below the standard retirement age and without any lower age limit. These should include both earnings-related pensions and flat-rate or means-tested minimum pensions of these types.

- **The number of pensioners** reflects the number of the recipients of the specific pension. Each type of pension should be considered separately.

- **The number of pensions** reflects the number of the cases in which a pension was paid off to an individual. Each type of pension should be considered separately.

- **Contributions to pension schemes** paid both by employers and employees as well as self-employed persons provide information on whether or not there is a potential future financial gap in the pension system. If the pension contribution is part of a broader social security contribution rate, an estimate should be provided for the share of the pension contribution, e.g. on the basis of the most recent expenditure structure.

In case that the pension is financed by general tax revenues, no estimate should be provided here.

- As in the case of the number of pensioners, **the number of contributors** to each type of pensions should be considered separately, allowing for the fact that the same person may be a contributor to several schemes. Thus, the number of contributors should approach the number of employed persons or active-age population.

- The information on **the total value of assets in pension schemes**, including pre-financing to specific reserves within the government sector, is requested separately for social security schemes, occupational pension schemes and private pension schemes. This information is an important complement to the contribution information when the financial balance of the pension schemes is assessed. As regards the government sector, a distinction needs to be made between national government bonds and other assets, since the former are netted out in the compilation of gross debt (Maastricht debt), while the latter are not.

9. ANNEX 2: QUANTIFYING THE IMPACT OF TECHNOLOGY ON HEALTH CARE EXPENDITURE: ECONOMETRIC ANALYSIS OF PAST TRENDS AND PROJECTIONS

9.1. INTRODUCTION

The EC-AWG health care expenditure projection model is a powerful tool for modelling demand side factors such as demographic structure, health status or national income. However, it is of little help in modelling supply side factors, among which technological progress, which is found by many researchers to be the main driving force behind the increase in health care expenditure.

Indeed, using standard regression tools, several researchers such as Culyer (1990) and Hitiris and Posnett (1992) found out that there seems to be a strong relationship between health care spending and aggregate income. In addition, it has been recognised that technological growth affects significantly aggregate health care expenditures. Newhouse (1992) seems to be the first one who put this argument even further, claiming that technological progress is the main factor determining the aggregate development of health care spending in industrial countries since the World War II. Recently, Oliveira Martins and de la Maisonneuve (2006) pointed out that since over the last decades health care spending has grown faster than the aggregate income, the effects of technology and relative prices seem to significantly affect the health care expenditure development. The general observation that can be made on the basis of the available literature is that development of health care expenditure is determined by both demographic and non-demographic factors. The demographic factors take into account the size and the structure of a population, whereas the non-demographic factors usually take into consideration mainly aggregate income (GDP), technological factors growth and relative-price movements in the supply of health services.

Aware of the importance of the issue, but also of the limitations posed by the lack of data and commonly agreed assumptions, the European Commission (DG ECFIN) and the EPC-Ageing Working Group have explored the possibilities of expanding the health care model with a

module attempting to assess the future impact of medical technology. A thorough analysis of the literature led to conclude that there are no scientifically reliable forecasts of future developments in the medical technology. Consequently, it was decided that a feasible way to have some tentative projections on the future evolution of spending driven by technological factors would be an extrapolation of past trends, with all the caution required while interpreting and using the results in the future policy debate.

The present annex presents two alternative methods used to estimate the impact of technology on health care spending. The first one, proposed by the OECD (2006b), consists of decomposing the past increase in health care expenditure into three components: age factor, income factor and the remaining residual assumed to proxy technological developments. The second method is based on an econometric analysis of past developments in total and per capita health expenditure performed by the European Commission (DG ECFIN). The parameters resulting from both methods are then inserted in the standard health care expenditure model to project the future developments of health care spending.

The remainder of the annex is organised as follows. Section 2 briefly presents the OECD method to estimate the impact of technology on health care expenditure. It then compares the results of the original OECD projections with those obtained by incorporating the “technology effect” estimates to the projection methodology developed by the AWG. Section 3 presents a detailed description of the alternative econometric model performed by the European Commission (DG ECFIN). It summarizes the outcomes of the relevant literature and presents tentative findings on available data and the results of the econometric specification. Section 4 describes the way those parameters have been incorporated in the projection model and presents the resulting estimates of the budgetary impact of medical technology.

9.2. THE OECD METHOD TO PROJECT THE IMPACT OF TECHNOLOGY

9.2.1. Methodology

Looking at the recent past, expenditures on health care have increased in terms of their share in GDP. Following the methodology by the OECD (2006b), the dynamics of health care expenditure could be analysed using a decomposition of past trends into the effect of demographic and non-demographic factors. Regarding non-demographic factors, per capita income and technology growth are usually covered. As OECD analysis suggests, the impact of demographic factors seems to be quite weak, while the impact of non-demographic factors has been prevailing over the last decades. Consequently, the assumptions concerning future development of non-demographic factors are crucial for a comprehensive projection of health and long-term care expenditure.

The OECD method suggests that after controlling for demographic and income effects, the health care expenditure residual can be thought of as reflecting technology effects. In order to quantify the effect of technology, the following decomposition of growth in per capita health expenditures is applied:

$$\Delta \log\left(\frac{HE}{N}\right) = \Delta \log(\text{age factor}) + \varepsilon \cdot \Delta \log\left(\frac{Y}{N}\right) + \Delta \log(NDF) \quad [1]$$

or expressed as share of expenditure to GDP:

$$\Delta \log\left(\frac{HE}{Y}\right) = \Delta \log(\text{age factor}) + (\varepsilon - 1) \cdot \Delta \log\left(\frac{Y}{N}\right) + \Delta \log(NDF) \quad [2]$$

where HE , Y , N and NDF correspond to real health care expenditures, real income, population and other non-demographic factors, respectively.

In the first step, using historical data, the term $\Delta \log(NDF)$ is quantified as a residual. To do that, the OECD assumes a unitary income elasticity (parameter ε in equations [1] and [2]) and uses country specific health spending age profiles in order to assess the impact of demographic factors (the $\Delta \log(\text{age factor})$ term). Next, the residual is quantified in each year for each country. Finally, looking at the evolution of this residual, its average country-specific growth rate is calculated, see Table 60.

This approach is applied to each country in the sample. Still, despite the large dispersion of the residual across countries, a sample average of country-specific residual is calculated. In the end, this sample average residual is used to project health expenditures in individual countries.

Applying this method, the OECD estimates that between 1981 and 2002 the growth in per capita health care spending amounted to 3.6%, of which 0.3 percentage point were accounted for by pure demographic effects and 2.3 percentage points by income effects, see Table 60. Thus, the residual growth was estimated at around 1 per cent per year. In other words, it is assumed that due to technology effects, the per capita health care spending was growing an extra 1% p.a.

In the second step, health care spending is projected, based on the above estimated growth rate of technology. In particular, it is further assumed that its growth rate converges linearly to zero by 2050 in order to assure that health care expenditure and income evolve in parallel over the very long-run in the absence of additional ageing effects.

Furthermore, the OECD method allows for some convergence of health care spending to GDP across countries, through the adjustment of the total growth rate in each year (defined by equation [2]) by a difference between a ratio of health care spending to GDP in a particular country and OECD cross-country average to GDP in 2005.

9.2.2. Results

Table 60 below presents the results of the OECD analysis of past trends in public health spending. The total growth in health care expenditure is decomposed into three separate effects: demographic effect, income effect and the residual, assumed to reflect the impact of technology and other non-demographic factors. Given the high variability of the results across countries, in the future projections of health care expenditure the OECD decided not to use individual estimates, but to replace them with a simple average.

Table 60 - Decomposition of growth in total public health spending per capita

	Data availability*	Health spending	Age effect	Income effect**	Residual
Australia	(1981-2001)	3.6	0.4	1.8	1.4
Austria		2.2	0.1	2.1	0.0
Belgium	(1995-2002)	2.9	0.4	1.7	0.6
Canada		2.6	0.4	1.7	0.6
Czech Republic	(1993-2002)	2.7	0.4	2.8	-0.4
Denmark		1.3	0.1	1.7	-0.5
Finland		2.6	0.3	2.1	0.2
France		2.8	0.2	1.6	1.0
Germany		2.2	0.2	1.2	1.0
Greece	(1987-2002)	3.4	0.4	1.3	0.8
Hungary	(1991-2002)	1.5	0.3	2.8	-1.5
Iceland		3.5	0.1	1.5	1.9
Ireland		3.9	0.1	4.9	-1.0
Italy	(1988-2002)	2.1	0.7	1.7	-0.1
Japan	(1981-2001)	3.8	0.4	2.2	1.1
Korea	(1982-2002)	10.1	1.4	6.1	2.4
Luxembourg	(1981-2002)	3.8	0.0	3.9	-0.1
Mexico	(1990-2002)	4.5	0.7	0.5	2.4
Netherlands	(1981-2002)	2.6	0.3	1.9	0.3
New Zealand		2.7	0.2	1.5	1.0
Norway		4.0	0.1	2.5	1.5
Poland	(1990-2002)	3.1	0.5	3.2	-0.6
Portugal		5.9	0.4	2.6	2.8
Slovak Republic	(1997-2002)	2.1	0.5	4.2	-1.5
Spain		3.4	0.3	2.3	0.8
Sweden		1.5	0.1	1.7	-0.4
Switzerland	(1985-2002)	3.8	0.2	0.8	2.9
Turkey	(1984-2002)	11.0	0.3	2.3	8.3
United Kingdom		3.4	0.2	2.3	1.0
United States		4.7	0.1	2.0	2.6
Average		3.6	0.3	2.3	1.0

* Countries for which no period is mentioned: 1981-2002

** Assuming an income elasticity of health expenditure equal to 1

Source: OECD (2006), Projecting OECD Health and Long-term Care Expenditures:
What are the Main Drivers?, OECD Economics Department Working Paper 477

Table 61 - Results of the OECD projections of health spending

	Health care expenditure as % of GDP	Pure ageing effect	Adjustment for death-related costs and healthy ageing	Non-ageing residual effect	Total*	Health care expenditure as % of GDP
	2005 (estimates)		Increase in % of GDP, 2005-2050			2050
Australia	5.6	2	-1.3	1	2	7.5
Austria	4	1.6	-1.1	1	1.7	5.8
Belgium	5.5	1.1	-1.1	1	1	6.5
Canada	6.2	2	-1.1	1	2.2	8.4
Czech Republic	7	1.7	-1.2	1	1.8	8.8
Denmark	5.2	0.6	-0.5	1	1.1	6.4
Finland	3.4	1.4	-1.2	1	1.3	4.7
France	7.1	1.3	-1.2	1	1.2	8.3
Germany	7.9	1.1	-0.7	1	1.6	9.4
Greece	4.8	1.1	-0.4	1	1.9	6.7
Hungary	5.9	1.9	-1.6	1	1.5	7.3
Iceland	6.7	0.5	-0.2	1	1.4	8.1
Ireland	6.3	1.3	-0.7	1	1.9	8.2
Italy	6	1.4	-1.1	1	1.5	7.4
Japan	6	1	-0.4	1	1.8	7.8
Korea	2.9	5.1	-2.2	1	4.9	7.8
Luxembourg	5.1	1.1	-0.8	1	1.4	6.4
Mexico	2.9	4.1	-2	1	3.9	6.8
Netherlands	5.1	0.7	-0.4	1	1.5	6.6
New Zealand	6	1.2	-0.7	1	1.6	7.6
Norway	7.4	0.4	-0.4	1	1	8.4
Poland	4.6	3.7	-2.4	1	2.7	7.2
Portugal	6.7	1.6	-0.9	1	1.8	8.6
Slovak Republic	5.1	3.2	-1.9	1	2.8	7.9
Spain	5.4	1.2	-0.5	1	2	7.4
Sweden	5.6	0.5	-0.5	1	1	6.6
Switzerland	6.2	0.5	-0.4	1	1.2	7.4
Turkey	5.5	3.6	-2.4	1	2.6	8
United Kingdom	6.3	1.3	-1.3	1	1	7.3
United States	6.4	1.3	-1.2	1	1.2	7.5
Average	5.6	1.6	-1.1	1	1.8	7.4

* Total level increase is not precisely equal to the three effects because the growth rate of health expenditure was derived from a log-additive equation

Source: OECD (2006), Projecting OECD Health and Long-term Care Expenditures: What are the Main Drivers?, OECD Economics Department Working Paper 477

Table 61 above presents the original results of the OECD projections covering the period from 2000 to 2050. It is technically possible to apply the same assumptions on the “technology effect” as in the OECD projections to the methodology developed by the European Commission and AWG. In practical terms, such procedure would boil down to add an extra element to the already calculated yearly rate of change resulting from demographic changes¹⁰². Following the OECD proposal, this extra rate of growth would diminish over time from 1% in the base year to zero by the end of the projection period.

Applying this additional element to the pure demographic scenario would give the following results for health care expenditures (see Table 62 below).

The technological impact, as measured by the residual of the econometric exercise, would affect significantly health care spending over the projection period. Public expenditure is projected to increase on average by 2.5% of GDP (or 30%) more than in the pure demographic scenario, while at the individual countries’ level it differs considerably, ranging from 1.1% of GDP in Cyprus to 2.9% of GDP in the UK.

¹⁰² If the scenario is supposed to calculate the “pure” budgetary effect of technological change, the extra growth rate should be added to the pure demographic scenario. In other cases, it is obviously technically possible to combine this effect with the others, e.g. effect of constant health (in such case total the rate of change would be composed of three elements: demographic change, health evolution and technology residual).

Table 62 - Results of the OECD assumptions scenario (OECD residual added to EC/AWG methodology) – health care spending as % of GDP

	2007	2010	2020	2030	2040	2050	2060	Change 2007-2060	difference from pure demographic scenario
BE	7.6	7.9	9.0	10.1	11.0	11.6	11.8	4.2	2.7
BG	4.7	4.9	5.4	6.0	6.6	6.9	7.0	2.3	1.6
CZ	6.2	6.5	7.6	8.8	9.8	10.5	11.0	4.8	2.5
DK	5.9	6.2	7.2	8.1	8.7	9.1	9.2	3.3	2.1
DE	7.4	7.8	9.1	10.2	11.4	12.1	12.2	4.8	2.8
EE	4.9	5.2	5.8	6.4	7.1	7.6	8.0	3.0	1.8
IE	5.8	6.1	6.8	7.8	8.8	9.6	10.1	4.3	2.3
EL	5.0	5.2	6.0	6.7	7.5	8.1	8.3	3.4	1.9
ES	5.5	5.8	6.5	7.5	8.6	9.3	9.5	3.9	2.2
FR	8.1	8.5	9.6	10.7	11.6	12.2	12.4	4.2	2.8
IT	5.9	6.1	7.0	7.8	8.7	9.1	9.2	3.3	2.1
CY	2.7	2.8	3.3	3.7	4.1	4.4	4.6	1.9	1.1
LV	3.5	3.6	4.0	4.4	4.9	5.2	5.3	1.9	1.2
LT	4.5	4.7	5.3	5.9	6.6	7.1	7.3	2.9	1.7
LU	5.8	6.0	6.9	7.8	8.5	9.0	9.2	3.4	2.1
HU	5.8	5.9	6.8	7.8	8.7	9.3	9.8	4.0	2.2
MT	4.7	5.1	6.3	7.8	9.2	10.1	11.0	6.3	2.5
NL	4.8	5.1	5.9	6.7	7.3	7.6	7.7	2.9	1.8
AT	6.5	6.8	7.9	8.9	9.9	10.5	10.7	4.2	2.4
PL	4.0	4.2	4.9	5.6	6.2	6.7	6.9	2.9	1.6
PT	7.2	7.5	8.6	9.7	10.8	11.6	12.2	4.9	2.8
RO	3.5	3.6	4.2	4.8	5.4	6.0	6.3	2.8	1.4
SI	6.6	6.9	8.0	9.1	10.2	10.8	11.1	4.5	2.5
SK	5.0	5.2	6.2	7.3	8.3	9.0	9.4	4.4	2.1
FI	5.5	5.8	6.7	7.7	8.4	8.7	8.9	3.4	2.0
SE	7.2	7.5	8.4	9.2	9.9	10.3	10.5	3.3	2.4
UK	7.5	7.8	8.9	10.1	11.2	12.0	12.6	5.1	2.9
NO	5.6	6.0	6.6	7.4	8.0	8.4	8.8	3.1	1.5
EU27	6.7	7.0	8.0	9.0	10.0	10.6	10.9	4.2	2.5
EU15	6.9	7.2	8.2	9.2	10.2	10.9	11.1	4.3	2.5
EU12	4.7	4.9	5.6	6.4	7.1	7.7	8.0	3.4	1.8
EA	6.7	7.0	8.0	9.0	10.0	10.6	10.8	4.0	2.5

Source: Commission services, EPC.

9.3. ASSESSING THE IMPACT OF MEDICAL TECHNOLOGY ON HEALTH CARE SPENDING – ECONOMETRIC ANALYSIS

9.3.1. Econometric model: detailed specification

In order to estimate the expected impact of the technological progress on health care expenditures, a series of standard econometric tools have been applied to the agreed projections framework. Following the literature, widely accepted specification of health care equation was used in order to estimate an annual trend growth rate of per capita health care expenditure for individual countries and pooled data. Health care expenditure developments are estimated using both demographic and non-demographic explanatory factors. This is done for each European country covered by the OECD health care statistics¹⁰³:

$$HCE_t = \alpha_1 + \alpha_2 GDP_t + \alpha_3 OVER65_t + \alpha_4 trend_t + \varepsilon_t. \quad [3]$$

Then the data set is pooled to estimate the following relationship:

$$HCE_{i,t} = \alpha_1 + \alpha_2 GDP_{i,t} + \alpha_3 OVER65_{i,t} + \alpha_4 trend_{i,t} + \varepsilon_{i,t}. \quad [4]$$

where HCE is the logarithm of the real per capita health care expenditure in national currency unit¹⁰⁴. GDP is the logarithm of the real per capita GDP in national currency unit. Over_65 stands for the ratio of people over 65 to the total population, *trend* is the deterministic trend¹⁰⁵.

Variables like GDP, HCE_TOT and HCE_PUB are easily downloadable via the OECD Health database, but the development of variables characterising technological progress and relative-price movements are usually not available. In particular, reliable data on relative

price development for a sufficiently long time period is almost impossible to find. Thus, the impact of technological trend and relative-price development on health expenditure is estimated by using only an aggregate non-demographic factor. The literature proposes that the development of this factor can be proxied by a deterministic trend term¹⁰⁶. Unfortunately, such a deterministic trend variable captures also development of other trending variables (not only technology growth and relative prices).

Taking into account the recent results provided by the economic literature, we have estimated a single OLS and pooled fixed effect regressions.

When applying time series methods one needs to pay special attention to the existence of stochastic trends (non-stationarity), the existence of cointegrating relationship and possible endogeneity among dependent and explanatory variables.

Non stationarity (Unit roots)

After Culyer (1990), Hitiris and Posnett (1992) and others claimed that there seems to exist a strong relationship between HCE and aggregate income, Hansen and King (1996) pointed out that it is possible that the strong positive correlations observed between HCE and GDP in the previous studies were a result of non-stationarity (and spurious correlation) in the respective time series, rather than evidence of an actual economic relationship. Hansen and King (1994) showed that two-thirds of the variables tested (HCE and GDP per capita in real terms) were found to be non-stationary in levels and no country possessed a data set that was entirely stationary in levels. The non-stationarity of real per capita HCE and GDP was indicated also by Blomqvist and Carter (1996), whose results show clearly that in every country both HCE and GDP are I(1). Similar conclusions, i.e. the existence of a unit root in per capita real HCE and GDP series was confirmed among the others by Gerdtham and Lofgren M. (2000) and by Okunade and Murthy (2002). Using techniques of cointegrated panel, MacDonald and Hopkins (2002) found strong

¹⁰³ The sample covers 20 OECD members from Europe. Unfortunately, the majority of RAMS (the 12 recently acceded Member States) countries are not OECD members, thus RAMS countries are under represented in the sample. Because of the membership in AWG, Norway was included in the EU15 group.

¹⁰⁴ Equations [1] and [2] were estimated separately for total health care expenditure (HCE_TOT) and public health care expenditure (HCE_PUB). Data have been downloaded from <http://www.ecosante.org/index2.php?base=OCDE&lang=ENG&lang=ENG&sessionid=>

¹⁰⁵ There are alternative possibilities for a variable which represents demographic factors. Usually the ratio of people over 65 to total population or the dependency ratio is used.

¹⁰⁶ Still, there are some exceptions like Okunade and Murthy (2002) who confirmed a significant and stable long-run relationship between per capita real health care expenditure, per capita real income and technological change, proxied by total R&D expenditure. Albrecht, Neyt and Verbeke (2005) proxy the impact of new technologies on health care expenditure by the number of researchers.

evidence of unit roots in both GDP and HCE data when the data are considered as a panel¹⁰⁷.

Applying augmented Dickey-Fuller unit root tests¹⁰⁸ to the sample under consideration leads to the conclusion that the logarithm of real per capita health care expenditure and the log of real per capita GDP have a unit root, i.e. in most cases a H_0 hypothesis of a unit root cannot be rejected. Still, in some cases the test outcomes suggest that the two mentioned series could be stationary once introducing a deterministic trend. When interpreting the results (see Table 63) one has to be careful since the power of this test is rather low in a small sample, like the present one.¹⁰⁹

Following economic reasoning and the outcomes of several studies, HCE_TOT, HCE_PUB and GDP are assumed to be I(1) in this analysis.

Cointegration

The problem of regressing non-stationarity variables disappears in case their linear combination is stationary. In such a situation, OLS estimates in levels are superconsistent.

Hansen and King (1996) conclude that there is practically no evidence that the two series (HCE and GDP) are cointegrated for any country, i.e. that there is no long-run relationship between HCE and GDP. On the other hand, Blomqvist and Carter (1997) confirm the existence of a cointegration in the country-by-country case. The null hypothesis of no cointegration was rejected at the 5% level for 16 countries. In addition, after pooling country variables, the authors concluded that HCE and GDP are I(1) and are cointegrated around a linear trend. Similar conclusion, i.e. the existence of the long run equilibrium relationship between HCE and GDP, was confirmed among the others by

Table 63 - Augmented Dickey-Fuller test

	HCE TOT	HCE PUB	GDP
AT	0.72	0.61	0.41
BE	0.21	NA	0.36
CZ	0.01	0.03	0.78
DK	0.83	0.09	0.03
FI	0.26	0.27	0.03
FR	0.46	0.29	0.35
DE	0.00	0.00	0.18
EL	0.17	0.02	0.42
HU	0.83	0.93	0.00
IE	0.82	0.67	0.84
IT	0.30	0.62	0.85
LU	0.40	0.28	0.41
NL	0.08	0.06	0.45
NO	0.32	0.02	0.38
PL	0.04	0.24	0.10
PT	0.00	0.24	0.12
SK	0.89	0.45	0.21
ES	0.26	0.01	0.09
SE	0.06	0.01	0.47
UK	0.60	0.90	0.75

Source: Commission services, EPC.

Note: The values represent p-values of the H_0 that the series has a unit root. The H_0 is rejected if the p-value is smaller than or equal to the significance level. If significance level is fixed at 0.1, H_0 is rejected when p-value \leq 0.1.

Gerdtham and Lothgren (2000) or by Okunade and Murthy (2002).

Using Dickey-Fuller approach to testing cointegration in the analysed sample leads to the conclusion that health care expenditure and GDP per capita are not cointegrated in many cases (see Table 64)¹¹⁰. Although, methodologically not fully correct, the presence of cointegration relationship was tested for all countries even when both series are I(0) or one series is I(0) and the second one is I(1) or vice versa¹¹¹.

The test does not provide clear evidence on the existence of the cointegration relationship between the variables for all countries. Still, taking into account the results of the present exercise and recently published studies one can assume that HCE and GDP are cointegrated for all countries and decide to estimate the long-run relation between these variables using OLS. A full dynamic error correction model estimate, taking into account the adjustment mechanism over time, is not feasible given the lack of data.

¹⁰⁷ On the other hand, recently Carrion-i-Silvestre (2005) suggested that the panel data set of HCE is stationary after the structural breaks are introduced into the model. Since most of the breaks are associated with reforms aimed to extend the coverage and benefits of health care, this argument is in line with the fact that governments play a major role in the financing of HCE in most of the OECD countries, and therefore, it is a consequence of a strong correlation between HCE and GDP.

¹⁰⁸ Applying Phillips-Peron test does not change the results significantly.

¹⁰⁹ Thus, due to a limited number of observations, the series could be claimed to be an I(1) process even if it is I(0) in fact.

¹¹⁰ When applying Johansen's cointegration test the conclusions are almost the same.

¹¹¹ See for example Muscatelli and Hurn (1992) who advocate this approach.

Table 64 - Cointegration test (Dickey-Fuller two stage approach)

	HCE TOT	HCE PUB
AT	0.7	0.2
BE	0.3	NA
CZ	0.0	0.0
DK	0.8	0.2
FI	0.2	0.2
FR	0.0	0.0
DE	0.5	0.7
EL	0.3	0.0
HU	0.1	0.1
IE	0.0	0.1
IT	0.5	0.7
LU	0.0	0.1
NL	0.0	0.0
NO	0.0	0.0
PL	0.1	0.3
PT	0.0	0.1
SK	0.2	0.4
ES	0.2	0.2
SE	0.5	0.7
UK	0.3	0.7

Source: Commission services, EPC.

Note: The values represent p-values of the H_0 that the residual series has a unit root, i.e. that the variables (HCE, GDP and over_65) are not cointegrated. The H_0 is rejected if the p-value is smaller than or equal to the significance level. If significance level is 0.1 then H_0 is rejected when p-value ≤ 0.1 .

9.3.2. Technology trend estimation

Following Blomqvist and Carter (1996), the model was extended by a linear time trend. Such a deterministic trend is expected to account for the impact of technological change on health care expenditure. The authors stress that their estimates of the deterministic trend coefficient are very imprecise and vary widely in magnitude between countries. Still, their trend coefficient estimates suggest that HCE in the sample of countries tends to rise by as much as 2% per year even if income remains constant. Okunade and Murthy (2002) also confirm a significant and stable long-run relationship among HCE, GDP and technological change (this time proxied by total R&D expenditure). As suggested earlier, this can be taken as a support for the growing consensus that the technology growth has been the most important determinant of the growth in the cost of health care in industrialized countries since the World War II.

Table 65 presents the results when estimating equation [3] using OLS. The results should be interpreted carefully, especially for RAMS countries where the length of time series is extremely short.

Table 65 - Single equation estimates

		HCE TOT		HCE PUB			HCE TOT		HCE PUB
AT	cons	-10.478	**	-17.893	***	IT	cons	2.33	6.12
	GDP	1.632	***	2.438	***		GDP	0.46	0.02
	OVER 65	0.107	***	0.070	*		OVER 65	-0.03	-0.01
	trend	0.002		-0.010			trend	0.02	0.02
BE	cons	-15.074	***			LU	cons	19.45	**
	GDP	2.369	***				GDP	-1.20	-1.58
	OVER 65	-0.079	**				OVER 65	-0.17	-0.12
	trend	0.005					trend	0.09	***
CZ	cons	8.186		9.639		NL	cons	3.78	3.77
	GDP	-0.044		-0.088			GDP	0.36	0.08
	OVER 65	0.030		-0.055			OVER 65	-0.06	0.18
	trend	0.039		0.043			trend	0.03	***
DK	cons	12.643	***	10.120	**	NO	cons	-12.72	***
	GDP	-0.311		-0.131			GDP	1.81	***
	OVER 65	0.006		0.032	**		OVER 65	0.02	-0.01
	trend	0.026	***	0.018	**		trend	-0.01	-0.01
FI	cons	0.616		-1.870		PL	cons	6.57	**
	GDP	0.508	**	0.669	**		GDP	-0.11	0.45
	OVER 65	0.127	***	0.221	***		OVER 65	-0.17	-0.30
	trend	-0.002		-0.023	**		trend	0.09	*
FR	cons	-7.297	***	-12.323	***	PT	cons	0.11	-4.10
	GDP	1.500	***	1.981	***		GDP	0.54	***
	OVER 65	-0.037	*	-0.014			OVER 65	0.03	0.06
	trend	0.014	***	0.004			trend	0.03	***
DE	cons	-4.676	**	-4.407		SK	cons	-32.56	**
	GDP	1.185	***	1.141	***		GDP	3.48	***
	OVER 65	0.011		0.001			OVER 65	0.19	0.11
	trend	0.008	**	0.011	**		trend	-0.06	-0.03
EL	cons	4.403	**	-2.875		ES	cons	-3.99	-2.54
	GDP	-0.054		0.823	**		GDP	1.08	***
	OVER 65	0.082	**	0.052			OVER 65	-0.02	-0.10
	trend	0.018	***	0.016	**		trend	0.02	***
HU	cons	12.766	**	23.127	**	SE	cons	-7.16	*
	GDP	0.551		0.180			GDP	1.35	***
	OVER 65	-1.148	***	-1.745	***		OVER 65	0.03	**
	trend	0.205	***	0.294	***		trend	0.00	-0.01
IE	cons	4.044	***	3.548	**	UK	cons	4.68	**
	GDP	0.693	***	0.887	***		GDP	0.14	0.05
	OVER 65	-0.389	***	-0.517	***		OVER 65	-0.02	-0.03
	trend	0.019	***	0.011	*		trend	0.03	***

Source: Commission services, EPC.

Note: *** statistically significant at 1% level, ** statistically significant at 5% level, * statistically significant at 10% level

The coefficient corresponding to GDP is interpreted as an elasticity of HCE with respect to GDP. The coefficient corresponding to OVER 65 is interpreted as a semi-elasticity of HCE with respect to the development of demographic factors. The coefficient corresponding to *trend* can be interpreted as an average annual growth rate of HCE due to technology and other non-demographic factors.

The estimated parameters are characterised by a quite high degree of dispersion¹¹². Taking into account only statistically significant results, one can conclude that the average growth rate varies from 0 to 9% per annum.

Two additional operations were performed. First, in an effort to obtain more robust results, the individual country data was pooled. Second, to reflect the accession year to the EU, the dataset was split into two subgroups. The first one includes EU15 countries plus Norway, while the other subgroup includes the available 4 out of 12 Recently Acceded Member States (RAMS)¹¹³.

¹¹² The high degree of dispersion among individual country parameters was confirmed for example by Blomqvist and Carter (1996).

¹¹³ In Table 66, the EU15 group comprises of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, the UK and the group RAMS covers only the Czech republic, Hungary, Poland and Slovakia.

Table 66 - Pooled fixed effect regression estimates

		HCE_TOT		HCE_PUB	
EU	cons	-0.07		-0.16	
	GDP	0.70	***	0.69	***
	OVER 65	-0.01		0.00	
	trend	0.02	***	0.02	***
EU_15	cons	-0.21		-2.34	**
	GDP	0.71	***	0.89	***
	OVER 65	-0.01		0.01	
	trend	0.02	***	0.02	***
RAMS	cons	1.79		2.76	
	GDP	0.56	***	0.50	**
	OVER 65	-0.04		-0.05	
	trend	0.03	***	0.03	***

Source: Commission services, EPC.

Note: *** statistically significant at 1% level, ** statistically significant at 5% level, * statistically significant at 10% level

As indicated in Table 66, for both total and public health care spending, the trend coefficient for EU15 countries is about 0.02, while in the case of RAMS countries, the coefficient is slightly higher (0.03). The difference in the level of the trend parameter between EU15 and RAMS countries can be explained by the lower level of health care standards in RAMS countries and their tendency to converge to EU level in the following years.

The estimated value of income elasticity seems to be rather low (below 1). The surprisingly low value of the income elasticity can be a result of introducing a *trend* and the OVER 65 variable both growing remarkably in case of a majority of the countries over the period 1960-2006.

9.3.3. Main findings

At individual country level we found that the trend growth rate of health-care expenditure shows a very wide dispersion. This may be due to other country-specific factors affecting health-care expenditure not captured in the estimation. Finally, based on our results for a pooled regressions, it seems that HCE trend growth rate is 2% and 3% p.a. for EU15 and EU12 RAMS countries respectively, which can be assigned mainly to technological progress, as well as to other non-demographic factors. At the same time, the regression exercise show an income elasticity lower than 1 (around 0.7 on average). These results may be considered to represent an underlying, average trend in health-care expenditure, estimated to be somewhat lower for the EU15 countries than for the RAMS countries.

9.4. BUDGETARY IMPACT OF MEDICAL TECHNOLOGY DEVELOPMENTS – APPLYING ECONOMETRIC ESTIMATES TO THE STANDARD AWG HEALTH CARE PROJECTION MODEL.

The results of the econometric exercise described in the previous section are used to build an alternative methodology to project the impact of technology on health care expenditure in the future. In practical terms, this methodology is based on the “standard” AWG health care methodology, to which two additional and partially counterbalancing elements are added. On the one hand, an extra increase in per capita health care expenditure due to non-demographic drivers (see HCE trend growth rate in Table 66), which amounts to about 2% per year, is added to the existing demographic effect. On the other hand, reflecting the results of the econometric exercise, the income effect is weakened by applying an income elasticity equal 0.7 (i.e. GDP coefficient from Table 66).

Although estimates are available for all countries covered by the analysis, their values differ a lot (see Table 65), being strongly dependent on data availability and time series length which, especially for most Recently Acceded Member States, is very short. Thus, it has been decided to use the panel data estimates.

As in any long-term projection, one should assume a convergence process towards a stationary steady state conditions. Thus, in the projection methodology, the two discussed effects are assumed to gradually disappear over time, thus the extra increase due to non-demographic drivers declines to zero while income elasticity of demand converges to unity), although uncertainty about the speed of this process call for caution while interpreting the results.

Table 67 and Table 68 present the results of the technology scenario using as input data the results of the econometric exercise presented above. In the first variant, the impact of technology disappear completely at the end of projection period (by 2060) (Table 67), while in the second one (Table 68), the impact of technology is assumed to disappear after 30 years (by 2038).

The results of the technology scenario in the first variant suggest a significant growth in public health care expenditure over the projection

Table 67 - Results of the technology scenario (convergence by 2060) – HC spending as % of GDP

	2007	2010	2020	2030	2040	2050	2060	Change 2007-2060	difference from pure demographic scenario
BE	7.6	8.1	9.7	11.4	12.9	13.8	14.1	6.5	5.0
BG	4.7	4.8	5.4	6.1	6.8	7.4	7.5	2.8	2.1
CZ	6.2	6.5	7.7	9.3	10.7	11.8	12.4	6.2	3.9
DK	5.9	6.3	7.8	9.2	10.2	10.9	11.1	5.2	4.0
DE	7.4	7.9	9.7	11.6	13.3	14.4	14.6	7.2	5.2
EE	4.9	5.0	5.7	6.5	7.4	8.1	8.6	3.6	2.4
IE	5.8	6.2	7.4	8.8	10.2	11.4	12.1	6.3	4.3
EL	5.0	5.2	6.2	7.3	8.5	9.3	9.6	4.7	3.2
ES	5.5	5.9	7.0	8.3	9.8	10.9	11.2	5.6	3.9
FR	8.1	8.7	10.4	12.2	13.7	14.6	14.9	6.8	5.3
IT	5.9	6.3	7.5	8.9	10.2	11.0	11.1	5.3	4.0
CY	2.7	2.9	3.4	4.0	4.6	5.1	5.4	2.7	1.8
LV	3.5	3.5	3.9	4.5	5.1	5.5	5.7	2.3	1.6
LT	4.5	4.6	5.2	6.0	6.9	7.6	7.9	3.4	2.2
LU	5.8	6.1	7.1	8.4	9.6	10.3	10.6	4.8	3.5
HU	5.8	6.0	7.0	8.3	9.5	10.4	11.0	5.2	3.5
MT	4.7	5.2	6.7	8.6	10.4	11.7	12.8	8.1	4.3
NL	4.8	5.1	6.4	7.6	8.6	9.2	9.3	4.5	3.4
AT	6.5	6.9	8.5	10.1	11.6	12.6	12.8	6.3	4.6
PL	4.0	4.2	4.9	5.8	6.6	7.3	7.6	3.6	2.3
PT	7.2	7.7	9.3	10.9	12.4	13.6	14.3	7.1	5.0
RO	3.5	3.6	4.1	4.8	5.6	6.3	6.7	3.2	1.8
SI	6.6	6.9	8.2	9.8	11.3	12.3	12.7	6.1	4.1
SK	5.0	5.1	6.1	7.3	8.5	9.6	10.0	5.1	2.8
FI	5.5	5.9	7.2	8.6	9.7	10.3	10.5	5.0	3.7
SE	7.2	7.6	9.0	10.4	11.5	12.2	12.6	5.4	4.4
UK	7.5	8.0	9.5	11.3	13.0	14.2	14.9	7.4	5.2
NO	5.6	6.3	8.0	9.9	11.5	12.6	13.3	7.6	6.0
EU27	6.7	7.1	8.5	10.1	11.6	12.6	13.0	6.3	4.6
EU15	6.9	7.3	8.8	10.4	11.9	12.9	13.3	6.4	4.7
EU12	4.7	4.8	5.6	6.6	7.6	8.4	8.9	4.2	2.6
EA	6.7	7.2	8.6	10.2	11.6	12.6	12.9	6.2	4.6

Source: Commission services, EPC.

period. An increase of almost 6.3% of GDP (in absolute terms) shows that continuation of the past trends in the public spending on health care, even under a strong assumption of the extra effect fading away with time, almost doubles the current level of spending, which exerts a strong pressure on the public finances.

The results of the second variant are obviously lower than those of the first one, as the impact of

technology is assumed to disappear almost twice as fast, while the final level of spending is very similar to that of the “*OECD assumptions scenario*”. In both cases the difference from the income elasticity scenario (respectively 4.2% and 2% of GDP) may be interpreted as the expected impact of technology and other supply side factors not related to the increase in the national income.

Table 68 - Results of the technology scenario (convergence over 30 years) - health care spending as % of GDP

	2007	2010	2020	2030	2040	2050	2060	Change 2007-2060	difference from pure demographic scenario
BE	7.6	8.1	9.5	10.8	11.4	11.6	11.8	4.1	2.7
BG	4.7	4.8	5.3	5.9	6.2	6.4	6.4	1.7	1.0
CZ	6.2	6.5	7.7	8.8	9.6	10.0	10.4	4.2	1.9
DK	5.9	6.3	7.6	8.7	9.1	9.2	9.3	3.3	2.2
DE	7.4	7.9	9.5	10.9	11.7	12.1	12.1	4.7	2.7
EE	4.9	5.0	5.7	6.2	6.7	7.0	7.3	2.3	1.1
IE	5.8	6.2	7.2	8.3	9.1	9.6	10.1	4.2	2.3
EL	5.0	5.2	6.1	6.9	7.5	7.9	8.0	3.1	1.6
ES	5.5	5.9	6.9	7.9	8.7	9.2	9.3	3.8	2.0
FR	8.1	8.7	10.2	11.5	12.1	12.3	12.4	4.3	2.9
IT	5.9	6.3	7.4	8.4	9.0	9.2	9.2	3.4	2.1
CY	2.7	2.9	3.4	3.8	4.1	4.4	4.5	1.8	1.0
LV	3.5	3.5	3.9	4.3	4.6	4.7	4.8	1.4	0.7
LT	4.5	4.6	5.1	5.7	6.2	6.5	6.6	2.2	1.0
LU	5.8	6.1	7.0	8.0	8.5	8.8	8.9	3.1	1.8
HU	5.8	6.0	7.0	7.9	8.6	9.0	9.3	3.5	1.8
MT	4.7	5.1	6.6	8.1	9.3	9.9	10.7	6.0	2.2
NL	4.8	5.1	6.3	7.2	7.6	7.7	7.8	2.9	1.8
AT	6.5	6.9	8.3	9.5	10.3	10.6	10.7	4.2	2.4
PL	4.0	4.2	4.9	5.5	5.9	6.2	6.4	2.4	1.1
PT	7.2	7.7	9.1	10.3	11.1	11.7	12.1	4.9	2.7
RO	3.5	3.6	4.0	4.6	5.1	5.4	5.7	2.2	0.8
SI	6.6	6.9	8.1	9.3	10.1	10.4	10.6	4.0	2.0
SK	5.0	5.1	6.0	7.0	7.7	8.2	8.4	3.5	1.2
FI	5.5	5.8	7.1	8.2	8.6	8.7	8.8	3.3	1.9
SE	7.2	7.6	8.8	9.8	10.2	10.4	10.5	3.3	2.4
UK	7.5	8.0	9.4	10.7	11.6	12.1	12.5	5.0	2.8
NO	5.6	6.3	7.9	9.4	10.3	10.9	11.4	5.7	4.1
EU27	6.7	7.1	8.4	9.5	10.3	10.6	10.8	4.1	2.4
EU15	6.9	7.3	8.7	9.8	10.6	10.9	11.1	4.2	2.5
EU12	4.7	4.8	5.6	6.3	6.8	7.2	7.5	2.8	1.3
EA	6.7	7.2	8.5	9.6	10.3	10.6	10.7	4.0	2.4

Source: Commission services, EPC.

9.5. CONCLUSIONS

Medical science and development of new technologies are supposed to strongly affect the public expenditure on health care. This is the conclusion in practically all available empirical studies, and it is confirmed by the empirical analysis presented in this section. Although the estimated impact differs, even considerably across various methodologies, the effect of technology is generally expected to exceed considerably demographic and income effects, as reflected in the standard AWG health care expenditure model. Dependent on a number of assumptions, the additional (over the pure impact of demographic changes) impact of technological developments over the next half-century is estimated to vary from 2.4 to 4.6% of GDP.

Still, interpretation of these results should be very cautious and a number of caveats should be borne in mind. First, the budgetary impact estimated in the presented models does not include solely the effect of future developments in the cost of “medicines (pharmaceuticals and vaccines), medical equipment, health-care

procedures, supportive systems, and the administrative systems that can tie all these disparate elements together”¹¹⁴. In fact, it also reflects other non-demographic factors (except for national income), such as a number of cost drivers not covered by the presented specifications. These are non-quantifiable factors such as institutional and legal setting of health care system, developments in prices of health care goods and services etc.

Second, projected future developments in health care expenditure are calculated using estimates based on the past trends as such approach was the considered to be the only available solution, given the well known lack of data. However, there is no evidence that the past trends are going to continue in the future. Given the very high uncertainty surrounding any prediction of future

¹¹⁴ Definition of medical technology, as quoted in OECD (1998), *Health Policy Brief. Ageing and Technology*, Working Party on Biotechnology, DSTI/STP/BIO(97)13 of 17 June 1998

evolution in science and technology and its impact on economic variables, the proposed approach must be considered as a first, rather simplistic, guess.

Third, given the fact that potential for technological development is closely dependent on the financial resources available for capital investment in the medical sector, the impact of technology is partially reflected in the relation between health care spending and national income. As such, the income elasticity scenario, projecting higher spending in countries with higher potential GDP growth, already takes into account to some extent this relationship.

9.6. ADDITIONAL TABLES

Table 70 - Number of cointegrating relations using Johansen's cointegration test

	HCE TOT	HCE PUB
AT	1	1
BE	1	1
CZ	1	1
DK	0	1
FI	1	1
FR	1	1
DE	1	1
EL	0	1
HU	1	1
IE	1	1
IT	0	0
LU	1	1
NL	1	0
NO	1	1
PL	1	1
PT	1	1
SK	NA	NA
ES	0	1
SE	0	0
UK	0	0

Source: Commission services, EPC.

Table 69 - Philips-Perron unit root test

	HCE TOT	HCE PUB	GDP
AT	0.6	0.6	0.0
BE	0.2	NA	0.0
CZ	0.5	0.4	0.1
DK	0.8	0.4	0.0
FI	0.6	0.6	0.5
FR	0.5	0.3	0.4
DE	0.0	0.0	0.2
EL	0.2	0.0	0.2
HU	0.8	0.9	0.0
IE	0.7	0.9	0.9
IT	0.7	0.9	1.0
LU	0.7	0.6	0.7
NL	0.6	0.3	0.5
NO	0.4	0.1	0.6
PL	0.1	0.0	0.1
PT	0.0	0.2	0.4
SK	1.0	1.0	0.8
ES	0.1	0.0	0.5
SE	0.7	0.6	0.9
UK	0.5	0.8	0.4

Source: Commission services, EPC.

Note: The values represent p-values of the H_0 that the series has a unit root. The H_0 is rejected if the p-value is smaller than or equal to the significance level. If significance level is 0.1 then H_0 is rejected when $p\text{-value} \leq 0.1$.

10. ANNEX 3: LONG-TERM CARE

10.1. SUMMARY OF THE METHODOLOGY USED TO PROJECT LONG-TERM CARE EXPENDITURE

The model prepared for the 2006 projection exercise, based on a proposal by Comas-Herrera et al., (2005), has been also used in this projection exercise. Graph 93 provides an illustration of the structure of the model. The square boxes indicate data that need to be entered into the model to make projections for each year, and the round boxes indicate calculations that are produced within the model for each year.

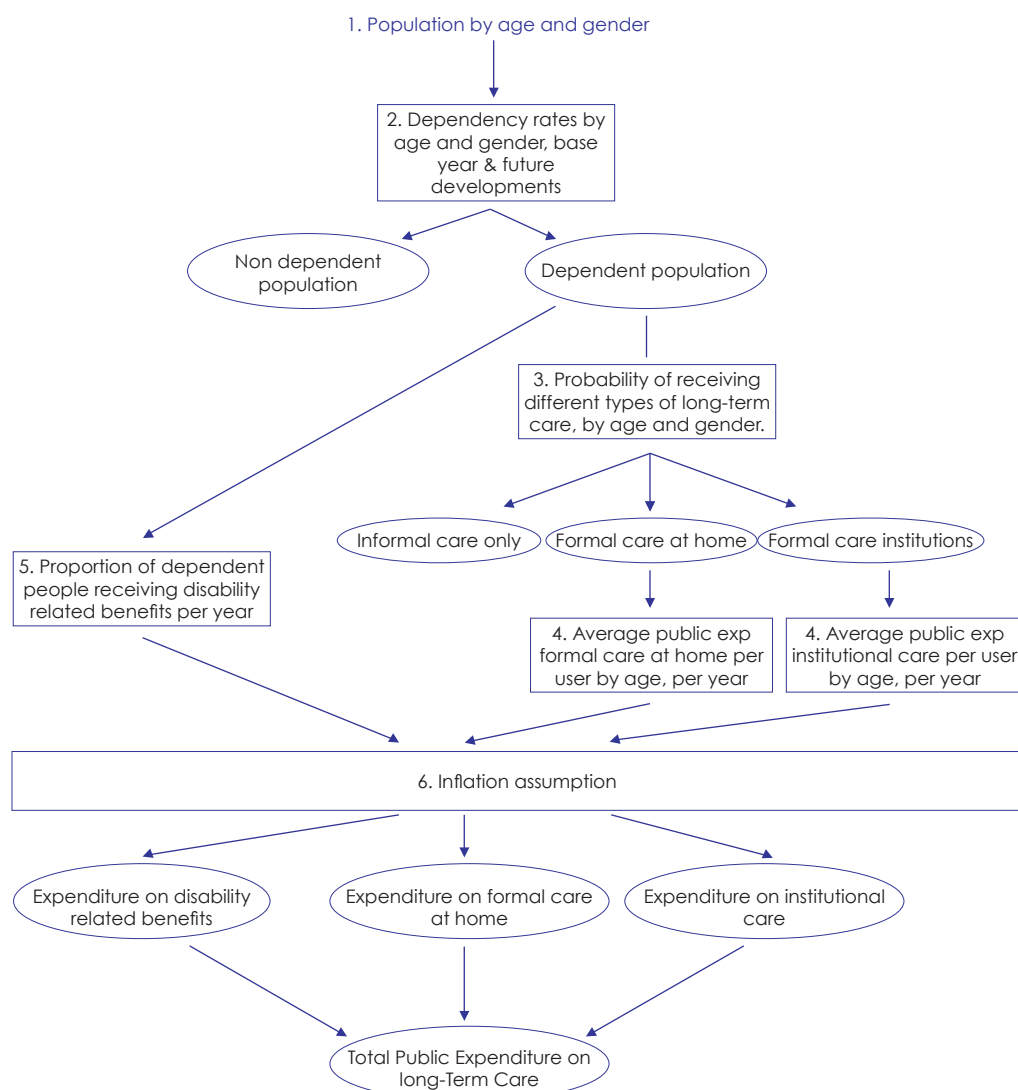
It is a macro simulation model similar to those used for Germany, Italy and Spain in the

European Study of Long-Term Care Expenditure (Comas-Herrera and Wittenberg, 2003 and Comas-Herrera et al, 2003). That model in turn built on the experience of constructing the Personal Social Services Research Unit (PSSRU) Long Term Care expenditure model for England (Wittenberg et al., 1998 and 2001).

The main steps involved in the projection of long-term care expenditure are as follows.

Step 1: a projection is made of the dependent population, who are assumed to need some form of long-term care service, and the non-dependent population, who are assumed not to be in need of

Graph 93 – Model structure



Source: Comas-Herrera et al., (2005)

long-term care services. This is made by extrapolating age and gender-specific dependency ratios of a base year (estimated using disability rates) to the population projection (by age and gender).

The difference between the terms “dependency” and “disability” is worth stressing. The term “disability” refers to some functional impairment of an individual. The term “dependent” refers to the share of the population having some disability which requires the provision of a care service. There are many people with some form of disability who can lead completely independent lives without the need for care services. More specifically, the projection makes use of the concept of ADL-dependency which refers to difficulties in performing at least one Activity of Daily Living (ADL) (Katz et al., 1963).

Step 2 is to split, by age and gender, the dependent elderly population into three groups depending on the type of care they will receive, namely (i) formal care at home, (ii) formal care in institutions (both of which impact on public spending but their unit costs differ) and (iii) informal care, which has no impact on public spending.

The model assumes that all those receiving home care or institutional care have difficulties with one or more ADLs, and that all persons deemed ADL-dependent either receive informal care, home care or institutional care. The split by type of care is made by calculating the “probability of receiving different types of long-term care by age and gender”. This probability is calculated for a base year using data on the numbers of people with dependency (projected in step 1), and the numbers of people receiving formal care at home and in institutions (provided by Member States). Informal care is a “default category”. It is assumed that the difference between the number of dependent people and the number of people receiving formal care (at home or in institutions) is the number of people who rely exclusively on informal care.

Step 3 involves the calculation of public spending for home and institutional care, by multiplying the number of people receiving long-term care services (at home and in institutions) by the average age-specific public expenditure of formal care (at home and in institutions) per year and per user. Average expenditure is calculated for a base year using data on total public expenditure in home care and institutional care

and the numbers of people receiving formal care at home and in long-term care institutions (as provided by Member States).

Two assumptions are required:

- current expenditure in services divided by the number of users equals the long-run unit costs of services;
- average expenditure increases with the age of the user.¹¹⁵

Step 4: by adding up the expenditure on formal care at home and in institutions, total public expenditure on long-term care services is obtained. Public expenditure on cash benefits for people with ADL-dependency is then added to the expenditure on services, in order to obtain total public expenditure on long-term care; note that cash benefits are assumed to grow in line with the numbers of dependent people.

An important caveat to note is that while dependency rates are an indicator of the need for care, those needs may not necessarily translate into actual public expenditure, as most long-term care is provided by unpaid informal carers. Expenditure profiles contain information about the propensity to receive paid formal care, which depends on a number of factors other than dependency that affect demand for paid care such as household type, availability of informal carers, income or housing situation (Wittenberg et al, 1998). Most of these factors, in turn, are also correlated with age.

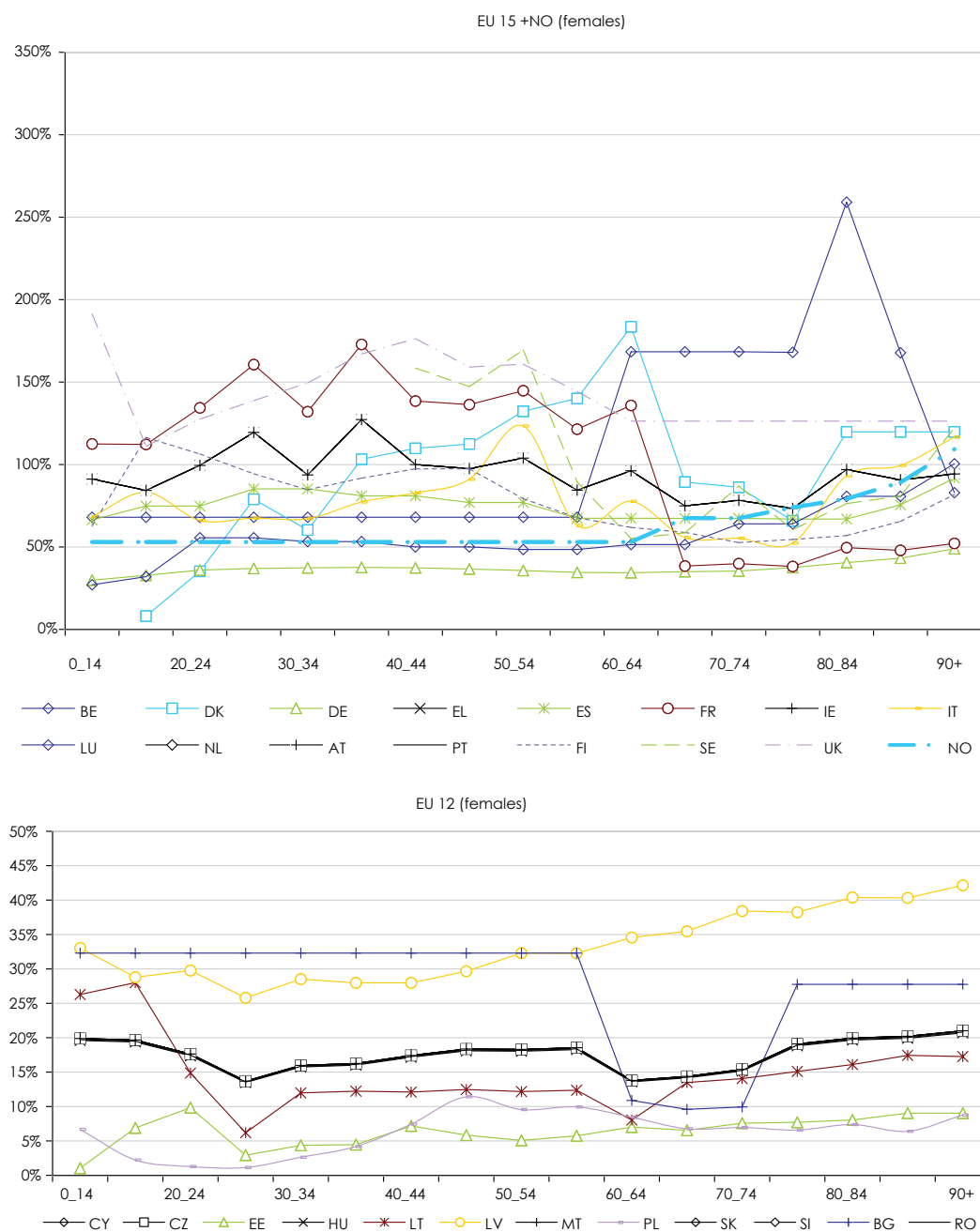
10.2. INPUT DATA USED TO PROJECT LONG-TERM CARE EXPENDITURE

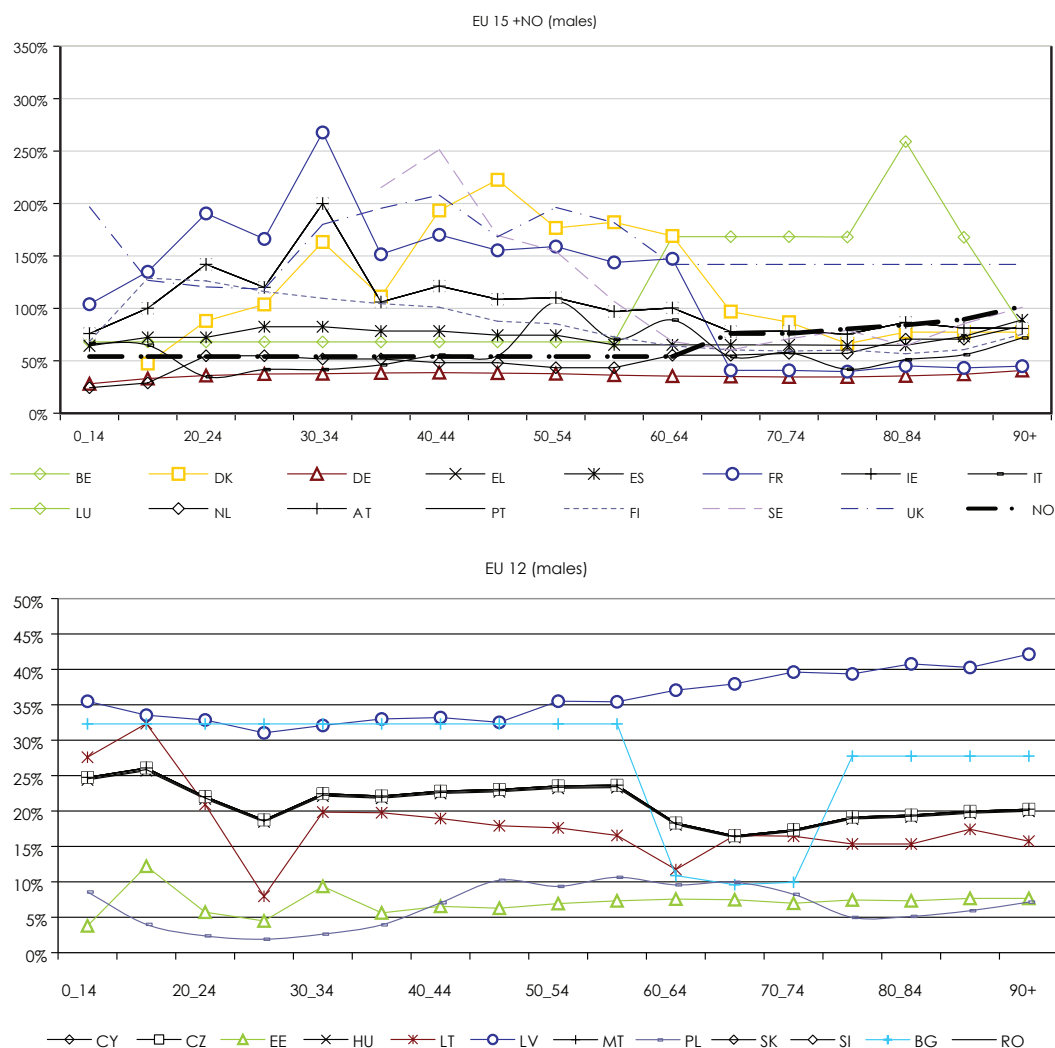
10.2.1. Age-related expenditure profiles per beneficiary

Graph 94 displays the age-related expenditure profiles as % of GDP per capita, grouped into EU15 and EU12 countries, which have been used in the projection of long-term care expenditure.

¹¹⁵ In practice, average expenditure per user (aged 65 and above) is decomposed, for each type of service, into average expenditure by smaller age groups, by assuming that expenditure by age increases at the rate given by the age-related expenditure profile. It is an approximation, as the age-related expenditure profile provides information on spending in formal care by age, without distinction between care provided at home and in institutions.

Graph 94 – Age-related expenditure profiles of long-term care provision
(spending per beneficiary as % of GDP per capita)





Source: Commission services, EPC.

10.2.2. Dependency rates

Dependency rates are drawn from the SHARE survey in Austria, Germany, Sweden, the Netherlands, Spain, Italy, France, Denmark, Greece, Belgium, the Czech Republic and Poland. For the remaining Member States, they are drawn from the Survey on Living and Working Conditions (SILC). Romania and Bulgaria have not provided figures to the SILC questionnaire and have thus been assigned different measures of disability.

In the case of Romania, the data are taken from the Health Interview Survey (2004) and indicate the percentage of people in a given age group who have suffered from severe activity restriction in the past 6 months. In the case of Bulgaria, the figures, taken from the 2001 Health Condition

Survey, indicate the percentage of people who have had a long-standing illness or health problem.

The SHARE database includes information on the percentage of people with 'the prevalence of 1+ limitations with activities of daily living among men and women over 50 years of age'. The data from SILC survey provides for the percentage of people in a given age group who 'are severely restricted in activities they usually do because of health problems for at least the last 6 months'. In case of the UK, the English Longitudinal Study of Ageing (ELSA) produces figures that are fully comparable with the SHARE methodology.

Dependency tends to increase by age and, on average, is more prevalent among women than among men. Bulgaria, Estonia, Cyprus, Luxemburg, Lithuania, Hungary, Poland,

Portugal, Romania, Slovakia, Finland and the UK have above average dependency rates at most ages.

Table 71 – Dependency rates (in %)

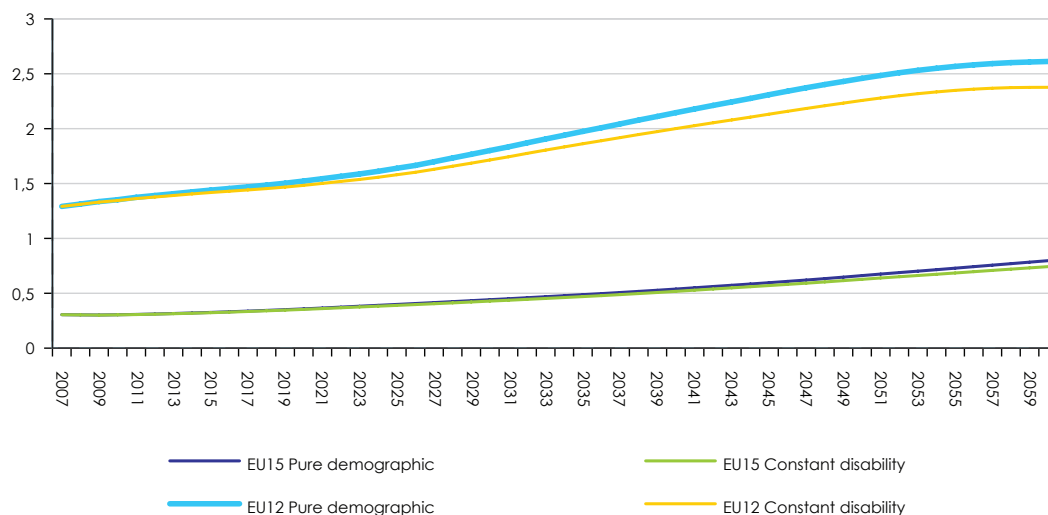
	65-69		70-74		75-79		80-84		85-89		90+	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
BE	15	12	9	16	19	27	37	47	46	55	61	69
BG	59	62	59	62	70	66	70	66	56	71	56	72
CZ	5	12	10	15	15	17	31	31	38	38	40	40
DK	9	7	7	10	14	23	28	42	35	50	48	63
DE	7	9	12	13	19	19	38	43	40	48	44	58
EE	27	24	27	24	41	48	42	50	60	60	60	60
IE	13	11	14	12	24	23	27	27	27	40	32	48
EL	5	7	10	11	10	20	27	42	32	48	40	55
ES	7	13	12	19	19	26	37	48	38	48	39	48
FR	6	11	7	14	22	22	34	46	37	52	47	43
IT	5	7	12	20	14	27	33	45	33	45	33	45
CY	23	32	24	32	40	49	41	50	52	57	53	58
LV	24	27	24	27	33	38	34	39	37	54	38	55
LT	22	27	23	28	44	48	46	51	58	72	59	72
LU	11	14	12	15	23	20	25	26	41	67	53	77
HU	32	31	32	31	38	41	39	43	45	56	47	59
MT	8	9	9	10	26	23	26	23	26	49	26	49
NL	6	6	5	10	10	18	31	34	37	43	47	55
AT	7	9	12	12	12	20	28	40	33	46	41	53
PL	21	24	21	24	32	36	33	37	41	49	41	49
PT	24	32	24	32	42	50	44	52	54	62	60	67
RO	18	22	18	22	35	44	35	45	63	77	63	77
SI	17	22	18	22	24	28	25	30	40	34	41	36
SK	28	30	28	30	40	50	40	50	46	60	46	60
FI	20	24	20	24	32	40	35	44	39	56	47	66
SE	6	5	9	16	18	12	29	40	34	48	41	54
UK	21	19	25	26	27	36	39	49	43	54	50	60
NO	13	13	13	13	16	28	19	32	40	47	49	59
	16	19	18	21	27	32	35	42	42	53	46	57

Source: Commission services, EPC compiled from SHARE and SILC surveys. For Bulgaria, the data are drawn from the 2001 Health Condition Survey implemented by the National Statistical Institute; for Romania, the data come from the 2004 Health Interview Survey.

Note: For Bulgaria, the definition of the disability rate is not comparable with either SHARE or SILC, the disability rate is defined as long-standing illness or health problem.

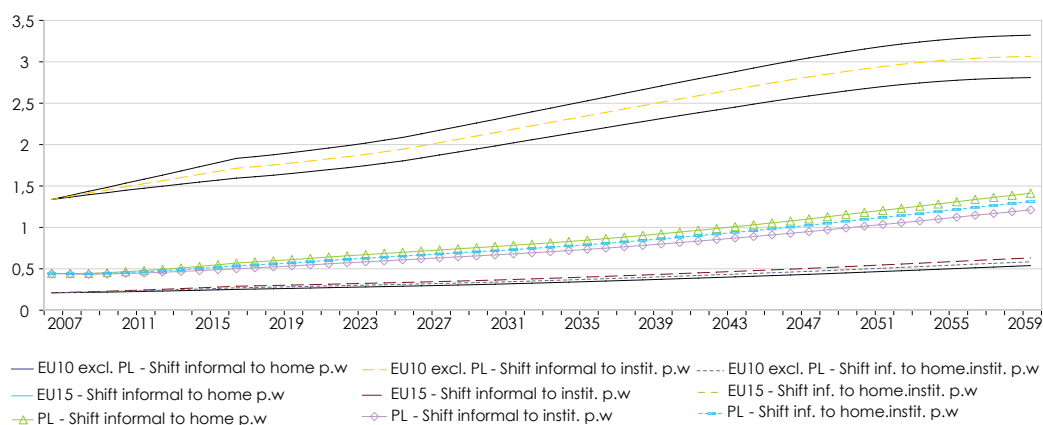
10.3 PROJECTION RESULTS

Graph 95 – The impact of an improvement in the disability status, projected expenditure for the period 2007-2060, as % of GDP



Source: Commission services, EPC.

Graph 96 – The impact of a policy change: a shift from informal to formal care, projected expenditure on long-term care for the period 2007-2060, as % of GDP



Source: Commission services, EPC.

Note: A EU10 average is calculated excluding Poland. This is because in Poland (as well as in Slovakia), a higher increase is projected when care is provided at home than in institutions, in contrast to all other Member States. As Poland accounts for about 40% of the EU10 expenditure, this affects the results for the EU10.

Table 72 - Increase of public expenditure on long-term care over the period 2007 to 2060 and difference relative to the pure demographic scenario

Change 2007-2060										Diff. From pure demographic in p.p. of GDP									
Pure demographic	Shift to formal care										Shift to formal care								
	Constant disability	Fast growth	Slow growth	Per capita	at home	institutional	mix between home and institutional	AWG reference scenario	AWG		Constant disability	Fast growth	Slow growth	Per capita	at home	institutional	mix between home and institutional	AWG reference scenario	AWG
BE	1.6	1.2	1.9	1.3	1.8	2.2	2.0	1.4	1.4		-0.4	0.3	-0.3	-0.2	0.2	0.6	0.4	-0.2	-0.2
BG	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.2	0.1		0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0
CZ	0.5	0.4	0.5	0.4	0.5	0.7	0.6	0.4	0.4		-0.1	0.1	-0.1	-0.1	0.0	0.2	0.1	0.0	0.0
DK	1.7	1.3	2.1	1.4	1.4	2.1	1.9	1.5	1.5		-0.4	0.4	-0.3	-0.3	0.3	0.0	0.2	-0.2	-0.2
DE	1.5	1.3	1.8	1.3	1.7	2.0	1.8	1.4	1.4		-0.2	0.3	-0.2	-0.2	0.1	0.5	0.3	-0.1	-0.1
EE	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1		0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0
IE	1.4	1.2	1.6	1.2	1.5	1.8	1.7	1.3	1.3		-0.2	0.2	-0.2	-0.3	0.1	0.4	0.3	-0.1	-0.1
EL	2.4	2.0	2.8	2.1	2.0	3.0	2.8	2.2	2.2		-0.5	0.4	-0.4	-0.5	0.2	0.6	0.4	-0.2	-0.2
ES	0.9	0.8	1.0	0.8	1.0	3.2	2.1	0.9	0.9		-0.1	0.1	-0.1	-0.1	0.0	2.2	1.1	-0.1	-0.1
FR	0.9	0.7	1.1	0.7	1.0	1.3	1.1	0.8	0.8		-0.2	0.2	-0.2	-0.2	0.1	0.4	0.2	-0.1	-0.1
IT	1.4	1.1	1.7	1.1	1.9	2.5	2.2	1.3	1.3		-0.3	0.3	-0.3	-0.2	0.5	1.1	0.8	-0.1	-0.1
CY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LV	0.5	0.5	0.6	0.4	0.6	1.5	1.1	0.5	0.5		0.0	0.1	-0.1	-0.2	0.1	1.0	0.5	0.0	0.0
LT	0.6	0.5	0.7	0.5	0.7	0.9	0.8	0.6	0.6		-0.1	0.1	-0.1	-0.2	0.1	0.3	0.2	0.0	0.0
LU	2.2	1.9	2.5	1.8	2.2	2.4	2.9	2.0	2.0		-0.3	0.4	-0.3	0.1	0.2	0.8	0.5	-0.1	-0.1
HU	0.4	0.4	0.5	0.3	0.6	0.8	0.7	0.4	0.4		0.0	0.1	-0.1	-0.1	0.2	0.4	0.3	0.0	0.0
MT	1.9	1.4	2.1	1.6	1.5	1.9	2.5	1.6	1.6		-0.4	0.3	-0.3	-0.4	0.0	0.6	0.3	-0.2	-0.2
NL	5.2	4.2	6.1	4.4	4.2	5.4	6.2	4.7	4.7		-0.9	0.9	-0.8	-1.0	0.2	1.1	0.6	-0.5	-0.5
AT	1.3	1.1	1.6	1.1	1.5	1.4	1.5	1.2	1.2		-0.3	0.3	-0.2	-0.3	0.2	0.1	0.1	-0.1	-0.1
PL	0.7	0.7	0.8	0.6	0.5	1.0	0.8	0.9	0.7		-0.1	0.1	-0.1	-0.2	0.2	0.0	0.1	0.0	0.0
PT	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1		0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
RO	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SI	1.8	1.7	2.1	1.6	1.2	2.1	2.4	1.8	1.8		-0.1	0.3	-0.3	-0.6	0.2	0.6	0.4	-0.1	-0.1
SK	0.4	0.4	0.5	0.4	0.3	0.6	0.4	0.5	0.4		0.0	0.1	-0.1	-0.1	0.2	0.0	0.1	0.0	0.0
FI	2.7	2.5	3.1	2.3	2.3	2.9	3.8	2.6	2.6		-0.2	0.5	-0.4	-0.4	0.2	1.1	0.7	-0.1	-0.1
SE	2.6	2.0	3.2	2.0	2.8	3.4	3.1	2.3	2.3		-0.6	0.6	-0.6	-0.5	0.3	0.9	0.6	-0.3	-0.3
UK	0.5	0.4	0.7	0.4	0.6	0.7	0.6	0.5	0.5		-0.1	0.1	-0.1	-0.1	0.0	0.1	0.1	-0.1	-0.1
NO	2.9	2.5	3.4	2.4	2.3	3.0	3.4	2.7	2.7		-0.4	0.5	-0.5	-0.6	0.1	0.9	0.5	-0.2	-0.2
EA	1.3	1.2	1.8	1.2	1.7	2.3	2.0	1.4	1.4		-0.3	0.3	-0.3	-0.3	0.2	0.8	0.5	-0.1	-0.1
EU27	1.2	1.0	1.5	1.0	1.4	1.9	1.6	1.1	1.1		-0.2	0.0	-0.5	-0.2	0.2	0.6	0.4	-0.1	-0.1
EU15	1.3	1.1	1.6	1.1	1.5	2.0	1.7	1.2	1.2		-0.2	0.3	-0.2	-0.2	0.2	0.7	0.4	-0.1	-0.1
EU12	0.3	0.4	0.6	0.4	0.6	0.6	0.6	0.5	0.5		-0.1	0.0	-0.2	-0.1	0.1	0.2	0.1	0.0	0.0
EU10	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		0.1	0.1	0.1	0.1	0.1	0.1	-0.05	-0.05	-0.05

Source: Commission services, EPC.

Note: According to internal Spanish projections the expenditure calculated in the scenario of shift from informal care to home care is underestimated and the expenditure of the shift to institutions is overestimated, due to differences in the definitions used.

11. ANNEX 4: UNEMPLOYMENT BENEFIT EXPENDITURE

Decomposition of total unemployment benefit expenditure

This set of assumptions can be illustrated by decomposing the total unemployment benefit spending UB, as follows:

$$(1) UB = GRR \times pcw \times \frac{UBr}{U} \times U$$

where GRR is the gross replacement rate, pcw is per capita wage, UBr is the number of recipients (unemployed persons U receiving unemployment benefits UB), and thus the ratio $\frac{UBr}{U}$ is the take-up ratio. Given that per capita wages can also be written as: $pcw = \frac{W}{Y} \times \frac{Y}{L}$, (where L is employment, Y is GDP and W is total wages)

then UB can be re-written as:

$$(2) UB = GRR \times \frac{W}{Y} \times \frac{Y}{L} \times \frac{UBr}{U} \times U$$

where W/Y is the share of wages in the income distribution and Y/L is labour productivity.

Per capita UB is: $UB_{pc} = \frac{UB}{U} = GRR \times \frac{W}{Y} \times \frac{Y}{L} \times \frac{UBr}{U}$ and this can be expressed in terms of GDP per worker (or $Y_{pc} = Y/L$) as follows:

$$(3) \frac{UB_{pc}}{Y_{pc}} = \frac{UB/U}{Y/L} = GRR \times \frac{W}{Y} \times \frac{Y}{L} \times \frac{UBr}{U} \times \frac{L}{Y}$$

Thus, the total expenditure as percentage of GDP can be expressed as:

$$(4) \frac{UB}{Y} = GRR \times \frac{W}{Y} \times \frac{UBr}{U} \times \frac{U}{L}$$

Given that $L = LF(1-u)$, where LF = labour force and u = unemployment rate, the ratio (U/L) can also be re-written as $u/(1-u)$ and:

$$(5) \frac{UB}{Y} = GRR \times \frac{W}{Y} \times \frac{UBr}{U} \times \frac{u}{(1-u)}$$

In this formulation, under the assumption of constant GRR and take-up ratio (UBr/U), and a constant share of wages in income distribution (W/Y), as a result of the assumption that wages grow at the same rate as labour productivity, changes in the unemployment rate (or the ratio of unemployed to employed persons, U/L) are the only driver of the change of unemployment benefit spending over time.

The basic approach applied to run projections for unemployment benefit expenditure (as percentage of GDP) is as follows. The starting point is the estimation of average per-capita unemployment insurance expenditure in the base year, which is then combined with the projections of unemployed persons

More specifically, the projection involves the following two steps.

- Step 1: the average unemployment benefits received by each unemployed person (and as percentage of GDP per worker) in the base year is estimated. The average amount of UB expenditures (as % of GDP) over the period 2005-2006 is divided by the average of the ratio unemployed/employed persons over the same period.

An average of expenditure is used as a starting point to avoid imposing an excessive weight on a particular year given the cyclicity of labour market conditions and possible statistical errors. Whereas in the previous projection exercise, the starting point was the average over the last five years, this time the average was calculated over the shorter period 2005-2006, to take account of recent reforms reducing the size of benefits. In the absence of alternative reasonable assumptions on the future number of UB beneficiaries (which result from entitlement and eligibility rules that affect coverage, take up rates, and so on) and the average duration of unemployment spells, the calculation assumes that all these elements remain constant. This approximation is neutral and does not lead to any systematic bias in the projections.

In order to guarantee the comparability of projections across countries, statistics were drawn from Eurostat's database on Social protection Expenditure (ESSPROSS), specifically, the two main components of social protection spending on unemployment: "Full unemployment" and "Partial unemployment", see Table 44.¹¹⁶

¹¹⁶ As a general rule, early retirement and pre-retirement benefits are included in the pension projections.

- Step 2: for each projection year, the ratio unemployment benefit /GDP per head in the base year (from step 1) is multiplied by the corresponding projected ratio of the future number of unemployed persons and employed persons (U/L) for each country. The projections of employed and unemployed persons are drawn from the baseline scenario (no policy change). This generates projections of UB spending, expressed as a share of GDP.¹¹⁷

¹¹⁷ The projection does not take into account that unemployment benefits may be subject to income tax, so that after tax unemployment benefit spending as % of GDP may be lower. However, this effect is likely to be quite small and relatively constant over time.

Table 73 - Unemployment benefit expenditure projections, % of GDP, baseline scenario

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2020	2030	2040	2050	2060	Change in p.p.		
																2007-2020	2007-2060	2007-2050
(actual figures)																		
BE	2.1	1.9	2.0	2.0	1.9	1.9	1.9	1.8	1.8	1.7	1.5	1.5	1.5	1.5	1.5	-0.39	-0.45	-0.43
BG	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-0.05	-0.05	-0.05
CZ	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-0.02	-0.03	-0.03
DK	1.0	1.0	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	-0.16	-0.17	-0.17
DE	1.1	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.6	0.6	0.6	0.6	0.6	-0.19	-0.31	-0.31
EE	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.02	-0.02	-0.02
IE	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.07	0.06	0.05
EL	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	-0.05	-0.09	-0.09
ES	1.4	1.3	1.4	1.4	1.4	1.3	1.3	1.2	1.2	1.2	0.9	0.9	0.9	0.9	0.9	-0.15	-0.37	-0.37
FR	1.4	1.2	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.1	0.9	0.9	0.9	0.9	0.9	-0.17	-0.30	-0.30
IT	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	-0.02	-0.03	-0.03
CY	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	-0.07	-0.08	-0.08
LV	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	-0.05	-0.05	-0.05
LT	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.01	-0.01	-0.01
LU	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.04	0.04	0.04
HU	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	-0.02	-0.06	-0.06
MT	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.00	-0.01	-0.01
NL	1.4	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	-0.08	-0.08	-0.08
AT	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	-0.03	-0.05	-0.05
PL	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-0.05	-0.05	-0.05
PT	1.1	1.2	1.2	1.1	1.1	1.1	1.0	1.0	1.0	1.0	0.9	0.8	0.8	0.8	0.8	-0.24	-0.38	-0.39
RO	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	-0.03	-0.04	-0.04
SI	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	-0.01	-0.02	-0.02
SK	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-0.03	-0.05	-0.05
FI	1.4	1.2	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	-0.23	-0.24	-0.24
SE	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	-0.05	-0.06	-0.05
UK	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.00	-0.01	0.00
NO	0.3	0.2	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.16	0.16	0.16
EA12	1.1	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.7	0.7	0.7	0.7	0.7	-0.14	-0.23	-0.23
EA	1.1	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.7	0.7	0.7	0.7	0.7	-0.14	-0.23	-0.23
EU27	0.9	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	-0.12	-0.19	-0.19
EU15	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6	-0.10	-0.17	-0.17
EU10	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-0.05	-0.05	-0.05
EU25	0.9	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	-0.12	-0.18	-0.18

Source: Commission services, EPC.

Table 74 - Unemployment benefit expenditure projections under the alternative scenarios

	Change 2007-2060					Diff. From baseline in p.p. of GDP			
	Baseline	Higher employment rate	Higher employment rate of older workers	Higher life expectancy	Zero net migration	Higher employment rate	Higher employment rate of older workers	Higher life expectancy	Zero net migration
BE	-0.45	-0.68	-0.45	-0.45	-0.44	-0.232	-0.001	0.000	0.006
BG	-0.05	-0.08	-0.05	-0.05	-0.05	-0.028	-0.001	0.000	0.000
CZ	-0.03	-0.06	-0.03	-0.03	-0.03	-0.034	-0.002	0.000	0.000
DK	-0.17	-0.49	-0.18	-0.17	-0.18	-0.313	-0.010	0.000	-0.001
DE	-0.31	-0.44	-0.32	-0.31	-0.31	-0.134	-0.009	0.000	-0.003
EE	-0.02	-0.04	-0.02	-0.02	-0.02	-0.019	-0.001	0.000	0.000
IE	0.06	-0.17	0.05	0.06	0.06	-0.226	-0.010	0.000	-0.001
EL	-0.09	-0.14	-0.09	-0.09	-0.09	-0.052	-0.003	0.000	0.000
ES	-0.37	-0.57	-0.38	-0.37	-0.37	-0.204	-0.013	0.000	-0.001
FR	-0.30	-0.52	-0.31	-0.30	-0.30	-0.217	-0.013	0.000	0.000
IT	-0.03	-0.12	-0.04	-0.03	-0.03	-0.090	-0.006	0.000	-0.001
CY	-0.08	-0.17	-0.08	-0.08	-0.08	-0.094	-0.003	0.000	-0.003
LV	-0.05	-0.10	-0.05	-0.05	-0.05	-0.051	-0.002	0.000	0.000
LT	-0.01	-0.04	-0.02	-0.02	-0.01	-0.020	-0.001	0.000	0.000
LU	0.04	-0.11	0.03	0.04	0.04	-0.149	-0.007	0.000	0.000
HU	-0.06	-0.12	-0.06	-0.06	-0.06	-0.063	-0.004	0.000	0.000
MT	-0.01	-0.10	-0.01	-0.01	-0.01	-0.090	-0.006	0.000	-0.001
NL	-0.08	-0.51	-0.10	-0.08	-0.08	-0.424	-0.013	0.000	-0.001
AT	-0.05	-0.24	-0.05	-0.05	-0.05	-0.190	-0.008	0.000	-0.005
PL	-0.05	-0.07	-0.05	-0.05	-0.05	-0.017	-0.001	0.000	0.000
PT	-0.38	-0.56	-0.39	-0.38	-0.39	-0.183	-0.012	0.000	-0.007
RO	-0.04	-0.09	-0.04	-0.04	-0.04	-0.052	-0.003	0.000	0.000
SI	-0.02	-0.08	-0.02	-0.02	-0.02	-0.065	-0.003	0.000	-0.001
SK	-0.05	-0.06	-0.05	-0.05	-0.05	-0.012	-0.001	0.000	0.000
FI	-0.24	-0.47	-0.26	-0.24	-0.24	-0.222	-0.012	0.000	-0.001
SE	-0.06	-0.24	-0.06	-0.06	-0.06	-0.182	-0.010	0.000	-0.002
UK	-0.01	-0.05	-0.01	-0.01	-0.01	-0.049	-0.002	0.000	-0.001
NO	0.16	0.03	0.16	0.16	0.16	-0.128	-0.005	0.001	0.000
EA12	-0.23	-0.41	-0.24	-0.23	-0.23	-0.175	-0.010	0.000	0.000
EA	-0.23	-0.41	-0.24	-0.23	-0.23	-0.175	-0.010	0.000	0.000
EU27	-0.19	-0.33	-0.19	-0.19	-0.19	-0.144	-0.008	0.000	-0.003
EU15	-0.17	-0.33	-0.18	-0.17	-0.17	-0.154	-0.009	0.000	0.000
EU10	-0.05	-0.08	-0.05	-0.05	-0.05	-0.025	-0.001	0.000	0.000
EU25	-0.18	-0.33	-0.19	-0.18	-0.18	-0.143	-0.008	0.000	-0.001

Source: Commission services, EPC.

12. ANNEX 5: THE POTENTIAL LONG-TERM IMPLICATIONS OF THE ECONOMIC CRISIS

Table 75 - Difference in the potential growth rate (p.p.): Baseline – alternative 'crisis' scenarios

Annual average GDP growth rate, difference from Baseline scenario (Baseline - scenario)																											
Permanent shock													Lost decade						Rebound								
Country	2007-10	2011-20	2021-40	2041-60	2007-60	2007-10	2011-20	2021-40	2041-60	2007-60	2007-10	2011-20	2021-40	2041-60	2007-60	2007-10	2011-20	2021-40	2041-60	2007-60	2007-10	2011-20	2021-40	2041-60	2007-60	Country	
BE	0.6	0.9	0.2	0.2	0.4	0.6	0.8	0.0	0.0	0.2	0.6	-0.2	0.0	0.0	0.2	0.6	-0.2	0.0	0.0	0.0	0.0	-0.2	0.0	0.0	0.0	0.0	BE
BG	0.1	0.4	0.3	0.2	0.3	0.1	0.3	0.0	0.0	0.1	0.1	0.1	-0.1	0.0	0.1	0.1	-0.1	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	BG
CZ	0.4	0.2	0.3	0.2	0.2	0.4	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.4	-0.2	0.0	0.0	0.0	0.0	-0.2	0.0	0.0	0.0	0.0	CZ
DK	0.6	0.5	0.2	0.2	0.3	0.6	0.3	0.0	0.0	0.3	0.6	0.3	0.0	0.0	0.1	0.6	-0.3	0.0	0.0	0.0	0.0	-0.3	0.0	0.0	0.0	0.0	DK
DE	0.5	0.6	0.2	0.3	0.3	0.3	0.5	0.0	0.0	0.3	0.5	0.5	0.0	0.0	0.1	0.5	-0.2	0.0	0.0	0.0	0.0	-0.2	0.0	0.0	0.0	0.0	DE
EE	2.4	1.5	0.3	0.2	0.6	2.4	1.4	0.0	0.0	0.4	2.4	1.4	0.0	0.0	0.4	2.4	-1.0	0.0	0.0	0.0	0.0	-1.0	0.0	0.0	0.0	0.0	EE
IE	2.6	1.3	0.2	0.2	0.6	2.6	1.1	0.0	0.0	0.4	2.6	1.1	0.0	0.0	0.4	2.6	-1.0	0.0	0.0	0.0	0.0	-1.0	0.0	0.0	0.0	0.0	IE
EL	0.6	0.6	0.3	0.2	0.3	0.6	0.4	0.0	0.0	0.3	0.6	0.4	0.0	0.0	0.1	0.6	-0.2	0.0	0.0	0.0	0.0	-0.2	0.0	0.0	0.0	0.0	EL
ES	1.2	0.6	0.2	0.3	0.4	1.2	0.4	0.0	0.0	0.4	1.2	0.4	0.0	0.0	0.2	1.2	-0.5	0.0	0.0	0.0	0.0	-0.5	0.0	0.0	0.0	0.0	ES
FR	0.6	0.9	0.2	0.3	0.4	0.6	0.7	0.0	0.0	0.4	0.6	0.7	0.0	0.0	0.2	0.6	-0.2	0.0	0.0	0.0	0.0	-0.2	0.0	0.0	0.0	0.0	FR
IT	0.5	0.8	0.2	0.3	0.4	0.5	0.6	0.0	0.0	0.4	0.5	0.6	0.0	0.0	0.2	0.5	-0.2	0.0	0.0	0.0	0.0	-0.2	0.0	0.0	0.0	0.0	IT
CY	0.8	0.9	0.3	0.2	0.4	0.8	0.8	0.0	0.0	0.4	0.8	0.8	0.0	0.0	0.2	0.8	-0.3	0.0	0.0	0.0	0.0	-0.3	0.0	0.0	0.0	0.0	CY
LV	3.6	1.6	0.3	0.2	0.7	3.6	1.4	0.0	0.0	0.5	3.6	1.4	0.0	0.0	0.5	3.6	-1.5	0.0	0.0	0.0	0.0	-1.5	0.0	0.0	0.0	0.0	LV
LT	2.3	1.8	0.3	0.2	0.7	2.3	1.6	0.0	0.0	0.5	2.3	1.6	0.0	0.0	0.5	2.3	-1.0	0.0	0.0	0.0	0.0	-1.0	0.0	0.0	0.0	0.0	LT
LU	1.3	0.6	0.3	0.3	0.4	1.3	0.5	0.0	0.0	0.2	1.3	0.5	0.0	0.0	0.2	1.3	-0.5	0.0	0.0	0.0	0.0	-0.5	0.0	0.0	0.0	0.0	LU
HU	1.6	1.6	0.3	0.2	0.6	1.6	1.4	0.0	0.0	0.4	1.6	1.4	0.0	0.0	0.4	1.6	-0.7	0.0	0.0	0.0	0.0	-0.7	0.0	0.0	0.0	0.0	HU
MT	0.4	1.2	0.2	0.2	0.4	0.4	1.0	0.0	0.0	0.2	0.4	1.0	0.0	0.0	0.2	0.4	-0.1	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	MT
NL	0.4	0.5	0.2	0.3	0.3	0.4	0.4	0.0	0.0	0.3	0.4	0.4	0.0	0.0	0.1	0.4	-0.2	0.0	0.0	0.0	0.0	-0.2	0.0	0.0	0.0	0.0	NL
AT	0.5	0.4	0.2	0.3	0.3	0.5	0.2	0.0	0.0	0.3	0.5	0.2	0.0	0.0	0.1	0.5	-0.2	0.0	0.0	0.0	0.0	-0.2	0.0	0.0	0.0	0.0	AT
PL	0.9	1.0	0.2	0.2	0.4	0.9	0.8	0.0	0.0	0.4	0.9	0.8	0.0	0.0	0.2	0.9	-0.4	0.0	0.0	0.0	0.0	-0.4	0.0	0.0	0.0	0.0	PL
PT	0.9	0.6	0.2	0.3	0.4	0.9	0.4	0.0	0.0	0.4	0.9	0.4	0.0	0.0	0.1	0.9	-0.3	0.0	0.0	0.0	0.0	-0.3	0.0	0.0	0.0	0.0	PT
RO	1.2	1.2	0.3	0.2	0.5	1.2	1.0	0.0	0.0	0.3	1.2	1.0	0.0	0.0	0.3	1.2	-0.5	0.0	0.0	0.0	0.0	-0.5	0.0	0.0	0.0	0.0	RO
SI	0.2	0.0	0.3	0.2	0.2	0.2	-0.1	0.0	0.0	0.0	0.2	-0.1	0.0	0.0	0.0	0.2	-0.1	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	SI
SK	0.6	0.1	0.3	0.2	0.2	0.6	-0.1	0.0	0.0	0.2	0.6	-0.1	0.0	0.0	0.0	0.6	-0.2	0.0	0.0	0.0	0.0	-0.2	0.0	0.0	0.0	0.0	SK
FI	0.7	0.5	0.2	0.2	0.3	0.7	0.4	0.0	0.0	0.3	0.7	0.4	0.0	0.0	0.1	0.7	-0.3	0.0	0.0	0.0	0.0	-0.3	0.0	0.0	0.0	0.0	FI
SE	0.7	0.9	0.2	0.2	0.4	0.7	0.7	0.0	0.0	0.4	0.7	0.7	0.0	0.0	0.2	0.7	-0.3	0.0	0.0	0.0	0.0	-0.3	0.0	0.0	0.0	0.0	SE
UK	1.0	0.8	0.2	0.2	0.4	1.0	0.6	0.0	0.0	0.4	1.0	0.6	0.0	0.0	0.2	1.0	-0.4	0.0	0.0	0.0	0.0	-0.4	0.0	0.0	0.0	0.0	UK
NO	0.8	0.1	0.3	0.3	0.3	0.8	-0.1	0.0	0.0	0.3	0.8	-0.1	0.0	0.0	0.1	0.8	-0.4	0.0	0.0	0.0	0.0	-0.4	0.0	0.0	0.0	0.0	NO
EA12	0.7	0.7	0.2	0.3	0.4	0.7	0.6	0.0	0.0	0.4	0.7	0.6	0.0	0.0	0.2	0.7	-0.2	0.0	0.0	0.0	0.0	-0.2	0.0	0.0	0.0	0.0	EA12
EA	0.7	0.7	0.2	0.2	0.4	0.7	0.5	0.0	0.0	0.4	0.7	0.5	0.0	0.0	0.1	0.7	-0.4	0.0	0.0	0.0	0.0	-0.4	0.0	0.0	0.0	0.0	EA
EU27	0.8	0.7	0.2	0.2	0.4	0.8	0.6	0.0	0.0	0.4	0.8	0.6	0.0	0.0	0.2	0.8	-0.3	0.0	0.0	0.0	0.0	-0.3	0.0	0.0	0.0	0.0	EU27
EU15	0.7	0.7	0.2	0.2	0.4	0.7	0.6	0.0	0.0	0.4	0.7	0.6	0.0	0.0	0.2	0.7	-0.3	0.0	0.0	0.0	0.0	-0.3	0.0	0.0	0.0	0.0	EU15
EU10	1.0	0.8	0.3	0.2	0.4	1.0	0.7	0.0	0.0	0.4	1.0	0.7	0.0	0.0	0.2	1.0	-0.4	0.0	0.0	0.0	0.0	-0.4	0.0	0.0	0.0	0.0	EU10
EU25	0.7	0.7	0.2	0.2	0.4	0.7	0.6	0.0	0.0	0.4	0.7	0.6	0.0	0.0	0.2	0.7	-0.3	0.0	0.0	0.0	0.0	-0.3	0.0	0.0	0.0	0.0	EU25

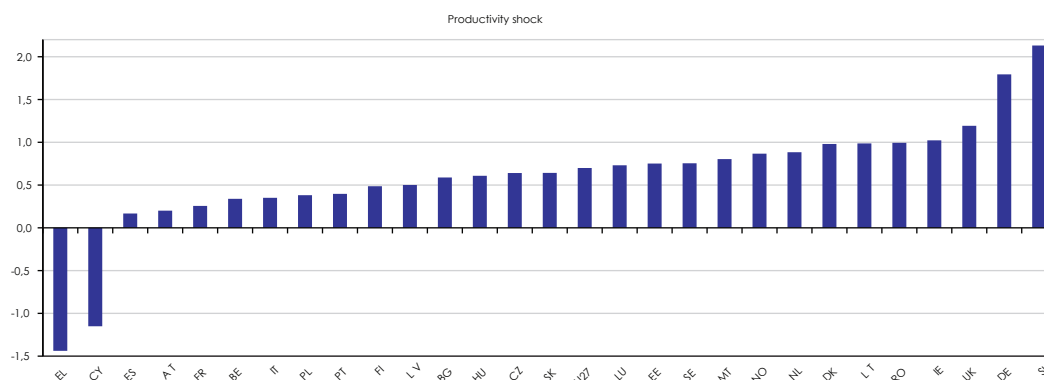
Source: Commission services, EPC.

Table 76 - Public pension expenditure under the AWG baseline and difference to the alternative crisis scenarios, % and p.p. change of GDP

Change 2007-2020					Change 2007-2060			
Difference from baseline					Difference from baseline			
Country	Baseline (% of GDP)	Rebound - Baseline	Lost decade - Baseline	Permanent shock - Baseline	Baseline (% of GDP)	Rebound - Baseline	Lost decade - Baseline	Permanent shock - Baseline
BE	1.8	0.0	1.1	1.2	4.8	0.0	1.4	2.6
BG	0.1	0.0	-0.4	-0.3	3.0	0.0	-1.0	-0.6
CZ	-0.9	0.0	0.2	0.3	3.3	0.0	0.5	0.7
DK	1.6	0.0	0.2	0.2	0.1	0.0	0.1	0.2
DE	0.0	0.0	0.1	0.1	2.3	0.0	0.1	0.1
EE	0.3	0.0	0.4	0.4	-0.7	0.0	0.3	0.4
IE	1.1	0.0	0.9	0.8	6.1	0.0	1.6	1.4
EL	1.5	0.0	1.4	1.8	12.4	0.0	1.3	3.8
ES	1.1	0.0	0.9	1.0	6.7	0.0	1.4	2.6
FR	0.6	0.0	1.2	1.4	1.0	0.0	1.0	2.0
IT	0.1	0.0	1.0	1.2	-0.4	0.0	0.3	0.9
CY	2.6	0.0	1.7	2.0	11.4	0.0	0.9	1.7
LV	-0.3	0.0	0.9	1.0	-0.4	0.0	0.6	0.9
LT	0.1	0.0	0.3	0.4	4.6	0.0	0.5	0.6
LU	1.2	0.0	0.9	1.0	15.2	0.0	0.1	0.1
HU	0.2	0.0	1.6	1.7	3.0	0.0	0.6	1.0
MT	2.1	0.0	0.9	1.0	6.2	0.0	0.7	1.6
NL	1.2	0.0	0.2	0.3	4.0	0.0	0.3	0.3
AT	0.3	0.0	0.7	0.9	0.9	0.0	0.7	2.1
PL	-1.8	0.0	0.9	1.0	-2.8	0.0	0.5	1.0
PT	1.0	0.0	0.8	0.9	2.1	0.0	1.0	1.9
RO	2.3	0.0	-0.1	-0.1	9.2	0.0	-0.2	-0.1
SI	1.2	0.0	-0.2	-0.2	8.8	0.0	-0.2	-0.3
SK	-0.5	0.0	0.3	0.4	3.4	0.0	0.3	0.4
FI	2.6	0.0	0.8	1.0	3.3	0.0	0.5	1.0
SE	-0.1	0.0	0.7	0.8	-0.1	0.0	0.7	0.9
UK	0.3	0.0	0.3	0.3	2.7	0.0	0.5	0.6
NO	2.6	0.0	0.1	0.1	4.7	0.0	0.1	0.3
EU27	0.4	0.0	0.7	0.8	2.4	0.0	0.6	1.1
EA	0.5	0.0	0.8	0.9	2.7	0.0	0.7	1.3
EA12	0.5	0.0	0.8	0.9	2.7	0.0	0.7	1.3
EU15	0.5	0.0	0.7	0.8	2.4	0.0	0.6	1.2
EU10	-0.9	0.0	0.7	0.8	1.0	0.0	0.3	0.6
EU25	0.4	0.0	0.7	0.8	2.3	0.0	0.6	1.1

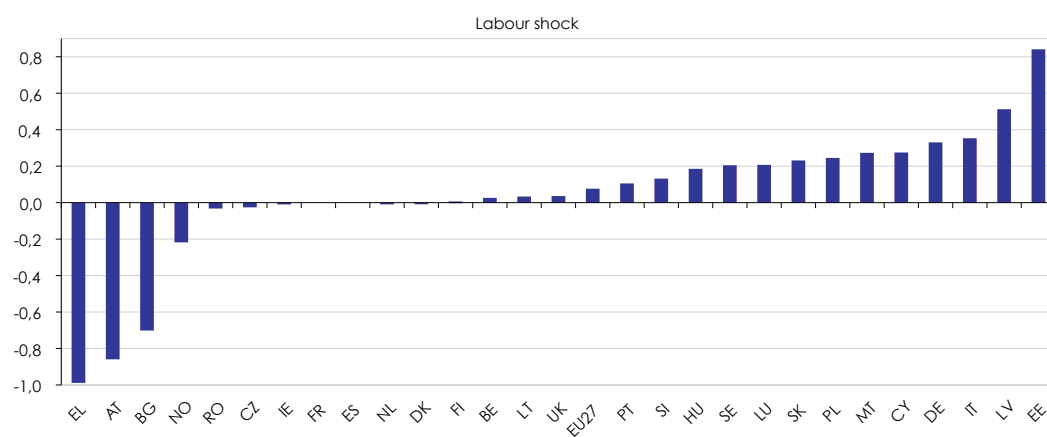
Source: Commission services, EPC.

Graph 97 – Average elasticity (2007-2060) of public pension expenditure with respect to GDP: labour productivity growth shock



Source: Commission services, EPC.

Graph 98 – Average elasticity (2007-2060) of public pension expenditure with respect to GDP: structural unemployment rate shock



Source: Commission services, EPC.

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MAIN DEMOGRAPHIC AND MACROECONOMIC ASSUMPTIONS

Table A 1 - Fertility rate (births per woman)

Country	Ch. 08-60	2008	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	0.04	1.75	1.76	1.76	1.76	1.77	1.77	1.77	1.78	1.78	1.78	1.79	1.79
BG	0.17	1.38	1.39	1.41	1.42	1.44	1.46	1.47	1.49	1.51	1.52	1.54	1.55
CZ	0.19	1.33	1.34	1.36	1.38	1.40	1.41	1.43	1.45	1.47	1.49	1.51	1.52
DK	0.00	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85
DE	0.19	1.34	1.35	1.36	1.38	1.40	1.42	1.44	1.45	1.47	1.49	1.51	1.53
EE	0.11	1.55	1.55	1.56	1.57	1.59	1.60	1.61	1.62	1.63	1.64	1.65	1.66
IE	-0.02	1.90	1.90	1.90	1.90	1.89	1.89	1.89	1.89	1.89	1.88	1.88	1.88
EL	0.16	1.41	1.41	1.43	1.45	1.46	1.48	1.49	1.51	1.52	1.54	1.55	1.57
ES	0.17	1.39	1.39	1.41	1.43	1.44	1.46	1.47	1.49	1.51	1.52	1.54	1.56
FR	-0.05	1.98	1.98	1.98	1.97	1.97	1.96	1.96	1.95	1.95	1.94	1.94	1.93
IT	0.17	1.38	1.39	1.41	1.42	1.44	1.46	1.47	1.49	1.51	1.52	1.54	1.55
CY	0.14	1.45	1.46	1.47	1.49	1.50	1.52	1.53	1.54	1.56	1.57	1.59	1.60
LV	0.18	1.36	1.36	1.38	1.40	1.41	1.43	1.45	1.47	1.48	1.50	1.52	1.54
LT	0.20	1.35	1.35	1.37	1.39	1.41	1.43	1.45	1.47	1.49	1.51	1.52	1.54
LU	0.07	1.65	1.65	1.66	1.67	1.67	1.68	1.69	1.70	1.70	1.71	1.72	1.72
HU	0.18	1.35	1.35	1.37	1.39	1.41	1.42	1.44	1.46	1.48	1.50	1.51	1.53
MT	0.17	1.38	1.39	1.41	1.42	1.44	1.46	1.47	1.49	1.50	1.52	1.54	1.55
NL	0.05	1.72	1.72	1.73	1.73	1.74	1.74	1.75	1.75	1.75	1.76	1.76	1.77
AT	0.16	1.41	1.42	1.43	1.45	1.46	1.48	1.49	1.51	1.53	1.54	1.56	1.57
PL	0.21	1.27	1.28	1.30	1.32	1.34	1.36	1.38	1.40	1.42	1.44	1.47	1.49
PT	0.18	1.36	1.37	1.39	1.40	1.42	1.44	1.45	1.47	1.49	1.51	1.52	1.54
RO	0.19	1.32	1.33	1.35	1.37	1.39	1.41	1.42	1.44	1.46	1.48	1.50	1.52
SI	0.19	1.32	1.33	1.35	1.37	1.39	1.40	1.42	1.44	1.46	1.48	1.50	1.52
SK	0.22	1.25	1.26	1.28	1.30	1.32	1.34	1.36	1.38	1.40	1.43	1.45	1.47
FI	0.00	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84
SE	0.00	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85
UK	0.00	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84
NO	-0.02	1.90	1.90	1.90	1.90	1.90	1.89	1.89	1.89	1.89	1.89	1.89	1.88
EU27	0.12	1.52	1.52	1.53	1.55	1.56	1.57	1.58	1.59	1.61	1.62	1.63	1.64
EA16	0.12	1.53	1.54	1.55	1.56	1.57	1.58	1.59	1.61	1.62	1.63	1.64	1.65
EU15	0.08	1.64	1.65	1.66	1.66	1.67	1.68	1.68	1.69	1.70	1.71	1.71	1.72
EU12	0.18	1.36	1.37	1.38	1.40	1.42	1.44	1.45	1.47	1.49	1.51	1.52	1.54
EU25	0.12	1.53	1.54	1.55	1.56	1.57	1.58	1.59	1.60	1.61	1.63	1.64	1.65
EA12	0.09	1.59	1.60	1.61	1.62	1.63	1.63	1.64	1.65	1.66	1.67	1.68	1.69
EU10	0.18	1.36	1.37	1.39	1.40	1.42	1.44	1.46	1.47	1.49	1.51	1.52	1.54

Source: Commission services.

Table A 2 – Life expectancy at birth - Males (years)

Country	Ch. 08-60	2008	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	7.76	76.66	77.00	77.85	78.67	79.47	80.25	81.00	81.73	82.43	83.12	83.78	84.42
BG	11.85	69.71	70.25	71.56	72.83	74.06	75.26	76.41	77.52	78.59	79.62	80.61	81.56
CZ	9.31	73.86	74.27	75.27	76.25	77.21	78.14	79.04	79.92	80.77	81.60	82.39	83.16
DK	7.85	76.40	76.75	77.60	78.43	79.24	80.02	80.78	81.52	82.23	82.93	83.60	84.25
DE	7.60	77.30	77.64	78.47	79.28	80.06	80.82	81.56	82.27	82.97	83.63	84.28	84.91
EE	12.84	68.00	68.59	70.02	71.40	72.74	74.04	75.29	76.49	77.65	78.76	79.82	80.84
IE	7.66	77.54	77.88	78.72	79.53	80.32	81.08	81.83	82.55	83.24	83.92	84.57	85.20
EL	7.36	77.44	77.77	78.58	79.36	80.12	80.86	81.57	82.26	82.92	83.57	84.20	84.80
ES	7.54	77.40	77.74	78.56	79.37	80.14	80.90	81.63	82.34	83.02	83.68	84.32	84.94
FR	7.67	77.45	77.80	78.66	79.48	80.28	81.05	81.79	82.51	83.20	83.86	84.50	85.12
IT	6.91	78.54	78.85	79.61	80.34	81.05	81.74	82.41	83.06	83.69	84.29	84.88	85.45
CY	6.95	78.21	78.53	79.30	80.04	80.76	81.45	82.12	82.77	83.39	84.00	84.59	85.16
LV	14.51	65.95	66.61	68.22	69.78	71.30	72.77	74.19	75.56	76.87	78.13	79.33	80.47
LT	14.56	65.89	66.55	68.18	69.75	71.28	72.76	74.19	75.56	76.87	78.12	79.31	80.45
LU	8.18	76.32	76.70	77.62	78.50	79.35	80.17	80.96	81.73	82.46	83.17	83.85	84.50
HU	12.19	69.70	70.24	71.58	72.89	74.16	75.39	76.58	77.73	78.83	79.89	80.91	81.88
MT	8.34	75.98	76.37	77.33	78.24	79.10	79.94	80.74	81.51	82.25	82.96	83.65	84.32
NL	7.01	77.93	78.24	78.99	79.73	80.44	81.14	81.82	82.48	83.12	83.74	84.35	84.93
AT	7.47	77.42	77.76	78.58	79.38	80.15	80.89	81.62	82.32	82.99	83.65	84.28	84.89
PL	11.14	71.39	71.90	73.14	74.34	75.50	76.62	77.71	78.75	79.76	80.72	81.65	82.53
PT	8.27	75.82	76.19	77.10	77.98	78.83	79.66	80.46	81.23	81.98	82.71	83.41	84.08
RO	12.12	69.75	70.32	71.70	73.03	74.30	75.53	76.70	77.82	78.90	79.94	80.93	81.87
SI	9.01	74.70	75.10	76.09	77.05	77.98	78.89	79.76	80.61	81.43	82.22	82.98	83.71
SK	11.15	70.87	71.36	72.57	73.76	74.91	76.02	77.11	78.16	79.18	80.16	81.10	82.01
FI	8.20	76.13	76.49	77.39	78.27	79.12	79.94	80.73	81.50	82.24	82.96	83.65	84.32
SE	6.47	78.96	79.24	79.93	80.61	81.27	81.91	82.54	83.15	83.74	84.32	84.88	85.42
UK	7.67	77.36	77.71	78.55	79.37	80.16	80.93	81.67	82.39	83.09	83.76	84.40	85.03
NO	6.84	78.38	78.68	79.43	80.15	80.85	81.53	82.19	82.83	83.46	84.06	84.65	85.22
EU27	8.45	76.03	76.43	77.38	78.29	79.17	80.01	80.82	81.61	82.37	83.10	83.80	84.48
EA16	7.94	76.61	76.96	77.84	78.69	79.51	80.30	81.07	81.81	82.53	83.23	83.90	84.55
EU15	7.57	77.24	77.58	78.41	79.22	80.00	80.76	81.49	82.20	82.89	83.55	84.20	84.82
EU12	11.16	71.17	71.67	72.91	74.11	75.28	76.40	77.49	78.53	79.54	80.51	81.44	82.33
EU25	8.94	74.93	75.33	76.32	77.27	78.20	79.10	79.96	80.80	81.61	82.39	83.15	83.87
EA12	7.64	77.16	77.51	78.34	79.16	79.95	80.71	81.45	82.16	82.86	83.52	84.17	84.80
EU10	11.00	71.45	71.95	73.17	74.35	75.49	76.60	77.67	78.71	79.70	80.66	81.57	82.45

Source: Commission services.

Table A 3 - Life expectancy at birth - Females (years)

Country	Ch. 08-60	2008	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	6.64	82.30	82.60	83.33	84.03	84.71	85.38	86.02	86.64	87.24	87.83	88.39	88.94
BG	9.77	76.70	77.14	78.23	79.28	80.29	81.27	82.22	83.13	84.01	84.86	85.68	86.47
CZ	7.66	80.18	80.51	81.33	82.13	82.92	83.68	84.42	85.15	85.85	86.53	87.20	87.84
DK	7.40	81.03	81.36	82.18	82.97	83.74	84.48	85.20	85.89	86.56	87.21	87.83	88.43
DE	6.52	82.57	82.86	83.57	84.26	84.93	85.58	86.21	86.82	87.42	87.99	88.55	89.09
EE	8.79	78.74	79.14	80.12	81.06	81.98	82.86	83.71	84.54	85.33	86.09	86.82	87.53
IE	7.32	81.89	82.23	83.04	83.83	84.59	85.33	86.04	86.72	87.38	88.02	88.63	89.21
EL	6.12	82.57	82.83	83.48	84.12	84.73	85.34	85.93	86.51	87.07	87.62	88.16	88.68
ES	5.75	83.87	84.13	84.75	85.35	85.94	86.51	87.07	87.61	88.13	88.64	89.14	89.62
FR	5.75	84.32	84.59	85.23	85.84	86.44	87.02	87.57	88.11	88.63	89.13	89.61	90.08
IT	5.75	84.24	84.50	85.13	85.74	86.34	86.91	87.47	88.00	88.53	89.03	89.52	89.99
CY	6.96	81.70	82.01	82.76	83.49	84.20	84.89	85.56	86.22	86.86	87.48	88.08	88.66
LV	10.12	76.67	77.14	78.29	79.39	80.46	81.48	82.46	83.40	84.30	85.17	86.00	86.79
LT	9.44	77.43	77.86	78.93	79.96	80.94	81.89	82.81	83.68	84.53	85.34	86.12	86.87
LU	7.26	81.20	81.54	82.36	83.15	83.91	84.64	85.34	86.01	86.66	87.28	87.88	88.46
HU	9.25	78.06	78.48	79.50	80.50	81.46	82.39	83.29	84.16	84.99	85.80	86.57	87.31
MT	7.57	81.06	81.41	82.26	83.07	83.86	84.62	85.35	86.06	86.74	87.39	88.02	88.63
NL	6.71	82.18	82.48	83.22	83.93	84.62	85.29	85.94	86.57	87.18	87.77	88.34	88.89
AT	6.26	82.93	83.21	83.89	84.55	85.19	85.82	86.42	87.01	87.58	88.14	88.68	89.20
PL	8.11	79.92	80.29	81.19	82.06	82.90	83.71	84.50	85.26	85.99	86.69	87.37	88.03
PT	6.37	82.43	82.71	83.40	84.07	84.72	85.35	85.97	86.57	87.15	87.71	88.26	88.79
RO	9.97	76.61	77.08	78.21	79.29	80.33	81.33	82.29	83.22	84.11	84.96	85.79	86.58
SI	6.91	81.90	82.21	82.96	83.70	84.41	85.10	85.76	86.41	87.04	87.65	88.23	88.80
SK	8.65	78.72	79.10	80.04	80.95	81.84	82.71	83.55	84.36	85.15	85.91	86.65	87.37
FI	6.23	83.05	83.33	84.01	84.66	85.30	85.92	86.53	87.11	87.68	88.23	88.76	89.28
SE	6.17	83.14	83.42	84.09	84.74	85.37	85.99	86.58	87.16	87.72	88.27	88.80	89.31
UK	7.35	81.54	81.87	82.69	83.48	84.25	84.99	85.70	86.39	87.05	87.69	88.30	88.89
NO	6.31	82.88	83.16	83.85	84.52	85.17	85.80	86.41	87.00	87.57	88.13	88.67	89.19
EU27	6.92	82.08	82.40	83.17	83.92	84.64	85.34	86.01	86.65	87.27	87.87	88.45	89.00
EA16	6.67	82.31	82.61	83.34	84.05	84.73	85.40	86.05	86.67	87.28	87.86	88.43	88.98
EU15	6.51	82.62	82.91	83.62	84.32	84.99	85.64	86.27	86.87	87.46	88.04	88.59	89.12
EU12	8.60	78.97	79.36	80.32	81.24	82.13	82.99	83.83	84.63	85.41	86.16	86.88	87.57
EU25	7.24	81.35	81.67	82.47	83.24	83.99	84.71	85.42	86.09	86.75	87.38	88.00	88.59
EA12	6.39	82.80	83.08	83.78	84.46	85.12	85.76	86.37	86.97	87.55	88.12	88.66	89.19
EU10	8.34	79.44	79.82	80.74	81.63	82.50	83.33	84.14	84.92	85.68	86.41	87.11	87.78

Source: Commission services.

Table A 4 - Life expectancy at 65 - Males (years)

Country	Ch. 08-60	2008	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	5.18	16.48	16.69	17.22	17.74	18.26	18.77	19.27	19.76	20.25	20.73	21.20	21.66
BG	6.90	13.12	13.39	14.08	14.76	15.45	16.13	16.80	17.47	18.12	18.77	19.40	20.02
CZ	6.09	14.72	14.96	15.58	16.19	16.79	17.39	17.99	18.57	19.14	19.71	20.26	20.80
DK	5.36	16.08	16.30	16.84	17.39	17.92	18.45	18.97	19.48	19.99	20.48	20.97	21.44
DE	5.21	16.82	17.04	17.58	18.11	18.63	19.15	19.65	20.15	20.64	21.11	21.58	22.03
EE	6.86	13.01	13.29	13.97	14.66	15.34	16.02	16.69	17.35	17.99	18.63	19.26	19.87
IE	5.47	16.75	16.98	17.54	18.10	18.65	19.19	19.73	20.25	20.76	21.26	21.75	22.22
EL	4.83	17.18	17.37	17.87	18.36	18.84	19.32	19.79	20.25	20.70	21.14	21.58	22.01
ES	5.04	17.09	17.30	17.82	18.33	18.84	19.34	19.83	20.31	20.78	21.24	21.69	22.13
FR	4.79	17.73	17.93	18.43	18.92	19.40	19.88	20.34	20.80	21.25	21.68	22.11	22.52
IT	4.87	17.50	17.70	18.21	18.71	19.20	19.68	20.15	20.62	21.07	21.52	21.95	22.38
CY	4.84	17.12	17.32	17.81	18.30	18.78	19.26	19.73	20.19	20.65	21.09	21.53	21.97
LV	7.48	12.66	12.97	13.73	14.48	15.24	15.98	16.71	17.43	18.14	18.83	19.49	20.14
LT	7.14	13.12	13.41	14.14	14.86	15.58	16.29	16.99	17.67	18.34	19.00	19.63	20.25
LU	5.15	16.78	16.99	17.52	18.05	18.57	19.07	19.57	20.07	20.55	21.02	21.48	21.93
HU	6.98	13.62	13.90	14.62	15.33	16.03	16.72	17.41	18.08	18.73	19.37	20.00	20.60
MT	5.52	15.91	16.13	16.69	17.25	17.80	18.34	18.88	19.41	19.93	20.44	20.94	21.43
NL	5.15	16.55	16.76	17.28	17.80	18.31	18.82	19.32	19.81	20.29	20.77	21.24	21.69
AT	4.97	17.07	17.27	17.78	18.29	18.78	19.27	19.76	20.23	20.70	21.15	21.60	22.04
PL	6.48	14.45	14.72	15.39	16.05	16.70	17.34	17.98	18.60	19.20	19.80	20.37	20.93
PT	5.24	16.35	16.56	17.10	17.63	18.15	18.67	19.18	19.68	20.17	20.65	21.13	21.59
RO	6.78	13.59	13.86	14.54	15.22	15.90	16.57	17.23	17.89	18.53	19.16	19.77	20.37
SI	5.71	15.68	15.92	16.50	17.08	17.66	18.22	18.78	19.32	19.86	20.38	20.89	21.39
SK	6.92	13.29	13.57	14.26	14.95	15.64	16.32	17.00	17.67	18.32	18.97	19.60	20.21
FI	5.19	16.64	16.85	17.38	17.91	18.43	18.94	19.45	19.94	20.43	20.90	21.37	21.82
SE	4.73	17.42	17.61	18.09	18.57	19.04	19.51	19.97	20.42	20.86	21.30	21.73	22.15
UK	5.27	16.87	17.09	17.64	18.18	18.71	19.24	19.75	20.25	20.74	21.22	21.69	22.15
NO	4.80	17.33	17.53	18.01	18.50	18.98	19.45	19.92	20.37	20.83	21.27	21.70	22.13
EU27	5.35	16.49	16.73	17.30	17.83	18.36	18.91	19.44	19.94	20.43	20.91	21.38	21.84
EA16	5.26	16.56	16.77	17.31	17.84	18.37	18.89	19.40	19.90	20.40	20.88	21.35	21.81
EU15	5.10	16.89	17.10	17.62	18.14	18.65	19.15	19.65	20.13	20.61	21.08	21.54	21.98
EU12	6.47	14.19	14.45	15.11	15.76	16.41	17.05	17.68	18.30	18.91	19.51	20.10	20.67
EU25	5.62	15.87	16.11	16.68	17.25	17.81	18.37	18.91	19.45	19.98	20.50	21.00	21.49
EA12	5.09	16.91	17.12	17.64	18.16	18.67	19.17	19.67	20.15	20.63	21.10	21.56	22.00
EU10	6.40	14.36	14.62	15.27	15.91	16.56	17.19	17.81	18.43	19.03	19.62	20.20	20.76

Source: Commission services.

Table A 5 - Life expectancy at 65 - Females (years)

Country	Ch. 08-60	2008	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	4.97	20.12	20.33	20.85	21.36	21.86	22.35	22.83	23.30	23.76	24.22	24.66	25.09
BG	6.96	16.11	16.39	17.10	17.80	18.49	19.18	19.86	20.53	21.19	21.83	22.46	23.08
CZ	5.99	18.06	18.31	18.92	19.53	20.13	20.73	21.31	21.88	22.44	22.99	23.53	24.05
DK	5.67	18.98	19.22	19.83	20.42	20.99	21.56	22.11	22.64	23.17	23.67	24.17	24.65
DE	5.04	20.10	20.31	20.84	21.35	21.86	22.36	22.85	23.33	23.80	24.26	24.71	25.14
EE	6.09	18.10	18.36	18.99	19.61	20.23	20.83	21.42	22.00	22.57	23.13	23.67	24.19
IE	5.65	19.72	19.96	20.56	21.15	21.73	22.29	22.84	23.38	23.90	24.41	24.89	25.37
EL	4.91	19.64	19.84	20.33	20.82	21.31	21.79	22.26	22.73	23.20	23.65	24.11	24.55
ES	4.54	20.96	21.15	21.62	22.08	22.54	22.98	23.42	23.86	24.28	24.70	25.10	25.50
FR	4.15	22.05	22.22	22.66	23.09	23.51	23.92	24.32	24.71	25.10	25.47	25.84	26.20
IT	4.50	21.40	21.59	22.06	22.53	22.98	23.43	23.87	24.29	24.71	25.12	25.51	25.90
CY	5.62	18.96	19.19	19.76	20.33	20.89	21.45	22.00	22.54	23.07	23.58	24.09	24.58
LV	6.63	17.14	17.42	18.11	18.79	19.46	20.12	20.77	21.40	22.02	22.62	23.20	23.77
LT	6.20	17.52	17.78	18.42	19.05	19.67	20.28	20.89	21.48	22.06	22.63	23.18	23.72
LU	5.05	19.74	19.95	20.47	20.99	21.50	22.00	22.49	22.97	23.43	23.89	24.34	24.78
HU	6.55	17.47	17.74	18.43	19.10	19.76	20.42	21.05	21.68	22.29	22.88	23.46	24.01
MT	5.69	19.12	19.36	19.95	20.54	21.12	21.68	22.24	22.78	23.31	23.82	24.32	24.81
NL	5.09	19.92	20.14	20.67	21.19	21.70	22.21	22.70	23.18	23.66	24.12	24.57	25.01
AT	4.87	20.33	20.53	21.03	21.53	22.02	22.50	22.97	23.43	23.89	24.33	24.77	25.19
PL	5.89	18.55	18.80	19.42	20.02	20.62	21.20	21.78	22.34	22.88	23.42	23.94	24.45
PT	4.94	19.87	20.07	20.58	21.08	21.58	22.06	22.54	23.01	23.48	23.93	24.37	24.81
RO	6.91	16.32	16.60	17.30	18.00	18.69	19.37	20.05	20.71	21.36	22.00	22.62	23.23
SI	5.29	19.62	19.84	20.39	20.93	21.46	21.99	22.50	23.01	23.50	23.98	24.45	24.91
SK	6.58	17.14	17.41	18.09	18.75	19.41	20.07	20.71	21.34	21.96	22.56	23.15	23.73
FI	4.71	20.66	20.85	21.34	21.82	22.30	22.76	23.22	23.67	24.10	24.53	24.95	25.36
SE	4.82	20.48	20.68	21.18	21.68	22.16	22.64	23.11	23.56	24.01	24.45	24.88	25.29
UK	5.59	19.51	19.75	20.35	20.93	21.50	22.06	22.60	23.13	23.65	24.15	24.63	25.10
NO	4.86	20.37	20.57	21.08	21.58	22.07	22.55	23.02	23.49	23.94	24.38	24.81	25.23
EU27	5.17	19.96	20.18	20.72	21.25	21.77	22.30	22.81	23.31	23.79	24.25	24.69	25.12
EA16	5.10	19.96	20.17	20.70	21.22	21.74	22.24	22.74	23.22	23.70	24.16	24.62	25.06
EU15	4.97	20.23	20.44	20.96	21.47	21.97	22.46	22.94	23.41	23.88	24.33	24.77	25.20
EU12	6.20	17.84	18.10	18.74	19.37	19.99	20.61	21.21	21.81	22.39	22.95	23.51	24.04
EU25	5.40	19.41	19.63	20.19	20.75	21.29	21.83	22.35	22.87	23.37	23.86	24.34	24.81
EA12	4.87	20.37	20.58	21.08	21.58	22.07	22.55	23.03	23.49	23.94	24.39	24.82	25.24
EU10	6.05	18.17	18.42	19.05	19.67	20.28	20.88	21.47	22.04	22.61	23.16	23.70	24.22

Source: Commission services.

Table A 6 – Net migration (thousands people)

Country	Ch. 08-60	2008	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	-27.4	50.7	47.5	41.0	36.2	33.6	31.4	28.8	27.1	26.3	25.2	25.0	23.3
BG	0.2	-1.4	0.4	1.7	0.2	-0.4	-0.5	1.4	2.5	2.0	1.6	1.1	-1.2
CZ	-7.4	24.0	25.9	27.7	24.7	21.3	22.9	23.3	27.3	24.1	21.9	20.4	16.7
DK	-3.5	9.7	9.8	8.5	8.1	8.1	8.7	7.0	6.5	6.0	5.7	5.9	6.2
DE	-43.9	159.8	146.7	166.3	173.1	186.6	187.0	159.6	131.6	140.5	135.7	137.9	115.9
EE	0.2	-0.6	-0.4	0.0	-0.1	-0.1	-0.3	-0.1	0.1	0.2	0.3	0.2	-0.3
IE	-54.4	63.1	53.4	34.5	21.7	13.5	8.7	6.5	6.0	8.0	7.4	7.9	8.6
EL	-12.9	39.7	39.5	39.9	38.2	38.1	37.2	38.0	36.6	35.5	31.0	28.6	26.8
ES	-493.6	623.4	540.2	375.8	263.1	190.4	160.8	149.3	150.5	146.1	135.2	131.8	129.9
FR	-36.4	99.3	97.9	97.4	92.5	88.9	86.5	82.6	76.9	73.9	69.9	66.4	62.9
IT	-85.3	259.5	255.9	248.6	240.8	240.8	248.7	239.9	229.5	206.9	193.4	185.8	174.3
CY	-3.4	9.3	9.2	8.8	8.5	8.2	7.8	7.5	7.2	6.9	6.6	6.2	5.9
LV	0.4	-1.0	-0.8	-0.3	-0.3	-0.2	-0.6	-0.2	0.1	0.3	0.7	0.5	-0.6
LT	2.1	-2.2	-1.7	-0.7	-0.2	0.2	-0.3	-0.1	-0.2	0.3	1.2	1.0	-0.1
LU	-1.6	4.4	4.3	4.1	4.0	3.8	3.7	3.5	3.4	3.2	3.1	2.9	2.8
HU	-4.8	19.6	19.1	22.1	22.4	18.0	17.3	19.3	22.3	19.6	17.9	16.6	14.9
MT	-0.2	1.0	1.0	1.1	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.8
NL	0.5	7.8	7.7	8.2	10.6	13.1	13.7	12.6	6.5	6.7	7.2	9.3	8.4
AT	-10.7	33.1	32.6	31.4	30.5	31.5	31.2	28.7	26.0	25.6	24.7	23.9	22.3
PL	23.7	-15.5	-15.3	8.5	14.0	4.9	-1.3	4.4	17.1	24.4	26.4	17.2	8.2
PT	-17.3	51.8	51.1	49.2	47.6	46.9	46.1	45.2	45.3	42.5	38.8	36.6	34.5
RO	9.5	-5.6	-5.1	4.0	6.3	1.8	-0.8	11.4	12.9	14.1	12.7	9.4	3.9
SI	-3.6	5.9	5.2	5.0	4.4	3.6	3.4	3.1	3.3	3.4	3.0	2.6	2.3
SK	0.1	3.6	3.2	5.0	5.0	4.0	3.9	4.1	6.1	6.4	6.1	5.2	3.7
FI	-5.2	9.7	10.0	9.5	7.8	6.6	5.8	4.6	4.8	4.9	4.9	5.0	4.5
SE	-31.1	46.8	42.3	33.3	26.9	22.6	20.2	18.1	17.2	16.7	16.7	18.2	15.8
UK	-74.6	188.2	183.9	174.3	165.7	158.0	150.9	144.3	138.0	131.8	126.3	122.2	113.6
NO	-12.8	22.4	20.8	17.5	15.2	13.5	12.4	11.6	11.0	10.6	10.3	10.1	9.6
EU27	-880.4	1683.9	1563.4	1404.8	1252.8	1144.7	1093.1	1043.8	1005.5	977.3	924.3	888.8	803.5
EA16	-795.3	1421.9	1305.3	1125.8	985.1	910.6	876.8	815.0	761.8	737.8	693.1	676.2	626.6
EU15	-897.3	1646.9	1522.8	1322.1	1166.8	1082.5	1040.7	968.8	905.9	874.7	825.1	807.5	749.5
EU12	16.9	37.1	40.6	82.7	86.0	62.3	52.4	75.0	99.6	102.6	99.3	81.3	54.0
EU25	-890.2	1690.9	1568.1	1399.1	1246.2	1143.3	1094.4	1031.0	990.1	961.1	910.1	878.4	800.8
EA12	-788.2	1402.2	1286.8	1105.9	966.1	893.8	860.8	799.4	744.3	720.2	676.4	661.2	614.0
EU10	7.2	44.1	45.3	77.0	79.4	60.9	53.7	62.2	84.2	86.4	85.0	70.9	51.2

Source: Commission services.

Table A 7 – Net migration (as % of population)

Country	Ch. 08-60	2008	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	-0.3	0.5	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2
BG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CZ	-0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2
DK	-0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1
DE	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
EE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IE	-1.3	1.4	1.2	0.7	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
EL	-0.1	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2
ES	-1.1	1.4	1.2	0.8	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3
FR	-0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
IT	-0.1	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3
CY	-0.7	1.2	1.1	1.0	0.9	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4
LV	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LT	0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LU	-0.5	0.9	0.9	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.4
HU	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
MT	0.0	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
NL	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1
AT	-0.1	0.4	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.2
PL	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0
PT	-0.2	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3
RO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0
SI	-0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1
SK	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
FI	-0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
SE	-0.4	0.5	0.5	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
UK	-0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
NO	-0.3	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
EU27	-0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
EA16	-0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2
EU15	-0.2	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
EU12	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
EU25	-0.2	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
EA12	-0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2
EU10	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Source: Commission services.

Table A 8 - Population (millions people)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	1.7	10.6	10.8	11.1	11.3	11.5	11.7	11.9	12.0	12.1	12.2	12.2	12.3
BG	-2.2	7.7	7.6	7.4	7.2	7.0	6.8	6.5	6.3	6.1	5.9	5.7	5.5
CZ	-0.8	10.3	10.4	10.5	10.5	10.5	10.4	10.3	10.2	10.0	9.9	9.7	9.5
DK	0.5	5.4	5.5	5.6	5.7	5.7	5.8	5.9	5.9	5.9	5.9	5.9	5.9
DE	-11.6	82.3	82.1	81.9	81.5	80.9	80.2	79.1	77.8	76.2	74.5	72.6	70.8
EE	-0.2	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.1
IE	2.4	4.3	4.6	5.1	5.4	5.7	5.9	6.1	6.2	6.4	6.5	6.7	6.8
EL	-0.1	11.2	11.3	11.5	11.6	11.6	11.6	11.6	11.6	11.5	11.4	11.3	11.1
ES	7.4	44.5	46.7	49.4	51.1	52.1	52.7	53.0	53.3	53.4	53.2	52.7	51.9
FR	10.3	61.5	62.6	64.2	65.6	66.8	68.0	69.0	69.9	70.6	71.0	71.4	71.8
IT	0.3	59.1	60.0	60.9	61.4	61.7	61.9	62.0	62.0	61.8	61.2	60.4	59.4
CY	0.5	0.8	0.8	0.9	1.0	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.3
LV	-0.6	2.3	2.2	2.2	2.2	2.1	2.0	2.0	1.9	1.9	1.8	1.7	1.7
LT	-0.8	3.4	3.3	3.3	3.2	3.2	3.1	3.0	2.9	2.8	2.7	2.6	2.5
LU	0.3	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7
HU	-1.3	10.1	10.0	10.0	9.9	9.8	9.7	9.5	9.4	9.2	9.1	8.9	8.7
MT	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
NL	0.2	16.4	16.5	16.7	16.9	17.1	17.2	17.3	17.2	17.1	16.9	16.7	16.6
AT	0.7	8.3	8.4	8.6	8.7	8.9	9.0	9.1	9.1	9.1	9.1	9.1	9.0
PL	-7.0	38.1	38.1	38.1	38.0	37.6	37.0	36.1	35.2	34.3	33.3	32.2	31.1
PT	0.7	10.6	10.7	10.9	11.1	11.2	11.3	11.4	11.5	11.5	11.4	11.4	11.3
RO	-4.6	21.6	21.3	21.1	20.8	20.5	20.0	19.6	19.2	18.7	18.1	17.6	16.9
SI	-0.2	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.8	1.8
SK	-0.8	5.4	5.4	5.4	5.4	5.4	5.3	5.2	5.1	5.0	4.9	4.7	4.5
FI	0.1	5.3	5.3	5.4	5.5	5.5	5.6	5.6	5.5	5.5	5.4	5.4	5.4
SE	1.8	9.1	9.3	9.6	9.9	10.1	10.3	10.4	10.5	10.6	10.7	10.8	10.9
UK	15.8	60.9	62.0	63.8	65.7	67.5	69.2	70.7	72.0	73.3	74.5	75.6	76.7
NO	1.4	4.7	4.8	5.0	5.2	5.4	5.5	5.6	5.7	5.8	5.9	6.0	6.0
EU27	12.4	493.3	499.4	507.7	513.8	517.8	519.9	520.7	520.1	518.4	515.3	511.0	505.7
EA16	12.0	323.1	328.3	334.9	339.5	342.5	344.4	345.4	345.5	344.4	342.2	339.0	335.1
EU15	30.6	389.9	396.4	405.1	411.9	417.0	420.9	423.6	425.2	425.6	424.9	423.0	420.5
EU12	-18.1	103.3	103.0	102.6	102.0	100.8	99.1	97.1	94.9	92.7	90.4	87.9	85.2
EU25	19.3	464.0	470.5	479.2	485.8	490.4	493.1	494.5	494.6	493.6	491.2	487.7	483.3
EA12	12.5	314.5	319.6	326.2	330.7	333.6	335.6	336.7	336.8	335.9	333.8	330.7	327.1
EU10	-11.3	74.1	74.1	74.1	74.0	73.4	72.3	70.9	69.4	67.9	66.4	64.7	62.8

Source: Commission services.

Table A 9 – Children population (0-14) (as % of total population)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	-1.3	17.0	16.8	16.7	16.7	16.5	16.3	16.0	15.8	15.7	15.7	15.7	15.6
BG	-1.5	13.4	13.5	14.2	14.3	13.5	12.6	12.0	12.0	12.3	12.3	12.2	12.0
CZ	-2.1	14.4	14.1	14.6	14.7	13.8	12.8	12.2	12.1	12.4	12.6	12.5	12.3
DK	-2.4	18.6	18.1	17.3	16.7	16.6	16.9	17.1	17.0	16.6	16.3	16.2	16.3
DE	-1.3	13.9	13.4	12.8	12.6	12.7	12.7	12.5	12.2	12.1	12.1	12.3	12.6
EE	-0.9	14.9	15.1	16.3	16.9	16.3	15.1	14.0	13.8	14.1	14.5	14.4	14.0
IE	-3.4	20.3	20.7	21.1	21.1	20.2	18.9	17.8	17.4	17.4	17.5	17.3	17.0
EL	-1.4	14.3	14.3	14.5	14.4	13.7	13.0	12.7	12.7	13.0	13.1	13.1	12.9
ES	-1.6	14.5	15.0	15.7	15.5	14.5	13.4	12.8	12.7	13.0	13.2	13.1	12.9
FR	-1.7	18.4	18.4	18.4	18.2	17.8	17.4	17.1	17.0	17.1	17.0	16.9	16.7
IT	-1.9	14.1	14.0	13.9	13.4	12.7	12.2	12.1	12.2	12.3	12.3	12.2	12.1
CY	-3.0	17.9	17.1	16.9	17.4	17.4	16.6	15.7	15.1	14.9	15.1	15.1	15.0
LV	-1.7	14.0	13.7	14.7	15.3	14.8	13.6	12.6	12.1	12.3	12.6	12.6	12.3
LT	-3.5	15.9	14.7	14.3	14.8	14.8	14.1	13.0	12.1	12.0	12.2	12.5	12.4
LU	-2.2	18.3	18.0	17.3	16.9	16.9	16.9	16.9	16.7	16.4	16.2	16.1	16.2
HU	-2.5	15.2	14.8	14.8	14.8	14.3	13.6	13.0	12.8	12.8	12.9	12.9	12.7
MT	-4.1	16.8	15.6	14.6	14.6	14.4	14.0	13.3	12.7	12.5	12.6	12.7	12.7
NL	-3.1	18.1	17.5	16.6	15.7	15.5	15.7	15.7	15.6	15.3	14.9	14.8	15.0
AT	-1.8	15.6	14.9	14.4	14.3	14.3	14.1	13.9	13.6	13.5	13.5	13.7	13.8
PL	-4.4	15.8	15.0	14.6	14.8	14.2	13.1	12.0	11.4	11.4	11.6	11.6	11.4
PT	-2.7	15.5	15.3	15.1	14.5	13.8	13.3	13.0	13.0	13.0	13.0	12.9	12.8
RO	-3.9	15.4	15.1	14.9	14.7	13.9	13.0	12.2	11.8	11.8	11.8	11.7	11.5
SI	-1.2	14.0	13.8	14.0	14.2	13.6	12.8	12.2	12.1	12.4	12.8	12.9	12.8
SK	-5.0	16.1	15.2	14.7	14.6	13.9	12.9	11.9	11.3	11.2	11.3	11.3	11.1
FI	-1.3	17.1	16.6	16.4	16.6	16.6	16.3	15.9	15.6	15.6	15.7	15.8	15.7
SE	-0.6	17.0	16.5	17.0	17.4	17.5	17.3	16.8	16.2	16.1	16.3	16.5	16.5
UK	-1.0	17.6	17.3	17.3	17.7	17.8	17.6	17.2	16.8	16.6	16.6	16.6	16.6
NO	-2.6	19.4	18.9	18.2	18.0	17.9	17.8	17.5	17.2	16.9	16.7	16.7	16.7
EU27	-1.7	15.8	15.5	15.5	15.4	15.0	14.5	14.1	14.0	14.0	14.1	14.1	14.0
EA16	-1.6	15.5	15.4	15.2	15.0	14.6	14.2	13.9	13.8	13.8	13.9	13.9	13.9
EU15	-1.4	15.9	15.7	15.6	15.5	15.2	14.9	14.6	14.4	14.4	14.5	14.5	14.5
EU12	-3.5	15.3	14.8	14.7	14.8	14.1	13.1	12.3	11.9	11.9	12.1	12.0	11.8
EU25	-1.7	15.8	15.6	15.5	15.4	15.1	14.6	14.3	14.1	14.1	14.2	14.2	14.1
EA12	-1.6	15.5	15.4	15.3	15.0	14.6	14.2	13.9	13.8	13.9	13.9	13.9	13.9
EU10	-3.5	15.5	14.8	14.7	14.8	14.3	13.3	12.3	11.9	11.9	12.1	12.1	11.9

Source: Commission services.

Table A 10 – Prime age population (25-54) (as % of total population)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	-6.6	42.2	41.6	40.4	39.1	37.9	37.0	36.8	36.4	36.1	35.8	35.7	35.6
BG	-9.3	42.7	42.9	43.3	42.8	41.2	39.3	37.5	35.9	34.1	33.2	33.5	33.4
CZ	-10.4	44.3	43.8	43.6	43.6	42.1	39.7	37.2	36.1	35.0	33.9	34.0	33.9
DK	-5.7	41.3	40.2	39.0	38.1	36.9	36.1	36.0	36.4	36.3	35.9	35.7	35.6
DE	-9.7	43.2	42.8	41.8	39.4	36.9	36.2	35.9	35.1	34.1	33.7	33.5	33.5
EE	-6.7	41.6	41.9	42.6	41.8	40.3	38.8	38.2	37.0	35.0	34.4	34.8	34.9
IE	-8.3	44.1	44.5	44.1	42.8	41.5	40.2	38.6	37.1	36.5	36.3	36.0	35.8
EL	-10.0	44.1	44.1	42.9	41.5	39.5	37.5	36.0	34.9	34.5	34.2	34.2	34.1
ES	-13.0	46.7	46.8	45.5	43.4	40.9	38.4	36.1	34.8	34.2	33.9	33.9	33.7
FR	-5.9	40.9	40.0	38.8	37.4	36.2	35.3	35.3	35.2	35.0	35.0	35.0	34.9
IT	-10.0	43.8	43.3	42.3	40.5	38.2	36.3	35.3	34.9	34.6	34.1	34.0	33.7
CY	-6.7	43.7	44.5	44.7	44.3	43.7	42.6	41.5	40.0	38.9	37.8	37.2	37.0
LV	-8.4	42.2	43.1	44.1	43.5	41.7	40.0	39.1	37.3	34.7	33.3	33.8	33.8
LT	-9.8	42.4	43.2	44.0	43.5	42.1	40.1	38.9	37.4	35.0	33.1	32.5	32.6
LU	-8.2	45.5	44.7	43.2	41.6	40.2	39.5	38.9	38.5	38.2	37.9	37.5	37.3
HU	-9.5	43.6	42.9	42.4	43.0	42.2	40.4	38.0	36.9	35.9	34.9	34.5	34.1
MT	-8.3	41.9	41.7	41.1	40.9	41.0	40.1	38.5	37.0	35.8	34.6	33.8	33.6
NL	-8.0	43.0	41.9	40.4	38.8	37.1	36.4	36.4	36.2	35.8	35.5	35.3	34.9
AT	-8.8	44.0	44.0	43.0	41.2	39.0	37.8	37.5	36.7	36.1	35.5	35.3	35.2
PL	-11.5	43.9	44.1	43.5	43.5	43.0	41.4	39.2	36.6	34.6	33.2	32.6	32.4
PT	-9.5	43.9	43.9	43.1	41.7	40.5	39.1	37.4	36.2	35.7	35.2	34.9	34.4
RO	-11.3	44.2	44.2	45.1	45.6	43.5	41.4	39.0	37.2	34.5	33.6	33.2	32.8
SI	-12.5	45.7	45.1	43.7	41.7	39.5	37.7	35.8	34.3	33.3	33.0	33.1	33.2
SK	-13.1	45.5	45.7	45.7	45.4	44.4	42.3	39.4	37.0	34.9	33.3	32.7	32.4
FI	-5.7	40.3	39.4	37.9	36.9	35.9	35.6	35.3	34.9	34.9	34.6	34.6	34.6
SE	-4.0	39.5	39.1	39.1	39.2	37.6	36.5	36.5	36.5	36.0	35.2	35.5	35.6
UK	-4.5	41.2	41.1	41.2	40.4	39.1	38.2	38.5	38.1	37.4	36.8	36.7	36.7
NO	-6.2	41.6	41.1	40.2	39.6	38.3	37.0	36.6	36.4	36.1	35.7	35.4	35.4
EU27	-8.6	43.1	42.8	42.1	40.8	39.0	37.7	36.8	36.0	35.2	34.7	34.5	34.4
EA16	-9.2	43.4	43.0	41.9	40.1	38.1	36.8	36.0	35.3	34.8	34.4	34.3	34.2
EU15	-8.2	42.9	42.5	41.6	40.0	38.2	36.9	36.3	35.8	35.3	34.9	34.8	34.7
EU12	-10.8	43.9	43.9	43.9	43.9	42.7	40.9	38.7	36.7	34.8	33.6	33.3	33.1
EU25	-8.5	43.0	42.7	41.9	40.5	38.8	37.5	36.7	35.9	35.2	34.7	34.6	34.5
EA12	-9.1	43.3	42.9	41.8	40.0	38.0	36.7	35.9	35.2	34.7	34.4	34.4	34.2
EU10	-10.8	43.9	43.9	43.6	43.5	42.7	40.9	38.7	36.7	35.0	33.7	33.3	33.1

Source: Commission services.

Table A 11 – Working age population (15-64) (as % of total population)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	-8.1	65.9	66.0	65.0	63.8	62.4	60.9	59.8	59.2	59.0	58.6	58.2	57.8
BG	-15.5	69.3	69.1	67.0	65.4	64.7	64.2	63.2	61.3	58.6	56.4	54.4	53.8
CZ	-16.9	71.2	70.5	67.5	65.1	64.5	64.3	63.8	61.6	58.4	56.5	55.1	54.4
DK	-7.4	66.1	65.5	64.1	63.1	62.0	60.3	58.7	58.2	58.4	59.2	59.4	58.7
DE	-11.3	66.3	66.0	65.9	64.6	62.6	59.7	57.3	56.7	56.7	56.2	55.4	55.0
EE	-12.7	68.0	67.9	66.1	64.3	63.5	63.2	63.2	62.1	60.4	58.1	55.7	55.3
IE	-10.7	68.6	68.0	66.6	65.6	65.2	65.1	64.6	63.3	61.1	58.8	57.8	57.8
EL	-11.7	67.1	66.8	65.5	64.5	63.8	62.8	61.0	58.9	56.8	55.3	55.2	55.4
ES	-14.1	68.8	68.3	67.0	66.3	65.7	64.5	62.4	59.6	56.6	54.7	54.3	54.7
FR	-7.8	65.2	64.8	63.1	61.6	60.5	59.4	58.5	57.6	57.5	57.3	57.3	57.4
IT	-10.9	66.0	65.6	64.5	63.9	63.3	61.6	59.3	57.0	55.5	55.1	55.1	55.1
CY	-10.9	69.8	70.3	69.3	67.5	66.1	65.4	65.3	64.9	63.8	61.7	60.0	58.8
LV	-15.6	68.9	69.0	67.6	66.1	65.0	64.2	63.8	62.4	60.6	57.8	54.6	53.3
LT	-15.6	68.5	69.2	69.1	67.6	65.7	63.8	62.7	61.5	60.3	58.1	55.0	52.9
LU	-7.4	67.6	67.8	67.6	66.9	65.4	63.5	61.9	61.1	60.9	60.8	60.7	60.3
HU	-13.5	68.9	68.6	67.4	65.4	64.3	64.5	63.8	62.2	59.4	57.7	56.4	55.4
MT	-14.8	69.7	69.6	67.4	65.1	63.0	61.8	61.9	61.6	60.2	58.4	56.5	54.9
NL	-9.7	67.4	67.2	65.6	64.5	62.6	60.2	58.3	57.5	58.0	58.4	58.3	57.8
AT	-10.3	67.5	67.5	67.2	66.3	64.6	62.2	60.1	59.2	58.9	58.3	57.8	57.2
PL	-18.3	70.8	71.5	70.0	67.0	64.6	63.9	63.8	62.7	60.2	56.8	54.1	52.5
PT	-10.9	67.3	66.9	66.1	65.5	64.7	63.5	62.1	60.2	58.2	56.9	56.5	56.3
RO	-16.2	69.8	70.0	69.4	67.9	66.7	66.8	64.9	62.6	59.7	57.3	54.3	53.6
SI	-16.4	70.1	69.5	68.1	65.4	63.5	61.9	60.4	58.9	56.7	54.7	53.7	53.8
SK	-19.3	72.0	72.5	71.5	69.0	67.0	65.9	65.2	63.4	60.2	57.0	54.4	52.7
FI	-10.0	66.5	66.4	63.4	61.0	59.3	58.2	57.7	58.2	58.0	57.5	57.1	56.4
SE	-8.7	65.6	65.3	63.1	61.8	60.9	60.2	59.6	59.5	59.5	59.0	58.0	56.9
UK	-7.7	66.4	66.3	65.1	64.0	63.1	61.8	60.9	60.8	61.0	60.5	59.5	58.7
NO	-8.1	66.0	66.1	65.1	63.9	62.5	61.2	59.9	59.0	59.0	58.9	58.5	57.9
EU27	-11.3	67.3	67.1	65.9	64.6	63.3	61.9	60.4	59.2	58.1	57.1	56.4	56.0
EA16	-10.8	66.7	66.4	65.3	64.2	63.0	61.3	59.5	58.1	57.1	56.4	56.0	55.9
EU15	-10.0	66.5	66.2	65.1	64.1	62.9	61.3	59.6	58.5	57.8	57.2	56.7	56.5
EU12	-16.7	70.2	70.4	69.1	66.8	65.1	64.7	64.0	62.4	59.7	57.0	54.7	53.5
EU25	-11.0	67.1	66.9	65.7	64.4	63.2	61.7	60.2	59.0	58.1	57.1	56.5	56.1
EA12	-10.6	66.6	66.2	65.2	64.2	62.9	61.2	59.4	58.0	57.0	56.3	56.0	56.0
EU10	-17.0	70.4	70.7	69.2	66.6	64.7	64.1	63.8	62.4	59.8	57.0	54.8	53.5

Source: Commission services.

Table A 12 – Elderly population (65 and over) (as % of total population)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	9.4	17.1	17.2	18.3	19.5	21.1	22.9	24.2	25.0	25.4	25.7	26.0	26.5
BG	17.0	17.3	17.5	18.9	20.3	21.8	23.3	24.7	26.7	29.1	31.3	33.4	34.2
CZ	19.0	14.4	15.4	17.9	20.2	21.8	22.9	24.1	26.3	29.3	30.9	32.4	33.4
DK	9.7	15.3	16.4	18.6	20.1	21.4	22.8	24.1	24.8	24.9	24.5	24.4	25.0
DE	12.7	19.8	20.6	21.2	22.8	24.7	27.6	30.2	31.1	31.3	31.7	32.3	32.5
EE	13.6	17.1	17.0	17.7	18.8	20.2	21.7	22.8	24.2	25.5	27.4	29.9	30.7
IE	14.1	11.1	11.3	12.2	13.3	14.5	16.0	17.6	19.4	21.5	23.7	24.8	25.2
EL	13.1	18.6	18.9	20.0	21.1	22.6	24.2	26.3	28.4	30.2	31.5	31.8	31.7
ES	15.7	16.7	16.7	17.3	18.2	19.8	22.1	24.8	27.7	30.5	32.1	32.6	32.3
FR	9.5	16.4	16.7	18.5	20.2	21.7	23.2	24.4	25.3	25.4	25.6	25.9	25.9
IT	12.8	19.9	20.3	21.7	22.7	24.0	26.2	28.6	30.8	32.2	32.6	32.7	32.7
CY	13.9	12.3	12.7	13.8	15.0	16.5	17.9	19.0	20.0	21.3	23.2	24.8	26.2
LV	17.3	17.1	17.4	17.7	18.6	20.2	22.2	23.7	25.4	27.1	29.6	32.8	34.4
LT	19.1	15.6	16.0	16.6	17.6	19.5	22.1	24.3	26.3	27.7	29.7	32.5	34.7
LU	9.5	14.0	14.3	15.1	16.2	17.7	19.6	21.3	22.2	22.7	23.0	23.1	23.6
HU	16.0	15.9	16.6	17.7	19.8	21.4	22.0	23.1	25.0	27.7	29.3	30.7	31.9
MT	18.9	13.5	14.8	18.0	20.3	22.6	24.2	24.8	25.7	27.3	29.1	30.8	32.4
NL	12.8	14.5	15.3	17.8	19.8	21.9	24.1	25.9	26.9	26.8	26.6	26.8	27.3
AT	12.1	16.9	17.6	18.4	19.4	21.1	23.7	26.1	27.2	27.6	28.2	28.5	29.0
PL	22.8	13.4	13.6	15.3	18.2	21.2	23.0	24.2	25.9	28.4	31.6	34.3	36.2
PT	13.6	17.3	17.8	18.9	20.1	21.5	23.3	24.9	26.8	28.8	30.1	30.6	30.9
RO	20.1	14.9	14.9	15.6	17.4	19.4	20.3	22.9	25.5	28.5	30.9	34.0	35.0
SI	17.5	15.9	16.6	17.9	20.4	22.9	25.3	27.4	29.1	31.0	32.5	33.4	33.4
SK	24.3	11.9	12.3	13.8	16.4	19.1	21.3	23.0	25.3	28.6	31.6	34.3	36.1
FI	11.4	16.5	17.1	20.1	22.4	24.1	25.5	26.4	26.2	26.4	26.8	27.1	27.8
SE	9.2	17.4	18.2	19.9	20.8	21.6	22.5	23.6	24.3	24.4	24.7	25.5	26.6
UK	8.7	16.0	16.4	17.6	18.3	19.2	20.5	21.9	22.4	22.4	23.0	23.9	24.7
NO	10.8	14.6	15.0	16.7	18.1	19.6	21.0	22.6	23.8	24.1	24.4	24.8	25.4
EU27	13.0	17.0	17.4	18.6	20.1	21.7	23.6	25.4	26.8	27.9	28.8	29.6	30.0
EA16	12.4	17.8	18.3	19.4	20.8	22.4	24.5	26.6	28.1	29.1	29.8	30.1	30.2
EU15	11.4	17.6	18.0	19.2	20.4	21.9	23.9	25.8	27.1	27.8	28.4	28.8	29.0
EU12	20.2	14.5	14.8	16.2	18.5	20.8	22.2	23.8	25.8	28.4	30.9	33.3	34.7
EU25	12.7	17.0	17.5	18.8	20.2	21.8	23.7	25.5	26.9	27.9	28.7	29.4	29.7
EA12	12.2	18.0	18.4	19.5	20.9	22.5	24.6	26.7	28.2	29.1	29.8	30.1	30.1
EU10	20.5	14.1	14.5	16.1	18.6	21.0	22.6	23.9	25.8	28.3	30.9	33.1	34.6

Source: Commission services.

Table A 13 – Very elderly population (80 and over) (as % of total population)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	5.7	4.6	4.9	5.4	5.6	5.6	6.5	7.4	8.4	9.4	10.0	10.2	10.2
BG	9.4	3.5	3.8	4.4	4.6	4.9	6.1	7.1	8.0	8.7	9.6	11.0	12.8
CZ	10.1	3.3	3.6	3.9	4.1	5.0	6.6	7.9	8.4	8.7	9.3	11.1	13.4
DK	5.9	4.1	4.1	4.2	4.7	5.7	7.1	7.7	8.1	8.9	9.7	10.1	10.0
DE	8.6	4.6	5.1	5.7	7.1	7.9	8.0	8.9	10.3	12.4	14.0	13.8	13.2
EE	7.3	3.5	4.0	4.5	5.2	5.4	5.9	6.8	7.8	8.6	9.0	9.8	10.7
IE	6.9	2.7	2.8	2.9	3.1	3.5	4.3	5.0	5.7	6.5	7.3	8.3	9.6
EL	9.6	3.9	4.6	5.8	6.5	6.5	7.1	7.9	8.9	9.9	11.2	12.4	13.5
ES	10.0	4.5	4.8	5.3	5.4	5.7	6.4	7.2	8.3	9.7	11.3	12.9	14.5
FR	5.9	4.9	5.3	5.9	6.0	6.1	7.3	8.5	9.3	10.0	10.5	10.9	10.8
IT	9.6	5.3	5.8	6.6	7.3	7.7	8.5	9.1	10.0	11.5	13.1	14.4	14.9
CY	5.9	2.8	2.8	3.0	3.4	3.9	4.6	5.3	6.1	6.8	7.3	7.8	8.6
LV	8.5	3.4	3.9	4.5	5.2	5.6	5.9	6.7	7.9	9.2	9.9	10.9	11.9
LT	8.9	3.1	3.6	4.4	4.9	5.3	5.6	6.4	7.8	9.6	10.7	11.5	12.0
LU	5.6	3.3	3.8	4.1	4.3	4.4	5.0	5.8	6.7	7.8	8.6	8.9	8.9
HU	9.0	3.6	3.9	4.4	4.8	5.4	6.2	7.6	8.4	8.5	9.1	10.5	12.6
MT	9.1	2.7	3.3	3.9	4.5	5.2	7.1	8.3	9.3	9.9	9.9	10.4	11.8
NL	7.2	3.7	3.9	4.3	4.7	5.4	6.9	8.0	9.0	10.1	11.1	11.4	10.9
AT	6.9	4.5	4.7	4.9	5.2	6.2	6.7	7.2	8.4	10.1	11.5	11.7	11.4
PL	10.2	2.9	3.3	4.0	4.4	4.5	5.7	7.7	9.4	10.0	10.1	11.0	13.1
PT	8.7	4.1	4.5	5.2	5.8	6.1	6.8	7.6	8.4	9.5	10.5	11.6	12.8
RO	10.4	2.7	3.0	3.6	4.2	4.3	4.9	6.2	7.4	7.7	9.4	11.1	13.1
SI	10.5	3.4	3.9	4.8	5.4	6.0	6.7	8.4	9.9	11.0	12.0	12.7	13.9
SK	10.7	2.5	2.7	3.0	3.2	3.7	4.7	6.4	7.8	8.7	9.3	10.8	13.2
FI	6.6	4.2	4.6	5.1	5.6	6.2	8.2	9.4	10.1	10.6	10.8	10.5	10.8
SE	4.7	5.4	5.3	5.2	5.4	6.3	7.6	8.1	8.4	8.8	9.5	10.0	10.0
UK	4.5	4.5	4.6	4.8	5.0	5.3	6.3	6.7	7.3	8.1	8.9	9.1	9.0
NO	5.3	4.7	4.6	4.4	4.4	5.0	6.3	7.1	7.8	8.4	9.3	9.9	10.0
EU27	7.8	4.3	4.7	5.2	5.7	6.1	6.9	7.9	8.9	10.0	11.0	11.7	12.1
EA16	8.2	4.6	5.0	5.6	6.2	6.6	7.4	8.2	9.3	10.6	11.8	12.5	12.8
EU15	7.3	4.6	5.0	5.5	6.0	6.5	7.2	8.0	8.9	10.2	11.3	11.8	12.0
EU12	9.9	3.0	3.4	4.0	4.4	4.7	5.7	7.2	8.5	9.0	9.7	11.0	12.9
EU25	7.7	4.4	4.7	5.3	5.8	6.2	7.0	7.9	8.9	10.1	11.1	11.7	12.1
EA12	8.1	4.7	5.1	5.7	6.3	6.7	7.4	8.3	9.3	10.7	11.9	12.5	12.8
EU10	9.8	3.0	3.4	4.0	4.4	4.7	5.8	7.5	8.8	9.4	9.8	10.9	12.9

Source: Commission services.

Table A 14 - Very elderly population (80 and over) (as % of elderly population)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	11.9	26.7	28.5	29.5	28.6	26.5	28.2	30.4	33.5	37.0	38.7	39.2	38.6
BG	17.4	20.1	21.6	23.1	22.5	22.7	26.2	28.8	29.9	29.9	30.7	33.0	37.5
CZ	17.5	22.6	23.3	22.1	20.3	23.1	28.9	32.9	31.9	29.8	30.1	34.2	40.1
DK	13.2	26.9	25.1	22.7	23.3	26.8	31.0	31.7	32.8	35.7	39.8	41.4	40.1
DE	17.3	23.3	24.6	26.7	31.1	32.1	28.9	29.4	33.1	39.6	44.1	42.7	40.6
EE	14.6	20.3	23.4	25.7	27.8	26.5	27.0	29.7	32.3	33.9	33.0	32.9	35.0
IE	13.5	24.5	24.8	23.9	23.6	24.2	26.6	28.3	29.3	30.0	30.6	33.3	38.0
EL	21.6	20.9	24.2	29.1	30.7	28.8	29.4	30.0	31.4	32.8	35.6	39.2	42.6
ES	17.7	27.1	28.7	30.7	29.8	28.7	28.8	28.9	30.0	31.9	35.1	39.6	44.8
FR	12.0	29.6	31.7	31.8	29.9	28.1	31.5	34.8	36.9	39.5	40.9	42.1	41.6
IT	18.9	26.7	28.7	30.6	32.3	32.1	32.5	31.8	32.4	35.6	40.2	44.1	45.6
CY	10.5	22.5	22.3	21.9	22.6	23.5	25.5	27.9	30.5	32.2	31.3	31.3	33.0
LV	14.9	19.7	22.6	25.3	28.1	27.8	26.7	28.2	31.1	33.8	33.4	33.1	34.6
LT	14.7	19.9	22.7	26.2	27.9	27.0	25.3	26.2	29.8	34.5	35.9	35.4	34.5
LU	14.1	23.7	26.3	27.4	26.5	25.1	25.5	27.1	30.2	34.2	37.4	38.3	37.8
HU	16.9	22.6	23.7	24.9	24.0	25.3	28.2	32.7	33.7	30.5	31.1	34.2	39.6
MT	16.3	20.2	22.5	21.6	22.4	22.8	29.2	33.4	36.3	36.2	33.9	33.9	36.5
NL	14.6	25.4	25.4	24.1	23.8	24.9	28.8	30.7	33.3	37.8	41.6	42.4	39.9
AT	12.6	26.5	27.0	26.4	26.8	29.2	28.2	27.8	30.8	36.5	40.7	41.0	39.2
PL	14.9	21.3	24.4	25.9	23.9	21.0	24.7	31.7	36.4	35.1	31.8	32.1	36.1
PT	17.8	23.7	25.2	27.8	28.9	28.5	29.1	30.4	31.5	33.1	34.7	37.9	41.4
RO	19.6	17.9	20.3	23.3	24.2	22.2	24.3	27.1	29.1	26.9	30.5	32.6	37.5
SI	20.1	21.3	23.5	27.0	26.5	26.2	26.4	30.5	34.0	35.6	36.8	37.8	41.4
SK	15.3	21.2	22.2	22.0	19.7	19.6	22.3	27.8	30.7	30.4	29.5	31.5	36.5
FI	13.4	25.4	27.2	25.4	25.2	25.8	32.0	35.8	38.7	40.1	40.2	38.6	38.8
SE	6.8	31.0	29.3	26.2	26.0	29.4	33.9	34.4	34.6	36.1	38.5	39.1	37.8
UK	8.2	28.0	28.1	27.0	27.2	27.9	30.5	30.7	32.4	36.3	38.9	38.2	36.3
NO	7.4	31.8	30.5	26.4	24.3	25.5	29.9	31.4	32.9	35.0	38.1	40.0	39.2
EU27	15.2	25.3	26.8	27.8	28.4	28.2	29.4	30.9	33.0	35.7	38.2	39.5	40.5
EA16	16.4	25.8	27.4	28.9	29.9	29.6	30.0	31.0	33.0	36.5	39.7	41.4	42.2
EU15	15.0	26.3	27.6	28.6	29.5	29.5	30.3	31.0	33.0	36.6	39.7	41.1	41.3
EU12	16.6	20.6	22.9	24.4	23.5	22.5	25.6	30.3	33.0	31.7	31.4	32.9	37.2
EU25	15.0	25.7	27.1	28.1	28.7	28.5	29.6	31.1	33.2	36.1	38.6	39.9	40.7
EA12	16.5	25.9	27.5	29.0	30.1	29.8	30.1	31.0	33.1	36.7	39.9	41.6	42.4
EU10	15.6	21.5	23.8	24.8	23.5	22.5	25.8	31.3	34.3	33.2	31.7	33.0	37.2

Source: Commission services.

Table A 15 - Very elderly population (80 and over) (as % of working-age population)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	10.8	6.9	7.4	8.3	8.8	9.0	10.6	12.3	14.2	15.9	17.0	17.5	17.7
BG	18.8	5.0	5.5	6.5	7.0	7.7	9.5	11.3	13.0	14.9	17.0	20.3	23.8
CZ	20.1	4.6	5.1	5.8	6.3	7.8	10.3	12.4	13.6	14.9	16.5	20.1	24.6
DK	10.9	6.2	6.3	6.6	7.4	9.3	11.7	13.0	14.0	15.2	16.4	17.0	17.1
DE	17.0	7.0	7.7	8.6	11.0	12.7	13.4	15.5	18.1	21.8	24.9	24.8	24.0
EE	14.3	5.1	5.8	6.9	8.1	8.4	9.3	10.7	12.6	14.3	15.6	17.6	19.4
IE	12.6	3.9	4.1	4.4	4.8	5.4	6.6	7.7	9.0	10.6	12.4	14.3	16.6
EL	18.5	5.8	6.8	8.9	10.1	10.2	11.3	12.9	15.2	17.5	20.3	22.6	24.3
ES	19.9	6.6	7.0	7.9	8.2	8.7	9.9	11.5	13.9	17.2	20.6	23.8	26.5
FR	11.3	7.5	8.2	9.3	9.8	10.1	12.3	14.5	16.2	17.4	18.3	19.0	18.8
IT	19.0	8.1	8.9	10.3	11.4	12.2	13.8	15.4	17.5	20.6	23.8	26.2	27.0
CY	10.7	4.0	4.0	4.3	5.0	5.9	7.0	8.1	9.4	10.7	11.8	13.0	14.7
LV	17.4	4.9	5.7	6.6	7.9	8.6	9.2	10.4	12.7	15.1	17.1	19.9	22.3
LT	18.2	4.5	5.3	6.3	7.3	8.0	8.8	10.2	12.8	15.9	18.4	20.9	22.7
LU	9.9	4.9	5.5	6.1	6.4	6.8	7.9	9.3	11.0	12.7	14.1	14.6	14.8
HU	17.6	5.2	5.7	6.6	7.3	8.4	9.6	11.9	13.5	14.2	15.8	18.6	22.8
MT	17.6	3.9	4.8	5.8	7.0	8.2	11.4	13.3	15.1	16.4	16.9	18.5	21.5
NL	13.4	5.4	5.8	6.5	7.3	8.7	11.5	13.6	15.6	17.5	19.0	19.5	18.8
AT	13.2	6.6	7.0	7.2	7.8	9.6	10.8	12.1	14.2	17.1	19.6	20.2	19.8
PL	20.9	4.0	4.6	5.7	6.5	6.9	8.9	12.0	15.0	16.5	17.7	20.4	24.9
PT	16.6	6.1	6.7	7.9	8.9	9.5	10.7	12.2	14.0	16.4	18.4	20.5	22.7
RO	20.6	3.8	4.3	5.2	6.2	6.5	7.4	9.6	11.9	12.8	16.5	20.4	24.4
SI	20.9	4.8	5.6	7.1	8.3	9.5	10.8	13.8	16.8	19.5	21.9	23.6	25.8
SK	21.5	3.5	3.8	4.2	4.7	5.6	7.2	9.8	12.3	14.5	16.4	19.8	25.0
FI	12.8	6.3	7.0	8.1	9.3	10.5	14.1	16.4	17.4	18.2	18.7	18.3	19.1
SE	9.4	8.2	8.1	8.3	8.8	10.4	12.7	13.6	14.1	14.9	16.2	17.2	17.6
UK	8.5	6.8	6.9	7.3	7.8	8.5	10.1	11.0	11.9	13.3	14.8	15.4	15.3
NO	10.2	7.1	6.9	6.8	6.9	8.0	10.2	11.9	13.2	14.3	15.8	16.9	17.2
EU27	15.3	6.4	6.9	7.9	8.8	9.6	11.2	13.0	15.0	17.1	19.2	20.7	21.7
EA16	15.9	6.9	7.6	8.6	9.7	10.5	12.0	13.9	16.0	18.6	21.0	22.3	22.8
EU15	14.2	7.0	7.5	8.4	9.4	10.3	11.8	13.4	15.3	17.6	19.7	20.8	21.2
EU12	19.9	4.3	4.8	5.7	6.5	7.2	8.8	11.3	13.6	15.1	17.0	20.1	24.1
EU25	15.0	6.5	7.1	8.0	9.0	9.8	11.4	13.2	15.1	17.3	19.4	20.7	21.5
EA12	15.8	7.0	7.6	8.7	9.8	10.6	12.1	14.0	16.1	18.7	21.1	22.4	22.8
EU10	19.8	4.3	4.9	5.8	6.6	7.3	9.1	11.7	14.2	15.7	17.1	19.9	24.1

Source: Commission services.

Table A 16 – Potential GDP (annual growth rate)

Country	Avg 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	1.8	2.5	2.5	2.3	1.9	1.6	1.6	1.7	1.8	1.7	1.7	1.7	1.7
BG	1.9	6.4	4.0	3.0	2.4	2.0	1.7	1.5	1.4	0.7	0.3	0.7	0.8
CZ	1.8	5.2	4.2	3.0	2.5	1.6	1.4	1.1	0.9	0.9	0.7	0.9	1.1
DK	1.7	2.3	1.7	1.7	1.6	1.8	1.5	1.6	1.7	1.9	1.9	1.7	1.6
DE	1.2	1.4	1.9	1.9	1.5	0.9	1.3	1.1	1.1	1.2	1.0	1.0	1.0
EE	2.1	7.8	5.0	3.2	2.6	2.3	2.2	1.3	1.0	0.7	0.6	0.8	1.2
IE	2.4	5.2	4.1	3.4	2.9	2.6	2.3	2.1	1.8	1.5	1.6	1.8	2.0
EL	1.8	3.8	3.0	2.7	2.9	1.8	1.3	1.1	1.0	1.1	1.2	1.3	1.4
ES	1.9	3.7	2.9	3.1	3.4	2.5	1.8	1.3	0.9	0.8	1.1	1.4	1.6
FR	1.8	2.1	2.0	2.0	1.9	1.8	1.7	1.8	1.8	1.8	1.8	1.8	1.8
IT	1.4	1.5	1.5	2.1	1.9	1.7	1.4	1.1	1.0	1.2	1.3	1.4	1.4
CY	2.8	3.6	3.8	3.8	3.9	3.2	2.9	2.6	2.3	2.0	1.8	1.8	1.8
LV	1.8	8.6	5.0	3.0	2.1	2.0	1.8	1.0	0.7	0.2	-0.1	0.4	1.1
LT	1.8	8.0	5.0	3.6	2.5	1.8	1.5	0.8	0.8	0.5	0.2	0.2	0.4
LU	2.7	4.5	5.0	4.0	2.7	2.3	2.1	2.2	2.2	2.2	2.2	2.0	2.0
HU	1.7	2.9	3.3	2.8	2.4	2.1	2.1	1.5	1.1	1.0	0.8	0.9	1.0
MT	1.7	2.9	2.3	2.7	2.7	1.9	1.7	1.4	1.2	1.0	0.8	0.8	1.0
NL	1.5	2.1	1.9	1.7	1.5	1.3	1.2	1.4	1.5	1.6	1.5	1.4	1.3
AT	1.7	2.2	2.2	1.9	1.9	1.6	1.5	1.6	1.5	1.5	1.5	1.4	1.5
PL	1.7	5.9	4.2	3.1	2.5	2.5	2.0	1.0	0.5	0.3	0.3	0.3	0.5
PT	1.8	1.3	2.0	2.1	2.1	2.1	2.5	2.2	1.8	1.5	1.2	1.3	1.4
RO	2.0	6.4	5.2	3.9	2.9	2.2	1.6	1.8	1.1	0.6	0.3	0.6	0.3
SI	1.6	4.9	3.4	3.2	2.6	1.4	0.8	0.7	0.7	0.7	0.8	1.0	1.1
SK	2.0	6.5	6.2	4.2	3.4	2.3	2.0	0.8	0.5	0.3	0.2	0.3	0.5
FI	1.7	3.4	2.6	1.9	1.7	1.5	1.5	1.6	1.6	1.6	1.5	1.4	1.5
SE	1.9	3.5	2.7	2.2	1.9	1.9	1.7	1.8	1.9	1.8	1.7	1.6	1.7
UK	2.1	2.7	2.7	2.4	2.0	2.0	2.1	2.1	2.1	2.1	1.9	1.8	1.8
NO	2.0	6.0	2.1	2.1	2.0	1.9	1.7	1.7	1.9	1.9	1.9	1.8	1.8
EU27	1.7	2.7	2.5	2.3	2.1	1.8	1.7	1.5	1.4	1.4	1.3	1.4	1.4
EA16	1.6	2.3	2.2	2.2	2.1	1.6	1.6	1.4	1.3	1.3	1.3	1.4	1.4
EU15	1.7	2.3	2.2	2.2	2.0	1.7	1.6	1.5	1.5	1.5	1.5	1.5	1.5
EU12	1.8	5.7	4.4	3.3	2.6	2.2	1.8	1.2	0.8	0.6	0.4	0.6	0.7
EU25	1.7	2.6	2.4	2.3	2.1	1.8	1.7	1.5	1.4	1.4	1.4	1.4	1.5
EA12	1.6	2.2	2.1	2.2	2.0	1.6	1.5	1.4	1.3	1.3	1.4	1.4	1.5
EU10	1.8	5.5	4.2	3.2	2.6	2.2	1.9	1.1	0.7	0.6	0.5	0.6	0.8

Source: Commission services.

Table A 17 - Employment (annual growth rate)

Country	Avg 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	0.2	1.3	1.3	0.6	0.2	-0.1	-0.1	0.0	0.1	0.0	0.0	0.0	0.0
BG	-0.8	2.3	0.0	-0.5	-0.9	-1.0	-1.0	-1.2	-1.3	-1.4	-1.4	-1.0	-0.9
CZ	-0.4	1.1	0.4	0.0	-0.4	-0.5	-0.3	-0.6	-0.8	-0.8	-1.0	-0.8	-0.5
DK	0.0	0.5	-0.1	-0.1	-0.2	0.1	-0.2	-0.1	0.0	0.2	0.2	0.0	-0.1
DE	-0.4	0.2	0.4	0.3	-0.2	-0.9	-0.4	-0.6	-0.6	-0.5	-0.7	-0.7	-0.7
EE	-0.6	1.5	0.1	-0.7	-0.7	-0.7	-0.5	-0.5	-0.7	-0.9	-1.1	-0.9	-0.5
IE	0.7	3.3	2.5	1.5	1.1	0.8	0.7	0.4	0.1	-0.2	-0.1	0.1	0.3
EL	-0.2	1.1	0.7	0.3	0.0	-0.4	-0.4	-0.6	-0.7	-0.6	-0.5	-0.4	-0.3
ES	0.2	3.3	2.2	1.2	0.8	0.1	-0.1	-0.4	-0.8	-0.9	-0.6	-0.3	-0.1
FR	0.2	1.0	0.4	0.3	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.1
IT	-0.1	1.3	0.9	0.5	0.2	0.0	-0.3	-0.7	-0.7	-0.5	-0.4	-0.3	-0.3
CY	0.9	2.1	2.5	1.7	1.2	0.9	0.9	0.8	0.6	0.3	0.1	0.1	0.2
LV	-0.9	2.1	-0.1	-1.0	-1.2	-1.0	-0.9	-0.9	-1.0	-1.5	-1.9	-1.3	-0.6
LT	-0.9	1.8	0.4	-0.1	-0.9	-1.2	-1.2	-1.1	-0.9	-1.2	-1.5	-1.5	-1.3
LU	0.9	3.1	3.6	2.1	0.7	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.3
HU	-0.5	-0.1	0.8	0.3	-0.2	-0.5	-0.6	-0.8	-1.0	-1.0	-0.9	-0.8	-0.7
MT	-0.2	2.0	0.4	0.2	0.0	-0.3	-0.1	-0.3	-0.5	-0.7	-0.9	-0.9	-0.7
NL	-0.2	0.8	0.3	0.1	-0.2	-0.4	-0.5	-0.3	-0.2	-0.1	-0.2	-0.3	-0.4
AT	0.0	0.7	0.6	0.2	0.2	-0.1	-0.2	-0.1	-0.2	-0.2	-0.2	-0.3	-0.2
PL	-0.6	2.8	0.5	-0.3	-0.6	-0.3	-0.6	-0.8	-1.1	-1.4	-1.5	-1.5	-1.2
PT	-0.1	0.3	0.8	0.6	0.3	0.1	-0.1	-0.3	-0.4	-0.5	-0.5	-0.4	-0.3
RO	-0.9	0.2	0.1	-0.1	-0.5	-0.9	-1.1	-0.9	-1.6	-1.3	-1.4	-1.1	-1.4
SI	-0.6	1.2	-0.2	0.0	-0.5	-0.9	-0.9	-0.9	-1.0	-1.0	-0.9	-0.7	-0.6
SK	-0.6	0.8	1.5	0.7	0.3	-0.7	-0.6	-1.1	-1.2	-1.4	-1.5	-1.4	-1.2
FI	-0.1	1.2	0.0	-0.1	-0.1	-0.3	-0.2	-0.1	-0.1	-0.1	-0.2	-0.3	-0.2
SE	0.2	1.7	0.9	0.4	0.1	0.2	0.1	0.1	0.2	0.2	0.0	-0.1	0.0
UK	0.3	0.7	0.6	0.5	0.2	0.3	0.4	0.4	0.5	0.4	0.2	0.1	0.1
NO	0.3	3.8	0.7	0.4	0.3	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.1
EU27	-0.1	1.2	0.7	0.4	0.0	-0.2	-0.2	-0.3	-0.4	-0.4	-0.4	-0.4	-0.3
EA16	-0.1	1.2	0.9	0.5	0.2	-0.2	-0.2	-0.4	-0.4	-0.4	-0.4	-0.3	-0.3
EU15	0.0	1.1	0.8	0.5	0.2	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
EU12	-0.7	1.5	0.4	-0.1	-0.5	-0.6	-0.7	-0.8	-1.1	-1.2	-1.3	-1.2	-1.0
EU25	-0.1	1.2	0.8	0.4	0.1	-0.2	-0.2	-0.3	-0.3	-0.3	-0.4	-0.3	-0.3
EA12	-0.1	1.2	0.8	0.5	0.2	-0.2	-0.2	-0.4	-0.4	-0.4	-0.4	-0.3	-0.2
EU10	-0.6	1.9	0.5	-0.1	-0.5	-0.5	-0.6	-0.8	-1.0	-1.2	-1.3	-1.2	-0.9

Source: Commission services.

Table A 18 – Labour input – hours worked (annual growth rate)

Country	Avg 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	0.2	1.2	1.2	0.6	0.1	-0.1	-0.1	0.0	0.1	0.0	0.0	0.0	0.0
BG	-0.8	2.4	0.0	-0.5	-0.9	-1.0	-1.0	-1.2	-1.3	-1.4	-1.4	-1.0	-0.9
CZ	-0.4	1.0	0.4	0.0	-0.4	-0.5	-0.3	-0.6	-0.8	-0.8	-1.0	-0.8	-0.5
DK	0.0	0.3	-0.3	-0.2	-0.1	0.1	-0.2	-0.1	0.0	0.2	0.2	0.1	-0.1
DE	-0.5	-0.1	0.4	0.2	-0.2	-0.9	-0.4	-0.6	-0.6	-0.5	-0.7	-0.7	-0.7
EE	-0.6	1.6	0.1	-0.7	-0.7	-0.7	-0.5	-0.5	-0.7	-1.0	-1.1	-0.9	-0.5
IE	0.7	2.9	2.5	1.5	1.0	0.8	0.7	0.4	0.1	-0.1	-0.1	0.1	0.3
EL	-0.2	1.3	0.7	0.3	0.0	-0.4	-0.5	-0.6	-0.7	-0.6	-0.5	-0.4	-0.3
ES	0.1	2.7	2.1	1.2	0.8	0.1	-0.1	-0.4	-0.8	-0.9	-0.6	-0.3	-0.1
FR	0.1	0.6	0.4	0.3	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.1
IT	-0.1	1.2	0.9	0.5	0.2	0.0	-0.3	-0.6	-0.6	-0.5	-0.4	-0.3	-0.3
CY	0.8	1.9	2.5	1.7	1.1	0.9	0.8	0.8	0.6	0.3	0.1	0.1	0.2
LV	-0.9	2.0	-0.1	-1.0	-1.2	-1.0	-0.9	-0.9	-1.0	-1.5	-1.9	-1.3	-0.6
LT	-0.8	2.4	0.4	-0.1	-0.9	-1.2	-1.2	-1.1	-0.9	-1.2	-1.5	-1.5	-1.3
LU	0.9	2.7	3.6	2.1	0.7	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.3
HU	-0.5	-0.3	0.8	0.3	-0.2	-0.5	-0.6	-0.8	-1.0	-0.9	-0.9	-0.8	-0.7
MT	-0.2	1.4	0.4	0.2	0.0	-0.2	-0.1	-0.3	-0.5	-0.7	-0.9	-0.9	-0.7
NL	-0.2	0.5	0.2	0.0	-0.3	-0.4	-0.5	-0.3	-0.2	-0.1	-0.2	-0.3	-0.4
AT	0.0	0.6	0.6	0.2	0.2	-0.1	-0.2	-0.1	-0.2	-0.2	-0.2	-0.3	-0.2
PL	-0.7	2.8	0.4	-0.3	-0.6	-0.4	-0.7	-0.9	-1.2	-1.4	-1.4	-1.4	-1.2
PT	-0.1	0.2	0.8	0.6	0.3	0.1	-0.1	-0.3	-0.4	-0.5	-0.5	-0.4	-0.3
RO	-0.8	1.0	0.1	-0.1	-0.5	-0.9	-1.1	-0.9	-1.6	-1.3	-1.4	-1.1	-1.4
SI	-0.6	1.2	-0.3	0.0	-0.5	-0.9	-0.9	-1.0	-1.0	-1.0	-0.9	-0.7	-0.6
SK	-0.6	1.0	1.5	0.7	0.3	-0.7	-0.7	-1.1	-1.2	-1.4	-1.5	-1.4	-1.2
FI	-0.1	0.8	0.0	-0.1	-0.1	-0.3	-0.2	-0.1	-0.1	-0.1	-0.2	-0.3	-0.2
SE	0.2	1.6	0.9	0.4	0.1	0.2	0.0	0.1	0.2	0.1	0.0	-0.1	0.0
UK	0.3	0.2	0.6	0.5	0.2	0.3	0.4	0.4	0.5	0.4	0.2	0.1	0.1
NO	0.3	3.9	0.6	0.4	0.3	0.2	0.0	0.0	0.2	0.2	0.2	0.1	0.1
EU27	-0.1	1.0	0.7	0.3	0.0	-0.2	-0.2	-0.4	-0.4	-0.4	-0.4	-0.4	-0.3
EA16	-0.1	0.9	0.9	0.5	0.2	-0.2	-0.2	-0.4	-0.4	-0.4	-0.4	-0.3	-0.3
EU15	0.0	0.8	0.8	0.5	0.2	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
EU12	-0.7	1.7	0.4	-0.1	-0.5	-0.6	-0.7	-0.9	-1.2	-1.2	-1.3	-1.1	-1.0
EU25	-0.1	1.0	0.7	0.4	0.1	-0.2	-0.2	-0.3	-0.4	-0.4	-0.4	-0.3	-0.3
EA12	-0.1	0.9	0.8	0.5	0.2	-0.2	-0.2	-0.4	-0.4	-0.4	-0.4	-0.3	-0.2
EU10	-0.6	1.9	0.5	-0.1	-0.5	-0.5	-0.6	-0.8	-1.0	-1.2	-1.2	-1.2	-0.9

Source: Commission services.

Table A 19 – Labour productivity per hour (annual growth rate)

Country	Avg 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	1.7	1.3	1.3	1.7	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7
BG	2.7	4.0	4.0	3.6	3.3	3.0	2.7	2.7	2.7	2.2	1.7	1.7	1.7
CZ	2.2	4.1	3.8	3.0	2.9	2.2	1.8	1.7	1.7	1.7	1.7	1.7	1.7
DK	1.7	2.0	1.9	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
DE	1.7	1.5	1.5	1.6	1.7	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7
EE	2.6	6.0	4.9	3.9	3.3	3.0	2.7	1.9	1.7	1.7	1.7	1.7	1.7
IE	1.8	2.2	1.6	1.8	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7
EL	2.0	2.5	2.3	2.4	2.9	2.2	1.8	1.7	1.7	1.7	1.7	1.7	1.7
ES	1.8	1.0	0.8	1.9	2.7	2.4	1.9	1.8	1.7	1.7	1.7	1.7	1.7
FR	1.7	1.5	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
IT	1.6	0.3	0.6	1.5	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
CY	1.9	1.7	1.3	2.1	2.7	2.3	2.0	1.9	1.8	1.7	1.7	1.7	1.7
LV	2.7	6.4	5.1	3.9	3.3	3.0	2.7	1.9	1.7	1.7	1.7	1.7	1.7
LT	2.6	5.4	4.6	3.7	3.3	3.0	2.7	1.9	1.7	1.7	1.7	1.7	1.7
LU	1.7	1.7	1.4	1.9	2.0	1.9	1.7	1.7	1.7	1.7	1.7	1.7	1.7
HU	2.3	3.2	2.5	2.6	2.6	2.6	2.7	2.3	2.1	1.9	1.7	1.7	1.7
MT	1.9	1.5	1.9	2.5	2.7	2.1	1.8	1.7	1.7	1.7	1.7	1.7	1.7
NL	1.7	1.6	1.7	1.7	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
AT	1.7	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
PL	2.4	3.0	3.7	3.4	3.1	2.8	2.7	1.9	1.7	1.7	1.7	1.7	1.7
PT	1.9	1.1	1.1	1.5	1.8	2.0	2.7	2.5	2.2	2.0	1.7	1.7	1.7
RO	2.9	5.4	5.1	4.0	3.4	3.0	2.7	2.7	2.7	2.0	1.7	1.7	1.7
SI	2.2	3.6	3.7	3.2	3.1	2.3	1.8	1.7	1.7	1.7	1.7	1.7	1.7
SK	2.6	5.3	4.7	3.5	3.1	2.9	2.7	1.9	1.7	1.7	1.7	1.7	1.7
FI	1.8	2.5	2.6	2.0	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7
SE	1.7	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
UK	1.8	2.5	2.1	1.9	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7
NO	1.7	1.6	1.5	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
EU27	1.8	1.7	1.7	2.0	2.1	2.0	1.9	1.8	1.8	1.7	1.7	1.7	1.7
EA16	1.7	1.3	1.3	1.7	1.9	1.9	1.8	1.7	1.7	1.7	1.7	1.7	1.7
EU15	1.7	1.5	1.5	1.7	1.9	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7
EU12	2.5	3.8	3.9	3.4	3.1	2.8	2.5	2.1	2.0	1.8	1.7	1.7	1.7
EU25	1.8	1.6	1.7	1.9	2.0	1.9	1.8	1.8	1.7	1.7	1.7	1.7	1.7
EA12	1.7	1.3	1.3	1.7	1.9	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7
EU10	2.4	3.6	3.7	3.2	3.0	2.7	2.5	1.9	1.8	1.7	1.7	1.7	1.7

Source: Commission services.

Table A 20 - TFP (annual growth rate)

Country	Avg 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	1.1	0.8	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
BG	1.5	1.2	0.9	1.5	1.7	1.7	1.7	1.7	1.7	1.4	1.1	1.1	1.1
CZ	1.4	3.1	2.6	1.8	1.8	1.3	1.2	1.1	1.1	1.1	1.1	1.1	1.1
DK	1.1	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
DE	1.1	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
EE	1.5	2.7	2.2	1.8	1.8	1.8	1.8	1.2	1.1	1.1	1.1	1.1	1.1
IE	1.1	1.4	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
EL	1.2	1.3	1.1	1.3	1.7	1.3	1.2	1.1	1.1	1.1	1.1	1.1	1.1
ES	1.1	0.3	0.3	1.1	1.7	1.5	1.3	1.2	1.1	1.1	1.1	1.1	1.1
FR	1.1	0.9	0.9	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
IT	1.0	0.1	0.4	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
CY	1.2	0.7	0.7	1.3	1.7	1.5	1.3	1.2	1.2	1.1	1.1	1.1	1.1
LV	1.5	3.1	2.6	1.9	1.8	1.8	1.8	1.2	1.1	1.1	1.1	1.1	1.1
LT	1.5	2.8	2.3	1.8	1.8	1.8	1.8	1.2	1.1	1.1	1.1	1.1	1.1
LU	1.1	0.8	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
HU	1.4	1.5	1.3	1.4	1.5	1.6	1.7	1.5	1.3	1.2	1.1	1.1	1.1
MT	1.2	1.0	1.1	1.6	1.7	1.3	1.2	1.1	1.1	1.1	1.1	1.1	1.1
NL	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
AT	1.1	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
PL	1.4	1.7	1.5	1.6	1.7	1.7	1.7	1.2	1.1	1.1	1.1	1.1	1.1
PT	1.2	0.5	0.8	1.0	1.2	1.3	1.7	1.6	1.4	1.3	1.1	1.1	1.1
RO	1.6	2.5	2.2	1.9	1.8	1.8	1.8	1.8	1.8	1.3	1.1	1.1	1.1
SI	1.3	1.5	1.5	1.6	1.7	1.3	1.2	1.1	1.1	1.1	1.1	1.1	1.1
SK	1.6	3.5	3.2	2.0	1.8	1.8	1.8	1.2	1.1	1.1	1.1	1.1	1.1
FI	1.2	2.0	1.8	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
SE	1.1	1.6	1.3	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
UK	1.1	1.4	1.3	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
NO	1.1	2.1	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
EU27	1.1	1.0	1.0	1.2	1.3	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1
EA16	1.1	0.8	0.9	1.1	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1
EU15	1.1	0.9	0.9	1.1	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1
EU12	1.4	2.1	1.9	1.7	1.7	1.6	1.6	1.3	1.3	1.2	1.1	1.1	1.1
EU25	1.1	1.0	1.0	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1
EA12	1.1	0.7	0.8	1.1	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1
EU10	1.4	2.1	1.9	1.7	1.7	1.6	1.6	1.2	1.1	1.1	1.1	1.1	1.1

Source: Commission services.

Table A 21 – Capital deepening (contribution to labour productivity growth)

Country	Avg 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	0.6	0.5	0.4	0.6	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6
BG	1.3	2.7	3.1	2.1	1.6	1.3	1.0	1.0	1.0	0.8	0.6	0.6	0.6
CZ	0.8	1.0	1.3	1.2	1.2	0.9	0.6	0.6	0.6	0.6	0.6	0.6	0.6
DK	0.6	0.9	0.8	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
DE	0.6	0.6	0.4	0.5	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6
EE	1.2	3.3	2.7	2.1	1.6	1.2	0.9	0.7	0.6	0.6	0.6	0.6	0.6
IE	0.6	0.8	0.5	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6
EL	0.8	1.2	1.3	1.1	1.1	0.9	0.6	0.6	0.6	0.6	0.6	0.6	0.6
ES	0.7	0.8	0.5	0.7	0.9	0.9	0.7	0.6	0.6	0.6	0.6	0.6	0.6
FR	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
IT	0.5	0.2	0.2	0.4	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
CY	0.7	1.0	0.6	0.8	1.0	0.9	0.7	0.6	0.6	0.6	0.6	0.6	0.6
LV	1.1	3.3	2.5	2.0	1.6	1.2	1.0	0.7	0.6	0.6	0.6	0.6	0.6
LT	1.1	2.6	2.4	1.9	1.6	1.3	1.0	0.7	0.6	0.6	0.6	0.6	0.6
LU	0.7	0.9	0.4	0.8	0.9	0.8	0.6	0.6	0.6	0.6	0.6	0.6	0.6
HU	0.9	1.8	1.2	1.1	1.1	1.0	0.9	0.8	0.7	0.7	0.6	0.6	0.6
MT	0.7	0.5	0.8	0.9	0.9	0.8	0.6	0.6	0.6	0.6	0.6	0.6	0.6
NL	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
AT	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
PL	1.0	1.3	2.2	1.8	1.4	1.1	0.9	0.7	0.6	0.6	0.6	0.6	0.6
PT	0.7	0.6	0.4	0.5	0.6	0.7	0.9	0.9	0.8	0.7	0.6	0.6	0.6
RO	1.2	2.9	2.9	2.1	1.6	1.3	1.0	1.0	1.0	0.7	0.6	0.6	0.6
SI	1.0	2.1	2.2	1.5	1.4	1.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6
SK	1.0	1.8	1.5	1.5	1.3	1.2	0.9	0.7	0.6	0.6	0.6	0.6	0.6
FI	0.6	0.5	0.8	0.8	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6
SE	0.6	0.3	0.5	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
UK	0.7	1.1	0.8	0.8	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6
NO	0.6	-0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
EU27	0.7	0.7	0.7	0.8	0.8	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6
EA16	0.6	0.6	0.5	0.6	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6
EU15	0.6	0.6	0.5	0.6	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6
EU12	1.0	1.7	2.0	1.7	1.4	1.1	0.9	0.7	0.7	0.6	0.6	0.6	0.6
EU25	0.7	0.7	0.7	0.7	0.8	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6
EA12	0.6	0.5	0.5	0.6	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6
EU10	1.0	1.4	1.8	1.6	1.3	1.1	0.9	0.7	0.6	0.6	0.6	0.6	0.6

Source: Commission services.

Table A 22 – GDP per capita (annual growth rate)

Country	Avg 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	1.5	1.8	1.9	1.8	1.5	1.2	1.3	1.4	1.6	1.6	1.6	1.6	1.6
BG	2.5	7.0	4.6	3.5	2.9	2.7	2.4	2.2	2.0	1.4	1.0	1.4	1.6
CZ	1.9	4.8	4.0	2.9	2.5	1.8	1.7	1.4	1.1	1.1	1.1	1.3	1.6
DK	1.6	1.9	1.4	1.4	1.4	1.5	1.2	1.5	1.6	1.9	1.9	1.7	1.5
DE	1.5	1.6	1.9	1.9	1.6	1.0	1.5	1.4	1.5	1.6	1.5	1.5	1.5
EE	2.4	8.0	5.2	3.4	2.8	2.6	2.6	1.7	1.4	1.1	1.0	1.2	1.7
IE	1.5	2.6	1.9	1.7	1.7	1.7	1.7	1.5	1.3	1.0	1.1	1.4	1.7
EL	1.8	3.4	2.6	2.5	2.8	1.8	1.3	1.1	1.1	1.1	1.4	1.6	1.8
ES	1.6	2.1	1.5	2.1	2.9	2.2	1.7	1.2	0.8	0.8	1.2	1.6	1.9
FR	1.5	1.5	1.4	1.5	1.5	1.4	1.4	1.5	1.6	1.6	1.7	1.7	1.7
IT	1.4	0.9	1.1	1.8	1.7	1.6	1.3	1.0	1.1	1.3	1.5	1.7	1.8
CY	1.7	2.0	2.1	2.2	2.4	2.0	1.8	1.7	1.6	1.3	1.2	1.2	1.4
LV	2.4	9.2	5.5	3.4	2.6	2.5	2.5	1.6	1.3	0.8	0.5	1.1	1.9
LT	2.3	8.6	5.5	3.9	2.8	2.2	2.0	1.4	1.4	1.1	0.9	0.9	1.2
LU	1.8	2.9	3.8	2.9	1.6	1.3	1.2	1.3	1.5	1.6	1.6	1.6	1.5
HU	2.0	4.0	3.4	2.9	2.6	2.4	2.4	1.8	1.4	1.3	1.1	1.3	1.5
MT	1.7	2.2	1.9	2.4	2.4	1.7	1.7	1.6	1.4	1.2	1.1	1.0	1.3
NL	1.5	2.0	1.6	1.5	1.3	1.1	1.1	1.4	1.6	1.8	1.7	1.6	1.5
AT	1.5	1.8	1.8	1.6	1.6	1.3	1.2	1.4	1.5	1.5	1.5	1.5	1.6
PL	2.1	6.7	4.2	3.1	2.6	2.7	2.4	1.5	1.1	0.9	0.9	0.9	1.3
PT	1.7	1.0	1.5	1.7	1.8	1.9	2.4	2.1	1.7	1.5	1.3	1.5	1.6
RO	2.5	7.5	5.4	4.1	3.2	2.5	2.1	2.2	1.6	1.2	0.9	1.3	1.2
SI	1.8	4.5	3.1	3.0	2.6	1.6	1.1	1.1	1.1	1.1	1.3	1.5	1.7
SK	2.3	6.5	6.1	4.1	3.4	2.4	2.3	1.2	1.0	0.8	0.8	1.0	1.3
FI	1.7	3.0	2.2	1.6	1.5	1.3	1.4	1.7	1.7	1.7	1.6	1.5	1.6
SE	1.6	2.8	2.0	1.6	1.4	1.4	1.4	1.6	1.7	1.6	1.5	1.4	1.5
UK	1.6	1.2	2.1	1.8	1.4	1.5	1.6	1.7	1.8	1.8	1.6	1.5	1.5
NO	1.5	5.1	1.3	1.3	1.3	1.2	1.2	1.3	1.5	1.6	1.6	1.5	1.5
EU27	1.7	2.2	2.1	2.0	1.9	1.6	1.6	1.5	1.4	1.5	1.5	1.6	1.7
EA16	1.5	1.7	1.7	1.9	1.8	1.5	1.5	1.3	1.3	1.4	1.5	1.6	1.7
EU15	1.6	1.6	1.7	1.8	1.7	1.5	1.5	1.4	1.4	1.5	1.5	1.6	1.7
EU12	2.2	6.1	4.4	3.3	2.8	2.5	2.2	1.6	1.3	1.1	0.9	1.2	1.4
EU25	1.6	2.0	2.0	2.0	1.8	1.6	1.6	1.4	1.4	1.5	1.5	1.6	1.7
EA12	1.5	1.6	1.6	1.8	1.8	1.5	1.5	1.3	1.3	1.4	1.5	1.6	1.7
EU10	2.1	5.7	4.2	3.2	2.7	2.4	2.2	1.5	1.2	1.0	0.9	1.1	1.4

Source: Commission services.

Table A 23 – GDP per worker (annual growth rate)

Country	Avg 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	1.7	1.2	1.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
BG	2.7	4.0	4.0	3.6	3.3	3.0	2.7	2.7	2.7	2.2	1.7	1.7	1.7
CZ	2.2	4.0	3.8	3.0	2.9	2.2	1.7	1.7	1.7	1.7	1.7	1.7	1.7
DK	1.7	1.7	1.8	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
DE	1.7	1.2	1.4	1.6	1.7	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7
EE	2.7	6.2	4.9	4.0	3.3	3.0	2.7	1.9	1.7	1.7	1.7	1.7	1.7
IE	1.7	1.8	1.6	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
EL	2.0	2.7	2.3	2.4	2.9	2.2	1.8	1.7	1.7	1.7	1.7	1.7	1.7
ES	1.8	0.4	0.7	1.8	2.6	2.3	1.9	1.8	1.8	1.7	1.7	1.7	1.7
FR	1.7	1.1	1.5	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
IT	1.5	0.2	0.6	1.5	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
CY	1.9	1.4	1.3	2.1	2.7	2.3	2.0	1.8	1.8	1.7	1.7	1.7	1.7
LV	2.7	6.3	5.1	4.0	3.4	3.0	2.7	1.9	1.7	1.7	1.8	1.7	1.7
LT	2.7	6.1	4.6	3.7	3.4	3.0	2.7	1.9	1.7	1.7	1.7	1.7	1.7
LU	1.7	1.4	1.3	1.9	2.0	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7
HU	2.3	3.0	2.4	2.6	2.6	2.6	2.7	2.3	2.1	1.9	1.7	1.7	1.7
MT	1.9	0.9	1.9	2.5	2.7	2.1	1.8	1.7	1.7	1.7	1.7	1.7	1.7
NL	1.7	1.3	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
AT	1.7	1.5	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
PL	2.4	3.0	3.7	3.4	3.1	2.8	2.7	1.8	1.7	1.7	1.7	1.8	1.7
PT	1.9	1.0	1.1	1.4	1.7	2.0	2.7	2.5	2.2	2.0	1.7	1.7	1.7
RO	2.9	6.2	5.1	4.0	3.4	3.0	2.7	2.7	2.8	2.0	1.7	1.7	1.7
SI	2.2	3.6	3.7	3.1	3.1	2.3	1.8	1.7	1.7	1.7	1.7	1.7	1.7
SK	2.6	5.7	4.6	3.5	3.0	3.0	2.7	1.9	1.7	1.7	1.7	1.7	1.7
FI	1.8	2.2	2.6	2.0	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7
SE	1.7	1.8	1.7	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
UK	1.8	2.0	2.1	1.9	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
NO	1.7	2.2	1.4	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
EU27	1.8	1.5	1.8	2.0	2.1	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.7
EA16	1.7	1.1	1.3	1.7	1.9	1.9	1.8	1.8	1.7	1.7	1.7	1.7	1.7
EU15	1.7	1.2	1.4	1.7	1.9	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7
EU12	2.5	4.1	3.9	3.4	3.1	2.8	2.6	2.0	2.0	1.8	1.8	1.7	1.7
EU25	1.8	1.4	1.7	1.9	2.0	1.9	1.8	1.8	1.7	1.7	1.7	1.7	1.7
EA12	1.7	1.0	1.3	1.7	1.9	1.9	1.8	1.8	1.7	1.7	1.7	1.7	1.7
EU10	2.4	3.6	3.7	3.3	3.1	2.7	2.5	1.9	1.8	1.8	1.7	1.8	1.7

Source: Commission services.

Table A 24 – GDP in 2007 prices (millions EUR)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	532.6	330.8	354.3	400.0	443.1	481.5	521.6	566.7	617.6	672.9	731.4	793.7	863.4
BG	45.0	28.9	33.9	40.1	45.6	50.6	55.5	60.1	64.5	67.6	69.3	71.1	73.9
CZ	187.2	128.1	147.9	174.5	199.5	219.2	236.2	252.3	264.2	276.3	286.9	299.1	315.3
DK	338.1	227.7	241.2	262.1	283.9	309.8	334.4	363.8	394.7	433.7	476.5	521.2	565.7
DE	2172.9	2423.8	2550.1	2808.1	3047.6	3209.7	3369.8	3539.4	3720.8	3940.8	4161.6	4374.7	4596.7
EE	28.1	15.5	18.7	22.5	25.8	29.0	32.4	35.1	37.1	38.8	40.0	41.4	43.6
IE	454.3	185.6	208.4	249.0	289.6	331.0	373.5	416.6	458.0	496.7	536.4	582.5	640.0
EL	336.0	228.9	253.6	291.2	331.1	368.2	396.8	421.5	444.2	467.6	494.7	527.2	565.0
ES	1760.4	1049.8	1143.3	1323.8	1546.8	1774.3	1969.4	2126.3	2242.3	2337.3	2453.6	2610.5	2810.3
FR	3052.6	1892.2	1999.7	2212.8	2437.9	2663.0	2900.1	3165.0	3463.3	3781.2	4129.6	4516.2	4944.9
IT	1723.1	1535.5	1598.8	1751.6	1925.5	2102.5	2264.6	2399.5	2525.0	2671.7	2846.9	3042.9	3258.6
CY	49.4	15.6	17.4	20.9	25.2	29.9	34.6	39.5	44.6	49.7	54.5	59.5	65.0
LV	26.8	19.9	24.1	28.8	32.5	35.8	39.3	41.8	43.6	44.5	44.3	44.6	46.7
LT	38.4	28.0	33.5	41.0	47.4	52.4	56.7	59.5	61.9	63.8	64.7	65.3	66.4
LU	105.7	36.1	41.3	51.4	60.0	67.7	75.3	83.7	93.2	104.0	115.8	128.5	141.9
HU	147.3	101.1	110.6	127.8	145.0	161.2	178.4	194.5	206.6	217.1	226.7	236.5	248.4
MT	7.5	5.4	5.8	6.6	7.6	8.5	9.3	10.0	10.7	11.3	11.8	12.3	12.9
NL	675.7	559.5	594.3	649.2	702.9	752.3	800.9	854.8	920.8	994.0	1072.9	1153.3	1235.2
AT	378.2	272.7	291.0	322.7	354.9	386.1	415.5	449.1	485.6	523.1	563.4	605.1	650.9
PL	420.3	307.3	359.8	427.0	488.0	551.9	613.9	655.5	678.7	693.1	702.6	712.1	727.6
PT	260.3	162.8	171.1	189.1	209.3	231.6	258.3	290.4	319.7	346.8	370.8	395.1	423.0
RO	214.5	121.3	144.8	178.6	209.5	235.9	257.5	280.4	303.2	315.1	321.2	328.6	335.8
SI	41.6	33.5	37.9	44.5	51.0	55.8	58.8	61.2	63.4	65.7	68.3	71.3	75.1
SK	91.3	54.8	65.6	83.2	99.8	112.7	125.1	132.8	136.7	139.5	140.9	142.7	146.1
FI	255.1	178.8	195.6	217.5	238.1	256.9	276.0	298.1	322.8	349.2	375.8	403.4	433.8
SE	567.8	332.0	357.9	403.3	445.4	489.1	534.9	584.2	639.4	701.8	765.9	830.3	899.7
UK	4009.3	2018.8	2172.3	2461.5	2738.2	3030.0	3351.7	3710.6	4121.4	4584.2	5056.1	5526.5	6028.1
NO	363.4	214.1	228.8	253.9	280.4	308.0	336.4	366.4	400.6	440.1	483.8	529.4	577.5
EU27	17229.9	12294.8	13233.2	14891.5	16561.9	18150.7	19692.0	21194.2	22678.1	24223.2	25837.0	27575.0	29524.6
EA16	11773.2	9020.8	9608.0	10735.9	11921.2	13009.8	14039.8	15029.5	16003.0	17033.0	18154.7	19395.6	20794.0
EU15	16401.1	11435.1	12174.4	13602.6	15085.5	16503.6	17895.1	19299.1	20750.4	22325.1	24015.0	25829.2	27836.2
EU12	1274.2	859.6	1002.3	1196.6	1375.3	1539.5	1691.6	1814.2	1904.6	1968.8	2014.4	2065.1	2133.9
EU25	17151.3	12144.5	13042.1	14655.0	16291.6	17855.9	19384.9	20872.0	22343.7	23904.1	25548.5	27314.8	29295.8
EA12	11658.4	8856.7	9404.7	10479.9	11622.5	12685.5	13696.0	14680.0	15658.7	16699.9	17840.2	19100.2	20515.1
EU10	1025.4	709.4	823.4	978.5	1121.6	1255.9	1384.0	1480.5	1544.4	1594.7	1633.3	1675.1	1734.8

Source: Commission services.

Table A 25 – Working-age population (15-64) (thousands people)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	135	6977	7116	7193	7218	7203	7147	7122	7126	7148	7144	7133	7112
BG	-2370	5323	5225	4943	4701	4511	4332	4132	3878	3593	3341	3108	2953
CZ	-2154	7325	7328	7086	6863	6780	6695	6559	6260	5857	5584	5355	5171
DK	-123	3598	3612	3584	3575	3558	3502	3440	3421	3441	3493	3506	3475
DE	-15682	54574	54204	53981	52639	50640	47873	45346	44160	43228	41857	40238	38892
EE	-287	913	906	875	843	820	801	785	758	726	686	645	626
IE	947	2959	3137	3366	3548	3701	3826	3913	3936	3896	3838	3848	3905
EL	-1340	7501	7554	7513	7453	7382	7273	7060	6809	6550	6335	6234	6161
ES	-2188	30609	31877	33071	33892	34226	33964	33110	31774	30203	29120	28617	28421
FR	1070	40132	40584	40498	40426	40464	40415	40369	40268	40575	40737	40904	41202
IT	-6288	39036	39398	39281	39273	39031	38118	36741	35337	34316	33727	33263	32749
CY	234	543	577	615	644	672	701	732	758	772	772	773	777
LV	-675	1573	1550	1486	1423	1361	1304	1257	1194	1126	1042	954	897
LT	-972	2319	2310	2264	2178	2073	1966	1880	1792	1704	1589	1456	1347
LU	119	322	335	354	368	379	386	392	401	413	424	434	441
HU	-2103	6931	6873	6718	6468	6297	6221	6065	5822	5476	5232	5019	4829
MT	-61	283	288	284	278	271	267	266	261	253	242	232	222
NL	-1444	11031	11085	10972	10901	10685	10366	10069	9907	9907	9879	9768	9587
AT	-429	5601	5674	5756	5786	5729	5591	5451	5396	5386	5322	5254	5172
PL	-10652	26987	27220	26660	25436	24282	23624	23063	22087	20630	18900	17437	16335
PT	-785	7133	7174	7231	7273	7262	7185	7072	6890	6675	6512	6424	6347
RO	-5979	15043	14927	14649	14145	13656	13392	12726	12001	11146	10394	9547	9064
SI	-453	1410	1414	1398	1346	1299	1253	1203	1153	1088	1028	982	956
SK	-1485	3883	3922	3881	3746	3619	3512	3408	3241	3003	2771	2564	2398
FI	-458	3507	3542	3444	3354	3292	3239	3207	3211	3181	3133	3095	3049
SE	211	5982	6078	6053	6085	6148	6180	6190	6230	6282	6294	6253	6193
UK	4602	40409	41076	41508	42025	42603	42811	43080	43778	44717	45047	44974	45011
NO	404	3090	3184	3254	3309	3347	3371	3372	3386	3432	3472	3493	3494
EU27	-48613	331906	334987	334662	331887	327944	321944	314640	307848	301292	294442	288019	283293
EA16	-28111	215502	217883	218837	218145	215855	211115	205462	200628	196594	192839	189764	187391
EU15	-21655	259372	262448	263805	263815	262302	257876	252563	248644	245918	242860	239946	237717
EU12	-26959	72534	72539	70857	68072	65642	64068	62076	59204	55373	51583	48073	45576
EU25	-40264	311540	314836	315071	313041	309777	304220	297781	291969	286553	280708	275364	271276
EA12	-26345	209382	211682	212660	212131	209994	205382	199853	195216	191478	188026	185212	183037
EU10	-18609	52169	52388	51266	49226	47475	46344	45218	43325	40635	37848	35418	33559

Source: Commission services.

Table A 26 - Working-age population (15-64) (annual growth rate)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	-1.0	1.0	0.5	0.1	0.0	-0.1	-0.2	0.0	0.1	0.0	0.0	-0.1	0.0
BG	-0.4	-0.4	-0.7	-1.1	-0.9	-0.8	-0.8	-1.2	-1.5	-1.5	-1.4	-1.4	-0.8
CZ	-0.9	0.4	-0.3	-0.7	-0.5	-0.1	-0.5	-0.5	-1.3	-1.3	-0.9	-0.8	-0.5
DK	-0.5	0.3	0.0	0.0	0.0	-0.1	-0.4	-0.1	0.0	0.2	0.3	-0.1	-0.3
DE	0.1	-0.6	-0.2	-0.4	-0.6	-0.9	-1.2	-0.9	-0.3	-0.5	-0.6	-0.8	-0.5
EE	0.2	-0.4	-0.3	-0.9	-0.7	-0.6	-0.4	-0.6	-0.7	-0.9	-1.2	-1.2	-0.2
IE	-2.4	2.8	1.8	1.2	1.0	0.8	0.6	0.3	0.0	-0.4	-0.2	0.2	0.4
EL	-0.6	0.4	0.1	0.0	-0.2	-0.2	-0.4	-0.6	-0.8	-0.7	-0.5	-0.2	-0.2
ES	-1.7	1.7	1.1	0.6	0.4	0.1	-0.3	-0.6	-0.9	-1.0	-0.5	-0.2	-0.1
FR	-0.5	0.7	0.3	-0.1	0.0	0.0	-0.1	0.0	0.0	0.1	0.1	0.1	0.2
IT	-0.7	0.4	0.2	-0.1	0.0	-0.2	-0.7	-0.8	-0.8	-0.4	-0.3	-0.3	-0.3
CY	-1.8	1.9	1.7	1.0	0.9	0.8	0.9	0.9	0.6	0.2	-0.1	0.1	0.1
LV	-0.3	-0.5	-0.5	-1.0	-0.9	-0.9	-0.7	-0.8	-1.1	-1.2	-1.7	-1.7	-0.7
LT	-1.0	-0.1	-0.1	-0.6	-0.8	-1.1	-1.0	-0.9	-0.9	-1.1	-1.6	-1.7	-1.1
LU	-1.5	1.7	1.3	1.0	0.7	0.5	0.2	0.4	0.6	0.6	0.5	0.4	0.3
HU	-0.7	0.0	-0.4	-0.7	-1.0	-0.3	-0.3	-0.7	-1.2	-1.1	-0.8	-0.8	-0.7
MT	-2.0	1.3	-0.2	-0.4	-0.4	-0.5	-0.2	-0.1	-0.5	-0.8	-0.9	-1.0	-0.7
NL	-0.5	0.1	0.1	-0.1	-0.2	-0.5	-0.7	-0.6	-0.1	0.0	-0.1	-0.3	-0.4
AT	-0.5	0.2	0.4	0.1	0.1	-0.3	-0.6	-0.5	-0.1	-0.1	-0.2	-0.3	-0.3
PL	-1.5	0.4	0.2	-0.7	-1.0	-0.8	-0.5	-0.6	-1.1	-1.5	-1.9	-1.5	-1.1
PT	-0.4	0.2	0.2	0.2	0.1	-0.1	-0.3	-0.4	-0.6	-0.6	-0.4	-0.3	-0.2
RO	-0.8	-0.1	-0.2	-0.7	-0.8	-0.5	-0.3	-1.3	-1.4	-1.5	-1.4	-1.7	-0.9
SI	-0.6	0.2	-0.1	-0.5	-0.8	-0.7	-0.7	-0.7	-0.9	-1.2	-1.0	-0.7	-0.4
SK	-1.7	0.5	0.1	-0.4	-0.7	-0.6	-0.7	-0.7	-1.3	-1.6	-1.6	-1.4	-1.1
FI	-0.3	0.0	0.1	-0.6	-0.5	-0.3	-0.3	-0.1	-0.1	-0.2	-0.3	-0.3	-0.3
SE	-1.1	1.0	0.3	-0.1	0.2	0.2	-0.1	0.2	0.1	0.1	0.0	-0.2	0.0
UK	-1.0	1.1	0.5	0.2	0.3	0.2	0.0	0.2	0.4	0.3	0.0	0.0	0.1
NO	-1.2	1.3	0.6	0.4	0.3	0.2	0.1	0.0	0.1	0.3	0.2	0.0	0.0
EU27	-0.7	0.4	0.2	-0.1	-0.2	-0.3	-0.4	-0.5	-0.4	-0.5	-0.4	-0.4	-0.2
EA16	-0.6	0.4	0.3	0.0	-0.1	-0.3	-0.6	-0.5	-0.4	-0.4	-0.3	-0.3	-0.2
EU15	-0.6	0.5	0.3	0.0	0.0	-0.2	-0.4	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1
EU12	-1.0	0.2	-0.1	-0.7	-0.8	-0.6	-0.5	-0.8	-1.2	-1.4	-1.5	-1.3	-0.9
EU25	-0.7	0.5	0.3	-0.1	-0.2	-0.3	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.2
EA12	-0.6	0.4	0.3	0.0	-0.1	-0.3	-0.6	-0.5	-0.4	-0.4	-0.3	-0.3	-0.2
EU10	-1.2	0.3	0.0	-0.7	-0.9	-0.6	-0.5	-0.6	-1.1	-1.4	-1.5	-1.2	-0.9

Source: Commission services.

Table A 27 – Labour force 15-64 (thousands people)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	262	4698	4836	4998	5036	4997	4960	4955	4970	4984	4977	4962	4960
BG	-1511	3557	3544	3457	3304	3141	2989	2825	2638	2445	2267	2132	2045
CZ	-1322	5126	5205	5206	5075	4943	4855	4764	4525	4293	4104	3922	3803
DK	-80	2888	2883	2859	2845	2832	2786	2766	2757	2791	2828	2832	2808
DE	-10550	41590	41923	42477	41630	39912	37963	36322	35404	34530	33371	32087	31040
EE	-199	666	674	659	636	612	595	580	562	538	506	478	467
IE	836	2144	2319	2531	2684	2801	2897	2968	2989	2961	2928	2937	2980
EL	-797	5036	5149	5208	5175	5081	4964	4820	4657	4498	4376	4300	4240
ES	65	21913	23360	24856	25645	25927	25932	25486	24524	23390	22598	22164	21978
FR	1279	28224	28389	28578	28615	28624	28648	28697	28870	29030	29129	29287	29503
IT	-2281	24435	25084	25821	26076	26112	25688	24836	23932	23319	22912	22520	22154
CY	210	396	430	474	506	528	549	573	591	601	602	603	606
LV	-481	1147	1150	1131	1071	1007	964	922	880	825	751	690	666
LT	-661	1580	1594	1598	1547	1453	1359	1284	1224	1160	1074	984	918
LU	81	214	225	237	246	253	258	263	270	277	284	290	295
HU	-1141	4279	4361	4395	4308	4207	4099	3945	3744	3549	3395	3253	3138
MT	-26	169	171	174	175	174	174	172	168	163	156	149	143
NL	-986	8678	8734	8716	8662	8490	8262	8084	8021	8001	7942	7831	7691
AT	-178	4192	4273	4364	4393	4338	4271	4223	4205	4178	4125	4066	4014
PL	-6256	17085	17424	17355	16823	16412	15961	15288	14434	13422	12384	11507	10828
PT	-439	5283	5391	5503	5538	5539	5488	5407	5265	5107	4986	4910	4844
RO	-3924	9478	9539	9485	9172	8766	8351	7818	7299	6761	6288	5849	5554
SI	-318	1006	1015	1013	988	942	898	857	816	773	736	707	688
SK	-965	2673	2758	2788	2731	2656	2558	2441	2286	2113	1951	1812	1708
FI	-247	2660	2668	2652	2628	2583	2545	2532	2531	2510	2479	2444	2412
SE	372	4737	4853	4957	5001	5040	5059	5069	5109	5170	5187	5143	5109
UK	4873	30536	31090	31931	32427	32822	33159	33612	34362	35129	35386	35335	35409
NO	289	2436	2494	2548	2591	2616	2626	2623	2641	2679	2709	2720	2724
EU27	-24386	234388	239044	243419	242937	240193	236229	231508	227033	222518	217723	213195	210003
EA16	-14055	153311	156725	160387	160727	158957	156055	152635	149500	146434	143552	141071	139256
EU15	-7790	187228	191178	195686	196601	195350	192879	190040	187867	185875	183509	181109	179438
EU12	-16595	47160	47866	47734	46336	44843	43350	41468	39166	36643	34214	32086	30565
EU25	-18950	221353	225961	230478	230460	228286	224890	220864	217097	213312	209168	205215	202403
EA12	-12956	149067	152351	155939	156328	154656	151875	148592	145638	142784	140108	137799	136112
EU10	-11160	34125	34782	34792	33860	32936	32011	30825	29230	27437	25659	24106	22965

Source: Commission services.

Table A 28 – Participation rate (15-64) (percent)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	2.4	67.3	68.0	69.5	69.8	69.4	69.4	69.6	69.7	69.7	69.7	69.6	69.7
BG	2.4	66.8	67.8	69.9	70.3	69.6	69.0	68.4	68.0	68.0	67.9	68.6	69.3
CZ	3.6	70.0	71.0	73.5	73.9	72.9	72.5	72.6	72.3	73.3	73.5	73.2	73.5
DK	0.6	80.3	79.8	79.8	79.6	79.6	79.6	80.4	80.6	81.1	81.0	80.8	80.8
DE	3.6	76.2	77.3	78.7	79.1	78.8	79.3	80.1	80.2	79.9	79.7	79.7	79.8
EE	1.6	72.9	74.4	75.4	75.4	74.6	74.3	73.9	74.1	74.0	73.7	74.1	74.5
IE	3.9	72.5	73.9	75.2	75.7	75.7	75.7	75.9	76.0	76.0	76.3	76.3	76.3
EL	1.7	67.1	68.2	69.3	69.4	68.8	68.3	68.3	68.4	68.7	69.1	69.0	68.8
ES	5.7	71.6	73.3	75.2	75.7	75.8	76.4	77.0	77.2	77.4	77.6	77.4	77.3
FR	1.3	70.3	70.0	70.6	70.8	70.7	70.9	71.1	71.7	71.5	71.5	71.6	71.6
IT	5.1	62.6	63.7	65.7	66.4	66.9	67.4	67.6	67.7	68.0	67.9	67.7	67.7
CY	5.1	72.9	74.6	76.9	78.5	78.6	78.4	78.2	78.0	77.8	78.0	78.0	78.0
LV	1.3	72.9	74.2	76.1	75.3	74.0	73.9	73.4	73.7	73.3	72.0	72.3	74.2
LT	0.1	68.1	69.0	70.6	71.0	70.1	69.1	68.3	68.3	68.1	67.6	67.6	68.2
LU	0.4	66.4	67.0	67.1	66.9	66.8	66.9	67.3	67.3	67.1	67.1	66.8	66.8
HU	3.2	61.7	63.4	65.4	66.6	66.8	65.9	65.0	64.3	64.8	64.9	64.8	65.0
MT	4.9	59.5	59.4	61.2	63.0	64.1	65.1	64.8	64.4	64.4	64.4	64.3	64.4
NL	1.6	78.7	78.8	79.4	79.5	79.5	79.7	80.3	81.0	80.8	80.4	80.2	80.2
AT	2.8	74.8	75.3	75.8	75.9	75.7	76.4	77.5	77.9	77.6	77.5	77.4	77.6
PL	3.0	63.3	64.0	65.1	66.1	67.6	67.6	66.3	65.4	65.1	65.5	66.0	66.3
PT	2.2	74.1	75.2	76.1	76.1	76.3	76.4	76.5	76.4	76.5	76.6	76.4	76.3
RO	-1.7	63.0	63.9	64.7	64.8	64.2	62.4	61.4	60.8	60.7	60.5	61.3	61.3
SI	0.6	71.4	71.8	72.5	73.4	72.6	71.7	71.2	70.8	71.0	71.6	72.0	71.9
SK	2.4	68.8	70.3	71.8	72.9	73.4	72.8	71.6	70.5	70.4	70.4	70.7	71.2
FI	3.3	75.8	75.3	77.0	78.4	78.5	78.6	78.9	78.8	78.9	79.1	79.0	79.1
SE	3.3	79.2	79.9	81.9	82.2	82.0	81.9	81.9	82.0	82.3	82.4	82.2	82.5
UK	3.1	75.6	75.7	76.9	77.2	77.0	77.5	78.0	78.5	78.6	78.6	78.6	78.7
NO	-0.9	78.8	78.3	78.3	78.3	78.2	77.9	77.8	78.0	78.0	78.0	77.9	78.0
EU27	3.5	70.6	71.4	72.7	73.2	73.2	73.4	73.6	73.7	73.9	73.9	74.0	74.1
EA16	3.6	70.8	71.7	73.3	73.8	73.9	74.3	74.7	74.8	74.8	74.7	74.6	74.4
EU15	3.7	71.8	72.6	74.2	74.6	74.7	75.1	75.5	75.7	75.8	75.7	75.7	75.6
EU12	2.6	65.0	66.1	67.9	68.6	68.7	68.0	67.3	67.0	67.1	67.3	67.6	67.6
EU25	4.0	70.7	71.6	73.2	73.8	73.9	74.2	74.5	74.6	74.8	74.8	74.8	74.8
EA12	3.6	70.9	71.7	73.3	73.8	73.9	74.4	74.7	74.9	74.9	74.7	74.6	74.5
EU10	3.7	65.2	66.4	68.4	69.4	69.8	69.4	68.6	68.3	68.5	68.8	68.9	69.0

Source: Commission services.

Table A 29 - Participation rate (15-24) (percent)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	1.2	34.4	35.3	36.7	35.9	35.2	35.7	35.5	35.7	35.9	35.8	35.6	35.6
BG	-0.3	32.0	34.1	34.9	30.6	30.3	31.7	32.7	33.0	32.5	31.6	31.4	31.7
CZ	-0.1	32.0	33.1	35.8	31.6	30.1	32.5	33.0	33.3	33.3	32.3	31.6	31.9
DK	1.7	70.8	71.7	72.5	72.6	72.5	72.7	72.3	72.1	72.2	72.4	72.5	72.5
DE	0.8	51.5	53.3	52.7	52.9	52.8	52.1	51.9	52.2	52.5	52.5	52.5	52.2
EE	1.5	38.5	44.5	45.0	39.5	38.1	40.1	41.1	42.3	42.2	40.8	39.8	40.0
IE	-1.5	55.4	56.1	54.5	53.4	53.1	53.5	54.5	55.3	55.0	54.3	53.9	53.9
EL	-0.1	32.8	33.5	33.7	32.7	31.8	33.0	33.7	33.6	33.2	32.8	32.5	32.7
ES	-1.6	48.2	48.4	47.6	45.7	45.6	46.9	48.0	48.0	47.4	46.8	46.4	46.6
FR	0.8	39.4	40.7	40.5	39.7	39.9	40.2	40.4	40.4	40.3	40.1	40.0	40.2
IT	1.1	31.2	32.0	32.7	31.9	31.9	32.7	33.0	32.7	32.3	32.1	32.1	32.3
CY	-0.8	44.2	44.8	46.3	46.0	43.0	42.7	43.7	44.4	44.8	44.6	43.8	43.4
LV	0.7	43.4	48.3	50.9	43.4	42.4	43.9	45.2	46.5	46.5	45.2	44.0	44.1
LT	0.8	28.3	30.8	33.4	31.8	29.0	28.2	29.0	30.3	31.2	30.8	29.6	29.1
LU	2.1	27.4	28.5	29.0	29.6	29.8	29.3	29.3	29.2	29.2	29.4	29.5	29.5
HU	0.1	26.1	26.8	28.3	27.0	25.7	26.2	26.9	27.0	27.0	26.7	26.2	26.2
MT	0.6	55.4	56.4	58.0	58.2	56.1	55.7	55.9	56.5	57.0	57.0	56.4	56.0
NL	1.1	72.7	73.3	73.6	73.5	74.1	73.8	73.5	73.3	73.5	73.6	73.8	73.8
AT	1.7	61.5	62.8	64.1	63.7	63.4	63.2	63.2	63.3	63.4	63.5	63.4	63.3
PL	-1.0	33.9	35.2	36.0	34.9	32.3	32.5	33.6	34.6	34.9	34.2	33.2	32.9
PT	-0.8	42.3	42.2	41.7	40.8	41.7	41.7	42.2	42.1	41.7	41.4	41.4	41.6
RO	0.6	30.6	33.8	32.4	31.3	30.9	31.2	31.8	32.1	32.0	31.5	31.2	31.3
SI	-0.8	40.9	42.6	41.9	40.8	39.2	40.1	41.0	41.4	41.3	40.6	40.0	40.1
SK	-0.4	34.8	36.2	37.7	35.9	33.8	34.3	35.2	35.9	36.1	35.4	34.6	34.5
FI	1.1	54.4	55.1	56.8	56.0	55.1	55.3	55.5	55.7	56.0	56.0	55.7	55.5
SE	4.7	51.8	55.8	60.1	56.3	55.7	56.6	56.3	56.7	57.5	57.4	56.7	56.5
UK	0.4	62.0	63.2	63.8	63.1	62.1	62.4	62.3	62.6	62.9	62.8	62.5	62.4
NO	1.6	58.8	60.0	60.8	61.0	60.3	60.5	60.2	60.2	60.5	60.7	60.6	60.5
EU27	2.0	44.6	46.2	46.9	46.0	45.4	45.7	46.3	46.8	47.1	46.9	46.6	46.6
EA16	-0.4	45.1	46.2	46.1	44.9	44.6	44.9	45.4	45.6	45.5	45.1	44.8	44.8
EU15	0.4	48.7	50.0	50.3	48.8	48.3	48.8	49.3	49.7	49.8	49.5	49.1	49.1
EU12	-0.9	33.4	35.8	36.4	33.6	31.5	32.3	33.5	34.4	34.5	33.5	32.5	32.5
EU25	1.3	45.9	47.6	48.3	46.8	46.0	46.5	47.2	47.7	48.0	47.7	47.3	47.2
EA12	-0.4	45.4	46.4	46.2	45.0	44.8	45.1	45.6	45.7	45.6	45.2	44.9	44.9
EU10	-1.2	34.0	36.0	37.3	34.5	31.8	32.6	33.9	34.9	35.1	34.1	33.0	32.8

Source: Commission services.

Table A 30 - Participation rate (25-54) (percent)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	1.4	85.3	85.9	86.5	86.6	86.7	86.6	86.6	86.7	86.7	86.7	86.8	86.7
BG	2.1	84.0	84.5	85.1	85.7	86.1	86.0	85.8	85.7	85.9	86.2	86.2	86.1
CZ	-0.9	87.7	87.7	87.6	87.4	87.4	87.3	86.8	86.5	86.5	86.7	86.9	86.9
DK	-1.7	89.0	88.6	88.1	87.5	87.3	87.2	87.3	87.3	87.2	87.2	87.2	87.3
DE	1.6	87.9	88.5	88.9	89.2	89.4	89.6	89.6	89.6	89.5	89.4	89.4	89.5
EE	-0.7	88.4	87.6	87.5	87.6	87.8	87.8	87.6	87.3	87.4	87.8	87.9	87.8
IE	3.7	82.0	83.1	84.0	84.6	85.1	85.3	85.5	85.7	85.7	85.7	85.7	85.7
EL	2.8	82.1	82.9	84.1	84.7	85.0	85.0	84.8	84.9	85.0	85.1	85.0	84.9
ES	4.5	82.9	84.1	85.5	86.2	86.9	87.1	87.2	87.4	87.4	87.5	87.4	87.4
FR	0.6	88.3	88.6	88.6	88.8	88.9	88.9	88.9	88.9	88.9	89.0	88.9	88.9
IT	1.2	77.6	77.9	78.4	78.8	79.1	78.9	78.7	78.8	78.9	78.9	78.9	78.8
CY	5.0	86.7	88.4	90.1	91.1	91.6	91.7	91.7	91.7	91.7	91.7	91.8	91.8
LV	0.2	87.1	86.9	86.9	87.1	87.3	87.1	87.0	87.1	87.3	87.5	87.4	87.3
LT	-2.3	86.0	85.2	84.4	84.0	84.0	83.8	83.4	83.1	83.3	83.7	83.8	83.7
LU	1.9	84.2	85.0	85.9	86.1	86.2	86.2	86.0	86.1	86.0	86.0	86.0	86.1
HU	1.0	80.0	80.7	81.5	81.5	81.5	81.3	81.0	80.9	80.9	81.1	81.1	81.1
MT	1.9	69.9	71.1	71.9	72.4	72.1	71.7	71.5	71.6	71.7	71.9	71.9	71.8
NL	2.5	87.7	88.3	89.0	89.6	90.0	90.1	90.1	90.2	90.2	90.1	90.1	90.2
AT	1.9	87.4	87.6	87.7	88.2	88.6	89.0	89.2	89.2	89.2	89.2	89.3	89.3
PL	0.3	81.8	82.5	83.0	83.0	82.7	82.0	81.4	81.4	81.7	82.2	82.4	82.1
PT	1.2	87.8	88.4	88.9	89.1	89.2	89.0	89.0	89.1	89.1	89.1	89.0	89.0
RO	-3.9	78.9	78.6	78.1	77.1	76.0	75.3	74.9	74.7	75.0	75.2	75.2	75.1
SI	-0.6	89.3	89.2	89.2	89.1	89.1	88.5	88.2	88.4	88.7	89.0	89.0	88.7
SK	-0.1	87.5	87.4	87.6	87.9	87.9	87.8	87.4	87.1	87.1	87.3	87.5	87.5
FI	2.1	88.1	88.1	88.8	89.2	89.5	89.8	89.9	90.1	90.0	90.1	90.1	90.1
SE	2.2	90.0	90.3	90.7	91.3	91.7	91.9	92.0	92.1	92.1	92.2	92.2	92.2
UK	1.3	84.5	84.6	84.9	85.1	85.4	85.7	85.8	85.8	85.8	85.8	85.9	85.9
NO	0.0	87.4	87.3	87.4	87.3	87.2	87.3	87.4	87.4	87.4	87.4	87.4	87.5
EU27	1.6	84.5	84.9	85.3	85.5	85.7	85.7	85.7	85.8	85.9	86.0	86.0	86.0
EA16	2.5	84.6	85.4	86.2	87.1	87.3	87.1	87.2	87.1	87.2	87.0	87.1	87.1
EU15	2.3	84.6	85.3	86.0	86.9	87.1	86.9	87.0	86.9	87.0	86.9	86.9	86.9
EU12	0.3	82.7	83.0	83.0	83.2	83.4	83.4	82.9	82.9	83.0	82.9	83.0	82.9
EU25	2.2	84.4	85.1	85.8	86.5	86.7	86.6	86.6	86.6	86.7	86.6	86.6	86.6
EA12	2.5	84.5	85.4	86.2	87.1	87.2	87.1	87.1	87.0	87.1	87.0	87.1	87.1
EU10	1.0	83.4	84.0	84.3	84.6	84.8	84.9	84.4	84.4	84.5	84.5	84.5	84.4

Source: Commission services.

Table A 31 - Participation rate (55-64) (percent)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	13.0	36.2	39.3	46.0	48.9	48.9	48.8	48.8	49.5	49.4	49.4	48.7	49.1
BG	3.6	46.6	46.4	47.4	48.2	48.8	49.8	49.7	49.0	49.4	47.6	47.2	50.2
CZ	18.6	48.9	53.0	56.8	58.1	58.5	60.8	64.9	63.4	66.0	66.8	65.6	67.5
DK	8.1	61.3	60.3	61.1	62.6	64.4	64.0	66.8	66.6	69.7	70.3	69.6	69.3
DE	16.5	57.3	60.3	67.6	69.9	69.6	70.5	73.3	74.7	74.4	73.9	73.7	73.9
EE	1.7	62.4	63.3	60.6	62.8	63.7	64.6	63.8	64.5	64.4	61.9	61.0	64.1
IE	14.0	55.1	57.1	62.3	65.6	66.6	68.1	69.0	68.6	67.7	68.3	68.6	69.1
EL	7.5	44.3	44.8	47.1	48.7	50.4	50.9	51.8	51.5	50.7	51.3	51.3	51.7
ES	26.4	47.5	51.3	58.4	63.5	66.8	70.9	73.1	72.7	72.5	73.1	73.3	74.0
FR	8.3	41.0	39.3	42.9	46.1	47.7	48.8	47.6	49.4	48.9	48.4	48.7	49.3
IT	28.4	34.7	39.2	48.7	54.0	58.8	62.3	62.6	61.9	62.4	62.8	62.6	63.1
CY	7.4	57.6	58.9	61.1	62.7	63.1	64.6	65.9	66.6	65.4	65.4	65.0	65.1
LV	-2.3	60.4	59.3	60.0	58.5	56.2	58.6	57.1	58.8	59.1	54.4	50.6	58.1
LT	-1.4	55.5	58.5	59.9	59.4	56.3	56.0	55.3	56.9	56.9	54.8	53.1	54.1
LU	8.4	33.0	36.4	39.0	40.6	40.9	40.4	41.7	41.9	41.6	42.3	41.8	41.3
HU	15.2	34.1	42.1	46.4	47.2	50.4	50.8	51.5	48.8	49.3	49.4	48.5	49.3
MT	18.7	31.6	27.7	32.0	38.1	43.4	50.6	52.2	51.6	51.2	51.1	50.5	50.3
NL	4.2	53.3	53.4	55.3	56.1	56.2	55.8	55.4	57.5	58.0	57.8	57.2	57.6
AT	15.4	40.0	40.8	45.7	49.6	51.1	52.1	53.7	56.1	55.6	56.0	55.2	55.4
PL	14.4	32.1	33.0	35.5	34.9	41.8	48.1	48.4	47.9	46.6	46.2	45.9	46.5
PT	13.3	54.5	56.9	61.1	63.5	65.0	67.0	68.0	67.4	67.2	67.5	67.6	67.8
RO	3.1	42.4	44.6	46.3	47.1	50.9	48.2	47.1	45.6	45.8	44.2	45.0	45.4
SI	14.6	34.5	36.7	42.9	48.8	49.5	49.5	50.2	49.3	48.7	48.3	48.6	49.1
SK	13.4	39.4	47.0	49.6	50.3	53.4	55.1	55.4	53.8	53.1	52.6	51.8	52.8
FI	8.3	59.4	57.9	61.9	66.5	67.0	66.1	67.9	67.8	67.8	68.5	67.5	67.7
SE	3.4	73.2	73.1	75.0	75.5	75.9	75.5	75.7	76.0	76.8	77.1	75.5	76.6
UK	11.4	59.7	58.6	62.6	64.1	64.7	65.8	67.6	70.3	71.3	71.3	71.0	71.1
NO	-4.2	69.9	67.4	66.7	66.4	67.2	66.3	65.0	65.6	66.2	66.5	65.8	65.6
EU27	15.1	47.5	48.9	53.9	56.9	59.3	60.8	61.5	61.8	61.9	62.0	62.0	62.5
EA16	17.7	45.3	47.1	54.0	57.5	60.2	62.7	63.4	63.9	63.5	63.5	63.2	63.0
EU15	16.4	48.6	49.8	55.8	58.8	61.3	63.9	64.6	65.2	65.2	65.6	65.4	65.0
EU12	12.3	38.5	40.5	44.5	45.8	48.7	49.8	50.9	50.5	50.8	51.2	50.9	50.8
EU25	16.7	46.7	48.0	53.8	56.8	59.7	62.0	62.5	62.8	63.0	63.6	63.5	63.4
EA12	17.7	45.5	47.2	54.2	57.7	60.4	63.0	63.7	64.2	63.8	63.8	63.4	63.2
EU10	15.5	36.9	39.3	43.6	44.7	48.5	51.0	52.2	51.9	52.1	52.9	52.3	52.4

Source: Commission services.

Table A 32 - Participation rate (15-64) - FEMALES (percent)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	5.2	60.7	62.0	64.5	65.3	65.3	65.6	65.8	65.9	65.9	65.9	65.8	65.9
BG	3.3	62.3	63.4	65.8	66.3	65.7	65.1	64.4	64.0	64.0	63.8	64.8	65.6
CZ	6.5	61.6	63.3	66.1	66.7	66.0	66.0	66.2	66.0	67.4	67.8	67.8	68.1
DK	2.6	76.5	76.4	76.8	77.0	77.3	77.5	78.4	78.8	79.4	79.3	79.0	79.1
DE	6.3	70.2	71.4	73.5	74.1	74.1	75.3	76.8	77.0	76.7	76.5	76.5	76.5
EE	2.6	68.8	69.9	70.7	71.5	71.3	71.1	70.8	71.0	70.9	70.6	70.9	71.4
IE	8.0	63.3	65.6	68.1	69.4	70.1	70.7	71.1	71.2	71.1	71.3	71.3	71.3
EL	5.7	55.2	56.9	59.1	60.1	60.1	60.0	60.3	60.6	60.9	61.2	61.1	61.0
ES	11.4	61.5	64.3	67.9	69.6	70.6	71.5	72.6	72.9	73.1	73.2	73.0	72.9
FR	2.3	65.6	65.4	66.5	66.8	66.7	67.0	67.2	67.9	67.7	67.7	67.9	67.9
IT	6.2	50.7	52.2	55.0	56.0	56.5	56.9	56.9	57.0	57.1	57.1	56.9	56.8
CY	8.4	64.7	67.4	70.7	72.9	73.4	73.4	73.3	73.1	72.8	73.0	73.1	73.2
LV	2.1	68.3	69.9	71.9	71.3	70.2	70.2	69.6	69.8	69.4	68.1	68.4	70.4
LT	1.8	65.2	66.7	68.6	69.2	68.5	67.8	67.1	67.1	66.9	66.3	66.4	66.9
LU	3.5	57.9	59.5	60.5	61.1	61.6	61.9	62.1	62.0	61.7	61.7	61.5	61.4
HU	5.7	55.0	57.5	60.0	61.2	61.7	61.1	60.4	60.0	60.4	60.5	60.5	60.7
MT	5.2	39.9	40.5	42.9	44.1	44.7	45.5	45.3	45.0	45.0	45.0	44.9	45.1
NL	5.6	72.4	73.6	75.5	76.3	76.7	77.2	77.9	78.7	78.5	78.2	77.9	78.0
AT	5.1	68.0	68.9	70.6	71.0	70.8	71.5	72.7	73.4	73.1	73.0	72.9	73.1
PL	4.3	56.6	57.5	58.8	60.4	62.1	62.3	60.9	59.6	59.0	59.6	60.3	60.9
PT	4.6	68.9	70.5	72.1	72.8	73.1	73.4	73.6	73.6	73.7	73.8	73.7	73.5
RO	0.1	56.0	57.0	58.2	58.8	58.4	56.6	55.9	55.5	55.3	55.2	56.1	56.1
SI	2.8	66.7	68.0	69.8	70.8	70.0	69.1	68.8	68.4	68.7	69.3	69.6	69.5
SK	4.9	61.2	62.9	65.2	66.7	68.0	67.5	66.3	65.3	65.1	65.2	65.6	66.1
FI	4.0	74.1	73.4	75.2	77.1	77.2	77.4	77.9	77.8	78.0	78.1	78.0	78.1
SE	4.0	76.8	77.4	79.5	79.8	79.7	79.7	79.9	80.2	80.5	80.5	80.4	80.8
UK	5.4	69.0	69.4	71.5	72.2	72.6	73.3	73.9	74.4	74.5	74.4	74.4	74.4
NO	1.4	75.9	75.8	76.3	76.6	76.7	76.8	76.9	77.3	77.4	77.4	77.2	77.3
EU27	5.9	63.4	64.5	66.7	67.5	67.9	68.3	68.7	68.9	69.0	69.1	69.2	69.4
EA16	6.3	63.1	64.4	67.0	67.9	68.3	68.9	69.5	69.8	69.8	69.6	69.6	69.4
EU15	6.3	64.5	65.7	68.1	68.9	69.3	70.1	70.7	71.0	71.1	71.0	70.9	70.8
EU12	4.3	58.3	59.7	61.8	63.0	63.4	62.8	62.2	61.7	61.8	62.1	62.5	62.6
EU25	6.5	63.5	64.7	67.1	68.1	68.6	69.2	69.6	69.8	69.9	70.0	70.0	70.0
EA12	6.3	63.2	64.5	67.0	67.9	68.3	69.0	69.6	69.9	69.9	69.7	69.6	69.5
EU10	5.5	58.5	60.0	62.3	63.7	64.4	64.2	63.4	62.9	63.0	63.4	63.7	64.0

Source: Commission services.

Table A 33 - Participation rate (15-24) - FEMALES (percent)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	0.6	32.1	32.5	33.8	33.1	32.4	32.9	32.7	32.8	33.0	32.9	32.7	32.7
BG	-0.3	28.4	30.2	30.9	27.2	26.8	28.1	29.0	29.2	28.7	28.0	27.7	28.0
CZ	-0.1	26.9	27.8	30.1	26.6	25.2	27.3	27.7	27.9	28.0	27.2	26.5	26.8
DK	1.8	69.4	70.6	71.3	71.4	71.3	71.4	71.1	70.9	71.0	71.2	71.3	71.3
DE	0.8	48.9	50.6	50.1	50.3	50.3	49.6	49.4	49.6	49.9	50.0	49.9	49.7
EE	2.1	32.5	38.5	39.2	34.1	32.9	34.6	35.6	36.6	36.6	35.4	34.5	34.6
IE	-1.6	52.1	52.8	51.2	50.0	49.9	50.2	51.2	51.8	51.6	50.9	50.5	50.6
EL	-1.2	29.3	28.9	28.9	28.2	27.3	28.4	29.0	29.0	28.6	28.2	28.0	28.1
ES	-1.7	43.6	43.8	42.9	41.1	40.9	42.1	43.2	43.2	42.7	42.0	41.6	41.9
FR	0.4	35.6	36.8	36.4	35.5	35.9	36.1	36.3	36.3	36.2	35.9	35.9	36.0
IT	0.6	25.6	26.1	26.6	25.9	26.0	26.6	26.9	26.6	26.3	26.1	26.1	26.3
CY	-1.3	41.0	41.4	42.5	42.4	39.5	39.1	40.1	40.8	41.1	40.9	40.2	39.8
LV	1.7	36.8	42.2	44.8	37.8	37.1	38.4	39.5	40.6	40.6	39.5	38.4	38.5
LT	1.3	23.6	26.3	28.7	27.3	24.9	24.2	24.9	26.0	26.8	26.4	25.5	24.9
LU	2.1	23.7	24.8	25.1	26.1	26.3	25.7	25.7	25.5	25.5	25.7	25.9	25.8
HU	-0.2	22.1	22.5	23.8	22.6	21.5	21.9	22.5	22.6	22.7	22.3	21.9	21.9
MT	1.1	52.7	54.0	55.7	55.7	54.1	53.5	53.6	54.2	54.8	54.7	54.2	53.7
NL	1.2	72.4	73.2	73.4	73.3	73.9	73.6	73.3	73.2	73.3	73.4	73.5	73.5
AT	2.0	57.2	58.7	60.1	59.7	59.4	59.3	59.2	59.3	59.4	59.4	59.3	59.2
PL	-0.7	30.0	31.2	32.1	31.1	28.7	28.9	29.9	30.8	31.0	30.4	29.5	29.3
PT	-0.8	39.0	38.8	38.4	37.6	38.3	38.4	38.9	38.7	38.4	38.1	38.1	38.2
RO	0.3	25.2	27.8	26.7	25.7	25.3	25.5	26.0	26.3	26.2	25.7	25.5	25.5
SI	-0.2	35.1	36.8	36.7	35.5	33.9	34.9	35.7	36.1	36.1	35.5	34.9	34.9
SK	-1.0	30.6	31.1	32.4	30.8	29.0	29.4	30.2	30.8	31.0	30.4	29.7	29.6
FI	1.5	53.6	54.6	56.3	55.6	54.8	55.0	55.1	55.3	55.6	55.6	55.3	55.1
SE	4.9	52.2	56.3	60.4	56.9	56.4	57.2	56.9	57.2	58.0	57.9	57.2	57.0
UK	0.4	59.0	60.3	60.8	60.2	59.4	59.6	59.5	59.7	59.9	59.9	59.6	59.5
NO	1.6	60.0	61.1	62.0	62.0	61.5	61.6	61.4	61.4	61.6	61.8	61.7	61.6
EU27	2.0	41.0	42.5	43.1	42.3	41.7	42.0	42.6	43.1	43.4	43.2	43.0	42.9
EA16	-0.6	41.5	42.5	42.3	41.1	40.9	41.0	41.5	41.7	41.6	41.2	40.9	40.9
EU15	0.2	45.3	46.6	46.8	45.3	44.9	45.3	45.8	46.2	46.3	45.9	45.6	45.5
EU12	-0.8	28.8	30.9	31.6	29.0	27.1	27.8	28.9	29.7	29.8	28.9	28.0	28.0
EU25	1.3	42.4	43.9	44.6	43.2	42.5	42.9	43.5	44.1	44.4	44.1	43.6	43.6
EA12	-0.7	41.8	42.7	42.4	41.3	41.1	41.2	41.7	41.9	41.8	41.4	41.0	41.0
EU10	-1.0	29.6	31.4	32.6	30.2	27.7	28.4	29.6	30.5	30.7	29.8	28.7	28.6

Source: Commission services.

Table A 34 - Participation rate (25-54) - FEMALES (percent)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	3.9	78.1	79.5	80.9	81.5	81.8	81.8	81.9	81.9	81.9	82.0	82.0	81.9
BG	2.7	80.7	81.2	82.0	82.6	83.2	83.3	83.1	82.9	83.0	83.5	83.5	83.4
CZ	0.7	80.2	80.4	80.7	80.6	81.0	81.4	80.9	80.2	80.1	80.4	80.8	80.9
DK	0.2	85.4	85.4	85.2	85.1	85.1	85.3	85.6	85.6	85.6	85.5	85.5	85.6
DE	3.9	81.8	82.9	84.1	84.8	85.3	85.7	85.8	85.8	85.7	85.6	85.6	85.6
EE	0.2	83.7	83.1	82.8	83.1	83.6	83.9	83.9	83.5	83.3	83.5	83.8	83.9
IE	6.9	72.1	74.1	76.0	77.2	78.3	78.8	79.0	79.1	78.9	78.9	78.9	79.0
EL	6.7	69.2	71.2	73.5	74.8	75.7	76.0	75.8	75.8	75.9	76.0	76.0	75.9
ES	9.2	72.7	75.1	78.0	79.8	81.3	81.7	81.8	81.9	81.9	81.9	82.0	82.0
FR	2.6	82.5	83.3	84.0	84.5	84.8	85.0	85.0	85.0	85.0	85.1	85.1	85.1
IT	3.3	64.1	65.3	66.7	67.7	68.2	67.9	67.5	67.4	67.4	67.5	67.5	67.4
CY	9.5	78.7	81.9	85.0	86.9	87.8	88.1	88.1	88.0	88.0	88.2	88.2	88.2
LV	0.1	83.5	83.1	82.8	83.1	83.6	83.6	83.5	83.3	83.2	83.4	83.6	83.6
LT	-1.7	84.2	83.5	82.6	82.4	82.9	82.9	82.4	81.9	81.9	82.3	82.6	82.5
LU	3.9	73.5	75.0	76.9	77.7	77.9	77.9	77.4	77.4	77.4	77.4	77.4	77.4
HU	3.0	73.2	73.9	75.0	75.6	76.1	76.4	76.2	75.9	75.8	76.0	76.2	76.2
MT	4.8	44.5	46.8	48.9	49.9	49.5	49.0	48.8	49.0	49.3	49.5	49.5	49.3
NL	5.9	81.2	82.9	84.8	86.1	86.8	87.0	87.1	87.2	87.3	87.2	87.2	87.1
AT	3.9	81.1	82.1	82.8	83.6	83.9	84.4	84.9	85.0	84.9	84.9	84.9	84.9
PL	2.8	75.6	76.9	77.8	78.4	78.7	78.4	77.8	77.6	77.8	78.3	78.6	78.4
PT	3.5	82.9	84.1	85.3	86.0	86.4	86.3	86.3	86.4	86.5	86.5	86.4	86.4
RO	-1.2	72.0	72.2	72.6	71.9	71.2	70.9	70.7	70.3	70.7	70.9	70.9	70.8
SI	-1.0	87.3	87.1	86.9	86.9	86.8	86.1	85.7	85.9	86.2	86.5	86.5	86.2
SK	0.8	81.1	81.0	81.2	81.7	82.0	82.2	81.9	81.4	81.2	81.5	81.9	81.9
FI	2.7	85.6	85.7	86.2	86.7	87.2	87.8	88.1	88.3	88.2	88.2	88.2	88.3
SE	3.7	87.1	87.4	88.2	89.1	89.8	90.2	90.4	90.6	90.6	90.7	90.8	90.8
UK	3.0	77.6	77.9	78.7	79.2	79.8	80.3	80.6	80.7	80.6	80.6	80.6	80.6
NO	2.6	83.9	84.2	84.8	85.3	85.7	86.1	86.4	86.5	86.4	86.5	86.5	86.5
EU27	4.0	76.9	77.9	79.1	79.8	80.3	80.6	80.6	80.6	80.7	80.8	80.8	80.8
EA16	5.1	76.4	77.9	79.6	81.0	81.5	81.5	81.6	81.5	81.5	81.4	81.5	81.5
EU15	4.9	76.7	78.1	79.6	80.9	81.4	81.5	81.6	81.6	81.7	81.5	81.5	81.6
EU12	2.1	76.6	77.3	77.7	78.2	78.8	79.1	78.8	78.5	78.6	78.5	78.7	78.7
EU25	4.6	76.8	78.1	79.5	80.7	81.2	81.3	81.4	81.4	81.4	81.3	81.4	81.4
EA12	5.2	76.2	77.8	79.5	80.9	81.4	81.5	81.6	81.4	81.5	81.4	81.5	81.5
EU10	2.8	77.3	78.2	78.8	79.5	80.2	80.6	80.2	80.0	79.9	79.9	80.1	80.1

Source: Commission services.

Table A 35 - Participation rate (55-64) - FEMALES (percent)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	19.9	27.7	32.3	41.3	45.2	46.4	47.0	47.0	47.8	47.8	47.9	47.2	47.6
BG	5.6	38.1	39.1	41.3	42.2	42.3	43.0	43.0	42.3	42.9	41.0	40.7	43.8
CZ	27.5	35.7	42.8	47.6	48.5	48.4	51.9	56.9	56.6	60.7	62.5	61.5	63.2
DK	12.2	55.1	54.4	56.2	58.3	61.1	61.0	63.6	63.9	67.5	68.2	67.5	67.2
DE	22.8	48.8	50.1	59.5	62.1	62.4	65.0	70.6	72.2	72.0	71.6	71.4	71.6
EE	3.7	61.4	60.1	57.1	62.3	64.5	65.3	64.2	64.9	65.2	63.1	62.2	65.1
IE	27.8	40.4	44.9	54.8	61.0	63.2	66.2	67.9	67.7	66.6	67.3	67.7	68.2
EL	16.3	28.4	30.2	35.0	38.5	41.1	42.5	44.3	44.6	43.9	44.4	44.4	44.7
ES	40.0	32.7	39.6	50.6	58.5	63.0	67.7	71.3	71.5	71.5	72.0	72.1	72.6
FR	8.1	38.5	36.3	40.6	43.6	44.5	45.4	44.3	46.6	46.1	45.5	45.9	46.6
IT	27.1	23.4	27.4	37.6	42.7	46.6	50.0	50.6	49.9	50.0	50.3	49.9	50.5
CY	13.8	41.5	43.6	47.4	50.3	52.0	54.2	55.9	56.9	55.6	55.5	55.2	55.3
LV	1.1	54.9	55.4	58.2	56.2	53.8	56.2	54.7	56.5	56.8	52.1	48.2	56.0
LT	5.4	49.6	56.1	59.9	59.2	56.1	56.6	56.1	57.7	57.8	55.6	54.0	55.0
LU	16.7	27.7	33.6	38.1	40.8	42.9	43.4	45.6	45.4	44.6	45.3	45.0	44.4
HU	19.9	26.9	38.4	44.7	44.0	46.3	46.4	47.3	46.2	46.9	46.8	46.1	46.8
MT	14.1	13.3	10.0	14.0	17.7	21.1	26.9	28.7	28.3	28.0	27.9	27.4	27.4
NL	14.1	41.8	44.2	49.2	51.4	52.7	53.5	53.5	55.7	56.3	56.2	55.5	55.9
AT	21.0	29.3	29.7	39.1	43.9	45.2	46.4	47.9	50.8	50.4	50.9	50.0	50.3
PL	14.7	20.8	22.3	25.6	25.4	30.5	36.4	37.3	37.1	35.7	35.2	34.8	35.4
PT	18.1	46.9	49.9	55.4	59.4	61.4	63.6	65.0	64.5	64.4	64.7	64.8	65.0
RO	4.6	33.8	35.2	36.8	38.5	42.4	39.4	38.8	38.3	38.9	37.4	38.1	38.4
SI	25.8	22.8	29.8	41.7	48.2	49.1	49.0	49.8	48.8	48.2	47.9	48.0	48.6
SK	25.3	23.8	34.9	41.9	44.0	49.6	50.5	50.3	49.5	49.3	48.8	48.3	49.1
FI	9.5	59.4	56.8	61.5	67.9	67.9	66.5	68.4	68.6	68.9	69.8	68.6	68.9
SE	1.9	69.8	68.7	70.4	69.8	70.0	69.6	70.0	70.5	71.8	72.2	70.3	71.7
UK	18.5	50.4	49.9	57.1	60.1	62.0	64.6	65.8	68.4	69.4	69.1	68.7	68.9
NO	-0.7	64.8	63.2	63.1	62.8	63.6	63.2	62.4	63.5	64.5	64.9	64.2	64.1
EU27	19.9	38.2	39.9	46.7	50.4	53.0	55.0	56.3	57.0	57.3	57.4	57.5	58.1
EA16	22.5	36.2	38.2	46.9	51.1	53.9	56.9	58.6	59.5	59.3	59.2	58.9	58.7
EU15	21.3	39.8	41.1	49.1	52.8	55.6	58.7	60.2	61.2	61.5	61.7	61.5	61.1
EU12	14.9	28.7	31.9	36.6	38.1	40.7	41.8	43.0	43.0	43.4	43.9	43.6	43.7
EU25	21.5	37.6	39.2	46.8	50.5	53.5	56.4	57.5	58.2	58.6	59.1	59.1	59.0
EA12	22.4	36.6	38.4	47.1	51.2	54.0	57.1	58.8	59.8	59.6	59.5	59.1	58.9
EU10	18.6	26.6	30.6	35.9	37.2	40.3	42.9	44.2	44.3	44.5	45.5	44.9	45.1

Source: Commission services.

Table A 36 - Participation rate (15-64) - MALES (percent)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	-0.5	73.9	73.8	74.4	74.2	73.4	73.2	73.3	73.5	73.4	73.3	73.2	73.4
BG	1.4	71.4	72.3	74.1	74.3	73.5	72.9	72.3	72.0	72.0	71.8	72.3	72.9
CZ	0.6	78.3	78.7	80.7	81.0	79.7	78.8	78.9	78.5	79.1	79.0	78.6	78.9
DK	-1.5	84.0	83.2	82.7	82.2	81.8	81.6	82.3	82.4	82.7	82.6	82.4	82.5
DE	0.9	82.1	83.2	83.8	83.9	83.4	83.2	83.3	83.3	83.0	82.9	82.9	83.0
EE	0.3	77.3	79.2	80.4	79.5	78.0	77.5	77.1	77.3	77.1	76.8	77.2	77.7
IE	-0.3	81.4	82.0	82.1	81.8	81.1	80.6	80.5	80.5	80.8	81.2	81.2	81.1
EL	-2.4	78.8	79.2	79.3	78.5	77.3	76.2	75.9	75.9	76.2	76.7	76.6	76.4
ES	0.2	81.5	82.0	82.2	81.5	80.8	81.0	81.2	81.3	81.7	81.9	81.8	81.6
FR	0.1	75.1	74.6	74.7	74.8	74.7	74.8	74.9	75.4	75.2	75.2	75.2	75.2
IT	3.4	74.5	75.1	76.4	76.6	77.2	77.7	77.9	78.1	78.3	78.3	78.0	77.9
CY	1.5	81.2	81.8	83.2	84.1	83.7	83.3	83.0	82.8	82.7	82.8	82.7	82.7
LV	0.1	77.8	78.8	80.5	79.5	78.0	77.7	77.2	77.6	77.3	76.0	76.2	77.9
LT	-1.8	71.2	71.5	72.7	73.0	71.8	70.4	69.6	69.6	69.4	68.9	68.9	69.4
LU	-2.6	74.7	74.4	73.6	72.7	71.9	71.8	72.4	72.5	72.5	72.4	72.1	72.1
HU	0.5	68.7	69.5	70.9	72.1	71.9	70.7	69.6	68.6	69.2	69.3	69.1	69.2
MT	4.5	78.5	77.6	78.9	81.2	82.8	84.0	83.5	83.0	83.0	83.0	83.0	83.0
NL	-2.4	84.8	83.9	83.3	82.6	82.1	82.1	82.6	83.2	82.9	82.5	82.3	82.4
AT	0.3	81.7	81.7	81.0	80.8	80.6	81.2	82.1	82.3	82.0	81.9	81.8	82.0
PL	1.4	70.1	70.6	71.5	72.0	73.0	72.8	71.7	71.1	71.0	71.4	71.6	71.6
PT	-0.3	79.3	79.9	80.1	79.5	79.4	79.4	79.3	79.2	79.3	79.3	79.2	79.0
RO	-3.7	70.1	70.9	71.3	70.9	69.9	68.0	66.9	66.1	65.9	65.7	66.3	66.3
SI	-1.5	75.8	75.4	75.1	75.8	75.0	74.2	73.6	73.0	73.3	73.9	74.4	74.3
SK	-0.4	76.6	77.7	78.5	79.1	78.8	78.2	76.9	75.7	75.5	75.5	75.6	76.2
FI	2.6	77.5	77.2	78.8	79.6	79.7	79.7	80.0	79.7	79.8	80.0	79.9	80.1
SE	2.7	81.5	82.2	84.2	84.5	84.2	83.9	83.8	83.8	84.1	84.2	84.0	84.1
UK	0.6	82.1	82.0	82.4	82.2	81.5	81.6	82.1	82.5	82.5	82.6	82.7	82.8
NO	-3.0	81.6	80.8	80.3	80.0	79.5	79.0	78.6	78.7	78.7	78.7	78.5	78.6
EU27	1.0	77.8	78.2	78.8	78.8	78.5	78.4	78.4	78.5	78.6	78.6	78.7	78.8
EA16	0.9	78.4	78.8	79.6	79.6	79.4	79.6	79.7	79.7	79.7	79.5	79.5	79.3
EU15	1.0	79.1	79.4	80.2	80.1	79.9	80.1	80.2	80.3	80.4	80.3	80.3	80.1
EU12	0.7	71.7	72.5	73.9	74.3	74.0	73.1	72.5	72.2	72.4	72.5	72.6	72.4
EU25	1.4	77.9	78.4	79.3	79.3	79.2	79.2	79.3	79.3	79.5	79.5	79.5	79.4
EA12	0.9	78.5	78.9	79.6	79.6	79.4	79.6	79.7	79.8	79.8	79.6	79.5	79.3
EU10	1.8	72.1	72.9	74.5	75.1	75.1	74.5	73.8	73.6	73.8	74.1	74.0	73.9

Source: Commission services.

Table A 37 - Participation rate (15-24) - MALES (percent)

Country	Ch. 08-60	2008	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	1.8	36.6	37.9	39.5	38.6	37.8	38.4	38.3	38.5	38.7	38.5	38.3	38.4
BG	-0.2	35.4	37.8	38.7	33.9	33.6	35.1	36.3	36.6	36.0	35.1	34.8	35.2
CZ	0.1	36.8	38.3	41.3	36.5	34.8	37.6	38.1	38.4	38.5	37.3	36.5	36.9
DK	1.5	72.2	72.8	73.7	73.8	73.6	73.8	73.5	73.2	73.4	73.6	73.7	73.7
DE	0.7	54.0	55.8	55.2	55.4	55.1	54.5	54.3	54.6	54.9	55.0	54.9	54.7
EE	0.9	44.3	50.1	50.6	44.6	43.0	45.3	46.4	47.7	47.5	46.0	44.9	45.2
IE	-1.4	58.6	59.3	57.7	56.6	56.2	56.6	57.8	58.6	58.3	57.5	57.1	57.2
EL	1.1	36.0	37.8	38.2	37.0	36.2	37.5	38.2	38.1	37.6	37.2	36.9	37.1
ES	-1.4	52.6	52.8	52.2	50.2	50.2	51.4	52.5	52.6	52.0	51.3	50.9	51.2
FR	1.1	43.0	44.6	44.4	43.7	43.9	44.1	44.3	44.4	44.2	44.0	44.0	44.1
IT	1.5	36.5	37.6	38.3	37.5	37.5	38.5	38.8	38.3	38.0	37.8	37.7	37.9
CY	-0.4	47.4	48.1	50.0	49.6	46.5	46.3	47.3	48.0	48.3	48.1	47.4	47.0
LV	-0.5	49.9	54.1	56.8	48.7	47.5	49.1	50.6	52.1	52.0	50.6	49.3	49.4
LT	0.4	32.8	35.1	37.9	36.3	33.2	32.1	33.1	34.6	35.6	35.1	33.8	33.2
LU	2.1	30.9	32.0	32.7	33.1	33.2	32.7	32.8	32.6	32.6	32.9	33.0	33.0
HU	0.4	29.9	31.0	32.6	31.2	29.8	30.3	31.1	31.2	31.3	30.9	30.4	30.3
MT	0.1	58.1	58.8	60.1	60.6	58.1	57.9	58.0	58.6	59.2	59.1	58.6	58.2
NL	1.0	73.0	73.5	73.8	73.7	74.4	74.0	73.6	73.5	73.6	73.8	74.0	74.0
AT	1.4	65.7	66.8	68.0	67.6	67.2	67.1	67.1	67.2	67.3	67.3	67.2	67.1
PL	-1.3	37.8	38.9	39.8	38.5	35.7	35.9	37.1	38.2	38.5	37.8	36.7	36.4
PT	-0.7	45.5	45.5	44.9	44.0	45.0	45.0	45.5	45.3	44.9	44.6	44.6	44.8
RO	0.8	35.9	39.6	37.9	36.8	36.3	36.6	37.3	37.6	37.5	36.9	36.6	36.7
SI	-1.2	46.3	48.1	46.9	45.8	44.4	45.3	46.1	46.6	46.5	45.7	45.0	45.1
SK	0.3	38.9	41.1	42.8	40.8	38.4	38.9	40.0	40.8	41.0	40.3	39.4	39.2
FI	0.7	55.2	55.5	57.3	56.4	55.4	55.6	55.8	56.1	56.4	56.4	56.0	55.8
SE	4.5	51.4	55.2	59.9	55.8	55.1	56.1	55.8	56.1	57.0	57.0	56.2	55.9
UK	0.3	64.8	66.0	66.7	65.9	64.6	65.1	65.0	65.3	65.6	65.6	65.2	65.0
NO	1.7	57.8	58.8	59.7	59.9	59.2	59.3	59.1	59.1	59.4	59.6	59.5	59.4
EU27	2.0	48.1	49.8	50.4	49.5	48.8	49.3	49.8	50.3	50.6	50.4	50.1	50.1
EA16	-0.1	48.6	49.8	49.8	48.5	48.2	48.5	49.2	49.3	49.1	48.7	48.4	48.5
EU15	0.5	51.9	53.3	53.7	52.1	51.6	52.1	52.7	53.0	53.1	52.8	52.4	52.4
EU12	-1.0	37.8	40.5	41.1	37.9	35.7	36.6	37.9	38.9	39.0	37.9	36.8	36.8
EU25	1.3	49.3	51.0	51.8	50.2	49.4	49.9	50.7	51.2	51.4	51.1	50.7	50.7
EA12	-0.2	48.8	49.9	49.9	48.6	48.4	48.7	49.3	49.4	49.2	48.8	48.5	48.6
EU10	-1.4	38.3	40.4	41.7	38.6	35.7	36.6	38.0	39.2	39.4	38.3	37.0	36.9

Source: Commission services.

Table A 38 - Participation rate (25-54) - MALES (percent)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	-1.2	92.5	92.3	92.0	91.6	91.5	91.4	91.3	91.3	91.3	91.4	91.4	91.3
BG	1.4	87.3	87.7	88.3	88.7	88.8	88.7	88.5	88.4	88.6	88.9	88.8	88.7
CZ	-2.3	95.0	94.8	94.3	93.9	93.6	93.1	92.6	92.7	92.8	92.9	92.9	92.8
DK	-3.7	92.5	91.8	90.8	89.9	89.5	89.1	88.9	88.9	88.8	88.8	88.9	88.9
DE	-0.6	93.8	93.8	93.5	93.5	93.4	93.4	93.3	93.2	93.2	93.2	93.2	93.2
EE	-2.1	93.5	92.4	92.4	92.3	92.1	91.8	91.3	91.2	91.5	91.9	91.8	91.5
IE	0.5	91.6	91.8	91.8	91.8	91.7	91.7	91.8	92.1	92.2	92.3	92.2	92.1
EL	-1.0	94.6	94.3	94.3	94.0	93.8	93.5	93.3	93.6	93.7	93.8	93.7	93.6
ES	0.0	92.6	92.7	92.6	92.4	92.2	92.3	92.5	92.7	92.8	92.9	92.7	92.6
FR	-1.6	94.2	93.9	93.3	93.1	92.9	92.8	92.7	92.7	92.7	92.7	92.7	92.6
IT	-1.4	91.0	90.4	89.9	89.7	89.7	89.5	89.4	89.6	89.7	89.7	89.6	89.6
CY	0.3	95.0	95.0	95.2	95.3	95.3	95.3	95.2	95.2	95.2	95.2	95.3	95.3
LV	0.0	90.9	90.8	91.1	91.2	91.0	90.7	90.6	90.9	91.3	91.4	91.2	91.0
LT	-3.0	87.9	87.1	86.3	85.6	85.1	84.8	84.4	84.3	84.6	85.1	85.1	84.9
LU	-0.1	94.7	94.7	94.7	94.5	94.6	94.6	94.7	94.7	94.6	94.6	94.6	94.6
HU	-1.1	87.0	87.4	87.9	87.3	86.8	86.1	85.7	85.8	85.9	86.0	86.0	85.8
MT	-0.8	94.3	94.3	93.8	93.8	93.6	93.4	93.3	93.2	93.3	93.4	93.5	93.5
NL	-1.0	94.0	93.6	93.2	93.0	93.1	93.1	93.1	93.0	92.9	92.9	92.9	93.0
AT	-0.2	93.7	93.1	92.5	92.8	93.2	93.5	93.4	93.4	93.3	93.4	93.5	93.5
PL	-2.4	88.0	88.1	88.1	87.6	86.6	85.6	84.9	85.1	85.5	86.0	86.0	85.6
PT	-1.3	92.9	92.8	92.4	92.2	91.9	91.6	91.5	91.6	91.7	91.7	91.6	91.6
RO	-6.7	85.9	84.8	83.5	82.3	80.8	79.7	79.0	78.9	79.2	79.3	79.3	79.2
SI	-0.2	91.3	91.2	91.4	91.3	91.2	90.8	90.6	90.8	91.2	91.4	91.4	91.1
SK	-1.0	93.9	93.8	93.8	93.9	93.7	93.2	92.7	92.6	92.7	93.0	93.0	92.9
FI	1.5	90.4	90.5	91.2	91.5	91.8	91.7	91.7	91.8	91.8	91.9	91.9	91.9
SE	0.7	92.9	93.0	93.2	93.3	93.6	93.6	93.5	93.5	93.5	93.6	93.6	93.6
UK	-0.7	91.6	91.4	91.1	91.0	91.0	91.0	90.9	90.8	90.9	91.0	91.0	90.9
NO	-2.4	90.8	90.4	89.8	89.3	88.6	88.5	88.4	88.4	88.3	88.3	88.4	88.4
EU27	-0.9	91.9	91.7	91.4	91.2	91.0	90.8	90.7	90.8	90.9	91.0	91.1	91.0
EA16	-0.2	92.7	92.8	92.8	93.1	92.9	92.6	92.6	92.5	92.6	92.4	92.5	92.5
EU15	-0.4	92.5	92.5	92.4	92.8	92.5	92.2	92.1	92.1	92.3	92.1	92.1	92.1
EU12	-1.7	88.7	88.6	88.3	88.1	87.9	87.5	87.0	87.1	87.3	87.1	87.1	87.1
EU25	-0.3	92.0	92.0	91.9	92.2	92.0	91.7	91.6	91.6	91.8	91.7	91.7	91.7
EA12	-0.3	92.7	92.8	92.7	93.1	92.9	92.5	92.5	92.4	92.6	92.4	92.5	92.4
EU10	-0.8	89.5	89.7	89.6	89.6	89.4	89.1	88.6	88.8	89.0	88.9	88.8	88.7

Source: Commission services.

Table A 39 - Participation rate (55-64) - MALES (percent)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	5.8	44.8	46.5	50.8	52.7	51.4	50.7	50.6	51.1	51.0	50.9	50.1	50.6
BG	0.5	56.3	54.7	54.3	54.9	55.9	57.0	56.7	55.9	56.1	54.5	54.0	56.8
CZ	8.6	63.3	63.9	66.6	67.9	68.6	69.6	72.9	70.3	71.3	71.1	69.6	71.9
DK	3.9	67.5	66.4	66.1	67.0	67.8	67.1	70.1	69.3	71.9	72.4	71.7	71.4
DE	10.1	66.0	70.8	75.7	77.7	76.7	75.9	76.1	77.0	76.7	76.1	76.0	76.1
EE	-0.6	63.7	67.5	65.0	63.5	62.6	63.8	63.4	64.0	63.5	60.7	59.8	63.0
IE	0.3	69.7	69.3	69.9	70.3	70.0	69.9	70.1	69.5	68.7	69.2	69.6	70.0
EL	-2.5	61.2	60.4	59.9	59.3	59.8	59.3	59.1	58.1	57.1	58.0	58.1	58.7
ES	12.0	63.3	63.7	66.6	68.8	70.6	74.0	74.9	73.8	73.5	74.2	74.5	75.3
FR	8.5	43.6	42.4	45.4	48.9	51.0	52.4	51.0	52.3	51.8	51.4	51.4	52.0
IT	28.8	46.6	51.8	60.4	65.8	71.6	75.0	75.0	74.3	74.9	75.3	75.0	75.4
CY	0.0	74.8	75.0	75.3	75.8	75.1	75.7	76.1	76.3	75.2	75.1	74.7	74.7
LV	-7.3	67.6	64.5	62.4	61.4	59.3	61.5	59.9	61.4	61.6	56.9	53.1	60.3
LT	-10.3	63.4	61.6	59.9	59.7	56.6	55.2	54.4	56.0	56.0	53.9	52.2	53.2
LU	0.2	38.1	39.2	39.9	40.5	38.9	37.3	37.9	38.4	38.6	39.1	38.5	38.2
HU	9.0	42.9	46.5	48.4	51.0	55.0	55.6	55.8	51.5	51.9	52.1	51.0	52.0
MT	22.3	50.4	45.8	50.3	58.5	65.5	73.8	74.8	73.9	73.7	73.6	73.0	72.7
NL	-5.5	64.7	62.5	61.4	60.9	59.6	58.1	57.3	59.4	59.7	59.5	58.8	59.1
AT	9.2	51.3	52.5	52.6	55.6	57.0	57.9	59.7	61.4	60.9	61.1	60.4	60.5
PL	12.6	45.1	45.3	46.8	45.5	54.1	60.7	60.2	59.2	58.1	57.6	57.3	57.7
PT	7.5	63.0	64.7	67.5	68.0	68.9	70.5	71.1	70.4	70.0	70.2	70.3	70.5
RO	0.4	52.1	55.3	57.2	56.7	60.2	57.6	55.8	53.1	52.9	51.2	52.0	52.6
SI	3.1	46.5	43.5	44.1	49.5	49.9	49.9	50.6	49.7	49.1	48.7	49.1	49.6
SK	-1.0	57.6	60.7	58.1	57.2	57.5	60.1	60.8	58.2	57.1	56.4	55.3	56.6
FI	7.0	59.5	59.1	62.4	65.1	66.0	65.6	67.5	66.9	66.7	67.3	66.3	66.5
SE	4.9	76.6	77.5	79.5	81.1	81.7	81.3	81.4	81.4	81.8	81.8	80.7	81.5
UK	4.1	69.4	67.8	68.3	68.4	67.5	67.2	69.5	72.1	73.1	73.4	73.3	73.4
NO	-7.7	74.8	71.4	70.1	69.8	70.7	69.3	67.5	67.7	67.9	68.0	67.3	67.1
EU27	9.7	57.3	58.4	61.5	63.8	65.8	66.8	66.8	66.6	66.6	66.6	66.5	67.0
EA16	12.5	54.8	56.3	61.3	64.1	66.7	68.7	68.3	68.2	67.8	67.8	67.5	67.2
EU15	11.1	57.8	58.8	62.8	65.0	67.3	69.2	69.0	69.1	69.0	69.4	69.3	68.9
EU12	8.3	49.7	50.3	53.5	54.3	57.5	58.5	59.2	58.2	58.4	58.8	58.4	58.0
EU25	11.3	56.4	57.2	61.1	63.4	66.0	67.8	67.6	67.5	67.5	68.1	68.0	67.7
EA12	12.6	54.8	56.4	61.5	64.3	66.9	68.9	68.6	68.5	68.0	68.0	67.7	67.4
EU10	10.9	48.8	49.2	52.2	53.1	57.3	59.7	60.5	59.8	59.9	60.6	59.9	59.7

Source: Commission services.

Table A 40 - Employment rate (15-64) (percent)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	3.1	62.3	62.9	64.7	65.4	65.1	65.1	65.3	65.4	65.4	65.4	65.3	65.4
BG	3.9	62.1	64.6	66.6	67.0	66.3	65.7	65.1	64.8	64.8	64.7	65.3	66.0
CZ	4.0	66.2	67.8	70.2	70.6	69.6	69.2	69.4	69.0	70.0	70.2	70.0	70.2
DK	1.0	77.2	77.2	77.2	77.0	77.0	77.0	77.8	78.0	78.5	78.3	78.1	78.2
DE	5.3	69.6	71.2	73.1	74.2	73.9	74.4	75.1	75.2	74.9	74.8	74.8	74.9
EE	2.6	69.4	71.8	72.8	72.8	72.0	71.7	71.4	71.5	71.5	71.2	71.5	72.0
IE	3.4	69.1	70.2	71.4	71.8	71.9	71.9	72.0	72.1	72.2	72.5	72.5	72.4
EL	3.1	61.4	62.6	64.4	65.1	64.6	64.0	64.0	64.1	64.4	64.8	64.7	64.6
ES	6.9	65.6	66.9	69.5	71.0	71.1	71.6	72.2	72.4	72.6	72.8	72.6	72.5
FR	2.5	64.7	64.5	65.6	66.4	66.4	66.5	66.7	67.3	67.1	67.1	67.2	67.2
IT	5.0	58.7	60.0	62.0	62.6	63.1	63.5	63.7	63.8	64.0	64.0	63.8	63.8
CY	5.6	69.7	72.0	74.3	75.8	75.9	75.7	75.5	75.3	75.1	75.3	75.3	75.3
LV	2.1	68.5	70.6	72.4	71.6	70.4	70.3	69.8	70.1	69.8	68.5	68.8	70.6
LT	0.6	65.1	66.6	68.1	68.5	67.6	66.7	65.9	65.9	65.7	65.2	65.2	65.8
LU	0.1	63.6	63.9	64.0	63.8	63.7	63.8	64.2	64.2	64.0	64.0	63.7	63.7
HU	3.8	57.2	58.5	60.9	62.5	62.7	61.8	61.0	60.3	60.8	60.9	60.8	61.0
MT	4.6	55.8	55.7	57.4	59.1	60.2	61.1	60.8	60.4	60.4	60.4	60.3	60.4
NL	1.7	76.1	76.4	77.0	77.1	77.1	77.3	77.9	78.5	78.3	78.0	77.8	77.8
AT	2.8	71.5	72.1	72.6	72.7	72.5	73.1	74.2	74.6	74.2	74.2	74.1	74.3
PL	5.3	57.1	60.2	61.3	62.2	63.6	63.6	62.4	61.5	61.2	61.7	62.1	62.4
PT	3.8	67.8	69.4	70.8	71.4	71.5	71.6	71.7	71.7	71.8	71.8	71.7	71.6
RO	-1.1	58.7	60.1	60.9	61.0	60.4	58.6	57.8	57.2	57.0	56.9	57.6	57.6
SI	0.7	67.8	68.4	69.1	69.9	69.2	68.3	67.9	67.5	67.7	68.3	68.6	68.6
SK	5.6	61.2	62.5	65.6	68.4	68.8	68.3	67.2	66.2	66.0	66.0	66.3	66.8
FI	4.0	70.5	71.0	72.5	73.8	73.9	74.0	74.4	74.2	74.3	74.5	74.4	74.6
SE	3.3	74.3	75.1	77.0	77.3	77.1	77.0	77.0	77.1	77.4	77.5	77.4	77.6
UK	2.9	71.5	71.6	72.7	73.0	72.9	73.2	73.8	74.2	74.3	74.3	74.3	74.4
NO	-2.1	76.8	75.1	75.1	75.1	74.9	74.7	74.6	74.8	74.8	74.8	74.7	74.8
EU27	4.4	65.5	66.6	68.2	69.0	69.1	69.2	69.4	69.5	69.6	69.7	69.8	69.9
EA16	4.6	65.5	66.5	68.5	69.5	69.6	70.0	70.3	70.4	70.4	70.3	70.2	70.1
EU15	4.5	66.7	67.6	69.5	70.3	70.4	70.8	71.2	71.4	71.4	71.4	71.3	71.2
EU12	4.0	59.9	62.1	64.0	64.9	64.9	64.2	63.6	63.3	63.4	63.6	63.9	63.9
EU25	4.9	65.6	66.8	68.7	69.5	69.7	70.0	70.2	70.4	70.5	70.5	70.5	70.5
EA12	4.6	65.5	66.6	68.6	69.5	69.6	70.0	70.4	70.5	70.5	70.4	70.3	70.1
EU10	5.4	59.9	62.4	64.4	65.6	65.9	65.6	64.9	64.5	64.7	65.0	65.1	65.2

Source: Commission services.

Table A 41 - Employment rate (20-64) (percent)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	3.4	67.9	68.5	70.2	70.9	70.8	70.9	71.2	71.3	71.2	71.1	71.1	71.3
BG	3.6	67.9	69.7	70.9	71.7	71.7	71.0	70.0	69.4	69.4	69.5	70.7	71.5
CZ	4.0	72.2	73.5	74.7	75.6	75.4	74.7	74.6	74.0	75.0	75.4	75.6	76.2
DK	1.1	79.2	79.3	79.3	79.0	79.0	78.9	79.8	80.2	80.8	80.6	80.3	80.3
DE	5.3	73.6	74.9	76.8	77.7	77.3	78.0	79.1	79.2	78.9	78.7	78.7	78.9
EE	1.4	76.8	77.7	77.4	78.0	78.2	78.0	77.4	77.0	76.6	76.4	77.4	78.2
IE	4.0	73.8	74.7	76.2	76.9	77.2	77.4	77.3	77.1	77.0	77.5	77.7	77.8
EL	3.8	66.0	67.1	68.8	69.7	69.6	68.9	68.7	68.8	69.1	69.8	69.9	69.8
ES	8.2	69.5	70.7	73.5	75.4	75.9	76.5	76.8	76.9	77.2	77.6	77.7	77.7
FR	2.8	70.4	69.8	71.0	72.1	72.3	72.4	72.6	73.2	73.0	73.0	73.2	73.1
IT	5.7	62.9	64.2	66.1	67.0	67.6	68.0	68.1	68.3	68.6	68.7	68.6	68.6
CY	5.1	76.2	78.5	80.0	81.0	81.6	81.8	81.6	81.2	80.7	80.8	81.0	81.3
LV	0.6	75.4	76.3	76.4	76.1	75.5	75.7	75.0	74.8	74.1	72.9	73.7	76.0
LT	-1.7	73.0	73.9	73.6	73.3	72.6	72.2	71.6	71.3	70.6	69.9	70.3	71.3
LU	0.4	69.0	69.6	69.8	69.4	69.1	69.3	69.9	70.1	70.0	69.8	69.5	69.4
HU	3.7	62.5	63.9	65.6	67.3	67.9	67.0	65.9	65.1	65.6	65.7	65.8	66.2
MT	4.3	59.4	59.0	60.5	62.0	63.3	64.4	64.1	63.6	63.5	63.4	63.4	63.7
NL	1.7	78.0	78.2	78.9	78.9	78.8	79.0	79.8	80.6	80.4	80.0	79.7	79.7
AT	2.9	74.4	75.0	75.2	75.3	75.1	75.9	77.1	77.6	77.2	77.1	77.0	77.3
PL	4.3	63.0	65.7	65.8	66.4	68.4	68.6	67.1	65.8	65.3	65.8	66.6	67.2
PT	4.1	72.7	74.2	75.6	76.5	76.5	76.6	76.5	76.4	76.6	76.9	76.9	76.7
RO	-2.7	64.5	64.7	65.0	65.1	64.7	62.7	61.7	60.9	60.6	60.6	61.7	61.8
SI	1.0	72.6	72.7	73.0	74.0	73.7	73.0	72.4	71.7	71.9	72.7	73.5	73.6
SK	4.3	67.7	68.6	70.6	73.1	73.9	73.6	72.1	70.8	70.4	70.5	71.1	72.0
FI	4.3	75.0	75.4	76.8	78.2	78.6	78.8	79.3	79.1	79.1	79.2	79.1	79.4
SE	3.1	80.2	80.9	81.8	82.4	82.6	82.5	82.8	83.0	82.9	82.8	82.8	83.3
UK	3.0	75.3	75.2	76.2	76.3	76.5	77.0	77.8	78.2	78.1	78.1	78.1	78.3
NO	-2.3	81.0	79.3	79.1	78.9	78.8	78.6	78.6	78.9	78.9	78.8	78.6	78.7
EU27	4.5	70.1	71.0	72.4	73.2	73.5	73.7	73.9	74.0	74.0	74.2	74.4	74.6
EA16	4.7	70.1	70.9	72.7	73.7	73.8	74.2	74.5	74.7	74.7	74.8	74.8	74.8
EU15	4.5	71.3	71.9	73.5	74.4	74.5	74.9	75.4	75.7	75.7	75.7	75.7	75.8
EU12	2.6	65.8	67.4	68.0	68.7	69.4	68.9	67.8	66.9	66.8	67.0	67.8	68.4
EU25	4.7	70.4	71.3	72.7	73.6	73.9	74.2	74.5	74.6	74.6	74.7	74.9	75.1
EA12	4.7	70.1	70.9	72.7	73.7	73.8	74.2	74.6	74.8	74.8	74.8	74.8	74.9
EU10	3.9	66.0	67.9	68.5	69.5	70.6	70.5	69.4	68.4	68.2	68.6	69.2	69.9

Source: Commission services.

Table A 42 - Employment rate (15-71) (percent)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	1.3	57.2	57.9	58.9	59.2	58.5	58.1	58.3	58.7	59.0	58.8	58.6	58.5
BG	1.1	57.0	59.4	60.7	60.6	60.1	59.6	58.9	57.7	57.0	56.6	56.9	58.0
CZ	1.6	61.8	62.8	63.9	64.5	64.0	63.9	63.4	62.4	62.0	62.9	63.1	63.4
DK	0.5	71.5	70.7	69.4	69.6	69.9	69.8	70.3	71.2	72.2	72.9	72.6	72.0
DE	5.2	62.1	63.9	67.0	67.3	66.5	66.0	66.5	67.8	68.6	67.9	67.4	67.3
EE	-1.0	64.8	67.5	67.9	66.7	65.7	65.3	65.3	65.0	64.6	63.5	62.7	63.8
IE	1.3	65.8	66.7	67.4	67.7	67.7	67.5	67.3	67.0	66.4	65.9	66.5	67.1
EL	1.3	56.2	57.6	58.8	59.2	58.2	57.3	56.7	56.3	56.3	56.6	57.3	57.5
ES	4.0	60.8	62.0	64.0	65.2	64.7	64.4	64.2	63.6	62.9	63.4	64.3	64.8
FR	0.8	59.8	59.8	59.6	59.6	59.7	59.6	59.7	60.3	60.6	60.5	60.5	60.6
IT	3.7	53.3	54.5	56.1	56.7	57.0	56.7	56.1	56.1	56.5	57.1	57.2	57.0
CY	2.9	65.9	68.1	70.1	71.1	70.9	70.4	70.5	70.3	69.6	68.9	68.7	68.9
LV	-3.3	63.8	66.2	67.2	65.4	63.6	62.9	62.7	62.5	61.8	59.5	58.2	60.5
LT	-2.7	60.3	62.1	64.1	64.1	62.6	60.7	60.0	59.9	59.9	58.6	57.3	57.6
LU	-2.0	58.9	59.2	58.9	58.1	57.4	56.9	56.9	57.3	57.6	57.5	57.3	56.9
HU	1.3	52.5	53.6	55.6	56.4	56.4	56.7	55.6	54.1	53.3	53.6	53.8	53.8
MT	0.5	51.7	51.3	50.9	52.2	53.2	54.3	54.9	54.3	53.2	52.7	52.3	52.2
NL	-0.8	70.8	70.8	70.3	70.0	69.7	69.2	69.3	70.3	71.3	71.0	70.4	70.0
AT	1.6	65.6	65.6	66.6	66.7	66.3	65.6	66.2	67.4	67.9	67.6	67.2	67.2
PL	1.1	53.6	56.8	56.9	56.1	56.8	57.5	57.4	56.1	54.7	53.9	53.9	54.7
PT	3.5	63.8	65.4	66.7	67.2	67.4	67.4	67.4	67.2	67.0	67.1	67.3	67.3
RO	-2.9	56.1	57.4	58.0	57.6	57.0	56.0	54.7	53.4	53.0	52.6	52.8	53.2
SI	-1.9	63.1	63.1	63.4	63.1	62.2	61.5	60.8	60.5	60.0	60.0	60.6	61.2
SK	2.1	57.3	58.6	61.3	63.6	63.3	63.1	62.2	60.8	59.3	58.8	58.8	59.4
FI	2.1	65.0	65.3	64.8	65.8	66.5	66.7	67.1	67.7	67.6	67.3	67.1	67.1
SE	1.4	68.8	69.2	70.2	71.1	71.1	70.9	70.4	70.7	71.2	71.4	70.7	70.3
UK	2.4	66.6	66.6	66.9	67.3	67.3	67.3	67.7	68.8	69.8	69.5	69.1	69.0
NO	-4.8	72.6	70.6	69.2	69.1	68.8	68.3	67.8	67.8	68.3	68.5	68.2	67.8
EU27	2.8	60.3	61.5	62.6	62.9	62.8	62.6	62.5	62.7	63.0	62.9	63.0	63.1
EA16	3.3	59.9	61.0	62.5	63.1	62.8	62.6	62.7	63.0	63.2	63.1	63.1	63.2
EU15	3.4	61.2	62.2	63.4	64.0	63.8	63.6	63.8	64.3	64.7	64.7	64.6	64.6
EU12	1.0	56.1	58.3	59.1	59.2	59.2	59.1	58.5	57.5	56.7	56.4	56.5	57.2
EU25	3.4	60.4	61.6	62.7	63.3	63.1	63.0	63.2	63.4	63.7	63.6	63.6	63.7
EA12	3.3	59.9	61.1	62.5	63.1	62.8	62.5	62.7	63.1	63.3	63.2	63.2	63.2
EU10	1.9	55.9	58.4	59.2	59.4	59.6	59.8	59.4	58.3	57.5	57.2	57.3	57.8

Source: Commission services.

Table A 43 - Unemployment rate (15-64) (percent)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	-1.3	7.5	7.4	6.8	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
BG	-2.3	7.0	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
CZ	-0.9	5.4	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
DK	-0.6	3.9	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
DE	-2.5	8.7	8.0	7.1	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
EE	-1.3	4.8	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
IE	0.4	4.7	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
EL	-2.3	8.5	8.1	7.1	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
ES	-2.1	8.3	8.8	7.5	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
FR	-1.8	8.0	7.8	7.0	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
IT	-0.4	6.2	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
CY	-0.9	4.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
LV	-1.2	6.1	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
LT	-0.9	4.4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
LU	0.4	4.2	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
HU	-1.2	7.4	7.7	7.0	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
MT	0.0	6.2	6.3	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
NL	-0.2	3.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
AT	-0.2	4.5	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
PL	-3.9	9.8	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
PT	-2.3	8.5	7.7	6.9	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
RO	-0.8	6.8	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
SI	-0.3	4.9	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
SK	-4.9	11.1	11.0	8.6	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
FI	-1.2	7.0	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
SE	-0.3	6.2	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
UK	0.0	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
NO	1.6	2.5	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
EU27	-1.5	7.2	6.6	6.2	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
EA16	-1.7	7.6	7.2	6.6	5.9	5.9	5.9	5.9	5.9	5.8	5.8	5.8	5.8
EU15	-1.4	7.1	6.8	6.3	5.8	5.8	5.8	5.8	5.7	5.7	5.7	5.7	5.7
EU12	-2.4	7.9	5.9	5.7	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
EU25	-1.6	7.3	6.7	6.2	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
EA12	-1.7	7.5	7.2	6.5	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
EU10	-2.8	8.3	6.1	5.8	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.4

Source: Commission services.

Table A 44 – Employment 15-64 (millions people)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	0.3	4.3	4.5	4.7	4.7	4.7	4.7	4.6	4.7	4.7	4.7	4.7	4.7
BG	-1.4	3.3	3.4	3.3	3.1	3.0	2.8	2.7	2.5	2.3	2.2	2.0	1.9
CZ	-1.2	4.9	5.0	5.0	4.8	4.7	4.6	4.5	4.3	4.1	3.9	3.7	3.6
DK	-0.1	2.8	2.8	2.8	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
DE	-8.9	38.0	38.6	39.5	39.0	37.4	35.6	34.1	33.2	32.4	31.3	30.1	29.1
EE	-0.2	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5
IE	0.8	2.0	2.2	2.4	2.5	2.7	2.8	2.8	2.8	2.8	2.8	2.8	2.8
EL	-0.6	4.6	4.7	4.8	4.9	4.8	4.7	4.5	4.4	4.2	4.1	4.0	4.0
ES	0.5	20.1	21.3	23.0	24.1	24.3	24.3	23.9	23.0	21.9	21.2	20.8	20.6
FR	1.7	26.0	26.2	26.6	26.8	26.8	26.9	26.9	27.1	27.2	27.3	27.5	27.7
IT	-2.0	22.9	23.6	24.3	24.6	24.6	24.2	23.4	22.6	22.0	21.6	21.2	20.9
CY	0.2	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6
LV	-0.4	1.1	1.1	1.1	1.0	1.0	0.9	0.9	0.8	0.8	0.7	0.7	0.6
LT	-0.6	1.5	1.5	1.5	1.5	1.4	1.3	1.2	1.2	1.1	1.0	0.9	0.9
LU	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3
HU	-1.0	4.0	4.0	4.1	4.0	3.9	3.8	3.7	3.5	3.3	3.2	3.1	2.9
MT	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1
NL	-0.9	8.4	8.5	8.5	8.4	8.2	8.0	7.8	7.8	7.8	7.7	7.6	7.5
AT	-0.2	4.0	4.1	4.2	4.2	4.2	4.1	4.0	4.0	4.0	3.9	3.9	3.8
PL	-5.2	15.4	16.4	16.3	15.8	15.4	15.0	14.4	13.6	12.6	11.7	10.8	10.2
PT	-0.3	4.8	5.0	5.1	5.2	5.2	5.1	5.1	4.9	4.8	4.7	4.6	4.5
RO	-3.6	8.8	9.0	8.9	8.6	8.2	7.9	7.4	6.9	6.4	5.9	5.5	5.2
SI	-0.3	1.0	1.0	1.0	0.9	0.9	0.9	0.8	0.8	0.7	0.7	0.7	0.7
SK	-0.8	2.4	2.5	2.5	2.6	2.5	2.4	2.3	2.1	2.0	1.8	1.7	1.6
FI	-0.2	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.3
SE	0.4	4.4	4.6	4.7	4.7	4.7	4.8	4.8	4.8	4.9	4.9	4.8	4.8
UK	4.6	28.9	29.4	30.2	30.7	31.0	31.4	31.8	32.5	33.2	33.5	33.4	33.5
NO	0.2	2.4	2.4	2.4	2.5	2.5	2.5	2.5	2.5	2.6	2.6	2.6	2.6
EU27	-19.4	217.4	223.2	228.4	229.1	226.5	222.7	218.3	214.1	209.8	205.3	201.0	198.0
EA16	-10.6	141.7	145.4	149.9	151.3	149.6	146.9	143.7	140.8	137.9	135.2	132.8	131.1
EU15	-4.8	174.0	178.1	183.4	185.3	184.1	181.8	179.1	177.1	175.2	173.0	170.7	169.2
EU12	-14.6	43.5	45.0	45.0	43.8	42.4	41.0	39.2	37.0	34.6	32.3	30.3	28.9
EU25	-14.4	205.3	210.8	216.2	217.3	215.2	212.0	208.2	204.7	201.1	197.2	193.5	190.9
EA12	-9.7	137.9	141.4	145.7	147.2	145.6	143.0	139.9	137.1	134.4	131.9	129.7	128.1
EU10	-9.6	31.3	32.7	32.8	32.0	31.1	30.3	29.1	27.6	25.9	24.3	22.8	21.7

Source: Commission services.

Table A 45 – Share of young (15-24) (as % of employment aged 15-64)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	0%	8%	8%	9%	8%	8%	9%	9%	9%	9%	9%	9%	9%
BG	-1%	8%	9%	7%	6%	6%	7%	7%	7%	7%	7%	7%	7%
CZ	-1%	8%	8%	7%	6%	6%	7%	7%	7%	7%	6%	7%	7%
DK	2%	15%	16%	17%	17%	17%	17%	16%	17%	17%	17%	17%	17%
DE	-1%	11%	11%	10%	10%	10%	10%	10%	10%	11%	11%	11%	11%
EE	-2%	11%	12%	9%	8%	8%	10%	10%	10%	9%	9%	9%	10%
IE	-2%	16%	14%	13%	13%	13%	14%	14%	14%	13%	13%	13%	13%
EL	0%	7%	7%	6%	6%	6%	7%	7%	7%	7%	7%	7%	7%
ES	0%	10%	9%	9%	8%	9%	10%	10%	9%	9%	9%	10%	10%
FR	1%	10%	10%	10%	10%	10%	10%	11%	10%	10%	10%	10%	10%
IT	0%	7%	7%	6%	6%	6%	6%	6%	6%	6%	6%	6%	7%
CY	-3%	13%	12%	11%	9%	9%	9%	10%	10%	10%	9%	9%	9%
LV	-3%	13%	13%	10%	8%	9%	10%	10%	10%	9%	9%	9%	10%
LT	-2%	9%	10%	9%	7%	6%	6%	7%	7%	7%	7%	7%	7%
LU	1%	6%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
HU	-1%	7%	7%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
MT	-5%	18%	17%	16%	14%	13%	13%	13%	13%	13%	13%	13%	13%
NL	0%	16%	17%	17%	17%	17%	16%	16%	16%	17%	17%	17%	16%
AT	-1%	14%	14%	14%	13%	13%	13%	13%	14%	14%	14%	14%	14%
PL	-3%	11%	10%	9%	7%	7%	7%	8%	8%	7%	7%	7%	7%
PT	-1%	9%	9%	8%	8%	8%	8%	8%	8%	8%	8%	8%	9%
RO	-2%	9%	9%	7%	6%	6%	7%	7%	7%	7%	7%	7%	7%
SI	-1%	10%	9%	8%	8%	8%	9%	9%	9%	9%	9%	9%	9%
SK	-3%	10%	9%	8%	7%	6%	7%	7%	7%	7%	7%	7%	7%
FI	0%	12%	12%	13%	12%	12%	12%	13%	13%	12%	12%	12%	12%
SE	1%	11%	12%	13%	10%	11%	12%	12%	12%	12%	11%	11%	12%
UK	-1%	15%	15%	14%	13%	13%	14%	14%	14%	14%	14%	13%	14%
NO	0%	13%	14%	14%	14%	13%	13%	14%	14%	14%	14%	14%	14%
EU27	0%	11%	11%	10%	9%	10%	10%	10%	10%	10%	10%	10%	10%
EA16	0%	10%	10%	10%	9%	9%	10%	10%	10%	10%	10%	10%	10%
EU15	0%	11%	11%	11%	10%	10%	11%	11%	11%	11%	11%	11%	11%
EU12	-2%	9%	9%	8%	7%	6%	7%	7%	7%	7%	7%	7%	7%
EU25	0%	11%	11%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
EA12	0%	10%	10%	10%	9%	9%	10%	10%	10%	10%	10%	10%	10%
EU10	-2%	10%	10%	8%	7%	7%	7%	7%	7%	7%	7%	7%	7%

Source: Commission services.

Table A 46 – Share of prime age (25-54) (as % of employment aged 15-64)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	-5%	82%	80%	78%	77%	76%	76%	77%	77%	77%	77%	77%	77%
BG	-1%	78%	78%	79%	80%	79%	77%	75%	74%	74%	75%	78%	77%
CZ	-4%	78%	77%	77%	79%	78%	75%	70%	70%	71%	71%	73%	74%
DK	-4%	70%	69%	68%	67%	66%	66%	67%	68%	67%	66%	65%	66%
DE	-7%	76%	75%	72%	69%	67%	69%	71%	70%	68%	68%	68%	69%
EE	0%	75%	73%	75%	76%	75%	73%	72%	70%	69%	71%	74%	74%
IE	-3%	73%	74%	74%	73%	72%	70%	68%	67%	68%	70%	70%	70%
EL	-5%	81%	81%	80%	79%	77%	75%	74%	74%	75%	76%	77%	76%
ES	-9%	79%	79%	78%	75%	72%	68%	66%	67%	69%	70%	71%	70%
FR	-3%	80%	79%	78%	77%	76%	75%	76%	76%	76%	77%	77%	76%
IT	-11%	83%	81%	79%	76%	72%	69%	70%	72%	73%	72%	72%	72%
CY	-1%	75%	76%	76%	77%	77%	77%	75%	73%	72%	73%	73%	74%
LV	1%	74%	73%	75%	76%	76%	74%	73%	71%	68%	70%	75%	75%
LT	-3%	78%	77%	76%	76%	77%	76%	76%	74%	71%	71%	73%	76%
LU	-6%	86%	84%	82%	81%	80%	81%	81%	81%	81%	81%	80%	80%
HU	-6%	83%	80%	79%	81%	80%	78%	74%	75%	76%	76%	77%	77%
MT	-3%	72%	73%	73%	73%	74%	72%	69%	68%	67%	67%	68%	69%
NL	-3%	72%	70%	69%	68%	68%	69%	71%	71%	69%	69%	68%	68%
AT	-6%	77%	76%	75%	73%	71%	71%	72%	71%	71%	70%	71%	71%
PL	-4%	81%	80%	80%	82%	82%	79%	76%	73%	73%	74%	76%	77%
PT	-6%	78%	78%	77%	75%	74%	72%	70%	70%	72%	72%	72%	72%
RO	-5%	80%	78%	79%	80%	78%	75%	74%	73%	72%	73%	75%	76%
SI	-6%	82%	81%	79%	78%	77%	75%	74%	73%	74%	75%	76%	76%
SK	-6%	81%	79%	78%	80%	80%	78%	74%	72%	72%	73%	75%	76%
FI	-1%	72%	70%	70%	70%	70%	71%	71%	70%	70%	69%	70%	71%
SE	1%	70%	69%	70%	72%	70%	69%	70%	70%	69%	68%	70%	71%
UK	-1%	71%	71%	71%	71%	70%	69%	70%	70%	68%	68%	68%	69%
NO	-1%	70%	70%	70%	70%	69%	68%	69%	70%	69%	69%	69%	69%
EU27	-5%	77%	77%	75%	74%	73%	72%	71%	71%	71%	71%	72%	72%
EA16	-6%	78%	78%	76%	74%	72%	71%	71%	71%	71%	72%	72%	72%
EU15	-5%	77%	76%	75%	73%	71%	70%	71%	71%	71%	71%	71%	71%
EU12	-4%	80%	79%	79%	80%	80%	77%	74%	73%	72%	73%	75%	76%
EU25	-5%	77%	77%	75%	74%	72%	71%	71%	71%	71%	71%	72%	72%
EA12	-6%	78%	78%	76%	74%	72%	71%	71%	71%	71%	72%	72%	72%
EU10	-4%	80%	79%	79%	80%	80%	78%	74%	73%	72%	73%	75%	76%

Source: Commission services.

Table A 47 – Share of older (55-64) (as % of employment aged 15-64)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	4%	10%	11%	13%	15%	15%	15%	14%	14%	15%	15%	15%	14%
BG	2%	13%	14%	14%	14%	15%	16%	18%	19%	19%	18%	15%	15%
CZ	5%	14%	15%	16%	15%	15%	18%	23%	23%	22%	23%	20%	19%
DK	2%	15%	15%	15%	16%	17%	17%	17%	15%	15%	17%	18%	17%
DE	8%	13%	14%	18%	21%	23%	21%	19%	20%	22%	22%	21%	21%
EE	2%	14%	15%	15%	17%	17%	17%	18%	20%	22%	21%	16%	16%
IE	6%	11%	12%	13%	14%	15%	16%	18%	20%	19%	17%	17%	17%
EL	4%	12%	12%	14%	15%	17%	18%	19%	19%	18%	17%	16%	16%
ES	9%	11%	11%	14%	16%	19%	22%	24%	24%	22%	20%	20%	20%
FR	3%	11%	11%	12%	13%	14%	14%	13%	13%	14%	13%	13%	13%
IT	11%	10%	12%	15%	18%	22%	24%	24%	22%	21%	21%	21%	22%
CY	4%	12%	12%	13%	14%	14%	14%	15%	17%	18%	18%	17%	16%
LV	2%	14%	13%	15%	16%	16%	16%	17%	19%	22%	21%	16%	15%
LT	5%	12%	13%	15%	17%	17%	17%	17%	19%	22%	23%	20%	17%
LU	5%	8%	9%	11%	12%	13%	12%	12%	12%	12%	12%	12%	12%
HU	6%	10%	13%	15%	14%	14%	17%	20%	19%	18%	19%	17%	17%
MT	7%	11%	10%	11%	13%	13%	15%	18%	19%	20%	20%	19%	18%
NL	3%	12%	13%	14%	15%	16%	15%	14%	13%	14%	15%	15%	15%
AT	6%	9%	9%	11%	14%	16%	16%	14%	15%	16%	16%	16%	15%
PL	8%	8%	10%	11%	11%	11%	14%	17%	19%	20%	19%	17%	16%
PT	7%	13%	14%	15%	17%	18%	20%	21%	21%	20%	19%	19%	20%
RO	7%	11%	12%	14%	13%	16%	18%	19%	20%	21%	20%	18%	17%
SI	6%	8%	9%	13%	15%	16%	16%	17%	18%	18%	16%	15%	14%
SK	8%	9%	12%	13%	14%	14%	16%	19%	21%	21%	21%	19%	17%
FI	1%	16%	17%	18%	18%	18%	17%	17%	18%	18%	18%	18%	17%
SE	-2%	19%	18%	18%	18%	19%	19%	18%	18%	19%	21%	19%	17%
UK	3%	14%	14%	15%	16%	17%	17%	16%	16%	18%	19%	18%	17%
NO	1%	16%	16%	16%	17%	18%	18%	17%	16%	17%	17%	18%	17%
EU27	6%	12%	13%	14%	16%	18%	18%	18%	19%	19%	19%	18%	18%
EA16	7%	11%	12%	15%	17%	19%	19%	19%	19%	19%	18%	18%	18%
EU15	6%	12%	13%	15%	17%	19%	19%	18%	18%	19%	19%	18%	18%
EU12	6%	10%	12%	13%	13%	14%	16%	18%	20%	21%	20%	18%	17%
EU25	6%	12%	13%	15%	16%	18%	18%	18%	19%	19%	19%	18%	18%
EA12	7%	11%	12%	15%	17%	19%	20%	19%	19%	19%	18%	18%	18%
EU10	7%	10%	11%	13%	13%	13%	15%	18%	20%	20%	20%	18%	17%

Source: Commission services.

Table A 48 – Share of older population (55-64) (population 55 to 64 as % of total population 15-64)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	2.1	17.6	18.6	19.7	21.1	21.3	20.6	19.8	19.7	20.1	20.5	20.2	19.7
BG	1.7	19.1	19.9	20.3	20.4	20.7	22.2	24.6	25.9	26.6	25.6	21.9	20.8
CZ	1.1	19.4	20.2	19.8	19.0	19.1	21.8	25.6	25.9	24.7	24.5	22.1	20.5
DK	-0.1	20.2	20.0	19.3	20.3	21.4	21.3	19.9	18.0	17.8	19.5	20.5	20.2
DE	5.2	17.2	18.0	20.7	23.9	26.2	24.1	21.3	21.7	23.3	23.6	23.0	22.5
EE	2.1	16.2	17.5	19.1	20.0	19.4	19.7	20.7	22.5	25.4	24.4	19.9	18.4
IE	3.8	14.2	14.6	14.9	15.6	16.4	17.5	19.4	21.3	20.9	19.0	18.0	18.0
EL	3.9	17.1	18.0	19.2	20.4	22.0	23.5	24.4	24.6	23.1	21.6	21.0	21.0
ES	5.1	15.5	15.8	17.1	19.2	21.2	23.1	25.1	25.1	23.2	21.4	20.3	20.5
FR	1.2	17.9	19.3	19.8	20.1	20.4	20.4	19.4	18.9	19.4	19.2	18.8	19.1
IT	4.2	18.2	18.7	19.3	21.6	24.1	25.3	24.9	23.3	22.2	22.1	22.1	22.4
CY	4.2	15.1	15.5	16.4	17.4	17.2	17.1	18.1	20.3	21.6	21.5	20.7	19.4
LV	3.4	16.0	16.5	18.6	20.4	20.3	20.5	21.4	23.7	27.4	27.3	22.0	19.4
LT	6.6	15.2	15.4	17.7	20.5	21.5	21.3	21.0	22.3	26.1	27.9	25.5	21.8
LU	4.1	15.4	16.3	17.7	19.3	20.4	19.8	18.7	18.4	18.3	18.7	19.4	19.5
HU	3.4	18.1	19.3	20.3	18.5	18.3	20.7	24.1	24.6	23.5	23.7	22.6	21.5
MT	2.9	19.4	20.3	20.3	20.5	19.1	19.0	21.4	23.4	24.2	24.8	24.2	22.3
NL	2.9	18.5	19.4	19.9	21.4	22.6	22.1	19.9	18.7	19.5	20.6	21.0	21.3
AT	4.3	16.6	16.7	18.4	21.5	23.5	22.6	20.4	20.4	21.3	21.8	21.7	20.9
PL	6.6	15.5	18.1	20.7	20.0	18.2	19.1	22.3	26.0	27.6	26.8	24.5	22.2
PT	4.9	17.1	17.7	18.7	19.9	20.9	22.0	23.6	23.9	22.6	21.6	21.4	22.0
RO	7.1	15.3	16.9	18.9	17.7	19.2	22.3	24.1	25.3	27.2	26.3	23.0	22.5
SI	3.9	16.8	18.2	21.0	21.9	22.4	22.7	23.9	25.4	25.2	23.5	21.5	20.6
SK	7.7	15.1	16.9	19.1	19.3	18.9	20.3	24.0	26.5	27.3	27.1	25.0	22.8
FI	-0.9	20.6	22.2	21.6	21.5	21.3	19.7	19.4	20.6	20.7	21.1	20.8	19.7
SE	-2.0	20.4	19.7	18.7	19.1	20.1	20.2	19.2	18.7	19.9	21.5	20.1	18.3
UK	0.7	17.8	17.8	17.5	19.0	20.1	19.3	17.5	17.7	19.5	20.2	19.6	18.5
NO	1.6	18.0	18.4	18.4	19.0	20.0	20.7	19.6	18.7	19.0	19.9	20.2	19.6
EU27	3.3	17.3	18.1	19.2	20.5	21.6	21.9	21.7	21.8	22.2	22.0	21.1	20.6
EA16	3.7	17.3	18.1	19.4	21.2	22.7	22.8	22.2	21.9	21.9	21.5	21.0	21.0
EU15	2.9	17.5	18.1	19.1	20.8	22.3	22.2	21.3	21.0	21.2	21.2	20.7	20.4
EU12	5.3	16.4	18.1	19.9	19.3	19.0	20.6	23.4	25.4	26.5	25.9	23.4	21.7
EU25	3.2	17.3	18.2	19.3	20.7	21.7	21.9	21.5	21.6	22.0	21.8	21.1	20.6
EA12	3.6	17.3	18.1	19.4	21.3	22.8	22.9	22.2	21.8	21.7	21.4	21.0	21.0
EU10	5.1	16.4	18.3	20.2	19.7	18.7	20.0	23.0	25.4	26.3	25.9	23.6	21.6

Source: Commission services.

Table A 49 – Old-age dependency ratio (population 65+ as % of population 15-64)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	20	26	26	28	31	34	38	40	42	43	44	45	46
BG	39	25	25	28	31	34	36	39	44	50	55	61	64
CZ	41	20	22	26	31	34	36	38	43	50	55	59	61
DK	19	23	25	29	32	34	38	41	43	43	41	41	43
DE	29	30	31	32	35	40	46	53	55	55	56	58	59
EE	30	25	25	27	29	32	34	36	39	42	47	54	56
IE	27	16	17	18	20	22	25	27	31	35	40	43	44
EL	29	28	28	31	33	35	38	43	48	53	57	58	57
ES	35	24	24	26	27	30	34	40	46	54	59	60	59
FR	20	25	26	29	33	36	39	42	44	44	45	45	45
IT	29	30	31	34	35	38	42	48	54	58	59	59	59
CY	27	18	18	20	22	25	27	29	31	33	38	41	44
LV	40	25	25	26	28	31	35	37	41	45	51	60	64
LT	43	23	23	24	26	30	35	39	43	46	51	59	66
LU	18	21	21	22	24	27	31	34	36	37	38	38	39
HU	34	23	24	26	30	33	34	36	40	47	51	54	58
MT	40	19	21	27	31	36	39	40	42	45	50	54	59
NL	26	21	23	27	31	35	40	45	47	46	46	46	47
AT	26	25	26	27	29	33	38	43	46	47	48	49	51
PL	50	19	19	22	27	33	36	38	41	47	56	63	69
PT	29	26	27	29	31	33	37	40	45	49	53	54	55
RO	44	21	21	23	26	29	30	35	41	48	54	63	65
SI	40	23	24	26	31	36	41	45	49	55	59	62	62
SK	52	16	17	19	24	28	32	35	40	48	55	63	68
FI	25	25	26	32	37	41	44	46	45	46	47	48	49
SE	20	26	28	32	34	35	37	40	41	41	42	44	47
UK	18	24	25	27	29	30	33	36	37	37	38	40	42
NO	22	22	23	26	28	31	34	38	40	41	41	42	44
EU27	28	25	26	28	31	34	38	42	45	48	50	52	53
EA16	27	27	28	30	32	36	40	45	48	51	53	54	54
EU15	25	26	27	30	32	35	39	43	46	48	50	51	51
EU12	44	21	21	23	28	32	34	37	41	48	54	61	65
EU25	28	25	26	29	31	34	38	42	46	48	50	52	53
EA12	27	27	28	30	33	36	40	45	49	51	53	54	54
EU10	45	20	21	23	28	32	35	38	41	47	54	60	65

Source: Commission services.

Table A 50 – Total dependency ratio (population 15- and 64+ as % of pop. 15-64)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	21	52	52	54	57	60	64	67	69	70	71	72	73
BG	41	44	45	49	53	55	56	58	63	71	77	84	86
CZ	44	40	42	48	54	55	56	57	62	71	77	82	84
DK	19	51	53	56	58	61	66	70	72	71	69	68	70
DE	31	51	52	52	55	60	67	75	76	76	78	80	82
EE	34	47	47	51	55	58	58	58	61	66	72	80	81
IE	27	46	47	50	52	53	54	55	58	64	70	73	73
EL	32	49	50	53	55	57	59	64	70	76	81	81	80
ES	37	45	46	49	51	52	55	60	68	77	83	84	83
FR	21	53	54	59	62	65	68	71	74	74	74	75	74
IT	30	51	52	55	56	58	62	69	75	80	82	82	81
CY	27	43	42	44	48	51	53	53	54	57	62	67	70
LV	42	45	45	48	51	54	56	57	60	65	73	83	87
LT	43	46	44	45	48	52	57	59	63	66	72	82	89
LU	18	48	48	48	50	53	57	62	64	64	64	65	66
HU	35	45	46	48	53	55	55	57	61	68	73	77	81
MT	39	43	44	48	54	59	62	61	62	66	71	77	82
NL	25	48	49	52	55	60	66	72	74	72	71	71	73
AT	27	48	48	49	51	55	61	66	69	70	72	73	75
PL	49	41	40	43	49	55	57	57	59	66	76	85	91
PT	29	49	49	51	53	55	58	61	66	72	76	77	77
RO	43	43	43	44	47	50	50	54	60	68	75	84	87
SI	43	43	44	47	53	58	61	66	70	77	83	86	86
SK	51	39	38	40	45	49	52	53	58	66	75	84	90
FI	27	50	51	58	64	69	72	73	72	72	74	75	77
SE	23	52	53	58	62	64	66	68	68	68	70	72	76
UK	20	51	51	54	56	59	62	64	64	64	65	68	70
NO	21	52	51	54	56	60	63	67	69	70	70	71	73
EU27	30	49	49	52	55	58	62	65	69	72	75	77	79
EA16	29	50	51	53	56	59	63	68	72	75	77	79	79
EU15	27	50	51	54	56	59	63	68	71	73	75	76	77
EU12	44	42	42	45	50	54	55	56	60	67	75	83	87
EU25	29	49	49	52	55	58	62	66	69	72	75	77	78
EA12	28	50	51	53	56	59	63	68	73	75	78	79	79
EU10	45	42	41	45	50	55	56	57	60	67	75	83	87

Source: Commission services.

Table A 51 – Total economic dependency ratio (total population-employment as % of employed 15-64)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	19	143	140	137	138	145	150	154	156	158	159	161	162
BG	45	131	123	122	125	130	134	139	147	158	169	176	176
CZ	45	111	108	109	114	119	121	122	130	138	146	153	155
DK	19	95	96	100	104	107	112	115	117	114	112	111	113
DE	22	115	111	106	106	113	120	126	129	130	132	135	137
EE	39	108	101	105	111	115	117	119	122	128	137	146	147
IE	24	109	107	108	109	110	110	111	115	121	129	133	134
EL	36	141	137	136	136	141	146	153	162	170	176	177	177
ES	28	121	118	114	111	112	114	119	129	140	148	151	149
FR	21	137	138	140	143	147	151	155	156	157	158	158	158
IT	24	156	153	149	148	148	152	161	171	177	180	181	181
CY	16	103	95	91	92	95	98	99	100	104	110	115	120
LV	55	108	101	102	110	117	120	123	126	134	150	163	163
LT	58	122	115	110	112	121	130	137	141	147	158	171	180
LU	28	132	131	131	134	140	146	151	154	156	157	158	160
HU	40	153	148	142	143	146	149	154	163	173	181	188	193
MT	42	157	158	158	160	163	163	164	167	173	181	191	199
NL	25	94	93	95	98	104	111	116	118	117	116	117	119
AT	25	106	104	104	106	110	116	120	122	124	127	129	130
PL	55	146	131	132	138	141	144	148	156	167	180	192	201
PT	25	114	111	109	108	109	112	116	122	129	134	137	139
RO	72	138	133	131	135	140	147	157	167	180	193	205	210
SI	60	108	109	111	116	125	133	140	148	156	163	167	168
SK	50	127	120	111	108	113	118	124	133	145	158	170	177
FI	22	112	111	115	120	125	129	130	129	129	130	132	134
SE	19	103	101	102	106	109	112	114	114	114	115	119	122
UK	14	109	109	109	112	115	117	118	118	116	118	121	123
NO	33	95	99	102	105	110	115	120	123	123	124	126	128
EU27	26	125	122	120	122	126	130	135	139	143	146	149	151
EA16	25	127	124	122	122	126	131	136	142	146	149	151	152
EU15	22	123	121	119	120	124	128	133	136	139	142	144	144
EU12	53	136	127	126	130	134	138	143	151	162	173	183	188
EU25	24	125	122	120	121	125	129	134	138	141	145	148	149
EA12	25	127	125	122	122	126	131	137	142	146	149	151	151
EU10	49	135	125	124	129	133	136	140	147	157	168	178	184

Source: Commission services.

Table A 52 – Economic old-age dependency ratio (15-64) (inactive population 65+ as % of employed 15-64)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	27	41	41	42	45	50	56	60	63	64	65	67	68
BG	52	39	38	40	43	47	52	56	63	72	80	88	91
CZ	52	29	31	35	40	45	48	51	57	65	72	77	81
DK	21	28	30	35	40	42	46	49	51	50	49	49	50
DE	32	41	42	42	45	50	57	64	67	68	70	72	73
EE	41	32	31	34	37	41	45	47	51	55	62	70	73
IE	34	21	22	23	25	28	30	34	38	43	50	53	55
EL	43	43	43	46	48	53	58	65	72	79	85	86	86
ES	43	36	36	36	37	41	46	52	61	71	77	80	79
FR	27	38	39	43	48	52	57	61	64	64	65	66	66
IT	39	50	50	53	55	58	64	72	80	86	89	89	89
CY	30	23	23	24	26	29	32	34	37	40	44	49	53
LV	56	32	32	34	38	42	47	51	56	62	72	84	88
LT	59	33	33	32	34	39	47	53	60	65	72	83	92
LU	28	33	33	35	38	42	48	53	56	58	59	59	61
HU	55	36	41	42	46	51	53	57	64	73	80	86	91
MT	61	34	38	46	53	59	63	64	67	73	80	88	95
NL	30	27	28	33	37	42	48	53	56	55	55	56	57
AT	30	34	35	36	38	42	48	54	57	59	61	62	63
PL	74	32	30	34	42	49	54	58	64	73	85	97	106
PT	35	33	34	35	37	40	43	47	53	58	63	66	67
RO	71	28	30	32	35	40	43	51	59	70	81	94	99
SI	56	31	34	37	42	49	56	63	69	76	83	87	87
SK	69	27	27	28	31	38	43	48	55	65	77	88	96
FI	29	34	35	42	47	52	56	58	58	58	59	61	63
SE	22	34	34	37	40	42	45	47	49	49	50	53	56
UK	19	32	32	35	36	39	42	45	46	45	46	48	51
NO	28	27	28	31	35	39	43	47	50	51	52	53	55
EU27	35	37	37	39	42	47	51	57	61	65	68	70	72
EA16	34	39	40	42	44	49	54	60	65	69	71	73	73
EU15	30	38	39	41	43	47	52	57	61	64	66	67	68
EU12	64	31	32	34	40	45	50	54	61	70	80	89	96
EU25	34	37	38	40	43	47	52	57	61	64	67	70	71
EA12	34	40	40	42	45	49	54	60	65	69	71	73	73
EU10	63	32	32	35	40	47	51	55	61	69	79	88	95

Source: Commission services.

Table A 53 – Social security pensions, gross (as % of GDP)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	4.8	10.0	10.3	10.9	11.8	13.0	13.9	14.4	14.6	14.7	14.7	14.8	14.7
BG	3.0	8.3	9.1	8.6	8.4	8.4	8.6	9.0	9.5	10.1	10.8	11.2	11.3
CZ	3.3	7.8	7.1	6.9	6.9	7.0	7.1	7.6	8.4	9.4	10.2	10.8	11.0
DK	0.1	9.1	9.4	10.2	10.6	10.5	10.6	10.5	10.4	10.0	9.6	9.3	9.2
DE	2.3	10.4	10.2	10.1	10.5	11.0	11.5	11.9	12.1	12.2	12.3	12.5	12.8
EE	-0.7	5.6	6.4	6.2	5.9	5.8	5.6	5.4	5.4	5.3	5.3	5.2	4.9
IE	4.6	4.0	4.1	4.3	4.6	5.0	5.4	5.8	6.4	7.1	8.0	8.4	8.6
EL	12.4	11.7	11.6	12.2	13.2	14.8	17.1	19.4	21.4	23.0	24.0	24.3	24.1
ES	6.7	8.4	8.9	9.2	9.5	10.1	10.8	11.9	13.2	14.6	15.5	15.6	15.1
FR	1.0	13.0	13.5	13.5	13.6	13.9	14.2	14.5	14.4	14.3	14.2	14.1	14.0
IT	-0.4	14.0	14.0	14.0	14.1	14.3	14.8	15.2	15.6	15.4	14.7	14.2	13.6
CY	11.4	6.3	6.9	7.8	8.9	9.8	10.8	11.7	12.8	14.0	15.5	16.8	17.7
LV	-0.4	5.4	5.1	4.8	5.2	5.6	5.9	6.1	6.1	5.9	5.8	5.6	5.1
LT	4.6	6.8	6.5	6.5	6.9	7.6	8.2	8.7	9.1	9.6	10.4	11.0	11.4
LU	15.2	8.7	8.6	8.9	9.9	12.1	14.2	16.6	18.4	20.7	22.1	23.7	23.9
HU	3.0	10.9	11.3	10.9	11.0	10.9	11.0	11.4	12.2	12.7	13.2	13.7	13.8
MT	6.2	7.2	8.3	9.1	9.3	9.1	9.3	9.7	10.5	11.3	12.0	12.7	13.4
NL	4.0	6.6	6.5	7.2	7.8	8.4	9.3	10.0	10.3	10.3	10.3	10.4	10.5
AT	0.9	12.8	12.7	12.8	13.0	13.4	13.8	13.9	13.9	14.0	14.0	13.9	13.6
PL	-2.8	11.6	10.8	9.6	9.7	9.7	9.4	9.3	9.2	9.1	9.1	9.0	8.8
PT	2.1	11.4	11.9	12.1	12.4	12.6	12.6	12.3	12.5	12.8	13.3	13.1	13.4
RO	9.2	6.6	8.4	8.5	8.8	9.4	10.4	11.5	12.6	13.7	14.8	15.3	15.8
SI	8.8	9.9	10.1	10.6	11.1	12.0	13.3	14.7	16.1	17.3	18.2	18.6	18.6
SK	3.4	6.8	6.6	6.3	6.3	6.9	7.3	7.8	8.3	8.8	9.4	9.9	10.2
FI	3.3	10.0	10.7	11.8	12.6	13.4	13.9	13.9	13.6	13.4	13.3	13.3	13.4
SE	-0.1	9.5	9.6	9.5	9.4	9.4	9.5	9.5	9.4	9.1	9.0	9.2	9.4
UK	2.7	6.6	6.7	6.8	6.9	7.2	7.6	7.8	8.0	7.9	8.1	8.6	9.3
NO	4.7	8.9	9.6	10.8	11.5	12.0	12.7	13.2	13.4	13.4	13.3	13.5	13.6
EU27	2.4	10.1	10.2	10.3	10.5	10.9	11.4	11.8	12.1	12.2	12.3	12.4	12.5
EA16	2.8	11.0	11.1	11.2	11.5	12.0	12.6	13.1	13.5	13.8	13.9	13.9	13.8
EU15	2.4	10.2	10.3	10.4	10.7	11.0	11.6	12.0	12.3	12.4	12.4	12.5	12.6
EU12	2.3	9.2	9.2	8.6	8.8	9.0	9.2	9.6	10.1	10.6	11.1	11.4	11.5
EU25	2.3	10.2	10.2	10.3	10.5	10.9	11.4	11.8	12.1	12.2	12.3	12.4	12.5
EA12	2.7	11.1	11.2	11.3	11.6	12.1	12.6	13.2	13.6	13.8	13.9	13.9	13.8
EU10	1.0	9.7	9.3	8.6	8.8	8.9	9.0	9.2	9.6	10.0	10.4	10.6	10.7

Source: Commission services.

Table A 54 – Old-age and early pensions, gross (as % of GDP)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	4.8	9.2	9.5	10.1	11.0	12.2	13.1	13.7	13.9	14.0	14.0	14.1	14.0
BG	3.1	6.8	7.3	7.0	6.9	6.9	7.1	7.5	8.1	8.7	9.4	9.9	10.0
CZ	3.4	7.1	6.5	6.3	6.3	6.4	6.6	7.0	7.9	8.9	9.7	10.2	10.5
DK	-0.4	7.0	7.4	8.2	8.6	8.3	8.3	8.2	8.1	7.8	7.3	6.9	6.7
DE	2.3	10.4	10.2	10.1	10.5	11.0	11.5	11.9	12.1	12.2	12.3	12.5	12.8
EE	-0.5	4.9	5.5	5.2	5.0	5.0	4.8	4.7	4.7	4.7	4.7	4.6	4.3
IE	4.6	2.6	2.7	2.9	3.2	3.5	4.0	4.4	5.0	5.7	6.6	7.0	7.2
EL	9.0	8.8	8.7	9.1	9.9	11.3	13.1	14.9	16.3	17.4	17.9	18.0	17.7
ES	6.6	5.6	6.0	6.3	6.6	7.2	7.8	8.7	10.0	11.5	12.3	12.5	12.1
FR	1.0	13.0	13.5	13.5	13.6	13.9	14.2	14.5	14.4	14.3	14.2	14.1	14.0
IT	-0.2	13.5	13.5	13.5	13.6	13.8	14.4	14.8	15.2	15.1	14.4	13.8	13.3
CY	9.4	4.8	5.3	5.9	6.7	7.4	8.2	9.0	10.0	11.0	12.4	13.4	14.2
LV	0.0	4.8	4.7	4.5	4.8	5.3	5.5	5.7	5.8	5.6	5.5	5.3	4.8
LT	4.7	5.6	5.4	5.4	5.8	6.5	7.1	7.6	7.9	8.4	9.3	10.0	10.3
LU	14.2	5.8	5.8	6.1	7.0	8.9	10.9	13.2	14.9	16.9	18.3	19.8	20.1
HU	3.7	9.0	9.5	9.6	9.9	9.8	9.8	10.2	11.0	11.6	12.1	12.5	12.7
MT	6.9	4.2	5.3	6.2	6.4	6.4	6.7	7.2	8.0	8.9	9.6	10.4	11.1
NL	4.5	4.5	4.5	5.3	5.9	6.6	7.6	8.4	8.8	8.8	8.7	8.8	9.0
AT	1.4	9.5	9.6	9.7	10.1	10.5	10.9	11.1	11.1	11.1	11.1	11.1	11.0
PL	-2.0	9.8	9.3	8.4	8.7	8.8	8.4	8.2	8.1	8.1	8.1	8.1	7.9
PT	1.7	9.1	9.6	9.9	10.2	10.4	10.4	10.1	10.2	10.4	10.8	10.6	10.8
RO	8.9	5.3	6.9	7.1	7.4	8.0	8.8	10.0	11.1	12.3	13.4	13.8	14.2
SI	8.0	7.0	7.3	7.9	8.4	9.3	10.4	11.7	12.9	14.0	14.7	15.0	15.0
SK	1.9	4.3	4.0	3.6	3.6	3.9	4.1	4.4	4.8	5.1	5.6	6.0	6.2
FI	4.5	7.5	8.2	9.5	10.5	11.4	12.1	12.1	11.9	11.7	11.7	11.8	12.0
SE	1.2	7.0	7.2	7.3	7.3	7.4	7.6	7.7	7.8	7.6	7.6	7.9	8.2
UK	3.3	5.8	6.1	6.2	6.5	6.8	7.3	7.5	7.8	7.7	7.9	8.4	9.1
NO	4.7	5.7	6.3	7.6	8.2	8.8	9.4	10.1	10.3	10.3	10.2	10.2	10.4
EU27	2.5	9.1	9.2	9.3	9.6	9.9	10.4	10.8	11.1	11.3	11.4	11.5	11.6
EA16	2.6	10.1	10.2	10.3	10.6	11.0	11.6	12.1	12.5	12.7	12.8	12.8	12.8
EU15	2.5	9.3	9.4	9.5	9.8	10.1	10.6	11.1	11.4	11.5	11.6	11.7	11.7
EU12	2.5	7.7	7.7	7.3	7.5	7.7	7.9	8.2	8.7	9.2	9.7	10.0	10.2
EU25	2.4	9.2	9.3	9.3	9.6	10.0	10.4	10.8	11.2	11.3	11.4	11.5	11.6
EA12	2.6	10.2	10.3	10.4	10.7	11.1	11.7	12.2	12.5	12.8	12.9	12.9	12.8
EU10	1.3	8.1	7.8	7.4	7.6	7.7	7.7	7.9	8.3	8.6	9.0	9.3	9.4

Source: Commission services.

PENSION EXPENDITURE PROJECTIONS

Table A 55 – Earnings-related pensions, gross (as % of GDP)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	4.9	9.1	9.3	10.0	10.9	12.1	13.0	13.6	13.8	13.9	13.9	14.0	14.0
BG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CZ	3.4	7.1	6.5	6.3	6.3	6.4	6.6	7.0	7.9	8.9	9.7	10.2	10.5
DK	:	:	:	:	:	:	:	:	:	:	:	:	:
DE	2.3	10.4	10.2	10.1	10.5	11.0	11.5	11.9	12.1	12.2	12.3	12.5	12.8
EE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IE	:	:	:	:	:	:	:	:	:	:	:	:	:
EL	9.9	7.6	7.7	8.3	9.3	10.8	12.7	14.5	16.0	17.0	17.6	17.7	17.5
ES	:	:	:	:	:	:	:	:	:	:	:	:	:
FR	:	:	:	:	:	:	:	:	:	:	:	:	:
IT	-0.5	13.2	13.3	13.3	13.3	13.5	13.9	14.4	14.7	14.6	13.9	13.3	12.7
CY	9.4	4.8	5.3	5.9	6.7	7.4	8.2	9.0	10.0	11.0	12.4	13.4	14.2
LV	0.0	4.8	4.7	4.5	4.8	5.3	5.5	5.7	5.8	5.6	5.5	5.3	4.8
LT	3.9	5.1	4.9	5.0	5.4	6.0	6.5	6.9	7.1	7.4	8.1	8.8	9.1
LU	14.3	5.8	5.8	6.1	7.0	8.9	10.9	13.2	14.9	16.9	18.3	19.8	20.1
HU	3.5	8.8	9.3	9.4	9.7	9.6	9.6	10.0	10.7	11.2	11.7	12.1	12.3
MT	:	:	:	:	:	:	:	:	:	:	:	:	:
NL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AT	1.4	9.5	9.6	9.7	10.1	10.5	10.9	11.1	11.1	11.1	11.1	11.1	11.0
PL	:	:	:	:	:	:	:	:	:	:	:	:	:
PT	2.1	8.5	9.1	9.5	9.9	10.2	10.2	9.9	10.0	10.3	10.6	10.4	10.6
RO	9.0	4.2	5.8	6.2	6.7	7.3	8.1	9.3	10.3	11.4	12.5	12.9	13.3
SI	8.0	7.0	7.3	7.9	8.4	9.3	10.4	11.7	12.9	14.0	14.7	15.0	15.0
SK	:	:	:	:	:	:	:	:	:	:	:	:	:
FI	4.7	6.6	7.4	8.8	9.8	10.7	11.4	11.5	11.3	11.1	11.1	11.2	11.3
SE	0.2	6.0	6.4	6.6	6.5	6.5	6.5	6.5	6.4	6.1	6.0	6.1	6.2
UK	2.0	2.3	2.5	2.7	2.9	3.1	3.2	3.3	3.4	3.4	3.6	3.9	4.3
NO	:	:	:	:	:	:	:	:	:	:	:	:	:
EU27	:	:	:	:	:	:	:	:	:	:	:	:	:
EA16	:	:	:	:	:	:	:	:	:	:	:	:	:
EU15	:	:	:	:	:	:	:	:	:	:	:	:	:
EU12	:	:	:	:	:	:	:	:	:	:	:	:	:
EU25	:	:	:	:	:	:	:	:	:	:	:	:	:
EA12	:	:	:	:	:	:	:	:	:	:	:	:	:
EU10	:	:	:	:	:	:	:	:	:	:	:	:	:

Source: Commission services.

Table A 56 – Other pensions (disability, survivors), gross (as % of GDP)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	-0.1	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7
BG	-0.1	1.4	1.8	1.6	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.3	1.3
CZ	-0.1	0.7	0.6	0.5	0.5	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.6
DK	0.5	2.0	2.0	2.0	2.0	2.1	2.3	2.3	2.3	2.2	2.3	2.4	2.5
DE	:	:	:	:	:	:	:	:	:	:	:	:	:
EE	-0.2	0.7	0.9	0.9	0.8	0.8	0.8	0.7	0.7	0.7	0.6	0.6	0.6
IE	0.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.5	1.5	1.4	1.4	1.4
EL	3.5	2.9	2.9	3.1	3.3	3.5	4.0	4.5	5.1	5.6	6.1	6.3	6.4
ES	0.1	2.9	2.9	2.9	2.9	2.9	3.0	3.1	3.2	3.2	3.2	3.1	3.0
FR	:	:	:	:	:	:	:	:	:	:	:	:	:
IT	-0.2	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3
CY	2.0	1.4	1.6	1.9	2.2	2.4	2.6	2.7	2.8	3.0	3.1	3.3	3.5
LV	-0.3	0.6	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3
LT	-0.1	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.2	1.1	1.0	1.0
LU	1.0	2.9	2.8	2.7	2.9	3.2	3.3	3.5	3.6	3.8	3.8	3.9	3.9
HU	-0.8	1.9	1.8	1.4	1.1	1.2	1.2	1.3	1.2	1.2	1.2	1.1	1.1
MT	-0.8	3.0	3.0	2.9	2.8	2.7	2.6	2.5	2.5	2.4	2.3	2.3	2.3
NL	-0.5	2.1	2.0	1.9	1.9	1.8	1.7	1.6	1.6	1.6	1.6	1.6	1.6
AT	-0.6	3.2	3.1	3.0	2.9	2.9	2.8	2.8	2.8	2.9	2.9	2.8	2.7
PL	-0.8	1.7	1.5	1.2	1.0	0.9	1.0	1.0	1.1	1.1	1.0	0.9	0.9
PT	0.4	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.4	2.6	2.6	2.7
RO	0.3	1.3	1.5	1.5	1.5	1.4	1.6	1.5	1.5	1.5	1.5	1.5	1.6
SI	0.7	2.8	2.8	2.7	2.7	2.7	2.8	3.0	3.2	3.4	3.5	3.6	3.6
SK	1.5	2.5	2.6	2.7	2.7	3.0	3.2	3.4	3.5	3.6	3.8	3.9	4.1
FI	-1.2	2.5	2.5	2.3	2.1	2.0	1.9	1.8	1.7	1.7	1.6	1.5	1.4
SE	-1.3	2.6	2.5	2.2	2.1	2.0	1.9	1.8	1.6	1.5	1.5	1.4	1.2
UK	:	:	:	:	:	:	:	:	:	:	:	:	:
NO	0.0	3.2	3.3	3.2	3.2	3.2	3.3	3.2	3.1	3.1	3.2	3.3	3.2
EU27	:	:	:	:	:	:	:	:	:	:	:	:	:
EA16	:	:	:	:	:	:	:	:	:	:	:	:	:
EU15	:	:	:	:	:	:	:	:	:	:	:	:	:
EU12	-0.2	1.5	1.5	1.3	1.2	1.2	1.3	1.3	1.4	1.4	1.4	1.4	1.4
EU25	:	:	:	:	:	:	:	:	:	:	:	:	:
EA12	:	:	:	:	:	:	:	:	:	:	:	:	:
EU10	-0.3	1.6	1.5	1.3	1.2	1.2	1.2	1.3	1.3	1.4	1.3	1.3	1.3

Source: Commission services.

Table A 57 – Occupational pensions, gross (as % of GDP)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	:	:	:	:	:	:	:	:	:	:	:	:	:
BG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DK	3.3	5.6	5.7	5.9	5.8	5.3	5.4	6.4	7.1	7.2	8.1	8.3	8.9
DE	:	:	:	:	:	:	:	:	:	:	:	:	:
EE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IE	1.5	1.2	1.4	1.6	1.8	2.0	2.1	2.2	2.2	2.4	2.5	2.6	2.7
EL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ES	0.2	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.7	0.7
FR	:	:	:	:	:	:	:	:	:	:	:	:	:
IT	:	:	:	:	:	:	:	:	:	:	:	:	:
CY	:	:	:	:	:	:	:	:	:	:	:	:	:
LV	:	:	:	:	:	:	:	:	:	:	:	:	:
LT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LU	:	:	:	:	:	:	:	:	:	:	:	:	:
HU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MT	:	:	:	:	:	:	:	:	:	:	:	:	:
NL	6.9	5.2	5.0	5.9	6.7	7.7	9.0	10.2	10.8	10.9	11.1	11.5	12.1
AT	:	:	:	:	:	:	:	:	:	:	:	:	:
PL	:	:	:	:	:	:	:	:	:	:	:	:	:
PT	-0.1	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5
RO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SI	:	:	:	:	:	:	:	:	:	:	:	:	:
SK	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FI	:	:	:	:	:	:	:	:	:	:	:	:	:
SE	0.9	2.4	2.6	2.9	3.1	3.3	3.5	3.5	3.5	3.3	3.2	3.3	3.3
UK	:	:	:	:	:	:	:	:	:	:	:	:	:
NO	:	:	:	:	:	:	:	:	:	:	:	:	:
EU27	:	:	:	:	:	:	:	:	:	:	:	:	:
EA16	:	:	:	:	:	:	:	:	:	:	:	:	:
EU15	:	:	:	:	:	:	:	:	:	:	:	:	:
EU12	:	:	:	:	:	:	:	:	:	:	:	:	:
EU25	:	:	:	:	:	:	:	:	:	:	:	:	:
EA12	:	:	:	:	:	:	:	:	:	:	:	:	:
EU10	:	:	:	:	:	:	:	:	:	:	:	:	:

Source: Commission services.

Table A 58 – Private mandatory pensions, gross (as % of GDP)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BG	1.7	0.0	0.0	0.0	0.0	0.1	0.3	0.5	0.8	1.1	1.4	1.6	1.7
CZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DK	:	:	:	:	:	:	:	:	:	:	:	:	:
DE	:	:	:	:	:	:	:	:	:	:	:	:	:
EE	1.8	0.0	0.0	0.0	0.1	0.2	0.3	0.5	0.7	1.0	1.4	1.8	1.8
IE	:	:	:	:	:	:	:	:	:	:	:	:	:
EL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FR	:	:	:	:	:	:	:	:	:	:	:	:	:
IT	:	:	:	:	:	:	:	:	:	:	:	:	:
CY	:	:	:	:	:	:	:	:	:	:	:	:	:
LV	4.9	0.0	0.0	0.0	0.1	0.3	0.4	0.7	1.3	2.0	3.1	4.3	4.9
LT	2.0	0.0	0.0	0.1	0.3	0.4	0.6	0.8	1.1	1.5	2.4	2.3	2.0
LU	:	:	:	:	:	:	:	:	:	:	:	:	:
HU	2.2	0.0	0.0	0.0	0.1	0.2	0.4	0.6	1.0	1.3	1.6	1.9	2.2
MT	:	:	:	:	:	:	:	:	:	:	:	:	:
NL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AT	:	:	:	:	:	:	:	:	:	:	:	:	:
PL	1.9	0.0	0.0	0.0	0.1	0.1	0.2	0.4	0.7	1.0	1.4	1.7	1.9
PT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RO	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.8	1.3	1.9	1.9
SI	:	:	:	:	:	:	:	:	:	:	:	:	:
SK	2.2	0.0	0.0	0.0	0.1	0.3	0.5	0.7	1.0	1.4	1.7	2.0	2.2
FI	:	:	:	:	:	:	:	:	:	:	:	:	:
SE	1.4	0.0	0.1	0.2	0.3	0.5	0.7	0.9	1.1	1.2	1.3	1.4	1.4
UK	:	:	:	:	:	:	:	:	:	:	:	:	:
NO	:	:	:	:	:	:	:	:	:	:	:	:	:
EU27	:	:	:	:	:	:	:	:	:	:	:	:	:
EA16	:	:	:	:	:	:	:	:	:	:	:	:	:
EU15	:	:	:	:	:	:	:	:	:	:	:	:	:
EU12	:	:	:	:	:	:	:	:	:	:	:	:	:
EU25	:	:	:	:	:	:	:	:	:	:	:	:	:
EA12	:	:	:	:	:	:	:	:	:	:	:	:	:
EU10	:	:	:	:	:	:	:	:	:	:	:	:	:

Source: Commission services.

Table A 59 – Social security pensions, net (as % of GDP)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	:	:	:	:	:	:	:	:	:	:	:	:	:
BG	3.0	8.3	9.1	8.6	8.4	8.4	8.6	9.0	9.5	10.1	10.8	11.2	11.3
CZ	3.3	7.8	7.1	6.9	6.9	7.0	7.1	7.6	8.4	9.4	10.2	10.8	11.0
DK	0.2	6.6	6.9	7.5	7.9	7.8	7.8	7.8	7.8	7.5	7.2	7.0	6.9
DE	1.6	8.8	8.6	8.4	8.7	9.1	9.5	9.7	9.9	9.9	10.0	10.2	10.4
EE	-0.7	5.6	6.4	6.2	5.9	5.8	5.6	5.4	5.4	5.3	5.3	5.2	4.9
IE	:	:	:	:	:	:	:	:	:	:	:	:	:
EL	:	:	:	:	:	:	:	:	:	:	:	:	:
ES	6.4	8.0	8.5	8.8	9.1	9.6	10.3	11.3	12.6	14.0	14.8	14.9	14.5
FR	0.9	11.9	12.3	12.4	12.5	12.7	13.0	13.3	13.2	13.1	13.0	12.9	12.9
IT	-0.4	11.9	12.0	12.0	12.1	12.3	12.7	13.2	13.5	13.3	12.7	12.1	11.5
CY	:	:	:	:	:	:	:	:	:	:	:	:	:
LV	-0.3	5.4	5.0	4.8	5.1	5.6	5.8	6.0	6.1	5.9	5.7	5.5	5.0
LT	4.6	6.8	6.5	6.5	6.9	7.6	8.2	8.7	9.1	9.6	10.4	11.0	11.4
LU	13.3	7.7	7.6	7.8	8.7	10.6	12.5	14.6	16.2	18.2	19.4	20.8	21.0
HU	2.3	10.9	11.3	10.8	10.7	10.6	10.6	10.9	11.6	12.1	12.6	13.0	13.2
MT	:	:	:	:	:	:	:	:	:	:	:	:	:
NL	3.5	5.4	5.3	5.9	6.4	7.0	7.8	8.4	8.7	8.7	8.7	8.7	8.9
AT	1.5	10.8	10.6	10.8	11.0	11.4	11.9	12.1	12.3	12.4	12.5	12.5	12.3
PL	-2.3	9.6	9.1	8.0	8.2	8.1	7.9	7.8	7.7	7.6	7.6	7.5	7.3
PT	1.9	10.5	11.1	11.2	11.5	11.6	11.7	11.4	11.6	11.9	12.3	12.2	12.4
RO	9.2	6.6	8.4	8.5	8.8	9.4	10.4	11.5	12.6	13.7	14.8	15.3	15.8
SI	8.8	9.9	10.1	10.6	11.1	12.0	13.3	14.7	16.1	17.3	18.2	18.6	18.6
SK	3.4	6.8	6.6	6.3	6.3	6.9	7.3	7.8	8.3	8.8	9.4	9.9	10.2
FI	2.7	8.2	8.8	9.7	10.4	11.0	11.4	11.4	11.2	11.0	10.9	10.9	11.0
SE	-0.1	6.9	6.9	6.8	6.8	6.9	6.9	6.9	6.8	6.7	6.6	6.8	6.9
UK	:	:	:	:	:	:	:	:	:	:	:	:	:
NO	3.6	7.2	7.8	8.8	9.3	9.7	10.2	10.6	10.7	10.7	10.7	10.8	10.9
EU27	:	:	:	:	:	:	:	:	:	:	:	:	:
EA16	:	:	:	:	:	:	:	:	:	:	:	:	:
EU15	:	:	:	:	:	:	:	:	:	:	:	:	:
EU12	:	:	:	:	:	:	:	:	:	:	:	:	:
EU25	:	:	:	:	:	:	:	:	:	:	:	:	:
EA12	:	:	:	:	:	:	:	:	:	:	:	:	:
EU10	:	:	:	:	:	:	:	:	:	:	:	:	:

Source: Commission services.

Table A 60 – Social security pensions, contributions (as % of GDP)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	:	:	:	:	:	:	:	:	:	:	:	:	:
BG	2.4	5.0	7.6	7.5	7.5	7.4	7.4	7.4	7.3	7.3	7.3	7.4	7.4
CZ	0.0	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
DK	:	:	:	:	:	:	:	:	:	:	:	:	:
DE	1.4	7.2	7.1	6.7	6.9	7.4	7.8	8.1	8.3	8.3	8.4	8.5	8.6
EE	-0.5	6.1	6.1	6.0	5.9	5.8	5.7	5.6	5.6	5.6	5.6	5.6	5.6
IE	-0.1	4.6	4.6	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
EL	0.0	8.5	8.8	9.0	9.1	9.3	9.4	8.4	8.3	8.3	8.3	8.4	8.5
ES	-0.3	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.6	10.6	10.5	10.4	10.4
FR	0.0	12.6	12.6	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7
IT	0.2	10.4	10.6	10.6	10.6	10.6	10.6	10.6	10.5	10.5	10.6	10.6	10.6
CY	0.5	4.2	4.3	4.4	4.5	4.5	4.5	4.6	4.6	4.6	4.6	4.6	4.7
LV	-1.0	6.8	6.2	6.0	6.0	5.9	5.8	5.7	5.8	5.7	5.7	5.8	5.8
LT	-0.2	6.6	6.6	6.6	6.5	6.5	6.4	6.4	6.4	6.4	6.3	6.4	6.4
LU	0.3	9.6	9.6	9.6	9.8	9.8	9.9	9.8	9.8	9.8	9.8	9.8	9.9
HU	0.0	8.6	8.9	8.7	8.6	8.6	8.6	8.7	8.7	8.6	8.6	8.6	8.6
MT	-0.1	5.9	5.8	6.0	6.0	6.1	6.0	6.0	6.0	6.0	5.9	5.9	5.8
NL	:	:	:	:	:	:	:	:	:	:	:	:	:
AT	0.1	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.1	9.1	9.1	9.1	9.1
PL	-1.8	6.9	5.6	5.6	5.4	5.2	5.1	5.1	5.1	5.0	5.0	5.0	5.1
PT	-1.3	9.9	10.3	10.1	9.7	9.3	9.0	8.8	8.7	8.6	8.6	8.5	8.5
RO	0.5	6.7	6.3	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.9	7.0	7.2
SI	-0.2	8.7	8.2	8.3	8.5	8.6	8.6	8.6	8.6	8.6	8.6	8.5	8.5
SK	-0.4	4.6	4.7	4.7	4.6	4.5	4.5	4.5	4.4	4.4	4.3	4.3	4.2
FI	2.2	9.3	9.6	10.1	10.5	11.0	11.3	11.4	11.4	11.4	11.4	11.5	11.5
SE	-0.3	6.3	6.2	6.1	6.1	6.1	6.1	6.1	6.0	6.0	6.0	6.0	6.0
UK	:	:	:	:	:	:	:	:	:	:	:	:	:
NO	:	:	:	:	:	:	:	:	:	:	:	:	:
EU27	:	:	:	:	:	:	:	:	:	:	:	:	:
EA16	:	:	:	:	:	:	:	:	:	:	:	:	:
EU15	:	:	:	:	:	:	:	:	:	:	:	:	:
EU12	-0.6	7.1	6.6	6.5	6.5	6.4	6.3	6.3	6.4	6.4	6.4	6.4	6.5
EU25	:	:	:	:	:	:	:	:	:	:	:	:	:
EA12	:	:	:	:	:	:	:	:	:	:	:	:	:
EU10	-0.9	7.2	6.6	6.6	6.5	6.4	6.3	6.3	6.3	6.3	6.3	6.3	6.3

Source: Commission services.

Table A 61 – Social security pensions, assets (as % of GDP)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	-4.7	4.7	5.7	13.1	20.8	22.3	15.5	0.4	0.0	0.0	0.0	0.0	0.0
BG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CZ	23.8	0.4	3.4	9.8	17.1	24.9	32.6	39.8	45.0	45.6	42.3	35.0	24.2
DK	:	:	:	:	:	:	:	:	:	:	:	:	:
DE	-0.5	0.6	1.3	1.3	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
EE	4.3	2.5	1.0	0.0	0.0	0.0	0.2	0.6	1.3	2.1	3.3	4.6	6.8
IE	-1.7	10.8	12.9	16.7	20.9	25.4	29.0	31.1	31.5	29.9	25.1	17.5	9.1
EL	:	:	:	:	:	:	:	:	:	:	:	:	:
ES	:	4.4	:	:	:	:	:	:	:	:	:	:	:
FR	-1.8	1.8	2.1	2.9	3.9	3.4	2.8	2.1	1.5	0.8	0.0	0.0	0.0
IT	:	:	:	:	:	:	:	:	:	:	:	:	:
CY	-203.4	36.9	38.2	37.3	32.3	23.1	9.9	-5.7	-24.1	-47.8	-79.4	-119.4	-166.5
LV	-13.0	3.9	5.2	7.0	8.4	7.5	5.0	1.7	-1.8	-4.7	-7.1	-9.1	-9.0
LT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LU	-280.2	21.8	28.0	37.5	46.0	47.8	39.3	18.3	-14.4	-59.5	-116.0	-183.3	-258.4
HU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MT	:	:	:	:	:	:	:	:	:	:	:	:	:
NL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PL	0.5	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.7	0.8
PT	-4.5	4.5	6.6	10.2	12.3	13.3	12.9	12.0	9.1	2.4	0.0	0.0	0.0
RO	:	:	:	:	:	:	:	:	:	:	:	:	:
SI	7.8	6.9	6.7	6.6	6.6	7.0	7.7	8.6	9.7	10.8	12.1	13.4	14.7
SK	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FI	-5.2	67.9	68.0	72.7	75.9	75.8	73.8	70.8	68.1	66.3	65.2	64.1	62.7
SE	11.2	29.3	30.4	30.0	30.0	30.3	31.0	31.2	31.5	32.7	35.4	38.4	40.5
UK	:	:	:	:	:	:	:	:	:	:	:	:	:
NO	:	:	:	:	:	:	:	:	:	:	:	:	:
EU27	:	:	:	:	:	:	:	:	:	:	:	:	:
EA16	:	:	:	:	:	:	:	:	:	:	:	:	:
EU15	:	:	:	:	:	:	:	:	:	:	:	:	:
EU12	:	:	:	:	:	:	:	:	:	:	:	:	:
EU25	:	:	:	:	:	:	:	:	:	:	:	:	:
EA12	:	:	:	:	:	:	:	:	:	:	:	:	:
EU10	:	:	:	:	:	:	:	:	:	:	:	:	:

Source: Commission services.

Table A 62 – Social security pensions, net/social security pensions, gross (percent)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	.	.	.	.	.	.	.	.	.	.	.	.	.
BG	0.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
CZ	0.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
DK	1.8	73.1	73.3	73.5	73.8	74.0	74.0	74.3	74.6	74.9	74.9	75.0	74.9
DE	-2.9	84.1	83.9	83.4	83.4	82.8	82.6	82.1	81.7	81.2	81.2	81.2	81.2
EE	0.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IE	.	.	.	.	.	.	.	.	.	.	.	.	.
EL	.	.	.	.	.	.	.	.	.	.	.	.	.
ES	0.4	95.3	95.3	95.3	95.3	95.4	95.4	95.5	95.5	95.6	95.6	95.6	95.6
FR	0.0	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6
IT	-0.4	85.3	85.4	85.3	85.4	85.7	86.1	86.5	86.8	86.7	86.1	85.5	84.9
CY	.	.	.	.	.	.	.	.	.	.	.	.	.
LV	0.0	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1
LT	0.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
LU	-0.6	88.3	88.3	88.3	88.2	88.1	88.0	87.9	87.9	87.8	87.8	87.7	87.7
HU	-5.0	100.0	100.0	99.0	97.4	96.7	96.1	95.6	95.2	95.1	95.0	95.0	95.0
MT	.	.	.	.	.	.	.	.	.	.	.	.	.
NL	2.8	81.5	81.5	82.2	82.7	83.2	83.6	84.0	84.2	84.2	84.2	84.2	84.2
AT	5.6	84.4	83.8	84.3	84.9	85.5	86.3	87.2	88.2	88.9	89.4	89.7	90.0
PL	0.2	83.0	83.8	83.9	84.0	84.0	83.9	83.7	83.6	83.5	83.4	83.3	83.2
PT	0.0	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6
RO	0.0	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
SI	0.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
SK	0.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
FI	0.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0
SE	0.4	72.5	72.1	72.1	72.5	72.7	72.9	73.0	73.2	73.3	73.2	73.1	73.0
UK	.	.	.	.	.	.	.	.	.	.	.	.	.
NO	-1.7	81.8	81.3	81.1	81.0	80.5	80.1	80.0	80.0	80.0	80.0	80.0	80.0
EU27	.	.	.	.	.	.	.	.	.	.	.	.	.
EA16	.	.	.	.	.	.	.	.	.	.	.	.	.
EU15	.	.	.	.	.	.	.	.	.	.	.	.	.
EU12	.	.	.	.	.	.	.	.	.	.	.	.	.
EU25	.	.	.	.	.	.	.	.	.	.	.	.	.
EA12	.	.	.	.	.	.	.	.	.	.	.	.	.
EU10	.	.	.	.	.	.	.	.	.	.	.	.	.

Source: Commission services.

Table A 63 – Pensioners (social security) (thousands people)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	1755	2548	2646	2870	3126	3406	3655	3852	3992	4095	4180	4248	4303
BG	37	2234	2209	2182	2160	2171	2205	2279	2346	2389	2412	2371	2271
CZ	908	2729	2754	2908	3015	3070	3119	3218	3375	3536	3619	3661	3637
DK	94	1334	1400	1529	1607	1600	1585	1586	1584	1557	1500	1455	1428
DE	3634	19822	20236	20732	21502	22634	23861	24848	24929	24543	24251	23926	23456
EE	46	367	369	362	362	372	380	387	394	402	414	422	413
IE	1254	759	813	918	1023	1143	1270	1400	1541	1694	1863	1960	2013
EL	1557	2635	2658	2751	2871	3041	3262	3536	3804	4021	4158	4208	4192
ES	8730	8075	8438	8969	9775	10825	12080	13515	15017	16292	17002	17120	16805
FR	7925	14048	14885	15931	17075	18202	19382	20300	20908	21333	21595	21779	21973
IT	4995	15807	15780	16116	16819	17908	19299	20491	21335	21547	21304	21174	20802
CY	402	118	138	168	201	240	279	315	347	389	439	482	520
LV	64	576	551	509	519	553	573	588	602	617	645	662	640
LT	244	912	916	934	974	1028	1065	1094	1108	1131	1166	1181	1157
LU	405	146	160	191	226	269	320	370	417	462	504	534	551
HU	202	3049	2996	3014	3050	3047	3087	3156	3242	3269	3285	3290	3252
MT	48	68	80	89	97	103	105	106	107	109	110	114	117
NL	1856	3302	3447	3856	4201	4539	4903	5186	5301	5232	5158	5137	5158
AT*	1256	2423	2513	2654	2799	2940	3071	3175	3275	3386	3494	3591	3680
PL	1307	9968	9336	9069	9415	9717	9941	10222	10599	11021	11325	11420	11275
PT*	2098	3196	3298	3520	3755	4002	4302	4545	4783	4997	5156	5252	5293
RO	735	5710	5469	5305	5271	5326	5652	5985	6307	6549	6736	6640	6445
SI	211	519	540	578	610	646	688	726	754	770	769	754	730
SK	566	1189	1184	1224	1287	1397	1475	1553	1633	1699	1751	1774	1754
FI	417	1331	1395	1503	1609	1688	1742	1752	1735	1724	1724	1733	1748
SE	1640	2167	2284	2494	2716	2917	3117	3271	3400	3465	3552	3701	3807
UK	7124	12139	12769	13288	13575	14262	15632	16547	17329	17037	17251	18130	19263
NO	970	939	1016	1176	1286	1392	1504	1618	1683	1740	1783	1849	1909
EU27	49512	117171	119265	123664	129641	137044	146048	154004	160165	163266	165361	166719	166683
EA16	37112	75985	78213	82069	86976	92983	99692	105670	109880	112293	113459	113786	113096
EU15	44742	89731	92724	97321	102678	109375	117480	124374	129350	131386	132692	133949	134474
EU12	4769	27440	26541	26343	26962	27669	28568	29630	30815	31880	32670	32770	32209
EU25	48740	109227	111587	116176	122209	129547	138191	145739	151512	154327	156213	157708	157968
EA12	35885	74091	76270	80010	84781	90597	97146	102970	107037	109327	110389	110662	109975
EU10	3998	19496	18863	18855	19531	20172	20711	21365	22162	22942	23522	23759	23494

Source: Commission services

* For Austria and Portugal, the numbers represent the total number of pensions in thousands.

Table A 64 – Pensioners aged 65+ (thousands people)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	1704	1875	1942	2139	2348	2611	2896	3118	3266	3356	3430	3504	3579
BG	491	1366	1332	1376	1426	1484	1535	1606	1687	1780	1848	1904	1857
CZ	1516	1488	1571	1831	2066	2207	2274	2342	2508	2758	2885	2974	3004
DK	261	954	1029	1174	1265	1316	1336	1364	1378	1353	1288	1239	1215
DE	5110	16281	17019	17568	18521	19647	21107	22497	22723	22242	21958	21728	21391
EE	99	230	228	233	243	255	267	273	283	292	307	327	328
IE	:	:	:	:	:	:	:	:	:	:	:	:	:
EL	1507	2091	2081	2131	2205	2335	2510	2777	3033	3307	3492	3577	3599
ES	:	:	:	:	:	:	:	:	:	:	:	:	:
FR	:	:	:	:	:	:	:	:	:	:	:	:	:
IT	6698	11811	12038	12902	13529	14422	15791	17254	18566	19190	19153	18825	18509
CY	:	:	:	:	:	:	:	:	:	:	:	:	:
LV	185	383	384	384	393	417	443	458	478	495	524	562	568
LT	:	:	:	:	:	:	:	:	:	:	:	:	:
LU	325	98	106	124	146	174	211	255	299	337	372	403	423
HU	1098	1596	1643	1766	1947	2020	2017	2091	2243	2437	2542	2636	2694
MT	62	44	53	67	77	86	92	92	93	96	98	102	106
NL	2155	2368	2529	2973	3346	3734	4147	4482	4633	4571	4506	4489	4523
AT	:	:	:	:	:	:	:	:	:	:	:	:	:
PL	4252	5104	5083	5643	6359	6989	7222	7335	7634	8143	8813	9237	9356
PT	:	:	:	:	:	:	:	:	:	:	:	:	:
RO	1776	3073	3033	2960	3069	3281	3331	3690	4008	4364	4600	4904	4849
SI	273	325	351	377	411	453	500	541	566	593	610	613	598
SK	778	613	639	696	784	909	995	1046	1103	1189	1282	1356	1391
FI	605	866	923	1093	1219	1316	1393	1425	1406	1407	1422	1438	1471
SE	1755	1715	1850	2095	2322	2524	2731	2897	3035	3093	3177	3347	3470
UK	:	:	:	:	:	:	:	:	:	:	:	:	:
NO	:	:	:	:	:	:	:	:	:	:	:	:	:
EU27	:	:	:	:	:	:	:	:	:	:	:	:	:
EA16	:	:	:	:	:	:	:	:	:	:	:	:	:
EU15	:	:	:	:	:	:	:	:	:	:	:	:	:
EU12	:	:	:	:	:	:	:	:	:	:	:	:	:
EU25	:	:	:	:	:	:	:	:	:	:	:	:	:
EA12	:	:	:	:	:	:	:	:	:	:	:	:	:
EU10	:	:	:	:	:	:	:	:	:	:	:	:	:

Source: Commission services.

Table A 65 – Share of pensioners below age 65 as % of all pensioners (percent)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	-9.6	26.4	26.6	25.5	24.9	23.3	20.8	19.0	18.2	18.0	17.9	17.5	16.8
BG	-20.6	38.8	39.7	36.9	34.0	31.7	30.4	29.5	28.1	25.5	23.4	19.7	18.2
CZ	-28.1	45.5	42.9	37.0	31.5	28.1	27.1	27.2	25.7	22.0	20.3	18.8	17.4
DK	-13.6	28.5	26.5	23.2	21.3	17.8	15.7	14.0	13.0	13.1	14.1	14.9	14.9
DE	-9.1	17.9	15.9	15.3	13.9	13.2	11.5	9.5	8.8	9.4	9.5	9.2	8.8
EE	-16.9	37.5	38.1	35.5	32.9	31.4	29.7	29.4	28.1	27.3	25.7	22.5	20.5
IE	:	:	:	:	:	:	:	:	:	:	:	:	:
EL	-6.5	20.6	21.7	22.5	23.2	23.2	23.0	21.5	20.3	17.8	16.0	15.0	14.2
ES	:	:	:	:	:	:	:	:	:	:	:	:	:
FR	:	:	:	:	:	:	:	:	:	:	:	:	:
IT	-14.3	25.3	23.7	19.9	19.6	19.5	18.2	15.8	13.0	10.9	10.1	11.1	11.0
CY	:	:	:	:	:	:	:	:	:	:	:	:	:
LV	-22.4	33.6	30.3	24.6	24.3	24.6	22.6	22.1	20.6	19.8	18.7	15.1	11.2
LT	:	:	:	:	:	:	:	:	:	:	:	:	:
LU	-9.5	32.9	33.8	35.1	35.7	35.1	33.9	31.1	28.5	27.2	26.2	24.7	23.4
HU	-23.0	47.7	45.2	41.4	36.3	34.3	35.8	35.7	34.0	30.0	28.2	26.5	24.7
MT	-25.9	34.9	33.5	25.4	20.7	16.3	12.5	12.9	13.1	12.3	11.2	10.2	8.9
NL	-14.0	32.4	30.9	27.6	25.4	23.1	21.1	19.5	18.6	18.6	18.6	18.6	18.4
AT	:	:	:	:	:	:	:	:	:	:	:	:	:
PL	-31.8	48.8	45.6	37.8	32.5	28.1	27.3	28.2	28.0	26.1	22.2	19.1	17.0
PT	:	:	:	:	:	:	:	:	:	:	:	:	:
RO	-21.4	46.2	44.5	44.2	41.8	38.4	41.1	38.3	36.5	33.4	31.7	26.1	24.8
SI	-19.3	37.4	35.0	34.8	32.5	29.9	27.4	25.5	24.9	23.0	20.7	18.7	18.1
SK	-27.7	48.4	46.0	43.1	39.1	34.9	32.5	32.7	32.5	30.0	26.8	23.6	20.7
FI	-19.1	34.9	33.8	27.2	24.2	22.0	20.0	18.7	19.0	18.4	17.5	17.0	15.9
SE	-12.0	20.9	19.0	16.0	14.5	13.5	12.4	11.4	10.7	10.7	10.5	9.6	8.8
UK	:	:	:	:	:	:	:	:	:	:	:	:	:
NO	:	:	:	:	:	:	:	:	:	:	:	:	:
EU27	:	:	:	:	:	:	:	:	:	:	:	:	:
EA16	:	:	:	:	:	:	:	:	:	:	:	:	:
EU15	:	:	:	:	:	:	:	:	:	:	:	:	:
EU12	:	:	:	:	:	:	:	:	:	:	:	:	:
EU25	:	:	:	:	:	:	:	:	:	:	:	:	:
EA12	:	:	:	:	:	:	:	:	:	:	:	:	:
EU10	:	:	:	:	:	:	:	:	:	:	:	:	:

Source: Commission services.

Table A 66 – Avg gross pension, (social security in 2007 prices) (thousands EUR)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	16.6	13.0	13.7	15.2	16.8	18.3	19.8	21.2	22.6	24.1	25.8	27.6	29.6
BG	2.6	1.1	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.9	3.1	3.4	3.7
CZ	5.9	3.6	3.8	4.1	4.5	5.0	5.4	5.9	6.6	7.4	8.1	8.8	9.6
DK	20.9	15.5	16.2	17.5	18.8	20.3	22.3	24.1	25.9	28.0	30.4	33.2	36.4
DE	12.3	12.8	12.9	13.7	14.8	15.6	16.3	16.9	18.0	19.5	21.1	22.9	25.0
EE	2.8	2.4	3.3	3.8	4.2	4.5	4.7	4.9	5.1	5.1	5.1	5.1	5.2
IE	17.5	9.7	10.5	11.7	13.0	14.4	15.8	17.4	19.1	20.9	23.0	25.0	27.3
EL	22.3	10.1	11.1	12.9	15.2	17.9	20.8	23.1	25.0	26.8	28.5	30.4	32.5
ES	14.3	11.0	12.1	13.6	15.0	16.5	17.6	18.7	19.8	21.0	22.3	23.7	25.3
FR	14.0	17.6	18.1	18.8	19.5	20.3	21.2	22.6	23.9	25.4	27.2	29.3	31.6
IT	7.7	13.6	14.2	15.2	16.2	16.8	17.4	17.8	18.4	19.1	19.7	20.3	21.3
CY	13.8	8.3	8.7	9.7	11.1	12.2	13.3	14.7	16.5	17.9	19.3	20.7	22.1
LV	1.8	1.9	2.2	2.7	3.2	3.6	4.0	4.3	4.4	4.3	4.0	3.8	3.7
LT	4.4	2.1	2.4	2.9	3.4	3.9	4.4	4.8	5.1	5.4	5.8	6.1	6.5
LU	40.1	21.5	22.2	23.9	26.2	30.4	33.3	37.6	41.2	46.6	50.7	56.9	61.6
HU	7.0	3.6	4.2	4.6	5.2	5.8	6.4	7.1	7.8	8.5	9.1	9.8	10.6
MT	9.1	5.7	6.0	6.7	7.2	7.5	8.3	9.2	10.5	11.7	12.8	13.8	14.8
NL	14.1	11.1	11.2	12.1	13.0	14.0	15.2	16.5	18.0	19.6	21.4	23.3	25.3
AT	9.7	14.4	14.7	15.5	16.5	17.6	18.6	19.7	20.7	21.6	22.6	23.4	24.1
PL	2.1	3.6	4.2	4.5	5.0	5.5	5.8	5.9	5.9	5.8	5.6	5.6	5.7
PT	4.9	5.8	6.2	6.5	6.9	7.3	7.6	7.9	8.4	8.9	9.6	9.9	10.7
RO	6.8	1.4	2.2	2.9	3.5	4.2	4.8	5.4	6.0	6.6	7.1	7.6	8.2
SI	12.8	6.4	7.1	8.2	9.3	10.3	11.3	12.4	13.6	14.8	16.1	17.6	19.2
SK	5.4	3.1	3.7	4.3	4.9	5.6	6.2	6.7	6.9	7.2	7.6	8.0	8.5
FI	19.7	13.5	15.1	17.0	18.7	20.4	22.1	23.7	25.4	27.1	28.9	30.9	33.2
SE	7.6	14.6	15.1	15.3	15.4	15.8	16.3	16.9	17.6	18.5	19.5	20.7	22.2
UK	18.1	10.9	11.5	12.6	14.0	15.3	16.3	17.6	19.1	21.2	23.6	26.3	29.0
NO	20.9	20.1	21.5	23.4	25.0	26.7	28.4	30.0	31.9	33.9	36.2	38.5	41.1
EU27	12.0	10.6	11.3	12.3	13.3	14.3	15.2	16.1	17.1	18.3	19.5	21.0	22.7
EA16	12.4	13.0	13.6	14.5	15.6	16.6	17.5	18.4	19.5	20.8	22.2	23.7	25.4
EU15	13.3	13.0	13.5	14.5	15.6	16.6	17.6	18.6	19.7	21.1	22.6	24.3	26.3
EU12	4.8	2.9	3.4	3.9	4.5	5.0	5.5	5.9	6.3	6.6	6.9	7.3	7.7
EU25	12.2	11.3	11.9	12.9	13.9	14.9	15.8	16.8	17.8	19.0	20.3	21.8	23.5
EA12	12.5	13.3	13.8	14.8	15.8	16.8	17.7	18.7	19.8	21.1	22.5	24.0	25.8
EU10	4.4	3.5	4.0	4.5	5.0	5.6	6.0	6.4	6.7	7.0	7.2	7.5	8.0

Source: Commission services.

Table A 67 – Benefit ratio (Social security pensions) (percent)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	-1.6	44.8	46.5	47.5	48.2	48.3	47.9	47.2	46.3	45.4	44.6	43.9	43.2
BG	-8.8	44.4	49.9	47.1	44.3	42.2	40.3	38.7	37.3	36.2	35.6	35.6	35.6
CZ	-7.5	45.2	41.6	38.7	36.8	35.7	35.4	35.7	36.5	37.4	37.6	37.7	37.6
DK	-1.6	39.4	39.4	38.9	38.3	38.0	38.3	38.0	37.7	37.4	37.5	37.6	37.8
DE	-8.9	51.4	50.4	49.7	49.7	47.8	45.9	43.8	42.9	42.7	42.5	42.4	42.5
EE	-10.6	26.5	33.7	31.8	29.2	26.9	24.8	23.2	21.9	20.4	18.5	16.9	15.8
IE	4.3	27.3	28.5	29.1	29.7	30.0	30.4	30.7	31.0	31.3	31.5	31.6	31.6
EL	7.4	73.1	72.2	74.7	77.9	81.4	85.6	87.5	86.9	85.4	83.7	82.0	80.5
ES	-5.6	57.8	62.6	65.9	65.2	63.3	61.0	59.0	57.2	55.9	54.5	53.3	52.2
FR	-15.8	63.3	63.3	60.6	57.7	55.0	52.9	51.6	50.3	49.1	48.3	47.8	47.5
IT	-21.2	68.5	71.3	71.9	70.5	67.5	64.1	60.5	57.3	54.6	51.7	49.1	47.3
CY	2.9	53.7	57.6	59.1	60.0	58.2	57.4	57.6	59.2	58.9	58.4	57.5	56.5
LV	-11.4	24.0	25.7	25.3	25.2	24.3	23.4	22.7	21.3	18.9	16.1	13.9	12.6
LT	-5.4	33.1	33.5	33.2	32.7	32.2	31.6	31.0	30.3	29.6	29.0	28.2	27.7
LU	-1.7	45.8	41.4	38.0	37.0	39.1	39.3	40.8	41.1	42.8	42.9	44.3	44.1
HU	-3.1	38.9	42.3	41.6	41.3	40.1	38.8	38.1	37.7	37.2	36.6	36.2	35.8
MT	-2.3	42.3	42.5	42.3	39.8	37.0	37.4	38.1	39.9	41.0	41.0	40.6	40.0
NL	-3.2	43.8	41.8	41.6	41.1	40.6	40.4	40.3	40.4	40.6	40.7	40.7	40.5
AT	-16.4	54.9	54.2	53.0	51.8	50.6	49.4	48.0	46.3	44.5	42.7	40.7	38.5
PL	-30.4	56.2	59.6	54.1	51.7	48.8	45.1	41.6	37.9	34.0	30.6	27.9	25.8
PT	-13.6	46.3	49.0	48.2	47.2	45.3	42.3	38.7	36.7	35.3	34.5	32.7	32.7
RO	7.6	29.4	37.6	39.2	40.1	40.7	40.5	40.2	39.3	38.5	37.7	37.1	37.0
SI	-2.3	40.9	40.7	39.9	39.0	38.2	38.1	38.2	38.4	38.5	38.6	38.6	38.6
SK	-12.0	45.2	45.8	44.5	43.3	42.2	41.0	39.8	37.9	36.1	34.9	33.7	33.1
FI	-2.3	49.1	51.2	52.0	52.1	52.0	51.7	51.1	50.2	49.2	48.3	47.5	46.9
SE	-19.1	49.3	48.1	44.7	41.0	38.6	36.6	34.9	33.5	32.4	31.4	30.6	30.1
UK	2.5	34.6	34.6	34.5	34.9	35.0	34.5	34.2	34.2	34.9	35.8	36.6	37.1
NO	-3.6	50.3	56.2	56.4	55.4	54.4	53.3	51.8	50.6	49.6	48.6	47.6	46.7
EU27	-9.5	49.7	50.9	50.5	49.7	48.4	46.8	45.3	43.8	42.5	41.4	40.6	40.1
EA16	-11.4	56.7	57.4	57.1	56.2	54.3	52.5	50.7	49.2	48.0	46.9	46.0	45.3
EU15	-9.5	51.7	52.1	51.7	51.0	49.5	47.8	46.3	45.0	44.1	43.3	42.7	42.3
EU12	-11.7	43.8	46.5	44.3	43.2	41.9	40.2	38.8	37.3	35.7	34.2	32.9	32.1
EU25	-9.8	50.4	51.4	50.9	50.1	48.6	47.1	45.6	44.1	43.0	41.9	41.1	40.6
EA12	-11.3	56.8	57.5	57.2	56.3	54.4	52.6	50.8	49.3	48.1	47.0	46.1	45.5
EU10	-15.6	46.6	48.7	45.7	44.1	42.3	40.4	38.8	37.2	35.3	33.6	32.1	31.0

Source: Commission services.

Table A 68 – Gross replacement rate at retirement (social security pensions) (percent)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	-3.0	44.7	45.7	45.0	45.5	45.1	44.2	43.4	42.8	42.5	42.4	42.1	41.7
BG	35.8	0.0	43.7	42.3	41.8	39.3	38.3	37.2	37.0	36.3	36.2	36.5	35.8
CZ	-5.7	32.7	28.7	28.1	28.2	27.0	25.0	27.7	29.0	28.9	28.0	27.8	27.0
DK	0.0	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4
DE	:	:	:	:	:	:	:	:	:	:	:	:	:
EE	-0.1	0.3	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2
IE	:	:	:	:	:	:	:	:	:	:	:	:	:
EL	5.9	60.6	61.3	66.7	67.9	67.1	70.7	67.6	67.8	71.6	70.0	68.5	66.5
ES	:	:	:	:	:	:	:	:	:	:	:	:	:
FR	:	:	:	:	:	:	:	:	:	:	:	:	:
IT	-17.3	66.8	71.6	73.3	65.5	60.1	57.6	55.9	56.0	54.2	51.0	50.0	49.4
CY	:	:	:	:	:	:	:	:	:	:	:	:	:
LV	-10.9	32.5	32.3	32.1	29.0	25.6	23.8	23.7	22.5	22.2	22.5	22.1	21.7
LT	-3.3	32.3	36.1	35.9	35.3	34.5	33.4	32.3	31.0	30.3	30.0	29.4	29.1
LU	9.0	53.0	52.0	53.0	55.0	57.0	56.0	59.0	61.0	63.0	62.0	63.0	62.0
HU	-0.1	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
MT	:	:	:	:	:	:	:	:	:	:	:	:	:
NL	:	:	:	:	:	:	:	:	:	:	:	:	:
AT	-10.8	49.2	52.0	52.1	48.7	46.5	45.9	45.5	45.4	44.9	43.6	41.3	38.5
PL	:	:	:	:	:	:	:	:	:	:	:	:	:
PT	-2.0	57.9	54.0	55.3	53.1	51.1	49.0	53.2	52.7	52.9	53.8	54.9	55.9
RO	7.1	36.5	48.4	48.4	48.4	48.4	48.2	47.8	46.8	45.6	44.6	44.0	43.6
SI	:	:	:	:	:	:	:	:	:	:	:	:	:
SK	:	:	:	:	:	:	:	:	:	:	:	:	:
FI	:	:	:	:	:	:	:	:	:	:	:	:	:
SE	-17.9	49.1	46.2	40.4	37.0	36.5	35.8	34.3	33.1	31.6	31.6	31.6	31.2
UK	:	:	:	:	:	:	:	:	:	:	:	:	:
NO	:	:	:	:	:	:	:	:	:	:	:	:	:
EU27	:	:	:	:	:	:	:	:	:	:	:	:	:
EA16	:	:	:	:	:	:	:	:	:	:	:	:	:
EU15	:	:	:	:	:	:	:	:	:	:	:	:	:
EU12	:	:	:	:	:	:	:	:	:	:	:	:	:
EU25	:	:	:	:	:	:	:	:	:	:	:	:	:
EA12	:	:	:	:	:	:	:	:	:	:	:	:	:
EU10	:	:	:	:	:	:	:	:	:	:	:	:	:

Source: Commission services.

Table A 69 – Contributors (social security pensions, in 1000 persons) (thousands people)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	374	4406	4541	4742	4817	4800	4785	4777	4783	4788	4786	4778	4780
BG	-1006	2864	2974	2927	2837	2721	2622	2509	2389	2259	2121	1986	1857
CZ	-1005	4878	5052	5107	5045	4912	4814	4726	4546	4374	4178	3999	3873
DK	22	2822	2842	2827	2798	2802	2779	2778	2774	2807	2838	2852	2844
DE	-6135	31816	32415	33347	33499	32327	31201	30181	29158	28382	27549	26610	25681
EE	-189	659	676	654	631	609	593	579	562	539	511	485	470
IE	1059	2715	2926	3197	3392	3543	3667	3759	3789	3762	3717	3724	3775
EL	-500	4608	4726	4829	4856	4784	4691	4576	4443	4312	4210	4143	4107
ES	402	21510	22967	24504	25326	25679	25769	25407	24544	23470	22630	22134	21911
FR	2127	25399	25778	26332	26637	26700	26719	26804	26969	27071	27182	27335	27525
IT	-1628	23550	24220	25003	25404	25556	25304	24639	23835	23176	22687	22275	21922
CY	215	392	433	476	509	531	551	573	591	601	603	604	607
LV	-496	1202	1235	1199	1113	1044	997	957	916	859	787	731	707
LT	-527	1467	1501	1512	1477	1405	1330	1266	1212	1151	1076	1002	940
LU	194	342	371	423	447	459	468	479	491	504	517	527	536
HU	-951	3987	4056	4140	4129	4033	3923	3789	3615	3445	3286	3147	3036
MT	-13	159	160	165	169	170	172	172	170	166	159	153	146
NL	1278	10981	11343	11761	12015	12251	12464	12643	12725	12609	12463	12343	12259
AT	387	3705	4206	4298	4352	4348	4311	4288	4269	4228	4186	4137	4092
PL	-4814	15333	16544	16825	16373	15789	15196	14611	13828	12870	11939	11133	10518
PT	-800	4296	4293	4340	4315	4230	4127	4009	3879	3748	3633	3552	3496
RO	-839	6136	6348	6536	6630	6596	6464	6351	6185	5935	5689	5492	5297
SI	-258	878	887	887	875	843	806	770	734	698	666	640	620
SK	-671	2386	2468	2593	2662	2586	2501	2393	2260	2118	1964	1826	1715
FI	-142	2376	2435	2438	2427	2391	2355	2337	2331	2320	2295	2262	2233
SE	279	5569	5679	5692	5693	5745	5761	5774	5801	5883	5923	5869	5849
UK	:	:	:	:	:	:	:	:	:	:	:	:	:
NO	:	:	:	:	:	:	:	:	:	:	:	:	:
EU27	:	:	:	:	:	:	:	:	:	:	:	:	:
EA16	-4112	139518	144171	149334	151701	151199	149892	147806	144971	141953	139246	137043	135405
EU15	:	:	:	:	:	:	:	:	:	:	:	:	:
EU12	-10554	40341	42333	43019	42449	41240	39971	38694	37007	35017	32978	31200	29787
EU25	:	:	:	:	:	:	:	:	:	:	:	:	:
EA12	-3385	135702	140223	145214	147487	147068	145862	143899	141216	138370	135854	133819	132317
EU10	-8709	31342	33011	33556	32983	31923	30884	29834	28433	26822	25168	23721	22633

Source: Commission services.

Table A 70 – Support ratio (contributors/100 pensioners, social security pensions) (percent)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	-62	173	172	165	154	141	131	124	120	117	114	112	111
BG	-46	128	135	134	131	125	119	110	102	95	88	84	82
CZ	-72	179	183	176	167	160	154	147	135	124	115	109	106
DK	-12	211	203	185	174	175	175	175	175	180	189	196	199
DE	-51	161	160	161	156	143	131	121	117	116	114	111	109
EE	-66	179	183	181	174	164	156	149	143	134	123	115	114
IE	-170	358	360	348	332	310	289	269	246	222	199	190	188
EL	-77	175	178	176	169	157	144	129	117	107	101	98	98
ES	-136	266	272	273	259	237	213	188	163	144	133	129	130
FR	-56	181	173	165	156	147	138	132	129	127	126	126	125
IT	-44	149	153	155	151	143	131	120	112	108	106	105	105
CY	-216	332	313	283	253	221	198	182	170	155	137	125	117
LV	-98	209	224	236	214	189	174	163	152	139	122	111	110
LT	-80	161	164	162	152	137	125	116	109	102	92	85	81
LU	-137	234	232	221	198	171	146	129	118	109	103	99	97
HU	-37	131	135	137	135	132	127	120	111	105	100	96	93
MT	-107	233	202	184	173	166	165	162	159	152	144	135	125
NL	-95	333	329	305	286	270	254	244	240	241	242	240	238
AT*	-42	153	167	162	155	148	140	135	130	125	120	115	111
PL	-61	154	177	186	174	162	153	143	130	117	105	97	93
PT*	-68	134	130	123	115	106	96	88	81	75	70	68	66
RO	-25	107	116	123	126	124	114	106	98	91	84	83	82
SI	-84	169	164	153	144	131	117	106	97	91	87	85	85
SK	-103	201	208	212	207	185	170	154	138	125	112	103	98
FI	-51	178	175	162	151	142	135	133	134	135	133	131	128
SE	-103	257	249	228	210	197	185	177	171	170	167	159	154
UK	:	:	:	:	:	:	:	:	:	:	:	:	:
NO	:	:	:	:	:	:	:	:	:	:	:	:	:
EU27	:	:	:	:	:	:	:	:	:	:	:	:	:
EA16	-64	184	184	182	174	163	150	140	132	126	123	120	120
EU15	:	:	:	:	:	:	:	:	:	:	:	:	:
EU12	-55	147	160	163	157	149	140	131	120	110	101	95	92
EU25	:	:	:	:	:	:	:	:	:	:	:	:	:
EA12	-63	183	184	181	174	162	150	140	132	127	123	121	120
EU10	-64	161	175	178	169	158	149	140	128	117	107	100	96

Source: Commission services

* For Austria and Portugal, the denominator is the number of pensions (in hundreds).

Table A 71 – Social security pensions, gross (as % of GDP) – Higher life expectancy scenario

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	5.1	10.0	10.3	10.9	11.9	13.0	14.0	14.6	14.8	14.9	15.0	15.1	15.1
BG	3.4	8.3	9.1	8.6	8.4	8.4	8.6	9.0	9.6	10.2	11.0	11.5	11.6
CZ	3.6	7.8	7.1	6.9	6.9	7.0	7.2	7.7	8.6	9.6	10.4	11.0	11.3
DK	0.3	9.1	9.4	10.2	10.7	10.5	10.7	10.6	10.4	10.2	9.8	9.4	9.4
DE	2.5	10.4	10.2	10.1	10.5	11.0	11.6	12.0	12.2	12.3	12.5	12.7	13.0
EE	-0.6	5.6	6.4	6.0	5.8	5.7	5.5	5.5	5.4	5.4	5.3	5.2	5.0
IE	4.8	4.0	4.1	4.3	4.6	5.0	5.4	5.9	6.5	7.2	8.1	8.6	8.8
EL	12.7	11.6	11.5	12.1	13.0	14.6	16.9	19.3	21.4	23.0	24.1	24.5	24.4
ES	7.0	8.4	8.9	9.2	9.5	10.1	10.8	11.9	13.3	14.8	15.6	15.8	15.4
FR	1.4	13.0	13.5	13.6	13.7	13.9	14.3	14.6	14.6	14.6	14.5	14.5	14.4
IT	-0.3	14.0	14.0	14.0	14.1	14.4	14.9	15.3	15.6	15.5	14.8	14.3	13.7
CY	11.6	6.3	6.9	7.8	8.9	9.8	10.8	11.8	12.9	14.1	15.7	17.0	17.9
LV	-0.3	5.4	5.1	4.8	5.2	5.6	5.8	6.1	6.1	6.0	5.8	5.6	5.1
LT	4.9	6.8	6.5	6.5	6.9	7.6	8.3	8.8	9.2	9.7	10.6	11.3	11.7
LU	15.6	8.7	8.6	8.9	9.9	12.1	14.2	16.7	18.5	20.9	22.3	24.0	24.3
HU	3.3	10.9	11.3	10.9	11.0	11.0	11.1	11.6	12.4	13.0	13.5	14.0	14.2
MT	6.6	7.2	8.3	9.1	9.3	9.2	9.4	9.8	10.7	11.5	12.2	13.0	13.7
NL	4.3	6.6	6.5	7.2	7.8	8.5	9.4	10.1	10.5	10.5	10.5	10.7	10.9
AT	1.3	12.8	12.7	13.0	13.3	13.7	14.2	14.4	14.5	14.6	14.5	14.4	14.1
PL	-2.7	11.6	10.8	9.6	9.7	9.7	9.4	9.3	9.3	9.2	9.2	9.1	8.9
PT	2.4	11.4	11.9	12.1	12.4	12.6	12.7	12.4	12.7	13.1	13.6	13.5	13.8
RO	9.7	6.6	8.4	8.5	8.8	9.4	10.5	11.6	12.7	14.0	15.1	15.7	16.3
SI	9.3	9.9	10.1	10.6	11.1	12.0	13.4	14.9	16.4	17.6	18.6	19.1	19.2
SK	3.7	6.8	6.6	6.3	6.3	6.9	7.4	7.9	8.4	8.9	9.7	10.2	10.6
FI	3.5	10.0	10.7	11.8	12.7	13.5	14.0	14.1	13.8	13.5	13.4	13.4	13.5
SE	0.0	9.5	9.6	9.5	9.4	9.4	9.5	9.5	9.4	9.2	9.2	9.4	9.6
UK	3.1	6.6	6.7	6.8	6.9	7.2	7.7	8.0	8.2	8.1	8.3	8.9	9.6
NO	4.9	8.9	9.6	10.9	11.6	12.3	13.0	13.5	13.7	13.6	13.6	13.7	13.8
EU27	2.7	10.1	10.2	10.3	10.5	10.9	11.4	11.9	12.2	12.4	12.6	12.7	12.8
EA16	3.0	11.0	11.1	11.2	11.6	12.0	12.7	13.2	13.7	14.0	14.1	14.1	14.1
EU15	2.7	10.2	10.3	10.4	10.7	11.1	11.6	12.1	12.4	12.6	12.7	12.8	12.9
EU12	2.6	9.2	9.2	8.6	8.8	9.0	9.3	9.7	10.2	10.7	11.3	11.6	11.8
EU25	2.6	10.2	10.2	10.3	10.6	10.9	11.4	11.9	12.2	12.4	12.5	12.7	12.8
EA12	3.0	11.1	11.2	11.3	11.6	12.1	12.7	13.3	13.7	14.0	14.1	14.1	14.1
EU10	1.3	9.7	9.3	8.6	8.8	9.0	9.0	9.3	9.7	10.1	10.5	10.8	10.9

Source: Commission services.

Table A 72 – Old-age and early pensions, gross (as % of GDP) – Higher life expectancy scenario

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	5.2	9.2	9.5	10.1	11.0	12.2	13.2	13.8	14.1	14.2	14.3	14.4	14.4
BG	3.5	6.8	7.3	7.0	6.9	7.0	7.1	7.6	8.1	8.8	9.6	10.1	10.3
CZ	3.7	7.1	6.5	6.3	6.3	6.4	6.6	7.1	8.0	9.1	9.9	10.5	10.8
DK	-0.3	7.0	7.4	8.2	8.6	8.4	8.3	8.3	8.1	7.9	7.4	6.9	6.7
DE	2.5	10.4	10.2	10.1	10.5	11.0	11.6	12.0	12.2	12.3	12.5	12.7	13.0
EE	-0.5	4.9	5.4	5.1	4.9	4.9	4.8	4.7	4.7	4.7	4.7	4.7	4.4
IE	4.8	2.6	2.7	2.9	3.2	3.6	4.0	4.5	5.0	5.8	6.7	7.2	7.4
EL	9.5	8.7	8.6	9.0	9.8	11.1	12.9	14.8	16.3	17.5	18.2	18.4	18.2
ES	6.9	5.6	6.0	6.3	6.6	7.2	7.9	8.8	10.1	11.6	12.5	12.7	12.5
FR	1.4	13.0	13.5	13.6	13.7	13.9	14.3	14.6	14.6	14.6	14.5	14.5	14.4
IT	0.0	13.5	13.5	13.5	13.7	13.9	14.4	14.9	15.3	15.2	14.5	14.0	13.4
CY	9.6	4.8	5.3	5.9	6.7	7.4	8.3	9.1	10.1	11.2	12.5	13.6	14.4
LV	0.0	4.8	4.7	4.5	4.8	5.2	5.5	5.7	5.8	5.6	5.5	5.3	4.8
LT	5.0	5.6	5.4	5.4	5.8	6.5	7.2	7.7	8.1	8.6	9.5	10.3	10.7
LU	14.8	5.8	5.8	6.2	7.0	9.0	10.9	13.3	15.0	17.2	18.6	20.2	20.6
HU	4.1	9.0	9.5	9.6	9.9	9.8	9.9	10.3	11.2	11.8	12.3	12.8	13.0
MT	7.2	4.2	5.3	6.2	6.5	6.4	6.8	7.3	8.2	9.1	9.8	10.7	11.4
NL	4.8	4.5	4.5	5.3	5.9	6.7	7.6	8.5	8.9	9.0	9.0	9.1	9.3
AT	1.8	9.5	9.6	9.9	10.3	10.8	11.4	11.6	11.6	11.6	11.6	11.6	11.3
PL	-1.8	9.8	9.3	8.4	8.7	8.8	8.5	8.3	8.2	8.2	8.2	8.2	8.0
PT	2.0	9.1	9.6	9.9	10.2	10.5	10.5	10.2	10.3	10.6	11.0	10.8	11.1
RO	9.4	5.3	6.9	7.1	7.4	8.1	8.9	10.1	11.2	12.5	13.7	14.2	14.7
SI	8.5	7.0	7.3	7.9	8.5	9.3	10.5	11.8	13.1	14.2	15.0	15.4	15.5
SK	2.1	4.3	4.0	3.6	3.6	3.9	4.2	4.5	4.8	5.2	5.8	6.2	6.4
FI	4.7	7.5	8.2	9.5	10.6	11.5	12.2	12.3	12.0	11.9	11.9	12.0	12.2
SE	1.4	7.0	7.1	7.3	7.3	7.4	7.6	7.7	7.8	7.7	7.7	8.0	8.3
UK	3.6	5.8	6.1	6.3	6.5	6.8	7.4	7.7	7.9	7.9	8.1	8.7	9.4
NO	4.9	5.7	6.3	7.7	8.4	9.0	9.7	10.3	10.6	10.5	10.4	10.5	10.5
EU27	2.8	9.1	9.2	9.3	9.6	10.0	10.5	10.9	11.3	11.5	11.6	11.8	11.9
EA16	2.9	10.1	10.2	10.3	10.6	11.1	11.7	12.2	12.6	12.9	13.1	13.1	13.1
EU15	2.8	9.3	9.4	9.5	9.8	10.2	10.7	11.2	11.5	11.7	11.8	11.9	12.0
EU12	2.8	7.7	7.7	7.3	7.6	7.8	7.9	8.3	8.8	9.4	9.9	10.3	10.4
EU25	2.7	9.2	9.3	9.4	9.6	10.0	10.5	10.9	11.3	11.5	11.6	11.8	11.9
EA12	2.9	10.2	10.3	10.4	10.7	11.1	11.7	12.3	12.7	13.0	13.1	13.1	13.1
EU10	1.5	8.1	7.8	7.4	7.6	7.8	7.8	8.0	8.4	8.8	9.2	9.5	9.6

Source: Commission services.

Table A 73 - Social security pensions, gross (as % of GDP) – Higher labour productivity scenario

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	3.8	10.0	10.3	10.8	11.7	12.7	13.5	14.0	14.1	14.0	14.0	14.0	13.8
BG	2.8	8.3	9.1	8.6	8.3	8.3	8.4	8.8	9.3	9.9	10.6	11.0	11.0
CZ	3.1	7.8	7.1	6.8	6.8	6.9	7.0	7.5	8.3	9.3	10.0	10.6	10.8
DK	0.1	9.1	9.4	10.2	10.6	10.5	10.6	10.5	10.4	10.0	9.6	9.3	9.2
DE	2.4	10.4	10.2	10.1	10.5	11.0	11.6	11.9	12.1	12.2	12.4	12.6	12.8
EE	-0.8	5.6	6.4	6.1	5.8	5.7	5.5	5.4	5.3	5.2	5.2	5.1	4.8
IE	4.6	4.0	4.1	4.3	4.6	5.0	5.4	5.9	6.4	7.1	8.0	8.4	8.6
EL	10.4	11.6	11.6	12.0	12.9	14.3	16.4	18.5	20.2	21.6	22.3	22.4	22.0
ES	5.7	8.4	8.9	9.2	9.4	9.8	10.4	11.4	12.6	13.9	14.6	14.6	14.2
FR	0.2	13.0	13.5	13.5	13.5	13.5	13.8	13.9	13.8	13.7	13.5	13.4	13.3
IT	-0.9	14.0	14.0	13.9	13.9	14.0	14.4	14.8	15.0	14.8	14.2	13.6	13.1
CY	10.7	6.3	6.9	7.7	8.5	9.4	10.4	11.3	12.4	13.5	15.0	16.2	17.0
LV	-0.6	5.4	5.1	4.8	5.1	5.5	5.7	6.0	6.0	5.7	5.6	5.4	4.9
LT	4.6	6.8	6.5	6.5	6.9	7.6	8.2	8.7	9.1	9.6	10.4	11.0	11.4
LU	15.1	8.7	8.6	8.9	9.8	12.0	14.1	16.6	18.3	20.6	22.0	23.6	23.8
HU	2.6	10.9	11.3	10.9	10.9	10.8	10.8	11.2	11.9	12.5	12.9	13.3	13.5
MT	5.5	7.2	8.3	9.1	9.2	8.9	9.1	9.4	10.2	10.9	11.4	12.1	12.6
NL	4.0	6.6	6.5	7.2	7.8	8.4	9.3	10.0	10.3	10.3	10.3	10.4	10.5
AT	-0.3	12.8	12.7	12.7	12.8	13.1	13.3	13.3	13.2	13.1	13.0	12.8	12.5
PL	-3.2	11.6	10.8	9.5	9.6	9.5	9.2	9.0	8.9	8.8	8.7	8.6	8.3
PT	1.3	11.4	11.9	12.1	12.2	12.3	12.2	11.9	12.0	12.3	12.7	12.5	12.7
RO	9.2	6.6	8.4	8.5	8.8	9.4	10.4	11.5	12.6	13.7	14.8	15.3	15.8
SI	9.0	9.9	10.1	10.7	11.2	12.1	13.4	14.9	16.3	17.5	18.4	18.8	18.8
SK	3.3	6.8	6.6	6.3	6.3	6.8	7.2	7.7	8.2	8.6	9.3	9.8	10.1
FI	2.9	10.0	10.7	11.7	12.5	13.2	13.6	13.6	13.2	13.0	12.8	12.9	12.9
SE	-0.3	9.5	9.6	9.5	9.4	9.3	9.4	9.4	9.2	9.0	8.9	9.1	9.2
UK	2.6	6.6	6.7	6.8	7.0	7.2	7.6	7.8	8.0	7.9	8.1	8.6	9.2
NO	4.7	8.9	9.6	10.8	11.4	12.0	12.7	13.2	13.4	13.4	13.3	13.4	13.6
EU27	2.0	10.1	10.2	10.2	10.4	10.7	11.2	11.5	11.8	11.9	12.0	12.1	12.1
EA16	2.2	11.0	11.1	11.2	11.4	11.8	12.3	12.8	13.1	13.3	13.4	13.4	13.3
EU15	2.0	10.2	10.3	10.4	10.6	10.9	11.4	11.7	12.0	12.0	12.1	12.1	12.2
EU12	2.1	9.2	9.1	8.6	8.7	8.9	9.1	9.4	9.9	10.4	10.9	11.2	11.3
EU25	1.9	10.2	10.2	10.3	10.5	10.8	11.2	11.5	11.8	11.9	12.0	12.0	12.1
EA12	2.2	11.1	11.2	11.3	11.5	11.9	12.4	12.8	13.2	13.4	13.4	13.4	13.2
EU10	0.7	9.7	9.3	8.6	8.7	8.8	8.8	9.0	9.4	9.7	10.1	10.4	10.4

Source: Commission services.

Table A 74 - Old-age and early pensions, gross (as % of GDP) – Higher labour productivity scenario

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	4.0	9.2	9.4	10.0	10.9	12.0	12.8	13.2	13.4	13.3	13.3	13.3	13.2
BG	2.9	6.8	7.3	7.0	6.8	6.9	7.0	7.4	7.9	8.5	9.3	9.7	9.8
CZ	3.2	7.1	6.5	6.3	6.3	6.3	6.5	6.9	7.8	8.8	9.5	10.1	10.3
DK	-0.4	7.0	7.4	8.2	8.6	8.3	8.3	8.2	8.1	7.8	7.3	6.8	6.6
DE	2.4	10.4	10.2	10.1	10.5	11.0	11.6	11.9	12.1	12.2	12.4	12.6	12.8
EE	-0.6	4.9	5.5	5.2	5.0	4.9	4.8	4.7	4.6	4.6	4.6	4.5	4.2
IE	4.6	2.6	2.7	2.9	3.2	3.5	4.0	4.4	5.0	5.7	6.6	7.0	7.2
EL	7.7	8.7	8.6	9.0	9.6	10.8	12.5	14.1	15.4	16.3	16.8	16.7	16.4
ES	5.8	5.6	6.0	6.3	6.5	7.0	7.5	8.4	9.5	10.8	11.6	11.7	11.3
FR	0.2	13.0	13.5	13.5	13.5	13.5	13.8	13.9	13.8	13.7	13.5	13.4	13.3
IT	-0.7	13.5	13.5	13.5	13.5	13.6	14.0	14.4	14.7	14.5	13.9	13.3	12.8
CY	8.8	4.8	5.2	5.8	6.4	7.1	7.9	8.7	9.7	10.7	11.9	13.0	13.7
LV	-0.2	4.8	4.7	4.4	4.8	5.2	5.4	5.6	5.6	5.4	5.3	5.1	4.6
LT	4.7	5.6	5.4	5.4	5.8	6.5	7.1	7.6	7.9	8.4	9.2	10.0	10.3
LU	14.1	5.8	5.8	6.1	7.0	8.9	10.8	13.1	14.8	16.9	18.2	19.7	20.0
HU	3.4	9.0	9.5	9.5	9.8	9.6	9.6	10.0	10.8	11.3	11.8	12.2	12.4
MT	6.4	4.2	5.3	6.2	6.4	6.2	6.6	7.0	7.8	8.6	9.2	9.9	10.5
NL	4.5	4.5	4.5	5.3	5.9	6.6	7.6	8.4	8.8	8.8	8.7	8.8	9.0
AT	0.5	9.5	9.6	9.7	10.0	10.3	10.6	10.6	10.5	10.4	10.3	10.3	10.0
PL	-2.4	9.8	9.3	8.3	8.6	8.6	8.3	8.0	7.8	7.8	7.8	7.7	7.5
PT	1.0	9.1	9.6	9.8	10.1	10.2	10.1	9.7	9.7	9.9	10.2	9.9	10.1
RO	8.9	5.3	6.9	7.1	7.4	8.0	8.8	10.0	11.1	12.3	13.3	13.8	14.2
SI	8.2	7.0	7.3	8.0	8.5	9.4	10.6	11.8	13.1	14.1	14.9	15.2	15.2
SK	1.8	4.3	4.0	3.6	3.5	3.9	4.1	4.3	4.7	5.0	5.5	5.9	6.1
FI	4.1	7.5	8.2	9.5	10.4	11.3	11.8	11.8	11.6	11.4	11.3	11.4	11.6
SE	1.1	7.0	7.2	7.3	7.3	7.4	7.5	7.6	7.7	7.5	7.5	7.8	8.1
UK	3.2	5.8	6.1	6.3	6.5	6.8	7.3	7.6	7.8	7.6	7.9	8.4	9.0
NO	4.7	5.7	6.3	7.6	8.2	8.8	9.4	10.1	10.3	10.3	10.2	10.2	10.4
EU27	2.1	9.1	9.2	9.3	9.5	9.8	10.2	10.6	10.9	11.0	11.1	11.2	11.3
EA16	2.2	10.1	10.2	10.3	10.5	10.9	11.3	11.8	12.1	12.3	12.4	12.4	12.3
EU15	2.1	9.3	9.4	9.5	9.7	10.0	10.5	10.8	11.1	11.2	11.2	11.3	11.4
EU12	2.3	7.7	7.7	7.3	7.5	7.7	7.8	8.1	8.5	9.0	9.5	9.8	9.9
EU25	2.0	9.2	9.3	9.3	9.5	9.9	10.3	10.6	10.9	11.0	11.1	11.2	11.2
EA12	2.1	10.2	10.3	10.4	10.6	10.9	11.4	11.9	12.2	12.4	12.4	12.4	12.3
EU10	1.0	8.1	7.8	7.3	7.5	7.6	7.6	7.7	8.1	8.4	8.8	9.1	9.1

Source: Commission services.

Table A 75 - Social security pensions, gross (as % of GDP) – Zero migration scenario

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	6.8	10.0	10.3	11.2	12.5	14.1	15.4	16.4	16.9	17.1	17.1	17.0	16.8
BG	3.3	8.3	9.1	8.6	8.4	8.4	8.6	9.0	9.6	10.2	11.0	11.5	11.5
CZ	4.8	7.8	7.1	7.0	7.1	7.3	7.6	8.1	9.2	10.4	11.4	12.2	12.5
DK	1.1	9.1	9.4	10.3	10.9	10.8	11.1	11.2	11.2	11.0	10.6	10.3	10.1
DE	4.2	10.4	10.2	10.2	10.7	11.4	12.1	12.7	13.2	13.5	13.9	14.3	14.6
EE	-0.6	5.6	6.4	6.2	5.9	5.8	5.6	5.5	5.5	5.4	5.4	5.3	5.0
IE	5.5	4.0	4.1	4.5	4.9	5.4	5.9	6.5	7.2	8.1	9.1	9.4	9.4
EL	16.1	11.6	11.6	12.3	13.4	15.3	17.8	20.6	23.3	25.6	27.2	27.8	27.7
ES	9.7	8.4	9.1	9.8	10.4	11.3	12.3	13.8	15.7	17.8	19.0	19.0	18.1
FR	1.9	13.0	13.5	13.7	13.9	14.3	14.8	15.3	15.3	15.3	15.2	15.1	15.0
IT	1.7	14.0	14.1	14.5	15.0	15.6	16.6	17.5	18.3	18.5	17.6	16.7	15.7
CY	21.0	6.3	7.0	8.4	10.1	11.8	13.7	15.7	18.1	20.6	23.5	25.7	27.2
LV	-0.3	5.4	5.1	4.8	5.2	5.6	5.9	6.1	6.1	5.9	5.8	5.6	5.1
LT	4.3	6.8	6.5	6.5	6.9	7.5	8.1	8.6	8.9	9.4	10.1	10.8	11.1
LU	26.5	8.7	8.7	9.5	11.2	14.6	18.2	22.6	26.3	30.3	32.6	34.9	35.2
HU	4.4	10.9	11.3	11.1	11.3	11.3	11.5	12.1	13.0	13.7	14.4	15.0	15.2
MT	8.5	7.2	8.3	9.3	9.6	9.6	10.0	10.6	11.6	12.8	13.7	14.8	15.7
NL	5.0	6.6	6.5	7.2	7.9	8.7	9.7	10.7	11.2	11.4	11.4	11.5	11.6
AT	6.1	12.8	12.7	13.2	13.8	14.6	15.6	16.3	17.0	17.6	18.2	18.7	18.9
PL	-2.6	11.6	10.8	9.6	9.7	9.7	9.4	9.3	9.3	9.3	9.3	9.2	9.0
PT	4.9	11.4	12.0	12.4	12.9	13.4	13.8	13.8	14.4	15.3	16.1	16.0	16.3
RO	9.7	6.6	8.4	8.5	8.8	9.4	10.5	11.6	12.7	13.9	15.2	15.8	16.3
SI	11.8	9.9	10.1	10.7	11.4	12.4	14.0	15.8	17.6	19.3	20.6	21.4	21.7
SK	3.9	6.8	6.7	6.4	6.3	6.9	7.4	7.9	8.4	9.0	9.8	10.4	10.8
FI	3.9	10.0	10.8	11.9	12.9	13.9	14.5	14.6	14.3	14.1	13.9	13.9	14.0
SE	0.6	9.5	9.7	9.8	9.8	10.0	10.2	10.4	10.3	10.1	9.9	10.0	10.1
UK	5.0	6.6	6.8	7.0	7.4	7.8	8.5	9.1	9.7	9.8	10.2	11.0	11.6
NO	6.0	8.9	9.7	11.2	12.2	13.1	14.0	14.7	15.1	15.1	14.9	14.9	14.9
EU27	4.1	10.1	10.3	10.5	10.9	11.5	12.3	12.9	13.5	13.9	14.1	14.3	14.3
EA16	4.5	11.0	11.2	11.5	12.0	12.7	13.6	14.4	15.1	15.6	15.8	15.8	15.6
EU15	4.2	10.2	10.4	10.7	11.1	11.8	12.5	13.3	13.9	14.2	14.4	14.5	14.5
EU12	3.0	9.2	9.2	8.7	8.9	9.1	9.4	9.8	10.4	11.0	11.6	12.0	12.2
EU25	4.1	10.2	10.3	10.5	11.0	11.6	12.3	13.0	13.6	13.9	14.1	14.2	14.2
EA12	4.5	11.1	11.2	11.6	12.1	12.8	13.7	14.5	15.2	15.6	15.8	15.8	15.6
EU10	1.7	9.7	9.3	8.7	8.9	9.1	9.2	9.5	10.0	10.5	10.9	11.3	11.4

Source: Commission services.

Table A 76 - Old-age and early pensions, gross (as % of GDP) – Zero migration scenario

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	6.9	9.2	9.5	10.4	11.7	13.2	14.6	15.6	16.1	16.3	16.4	16.3	16.1
BG	3.4	6.8	7.3	7.0	6.9	7.0	7.1	7.6	8.1	8.8	9.6	10.1	10.2
CZ	4.9	7.1	6.5	6.4	6.5	6.7	7.0	7.6	8.7	9.9	10.9	11.7	12.0
DK	0.5	7.0	7.4	8.3	8.8	8.6	8.7	8.8	8.9	8.7	8.2	7.8	7.5
DE	4.2	10.4	10.2	10.2	10.7	11.4	12.1	12.7	13.2	13.5	13.9	14.3	14.6
EE	-0.4	4.9	5.5	5.3	5.0	5.0	4.8	4.8	4.8	4.8	4.8	4.7	4.4
IE	5.5	2.6	2.7	3.1	3.5	3.9	4.5	5.1	5.8	6.7	7.7	8.0	8.1
EL	11.7	8.7	8.6	9.2	10.1	11.5	13.5	15.7	17.6	19.3	20.3	20.6	20.4
ES	9.1	5.6	6.1	6.7	7.3	8.1	8.9	10.2	12.0	14.1	15.4	15.4	14.6
FR	1.9	13.0	13.5	13.7	13.9	14.3	14.8	15.3	15.3	15.3	15.2	15.1	15.0
IT	1.9	13.5	13.6	14.0	14.5	15.1	16.1	17.1	18.0	18.1	17.3	16.4	15.4
CY	17.0	4.8	5.3	6.3	7.6	9.0	10.5	12.2	14.2	16.4	18.9	20.6	21.8
LV	0.0	4.8	4.7	4.5	4.8	5.2	5.5	5.7	5.8	5.6	5.5	5.3	4.8
LT	4.5	5.6	5.4	5.4	5.8	6.4	7.0	7.5	7.8	8.2	9.1	9.8	10.1
LU	23.4	5.8	5.9	6.6	8.0	10.8	14.0	18.0	21.4	25.0	27.1	29.1	29.2
HU	5.1	9.0	9.5	9.7	10.1	10.1	10.2	10.8	11.8	12.5	13.2	13.8	14.1
MT	8.8	4.2	5.3	6.3	6.7	6.7	7.2	7.8	8.9	10.0	11.0	12.0	13.0
NL	5.5	4.5	4.5	5.3	6.0	6.9	8.0	9.0	9.6	9.8	9.8	9.9	10.0
AT	6.3	9.5	9.6	10.1	10.7	11.6	12.5	13.2	13.8	14.4	15.0	15.5	15.9
PL	-1.8	9.8	9.3	8.4	8.7	8.8	8.5	8.2	8.1	8.2	8.3	8.3	8.1
PT	4.0	9.1	9.7	10.1	10.6	11.1	11.5	11.4	11.8	12.5	13.1	12.9	13.1
RO	9.4	5.3	6.9	7.1	7.4	8.0	8.9	10.1	11.2	12.5	13.7	14.2	14.7
SI	10.5	7.0	7.3	8.0	8.7	9.6	11.0	12.6	14.2	15.6	16.7	17.3	17.5
SK	2.2	4.3	4.0	3.7	3.6	4.0	4.2	4.5	4.9	5.3	5.9	6.3	6.6
FI	5.0	7.5	8.3	9.6	10.8	11.8	12.6	12.7	12.5	12.4	12.3	12.4	12.5
SE	2.0	7.0	7.2	7.5	7.7	7.9	8.2	8.5	8.7	8.6	8.5	8.7	9.0
UK	5.6	5.8	6.1	6.4	6.9	7.4	8.2	8.8	9.4	9.5	10.0	10.7	11.4
NO	5.9	5.7	6.4	7.9	8.8	9.7	10.5	11.4	11.9	11.9	11.7	11.5	11.6
EU27	4.2	9.1	9.3	9.5	10.0	10.6	11.3	11.9	12.5	12.9	13.2	13.3	13.3
EA16	4.4	10.1	10.2	10.6	11.0	11.7	12.5	13.3	14.0	14.5	14.7	14.7	14.5
EU15	4.3	9.3	9.4	9.7	10.2	10.8	11.6	12.3	12.9	13.2	13.4	13.5	13.5
EU12	3.1	7.7	7.7	7.3	7.6	7.9	8.1	8.5	9.0	9.6	10.2	10.6	10.8
EU25	4.1	9.2	9.3	9.6	10.0	10.6	11.3	12.0	12.6	12.9	13.2	13.3	13.3
EA12	4.4	10.2	10.3	10.6	11.1	11.8	12.6	13.4	14.1	14.6	14.8	14.7	14.5
EU10	1.9	8.1	7.8	7.4	7.7	7.9	8.0	8.2	8.6	9.1	9.5	9.9	10.0

Source: Commission services.

Table A 77 - Social security pensions, gross (as % of GDP) – Higher employment rate (+1p.p.) scenario

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	4.5	10.0	10.3	10.8	11.7	12.8	13.7	14.2	14.4	14.5	14.5	14.6	14.5
BG	2.7	8.3	9.1	8.5	8.2	8.2	8.4	8.7	9.2	9.8	10.5	11.0	11.0
CZ	3.1	7.8	7.0	6.8	6.8	6.9	7.0	7.5	8.3	9.3	10.0	10.6	10.9
DK	0.0	9.1	9.4	10.1	10.5	10.4	10.4	10.4	10.3	9.9	9.5	9.2	9.1
DE	2.2	10.4	10.2	10.0	10.3	10.9	11.4	11.8	12.0	12.1	12.2	12.5	12.7
EE	-0.7	5.6	6.4	6.1	5.8	5.7	5.5	5.4	5.4	5.3	5.3	5.2	4.9
IE	4.5	4.0	4.1	4.3	4.5	4.9	5.3	5.8	6.3	7.0	7.9	8.3	8.5
EL	12.2	11.6	11.5	12.0	12.8	14.4	16.6	18.9	20.9	22.5	23.5	23.9	23.8
ES	6.5	8.4	8.9	9.2	9.4	9.9	10.7	11.7	13.1	14.5	15.3	15.4	14.9
FR	0.8	13.0	13.5	13.4	13.4	13.7	14.0	14.3	14.2	14.1	14.0	13.9	13.8
IT	-0.5	14.0	14.0	13.9	13.9	14.1	14.6	15.1	15.4	15.3	14.6	14.1	13.6
CY	11.3	6.3	6.9	7.8	8.8	9.7	10.7	11.6	12.7	13.9	15.4	16.7	17.6
LV	-0.4	5.4	5.1	4.8	5.1	5.6	5.8	6.1	6.1	5.9	5.8	5.5	5.0
LT	4.4	6.8	6.5	6.5	6.8	7.5	8.1	8.6	9.0	9.4	10.2	10.9	11.2
LU	15.2	8.7	8.6	8.8	9.7	11.9	13.9	16.4	18.2	20.5	21.9	23.6	23.9
HU	2.9	10.9	11.2	10.8	10.8	10.7	10.8	11.3	12.0	12.6	13.1	13.6	13.8
MT	6.1	7.2	8.3	9.0	9.1	9.0	9.2	9.6	10.4	11.2	11.9	12.6	13.3
NL	3.8	6.6	6.5	7.1	7.7	8.3	9.2	9.9	10.2	10.2	10.2	10.2	10.4
AT	0.6	12.8	12.7	12.6	12.7	13.0	13.4	13.5	13.6	13.6	13.6	13.6	13.4
PL	-2.9	11.6	10.8	9.5	9.6	9.6	9.3	9.2	9.1	9.1	9.0	8.9	8.7
PT	1.9	11.4	11.9	12.0	12.2	12.4	12.5	12.2	12.3	12.7	13.2	13.0	13.3
RO	9.0	6.6	8.4	8.4	8.7	9.3	10.3	11.3	12.4	13.5	14.6	15.1	15.5
SI	8.6	9.9	10.1	10.5	10.9	11.8	13.1	14.5	15.9	17.1	18.0	18.4	18.4
SK	3.4	6.8	6.6	6.3	6.2	6.8	7.2	7.7	8.2	8.7	9.3	9.8	10.2
FI	3.2	10.0	10.7	11.7	12.4	13.2	13.8	13.8	13.5	13.2	13.1	13.2	13.3
SE	-0.2	9.5	9.6	9.4	9.3	9.3	9.4	9.4	9.3	9.0	9.0	9.1	9.3
UK	2.6	6.6	6.7	6.7	6.8	7.1	7.5	7.7	8.0	7.8	8.0	8.5	9.2
NO	4.4	8.9	9.6	10.7	11.4	11.9	12.5	13.1	13.2	13.2	13.1	13.2	13.3
EU27	2.2	10.1	10.2	10.2	10.4	10.7	11.2	11.6	11.9	12.1	12.2	12.3	12.4
EA16	2.6	11.0	11.1	11.1	11.4	11.8	12.4	13.0	13.4	13.6	13.7	13.7	13.7
EU15	2.3	10.2	10.3	10.3	10.5	10.9	11.4	11.8	12.1	12.2	12.3	12.4	12.5
EU12	2.2	9.2	9.1	8.6	8.6	8.9	9.1	9.4	9.9	10.5	11.0	11.3	11.4
EU25	2.2	10.2	10.2	10.2	10.4	10.8	11.2	11.6	12.0	12.1	12.2	12.3	12.4
EA12	2.6	11.1	11.2	11.2	11.4	11.9	12.5	13.0	13.4	13.7	13.7	13.7	13.7
EU10	0.9	9.7	9.3	8.6	8.7	8.8	8.9	9.1	9.5	9.9	10.3	10.6	10.6

Source: Commission services.

Table A 78 - Old-age and early pensions, gross (as % of GDP) – Higher employment rate (+1p.p.) scenario

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	4.6	9.2	9.4	10.0	10.9	12.0	12.9	13.5	13.7	13.8	13.8	13.9	13.8
BG	2.9	6.8	7.3	6.9	6.7	6.8	6.9	7.3	7.8	8.4	9.2	9.7	9.7
CZ	3.2	7.1	6.5	6.3	6.2	6.3	6.5	6.9	7.8	8.8	9.6	10.1	10.3
DK	-0.5	7.0	7.4	8.1	8.5	8.2	8.2	8.1	8.1	7.7	7.2	6.8	6.6
DE	2.2	10.4	10.2	10.0	10.3	10.9	11.4	11.8	12.0	12.1	12.2	12.5	12.7
EE	-0.5	4.9	5.5	5.2	5.0	4.9	4.8	4.7	4.7	4.7	4.7	4.6	4.4
IE	4.5	2.6	2.7	2.9	3.1	3.5	3.9	4.3	4.9	5.6	6.5	6.9	7.1
EL	9.0	8.7	8.6	8.9	9.6	10.9	12.6	14.4	15.9	17.0	17.7	17.9	17.7
ES	6.4	5.6	6.0	6.3	6.5	7.1	7.7	8.6	9.9	11.3	12.2	12.3	12.0
FR	0.8	13.0	13.5	13.4	13.4	13.7	14.0	14.3	14.2	14.1	14.0	13.9	13.8
IT	-0.2	13.5	13.5	13.4	13.4	13.7	14.2	14.7	15.1	15.0	14.3	13.8	13.2
CY	9.3	4.8	5.3	5.9	6.6	7.3	8.1	8.9	9.9	10.9	12.3	13.3	14.1
LV	0.0	4.8	4.7	4.4	4.8	5.2	5.4	5.7	5.7	5.5	5.4	5.2	4.7
LT	4.6	5.6	5.4	5.4	5.7	6.4	7.0	7.5	7.8	8.3	9.1	9.9	10.2
LU	14.2	5.8	5.8	6.1	6.9	8.8	10.7	13.0	14.7	16.8	18.2	19.7	20.1
HU	3.7	9.0	9.5	9.5	9.7	9.6	9.6	10.0	10.9	11.5	12.0	12.5	12.7
MT	6.9	4.2	5.3	6.1	6.4	6.3	6.7	7.1	8.0	8.8	9.6	10.4	11.1
NL	4.4	4.5	4.5	5.2	5.8	6.6	7.5	8.3	8.7	8.7	8.6	8.7	8.9
AT	1.2	9.5	9.6	9.7	9.9	10.4	10.8	10.9	10.9	10.9	10.9	10.8	10.7
PL	-2.0	9.8	9.3	8.3	8.6	8.7	8.4	8.1	8.0	8.0	8.0	8.0	7.8
PT	1.5	9.1	9.6	9.8	10.1	10.3	10.3	10.0	10.1	10.3	10.6	10.4	10.6
RO	8.7	5.3	6.9	7.0	7.3	7.9	8.7	9.8	10.9	12.1	13.1	13.6	14.0
SI	7.9	7.0	7.3	7.9	8.3	9.1	10.3	11.6	12.8	13.8	14.6	14.9	14.9
SK	1.9	4.3	4.0	3.6	3.5	3.9	4.1	4.4	4.7	5.1	5.6	6.0	6.2
FI	4.4	7.5	8.2	9.4	10.4	11.3	12.0	12.1	11.8	11.7	11.7	11.8	11.9
SE	1.1	7.0	7.2	7.3	7.2	7.3	7.5	7.6	7.7	7.5	7.5	7.8	8.1
UK	3.2	5.8	6.1	6.2	6.4	6.7	7.2	7.5	7.7	7.6	7.8	8.3	9.0
NO	4.5	5.7	6.3	7.5	8.2	8.8	9.3	10.0	10.2	10.2	10.0	10.0	10.2
EU27	2.4	9.1	9.2	9.2	9.4	9.8	10.3	10.7	11.0	11.2	11.3	11.4	11.5
EA16	2.5	10.1	10.2	10.2	10.4	10.9	11.4	11.9	12.3	12.6	12.7	12.7	12.6
EU15	2.4	9.3	9.4	9.4	9.6	10.0	10.5	10.9	11.2	11.4	11.4	11.5	11.6
EU12	2.4	7.7	7.7	7.2	7.4	7.6	7.8	8.1	8.6	9.1	9.6	9.9	10.1
EU25	2.3	9.2	9.3	9.3	9.5	9.8	10.3	10.7	11.0	11.2	11.3	11.4	11.5
EA12	2.5	10.2	10.3	10.3	10.5	11.0	11.5	12.0	12.4	12.7	12.7	12.8	12.7
EU10	1.2	8.1	7.8	7.3	7.5	7.6	7.7	7.8	8.2	8.5	8.9	9.2	9.3

Source: Commission services.

Table A 79 - Social security pensions, gross (as % of GDP) – Higher older workers employment rate (+5p.p.) scenario

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	4.4	10.0	10.2	10.7	11.5	12.6	13.5	14.0	14.3	14.3	14.3	14.4	14.4
BG	3.2	8.3	9.1	8.6	8.2	8.2	8.3	8.7	9.2	9.9	10.7	11.3	11.5
CZ	4.3	7.8	7.1	6.8	6.8	7.0	7.2	7.8	8.8	9.9	10.8	11.6	12.0
DK	0.0	9.1	9.4	10.1	10.5	10.3	10.4	10.4	10.3	9.9	9.5	9.2	9.1
DE	2.3	10.4	10.2	10.0	10.3	10.9	11.4	11.8	12.0	12.1	12.2	12.5	12.7
EE	-0.7	5.6	6.4	6.1	5.8	5.8	5.6	5.5	5.4	5.3	5.3	5.2	4.9
IE	4.5	4.0	4.1	4.3	4.6	4.9	5.3	5.8	6.3	7.0	7.9	8.3	8.5
EL	12.1	11.6	11.5	12.0	12.8	14.3	16.5	18.8	20.8	22.4	23.5	23.9	23.8
ES	6.7	8.4	8.9	9.0	9.2	9.7	10.5	11.6	13.1	14.6	15.4	15.5	15.1
FR	0.6	13.0	13.4	13.3	13.1	13.4	13.7	14.0	14.0	13.9	13.8	13.7	13.6
IT	-0.3	14.0	14.0	13.8	13.8	14.0	14.6	15.1	15.5	15.5	14.8	14.2	13.7
CY	11.4	6.3	6.9	7.8	8.8	9.8	10.7	11.7	12.8	14.0	15.5	16.7	17.6
LV	-0.4	5.4	5.1	4.8	5.1	5.6	5.8	6.1	6.1	5.9	5.8	5.6	5.1
LT	4.4	6.8	6.5	6.5	6.8	7.5	8.1	8.6	9.0	9.4	10.2	10.9	11.2
LU	15.1	8.7	8.6	8.8	9.7	11.8	13.9	16.4	18.1	20.4	21.8	23.5	23.8
HU	2.8	10.9	11.2	10.8	10.8	10.7	10.8	11.2	11.9	12.5	13.0	13.5	13.7
MT	6.1	7.2	8.3	9.0	9.1	9.0	9.2	9.6	10.4	11.2	11.8	12.6	13.3
NL	3.8	6.6	6.5	7.1	7.7	8.3	9.2	9.9	10.2	10.2	10.2	10.2	10.4
AT	0.4	12.8	12.6	12.6	12.7	13.0	13.4	13.6	13.6	13.6	13.5	13.4	13.1
PL	-2.9	11.6	10.8	9.5	9.6	9.6	9.3	9.2	9.1	9.0	9.0	8.9	8.7
PT	1.9	11.4	11.9	12.1	12.2	12.4	12.5	12.1	12.3	12.7	13.2	13.0	13.3
RO	8.8	6.6	8.4	8.4	8.6	9.2	10.2	11.2	12.2	13.3	14.4	15.0	15.4
SI	8.9	9.9	10.1	10.5	11.0	11.9	13.3	14.8	16.2	17.4	18.3	18.7	18.8
SK	3.3	6.8	6.6	6.3	6.2	6.8	7.2	7.7	8.2	8.6	9.3	9.8	10.2
FI	3.2	10.0	10.7	11.7	12.4	13.2	13.8	13.8	13.5	13.2	13.1	13.2	13.3
SE	-0.3	9.5	9.6	9.4	9.3	9.3	9.3	9.4	9.3	9.0	8.9	9.1	9.2
UK	2.6	6.6	6.7	6.7	6.8	7.1	7.5	7.8	8.0	7.8	8.0	8.5	9.2
NO	:	:	:	:	:	:	:	:	:	:	:	:	:
EU27	2.2	10.1	10.2	10.1	10.3	10.7	11.2	11.6	11.9	12.1	12.2	12.3	12.4
EA16	2.6	11.0	11.1	11.1	11.3	11.8	12.4	12.9	13.3	13.6	13.7	13.7	13.6
EU15	2.2	10.2	10.3	10.3	10.5	10.8	11.4	11.8	12.1	12.2	12.3	12.4	12.4
EU12	2.4	9.2	9.1	8.6	8.7	8.9	9.1	9.5	10.0	10.5	11.0	11.4	11.6
EU25	2.2	10.2	10.2	10.2	10.3	10.7	11.2	11.6	11.9	12.1	12.2	12.3	12.3
EA12	2.5	11.1	11.2	11.2	11.4	11.8	12.4	13.0	13.4	13.6	13.7	13.7	13.6
EU10	1.1	9.7	9.3	8.6	8.7	8.9	8.9	9.2	9.6	10.0	10.4	10.7	10.8

Source: Commission services.

Table A 80 - Old-age and early pensions, gross (as % of GDP) – Higher older workers employment rate (+5p.p.) scenario

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	4.5	9.2	9.4	9.9	10.7	11.8	12.7	13.3	13.5	13.6	13.7	13.7	13.7
BG	3.2	6.8	7.3	6.8	6.6	6.6	6.7	7.1	7.7	8.4	9.2	9.9	10.0
CZ	4.3	7.1	6.5	6.3	6.3	6.4	6.7	7.2	8.2	9.4	10.3	11.0	11.4
DK	-0.5	7.0	7.4	8.1	8.5	8.2	8.2	8.1	8.1	7.7	7.2	6.8	6.6
DE	2.3	10.4	10.2	10.0	10.3	10.9	11.4	11.8	12.0	12.1	12.2	12.5	12.7
EE	-0.5	4.9	5.5	5.2	5.0	5.0	4.8	4.7	4.7	4.7	4.7	4.6	4.4
IE	4.5	2.6	2.7	2.9	3.2	3.5	3.9	4.3	4.9	5.6	6.5	7.0	7.1
EL	9.0	8.7	8.6	8.9	9.6	10.8	12.6	14.4	15.8	17.0	17.7	17.9	17.7
ES	6.5	5.6	6.0	6.1	6.3	6.8	7.5	8.5	9.9	11.4	12.3	12.4	12.1
FR	0.6	13.0	13.4	13.3	13.1	13.4	13.7	14.0	14.0	13.9	13.8	13.7	13.6
IT	-0.1	13.5	13.5	13.3	13.3	13.6	14.1	14.7	15.2	15.2	14.5	13.9	13.4
CY	9.3	4.8	5.3	5.9	6.6	7.4	8.2	9.0	10.0	11.0	12.3	13.4	14.1
LV	0.0	4.8	4.7	4.4	4.8	5.2	5.5	5.7	5.7	5.6	5.4	5.3	4.8
LT	4.6	5.6	5.4	5.4	5.7	6.4	7.0	7.5	7.8	8.3	9.1	9.8	10.2
LU	14.3	5.8	5.8	6.1	6.9	8.8	10.7	13.0	14.7	16.8	18.2	19.8	20.1
HU	3.6	9.0	9.5	9.4	9.7	9.6	9.6	9.9	10.8	11.4	11.9	12.4	12.5
MT	6.9	4.2	5.3	6.1	6.4	6.3	6.7	7.1	7.9	8.8	9.5	10.3	11.1
NL	4.4	4.5	4.5	5.2	5.8	6.6	7.5	8.3	8.7	8.7	8.6	8.7	8.9
AT	1.1	9.5	9.5	9.6	9.9	10.3	10.7	10.9	10.9	10.8	10.8	10.8	10.6
PL	-2.0	9.8	9.3	8.3	8.6	8.7	8.4	8.1	8.0	8.0	8.0	8.0	7.8
PT	1.5	9.1	9.6	9.8	10.1	10.3	10.3	10.0	10.0	10.3	10.6	10.4	10.6
RO	8.6	5.3	6.9	7.0	7.2	7.9	8.6	9.8	10.8	12.0	13.0	13.5	13.9
SI	8.2	7.0	7.3	7.9	8.4	9.3	10.5	11.8	13.0	14.1	14.9	15.2	15.2
SK	1.9	4.3	4.0	3.6	3.5	3.9	4.1	4.4	4.7	5.1	5.6	6.0	6.2
FI	4.4	7.5	8.2	9.4	10.4	11.3	12.0	12.1	11.8	11.7	11.7	11.8	11.9
SE	1.1	7.0	7.2	7.3	7.2	7.3	7.5	7.6	7.7	7.5	7.5	7.8	8.1
UK	3.2	5.8	6.1	6.2	6.4	6.7	7.2	7.5	7.7	7.6	7.8	8.3	9.0
NO	:	:	:	:	:	:	:	:	:	:	:	:	:
EU27	2.4	9.1	9.2	9.2	9.4	9.8	10.2	10.7	11.0	11.2	11.3	11.4	11.5
EA16	2.5	10.1	10.2	10.2	10.4	10.8	11.4	11.9	12.3	12.6	12.7	12.7	12.6
EU15	2.3	9.3	9.4	9.4	9.6	10.0	10.5	10.9	11.2	11.4	11.4	11.5	11.6
EU12	2.6	7.7	7.7	7.2	7.4	7.7	7.8	8.1	8.6	9.2	9.7	10.1	10.2
EU25	2.3	9.2	9.3	9.2	9.4	9.8	10.3	10.7	11.0	11.2	11.3	11.4	11.5
EA12	2.5	10.2	10.2	10.2	10.4	10.9	11.5	12.0	12.4	12.6	12.7	12.7	12.7
EU10	1.4	8.1	7.8	7.3	7.5	7.7	7.7	7.9	8.2	8.6	9.1	9.4	9.5

Source: Commission services.

Table A 81 – Social security pensions, gross as % of GDP (percentage points change from 2007) - Baseline

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	4.7	0.1	0.3	0.9	1.8	3.0	3.9	4.4	4.6	4.7	4.8	4.8	4.8
BG	2.5	0.5	0.8	0.3	0.1	0.1	0.3	0.7	1.2	1.8	2.5	3.0	3.0
CZ	3.6	-0.3	-0.7	-0.9	-0.9	-0.8	-0.6	-0.2	0.7	1.7	2.4	3.0	3.3
DK	0.0	0.1	0.3	1.1	1.6	1.4	1.5	1.4	1.3	1.0	0.5	0.2	0.1
DE	2.4	-0.1	-0.2	-0.4	0.0	0.5	1.1	1.4	1.6	1.7	1.9	2.1	2.3
EE	-1.4	0.7	0.8	0.5	0.3	0.2	0.0	-0.2	-0.2	-0.3	-0.3	-0.4	-0.7
IE	4.5	0.1	0.1	0.3	0.6	1.0	1.4	1.9	2.4	3.2	4.0	4.4	4.6
EL	12.5	-0.1	-0.1	0.5	1.5	3.1	5.4	7.7	9.7	11.3	12.3	12.6	12.4
ES	6.6	0.1	0.5	0.8	1.1	1.6	2.4	3.4	4.8	6.2	7.0	7.1	6.7
FR	0.8	0.2	0.4	0.5	0.6	0.8	1.2	1.4	1.4	1.3	1.2	1.1	1.0
IT	-0.5	0.1	0.0	0.0	0.1	0.3	0.8	1.2	1.6	1.4	0.7	0.2	-0.4
CY	11.1	0.3	0.6	1.5	2.6	3.5	4.5	5.4	6.5	7.7	9.2	10.5	11.4
LV	-0.1	-0.2	-0.3	-0.6	-0.3	0.2	0.4	0.7	0.7	0.5	0.4	0.1	-0.4
LT	4.7	-0.2	-0.3	-0.3	0.1	0.8	1.4	1.9	2.3	2.8	3.6	4.2	4.6
LU	15.3	0.0	-0.1	0.2	1.2	3.4	5.5	8.0	9.7	12.0	13.4	15.0	15.2
HU	2.7	0.3	0.4	0.1	0.2	0.1	0.2	0.6	1.3	1.9	2.4	2.8	3.0
MT	5.6	0.6	1.1	1.9	2.1	1.9	2.1	2.5	3.3	4.1	4.8	5.5	6.2
NL	4.2	-0.2	-0.1	0.6	1.2	1.9	2.7	3.4	3.8	3.8	3.7	3.8	4.0
AT	0.9	-0.1	-0.1	0.0	0.3	0.6	1.0	1.2	1.2	1.2	1.2	1.1	0.9
PL	-3.1	0.2	-0.7	-2.0	-1.8	-1.9	-2.2	-2.3	-2.4	-2.4	-2.5	-2.6	-2.8
PT	1.6	0.4	0.6	0.7	1.0	1.2	1.2	0.9	1.1	1.5	2.0	1.8	2.1
RO	8.2	1.0	1.8	1.9	2.3	2.8	3.9	5.0	6.0	7.2	8.3	8.8	9.2
SI	8.6	0.1	0.2	0.7	1.2	2.1	3.4	4.9	6.3	7.5	8.3	8.7	8.8
SK	3.5	0.0	-0.2	-0.5	-0.5	0.1	0.5	1.0	1.5	1.9	2.6	3.1	3.4
FI	3.2	0.2	0.7	1.7	2.6	3.4	3.9	3.9	3.6	3.3	3.2	3.3	3.3
SE	-0.2	0.0	0.1	0.0	-0.1	-0.1	0.0	-0.1	-0.2	-0.4	-0.5	-0.3	-0.1
UK	2.6	0.1	0.2	0.2	0.3	0.6	1.0	1.3	1.5	1.3	1.5	2.0	2.7
NO	4.8	-0.1	0.7	1.9	2.6	3.2	3.8	4.3	4.5	4.5	4.4	4.6	4.7
EU27	2.3	0.1	0.1	0.1	0.4	0.7	1.2	1.6	2.0	2.1	2.2	2.3	2.4
EA16	2.7	0.0	0.1	0.2	0.5	1.0	1.5	2.1	2.5	2.7	2.8	2.8	2.8
EU15	2.3	0.0	0.1	0.2	0.4	0.8	1.4	1.8	2.1	2.2	2.2	2.3	2.4
EU12	2.1	0.2	0.0	-0.6	-0.4	-0.2	0.0	0.4	0.9	1.4	1.9	2.2	2.3
EU25	2.3	0.0	0.1	0.1	0.3	0.7	1.2	1.6	1.9	2.0	2.1	2.2	2.3
EA12	2.7	0.0	0.1	0.2	0.5	1.0	1.6	2.1	2.5	2.7	2.8	2.8	2.7
EU10	0.9	0.1	-0.4	-1.0	-0.9	-0.8	-0.7	-0.5	-0.1	0.3	0.7	1.0	1.0

Source: Commission services.

Table A 82 – Social security pensions, gross as % of GDP (p.p. ch from 2007 due to Dependency ratio) - Baseline

Country	Ch. 08-60	2008	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	7.7	-0.1	0.1	0.9	1.8	3.0	4.5	5.6	6.3	6.6	6.9	7.2	7.7
BG	12.8	0.0	0.1	1.1	2.1	2.9	3.8	4.7	6.2	8.2	10.2	12.1	12.8
CZ	15.7	0.1	0.6	2.4	4.2	5.2	5.9	6.7	8.6	11.5	13.3	14.8	15.8
DK	7.4	0.2	0.7	2.3	3.4	4.4	5.7	7.0	7.6	7.6	7.1	7.0	7.6
DE	10.1	0.1	0.5	0.8	1.9	3.4	5.7	8.0	8.7	8.8	9.3	9.9	10.2
EE	6.8	0.0	0.0	0.4	0.9	1.5	2.1	2.5	3.1	3.8	4.9	6.4	6.8
IE	6.7	0.0	0.1	0.6	1.0	1.5	2.1	2.7	3.6	4.7	6.0	6.6	6.8
EL	12.4	0.1	0.2	1.2	2.2	3.3	4.6	6.6	8.7	10.8	12.4	12.6	12.4
ES	12.2	0.0	0.1	0.6	1.1	2.1	3.5	5.4	7.7	10.3	12.0	12.5	12.2
FR	10.3	0.1	0.3	2.1	3.9	5.5	7.2	8.6	9.7	9.8	10.1	10.3	10.4
IT	13.4	0.1	0.4	1.6	2.5	3.6	5.7	8.4	11.1	12.9	13.5	13.6	13.5
CY	9.5	0.0	0.1	0.8	1.7	2.6	3.5	4.1	4.7	5.6	7.1	8.5	9.6
LV	8.6	0.0	0.1	0.3	0.7	1.4	2.1	2.7	3.5	4.4	5.8	7.7	8.7
LT	12.8	0.1	0.1	0.4	1.0	2.1	3.6	4.8	6.0	6.9	8.5	10.9	12.8
LU	7.6	0.1	0.1	0.6	1.5	2.7	4.2	5.7	6.5	6.9	7.1	7.3	7.7
HU	16.0	0.2	0.5	1.5	3.4	4.7	5.1	6.1	7.9	11.0	13.0	14.7	16.2
MT	14.6	0.2	0.7	2.7	4.4	6.1	7.3	7.6	8.3	9.6	11.3	13.0	14.7
NL	7.8	0.1	0.4	1.7	2.8	4.1	5.7	7.1	7.7	7.5	7.4	7.5	7.9
AT	12.9	0.2	0.5	1.2	2.1	3.9	6.7	9.4	10.7	11.1	11.9	12.4	13.1
PL	30.5	0.0	0.0	1.8	5.0	8.5	10.4	11.5	13.6	17.2	22.4	27.1	30.5
PT	12.8	0.1	0.4	1.3	2.2	3.4	4.9	6.4	8.4	10.6	12.1	12.7	12.9
RO	13.5	0.0	0.0	0.4	1.3	2.4	2.8	4.3	6.0	8.2	10.1	12.8	13.6
SI	17.0	0.1	0.5	1.6	3.7	5.9	7.9	9.9	11.6	13.9	16.0	17.2	17.2
SK	21.5	0.0	0.2	1.1	3.1	5.0	6.6	7.8	9.7	12.9	16.1	19.2	21.5
FI	9.9	0.0	0.4	2.8	4.9	6.4	7.7	8.5	8.2	8.4	8.9	9.2	9.9
SE	7.2	0.1	0.5	1.8	2.6	3.2	4.0	4.7	5.2	5.3	5.6	6.3	7.3
UK	4.9	0.0	0.2	0.8	1.2	1.7	2.5	3.2	3.5	3.5	3.8	4.4	4.9
NO	8.7	0.0	0.2	1.4	2.4	3.6	4.8	6.2	7.2	7.5	7.7	8.0	8.7
EU27	11.3	0.1	0.3	1.2	2.4	3.6	5.2	6.8	8.1	9.2	10.1	11.0	11.4
EA16	11.2	0.1	0.3	1.2	2.3	3.7	5.5	7.5	9.0	10.0	10.8	11.2	11.3
EU15	9.5	0.1	0.3	1.2	2.1	3.2	4.8	6.5	7.7	8.3	8.9	9.4	9.6
EU12	19.6	0.0	0.2	1.3	3.1	5.0	6.1	7.4	9.2	12.0	14.9	17.9	19.7
EU25	11.0	0.1	0.3	1.3	2.4	3.6	5.2	6.8	8.1	9.1	10.0	10.7	11.1
EA12	11.0	0.1	0.3	1.2	2.3	3.6	5.4	7.4	8.9	9.9	10.6	11.0	11.0
EU10	21.6	0.1	0.2	1.6	3.8	6.0	7.4	8.4	10.3	13.2	16.4	19.5	21.6

Source: Commission services.

Table A 83 - Social security pensions, gross as % of GDP (p.p. ch from 2007 due to Coverage ratio) - Baseline

Country	Ch. 08-60	2008	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	-0.8	0.1	0.1	0.1	0.1	-0.1	-0.3	-0.5	-0.6	-0.6	-0.6	-0.6	-0.7
BG	-3.2	0.0	-0.1	-0.6	-1.2	-1.5	-1.7	-1.6	-1.8	-2.2	-2.4	-2.9	-3.3
CZ	-4.5	-0.2	-0.5	-1.5	-2.3	-2.9	-3.2	-3.2	-3.6	-4.1	-4.3	-4.5	-4.7
DK	-5.9	-0.1	-0.3	-0.8	-1.2	-2.0	-3.1	-3.8	-4.3	-4.6	-4.9	-5.3	-6.0
DE	-2.0	0.0	-0.2	-0.2	-0.5	-0.8	-1.3	-1.8	-1.9	-1.9	-1.9	-2.0	-2.0
EE	-2.0	0.0	0.1	-0.2	-0.5	-0.7	-0.9	-1.0	-1.1	-1.2	-1.4	-1.8	-2.0
IE	-1.3	0.0	-0.1	-0.3	-0.5	-0.6	-0.7	-0.8	-1.0	-1.2	-1.3	-1.3	-1.4
EL	-0.7	-0.1	-0.2	-0.7	-0.9	-1.1	-1.0	-1.1	-1.1	-1.2	-1.2	-1.0	-0.8
ES	-0.7	0.0	-0.1	-0.3	-0.3	-0.3	-0.4	-0.5	-0.6	-0.7	-0.8	-0.8	-0.8
FR	-2.5	0.2	0.3	-0.5	-1.0	-1.4	-1.7	-2.0	-2.3	-2.2	-2.2	-2.3	-2.3
IT	-3.3	-0.2	-0.5	-1.4	-1.6	-1.6	-1.8	-2.3	-2.8	-3.3	-3.6	-3.5	-3.6
CY	0.9	0.2	0.5	0.7	0.8	0.9	0.9	1.0	1.1	1.2	1.1	1.1	1.1
LV	-1.7	-0.1	-0.3	-0.7	-0.7	-0.7	-0.9	-0.9	-1.0	-1.1	-1.2	-1.5	-1.8
LT	-2.1	-0.1	-0.1	-0.1	0.0	-0.2	-0.7	-1.1	-1.3	-1.3	-1.4	-1.8	-2.2
LU	2.6	0.1	0.3	0.9	1.2	1.5	1.6	1.8	2.1	2.4	2.6	2.8	2.7
HU	-6.7	-0.1	-0.6	-1.2	-2.4	-3.3	-3.3	-3.5	-4.0	-5.3	-5.8	-6.3	-6.8
MT	-3.1	0.3	0.3	-0.4	-0.8	-1.3	-1.7	-1.8	-1.9	-2.2	-2.6	-2.7	-2.9
NL	-1.4	-0.1	-0.2	-0.5	-0.7	-1.0	-1.2	-1.3	-1.4	-1.4	-1.4	-1.4	-1.5
AT	-2.8	-0.1	-0.2	-0.3	-0.5	-1.3	-2.5	-3.7	-4.0	-3.7	-3.5	-3.2	-2.9
PL	-10.6	-0.4	-0.9	-2.9	-5.0	-6.9	-7.7	-7.7	-7.8	-8.3	-9.4	-10.3	-10.9
PT	-1.6	0.0	-0.1	-0.3	-0.4	-0.6	-0.8	-1.0	-1.4	-1.8	-1.9	-1.8	-1.7
RO	-4.1	0.0	-0.3	-0.7	-1.5	-2.2	-1.8	-2.2	-2.5	-2.9	-3.2	-4.0	-4.2
SI	-3.2	0.0	-0.2	-0.3	-1.2	-1.8	-2.0	-2.2	-2.2	-2.5	-2.8	-3.1	-3.2
SK	-5.0	-0.1	-0.3	-0.9	-2.0	-2.5	-2.9	-3.0	-3.2	-3.8	-4.3	-4.7	-5.0
FI	-3.2	0.1	0.0	-1.1	-1.7	-2.2	-2.5	-2.8	-2.8	-2.9	-3.0	-3.0	-3.2
SE	-0.4	0.0	-0.1	-0.5	-0.3	-0.2	-0.2	-0.3	-0.2	-0.2	-0.2	-0.2	-0.4
UK	-1.5	0.0	0.1	-0.4	-0.7	-0.9	-0.9	-1.1	-1.1	-1.3	-1.6	-1.6	-1.5
NO	-0.9	0.0	0.2	0.2	0.0	-0.3	-0.5	-0.7	-1.0	-0.9	-0.9	-0.9	-0.9
EU27	-2.7	-0.1	-0.2	-0.7	-1.2	-1.5	-1.8	-2.1	-2.2	-2.4	-2.6	-2.7	-2.8
EA16	-2.0	0.0	-0.1	-0.5	-0.8	-1.0	-1.3	-1.6	-1.8	-2.0	-2.0	-2.0	-2.0
EU15	-1.9	0.0	-0.1	-0.5	-0.7	-0.9	-1.2	-1.5	-1.7	-1.8	-1.9	-1.9	-1.9
EU12	-6.1	-0.2	-0.5	-1.4	-2.6	-3.5	-3.8	-3.9	-4.2	-4.7	-5.2	-5.9	-6.2
EU25	-2.5	-0.1	-0.2	-0.7	-1.1	-1.4	-1.7	-2.0	-2.2	-2.3	-2.5	-2.6	-2.6
EA12	-1.9	0.0	-0.1	-0.5	-0.7	-1.0	-1.3	-1.6	-1.8	-1.9	-2.0	-2.0	-1.9
EU10	-6.8	-0.2	-0.6	-1.8	-3.0	-4.1	-4.6	-4.6	-4.9	-5.4	-6.0	-6.6	-7.0

Source: Commission services.

Table A 84 - Social security pensions, gross as % of GDP (p.p. ch from 2007 due to Employment effect) - Baseline

Country	Ch. 08-60	2008	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	-0.5	0.0	-0.1	-0.4	-0.5	-0.4	-0.4	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5
BG	-0.4	-0.1	-0.3	-0.6	-0.6	-0.5	-0.5	-0.4	-0.3	-0.3	-0.3	-0.4	-0.5
CZ	-0.4	0.0	-0.2	-0.4	-0.5	-0.4	-0.3	-0.4	-0.3	-0.4	-0.4	-0.4	-0.4
DK	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.2	-0.1	-0.1	-0.1
DE	-0.6	-0.1	-0.2	-0.5	-0.6	-0.6	-0.7	-0.8	-0.8	-0.7	-0.7	-0.7	-0.7
EE	-0.2	0.0	-0.2	-0.3	-0.3	-0.2	-0.2	-0.2	-0.2	-0.2	-0.1	-0.2	-0.2
IE	-0.2	0.0	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
EL	-0.5	-0.1	-0.2	-0.5	-0.7	-0.6	-0.5	-0.5	-0.5	-0.5	-0.6	-0.6	-0.6
ES	-0.8	0.0	-0.2	-0.5	-0.6	-0.6	-0.7	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8
FR	-0.5	0.0	0.0	-0.2	-0.3	-0.3	-0.4	-0.4	-0.5	-0.5	-0.5	-0.5	-0.5
IT	-1.1	0.0	-0.3	-0.7	-0.9	-1.0	-1.1	-1.1	-1.1	-1.2	-1.2	-1.1	-1.1
CY	-0.4	-0.1	-0.2	-0.4	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5
LV	-0.1	0.0	-0.2	-0.3	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1	0.0	0.0	-0.2
LT	0.0	0.0	-0.2	-0.3	-0.3	-0.3	-0.2	-0.1	-0.1	-0.1	0.0	0.0	-0.1
LU	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	-0.1	-0.1	-0.1	0.0	0.0	0.0
HU	-0.6	-0.1	-0.3	-0.7	-0.9	-1.0	-0.8	-0.7	-0.6	-0.7	-0.7	-0.7	-0.7
MT	-0.6	0.1	0.0	-0.2	-0.4	-0.5	-0.6	-0.6	-0.5	-0.5	-0.5	-0.5	-0.6
NL	-0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.1	-0.1
AT	-0.4	0.0	-0.1	-0.2	-0.2	-0.2	-0.3	-0.5	-0.5	-0.5	-0.5	-0.4	-0.5
PL	-0.8	-0.2	-0.6	-0.8	-1.0	-1.2	-1.2	-1.0	-0.8	-0.8	-0.9	-0.9	-1.0
PT	-0.5	-0.1	-0.3	-0.5	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
RO	0.2	-0.1	-0.1	-0.2	-0.2	-0.2	0.0	0.1	0.2	0.2	0.2	0.1	0.1
SI	-0.1	0.0	-0.1	-0.2	-0.3	-0.2	-0.1	0.0	0.1	0.0	-0.1	-0.1	-0.1
SK	-0.6	0.0	-0.1	-0.5	-0.7	-0.8	-0.7	-0.6	-0.5	-0.5	-0.5	-0.5	-0.6
FI	-0.5	-0.1	-0.1	-0.3	-0.4	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5
SE	-0.4	-0.1	-0.1	-0.3	-0.4	-0.3	-0.3	-0.3	-0.4	-0.4	-0.4	-0.4	-0.4
UK	-0.2	0.0	0.0	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.3	-0.3	-0.3	-0.3
NO	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.2
EU27	-0.6	-0.1	-0.2	-0.4	-0.5	-0.5	-0.5	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
EA16	-0.6	0.0	-0.2	-0.4	-0.6	-0.6	-0.6	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7
EU15	-0.5	0.0	-0.1	-0.4	-0.5	-0.5	-0.5	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
EU12	-0.4	-0.1	-0.3	-0.5	-0.6	-0.7	-0.6	-0.5	-0.4	-0.4	-0.4	-0.5	-0.5
EU25	-0.6	-0.1	-0.2	-0.4	-0.5	-0.5	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
EA12	-0.6	0.0	-0.2	-0.4	-0.6	-0.6	-0.6	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7
EU10	-0.6	-0.1	-0.4	-0.6	-0.7	-0.8	-0.8	-0.7	-0.6	-0.6	-0.6	-0.7	-0.7

Source: Commission services.

Table A 85 - Social security pensions, gross as % of GDP (p.p. ch from 2007 due to Benefit ratio) - Baseline

Country	Ch. 08-60	2008	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	-0.5	0.0	0.2	0.4	0.5	0.5	0.5	0.3	0.1	-0.1	-0.3	-0.4	-0.6
BG	-2.2	0.6	1.2	0.6	0.1	-0.3	-0.7	-1.0	-1.2	-1.4	-1.5	-1.6	-1.5
CZ	-1.1	-0.2	-0.6	-1.1	-1.4	-1.6	-1.7	-1.6	-1.5	-1.3	-1.3	-1.3	-1.3
DK	-0.5	0.0	-0.1	-0.2	-0.4	-0.4	-0.4	-0.4	-0.5	-0.6	-0.6	-0.5	-0.5
DE	-1.8	-0.1	-0.3	-0.4	-0.5	-0.8	-1.2	-1.7	-1.8	-1.9	-1.9	-1.9	-1.9
EE	-3.2	0.7	1.0	0.6	0.1	-0.3	-0.8	-1.1	-1.3	-1.6	-2.0	-2.3	-2.5
IE	0.5	0.1	0.1	0.2	0.3	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.6
EL	1.4	0.0	0.1	0.5	1.0	1.6	2.3	2.6	2.5	2.2	1.9	1.7	1.4
ES	-1.2	0.2	0.6	1.1	1.0	0.7	0.4	0.1	-0.2	-0.4	-0.6	-0.8	-0.9
FR	-3.3	0.0	-0.2	-0.7	-1.3	-1.9	-2.3	-2.5	-2.8	-3.0	-3.2	-3.3	-3.4
IT	-4.6	0.2	0.4	0.6	0.3	-0.3	-1.0	-1.8	-2.4	-2.9	-3.5	-4.0	-4.4
CY	-0.1	0.1	0.2	0.4	0.5	0.3	0.2	0.2	0.4	0.3	0.3	0.2	0.1
LV	-2.6	-0.1	0.0	-0.1	-0.1	-0.3	-0.5	-0.6	-0.9	-1.5	-2.0	-2.5	-2.8
LT	-1.2	-0.1	-0.2	-0.2	-0.3	-0.4	-0.5	-0.7	-0.8	-0.9	-1.1	-1.2	-1.3
LU	0.2	-0.2	-0.5	-1.2	-1.4	-1.0	-1.0	-0.7	-0.6	-0.3	-0.3	0.0	0.0
HU	-1.4	0.4	0.8	0.6	0.5	0.2	-0.2	-0.4	-0.5	-0.6	-0.8	-0.9	-1.0
MT	-0.5	0.1	0.0	0.0	-0.5	-0.9	-0.9	-0.8	-0.5	-0.3	-0.3	-0.3	-0.4
NL	-0.3	-0.3	-0.3	-0.4	-0.4	-0.5	-0.6	-0.6	-0.6	-0.5	-0.5	-0.5	-0.5
AT	-3.8	-0.1	-0.3	-0.6	-0.9	-1.2	-1.5	-1.8	-2.2	-2.6	-3.0	-3.5	-4.0
PL	-7.1	0.9	0.7	-0.4	-0.9	-1.5	-2.3	-3.0	-3.8	-4.6	-5.3	-5.9	-6.3
PT	-3.9	0.4	0.5	0.3	0.0	-0.4	-1.2	-2.1	-2.6	-2.9	-3.1	-3.5	-3.5
RO	1.0	1.1	2.3	2.6	2.9	3.0	2.9	2.8	2.6	2.4	2.3	2.1	2.1
SI	-0.7	0.0	-0.1	-0.3	-0.6	-0.8	-0.8	-0.8	-0.7	-0.7	-0.7	-0.7	-0.7
SK	-1.9	0.0	0.1	-0.1	-0.3	-0.5	-0.7	-0.9	-1.1	-1.4	-1.6	-1.8	-1.9
FI	-0.7	0.2	0.4	0.5	0.6	0.5	0.5	0.3	0.2	0.0	-0.2	-0.4	-0.5
SE	-3.6	0.0	-0.1	-0.7	-1.4	-1.9	-2.3	-2.6	-2.9	-3.2	-3.3	-3.5	-3.6
UK	0.4	0.0	0.0	-0.1	0.0	0.0	-0.1	-0.2	-0.2	0.0	0.1	0.3	0.4
NO	-1.3	-0.2	0.1	0.1	0.0	-0.2	-0.4	-0.6	-0.8	-1.0	-1.1	-1.3	-1.4
EU27	-2.1	0.1	0.2	0.1	-0.1	-0.4	-0.7	-1.0	-1.3	-1.5	-1.7	-1.9	-2.0
EA16	-2.3	0.0	0.1	0.0	-0.2	-0.6	-0.9	-1.3	-1.6	-1.8	-2.0	-2.2	-2.3
EU15	-1.9	0.0	0.0	-0.1	-0.2	-0.5	-0.8	-1.1	-1.4	-1.5	-1.7	-1.8	-1.9
EU12	-2.9	0.5	0.6	0.1	-0.1	-0.4	-0.8	-1.1	-1.4	-1.7	-2.0	-2.3	-2.5
EU25	-2.1	0.1	0.1	0.0	-0.2	-0.5	-0.8	-1.1	-1.3	-1.5	-1.7	-1.9	-2.0
EA12	-2.3	0.0	0.1	0.0	-0.2	-0.6	-0.9	-1.3	-1.6	-1.8	-2.0	-2.2	-2.3
EU10	-3.7	0.4	0.3	-0.3	-0.6	-1.0	-1.4	-1.7	-2.1	-2.5	-2.8	-3.1	-3.3

Source: Commission services.

Table A 86 - Social security pensions, gross as % of GDP (p.p. ch from 2007 due to Interaction effect) - Baseline

Country	Ch. 08-60	2008	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	-1.2	0.0	0.0	0.0	-0.1	-0.1	-0.3	-0.5	-0.7	-0.7	-0.9	-1.0	-1.2
BG	-4.5	0.0	-0.1	-0.2	-0.3	-0.5	-0.7	-1.1	-1.6	-2.5	-3.3	-4.3	-4.5
CZ	-6.1	0.0	0.0	-0.3	-0.8	-1.1	-1.4	-1.7	-2.6	-3.9	-4.8	-5.6	-6.1
DK	-0.9	0.0	0.0	-0.1	-0.3	-0.5	-0.8	-1.2	-1.4	-1.3	-1.0	-0.9	-0.9
DE	-3.2	0.0	0.0	0.0	-0.3	-0.6	-1.4	-2.4	-2.6	-2.6	-2.9	-3.2	-3.2
EE	-2.8	0.0	0.0	0.0	0.0	-0.1	-0.3	-0.4	-0.7	-1.1	-1.7	-2.6	-2.8
IE	-1.2	0.0	0.0	0.0	-0.1	-0.1	-0.2	-0.3	-0.5	-0.8	-1.1	-1.2	-1.2
EL	-0.1	0.0	0.0	0.0	-0.1	-0.1	0.1	0.2	0.2	0.0	-0.2	-0.1	-0.1
ES	-3.0	0.0	0.0	-0.1	-0.1	-0.1	-0.4	-0.8	-1.4	-2.2	-2.8	-3.0	-3.0
FR	-3.2	0.0	0.0	-0.3	-0.6	-1.1	-1.7	-2.2	-2.7	-2.8	-3.0	-3.2	-3.2
IT	-4.9	0.0	0.0	0.0	-0.2	-0.5	-1.1	-2.1	-3.2	-4.1	-4.5	-4.7	-4.9
CY	1.1	0.0	0.0	0.1	0.2	0.3	0.4	0.6	0.9	1.1	1.2	1.2	1.1
LV	-4.3	0.0	0.0	0.2	0.1	0.0	-0.2	-0.3	-0.7	-1.2	-2.2	-3.5	-4.3
LT	-4.7	0.0	0.0	-0.1	-0.2	-0.4	-0.7	-1.1	-1.5	-1.8	-2.4	-3.6	-4.7
LU	4.8	0.0	0.0	0.0	0.0	0.3	0.6	1.2	1.8	3.1	3.9	4.9	4.8
HU	-4.7	0.0	0.0	-0.1	-0.4	-0.6	-0.7	-1.0	-1.5	-2.6	-3.3	-4.0	-4.7
MT	-4.7	0.0	0.1	-0.2	-0.7	-1.5	-2.0	-2.0	-2.1	-2.5	-3.1	-3.9	-4.7
NL	-1.8	0.0	0.0	-0.2	-0.4	-0.7	-1.1	-1.6	-1.8	-1.6	-1.6	-1.6	-1.8
AT	-4.8	0.0	0.0	0.0	-0.2	-0.6	-1.3	-2.3	-2.8	-3.1	-3.7	-4.2	-4.8
PL	-15.1	0.0	0.0	0.4	0.0	-0.7	-1.4	-2.1	-3.5	-5.9	-9.3	-12.6	-15.1
PT	-5.1	0.0	0.0	-0.1	-0.2	-0.5	-1.0	-1.8	-2.7	-3.8	-4.5	-5.0	-5.1
RO	-2.4	0.0	-0.1	-0.1	-0.2	-0.2	0.0	-0.1	-0.3	-0.7	-1.1	-2.3	-2.4
SI	-4.4	0.0	0.1	0.0	-0.4	-1.0	-1.6	-2.0	-2.4	-3.2	-4.0	-4.5	-4.4
SK	-10.6	0.0	0.0	-0.1	-0.5	-1.1	-1.8	-2.3	-3.4	-5.2	-7.1	-9.1	-10.6
FI	-2.4	0.0	0.0	-0.2	-0.6	-1.0	-1.3	-1.6	-1.5	-1.7	-1.9	-2.1	-2.4
SE	-3.0	0.0	-0.1	-0.3	-0.6	-0.8	-1.2	-1.5	-1.8	-1.9	-2.1	-2.6	-3.0
UK	-0.9	0.0	0.0	-0.1	-0.1	-0.1	-0.3	-0.5	-0.6	-0.5	-0.6	-0.8	-0.9
NO	-1.8	-0.1	-0.1	0.0	-0.1	-0.2	-0.4	-0.8	-1.2	-1.3	-1.4	-1.6	-1.9
EU27	-3.6	0.0	0.0	-0.1	-0.2	-0.5	-1.0	-1.5	-2.0	-2.5	-3.0	-3.4	-3.6
EA16	-3.6	0.0	0.0	-0.1	-0.3	-0.6	-1.1	-1.8	-2.4	-2.8	-3.2	-3.5	-3.6
EU15	-2.9	0.0	0.0	-0.1	-0.2	-0.5	-0.9	-1.5	-2.0	-2.2	-2.5	-2.7	-2.9
EU12	-8.1	0.0	0.0	0.0	-0.2	-0.6	-1.0	-1.5	-2.4	-3.8	-5.4	-7.1	-8.1
EU25	-3.5	0.0	0.0	-0.1	-0.3	-0.5	-1.0	-1.6	-2.1	-2.5	-2.9	-3.3	-3.5
EA12	-3.5	0.0	0.0	-0.1	-0.3	-0.6	-1.1	-1.8	-2.4	-2.8	-3.2	-3.4	-3.5
EU10	-9.5	0.0	0.0	0.0	-0.3	-0.8	-1.3	-1.8	-2.8	-4.4	-6.3	-8.2	-9.5

Source: Commission services.

HEALTH-CARE EXPENDITURE PROJECTIONS

Table A 87 – Health care spending – AWG reference scenario (as % of GDP)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	1.2	7.6	7.7	7.9	8.1	8.2	8.4	8.6	8.7	8.8	8.8	8.8	8.8
BG	0.7	4.7	4.8	4.9	5.0	5.0	5.1	5.3	5.4	5.4	5.5	5.5	5.4
CZ	2.2	6.2	6.4	6.7	6.9	7.1	7.4	7.6	7.8	8.0	8.1	8.3	8.4
DK	1.0	5.9	6.0	6.2	6.4	6.6	6.7	6.8	6.8	6.9	6.9	6.9	6.9
DE	1.8	7.4	7.6	7.9	8.1	8.3	8.5	8.8	9.0	9.2	9.2	9.2	9.2
EE	1.2	4.9	5.1	5.2	5.3	5.4	5.5	5.6	5.8	5.9	6.0	6.1	6.1
IE	1.8	5.8	5.9	6.0	6.1	6.3	6.5	6.7	6.9	7.1	7.3	7.5	7.6
EL	1.4	5.0	5.1	5.3	5.4	5.5	5.7	5.9	6.0	6.2	6.3	6.3	6.4
ES	1.6	5.5	5.6	5.7	5.9	6.1	6.3	6.6	6.8	7.0	7.1	7.2	7.2
FR	1.2	8.1	8.2	8.4	8.6	8.7	8.9	9.1	9.2	9.3	9.3	9.4	9.4
IT	1.1	5.9	5.9	6.1	6.2	6.4	6.5	6.7	6.9	7.0	7.0	7.0	6.9
CY	0.6	2.7	2.8	2.8	2.9	2.9	3.0	3.1	3.1	3.2	3.2	3.3	3.3
LV	0.6	3.5	3.5	3.6	3.7	3.7	3.8	3.9	3.9	4.0	4.0	4.1	4.1
LT	1.1	4.5	4.6	4.7	4.9	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.6
LU	1.2	5.8	5.9	6.1	6.2	6.4	6.5	6.7	6.8	6.9	7.0	7.0	7.0
HU	1.3	5.8	5.8	5.9	6.0	6.2	6.4	6.5	6.7	6.8	6.9	7.0	7.0
MT	3.3	4.7	4.9	5.3	5.6	6.0	6.4	6.9	7.2	7.4	7.6	7.7	8.0
NL	1.0	4.8	4.9	5.1	5.3	5.4	5.6	5.7	5.8	5.8	5.9	5.8	5.8
AT	1.5	6.5	6.6	6.8	7.0	7.2	7.4	7.6	7.8	8.0	8.1	8.0	8.0
PL	1.0	4.0	4.1	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.9	5.0	5.0
PT	1.9	7.2	7.3	7.5	7.6	7.8	8.0	8.3	8.5	8.7	8.9	9.0	9.1
RO	1.4	3.5	3.6	3.7	3.8	3.9	4.1	4.3	4.4	4.6	4.7	4.8	4.9
SI	1.9	6.6	6.8	7.1	7.3	7.5	7.8	8.0	8.2	8.3	8.4	8.5	8.5
SK	2.3	5.0	5.2	5.4	5.7	6.0	6.2	6.5	6.7	6.9	7.1	7.2	7.2
FI	1.0	5.5	5.6	5.8	6.0	6.1	6.3	6.4	6.5	6.5	6.5	6.4	6.5
SE	0.8	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	7.9	8.0	8.0	8.0
UK	1.9	7.5	7.6	7.8	8.0	8.1	8.4	8.7	8.9	9.1	9.2	9.3	9.4
NO	1.3	5.6	5.7	5.8	6.0	6.2	6.5	6.6	6.8	6.9	6.9	7.0	7.0
EU27	1.7	6.7	6.8	6.9	7.1	7.2	7.4	7.7	7.9	8.1	8.2	8.4	8.4
EA16	1.5	6.7	6.8	6.9	7.1	7.2	7.4	7.6	7.8	8.0	8.1	8.1	8.1
EU15	1.6	6.9	7.0	7.2	7.3	7.5	7.7	7.9	8.1	8.3	8.4	8.4	8.5
EU12	1.4	4.7	4.8	4.9	5.1	5.2	5.4	5.5	5.7	5.8	5.9	6.0	6.0
EU25	1.7	6.8	6.8	7.0	7.1	7.3	7.5	7.7	7.9	8.1	8.3	8.4	8.4
EA12	1.4	6.7	6.8	7.0	7.2	7.3	7.5	7.7	7.9	8.1	8.1	8.2	8.2
EU10	1.4	4.9	5.0	5.1	5.3	5.4	5.6	5.8	5.9	6.0	6.1	6.2	6.3

Source: Commission services.

Table A 88 - Health care spending – Pure ageing scenario (as % of GDP)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	1.5	7.6	7.7	7.9	8.0	8.2	8.5	8.7	8.8	8.9	9.0	9.0	9.1
BG	0.7	4.7	4.8	4.8	4.9	4.9	5.0	5.2	5.3	5.4	5.4	5.4	5.4
CZ	2.3	6.2	6.3	6.6	6.8	7.1	7.3	7.6	7.8	8.0	8.2	8.4	8.5
DK	1.2	5.9	6.0	6.2	6.4	6.6	6.8	6.9	6.9	7.0	7.1	7.1	7.1
DE	2.0	7.4	7.6	7.8	8.1	8.3	8.6	8.8	9.1	9.3	9.4	9.4	9.4
EE	1.2	4.9	5.0	5.1	5.2	5.3	5.4	5.5	5.7	5.8	6.0	6.1	6.2
IE	2.0	5.8	5.9	6.0	6.1	6.3	6.5	6.8	7.0	7.3	7.5	7.7	7.8
EL	1.5	5.0	5.1	5.2	5.3	5.5	5.6	5.8	6.0	6.2	6.3	6.4	6.4
ES	1.8	5.5	5.6	5.7	5.8	6.0	6.3	6.6	6.9	7.1	7.2	7.3	7.3
FR	1.4	8.1	8.2	8.4	8.6	8.7	9.0	9.2	9.3	9.4	9.5	9.5	9.5
IT	1.2	5.9	5.9	6.1	6.2	6.4	6.6	6.8	6.9	7.0	7.1	7.1	7.1
CY	0.9	2.7	2.8	2.8	2.9	3.0	3.1	3.2	3.2	3.3	3.4	3.5	3.6
LV	0.7	3.5	3.5	3.5	3.6	3.6	3.7	3.8	3.9	4.0	4.0	4.1	4.1
LT	1.2	4.5	4.5	4.7	4.8	4.9	5.0	5.2	5.3	5.5	5.5	5.6	5.7
LU	1.3	5.8	5.9	6.0	6.1	6.3	6.5	6.7	6.8	6.9	7.0	7.1	7.1
HU	1.7	5.8	5.8	5.9	6.1	6.3	6.5	6.8	7.0	7.1	7.3	7.4	7.5
MT	3.8	4.7	4.9	5.3	5.7	6.1	6.5	7.0	7.4	7.6	7.9	8.1	8.5
NL	1.1	4.8	4.9	5.1	5.3	5.4	5.6	5.7	5.8	5.9	5.9	5.9	6.0
AT	1.7	6.5	6.6	6.8	7.0	7.3	7.5	7.7	7.9	8.1	8.2	8.2	8.2
PL	1.3	4.0	4.1	4.2	4.4	4.5	4.7	4.8	5.0	5.1	5.2	5.3	5.4
PT	2.2	7.2	7.3	7.5	7.7	7.9	8.1	8.4	8.6	8.9	9.1	9.2	9.4
RO	1.4	3.5	3.5	3.6	3.7	3.9	4.0	4.2	4.4	4.5	4.7	4.8	4.9
SI	1.9	6.6	6.7	7.0	7.2	7.4	7.7	7.9	8.2	8.3	8.4	8.5	8.6
SK	2.3	5.0	5.1	5.3	5.6	5.8	6.1	6.4	6.6	6.9	7.1	7.2	7.3
FI	1.4	5.5	5.6	5.8	6.0	6.3	6.5	6.6	6.7	6.8	6.8	6.8	6.9
SE	0.9	7.2	7.2	7.4	7.5	7.6	7.7	7.8	7.9	8.0	8.0	8.1	8.1
UK	2.2	7.5	7.6	7.8	7.9	8.2	8.4	8.7	9.0	9.2	9.4	9.6	9.7
NO	1.6	5.6	5.7	5.8	6.1	6.3	6.6	6.8	6.9	7.0	7.2	7.2	7.3
EU27	1.9	6.7	6.8	6.9	7.1	7.2	7.5	7.7	8.0	8.2	8.4	8.5	8.6
EA16	1.6	6.7	6.8	6.9	7.1	7.2	7.5	7.7	7.9	8.1	8.2	8.3	8.3
EU15	1.8	6.9	7.0	7.1	7.3	7.5	7.7	8.0	8.2	8.4	8.5	8.6	8.7
EU12	1.6	4.7	4.7	4.8	5.0	5.2	5.4	5.6	5.7	5.9	6.0	6.2	6.3
EU25	1.9	6.8	6.8	7.0	7.1	7.3	7.5	7.8	8.0	8.2	8.4	8.5	8.6
EA12	1.6	6.7	6.8	7.0	7.2	7.3	7.5	7.8	8.0	8.2	8.3	8.3	8.3
EU10	1.7	4.9	4.9	5.1	5.2	5.4	5.6	5.8	6.0	6.1	6.3	6.4	6.5

Source: Commission services.

Table A 89 - Health care spending – Labour intensity scenario (as % of GDP)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	2.1	7.6	7.6	7.6	7.9	8.3	8.7	9.0	9.2	9.4	9.5	9.7	9.7
BG	1.6	4.7	4.5	4.5	4.6	4.8	5.0	5.2	5.5	5.8	6.1	6.2	6.3
CZ	3.8	6.2	6.3	6.5	6.8	7.3	7.6	8.0	8.4	8.9	9.4	9.8	10.0
DK	1.7	5.9	6.0	6.3	6.7	7.0	7.3	7.5	7.6	7.6	7.6	7.6	7.7
DE	2.8	7.4	7.5	7.5	7.8	8.2	8.7	9.1	9.6	9.8	10.0	10.1	10.2
EE	2.3	4.9	4.8	5.0	5.2	5.4	5.6	5.7	6.0	6.3	6.7	7.0	7.2
IE	2.9	5.8	5.9	6.0	6.1	6.4	6.6	6.9	7.2	7.7	8.1	8.5	8.7
EL	2.4	5.0	5.0	5.1	5.2	5.4	5.7	6.1	6.5	6.8	7.1	7.3	7.3
ES	2.6	5.5	5.5	5.5	5.5	5.8	6.1	6.5	7.0	7.6	8.0	8.2	8.1
FR	2.1	8.1	8.3	8.4	8.7	9.0	9.4	9.7	10.0	10.1	10.2	10.3	10.3
IT	1.8	5.9	5.9	5.9	6.0	6.2	6.4	6.8	7.2	7.5	7.7	7.7	7.7
CY	1.2	2.7	2.7	2.7	2.8	2.9	3.1	3.2	3.3	3.4	3.6	3.8	3.9
LV	1.6	3.5	3.3	3.4	3.6	3.7	3.8	4.0	4.2	4.4	4.7	5.0	5.1
LT	2.5	4.5	4.4	4.4	4.5	4.8	5.1	5.4	5.7	6.0	6.3	6.7	6.9
LU	1.1	5.8	5.5	5.2	5.4	5.6	6.0	6.3	6.5	6.6	6.7	6.8	6.9
HU	3.0	5.8	5.8	5.8	5.9	6.2	6.5	6.9	7.3	7.7	8.1	8.5	8.8
MT	5.0	4.7	4.9	5.2	5.7	6.2	6.6	7.1	7.5	7.9	8.4	9.0	9.7
NL	1.8	4.8	4.9	5.0	5.3	5.7	6.0	6.3	6.5	6.5	6.5	6.6	6.6
AT	2.6	6.5	6.6	6.7	7.0	7.4	7.8	8.1	8.5	8.7	8.9	9.0	9.1
PL	2.4	4.0	3.9	4.0	4.2	4.4	4.6	4.9	5.1	5.4	5.8	6.1	6.4
PT	3.1	7.2	7.3	7.4	7.5	7.7	8.0	8.4	8.9	9.3	9.8	10.1	10.3
RO	2.7	3.5	3.5	3.6	3.7	3.9	4.2	4.5	4.8	5.2	5.6	6.0	6.2
SI	4.1	6.6	6.7	7.0	7.4	7.8	8.4	8.9	9.5	10.0	10.4	10.6	10.7
SK	3.7	5.0	5.0	5.0	5.1	5.5	5.8	6.3	6.7	7.3	7.8	8.3	8.6
FI	2.0	5.5	5.6	5.9	6.2	6.5	6.9	7.1	7.2	7.2	7.3	7.4	7.5
SE	1.7	7.2	7.3	7.4	7.6	7.9	8.1	8.3	8.4	8.5	8.6	8.8	8.9
UK	2.8	7.5	7.7	7.8	8.1	8.4	8.8	9.1	9.3	9.5	9.7	10.0	10.3
NO	2.6	5.6	5.7	5.9	6.2	6.6	7.1	7.4	7.7	7.9	8.0	8.1	8.3
EU27	2.7	6.7	6.7	6.8	7.0	7.3	7.6	8.0	8.4	8.7	9.0	9.2	9.4
EA16	2.4	6.7	6.7	6.8	6.9	7.2	7.6	8.0	8.3	8.7	8.9	9.0	9.1
EU15	2.5	6.9	6.9	7.0	7.2	7.5	7.9	8.3	8.6	8.9	9.1	9.3	9.4
EU12	2.8	4.7	4.6	4.7	4.9	5.1	5.4	5.7	6.0	6.4	6.9	7.2	7.5
EU25	2.6	6.8	6.8	6.9	7.0	7.3	7.7	8.1	8.4	8.7	9.0	9.2	9.4
EA12	2.3	6.7	6.8	6.9	7.0	7.3	7.6	8.0	8.4	8.7	8.9	9.0	9.1
EU10	2.9	4.9	4.8	4.9	5.1	5.4	5.7	5.9	6.3	6.7	7.1	7.5	7.8

Source: Commission services.

Table A 90 - Health care spending – Constant health scenario (as % of GDP)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	0.3	7.6	7.7	7.7	7.7	7.8	7.9	8.0	8.1	8.1	8.0	8.0	7.9
BG	0.0	4.7	4.7	4.7	4.7	4.6	4.6	4.7	4.7	4.8	4.8	4.7	4.7
CZ	1.1	6.2	6.3	6.4	6.5	6.6	6.8	6.9	7.0	7.1	7.2	7.3	7.3
DK	0.3	5.9	6.0	6.0	6.1	6.2	6.3	6.3	6.3	6.3	6.3	6.3	6.2
DE	0.9	7.4	7.5	7.7	7.8	7.9	8.0	8.2	8.3	8.4	8.5	8.4	8.3
EE	0.4	4.9	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.2	5.3	5.3
IE	1.0	5.8	5.8	5.8	5.9	6.0	6.1	6.2	6.4	6.5	6.6	6.7	6.8
EL	0.7	5.0	5.0	5.1	5.2	5.2	5.3	5.4	5.5	5.6	5.7	5.7	5.7
ES	1.0	5.5	5.6	5.6	5.6	5.7	5.9	6.1	6.3	6.4	6.5	6.5	6.5
FR	0.4	8.1	8.2	8.2	8.3	8.4	8.5	8.6	8.6	8.6	8.6	8.6	8.5
IT	0.5	5.9	5.9	5.9	6.0	6.1	6.2	6.3	6.4	6.5	6.5	6.4	6.3
CY	0.1	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.8	2.8	2.8	2.8
LV	0.1	3.5	3.5	3.4	3.4	3.4	3.4	3.4	3.4	3.5	3.5	3.5	3.5
LT	0.3	4.5	4.5	4.5	4.5	4.5	4.5	4.6	4.7	4.7	4.8	4.8	4.8
LU	0.4	5.8	5.8	5.8	5.9	6.0	6.1	6.1	6.2	6.3	6.3	6.2	6.2
HU	0.2	5.8	5.7	5.6	5.6	5.7	5.7	5.8	5.8	5.9	6.0	6.0	6.0
MT	2.2	4.7	4.9	5.1	5.3	5.6	5.9	6.2	6.4	6.5	6.6	6.7	6.9
NL	0.4	4.8	4.9	5.0	5.1	5.2	5.3	5.3	5.4	5.4	5.4	5.3	5.3
AT	0.7	6.5	6.6	6.7	6.8	6.9	7.0	7.1	7.2	7.3	7.4	7.3	7.2
PL	-0.6	4.0	4.0	4.0	4.0	3.9	3.9	3.9	3.8	3.7	3.6	3.5	3.5
PT	0.9	7.2	7.3	7.3	7.3	7.4	7.5	7.6	7.8	7.9	8.0	8.1	8.1
RO	0.7	3.5	3.5	3.5	3.5	3.6	3.7	3.7	3.8	3.9	4.0	4.1	4.2
SI	1.0	6.6	6.7	6.8	6.9	7.0	7.2	7.3	7.5	7.6	7.6	7.6	7.6
SK	1.2	5.0	5.1	5.2	5.3	5.4	5.6	5.7	5.8	6.0	6.1	6.2	6.2
FI	0.2	5.5	5.6	5.6	5.7	5.8	5.8	5.9	5.9	5.8	5.8	5.7	5.7
SE	0.0	7.2	7.2	7.2	7.2	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.2
UK	1.0	7.5	7.6	7.6	7.6	7.7	7.8	8.0	8.2	8.3	8.4	8.5	8.5
NO	0.6	5.6	5.6	5.7	5.8	5.9	6.1	6.2	6.2	6.3	6.3	6.3	6.3
EU27	0.8	6.7	6.7	6.8	6.8	6.9	7.0	7.1	7.3	7.4	7.5	7.6	7.6
EA16	0.7	6.7	6.7	6.8	6.8	6.9	7.0	7.1	7.3	7.4	7.4	7.4	7.4
EU15	0.8	6.9	6.9	7.0	7.0	7.1	7.2	7.4	7.5	7.6	7.7	7.7	7.6
EU12	0.3	4.7	4.7	4.7	4.7	4.7	4.8	4.8	4.8	4.9	4.9	4.9	4.9
EU25	0.8	6.8	6.8	6.8	6.9	6.9	7.0	7.2	7.3	7.4	7.5	7.6	7.6
EA12	0.7	6.7	6.8	6.8	6.9	7.0	7.1	7.2	7.3	7.4	7.5	7.4	7.4
EU10	0.2	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.0	5.0	5.0	5.1	5.1

Source: Commission services.

Table A 91 - Health care spending – Fast cost growth scenario (as % of GDP)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	2.1	7.6	7.9	8.4	8.6	8.8	9.1	9.3	9.5	9.6	9.6	9.7	9.7
BG	1.1	4.7	4.9	5.2	5.2	5.3	5.4	5.5	5.7	5.7	5.8	5.8	5.8
CZ	2.9	6.2	6.5	7.0	7.3	7.6	7.9	8.1	8.4	8.6	8.8	9.0	9.1
DK	1.7	5.9	6.2	6.6	6.8	7.1	7.2	7.4	7.4	7.5	7.6	7.6	7.6
DE	2.7	7.4	7.8	8.4	8.7	8.9	9.2	9.5	9.7	9.9	10.0	10.1	10.1
EE	1.6	4.9	5.2	5.5	5.5	5.6	5.7	5.9	6.1	6.2	6.4	6.5	6.6
IE	2.5	5.8	6.1	6.4	6.6	6.8	7.0	7.3	7.5	7.8	8.0	8.2	8.4
EL	1.9	5.0	5.2	5.6	5.7	5.9	6.0	6.2	6.4	6.6	6.7	6.8	6.9
ES	2.3	5.5	5.8	6.1	6.2	6.5	6.7	7.0	7.3	7.6	7.7	7.8	7.8
FR	2.1	8.1	8.5	9.0	9.2	9.4	9.6	9.8	10.0	10.1	10.1	10.2	10.2
IT	1.7	5.9	6.1	6.5	6.7	6.8	7.0	7.2	7.4	7.5	7.6	7.6	7.6
CY	1.1	2.7	2.8	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.8
LV	0.9	3.5	3.6	3.8	3.8	3.9	4.0	4.1	4.2	4.2	4.3	4.3	4.4
LT	1.6	4.5	4.7	5.0	5.1	5.2	5.3	5.5	5.7	5.8	5.9	6.0	6.1
LU	1.8	5.8	6.0	6.4	6.6	6.8	7.0	7.1	7.3	7.4	7.5	7.6	7.6
HU	2.3	5.8	5.9	6.3	6.5	6.7	7.0	7.2	7.4	7.6	7.8	7.9	8.1
MT	4.4	4.7	5.1	5.6	6.1	6.5	7.0	7.5	7.9	8.2	8.4	8.7	9.1
NL	1.5	4.8	5.1	5.4	5.6	5.8	6.0	6.1	6.2	6.3	6.4	6.4	6.4
AT	2.3	6.5	6.8	7.3	7.5	7.8	8.0	8.3	8.5	8.7	8.8	8.8	8.8
PL	1.7	4.0	4.2	4.5	4.7	4.8	5.0	5.2	5.3	5.4	5.6	5.7	5.7
PT	2.8	7.2	7.5	8.0	8.2	8.4	8.7	9.0	9.2	9.5	9.7	9.9	10.0
RO	1.7	3.5	3.6	3.9	4.0	4.1	4.3	4.5	4.7	4.8	5.0	5.1	5.2
SI	2.5	6.6	6.9	7.5	7.7	7.9	8.2	8.5	8.7	8.9	9.0	9.1	9.2
SK	2.8	5.0	5.2	5.7	6.0	6.2	6.5	6.8	7.1	7.3	7.5	7.7	7.7
FI	1.8	5.5	5.8	6.2	6.5	6.7	6.9	7.1	7.2	7.2	7.3	7.3	7.3
SE	1.5	7.2	7.5	7.9	8.0	8.1	8.3	8.4	8.5	8.5	8.6	8.7	8.7
UK	2.9	7.5	7.8	8.4	8.5	8.7	9.0	9.4	9.6	9.8	10.0	10.2	10.4
NO	2.2	5.6	5.9	6.3	6.5	6.8	7.0	7.2	7.4	7.6	7.7	7.7	7.8
EU27	2.5	6.7	7.0	7.4	7.6	7.8	8.0	8.3	8.5	8.8	9.0	9.1	9.2
EA16	2.2	6.7	7.0	7.4	7.6	7.8	8.0	8.2	8.5	8.7	8.8	8.9	8.9
EU15	2.4	6.9	7.2	7.6	7.8	8.0	8.2	8.5	8.8	9.0	9.1	9.2	9.3
EU12	2.0	4.7	4.8	5.2	5.4	5.5	5.7	5.9	6.1	6.3	6.5	6.6	6.7
EU25	2.5	6.8	7.0	7.5	7.6	7.8	8.0	8.3	8.6	8.8	9.0	9.1	9.2
EA12	2.2	6.7	7.0	7.5	7.7	7.9	8.1	8.3	8.5	8.7	8.8	8.9	8.9
EU10	2.1	4.9	5.1	5.4	5.6	5.8	6.0	6.2	6.4	6.6	6.7	6.9	7.0

Source: Commission services.

Table A 92 - Health care spending – Cost convergence scenario (as % of GDP)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	:	:	:	:	:	:	:	:	:	:	:	:	:
BG	4.2	4.7	4.9	5.1	5.3	5.6	5.9	6.3	6.8	7.2	7.7	8.3	8.9
CZ	2.9	6.2	6.4	6.6	6.9	7.2	7.5	7.8	8.1	8.4	8.6	8.9	9.1
DK	:	:	:	:	:	:	:	:	:	:	:	:	:
DE	:	:	:	:	:	:	:	:	:	:	:	:	:
EE	3.4	4.9	5.1	5.3	5.5	5.7	6.0	6.4	6.7	7.1	7.5	7.9	8.3
IE	:	:	:	:	:	:	:	:	:	:	:	:	:
EL	:	:	:	:	:	:	:	:	:	:	:	:	:
ES	:	:	:	:	:	:	:	:	:	:	:	:	:
FR	:	:	:	:	:	:	:	:	:	:	:	:	:
IT	:	:	:	:	:	:	:	:	:	:	:	:	:
CY	4.9	2.7	2.9	3.1	3.5	3.8	4.2	4.6	5.1	5.7	6.3	6.9	7.6
LV	5.1	3.5	3.6	3.8	4.1	4.4	4.8	5.3	5.8	6.4	7.0	7.7	8.6
LT	4.2	4.5	4.6	4.9	5.1	5.4	5.8	6.2	6.7	7.1	7.6	8.1	8.7
LU	:	:	:	:	:	:	:	:	:	:	:	:	:
HU	3.1	5.8	5.8	6.0	6.3	6.6	6.9	7.3	7.6	7.9	8.2	8.5	8.8
MT	5.4	4.7	5.0	5.5	6.0	6.6	7.2	7.8	8.3	8.7	9.1	9.6	10.1
NL	:	:	:	:	:	:	:	:	:	:	:	:	:
AT	:	:	:	:	:	:	:	:	:	:	:	:	:
PL	4.9	4.0	4.2	4.5	4.8	5.2	5.6	6.1	6.5	7.0	7.6	8.2	8.9
PT	:	:	:	:	:	:	:	:	:	:	:	:	:
RO	5.3	3.5	3.6	3.9	4.3	4.6	5.1	5.6	6.2	6.7	7.4	8.1	8.8
SI	2.6	6.6	6.8	7.0	7.3	7.5	7.8	8.1	8.4	8.7	8.9	9.0	9.2
SK	4.1	5.0	5.1	5.4	5.8	6.1	6.5	6.9	7.4	7.8	8.2	8.6	9.1
FI	:	:	:	:	:	:	:	:	:	:	:	:	:
SE	:	:	:	:	:	:	:	:	:	:	:	:	:
UK	:	:	:	:	:	:	:	:	:	:	:	:	:
NO	:	:	:	:	:	:	:	:	:	:	:	:	:
EU27	2.0	6.7	6.7	6.8	7.0	7.2	7.4	7.7	8.0	8.2	8.4	8.6	8.7
EA16	1.5	6.7	6.7	6.8	6.9	7.1	7.3	7.6	7.8	8.0	8.1	8.2	8.2
EU15	:	:	:	:	:	:	:	:	:	:	:	:	:
EU12	4.3	4.7	4.8	5.0	5.4	5.7	6.1	6.5	6.9	7.4	7.9	8.4	9.0
EU25	1.9	6.8	6.8	6.9	7.0	7.2	7.5	7.7	8.0	8.2	8.4	8.6	8.7
EA12	1.5	6.7	6.8	6.9	7.0	7.2	7.4	7.6	7.8	8.0	8.1	8.2	8.2
EU10	4.1	4.9	5.0	5.2	5.6	5.9	6.3	6.7	7.1	7.5	7.9	8.4	9.0

Source: Commission services.

Table A 93 - Health care spending – Death-related cost scenario (as % of GDP)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	1.2	7.6	7.5	7.7	7.8	8.0	8.2	8.4	8.6	8.7	8.7	8.7	8.8
BG	0.6	4.7	4.7	4.7	4.8	4.8	5.0	5.1	5.2	5.3	5.3	5.3	5.3
CZ	2.0	6.2	6.2	6.4	6.6	6.9	7.1	7.4	7.6	7.8	7.9	8.1	8.2
DK	0.9	5.9	5.9	6.0	6.2	6.4	6.6	6.7	6.7	6.8	6.8	6.9	6.9
DE	1.5	7.4	7.4	7.6	7.9	8.1	8.3	8.5	8.8	8.9	9.0	8.9	8.9
EE	1.0	4.9	4.9	5.0	5.1	5.1	5.2	5.4	5.5	5.7	5.8	5.9	6.0
IE	1.7	5.8	5.8	5.9	6.0	6.2	6.4	6.6	6.8	7.0	7.2	7.4	7.5
EL	1.2	5.0	4.9	5.1	5.2	5.3	5.5	5.7	5.8	6.0	6.1	6.2	6.2
ES	1.5	5.5	5.5	5.6	5.7	5.9	6.1	6.4	6.6	6.8	7.0	7.0	7.0
FR	1.1	8.1	8.1	8.2	8.4	8.5	8.7	8.9	9.0	9.1	9.2	9.2	9.2
IT	1.0	5.9	5.8	5.9	6.1	6.2	6.4	6.6	6.7	6.8	6.9	6.9	6.9
CY	0.7	2.7	2.7	2.8	2.8	2.9	3.0	3.1	3.1	3.2	3.3	3.4	3.5
LV	0.6	3.5	3.4	3.5	3.5	3.6	3.6	3.7	3.8	3.9	4.0	4.0	4.0
LT	1.0	4.5	4.4	4.6	4.7	4.8	4.9	5.0	5.2	5.3	5.4	5.5	5.5
LU	1.0	5.8	5.7	5.8	6.0	6.1	6.3	6.5	6.6	6.7	6.7	6.8	6.8
HU	1.3	5.8	5.6	5.7	5.9	6.1	6.3	6.5	6.6	6.7	6.9	7.0	7.1
MT	2.6	4.7	4.8	5.0	5.4	5.7	6.1	6.4	6.5	6.7	6.8	7.0	7.3
NL	0.9	4.8	4.8	5.0	5.1	5.3	5.5	5.6	5.7	5.7	5.7	5.8	5.8
AT	1.4	6.5	6.5	6.7	6.9	7.1	7.3	7.5	7.7	7.8	7.9	7.9	7.8
PL	1.2	4.0	4.0	4.1	4.3	4.4	4.6	4.7	4.8	5.0	5.1	5.2	5.2
PT	1.7	7.2	7.2	7.3	7.4	7.6	7.8	8.1	8.3	8.5	8.7	8.8	8.9
RO	1.2	3.5	3.4	3.5	3.6	3.8	3.9	4.1	4.3	4.4	4.5	4.7	4.7
SI	1.6	6.6	6.6	6.8	7.0	7.2	7.5	7.7	7.9	8.0	8.1	8.2	8.2
SK	2.0	5.0	5.0	5.2	5.4	5.7	5.9	6.2	6.4	6.6	6.8	6.9	7.0
FI	1.1	5.5	5.5	5.7	5.9	6.1	6.3	6.4	6.5	6.5	6.5	6.6	6.6
SE	0.7	7.2	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.8	7.9	7.9
UK	1.1	7.5	7.4	7.5	7.6	7.8	8.0	8.3	8.4	8.5	8.6	8.6	8.6
NO	1.4	5.6	5.5	5.7	5.9	6.1	6.4	6.5	6.7	6.8	6.9	7.0	7.0
EU27	1.4	6.7	6.6	6.7	6.9	7.0	7.2	7.5	7.7	7.8	8.0	8.1	8.1
EA16	1.3	6.7	6.6	6.7	6.9	7.0	7.2	7.5	7.7	7.8	7.9	8.0	8.0
EU15	1.3	6.9	6.8	7.0	7.1	7.3	7.5	7.7	7.9	8.0	8.1	8.1	8.2
EU12	1.4	4.7	4.6	4.7	4.9	5.0	5.2	5.4	5.6	5.7	5.8	6.0	6.0
EU25	1.4	6.8	6.7	6.8	6.9	7.1	7.3	7.5	7.7	7.9	8.0	8.1	8.1
EA12	1.3	6.7	6.7	6.8	7.0	7.1	7.3	7.5	7.7	7.9	8.0	8.0	8.0
EU10	1.4	4.9	4.8	4.9	5.1	5.3	5.5	5.6	5.8	5.9	6.1	6.2	6.3

Source: Commission services.

Table A 94 - Health care spending – Income elasticity scenario (as % of GDP)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	1.8	7.6	7.7	8.0	8.2	8.4	8.7	8.9	9.1	9.3	9.4	9.4	9.5
BG	1.2	4.7	4.8	5.0	5.1	5.2	5.4	5.5	5.7	5.8	5.8	5.9	5.9
CZ	2.8	6.2	6.4	6.7	7.1	7.4	7.7	8.0	8.3	8.5	8.7	8.9	9.0
DK	1.5	5.9	6.0	6.3	6.5	6.7	6.9	7.1	7.2	7.3	7.3	7.4	7.4
DE	2.4	7.4	7.6	7.9	8.3	8.5	8.8	9.1	9.4	9.6	9.7	9.8	9.8
EE	1.7	4.9	5.1	5.3	5.4	5.6	5.7	5.9	6.1	6.3	6.4	6.5	6.6
IE	2.3	5.8	5.9	6.1	6.2	6.5	6.7	7.0	7.3	7.6	7.8	8.0	8.1
EL	1.8	5.0	5.1	5.3	5.5	5.7	5.9	6.1	6.3	6.5	6.6	6.7	6.8
ES	2.1	5.5	5.6	5.8	6.0	6.2	6.5	6.8	7.1	7.4	7.5	7.6	7.6
FR	1.8	8.1	8.3	8.5	8.7	8.9	9.2	9.4	9.6	9.7	9.8	9.9	9.9
IT	1.5	5.9	6.0	6.1	6.3	6.5	6.7	7.0	7.1	7.3	7.3	7.3	7.3
CY	1.1	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8
LV	1.0	3.5	3.6	3.7	3.8	3.8	3.9	4.1	4.2	4.3	4.3	4.4	4.4
LT	1.6	4.5	4.6	4.8	5.0	5.2	5.3	5.5	5.7	5.9	6.0	6.0	6.1
LU	1.7	5.8	5.9	6.1	6.3	6.5	6.8	7.0	7.2	7.3	7.4	7.4	7.5
HU	2.2	5.8	5.8	6.0	6.3	6.6	6.8	7.1	7.3	7.5	7.7	7.9	8.0
MT	4.2	4.7	4.9	5.4	5.8	6.3	6.8	7.3	7.7	8.0	8.2	8.5	8.9
NL	1.3	4.8	4.9	5.1	5.3	5.6	5.7	5.9	6.0	6.1	6.2	6.2	6.2
AT	2.1	6.5	6.6	6.9	7.2	7.4	7.7	7.9	8.2	8.4	8.5	8.5	8.5
PL	1.7	4.0	4.2	4.4	4.5	4.8	5.0	5.2	5.3	5.4	5.6	5.7	5.7
PT	2.6	7.2	7.4	7.6	7.8	8.1	8.3	8.7	9.0	9.2	9.5	9.6	9.8
RO	1.8	3.5	3.6	3.8	3.9	4.1	4.3	4.5	4.7	4.9	5.0	5.2	5.3
SI	2.4	6.6	6.8	7.1	7.4	7.7	8.0	8.3	8.6	8.8	8.9	9.0	9.0
SK	2.9	5.0	5.2	5.5	5.9	6.2	6.5	6.8	7.1	7.4	7.6	7.7	7.8
FI	1.7	5.5	5.7	5.9	6.2	6.4	6.7	6.9	7.0	7.0	7.1	7.1	7.2
SE	1.3	7.2	7.3	7.5	7.6	7.8	7.9	8.1	8.2	8.3	8.4	8.4	8.5
UK	2.6	7.5	7.6	7.9	8.1	8.4	8.7	9.0	9.3	9.5	9.8	10.0	10.1
NO	1.9	5.6	5.7	5.9	6.2	6.4	6.7	6.9	7.1	7.3	7.4	7.5	7.5
EU27	2.3	6.7	6.8	7.0	7.2	7.4	7.7	8.0	8.3	8.5	8.7	8.9	9.0
EA16	2.0	6.7	6.8	7.0	7.2	7.4	7.7	7.9	8.2	8.4	8.5	8.6	8.7
EU15	2.1	6.9	7.0	7.2	7.4	7.7	7.9	8.2	8.5	8.7	8.8	8.9	9.0
EU12	2.0	4.7	4.8	5.0	5.2	5.4	5.7	5.9	6.1	6.3	6.4	6.6	6.7
EU25	2.2	6.8	6.9	7.1	7.3	7.5	7.7	8.0	8.3	8.5	8.7	8.9	9.0
EA12	1.9	6.7	6.9	7.1	7.3	7.5	7.8	8.0	8.3	8.5	8.6	8.6	8.7
EU10	2.1	4.9	5.0	5.2	5.5	5.7	5.9	6.2	6.4	6.5	6.7	6.9	7.0

Source: Commission services.

LONG-TERM CARE EXPENDITURE PROJECTIONS

Table A 95 – Long-term care spending – AWG reference scenario (as % of GDP)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	1.4	1.5	1.5	1.6	1.7	1.8	2.0	2.2	2.5	2.7	2.8	2.8	2.9
BG	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4
CZ	0.4	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.6	0.7
DK	1.5	1.7	1.8	1.9	2.1	2.3	2.6	2.8	3.0	3.1	3.2	3.2	3.2
DE	1.4	0.9	1.0	1.1	1.2	1.3	1.4	1.6	1.8	2.0	2.2	2.3	2.4
EE	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
IE	1.3	0.8	0.9	0.9	0.9	1.0	1.1	1.2	1.4	1.6	1.8	2.0	2.2
EL	2.2	1.4	1.5	1.7	1.8	1.9	2.0	2.3	2.5	2.8	3.1	3.4	3.6
ES	0.9	0.5	0.7	0.9	0.9	0.9	1.0	1.0	1.1	1.2	1.3	1.4	1.4
FR	0.8	1.4	1.5	1.5	1.6	1.6	1.8	1.9	2.0	2.1	2.2	2.2	2.2
IT	1.3	1.7	1.7	1.8	1.8	1.9	2.0	2.1	2.3	2.6	2.8	2.9	3.0
CY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LV	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.7	0.7	0.8	0.9
LT	0.6	0.5	0.5	0.5	0.5	0.5	0.6	0.7	0.7	0.8	0.9	1.0	1.1
LU	2.0	1.4	1.4	1.4	1.5	1.6	1.8	2.0	2.4	2.7	3.0	3.3	3.4
HU	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.6	0.6
MT	1.6	1.0	1.0	1.1	1.2	1.5	1.6	1.8	2.0	2.1	2.2	2.4	2.6
NL	4.7	3.4	3.5	3.8	4.1	4.6	5.4	6.2	6.8	7.3	7.7	8.0	8.1
AT	1.2	1.3	1.3	1.3	1.4	1.5	1.7	1.8	2.0	2.2	2.4	2.4	2.5
PL	0.7	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.8	0.9	1.0	1.1
PT	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2
RO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SI	1.8	1.1	1.2	1.3	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	2.9
SK	0.4	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.6
FI	2.6	1.8	1.9	2.2	2.4	2.7	3.1	3.5	3.9	4.1	4.2	4.3	4.4
SE	2.3	3.5	3.5	3.5	3.7	4.0	4.4	4.8	5.0	5.1	5.3	5.6	5.8
UK	0.5	0.8	0.8	0.9	0.9	1.0	1.0	1.1	1.1	1.2	1.2	1.3	1.3
NO	2.7	2.2	2.2	2.2	2.3	2.5	2.9	3.4	3.8	4.1	4.3	4.6	4.9
EU27	1.2	1.2	1.3	1.3	1.4	1.5	1.6	1.8	1.9	2.1	2.3	2.4	2.4
EA16	1.4	1.3	1.3	1.4	1.5	1.6	1.8	1.9	2.1	2.3	2.5	2.6	2.7
EU15	1.2	1.3	1.3	1.4	1.5	1.6	1.8	1.9	2.1	2.2	2.4	2.5	2.5
EU12	0.5	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.8
EU25	1.2	1.2	1.3	1.4	1.4	1.5	1.7	1.8	2.0	2.1	2.3	2.4	2.4
EA12	1.4	1.3	1.4	1.5	1.5	1.6	1.8	2.0	2.2	2.4	2.5	2.7	2.7
EU10	0.6	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.8	0.9	0.9

Source: Commission services.

Table A 96 - Long-term care spending – Pure demographic scenario (as % of GDP)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	1.6	1.5	1.6	1.6	1.7	1.8	2.0	2.3	2.6	2.8	2.9	3.0	3.0
BG	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4
CZ	0.5	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.7
DK	1.7	1.7	1.8	1.9	2.1	2.4	2.7	2.9	3.1	3.2	3.4	3.4	3.5
DE	1.5	0.9	1.0	1.1	1.2	1.3	1.5	1.6	1.8	2.1	2.3	2.4	2.5
EE	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
IE	1.4	0.8	0.9	0.9	0.9	1.0	1.1	1.3	1.4	1.6	1.8	2.0	2.3
EL	2.4	1.4	1.5	1.7	1.8	2.0	2.1	2.3	2.6	3.0	3.3	3.6	3.8
ES	0.9	0.5	0.7	0.9	0.9	0.9	1.0	1.0	1.1	1.3	1.4	1.4	1.5
FR	0.9	1.4	1.5	1.5	1.6	1.6	1.8	2.0	2.1	2.2	2.2	2.3	2.3
IT	1.4	1.7	1.7	1.8	1.8	1.9	2.0	2.2	2.4	2.7	2.9	3.0	3.1
CY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LV	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.7	0.8	0.9	0.9
LT	0.6	0.5	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.9	1.0	1.1
LU	2.2	1.4	1.4	1.4	1.5	1.7	1.8	2.1	2.4	2.8	3.1	3.4	3.6
HU	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.6	0.6
MT	1.9	1.0	1.0	1.1	1.3	1.5	1.7	1.9	2.1	2.2	2.3	2.6	2.8
NL	5.2	3.4	3.5	3.8	4.2	4.8	5.6	6.4	7.1	7.7	8.2	8.5	8.5
AT	1.3	1.3	1.3	1.3	1.4	1.6	1.7	1.9	2.1	2.3	2.5	2.6	2.6
PL	0.7	0.4	0.4	0.4	0.5	0.5	0.6	0.7	0.7	0.8	0.9	1.0	1.1
PT	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2
RO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
SI	1.8	1.1	1.2	1.3	1.4	1.6	1.8	2.0	2.2	2.5	2.7	2.8	2.9
SK	0.4	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.6	0.6
FI	2.7	1.8	1.9	2.2	2.4	2.7	3.1	3.5	4.0	4.1	4.2	4.4	4.5
SE	2.6	3.5	3.5	3.5	3.7	4.1	4.6	4.9	5.1	5.3	5.5	5.8	6.0
UK	0.5	0.8	0.8	0.9	0.9	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.4
NO	2.9	2.2	2.2	2.3	2.3	2.6	2.9	3.4	3.9	4.2	4.5	4.8	5.1
EU27	1.3	1.2	1.3	1.3	1.4	1.5	1.7	1.8	2.0	2.2	2.4	2.5	2.5
EA16	1.5	1.3	1.4	1.4	1.5	1.6	1.8	2.0	2.2	2.4	2.6	2.7	2.8
EU15	1.3	1.3	1.4	1.4	1.5	1.6	1.8	2.0	2.1	2.3	2.5	2.6	2.6
EU12	0.5	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.6	0.7	0.7	0.8
EU25	1.3	1.2	1.3	1.4	1.4	1.5	1.7	1.9	2.0	2.2	2.4	2.5	2.6
EA12	1.5	1.3	1.4	1.5	1.6	1.7	1.8	2.0	2.3	2.5	2.6	2.8	2.8
EU10	0.6	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.7	0.7	0.8	0.9	1.0

Source: Commission services.

Table A 97 - Long-term care spending – GDP per capita scenario (as % of GDP)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	1.3	1.5	1.6	1.7	1.7	1.8	2.0	2.2	2.4	2.6	2.7	2.8	2.8
BG	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3
CZ	0.4	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.6
DK	1.4	1.7	1.8	1.9	2.0	2.3	2.5	2.7	2.8	3.0	3.1	3.2	3.2
DE	1.3	0.9	1.0	1.1	1.2	1.3	1.5	1.6	1.7	1.9	2.1	2.2	2.2
EE	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
IE	1.1	0.8	0.9	0.9	0.9	1.0	1.1	1.2	1.4	1.5	1.6	1.8	2.0
EL	2.0	1.4	1.5	1.7	1.9	2.0	2.1	2.2	2.5	2.7	2.9	3.2	3.4
ES	0.8	0.5	0.7	0.9	0.9	0.9	1.0	1.0	1.1	1.2	1.2	1.3	1.3
FR	0.7	1.4	1.5	1.5	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.1	2.1
IT	1.2	1.7	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.5	2.7	2.8	2.8
CY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LV	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.7
LT	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.9	0.9
LU	2.2	1.4	1.4	1.6	1.7	1.8	2.0	2.2	2.5	2.9	3.2	3.5	3.6
HU	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.6
MT	1.5	1.0	1.0	1.1	1.3	1.5	1.7	1.9	2.0	2.1	2.1	2.3	2.5
NL	4.2	3.4	3.5	3.8	4.1	4.5	5.1	5.7	6.3	6.8	7.3	7.5	7.6
AT	1.1	1.3	1.3	1.3	1.4	1.5	1.6	1.8	1.9	2.1	2.3	2.3	2.3
PL	0.5	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.8	0.8	0.9	0.9
PT	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
RO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SI	1.2	1.1	1.2	1.3	1.4	1.5	1.6	1.8	1.9	2.1	2.2	2.3	2.3
SK	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5
FI	2.3	1.8	1.9	2.1	2.3	2.6	2.9	3.3	3.7	3.8	3.9	4.0	4.1
SE	2.0	3.5	3.5	3.5	3.6	3.9	4.3	4.6	4.8	5.0	5.2	5.4	5.5
UK	0.4	0.8	0.8	0.9	0.9	0.9	1.0	1.1	1.1	1.1	1.2	1.2	1.3
NO	2.3	2.2	2.2	2.2	2.3	2.4	2.7	3.1	3.5	3.7	4.0	4.2	4.5
EU27	1.1	1.2	1.3	1.3	1.4	1.5	1.6	1.7	1.9	2.0	2.2	2.3	2.3
EA16	1.2	1.3	1.4	1.5	1.5	1.6	1.8	1.9	2.1	2.2	2.4	2.5	2.5
EU15	1.1	1.3	1.4	1.4	1.5	1.6	1.7	1.9	2.0	2.1	2.3	2.4	2.4
EU12	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.7
EU25	1.1	1.2	1.3	1.4	1.4	1.5	1.6	1.8	1.9	2.0	2.2	2.3	2.3
EA12	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.1	2.3	2.4	2.5	2.6
EU10	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.8

Source: Commission services.

Table A 98 - Long-term care spending – Constant disability scenario (as % of GDP)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	1.2	1.5	1.5	1.6	1.6	1.7	1.9	2.1	2.3	2.5	2.6	2.7	2.7
BG	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4
CZ	0.4	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.6	0.6
DK	1.3	1.7	1.8	1.9	2.1	2.3	2.5	2.7	2.8	2.9	3.0	3.0	3.0
DE	1.3	0.9	1.0	1.0	1.1	1.3	1.4	1.5	1.7	1.9	2.1	2.2	2.2
EE	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
IE	1.2	0.8	0.9	0.9	0.9	1.0	1.1	1.2	1.3	1.5	1.7	1.9	2.1
EL	2.0	1.4	1.5	1.6	1.8	1.9	2.0	2.2	2.4	2.7	3.0	3.2	3.4
ES	0.8	0.5	0.7	0.9	0.9	0.9	1.0	1.0	1.1	1.2	1.3	1.3	1.3
FR	0.7	1.4	1.5	1.5	1.6	1.6	1.7	1.9	2.0	2.0	2.1	2.1	2.1
IT	1.1	1.7	1.7	1.8	1.8	1.8	1.9	2.1	2.3	2.5	2.6	2.8	2.8
CY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LV	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.7	0.7	0.8	0.9
LT	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.7	0.7	0.8	0.9	1.0	1.0
LU	1.9	1.4	1.4	1.4	1.5	1.6	1.8	2.0	2.3	2.6	2.9	3.1	3.3
HU	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.6	0.6
MT	1.4	1.0	1.0	1.1	1.2	1.4	1.6	1.8	1.9	2.0	2.1	2.2	2.4
NL	4.2	3.4	3.5	3.7	4.0	4.5	5.2	5.9	6.5	6.9	7.3	7.6	7.6
AT	1.1	1.3	1.3	1.3	1.4	1.5	1.6	1.8	1.9	2.1	2.2	2.3	2.3
PL	0.7	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.8	0.9	1.0	1.1
PT	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2
RO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SI	1.7	1.1	1.2	1.3	1.4	1.5	1.7	2.0	2.2	2.4	2.6	2.7	2.8
SK	0.4	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.6
FI	2.5	1.8	1.9	2.2	2.4	2.7	3.0	3.4	3.8	4.0	4.1	4.2	4.2
SE	2.0	3.5	3.5	3.5	3.6	3.9	4.3	4.6	4.8	4.9	5.1	5.3	5.5
UK	0.4	0.8	0.8	0.9	0.9	0.9	1.0	1.1	1.1	1.1	1.2	1.2	1.3
NO	2.5	2.2	2.2	2.2	2.3	2.5	2.8	3.3	3.7	3.9	4.2	4.5	4.7
EU27	1.1	1.2	1.3	1.3	1.4	1.5	1.6	1.7	1.9	2.0	2.2	2.3	2.3
EA16	1.3	1.3	1.3	1.4	1.5	1.6	1.7	1.9	2.1	2.2	2.4	2.5	2.5
EU15	1.1	1.3	1.3	1.4	1.5	1.6	1.7	1.9	2.0	2.1	2.3	2.4	2.4
EU12	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.8
EU25	1.1	1.2	1.3	1.3	1.4	1.5	1.6	1.8	1.9	2.0	2.2	2.3	2.3
EA12	1.3	1.3	1.4	1.5	1.5	1.6	1.8	1.9	2.1	2.3	2.4	2.5	2.6
EU10	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.8	0.8	0.9

Source: Commission services.

Table A 99 - Long-term care spending – GDP per worker fast growth scenario (as % of GDP)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	1.9	1.5	1.6	1.8	1.9	2.0	2.2	2.5	2.8	3.1	3.2	3.3	3.4
BG	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4
CZ	0.5	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.8
DK	2.1	1.7	1.8	2.1	2.4	2.7	3.0	3.3	3.4	3.6	3.7	3.8	3.8
DE	1.8	0.9	1.0	1.2	1.3	1.5	1.6	1.8	2.0	2.3	2.5	2.7	2.7
EE	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
IE	1.6	0.8	0.9	1.0	1.0	1.1	1.2	1.4	1.6	1.8	2.0	2.2	2.5
EL	2.8	1.4	1.5	1.8	2.0	2.2	2.3	2.6	2.9	3.3	3.7	4.0	4.2
ES	1.0	0.5	0.7	0.9	1.0	1.0	1.0	1.1	1.2	1.4	1.5	1.5	1.6
FR	1.1	1.4	1.5	1.7	1.7	1.8	2.0	2.2	2.3	2.4	2.5	2.5	2.5
IT	1.7	1.7	1.8	1.9	2.0	2.1	2.2	2.4	2.7	2.9	3.2	3.4	3.4
CY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LV	0.6	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.9	1.0
LT	0.7	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.9	1.0	1.1	1.2
LU	2.5	1.4	1.4	1.5	1.7	1.8	2.0	2.3	2.7	3.1	3.4	3.7	3.9
HU	0.5	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.7
MT	2.1	1.0	1.1	1.2	1.4	1.7	1.9	2.1	2.3	2.4	2.6	2.8	3.1
NL	6.1	3.4	3.6	4.1	4.6	5.3	6.1	7.1	7.9	8.5	9.0	9.3	9.4
AT	1.6	1.3	1.3	1.5	1.6	1.7	1.9	2.1	2.3	2.5	2.7	2.8	2.9
PL	0.8	0.4	0.4	0.5	0.5	0.6	0.7	0.7	0.8	0.9	1.0	1.1	1.2
PT	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
RO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
SI	2.1	1.1	1.2	1.4	1.5	1.7	2.0	2.2	2.5	2.7	2.9	3.1	3.2
SK	0.5	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.7
FI	3.1	1.8	2.0	2.3	2.7	3.0	3.4	3.9	4.4	4.6	4.7	4.8	4.9
SE	3.2	3.5	3.6	3.8	4.1	4.5	5.0	5.4	5.6	5.8	6.1	6.4	6.7
UK	0.7	0.8	0.9	0.9	1.0	1.1	1.2	1.2	1.3	1.3	1.4	1.4	1.5
NO	3.4	2.2	2.2	2.4	2.6	2.8	3.2	3.8	4.3	4.6	4.9	5.3	5.6
EU27	1.6	1.2	1.3	1.4	1.6	1.7	1.8	2.0	2.2	2.4	2.6	2.7	2.8
EA16	1.8	1.3	1.4	1.6	1.7	1.8	2.0	2.2	2.4	2.7	2.9	3.0	3.1
EU15	1.6	1.3	1.4	1.6	1.7	1.8	2.0	2.2	2.4	2.6	2.7	2.8	2.9
EU12	0.6	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.6	0.7	0.7	0.8	0.9
EU25	1.6	1.2	1.3	1.5	1.6	1.7	1.9	2.1	2.2	2.4	2.6	2.8	2.8
EA12	1.8	1.3	1.4	1.6	1.7	1.8	2.0	2.2	2.5	2.7	2.9	3.1	3.1
EU10	0.7	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.8	0.9	1.0	1.1

Source: Commission services.

Table A 100 - Long-term care spending – Shift 1% dependents from informal to home care scenario (as % of GDP)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	1.8	1.5	1.6	1.7	1.8	2.0	2.2	2.5	2.8	3.0	3.1	3.2	3.3
BG	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.5
CZ	0.5	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.7	0.7
DK	2.1	1.7	1.8	2.1	2.3	2.6	3.0	3.2	3.4	3.6	3.7	3.8	3.8
DE	1.7	0.9	1.0	1.1	1.2	1.4	1.6	1.7	1.9	2.2	2.4	2.6	2.6
EE	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
IE	1.5	0.8	0.9	0.9	1.0	1.1	1.2	1.3	1.5	1.7	1.9	2.2	2.4
EL	2.6	1.4	1.5	1.7	1.9	2.0	2.2	2.5	2.8	3.1	3.5	3.8	4.0
ES	1.0	0.5	0.7	0.9	0.9	1.0	1.0	1.1	1.2	1.3	1.4	1.5	1.5
FR	1.0	1.4	1.5	1.6	1.6	1.7	1.8	2.0	2.2	2.2	2.3	2.3	2.3
IT	1.9	1.7	1.8	2.0	2.1	2.2	2.3	2.5	2.8	3.1	3.3	3.5	3.6
CY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LV	0.6	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.7	0.7	0.8	0.9	1.0
LT	0.7	0.5	0.5	0.5	0.5	0.6	0.6	0.7	0.8	0.9	1.0	1.1	1.2
LU	2.4	1.4	1.4	1.5	1.6	1.8	2.0	2.2	2.6	3.0	3.3	3.6	3.8
HU	0.6	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.8	0.9
MT	1.9	1.0	1.0	1.2	1.3	1.5	1.7	1.9	2.1	2.2	2.3	2.6	2.8
NL	5.4	3.4	3.5	3.9	4.3	4.9	5.7	6.6	7.3	7.9	8.4	8.7	8.8
AT	1.5	1.3	1.3	1.4	1.5	1.6	1.8	2.0	2.2	2.4	2.6	2.7	2.8
PL	1.0	0.4	0.4	0.5	0.6	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.4
PT	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
RO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
SI	2.1	1.1	1.2	1.3	1.5	1.7	1.9	2.2	2.4	2.7	2.9	3.1	3.2
SK	0.6	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.7	0.8
FI	2.9	1.8	1.9	2.3	2.6	2.9	3.3	3.8	4.2	4.4	4.5	4.6	4.7
SE	2.8	3.5	3.6	3.7	3.9	4.3	4.8	5.1	5.3	5.5	5.8	6.1	6.3
UK	0.6	0.8	0.8	0.9	0.9	1.0	1.1	1.2	1.2	1.2	1.3	1.3	1.4
NO	3.0	2.2	2.2	2.3	2.4	2.6	3.0	3.5	4.0	4.3	4.6	4.9	5.2
EU27	1.5	1.2	1.3	1.4	1.5	1.6	1.8	1.9	2.1	2.3	2.5	2.6	2.7
EA16	1.7	1.3	1.4	1.5	1.6	1.7	1.9	2.1	2.4	2.6	2.8	2.9	3.0
EU15	1.5	1.3	1.4	1.5	1.6	1.7	1.9	2.1	2.3	2.5	2.6	2.7	2.8
EU12	0.6	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.8	0.9	0.9
EU25	1.5	1.2	1.3	1.4	1.5	1.6	1.8	2.0	2.2	2.3	2.5	2.7	2.7
EA12	1.7	1.3	1.4	1.5	1.7	1.8	2.0	2.2	2.4	2.6	2.8	2.9	3.0
EU10	0.8	0.4	0.4	0.4	0.5	0.6	0.6	0.7	0.8	0.8	0.9	1.0	1.1

Source: Commission services.

Table A 101 - Long-term care spending - Shift 1% dependents from informal to instit. care scenario (as % of GDP)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	2.2	1.5	1.7	1.9	2.1	2.2	2.5	2.8	3.1	3.4	3.5	3.6	3.7
BG	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5
CZ	0.7	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.7	0.7	0.8	0.9
DK	1.7	1.7	1.8	1.9	2.1	2.4	2.7	2.9	3.1	3.3	3.4	3.4	3.5
DE	2.0	0.9	1.0	1.2	1.4	1.6	1.8	2.0	2.2	2.5	2.7	2.9	2.9
EE	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3
IE	1.8	0.8	0.9	1.0	1.1	1.2	1.3	1.5	1.7	1.9	2.2	2.4	2.7
EL	3.0	1.4	1.5	1.9	2.1	2.3	2.4	2.7	3.1	3.5	3.9	4.2	4.4
ES	2.8	0.5	0.9	1.4	1.6	1.7	1.8	2.0	2.3	2.6	3.0	3.2	3.3
FR	1.3	1.4	1.5	1.7	1.8	1.9	2.1	2.3	2.5	2.6	2.6	2.7	2.7
IT	2.5	1.7	1.8	2.2	2.4	2.5	2.7	2.9	3.2	3.6	3.9	4.1	4.2
CY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LV	1.5	0.4	0.5	0.7	0.9	0.9	1.0	1.1	1.2	1.4	1.6	1.8	1.9
LT	0.9	0.5	0.5	0.6	0.6	0.7	0.8	0.8	0.9	1.0	1.2	1.3	1.4
LU	2.9	1.4	1.5	1.7	1.9	2.1	2.3	2.6	3.0	3.4	3.8	4.1	4.3
HU	0.8	0.3	0.3	0.4	0.5	0.5	0.6	0.6	0.7	0.8	0.9	1.0	1.0
MT	2.5	1.0	1.1	1.3	1.5	1.8	2.1	2.3	2.5	2.7	2.9	3.1	3.5
NL	6.2	3.4	3.6	4.1	4.7	5.4	6.3	7.2	8.0	8.7	9.2	9.5	9.6
AT	1.4	1.3	1.3	1.4	1.5	1.6	1.8	2.0	2.2	2.4	2.6	2.7	2.7
PL	0.8	0.4	0.4	0.4	0.5	0.6	0.6	0.7	0.8	0.8	0.9	1.1	1.2
PT	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3
RO	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
SI	2.4	1.1	1.2	1.4	1.7	1.9	2.1	2.4	2.7	3.0	3.2	3.4	3.5
SK	0.4	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.6	0.6
FI	3.8	1.8	2.1	2.7	3.1	3.5	4.0	4.5	5.0	5.2	5.3	5.4	5.6
SE	3.4	3.5	3.7	3.9	4.2	4.7	5.2	5.6	5.8	6.0	6.3	6.7	6.9
UK	0.7	0.8	0.9	0.9	1.0	1.1	1.1	1.2	1.3	1.3	1.4	1.4	1.5
NO	3.9	2.2	2.3	2.6	2.8	3.1	3.5	4.1	4.6	5.0	5.3	5.7	6.0
EU27	2.0	1.2	1.3	1.6	1.7	1.9	2.1	2.3	2.5	2.7	2.9	3.1	3.2
EA16	2.3	1.3	1.5	1.7	1.9	2.1	2.3	2.6	2.8	3.1	3.4	3.5	3.6
EU15	2.0	1.3	1.4	1.7	1.9	2.0	2.2	2.4	2.7	2.9	3.1	3.2	3.3
EU12	0.7	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.8	0.9	1.0
EU25	2.0	1.2	1.4	1.6	1.8	1.9	2.1	2.3	2.5	2.8	3.0	3.1	3.2
EA12	2.3	1.3	1.5	1.8	2.0	2.1	2.3	2.6	2.9	3.2	3.4	3.6	3.6
EU10	0.8	0.4	0.4	0.4	0.5	0.6	0.6	0.7	0.8	0.9	0.9	1.0	1.1

Source: Commission services.

Table A 102 - Long-term care spending - Shift 1% dependents from informal to home/instit. care scenario (as % of GDP)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	2.0	1.5	1.6	1.8	1.9	2.1	2.4	2.7	2.9	3.2	3.3	3.4	3.5
BG	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.5
CZ	0.6	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.7	0.7	0.8
DK	1.9	1.7	1.8	2.0	2.2	2.5	2.9	3.1	3.3	3.4	3.5	3.6	3.6
DE	1.8	0.9	1.0	1.2	1.3	1.5	1.7	1.9	2.1	2.3	2.6	2.7	2.8
EE	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
IE	1.7	0.8	0.9	1.0	1.1	1.1	1.3	1.4	1.6	1.8	2.1	2.3	2.5
EL	2.8	1.4	1.5	1.8	2.0	2.2	2.3	2.6	2.9	3.3	3.7	4.0	4.2
ES	1.5	0.5	0.8	1.1	1.1	1.2	1.3	1.4	1.5	1.7	1.9	2.0	2.0
FR	1.1	1.4	1.5	1.6	1.7	1.8	2.0	2.2	2.3	2.4	2.5	2.5	2.5
IT	2.2	1.7	1.8	2.1	2.2	2.3	2.5	2.7	3.0	3.3	3.6	3.8	3.9
CY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LV	1.1	0.4	0.4	0.6	0.7	0.7	0.8	0.9	0.9	1.0	1.2	1.4	1.5
LT	0.8	0.5	0.5	0.5	0.6	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3
LU	2.7	1.4	1.4	1.6	1.8	1.9	2.1	2.4	2.8	3.2	3.6	3.9	4.0
HU	0.7	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.8	0.9	1.0
MT	2.2	1.0	1.1	1.2	1.4	1.7	1.9	2.1	2.3	2.4	2.6	2.8	3.1
NL	5.8	3.4	3.6	4.0	4.5	5.1	6.0	6.9	7.7	8.3	8.8	9.1	9.2
AT	1.5	1.3	1.3	1.4	1.5	1.6	1.8	2.0	2.2	2.4	2.6	2.7	2.7
PL	0.9	0.4	0.4	0.5	0.5	0.6	0.7	0.7	0.8	0.9	1.0	1.1	1.3
PT	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
RO	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
SI	2.2	1.1	1.2	1.4	1.6	1.8	2.0	2.3	2.6	2.8	3.1	3.2	3.4
SK	0.5	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.6	0.6	0.7
FI	3.3	1.8	2.0	2.5	2.8	3.2	3.7	4.1	4.6	4.8	4.9	5.0	5.1
SE	3.1	3.5	3.6	3.8	4.0	4.5	5.0	5.4	5.6	5.8	6.1	6.4	6.6
UK	0.6	0.8	0.9	0.9	1.0	1.0	1.1	1.2	1.2	1.3	1.3	1.4	1.4
NO	3.4	2.2	2.2	2.4	2.6	2.9	3.3	3.8	4.3	4.6	5.0	5.3	5.6
EU27	1.7	1.2	1.3	1.5	1.6	1.7	1.9	2.1	2.3	2.5	2.7	2.9	2.9
EA16	2.0	1.3	1.4	1.6	1.8	1.9	2.1	2.3	2.6	2.8	3.1	3.2	3.3
EU15	1.8	1.3	1.4	1.6	1.7	1.9	2.1	2.3	2.5	2.7	2.9	3.0	3.0
EU12	0.6	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.8	0.9	1.0
EU25	1.7	1.2	1.3	1.5	1.6	1.8	1.9	2.1	2.3	2.6	2.7	2.9	3.0
EA12	2.0	1.3	1.4	1.7	1.8	1.9	2.1	2.4	2.6	2.9	3.1	3.3	3.3
EU10	0.8	0.4	0.4	0.4	0.5	0.6	0.6	0.7	0.8	0.8	0.9	1.0	1.1

Source: Commission services.

Table A 103 – Number of dependents people – AWG reference scenario (thousands people)

Country	% 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	103%	455	477	523	556	601	667	735	800	850	887	908	922
BG	42%	841	840	883	925	965	999	1028	1074	1132	1175	1212	1196
CZ	147%	256	276	313	350	390	434	468	497	527	554	593	632
DK	106%	164	169	184	204	233	263	286	302	316	327	335	337
DE	75%	3201	3400	3690	4078	4386	4647	5031	5390	5754	5954	5855	5613
EE	61%	81	81	86	90	94	100	104	110	114	120	127	130
IE	290%	93	101	117	135	156	180	207	236	270	306	335	361
EL	123%	338	370	425	460	479	511	555	607	657	704	736	753
ES	155%	1728	1838	2016	2158	2344	2615	2938	3317	3722	4063	4296	4403
FR	101%	2263	2409	2651	2836	3073	3459	3856	4159	4332	4458	4532	4541
IT	89%	2515	2675	2904	3097	3265	3503	3784	4109	4442	4698	4803	4749
CY	272%	35	37	44	51	60	70	78	87	96	107	118	128
LV	54%	123	124	127	130	137	145	151	159	165	175	186	189
LT	79%	191	198	207	216	231	251	271	292	307	322	335	343
LU	207%	14	16	18	20	22	25	29	33	37	40	43	44
HU	80%	594	613	652	721	771	794	832	884	959	996	1035	1068
MT	165%	9	10	12	14	17	19	20	21	22	23	24	25
NL	136%	387	410	461	515	588	684	770	839	887	922	931	913
AT	111%	268	281	299	320	358	398	441	483	525	560	571	567
PL	131%	1485	1529	1721	1982	2273	2480	2647	2806	2967	3148	3304	3433
PT	106%	698	737	806	869	939	1022	1108	1205	1300	1373	1415	1436
RO	114%	971	989	1058	1141	1239	1302	1457	1584	1735	1842	2014	2082
SI	101%	76	81	89	101	112	123	133	141	149	153	155	153
SK	165%	239	249	275	323	372	418	453	492	537	575	610	633
FI	84%	274	289	338	378	421	458	485	492	495	495	497	505
SE	89%	312	320	340	368	406	453	486	508	524	548	571	589
UK	99%	3094	3207	3478	3721	4028	4445	4847	5157	5382	5655	5932	6156
NO	137%	155	161	176	192	216	245	277	302	320	336	352	367
EU27	102%	20705	21725	23716	25759	27961	30465	33200	35786	38205	40179	41471	41901
EA16	104%	12594	13379	14666	15910	17192	18799	20623	22412	24076	25317	25828	25746
EU15	102%	15804	16697	18249	19715	21298	23331	25558	27638	29494	30988	31759	31889
EU12	104%	4902	5028	5467	6045	6663	7135	7642	8148	8711	9191	9712	10012
EU25	104%	18893	19896	21775	23693	25756	28164	30715	33128	35338	37162	38245	38624
EA12	103%	12235	13001	14246	15421	16631	18170	19938	21670	23272	24459	24922	24807
EU10	118%	3089	3199	3526	3978	4458	4833	5158	5490	5844	6174	6486	6734

Source: Commission services.

Table A 104 – Number of dependents people receiving formal care – AWG reference scenario (thousands people)

Country	% 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	152%	248	266	300	322	347	384	435	494	544	585	610	624
BG	88%	97	100	105	112	120	128	137	146	155	164	174	182
CZ	168%	123	134	155	176	194	215	238	259	276	291	308	330
DK	127%	171	176	191	212	242	279	311	332	350	367	382	387
DE	120%	1589	1691	1908	2117	2334	2542	2716	2935	3232	3483	3592	3490
EE	109%	10	10	11	12	12	13	14	16	17	18	19	20
IE	360%	62	68	78	90	105	124	146	170	196	225	255	286
EL	158%	239	263	310	343	364	386	421	465	511	553	590	615
ES	548%	362	634	1144	1235	1356	1508	1695	1898	2105	2252	2334	2346
FR	121%	1505	1632	1807	1941	2090	2338	2676	2939	3099	3215	3292	3330
IT	96%	524	557	612	652	693	746	806	877	951	1011	1038	1028
CY	324%	3	3	3	4	5	6	6	7	8	9	10	11
LV	80%	13	13	14	14	15	16	17	18	19	21	22	23
LT	103%	39	41	44	47	50	54	58	64	69	74	77	78
LU	282%	8	8	10	11	12	14	16	19	22	25	27	29
HU	113%	86	89	96	106	116	124	135	142	152	161	171	183
MT	169%	11	12	14	17	20	22	24	25	26	27	28	30
NL	137%	622	658	733	824	944	1089	1236	1350	1429	1483	1497	1473
AT	146%	186	196	212	228	254	287	321	356	397	435	455	456
PL	167%	251	266	298	338	390	440	489	535	571	600	630	669
PT	173%	227	246	281	311	339	372	411	456	503	548	588	621
RO	137%	229	236	253	274	299	321	355	394	431	467	508	542
SI	147%	24	27	31	34	38	43	47	52	56	58	60	60
SK	213%	31	32	36	41	48	56	63	70	77	83	90	96
FI	141%	107	116	133	151	171	198	225	244	251	254	255	257
SE	101%	318	325	341	368	414	469	512	536	558	588	617	638
UK	136%	1352	1410	1521	1635	1796	2011	2250	2469	2673	2896	3080	3194
NO	157%	162	166	174	187	212	249	288	322	348	375	398	415
EU27	149%	8433	9208	10640	11615	12771	14184	15761	17268	18679	19895	20711	21000
EA16	157%	5746	6409	7611	8322	9122	10112	11244	12357	13407	14248	14723	14752
EU15	150%	7519	8246	9581	10440	11464	12746	14177	15540	16821	17922	18614	18774
EU12	143%	915	962	1060	1174	1306	1438	1584	1729	1857	1973	2098	2226
EU25	150%	8108	8873	10282	11229	12352	13735	15268	16728	18093	19264	20029	20275
EA12	156%	5677	6335	7528	8226	9011	9986	11103	12203	13240	14070	14535	14554
EU10	155%	589	627	701	789	888	989	1092	1188	1271	1342	1415	1502

Source: Commission services.

Table A 105 - Number of dependents people receiving informal or no care – AWG reference scenario (thousands people)

Country	% 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	44%	207	211	223	234	253	283	299	306	306	301	297	298
BG	36%	744	741	777	813	846	871	890	927	977	1011	1037	1013
CZ	127%	133	142	158	174	196	219	230	238	251	263	285	302
DK	:	0	0	0	0	0	0	0	0	0	0	0	0
DE	32%	1612	1709	1782	1961	2052	2105	2315	2455	2523	2471	2264	2123
EE	55%	71	71	75	78	82	86	90	95	98	102	108	110
IE	146%	30	33	39	45	51	56	60	66	73	81	80	75
EL	38%	100	107	115	116	115	125	134	142	146	150	146	138
ES	51%	1366	1204	872	923	987	1107	1244	1419	1618	1810	1961	2057
FR	60%	758	777	844	895	982	1121	1180	1220	1233	1244	1240	1212
IT	87%	1992	2118	2292	2445	2572	2757	2978	3232	3490	3686	3765	3721
CY	268%	32	34	40	47	55	64	72	79	87	98	107	117
LV	51%	110	111	113	116	122	129	134	141	146	154	164	167
LT	74%	152	157	163	170	181	197	212	228	237	248	258	264
LU	126%	7	7	8	9	10	12	13	14	15	15	15	16
HU	74%	508	524	555	615	655	670	697	741	807	835	864	885
MT	:	0	0	0	0	0	0	0	0	0	0	0	0
NL	:	0	0	0	0	0	0	0	0	0	0	0	0
AT	34%	83	85	87	91	103	111	121	127	128	125	116	111
PL	124%	1235	1263	1423	1644	1884	2040	2157	2272	2397	2548	2674	2764
PT	73%	471	490	525	557	599	651	697	750	797	825	826	814
RO	107%	743	753	805	867	940	981	1102	1191	1304	1376	1506	1540
SI	79%	52	54	58	67	74	81	86	90	93	95	95	92
SK	158%	208	217	239	282	324	362	390	422	460	491	520	537
FI	48%	168	173	204	227	250	261	260	248	244	242	242	248
SE	:	0	0	0	0	0	0	0	0	0	0	0	0
UK	70%	1741	1797	1957	2087	2232	2433	2597	2689	2708	2759	2852	2962
NO	:	0	0	2	5	4	0	0	0	0	0	0	0
EU27	70%	12272	12516	13076	14144	15190	16282	17439	18517	19526	20284	20760	20901
EA16	61%	6848	6970	7055	7588	8070	8687	9380	10055	10668	11069	11105	10994
EU15	58%	8285	8451	8668	9274	9834	10585	11381	12098	12673	13067	13145	13116
EU12	95%	3987	4065	4407	4870	5356	5697	6058	6419	6853	7218	7614	7786
EU25	70%	10785	11023	11493	12464	13404	14429	15447	16400	17245	17898	18216	18348
EA12	56%	6558	6666	6719	7195	7619	8183	8835	9468	10032	10389	10387	10253
EU10	109%	2500	2572	2825	3190	3570	3844	4066	4302	4572	4832	5071	5233

Source: Commission services.

EDUCATION EXPENDITURE PROJECTIONS

Table A 106 – Education spending - Total (as % of GDP)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	0.0	5.5	5.4	5.2	5.1	5.3	5.4	5.4	5.4	5.4	5.4	5.4	5.5
BG	-0.2	3.3	2.9	2.7	2.8	2.9	2.9	2.7	2.7	2.8	2.9	3.0	3.0
CZ	-0.3	3.5	3.2	3.0	3.0	3.1	3.1	3.0	2.9	2.9	3.0	3.2	3.2
DK	0.2	7.1	7.2	7.4	7.4	7.3	7.4	7.4	7.5	7.5	7.4	7.3	7.2
DE	-0.4	3.9	3.7	3.4	3.2	3.2	3.3	3.4	3.4	3.4	3.4	3.4	3.5
EE	-0.2	3.7	3.1	3.0	3.3	3.5	3.4	3.3	3.1	3.1	3.2	3.4	3.5
IE	-0.3	4.5	4.4	4.4	4.4	4.4	4.4	4.2	4.0	4.0	4.1	4.2	4.2
EL	0.0	3.7	3.5	3.3	3.3	3.4	3.4	3.4	3.4	3.5	3.5	3.6	3.7
ES	0.1	3.5	3.4	3.4	3.5	3.5	3.4	3.2	3.2	3.3	3.5	3.6	3.6
FR	0.0	4.7	4.6	4.6	4.6	4.7	4.7	4.7	4.6	4.6	4.7	4.7	4.6
IT	-0.3	4.1	4.0	3.9	3.8	3.7	3.6	3.6	3.6	3.7	3.8	3.8	3.8
CY	-1.2	6.1	5.6	4.9	4.8	4.9	5.0	5.0	4.8	4.7	4.7	4.8	5.0
LV	-0.3	3.7	3.1	2.8	3.0	3.2	3.2	3.1	2.9	2.9	3.1	3.3	3.3
LT	-0.9	4.0	3.5	2.9	2.8	2.9	3.0	3.0	2.9	2.8	2.8	3.0	3.1
LU	-0.5	3.8	3.6	3.2	3.1	3.1	3.2	3.3	3.3	3.3	3.3	3.3	3.3
HU	-0.4	4.4	4.1	3.8	3.8	3.8	3.7	3.7	3.7	3.7	3.8	3.9	4.0
MT	-1.0	5.0	4.6	4.2	4.0	3.9	3.9	3.8	3.7	3.7	3.7	3.9	4.0
NL	-0.2	4.6	4.6	4.5	4.4	4.3	4.4	4.5	4.5	4.6	4.5	4.4	4.4
AT	-0.5	4.8	4.5	4.3	4.1	4.1	4.2	4.2	4.2	4.2	4.2	4.3	4.3
PL	-1.2	4.4	3.7	3.3	3.2	3.2	3.2	3.1	2.9	2.9	2.9	3.1	3.2
PT	-0.3	4.6	4.5	4.4	4.3	4.2	4.1	4.0	4.0	4.1	4.2	4.3	4.3
RO	-0.5	2.8	2.5	2.4	2.3	2.3	2.2	2.2	2.1	2.2	2.2	2.3	2.3
SI	0.4	5.1	4.8	4.8	4.9	5.0	5.0	4.9	5.0	5.1	5.3	5.5	5.6
SK	-0.8	3.1	2.8	2.4	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.2	2.3
FI	-0.3	5.7	5.4	5.3	5.2	5.3	5.4	5.4	5.4	5.3	5.3	5.3	5.4
SE	-0.3	6.0	5.8	5.5	5.5	5.6	5.7	5.7	5.7	5.6	5.6	5.6	5.8
UK	-0.1	3.8	3.8	3.7	3.8	3.8	3.9	3.9	3.8	3.7	3.7	3.7	3.8
NO	0.1	7.9	7.8	7.7	7.7	7.7	7.8	8.0	8.1	8.1	8.0	8.0	8.1
EU27	-0.2	4.3	4.1	4.0	3.9	3.9	3.9	3.9	3.9	3.9	4.0	4.0	4.1
EA16	-0.2	4.2	4.1	4.0	3.9	3.9	3.9	3.9	3.9	4.0	4.0	4.1	4.1
EU15	-0.1	4.3	4.2	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.1	4.1	4.1
EU12	-0.7	3.9	3.5	3.1	3.1	3.1	3.1	3.0	2.9	2.9	3.0	3.1	3.2
EU25	-0.2	4.3	4.1	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.1	4.1
EA12	-0.2	4.2	4.1	4.0	3.9	3.9	3.9	3.9	3.9	4.0	4.0	4.1	4.1
EU10	-0.8	4.2	3.7	3.3	3.2	3.3	3.3	3.2	3.1	3.1	3.2	3.3	3.4

Source: Commission services.

Table A 107 - Education spending - Primary (as % of GDP)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	0.0	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
BG	0.1	0.8	0.8	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.9	0.9	0.9
CZ	0.1	0.5	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.6	0.6	0.6	0.6
DK	-0.2	1.9	1.8	1.8	1.8	1.7	1.8	1.9	1.9	1.8	1.8	1.7	1.7
DE	0.0	0.6	0.6	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
EE	0.2	1.0	1.0	1.2	1.3	1.3	1.2	1.1	1.1	1.1	1.2	1.3	1.3
IE	0.0	1.5	1.6	1.6	1.7	1.6	1.5	1.4	1.4	1.4	1.5	1.5	1.5
EL	0.1	1.1	1.0	1.1	1.1	1.1	1.0	1.0	1.1	1.1	1.2	1.2	1.2
ES	0.1	1.1	1.1	1.2	1.2	1.1	1.0	1.0	1.0	1.1	1.2	1.2	1.2
FR	0.0	1.1	1.1	1.1	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
IT	-0.1	1.1	1.1	1.1	1.1	1.0	0.9	1.0	1.0	1.0	1.1	1.0	1.0
CY	-0.1	1.7	1.5	1.5	1.6	1.6	1.6	1.5	1.4	1.4	1.5	1.5	1.6
LV	0.2	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.8	0.8	0.8
LT	0.0	0.7	0.6	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.6	0.6	0.6
LU	-0.3	2.0	1.9	1.6	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7
HU	0.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	1.0	1.0	1.0	1.0
MT	-0.2	1.3	1.2	1.1	1.1	1.1	1.1	1.1	1.0	1.0	1.0	1.1	1.1
NL	-0.1	1.3	1.3	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.2	1.2	1.2
AT	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.0
PL	-0.2	1.4	1.2	1.2	1.3	1.3	1.2	1.1	1.0	1.1	1.1	1.2	1.2
PT	-0.1	1.5	1.6	1.6	1.5	1.5	1.4	1.4	1.4	1.4	1.5	1.5	1.5
RO	-0.1	1.3	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.2	1.2	1.2
SI	0.5	2.6	2.5	2.7	2.8	2.8	2.7	2.6	2.6	2.8	3.0	3.1	3.0
SK	-0.1	0.6	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.5	0.5	0.5
FI	0.0	1.2	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
SE	0.2	1.6	1.6	1.7	1.7	1.8	1.8	1.8	1.7	1.7	1.7	1.8	1.8
UK	0.1	1.3	1.3	1.3	1.4	1.4	1.4	1.4	1.3	1.3	1.3	1.3	1.4
NO	-0.1	2.2	2.1	2.0	2.0	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1
EU27	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
EA16	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
EU15	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
EU12	-0.1	1.2	1.1	1.1	1.1	1.1	1.0	1.0	0.9	1.0	1.0	1.1	1.1
EU25	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
EA12	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
EU10	-0.1	1.1	1.0	1.0	1.1	1.1	1.0	1.0	0.9	1.0	1.0	1.1	1.1

Source: Commission services.

Table A 108 - Education spending – Low secondary (as % of GDP)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	:	:	:	:	:	:	:	:	:	:	:	:	:
BG	0.0	0.8	0.6	0.7	0.7	0.8	0.7	0.7	0.7	0.7	0.8	0.8	0.8
CZ	-0.1	1.0	0.8	0.7	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.9	0.9
DK	-0.1	1.1	1.1	1.1	1.1	1.0	1.0	1.1	1.1	1.1	1.1	1.0	1.0
DE	-0.1	1.2	1.1	1.0	1.0	1.0	1.0	1.1	1.1	1.0	1.0	1.1	1.1
EE	0.0	0.8	0.6	0.6	0.7	0.8	0.8	0.7	0.7	0.6	0.7	0.7	0.8
IE	0.0	0.8	0.7	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.8	0.8
EL	:	:	:	:	:	:	:	:	:	:	:	:	:
ES	0.2	1.6	1.5	1.5	1.7	1.7	1.6	1.5	1.5	1.5	1.6	1.7	1.7
FR	0.0	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
IT	0.0	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.8	0.8	0.8	0.8
CY	-0.3	1.3	1.2	1.0	1.0	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.1
LV	-0.1	1.2	0.9	0.8	1.0	1.1	1.1	1.0	0.9	0.9	1.0	1.1	1.1
LT	-0.4	1.6	1.3	1.0	1.0	1.1	1.2	1.2	1.1	1.0	1.0	1.1	1.2
LU	-0.1	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
HU	-0.1	1.1	1.0	0.9	0.9	1.0	0.9	0.9	0.9	0.9	0.9	1.0	1.0
MT	-0.5	2.1	1.9	1.6	1.5	1.5	1.6	1.5	1.5	1.4	1.4	1.5	1.6
NL	-0.1	1.1	1.1	1.1	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.0	1.0
AT	-0.1	1.2	1.1	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
PL	-0.2	0.8	0.7	0.5	0.5	0.6	0.6	0.6	0.5	0.5	0.5	0.6	0.6
PT	-0.1	1.2	1.1	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.1	1.1	1.1
RO	:	:	:	:	:	:	:	:	:	:	:	:	:
SI	:	:	:	:	:	:	:	:	:	:	:	:	:
SK	-0.2	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
FI	-0.1	1.1	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
SE	-0.1	1.1	0.9	0.8	0.9	0.9	1.0	1.0	1.0	0.9	0.9	0.9	1.0
UK	0.0	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.6
NO	-0.1	1.0	1.0	1.0	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0
EU27	:	:	:	:	:	:	:	:	:	:	:	:	:
EA16	:	:	:	:	:	:	:	:	:	:	:	:	:
EU15	:	:	:	:	:	:	:	:	:	:	:	:	:
EU12	:	:	:	:	:	:	:	:	:	:	:	:	:
EU25	:	:	:	:	:	:	:	:	:	:	:	:	:
EA12	:	:	:	:	:	:	:	:	:	:	:	:	:
EU10	:	:	:	:	:	:	:	:	:	:	:	:	:

Source: Commission services.

Table A 109 - Education spending – Upper secondary (as % of GDP)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	0.0	2.9	2.8	2.6	2.6	2.7	2.8	2.8	2.8	2.8	2.8	2.8	2.9
BG	-0.2	1.0	0.8	0.7	0.7	0.8	0.8	0.8	0.7	0.7	0.8	0.8	0.8
CZ	-0.2	1.1	1.1	0.8	0.8	1.0	0.9	0.9	0.9	0.9	0.9	0.9	1.0
DK	0.1	2.0	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1
DE	-0.2	1.0	0.9	0.8	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8
EE	-0.2	1.1	0.9	0.7	0.8	0.9	0.9	0.9	0.8	0.8	0.8	0.9	0.9
IE	-0.1	1.1	1.0	1.0	1.0	1.0	1.1	1.0	1.0	0.9	1.0	1.0	1.0
EL	0.0	1.3	1.2	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.3
ES	:	:	:	:	:	:	:	:	:	:	:	:	:
FR	0.0	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
IT	-0.1	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
CY	-0.3	1.6	1.5	1.2	1.1	1.2	1.3	1.3	1.2	1.2	1.2	1.2	1.3
LV	-0.3	1.1	0.9	0.6	0.6	0.7	0.8	0.8	0.7	0.7	0.7	0.7	0.8
LT	-0.2	0.7	0.7	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.5	0.5
LU	-0.1	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.8	0.8
HU	-0.2	1.2	1.2	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1
MT	-0.2	0.6	0.6	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
NL	0.0	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9
AT	-0.1	1.2	1.2	1.1	1.0	1.0	1.0	1.0	1.1	1.0	1.0	1.0	1.1
PL	-0.3	1.0	0.9	0.7	0.6	0.6	0.7	0.7	0.6	0.6	0.6	0.6	0.7
PT	-0.1	1.0	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.9	0.9	0.9
RO	-0.2	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
SI	0.0	1.3	1.1	1.0	1.0	1.2	1.2	1.2	1.2	1.1	1.2	1.2	1.3
SK	-0.3	0.9	0.9	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
FI	0.0	1.5	1.5	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.4	1.4	1.5
SE	-0.1	1.5	1.5	1.3	1.3	1.3	1.4	1.4	1.4	1.4	1.3	1.4	1.4
UK	-0.1	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
NO	0.0	1.9	2.0	1.9	1.8	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9
EU27	:	:	:	:	:	:	:	:	:	:	:	:	:
EA16	:	:	:	:	:	:	:	:	:	:	:	:	:
EU15	:	:	:	:	:	:	:	:	:	:	:	:	:
EU12	-0.2	1.0	0.9	0.7	0.7	0.7	0.8	0.7	0.7	0.7	0.7	0.7	0.8
EU25	:	:	:	:	:	:	:	:	:	:	:	:	:
EA12	:	:	:	:	:	:	:	:	:	:	:	:	:
EU10	-0.2	1.1	1.0	0.8	0.7	0.8	0.8	0.8	0.8	0.7	0.7	0.8	0.8

Source: Commission services.

Table A 110 - Education spending – Tertiary education (as % of GDP)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	0.0	1.3	1.3	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.3
BG	-0.2	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
CZ	-0.1	0.9	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
DK	0.3	2.1	2.1	2.3	2.5	2.5	2.5	2.4	2.4	2.4	2.4	2.4	2.4
DE	-0.1	1.1	1.1	1.0	1.0	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0
EE	-0.1	0.7	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
IE	-0.2	1.2	1.1	1.0	0.9	0.9	1.0	1.0	1.0	0.9	0.9	0.9	0.9
EL	-0.1	1.3	1.2	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2
ES	-0.1	0.9	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
FR	0.0	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
IT	-0.1	0.9	0.8	0.8	0.7	0.7	0.8	0.8	0.7	0.7	0.7	0.8	0.8
CY	-0.5	1.6	1.4	1.3	1.1	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
LV	-0.1	0.8	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7
LT	-0.2	1.0	1.0	0.9	0.8	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8
LU	:	:	:	:	:	:	:	:	:	:	:	:	:
HU	-0.1	1.0	1.0	0.9	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9
MT	-0.2	1.0	1.0	1.0	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
NL	0.0	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
AT	-0.2	1.4	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
PL	-0.5	1.2	1.0	0.9	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
PT	-0.1	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
RO	-0.2	0.8	0.7	0.6	0.6	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.6
SI	-0.1	1.3	1.2	1.1	1.0	1.0	1.1	1.2	1.2	1.2	1.2	1.2	1.2
SK	-0.2	0.8	0.8	0.7	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6
FI	-0.2	1.9	1.8	1.7	1.7	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7
SE	-0.2	1.8	1.7	1.7	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.6
UK	0.0	1.2	1.2	1.2	1.1	1.1	1.2	1.2	1.2	1.2	1.1	1.1	1.2
NO	0.3	2.8	2.8	2.8	2.9	2.9	2.9	2.9	3.0	3.0	3.1	3.1	3.1
EU27	:	:	:	:	:	:	:	:	:	:	:	:	:
EA16	:	:	:	:	:	:	:	:	:	:	:	:	:
EU15	:	:	:	:	:	:	:	:	:	:	:	:	:
EU12	-0.3	1.0	0.9	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
EU25	:	:	:	:	:	:	:	:	:	:	:	:	:
EA12	:	:	:	:	:	:	:	:	:	:	:	:	:
EU10	-0.3	1.1	1.0	0.9	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.7	0.8

Source: Commission services.

Table A 111 – Number of students – Total (thousands people)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	170	2404	2402	2418	2450	2498	2533	2545	2545	2543	2550	2563	2574
BG	-486	1150	1048	979	981	964	900	820	759	728	714	695	664
CZ	-497	1851	1741	1657	1677	1685	1616	1509	1421	1381	1377	1379	1354
DK	-5	1140	1151	1159	1150	1130	1129	1148	1167	1171	1160	1144	1135
DE	-4059	14023	13416	12531	11863	11514	11406	11284	11012	10656	10328	10099	9964
EE	-84	270	243	230	235	239	231	215	200	191	190	190	186
IE	319	1039	1085	1183	1275	1337	1345	1315	1286	1288	1315	1344	1358
EL	-254	2015	1956	1946	1969	1972	1915	1841	1790	1772	1779	1781	1761
ES	407	7524	7703	8280	8839	8972	8663	8208	7899	7843	7940	8007	7932
FR	812	11961	11949	12172	12472	12612	12604	12532	12521	12606	12733	12800	12773
IT	-1195	9534	9471	9492	9494	9292	8969	8694	8567	8550	8550	8484	8339
CY	40	144	139	136	146	160	168	170	168	168	172	178	184
LV	-200	445	393	350	348	351	337	309	281	263	256	253	245
LT	-388	766	695	596	548	536	525	497	456	419	396	386	378
LU	28	75	78	81	82	85	88	92	96	98	100	101	103
HU	-621	1928	1831	1714	1678	1650	1593	1513	1438	1385	1354	1334	1307
MT	-23	76	71	66	63	63	63	61	58	55	54	53	53
NL	-479	3234	3238	3168	3049	2948	2922	2948	2971	2949	2881	2803	2754
AT	-148	1427	1375	1317	1295	1296	1308	1313	1303	1287	1277	1276	1279
PL	-4209	8311	7505	6579	6169	6059	5868	5454	4956	4550	4325	4214	4102
PT	-164	1492	1464	1479	1479	1462	1421	1377	1351	1347	1350	1344	1328
RO	-1766	3751	3450	3171	3053	2953	2763	2545	2350	2223	2143	2076	1985
SI	-94	380	361	348	348	347	337	319	302	293	290	290	286
SK	-502	1062	968	866	829	814	778	719	658	615	591	578	560
FI	-122	1218	1181	1150	1143	1149	1160	1155	1136	1115	1101	1097	1096
SE	100	2055	1989	1945	1994	2049	2104	2133	2119	2090	2089	2119	2155
UK	1870	12706	12514	12530	12897	13411	13803	13994	13998	13994	14115	14350	14575
NO	129	1058	1067	1074	1081	1099	1125	1151	1166	1170	1171	1177	1188
EU27	-11507	91703	89148	87282	87268	87286	86286	84456	82564	81341	80895	80705	80196
EA16	-5222	57331	56588	56370	56537	56257	55417	54319	53419	52947	52774	52564	52108
EU15	-2678	71569	70702	70588	71193	71464	71108	70326	69517	69071	69031	69077	68891
EU12	-8829	20134	18446	16695	16075	15821	15178	14130	13047	12270	11864	11628	11305
EU25	-9255	86802	84650	83132	83233	83369	82623	81092	79455	78390	78037	77933	77547
EA12	-4643	55669	55048	54954	55151	54874	54071	53051	52233	51817	51667	51464	51026
EU10	-6578	15233	13948	12544	12041	11904	11515	10766	9938	9319	9006	8856	8655

Source: Commission services.

Table A 112 - Number of students – Primary (thousands people)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	61	734	732	763	776	788	794	785	778	782	789	793	794
BG	-83	271	283	302	302	276	245	222	214	215	211	201	188
CZ	-58	460	466	537	540	505	466	424	408	421	430	422	402
DK	-34	412	399	390	380	368	382	400	403	395	384	377	379
DE	-815	3311	3126	2897	2840	2882	2876	2782	2666	2569	2513	2500	2496
EE	-10	77	76	87	93	91	83	73	68	69	71	71	67
IE	163	467	511	579	629	640	613	586	583	602	624	635	630
EL	-44	636	637	690	701	659	618	597	597	611	620	612	592
ES	320	2693	2967	3420	3616	3415	3149	2990	2973	3064	3147	3125	3013
FR	278	3957	4081	4179	4244	4212	4172	4146	4195	4264	4296	4276	4236
IT	-338	2821	2879	2972	2890	2693	2597	2576	2596	2627	2620	2557	2483
CY	24	57	55	59	68	73	75	73	72	73	77	80	82
LV	-19	76	79	88	91	88	78	67	62	62	63	61	57
LT	-59	146	128	121	128	130	122	106	94	90	90	90	87
LU	12	36	36	36	37	39	41	43	44	45	45	46	47
HU	-96	402	395	405	412	389	365	341	326	323	324	317	306
MT	-7	28	26	25	26	26	25	24	22	22	22	22	21
NL	-216	1281	1297	1209	1131	1125	1155	1176	1172	1140	1092	1064	1066
AT	-8	346	333	334	337	343	346	343	336	333	334	336	338
PL	-1032	2498	2256	2159	2280	2248	2057	1805	1616	1547	1550	1536	1466
PT	-32	396	407	422	414	402	382	371	371	376	377	372	364
RO	-379	935	906	896	888	832	750	677	640	627	615	591	556
SI	-15	93	91	98	101	96	88	81	78	80	82	81	77
SK	-91	229	211	217	219	208	189	168	154	151	150	146	138
FI	-22	365	346	352	364	370	369	361	347	340	341	343	343
SE	132	667	647	723	756	774	800	791	757	749	768	788	799
UK	985	4402	4359	4713	4892	5102	5198	5144	5070	5105	5224	5333	5387
NO	39	430	421	422	431	440	455	464	461	457	458	462	469
EU27	-1381	27798	27728	28671	29156	28772	28035	27155	26645	26679	26858	26775	26417
EA16	-730	17452	17736	18251	18393	17970	17490	17102	16987	17077	17127	16988	16722
EU15	443	22525	22758	23679	24007	23809	23492	23092	22890	23002	23174	23157	22969
EU12	-1824	5273	4970	4992	5148	4963	4543	4063	3755	3678	3684	3618	3448
EU25	-919	26591	26539	27474	27966	27664	27041	26255	25790	25837	26032	25983	25672
EA12	-641	17044	17353	17853	17980	17566	17113	16756	16660	16752	16797	16660	16404
EU10	-1362	4066	3782	3795	3958	3855	3548	3164	2900	2836	2858	2826	2704

Source: Commission services.

Table A 113 - Number of students – Low secondary (thousands people)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	31	428	425	425	444	445	452	455	453	452	455	457	459
BG	-105	280	238	250	270	262	237	210	194	190	190	185	175
CZ	-128	462	379	372	434	425	397	367	335	325	336	342	334
DK	-18	240	248	235	231	224	216	226	237	238	233	227	222
DE	-1423	5119	4889	4617	4287	4196	4250	4244	4109	3941	3803	3720	3696
EE	-16	53	43	41	46	49	48	44	38	36	37	38	38
IE	75	173	180	200	225	246	251	240	228	226	233	242	248
EL	-28	336	329	325	353	354	332	312	302	303	310	314	308
ES	256	1962	1977	2197	2468	2608	2456	2253	2127	2106	2166	2228	2218
FR	335	3218	3225	3415	3492	3531	3505	3469	3450	3492	3549	3572	3553
IT	-175	1773	1768	1814	1874	1791	1680	1633	1625	1638	1654	1642	1598
CY	7	32	30	27	30	34	37	37	36	35	36	38	39
LV	-61	137	104	99	110	114	110	97	84	77	77	79	76
LT	-155	294	246	200	186	196	199	187	164	146	138	139	139
LU	7	19	20	20	20	21	22	23	24	24	25	25	25
HU	-149	464	415	394	409	407	383	359	337	324	323	322	315
MT	-9	27	25	21	20	21	21	21	20	18	18	18	18
NL	-140	782	760	784	727	682	677	696	709	707	689	660	643
AT	-42	389	366	346	345	350	356	358	353	346	344	345	347
PL	-765	1548	1351	1134	1100	1162	1142	1038	909	818	790	793	784
PT	-35	387	379	399	396	393	377	361	354	356	359	358	352
RO	-379	922	861	825	831	815	757	681	620	592	581	568	542
SI	-14	75	72	69	75	76	72	66	61	59	61	62	61
SK	-154	329	286	252	260	261	247	223	199	185	181	180	174
FI	-27	203	195	178	183	187	190	189	185	178	174	175	177
SE	-12	415	366	333	374	385	396	409	403	385	382	393	402
UK	315	2238	2179	2051	2281	2337	2443	2484	2453	2417	2440	2501	2553
NO	12	187	189	183	183	186	189	196	200	198	197	197	199
EU27	-2808	22305	21353	21024	21471	21572	21253	20682	20008	19616	19583	19622	19497
EA16	-1335	15252	14925	15091	15199	15197	14924	14579	14234	14069	14056	14035	13917
EU15	-880	17682	17304	17339	17698	17751	17603	17352	17012	16811	16816	16859	16802
EU12	-1929	4624	4049	3685	3772	3822	3650	3330	2996	2805	2767	2764	2695
EU25	-2324	21103	20254	19949	20370	20496	20259	19790	19195	18835	18812	18869	18779
EA12	-1165	14789	14512	14721	14813	14805	14547	14232	13918	13771	13761	13738	13624
EU10	-1444	3422	2950	2610	2671	2745	2656	2438	2183	2024	1996	2010	1978

Source: Commission services.

Table A 114 - Number of students – Upper secondary (thousands people)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	60	842	836	822	830	861	874	889	892	889	890	897	902
BG	-176	363	304	244	257	275	261	235	210	196	194	193	187
CZ	-194	580	554	432	437	492	470	442	413	383	376	385	386
DK	17	275	291	303	296	296	288	284	293	302	302	297	292
DE	-1189	3382	3191	2880	2724	2529	2475	2500	2493	2419	2325	2246	2193
EE	-29	69	56	43	44	50	50	48	43	39	38	39	39
IE	60	212	208	219	237	258	275	275	263	254	255	263	272
EL	-49	399	382	361	373	399	390	367	348	341	343	350	351
ES	50	1103	1092	1088	1196	1305	1315	1232	1147	1103	1104	1133	1153
FR	131	2720	2604	2605	2725	2812	2817	2798	2769	2763	2800	2841	2851
IT	-337	2865	2808	2757	2826	2884	2736	2590	2532	2524	2543	2559	2529
CY	7	33	34	30	29	34	37	38	38	37	37	38	40
LV	-61	107	90	58	59	65	67	63	56	48	45	46	46
LT	-71	124	121	91	75	72	75	75	70	62	56	53	53
LU	9	21	22	24	25	25	26	27	28	29	30	30	30
HU	-221	622	594	512	493	507	498	471	445	421	406	403	400
MT	-4	11	11	10	9	8	9	9	8	8	7	7	7
NL	-82	632	638	627	638	593	570	571	584	590	586	570	549
AT	-57	458	457	423	407	405	410	416	416	410	403	400	401
PL	-1238	2273	2078	1695	1457	1481	1508	1451	1313	1163	1066	1038	1034
PT	-42	350	338	332	346	340	336	322	312	309	310	311	309
RO	-546	1030	839	738	702	708	688	638	574	527	506	497	483
SI	-28	101	91	84	82	89	88	83	76	72	70	72	72
SK	-160	306	283	227	203	210	209	197	178	160	150	147	146
FI	-28	354	356	341	329	335	341	343	341	335	328	325	326
SE	-9	569	577	493	496	530	539	555	569	558	542	547	560
UK	270	3627	3500	3303	3310	3530	3646	3781	3818	3780	3757	3811	3897
NO	26	231	240	240	233	239	241	247	255	258	256	255	256
EU27	-3909	23361	22288	20678	20539	21027	20931	20639	20173	19661	19411	19440	19452
EA16	-1650	13723	13286	12766	12913	13020	12843	12596	12368	12182	12124	12130	12073
EU15	-1187	17744	17234	16514	16692	17035	16973	16889	16747	16544	16459	16521	16557
EU12	-2722	5617	5054	4164	3846	3991	3958	3750	3426	3117	2952	2919	2895
EU25	-3187	21968	21146	19696	19580	20044	19982	19766	19389	18938	18712	18750	18782
EA12	-1465	13272	12867	12416	12590	12679	12501	12269	12067	11905	11859	11865	11808
EU10	-1999	4225	3911	3182	2887	3008	3009	2877	2642	2394	2253	2229	2225

Source: Commission services.

Table A 115 - Number of students – Tertiary education (thousands people)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	18	400	410	407	400	404	413	417	421	420	416	416	418
BG	-121	235	224	184	152	152	158	152	140	128	119	116	114
CZ	-117	348	344	316	266	265	283	276	266	251	235	230	232
DK	30	212	214	231	243	243	243	238	234	236	241	243	242
DE	-632	2211	2210	2137	2013	1907	1805	1758	1743	1726	1687	1633	1579
EE	-29	71	69	60	52	49	50	51	50	48	44	43	42
IE	21	186	186	185	184	193	206	214	212	206	202	203	208
EL	-133	644	608	569	542	560	575	566	542	518	506	505	510
ES	-218	1765	1667	1575	1559	1643	1742	1734	1652	1570	1523	1522	1548
FR	68	2066	2040	1972	2011	2057	2111	2119	2107	2087	2087	2111	2134
IT	-346	2075	2016	1949	1905	1925	1956	1894	1814	1761	1733	1727	1729
CY	1	21	20	20	19	18	20	21	22	22	22	22	22
LV	-60	125	120	105	88	83	82	81	80	76	71	68	66
LT	-103	202	200	184	159	137	130	129	128	121	112	104	99
LU	0	0	0	0	0	0	0	0	0	0	0	0	0
HU	-154	441	427	403	364	347	347	341	330	317	302	291	286
MT	-3	9	9	9	8	8	7	8	8	7	7	7	7
NL	-42	539	542	548	552	548	519	504	506	512	515	510	497
AT	-42	234	219	214	205	198	196	197	198	198	196	194	192
PL	-1174	1992	1820	1592	1331	1168	1160	1159	1117	1022	918	847	818
PT	-56	358	340	325	323	327	326	322	314	307	303	303	302
RO	-461	864	844	713	633	598	567	548	516	477	442	420	403
SI	-37	112	108	98	90	86	89	89	86	82	78	75	75
SK	-96	198	189	170	147	135	133	131	127	119	111	105	102
FI	-46	296	283	280	267	257	259	261	263	262	258	253	250
SE	-11	404	399	397	369	359	370	377	389	398	396	392	394
UK	299	2439	2477	2464	2415	2443	2516	2585	2657	2693	2695	2705	2738
NO	53	211	218	228	234	235	240	244	250	257	261	262	263
EU27	-3408	18239	17779	16909	16103	15915	16066	15980	15738	15385	15043	14867	14830
EA16	-1507	10904	10642	10261	10032	10070	10159	10042	9830	9619	9468	9410	9396
EU15	-1054	13618	13406	13055	12795	12869	13040	12993	12868	12715	12582	12541	12564
EU12	-2354	4620	4373	3854	3308	3045	3026	2987	2870	2670	2460	2326	2266
EU25	-2826	17139	16711	16012	15318	15165	15341	15280	15081	14780	14482	14332	14313
EA12	-1372	10563	10316	9964	9768	9824	9911	9793	9587	9388	9250	9201	9191
EU10	-1772	3521	3305	2957	2523	2296	2302	2287	2214	2065	1900	1790	1749

Source: Commission services.

Table A 116 – Number of teachers - Total (thousands people)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	13	183	183	184	187	191	193	194	194	194	195	196	197
BG	-37	86	78	72	73	72	67	61	56	54	53	52	49
CZ	-35	126	118	110	114	115	110	102	96	93	93	93	92
DK	-9	121	121	116	114	110	110	115	119	118	115	112	111
DE	-243	846	811	761	719	698	690	682	666	645	625	611	603
EE	-5	17	16	15	16	16	15	14	13	13	13	13	12
IE	17	60	61	66	71	75	76	75	73	73	74	75	76
EL	-18	174	169	170	175	175	168	160	156	155	157	158	155
ES	30	562	573	613	656	670	649	614	589	584	590	596	592
FR	53	768	764	779	800	811	810	805	803	808	817	822	821
IT	-150	789	744	729	731	712	683	663	656	656	657	652	639
CY	3	10	10	10	10	11	12	12	12	12	12	13	13
LV	-14	33	28	25	26	27	25	23	21	19	19	19	18
LT	-34	68	59	51	48	49	48	45	40	36	35	35	34
LU	3	7	7	7	8	8	8	8	9	9	9	9	9
HU	-48	152	144	135	134	132	127	120	113	109	108	106	104
MT	-2	6	6	5	5	5	5	5	5	5	4	4	4
NL	-31	221	223	215	210	203	201	202	203	202	198	193	190
AT	-12	111	106	102	100	100	101	102	101	100	99	99	99
PL	-297	601	542	478	456	451	434	400	362	333	319	313	304
PT	-20	192	190	193	193	189	183	178	175	175	175	174	172
RO	-103	223	204	190	185	179	167	153	141	134	130	126	120
SI	-6	24	23	22	23	23	22	21	19	19	19	19	19
SK	-33	69	63	55	53	52	50	46	42	39	38	37	36
FI	-8	81	79	76	76	77	78	77	76	74	73	73	73
SE	8	155	149	147	151	155	159	161	160	158	158	160	163
UK	102	731	718	713	735	766	789	802	802	800	806	820	833
NO	11	93	93	94	94	96	98	101	102	102	102	102	103
EU27	-874	6414	6187	6041	6068	6072	5983	5841	5701	5616	5591	5580	5540
EA16	-403	4101	4011	3988	4017	4001	3930	3844	3779	3749	3743	3732	3698
EU15	-264	4998	4897	4872	4925	4940	4899	4838	4780	4750	4748	4751	4734
EU12	-610	1416	1289	1170	1142	1132	1083	1002	921	867	842	829	806
EU25	-735	6105	5905	5779	5810	5821	5748	5626	5504	5429	5408	5402	5370
EA12	-365	3991	3910	3895	3926	3909	3841	3760	3700	3674	3670	3659	3626
EU10	-471	1107	1007	908	885	881	849	788	723	679	660	651	636

Source: Commission services.

Table A 117 - Number of teachers - Primary (thousands people)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	5	58	58	60	61	62	63	62	62	62	62	63	63
BG	-5	17	18	19	19	18	16	14	14	14	13	13	12
CZ	-3	27	27	31	31	29	27	25	24	24	25	24	23
DK	-5	61	59	58	57	55	57	60	60	59	57	56	56
DE	-44	177	167	155	152	154	154	149	142	137	134	134	133
EE	-1	5	5	6	7	6	6	5	5	5	5	5	5
IE	8	24	27	30	33	33	32	30	30	31	32	33	33
EL	-4	60	60	65	66	62	59	57	57	58	59	58	56
ES	21	180	198	229	242	228	211	200	199	205	210	209	201
FR	15	210	217	222	225	223	221	220	223	226	228	227	225
IT	-50	265	256	257	250	233	225	223	225	228	227	221	215
CY	1	3	3	4	4	4	4	4	4	4	5	5	5
LV	-2	6	7	7	8	8	7	6	5	5	5	5	5
LT	-5	14	12	11	12	12	11	10	9	8	8	8	8
LU	1	3	3	3	3	3	4	4	4	4	4	4	4
HU	-9	39	38	39	40	37	35	33	31	31	31	30	29
MT	-1	2	2	2	2	2	2	2	2	2	2	2	2
NL	-18	105	106	99	93	92	94	96	96	93	89	87	87
AT	-1	25	24	24	24	25	25	25	24	24	24	24	24
PL	-91	219	198	189	200	197	181	158	142	136	136	135	129
PT	-6	71	72	75	74	71	68	66	66	67	67	66	65
RO	-22	55	53	52	52	49	44	40	37	37	36	35	33
SI	-1	6	6	7	7	6	6	5	5	5	5	5	5
SK	-5	12	11	12	12	11	10	9	8	8	8	8	7
FI	-1	24	23	23	24	25	25	24	23	23	23	23	23
SE	11	54	53	59	62	63	65	64	62	61	63	64	65
UK	50	223	221	239	248	259	264	261	257	259	265	271	274
NO	4	38	38	38	39	39	41	42	41	41	41	41	42
EU27	-160	1948	1926	1979	2007	1970	1914	1852	1816	1816	1825	1815	1787
EA16	-78	1226	1234	1267	1272	1237	1202	1176	1170	1177	1180	1168	1149
EU15	-17	1542	1545	1599	1614	1590	1565	1541	1529	1537	1545	1540	1525
EU12	-143	406	381	380	393	380	349	311	286	280	280	276	263
EU25	-133	1876	1855	1907	1936	1904	1854	1798	1764	1766	1776	1768	1743
EA12	-73	1202	1211	1243	1247	1213	1179	1155	1150	1157	1160	1149	1130
EU10	-116	334	310	308	322	314	289	257	235	229	231	228	218

Source: Commission services.

Table A 118 - Number of teachers – Low secondary (thousands people)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	3	38	38	38	39	39	40	40	40	40	40	40	41
BG	-8	22	19	20	22	21	19	17	16	15	15	15	14
CZ	-10	38	31	30	35	35	32	30	27	26	27	28	27
DK	-4	59	61	58	57	55	53	56	58	59	58	56	55
DE	-92	331	316	298	277	271	275	274	266	255	246	240	239
EE	-1	4	3	3	4	4	4	4	3	3	3	3	3
IE	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	-3	41	41	40	43	44	41	38	37	37	38	39	38
ES	19	148	149	165	186	196	185	169	160	158	163	168	167
FR	24	227	227	241	246	249	247	245	243	246	250	252	251
IT	-29	173	163	163	169	161	151	147	146	147	149	148	144
CY	1	3	3	2	3	3	3	3	3	3	3	3	3
LV	-6	13	10	9	10	11	10	9	8	7	7	7	7
LT	-23	44	37	30	28	29	30	28	25	22	21	21	21
LU	0	0	0	0	0	0	0	0	0	0	0	0	0
HU	-15	45	41	39	40	40	38	35	33	32	32	32	31
MT	-1	3	3	2	2	2	2	2	2	2	2	2	2
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
AT	-4	38	35	33	33	34	34	35	34	33	33	33	33
PL	-61	123	107	90	87	92	91	82	72	65	63	63	62
PT	-4	46	45	48	47	47	45	43	43	43	43	43	42
RO	-31	75	70	67	68	66	62	56	51	48	47	46	44
SI	-1	7	7	7	7	7	7	6	6	6	6	6	6
SK	-11	24	21	18	19	19	18	16	15	13	13	13	13
FI	-3	21	20	18	19	19	20	19	19	18	18	18	18
SE	-1	35	31	28	31	32	33	34	34	32	32	33	34
UK	19	134	131	123	137	140	147	149	147	145	147	150	153
NO	1	18	18	18	18	18	18	19	19	19	19	19	19
EU27	-245	1693	1608	1572	1610	1618	1587	1539	1487	1457	1456	1459	1448
EA16	-103	1099	1067	1075	1091	1092	1068	1039	1013	1003	1004	1005	996
EU15	-76	1291	1257	1254	1285	1288	1271	1250	1227	1215	1216	1220	1214
EU12	-168	402	351	318	325	330	316	289	260	243	239	239	233
EU25	-205	1595	1519	1485	1521	1531	1506	1467	1421	1394	1393	1398	1390
EA12	-90	1062	1034	1045	1060	1061	1038	1011	988	979	980	981	972
EU10	-129	304	262	231	236	242	235	216	194	179	177	178	175

Source: Commission services.

Table A 119 - Number of teachers – Upper secondary (thousands people)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	5	69	69	67	68	71	72	73	73	73	73	73	74
BG	-15	30	25	20	21	23	22	20	17	16	16	16	16
CZ	-15	45	43	33	34	38	36	34	32	30	29	30	30
DK	0	0	0	0	0	0	0	0	0	0	0	0	0
DE	-58	165	155	140	132	123	120	122	121	118	113	109	107
EE	-1	3	2	2	2	2	2	2	2	2	2	2	2
IE	7	26	25	26	29	31	33	33	32	31	31	32	33
EL	-6	49	47	44	45	49	48	45	42	42	42	43	43
ES	5	111	110	110	121	132	133	124	116	111	111	114	116
FR	11	229	219	219	229	237	237	236	233	233	236	239	240
IT	-46	249	231	220	226	231	219	207	203	202	203	205	202
CY	1	3	3	2	2	3	3	3	3	3	3	3	3
LV	-5	9	7	5	5	5	6	5	5	4	4	4	4
LT	0	1	1	1	0	0	0	0	0	0	0	0	0
LU	2	4	4	4	4	4	4	5	5	5	5	5	5
HU	-17	47	45	39	37	38	38	36	34	32	31	30	30
MT	0	1	1	1	0	0	0	0	0	0	0	0	0
NL	-11	82	83	82	83	77	74	75	76	77	76	74	72
AT	-4	30	30	28	27	27	27	27	27	27	26	26	26
PL	-85	155	142	116	100	101	103	99	90	79	73	71	71
PT	-6	47	45	44	46	45	45	43	42	41	41	41	41
RO	-32	61	50	44	41	42	41	38	34	31	30	29	29
SI	-2	7	7	6	6	6	6	6	6	5	5	5	5
SK	-11	21	19	16	14	14	14	14	12	11	10	10	10
FI	-2	22	23	22	21	21	22	22	22	21	21	21	21
SE	-1	35	36	30	31	33	33	34	35	34	33	34	34
UK	20	267	258	243	244	260	268	278	281	278	277	281	287
NO	2	21	22	22	21	22	22	23	23	24	24	23	24
EU27	-265	1766	1677	1564	1569	1614	1606	1580	1542	1506	1492	1498	1501
EA16	-115	1114	1069	1032	1055	1071	1058	1033	1013	999	998	1002	999
EU15	-83	1384	1333	1281	1306	1340	1335	1323	1308	1292	1289	1297	1301
EU12	-183	382	344	283	263	274	271	257	235	214	203	201	199
EU25	-219	1675	1603	1500	1506	1549	1544	1522	1491	1459	1446	1453	1456
EA12	-102	1082	1040	1007	1032	1047	1033	1010	991	980	979	983	980
EU10	-136	291	269	220	200	209	209	200	183	166	157	156	155

Source: Commission services.

Table A 120 - Number of teachers – Tertiary education (thousands people)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	1	18	19	19	18	19	19	19	19	19	19	19	19
BG	-8	16	16	13	11	10	11	11	10	9	8	8	8
CZ	-6	17	17	16	13	13	14	14	13	13	12	11	12
DK	0	0	0	0	0	0	0	0	0	0	0	0	0
DE	-50	173	173	168	158	150	142	138	137	135	132	128	124
EE	-2	5	5	4	3	3	3	3	3	3	3	3	3
IE	1	10	10	10	10	10	11	11	11	11	11	11	11
EL	-5	23	22	20	19	20	21	20	19	19	18	18	18
ES	-15	123	116	109	108	114	121	120	115	109	106	106	108
FR	3	102	101	97	99	101	104	105	104	103	103	104	105
IT	-24	102	94	88	86	87	88	86	82	80	78	78	78
CY	0	1	1	1	1	1	1	1	2	2	1	1	2
LV	-2	4	4	4	3	3	3	3	3	3	2	2	2
LT	-5	10	10	9	8	7	6	6	6	6	5	5	5
LU	:	:	:	:	:	:	:	:	:	:	:	:	:
HU	-7	21	20	19	17	16	16	16	16	15	14	14	13
MT	0	1	1	1	1	1	1	1	1	1	1	1	1
NL	-3	33	34	34	34	34	32	31	31	32	32	32	31
AT	-3	18	17	17	16	15	15	15	15	15	15	15	15
PL	-61	104	95	83	69	61	60	60	58	53	48	44	43
PT	-4	28	27	26	25	26	26	25	25	24	24	24	24
RO	-17	32	31	27	24	22	21	20	19	18	16	16	15
SI	-1	3	3	3	3	3	3	3	3	3	2	2	2
SK	-6	11	11	10	9	8	8	8	7	7	6	6	6
FI	-2	14	13	13	12	12	12	12	12	12	12	12	12
SE	-1	30	30	30	28	27	28	28	29	30	30	29	30
UK	13	107	108	108	105	107	110	113	116	118	118	118	120
NO	4	15	16	16	17	17	17	17	18	18	19	19	19
EU27	:	:	:	:	:	:	:	:	:	:	:	:	:
EA16	:	:	:	:	:	:	:	:	:	:	:	:	:
EU15	:	:	:	:	:	:	:	:	:	:	:	:	:
EU12	-115	226	214	188	161	148	148	146	140	130	120	113	111
EU25	:	:	:	:	:	:	:	:	:	:	:	:	:
EA12	:	:	:	:	:	:	:	:	:	:	:	:	:
EU10	-90	178	167	149	127	115	116	115	111	104	95	90	88

Source: Commission services.

Table A 121 – Education spending – High compens. per teacher scenario (diff Baseline) (as % of GDP)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	0.2	-0.2	-0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
BG	0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CZ	0.2	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DK	0.2	-0.1	-0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
DE	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
EE	0.1	-0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.1
IE	0.2	-0.1	-0.1	-0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0
EL	0.1	-0.1	-0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
ES	0.1	-0.1	-0.1	-0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1
FR	0.1	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IT	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CY	0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LV	0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LT	0.2	-0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0
LU	0.2	-0.3	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
HU	0.2	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3
MT	0.2	-0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NL	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
AT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0
PL	0.2	-0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PT	0.1	-0.1	-0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1
RO	0.2	-0.3	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SI	0.3	-0.1	0.0	0.0	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2
SK	0.2	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FI	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
SE	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
UK	0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NO	0.2	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
EU27	0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EA16	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EU15	0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EU12	0.2	-0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
EU25	0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EA12	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EU10	0.2	-0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Source: Commission services.

Table A 122 - High ratio teachers/students scenario (diff Baseline) (as % of GDP)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	0.8	-0.2	-0.1	0.2	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
BG	0.3	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
CZ	0.3	0.2	0.2	0.3	0.4	0.5	0.5	0.5	0.4	0.4	0.5	0.5	0.5
DK	0.8	0.2	0.4	0.7	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.0
DE	0.4	0.0	0.1	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5
EE	0.4	0.1	0.1	0.3	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.5
IE	0.5	-0.1	0.0	0.2	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
EL	0.5	0.2	0.3	0.4	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
ES	0.5	0.0	0.1	0.3	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
FR	0.6	-0.2	-0.1	0.1	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
IT	0.1	0.0	-0.2	-0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CY	0.6	0.1	0.2	0.4	0.6	0.7	0.7	0.7	0.7	0.6	0.7	0.7	0.7
LV	0.4	0.1	0.2	0.3	0.4	0.5	0.5	0.5	0.4	0.4	0.5	0.5	0.5
LT	0.4	0.0	0.1	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
LU	0.4	0.0	0.1	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5
HU	0.5	0.1	0.2	0.3	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6
MT	0.5	-0.1	0.1	0.2	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
NL	0.5	0.0	0.1	0.3	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
AT	0.5	0.2	0.3	0.4	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
PL	0.4	0.1	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
PT	0.7	0.2	0.3	0.6	0.8	0.9	0.8	0.8	0.8	0.8	0.9	0.9	0.9
RO	0.3	0.0	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
SI	0.7	0.1	0.2	0.4	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8
SK	0.2	0.0	0.1	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3
FI	0.6	0.0	0.1	0.3	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
SE	0.6	0.0	0.2	0.3	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6
UK	0.5	0.6	0.7	0.8	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
NO	0.8	0.2	0.3	0.6	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
EU27	0.5	0.1	0.2	0.3	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6
EA16	0.5	0.0	0.0	0.2	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
EU15	0.5	0.1	0.2	0.3	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
EU12	0.4	0.1	0.1	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
EU25	0.5	0.1	0.2	0.3	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6
EA12	0.5	0.0	0.0	0.2	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
EU10	0.4	0.1	0.2	0.3	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.5

Source: Commission services.

Table A 123 – Higher attainment rates in tertiary education scenario (45% by 2020) (diff Baseline) (as % of GDP)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
BG	0.1	0.3	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4
CZ	0.3	0.3	0.5	0.6	0.5	0.5	0.6	0.6	0.6	0.6	0.5	0.6	0.6
DK	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DE	0.4	0.3	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
EE	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
IE	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
EL	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
ES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FR	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
IT	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CY	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LV	0.4	0.4	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8
LT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LU	:	:	:	:	:	:	:	:	:	:	:	:	:
HU	0.3	0.2	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
MT	0.4	0.4	0.8	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
NL	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
AT	0.5	0.4	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
PL	0.1	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3
PT	0.3	0.4	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
RO	0.2	0.3	0.5	0.5	0.5	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.5
SI	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
SK	0.2	0.3	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5
FI	0.3	0.2	0.4	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5
SE	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
UK	0.2	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
NO	0.5	0.3	0.5	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
EU27	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
EA16	0.1	0.1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
EU15	0.1	0.1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
EU12	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
EU25	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
EA12	0.1	0.1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
EU10	0.1	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4

Source: Commission services.

UNEMPLOYMENT BENEFIT EXPENDITURE PROJECTIONS

Table A 124 – Unemployment benefit spending (as % of GDP)

Country	Ch. 07-60	2007	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
BE	-0.4	1.9	1.9	1.7	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
BG	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CZ	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
DK	-0.2	1.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
DE	-0.3	0.9	0.9	0.8	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
EE	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IE	0.1	0.8	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8
EL	-0.1	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
ES	-0.4	1.3	1.4	1.2	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
FR	-0.3	1.2	1.2	1.1	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
IT	0.0	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
CY	-0.1	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2
LV	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
LT	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LU	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
HU	-0.1	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
MT	0.0	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
NL	-0.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
AT	0.0	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
PL	-0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PT	-0.4	1.2	1.1	1.0	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
RO	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
SI	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
SK	-0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
FI	-0.2	1.2	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
SE	-0.1	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
UK	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
NO	0.2	0.2	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
EU27	-0.2	0.8	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
EA16	-0.2	1.0	0.9	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
EU15	-0.2	0.8	0.8	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6
EU12	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
EU25	-0.2	0.8	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
EA12	-0.2	1.0	0.9	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
EU10	-0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Source: Commission services.

ADDITIONAL INFORMATIONS

Table A 125 – Estimated impact of pension reform on participation rates (2020, 2060) in percentage points
(comparison of projections with and without incorporating recent pension reforms)

	BE		CZ		DK		DE		EE		ES		FR		IT		LT		HU	
	2020	2060	2020	2060	2020	2060	2020	2060	2020	2060	2020	2060	2020	2060	2020	2060	2020	2060	2020	2060
Male	2.3	2.1	2.0	3.3	0.1	2.0	3.7	3.8	0.0	0.0	1.4	3.1	2.0	2.7	3.9	6.8	0.0	0.0	2.1	2.7
15-64	2.5	2.5	2.7	4.7	-0.2	3.4	3.9	5.3	0.0	0.0	1.6	3.5	2.2	2.9	3.7	6.8	0.0	0.0	2.2	3.0
15-71	9.1	9.1	10.3	15.3	0.7	9.3	14.7	16.1	0.0	0.0	6.1	13.9	10.9	14.8	17.1	29.0	0.0	0.0	10.8	11.0
Females																				
15-64	2.6	2.7	3.6	7.2	0.3	2.5	2.5	4.4	1.3	1.8	1.1	2.1	1.3	1.5	2.0	2.7	3.8	3.5	3.9	3.9
15-71	2.5	2.7	4.8	8.9	0.2	4.3	2.8	5.6	-1.4	-1.1	1.1	2.0	1.6	2.0	2.0	2.9	4.5	5.1	3.7	3.7
55-64	10.4	11.6	16.9	32.5	1.5	12.2	10.5	19.3	5.7	8.8	4.9	9.0	6.1	7.6	10.2	15.2	15.5	14.6	17.4	17.4
Total																				
15-64	2.4	2.4	2.8	5.2	0.2	2.3	3.1	4.1	0.7	0.9	1.2	2.6	1.6	2.1	2.9	4.8	1.9	1.8	3.3	3.3
15-71	2.5	2.6	3.8	6.8	0.0	3.8	3.4	5.4	-0.7	-0.6	1.4	2.8	1.9	2.5	2.8	4.9	2.3	2.6	3.3	3.3
55-64	9.8	10.4	13.6	23.9	1.1	10.8	12.6	17.7	3.2	4.5	5.5	11.5	8.4	11.2	13.6	22.2	8.7	7.5	14.3	14.3
MT																				
	2020	2060	2020	2060	2020	2060	2020	2060	2020	2060	2020	2060	2020	2060	2020	2060	2020	2060	2020	2060
Male	2.6	6.5	1.6	3.3	2.0	5.3	0.9	1.9	0.1	0.2	2.1	2.6	2.0	2.1	1.1	1.2	0.0	1.4	1.8	2.9
15-64	2.2	6.8	1.7	3.5	1.8	5.7	1.2	3.0	-0.5	-0.2	3.4	4.7	1.9	2.1	1.9	2.2	0.0	2.6	1.9	3.5
15-71	11.9	28.3	8.1	16.1	8.0	21.6	3.7	7.7	2.7	3.3	10.6	11.0	9.1	10.4	5.6	5.9	0.0	7.0	8.5	13.5
Females																				
15-64	3.8	3.8	4.0	4.0	4.7	4.7	1.4	1.4	5.2	5.2	7.6	7.6	2.9	2.9	0.7	0.7	1.8	3.4	1.8	2.7
15-71	3.5	3.5	5.5	5.5	5.6	5.6	1.8	1.8	4.9	4.9	10.1	10.1	3.7	3.7	1.6	1.8	1.7	5.2	1.9	3.5
55-64	14.0	14.0	18.2	18.2	16.9	16.9	5.0	5.0	22.9	22.9	31.4	31.4	13.8	13.8	3.1	2.9	8.1	16.9	7.9	12.8
Total																				
15-64	5.2	5.2	3.6	3.6	5.0	5.0	1.6	1.6	2.7	2.7	5.1	5.1	2.5	2.5	0.9	0.9	0.9	2.4	1.8	2.8
15-71	5.2	5.2	4.5	4.5	5.6	5.6	2.4	2.4	2.3	2.3	7.4	7.4	2.9	2.9	1.8	2.0	0.9	3.9	1.9	3.5
55-64	21.2	21.2	17.1	17.1	19.2	19.2	6.4	6.4	12.9	12.9	21.2	21.2	12.1	12.1	4.3	4.5	4.2	12.0	8.2	13.1
EA																				
	2020	2060	2020	2060	2020	2060	2020	2060	2020	2060	2020	2060	2020	2060	2020	2060	2020	2060	2020	2060
Male	2.4	3.4	2.4	3.4	2.0	2.9	1.8	3.7	2.0	3.0										
15-64	2.5	3.9	2.5	3.9	2.1	3.6	1.8	4.3	2.1	3.7										
15-71	10.7	15.5	10.7	15.6	9.0	13.8	8.0	15.8	8.8	14.1										
Females																				
15-64	1.7	2.4	1.6	2.4	1.6	2.5	2.9	4.9	1.8	2.8										
15-71	1.8	2.9	1.8	2.9	1.7	3.3	3.1	5.7	2.0	3.6										
55-64	7.5	11.6	7.5	11.6	7.4	12.3	12.0	19.8	8.1	13.3										
Total																				
15-64	2.0	2.9	2.0	2.9	1.8	2.7	2.4	4.3	1.9	2.9										
15-71	2.2	3.4	2.2	3.4	1.9	3.5	2.5	5.0	2.0	3.7										
55-64	9.1	13.5	9.1	13.6	8.2	13.1	10.1	17.8	8.4	13.7										

Source: Commission services.

Table A 126 –Projected changes in participation rates by age-groups, 2007-2060

TOTAL	Total	Young	Prime age	Older	Total	Young	Prime age	Older	Total	Young	Prime age	Older
	(15-64)	(15-24)	(25-54)	(55-64)	(15-64)	(15-24)	(25-54)	(55-64)	(15-64)	(15-24)	(25-54)	(55-64)
BE	67.3	34.4	85.3	36.2	69.7	35.6	86.7	49.1	2.4	1.2	1.4	13.0
BG	66.8	32.0	84.0	46.6	69.3	31.7	86.1	50.2	2.4	-0.3	2.1	3.6
CZ	70.0	32.0	87.7	48.9	73.5	31.9	86.9	67.5	3.6	-0.1	-0.9	18.6
DK	80.3	70.8	89.0	61.3	80.8	72.5	87.3	69.3	0.6	1.7	-1.7	8.1
DE	76.2	51.5	87.9	57.3	79.8	52.2	89.5	73.9	3.6	0.8	1.6	16.5
EE	72.9	38.5	88.4	62.4	74.5	40.0	87.8	64.1	1.6	1.5	-0.7	1.7
IE	72.5	55.4	82.0	55.1	76.3	53.9	85.7	69.1	3.9	-1.5	3.7	14.0
EL	67.1	32.8	82.1	44.3	68.8	32.7	84.9	51.7	1.7	-0.1	2.8	7.5
ES	71.6	48.2	82.9	47.5	77.3	46.6	87.4	74.0	5.7	-1.6	4.5	26.4
FR	70.3	39.4	88.3	41.0	71.6	40.2	88.9	49.3	1.3	0.8	0.6	8.3
IT	62.6	31.2	77.6	34.7	67.7	32.3	78.8	63.1	5.1	1.1	1.2	28.4
CY	72.9	44.2	86.7	57.6	78.0	43.4	91.8	65.1	5.1	-0.8	5.0	7.4
LV	72.9	43.4	87.1	60.4	74.2	44.1	87.3	58.1	1.3	0.7	0.2	-2.3
LT	68.1	28.3	86.0	55.5	68.2	29.1	83.7	54.1	0.1	0.8	-2.3	-1.4
LU	66.4	27.4	84.2	33.0	66.8	29.5	86.1	41.3	0.4	2.1	1.9	8.4
HU	61.7	26.1	80.0	34.1	65.0	26.2	81.1	49.3	3.2	0.1	1.0	15.2
MT	59.5	55.4	69.9	31.6	64.4	56.0	71.8	50.3	4.9	0.6	1.9	18.7
NL	78.7	72.7	87.7	53.3	80.2	73.8	90.2	57.6	1.6	1.1	2.5	4.2
AT	74.8	61.5	87.4	40.0	77.6	63.3	89.3	55.4	2.8	1.7	1.9	15.4
PL	63.3	33.9	81.8	32.1	66.3	32.9	82.1	46.5	3.0	-1.0	0.3	14.4
PT	74.1	42.3	87.8	54.5	76.3	41.6	89.0	67.8	2.2	-0.8	1.2	13.3
RO	63.0	30.6	78.9	42.4	61.3	31.3	75.1	45.4	-1.7	0.6	-3.9	3.1
SI	71.4	40.9	89.3	34.5	71.9	40.1	88.7	49.1	0.6	-0.8	-0.6	14.6
SK	68.8	34.8	87.5	39.4	71.2	34.5	87.5	52.8	2.4	-0.4	-0.1	13.4
FI	75.8	54.4	88.1	59.4	79.1	55.5	90.1	67.7	3.3	1.1	2.1	8.3
SE	79.2	51.8	90.0	73.2	82.5	56.5	92.2	76.6	3.3	4.7	2.2	3.4
UK	75.6	62.0	84.5	59.7	78.7	62.4	85.9	71.1	3.1	0.4	1.3	11.4
NO	78.8	58.8	87.4	69.9	78.0	60.5	87.5	65.6	-0.9	1.6	0.0	-4.2
EU27	70.6	44.6	84.5	47.5	74.1	46.6	86.0	62.5	3.5	2.0	1.6	15.1
EA	70.8	45.3	84.5	45.4	74.5	44.9	87.1	63.1	3.6	-0.5	2.5	17.7
EA12	70.9	45.4	84.5	45.5	74.5	44.9	87.1	63.2	3.6	-0.4	2.5	17.7
EU15	71.8	48.7	84.6	48.6	75.6	49.1	86.9	65.0	3.7	0.4	2.3	16.4
EU10	65.2	34.0	83.4	36.9	69.0	32.8	84.4	52.4	3.7	-1.2	1.0	15.5
EU25	70.7	45.9	84.4	46.7	74.8	47.2	86.6	63.4	4.0	1.3	2.2	16.7
MALES	Total	Young	Prime age	Older	Total	Young	Prime age	Older	Total	Young	Prime age	Older
	(15-64)	(15-24)	(25-54)	(55-64)	(15-64)	(15-24)	(25-54)	(55-64)	(15-64)	(15-24)	(25-54)	(55-64)
BE	73.9	36.6	92.5	44.8	73.4	38.4	91.3	50.6	-0.5	1.8	-1.2	5.8
BG	71.4	35.4	87.3	56.3	72.9	35.2	88.7	56.8	1.4	-0.2	1.4	0.5
CZ	78.3	36.8	95.0	63.3	78.9	36.9	92.8	71.9	0.6	0.1	-2.3	8.6
DK	84.0	72.2	92.5	67.5	82.5	73.7	88.9	71.4	-1.5	1.5	-3.7	3.9
DE	82.1	54.0	93.8	66.0	83.0	54.7	93.2	76.1	0.9	0.7	-0.6	10.1
EE	77.3	44.3	93.5	63.7	77.7	45.2	91.5	63.0	0.3	0.9	-2.1	-0.6
IE	81.4	58.6	91.6	69.7	81.1	57.2	92.1	70.0	-0.3	-1.4	0.5	0.3
EL	78.8	36.0	94.6	61.2	76.4	37.1	93.6	58.7	-2.4	1.1	-1.0	-2.5
ES	81.5	52.6	92.6	63.3	81.6	51.2	92.6	75.3	0.2	-1.4	0.0	12.0
FR	75.1	43.0	94.2	43.6	75.2	44.1	92.6	52.0	0.1	1.1	-1.6	8.5
IT	74.5	36.5	91.0	46.6	77.9	37.9	89.6	75.4	3.4	1.5	-1.4	28.8
CY	81.2	47.4	95.0	74.8	82.7	47.0	95.3	74.7	1.5	-0.4	0.3	0.0
LV	77.8	49.9	90.9	67.6	77.9	49.4	91.0	60.3	0.1	-0.5	0.0	-7.3
LT	71.2	32.8	87.9	63.4	69.4	33.2	84.9	53.2	-1.8	0.4	-3.0	-10.3
LU	74.7	30.9	94.7	38.1	72.1	33.0	94.6	38.2	-2.6	2.1	-0.1	0.2
HU	68.7	29.9	87.0	42.9	69.2	30.3	85.8	52.0	0.5	0.4	-1.1	9.0
MT	78.5	58.1	94.3	50.4	83.0	58.2	93.5	72.7	4.5	0.1	-0.8	22.3
NL	84.8	73.0	94.0	64.7	82.4	74.0	93.0	59.1	-2.4	1.0	-1.0	-5.5
AT	81.7	65.7	93.7	51.3	82.0	67.1	93.5	60.5	0.3	1.4	-0.2	9.2
PL	70.1	37.8	88.0	45.1	71.6	36.4	85.6	57.7	1.4	-1.3	-2.4	12.6
PT	79.3	45.5	92.9	63.0	79.0	44.8	91.6	70.5	-0.3	-0.7	-1.3	7.5
RO	70.1	35.9	85.9	52.1	66.3	36.7	79.2	52.6	-3.7	0.8	-6.7	0.4
SI	75.8	46.3	91.3	46.5	74.3	45.1	91.1	49.6	-1.5	-1.2	-0.2	3.1
SK	76.6	38.9	93.9	57.6	76.2	39.2	92.9	56.6	-0.4	0.3	-1.0	-1.0
FI	77.5	55.2	90.4	59.5	80.1	55.8	91.9	66.5	2.6	0.7	1.5	7.0
SE	81.5	51.4	92.9	76.6	84.1	55.9	93.6	81.5	2.7	4.5	0.7	4.9
UK	82.1	64.8	91.6	69.4	82.8	65.0	90.9	73.4	0.6	0.3	-0.7	4.1
NO	81.6	57.8	90.8	74.8	78.6	59.4	88.4	67.1	-3.0	1.7	-2.4	-7.7

MALES	Total	Young	Prime age	Older	Total	Young	Prime age	Older	Total	Young	Prime age	Older
	(15-64)	(15-24)	(25-54)	(55-64)	(15-64)	(15-24)	(25-54)	(55-64)	(15-64)	(15-24)	(25-54)	(55-64)
EU27	77.8	48.1	91.9	57.3	78.8	50.1	91.0	67.0	1.0	2.0	-0.9	9.7
EA	78.4	48.8	92.7	54.8	79.3	48.6	92.4	67.4	0.9	-0.2	-0.2	12.6
EA12	78.5	48.8	92.7	54.8	79.3	48.6	92.4	67.4	0.9	-0.2	-0.3	12.6
EU15	79.1	51.9	92.5	57.8	80.1	52.4	92.1	68.9	1.0	0.5	-0.4	11.1
EU10	72.1	38.3	89.5	48.8	73.9	36.9	88.7	59.7	1.8	-1.4	-0.8	10.9
EU25	77.9	49.3	92.0	56.4	79.4	50.7	91.7	67.7	1.4	1.3	-0.3	11.3
FEMALES	Total	Young	Prime age	Older	Total	Young	Prime age	Older	Total	Young	Prime age	Older
	(15-64)	(15-24)	(25-54)	(55-64)	(15-64)	(15-24)	(25-54)	(55-64)	(15-64)	(15-24)	(25-54)	(55-64)
BE	60.7	32.1	78.1	27.7	65.9	32.7	81.9	47.6	5.2	0.6	3.9	19.9
BG	62.3	28.4	80.7	38.1	65.6	28.0	83.4	43.8	3.3	-0.3	2.7	5.6
CZ	61.6	26.9	80.2	35.7	68.1	26.8	80.9	63.2	6.5	-0.1	0.7	27.5
DK	76.5	69.4	85.4	55.1	79.1	71.3	85.6	67.2	2.6	1.8	0.2	12.2
DE	70.2	48.9	81.8	48.8	76.5	49.7	85.6	71.6	6.3	0.8	3.9	22.8
EE	68.8	32.5	83.7	61.4	71.4	34.6	83.9	65.1	2.6	2.1	0.2	3.7
IE	63.3	52.1	72.1	40.4	71.3	50.6	79.0	68.2	8.0	-1.6	6.9	27.8
EL	55.2	29.3	69.2	28.4	61.0	28.1	75.9	44.7	5.7	-1.2	6.7	16.3
ES	61.5	43.6	72.7	32.7	72.9	41.9	82.0	72.6	11.4	-1.7	9.2	40.0
FR	65.6	35.6	82.5	38.5	67.9	36.0	85.1	46.6	2.3	0.4	2.6	8.1
IT	50.7	25.6	64.1	23.4	56.8	26.3	67.4	50.5	6.2	0.6	3.3	27.1
CY	64.7	41.0	78.7	41.5	73.2	39.8	88.2	55.3	8.4	-1.3	9.5	13.8
LV	68.3	36.8	83.5	54.9	70.4	38.5	83.6	56.0	2.1	1.7	0.1	1.1
LT	65.2	23.6	84.2	49.6	66.9	24.9	82.5	55.0	1.8	1.3	-1.7	5.4
LU	57.9	23.7	73.5	27.7	61.4	25.8	77.4	44.4	3.5	2.1	3.9	16.7
HU	55.0	22.1	73.2	26.9	60.7	21.9	76.2	46.8	5.7	-0.2	3.0	19.9
MT	39.9	52.7	44.5	13.3	45.1	53.7	49.3	27.4	5.2	1.1	4.8	14.1
NL	72.4	72.4	81.2	41.8	78.0	73.5	87.1	55.9	5.6	1.2	5.9	14.1
AT	68.0	57.2	81.1	29.3	73.1	59.2	84.9	50.3	5.1	2.0	3.9	21.0
PL	56.6	30.0	75.6	20.8	60.9	29.3	78.4	35.4	4.3	-0.7	2.8	14.7
PT	68.9	39.0	82.9	46.9	73.5	38.2	86.4	65.0	4.6	-0.8	3.5	18.1
RO	56.0	25.2	72.0	33.8	56.1	25.5	70.8	38.4	0.1	0.3	-1.2	4.6
SI	66.7	35.1	87.3	22.8	69.5	34.9	86.2	48.6	2.8	-0.2	-1.0	25.8
SK	61.2	30.6	81.1	23.8	66.1	29.6	81.9	49.1	4.9	-1.0	0.8	25.3
FI	74.1	53.6	85.6	59.4	78.1	55.1	88.3	68.9	4.0	1.5	2.7	9.5
SE	76.8	52.2	87.1	69.8	80.8	57.0	90.8	71.7	4.0	4.9	3.7	1.9
UK	69.0	59.0	77.6	50.4	74.4	59.5	80.6	68.9	5.4	0.4	3.0	18.5
NO	75.9	60.0	83.9	64.8	77.3	61.6	86.5	64.1	1.4	1.6	2.6	-0.7
EU27	63.4	41.0	76.9	38.2	69.4	42.9	80.8	58.1	5.9	2.0	4.0	19.9
EA	63.2	41.7	76.3	36.4	69.5	41.0	81.5	58.8	6.3	-0.7	5.2	22.4
EA12	63.2	41.8	76.2	36.6	69.5	41.0	81.5	58.9	6.3	-0.7	5.2	22.4
EU15	64.5	45.3	76.7	39.8	70.8	45.5	81.6	61.1	6.3	0.2	4.9	21.3
EU10	58.5	29.6	77.3	26.6	64.0	28.6	80.1	45.1	5.5	-1.0	2.8	18.6
EU25	63.5	42.4	76.8	37.6	70.0	43.6	81.4	59.0	6.5	1.3	4.6	21.5

Source: Commission services

Table A 127 – Labour supply projections, 2007-2060 (age group : 15 to 64)

	Males										Females										Total						
	Number of persons ('000)					Annual growth rate					Number of persons ('000)					Annual growth rate					Annual growth rate						
	2007	2020	2060	2007-2020	2020-2060	2007-2020	2020-2060	2007-2020	2020-2060	2007-2020	2020-2060	2007-2020	2020-2060	2007-2020	2020-2060	2007-2020	2020-2060	2007-2020	2020-2060	2007-2020	2020-2060	2007-2020	2020-2060	2007-2020	2020-2060	% change	
BE	2593	2693	2655	0.29%	-0.04%	0.29%	-0.04%	2105	1667	1559	953	2343	2305	0.83%	-0.51%	0.83%	-0.04%	4698	3557	3304	2045	4960	0.53%	-0.04%	7.2%	-1.5%	-38.1%
BG	1890	1745	1092	-0.61%	-1.17%	-0.61%	-1.17%	1667	1559	953	2343	2305	0.83%	-0.51%	0.83%	-0.04%	4698	3557	3304	2045	4960	0.53%	-0.04%	7.2%	-1.5%	-38.1%	
CZ	2884	2811	2060	-0.20%	-0.77%	-0.20%	-0.77%	2242	2264	1743	1743	1743	1743	0.08%	-0.65%	0.08%	-0.65%	5126	5075	3803	3803	3803	-0.08%	-0.72%	-1.0%	-25.1%	
DK	1525	1481	1462	-0.23%	-0.03%	-0.23%	-0.03%	1363	1364	1347	1347	1347	1347	0.01%	-0.03%	0.01%	-0.03%	2888	2845	2808	2808	2808	-0.12%	-0.03%	-1.5%	-1.3%	
DE	22674	22373	16354	-0.10%	-0.78%	-0.10%	-0.78%	18916	19257	14686	14686	14686	14686	0.14%	-0.68%	0.14%	-0.68%	41590	41630	31040	31040	31040	0.01%	-0.73%	0.1%	-25.4%	
EE	340	326	245	-0.31%	-0.71%	-0.31%	-0.71%	326	310	221	221	221	221	-0.39%	-0.83%	-0.39%	-0.83%	666	636	467	467	467	-0.35%	-0.77%	-4.5%	-26.6%	
IE	1217	1467	1609	1.45%	0.23%	1.45%	0.23%	927	1217	1371	1371	1371	1371	2.12%	0.30%	2.12%	0.30%	2144	2684	2980	2980	2980	1.74%	0.26%	25.2%	11.0%	
EL	2987	2971	2391	-0.04%	-0.54%	-0.04%	-0.54%	2050	2204	1848	1848	1848	1848	0.56%	-0.44%	0.56%	-0.44%	5036	5175	4240	4240	4240	0.21%	-0.50%	2.8%	-18.1%	
ES	12618	14023	11769	0.82%	-0.44%	0.82%	-0.44%	9295	11622	10208	10208	10208	10208	1.73%	-0.32%	1.73%	-0.32%	21913	25645	21978	21978	21978	1.22%	-0.39%	17.0%	-14.3%	
FR	14995	15084	15773	0.05%	0.11%	0.05%	0.11%	13229	13532	13730	13730	13730	13730	0.17%	0.04%	0.17%	0.04%	28224	28615	29503	29503	29503	0.11%	0.08%	1.4%	3.1%	
IT	14554	15133	13100	0.30%	-0.36%	0.30%	-0.36%	9882	10943	9054	9054	9054	9054	0.79%	-0.47%	0.79%	-0.47%	24435	26076	22154	22154	22154	0.50%	-0.41%	6.7%	-15.0%	
CY	218	270	325	1.67%	0.46%	1.67%	0.46%	178	236	281	281	281	281	2.19%	0.44%	2.19%	0.44%	396	506	606	606	606	1.91%	0.45%	27.8%	19.8%	
LV	592	550	351	-0.55%	-1.12%	-0.55%	-1.12%	555	521	314	314	314	314	-0.49%	-1.25%	-0.49%	-1.25%	1147	1071	666	666	666	-0.52%	-1.18%	-6.6%	-37.8%	
LT	799	772	462	-0.26%	-1.27%	-0.26%	-1.27%	781	775	456	456	456	456	-0.06%	-1.32%	-0.06%	-1.32%	1580	1547	918	918	918	-0.16%	-1.30%	-2.0%	-40.7%	
LU	122	135	161	0.76%	0.44%	0.76%	0.44%	92	112	134	134	134	134	1.52%	0.45%	1.52%	0.45%	214	246	295	295	295	1.10%	0.45%	15.2%	19.5%	
HU	2341	2317	1686	-0.08%	-0.79%	-0.08%	-0.79%	1938	1991	1452	1452	1452	1452	0.21%	-0.79%	0.21%	-0.79%	4279	4308	3138	3138	3138	0.05%	-0.79%	0.7%	-27.1%	
MT	113	115	94	0.14%	-0.50%	0.14%	-0.50%	56	60	49	49	49	49	0.58%	-0.50%	0.58%	-0.50%	169	175	143	143	143	0.29%	-0.50%	3.8%	-18.3%	
NL	4720	4542	4038	-0.29%	-0.22%	-0.29%	-0.22%	3958	4119	3653	3653	3653	3653	0.31%	-0.30%	0.31%	-0.30%	8678	8662	7691	7691	7691	-0.01%	-0.30%	-0.2%	-11.2%	
AT	2291	2347	2150	0.18%	-0.22%	0.18%	-0.22%	1901	2046	1864	1864	1864	1864	0.57%	-0.23%	0.57%	-0.23%	4192	4393	4014	4014	4014	0.36%	-0.23%	4.8%	-8.6%	
PL	9404	9117	5926	-0.24%	-1.07%	-0.24%	-1.07%	7681	7706	4902	4902	4902	4902	0.02%	-1.12%	0.02%	-1.12%	17085	16823	10828	10828	10828	-0.12%	-1.10%	-1.5%	-35.6%	
PT	2798	2886	2539	0.24%	-0.32%	0.24%	-0.32%	2485	2652	2305	2305	2305	2305	0.50%	-0.35%	0.50%	-0.35%	5283	5538	4844	4844	4844	0.36%	-0.33%	4.8%	-12.5%	
RO	5254	5016	3052	-0.36%	-1.23%	-0.36%	-1.23%	4224	4156	2503	2503	2503	2503	-0.13%	-1.26%	-0.13%	-1.26%	9478	9172	5554	5554	5554	-0.25%	-1.25%	-3.2%	-39.4%	
SI	545	524	358	-0.31%	-0.95%	-0.31%	-0.95%	461	464	330	330	330	330	0.05%	-0.85%	0.05%	-0.85%	1006	988	688	688	688	-0.14%	-0.90%	-1.8%	-30.4%	
SK	1480	1482	924	0.01%	-1.17%	0.01%	-1.17%	1193	1249	784	784	784	784	0.35%	-1.16%	0.35%	-1.16%	2673	2731	1708	1708	1708	0.16%	-1.17%	2.2%	-37.5%	
FI	1374	1349	1245	-0.14%	-0.20%	-0.14%	-0.20%	1286	1279	1168	1168	1168	1168	-0.04%	-0.23%	-0.04%	-0.23%	2660	2628	2412	2412	2412	-0.09%	-0.21%	-1.2%	-8.2%	
SE	2477	2617	2666	0.43%	0.05%	0.43%	0.05%	2260	2384	2443	2443	2443	2443	0.41%	0.06%	0.41%	0.06%	4737	5001	5109	5109	5109	0.42%	0.05%	5.6%	2.2%	
UK	16551	17208	18886	0.30%	0.23%	0.30%	0.23%	13985	15219	16523	16523	16523	16523	0.65%	0.21%	0.65%	0.21%	30536	32427	35409	35409	35409	0.46%	0.22%	6.2%	9.2%	
NO	1281	1346	1391	0.38%	0.08%	0.38%	0.08%	1154	1245	1333	1333	1333	1333	0.58%	0.17%	0.58%	0.17%	2436	2591	2724	2724	2724	0.48%	0.13%	6.4%	5.1%	
EU27	129354	131353	113374	0.12%	-0.37%	0.12%	-0.37%	105034	111584	96628	96628	96628	96628	0.47%	-0.36%	0.47%	-0.36%	234388	242937	210003	210003	210003	0.28%	-0.36%	3.6%	-13.6%	
EA	83819	85911	74561	0.19%	-0.35%	0.19%	-0.35%	66819	72086	62987	62987	62987	62987	0.59%	-0.34%	0.59%	-0.34%	150638	157997	137548	137548	137548	0.37%	-0.35%	4.9%	-12.9%	
EA12	82943	85002	73784	0.19%	-0.35%	0.19%	-0.35%	66125	71326	62327	62327	62327	62327	0.58%	-0.34%	0.58%	-0.34%	149067	156328	136112	136112	136112	0.37%	-0.35%	4.9%	-12.9%	
EU15	103495	106307	96798	0.21%	-0.23%	0.21%	-0.23%	83733	90293	82640	82640	82640	82640	0.58%	-0.22%	0.58%	-0.22%	187228	196601	179438	179438	179438	0.38%	-0.23%	5.0%	-8.7%	
EU10	18715	18285	12433	-0.18%	-0.96%	-0.18%	-0.96%	15410	15575	10532	10532	10532	10532	0.08%	-0.97%	0.08%	-0.97%	34125	33860	22965	22965	22965	-0.06%	-0.97%	-0.8%	-32.2%	
EU25	122210	124592	109231	0.15%	-0.33%	0.15%	-0.33%	99143	105868	93172	93172	93172	93172	0.51%	-0.32%	0.51%	-0.32%	221353	230460	202403	202403	202403	0.31%	-0.32%	4.1%	-12.2%	

Source: Commission services.

Table A 128 – Contribution to the overall change in participation rates; 2007-2060 (changes in %)

Contribution of group-specific changes in participation rates to change in overall participation rate																		Demographic effect			
Total change in participation rates (%)																		Interaction effect			
Participation rates in 2060	Total	Prime age				Prime age				Prime age				Prime age				Male	Female	Interaction effect	
		Young	Older	Male	Female	Young	Older	Male	Female	Young	Older	Male	Female	Young	Older	Male	Female				
BE	69.7	2.4	3.3	0.2	0.9	2.3	0.3	0.2	-0.4	0.5	3.1	0.1	1.2	1.8	-1.2	0.1	-2.1	0.8	0.4	-0.3	0.2
BG	69.3	2.4	1.8	0.0	1.3	0.7	0.4	0.0	0.4	0.0	1.4	0.0	0.8	0.6	0.5	-0.7	0.3	0.8	0.7	-0.7	0.1
CZ	73.5	3.6	3.1	0.0	-0.5	3.6	0.1	0.0	-0.7	0.8	3.0	0.0	0.2	2.8	0.3	-0.4	0.2	0.6	0.1	-0.1	0.2
DK	80.8	0.6	0.8	0.3	-1.1	1.6	-0.6	0.1	-1.2	0.4	1.4	0.2	0.1	1.2	-0.3	1.4	-1.7	0.0	0.5	-0.4	0.1
DE	79.8	3.6	4.0	0.1	1.0	2.9	0.7	0.1	-0.2	0.9	3.3	0.1	1.2	2.0	-1.2	-0.5	-3.7	3.0	0.0	0.0	0.8
EE	74.5	1.6	0.1	0.3	-0.4	0.3	-0.5	0.1	-0.6	0.0	0.7	0.2	0.1	0.3	1.5	-1.6	1.7	1.3	1.8	-1.6	0.0
IE	76.3	3.9	4.0	-0.3	2.4	2.0	0.0	-0.2	0.2	0.0	4.0	-0.2	2.2	2.0	-0.7	-0.8	-2.0	2.1	0.2	-0.2	0.5
EL	68.8	1.7	3.0	0.0	1.8	1.3	-0.5	0.1	-0.3	-0.2	3.5	-0.1	2.2	1.4	-1.6	0.1	-3.4	1.7	0.2	-0.1	0.2
ES	77.3	5.7	6.9	-0.3	3.1	4.1	0.8	-0.1	0.0	0.9	6.1	-0.1	3.1	3.2	-2.2	0.6	-5.2	2.4	0.1	-0.1	1.0
FR	71.6	1.3	2.0	0.2	0.4	1.5	0.4	0.1	-0.5	0.7	1.6	0.0	0.8	0.7	-0.9	0.2	-1.6	0.5	0.9	-0.8	0.1
IT	67.7	5.1	5.8	0.2	0.8	5.2	2.2	0.1	-0.5	2.5	3.7	0.0	1.1	2.5	-2.2	0.3	-4.0	1.4	1.0	-0.7	1.1
CY	78.0	5.1	4.0	-0.2	3.2	1.1	0.0	0.0	0.1	0.0	3.9	-0.1	3.0	1.1	0.7	-2.0	0.2	2.4	1.0	-0.8	0.4
LV	74.2	1.3	-0.2	0.2	0.1	-0.4	-0.5	-0.1	0.0	-0.5	0.3	0.2	0.0	0.1	1.5	-2.4	1.8	2.1	1.5	-1.3	-0.1
LT	68.2	0.1	-1.4	0.2	-1.4	-0.2	-1.5	0.0	-0.9	-0.7	0.1	0.1	-0.5	0.5	1.7	-1.8	-0.2	3.7	0.8	-0.7	-0.1
LU	66.8	0.4	2.9	0.4	1.3	1.3	0.2	0.2	0.0	0.0	2.7	0.2	1.3	1.3	-2.8	0.4	-4.5	1.4	-0.1	0.1	0.3
HU	65.0	3.2	3.3	0.0	0.7	2.7	0.4	0.0	-0.4	0.7	2.9	0.0	1.0	2.0	-0.7	-0.4	-1.4	1.2	0.9	-0.7	0.5
MT	64.4	4.9	4.8	0.1	1.1	3.6	1.9	0.0	-0.3	2.1	2.9	0.1	1.4	1.4	-0.5	-2.2	0.8	0.9	0.1	-0.1	0.5
NL	80.2	1.6	2.5	0.2	1.6	0.8	-0.7	0.1	-0.3	-0.5	3.3	0.1	1.9	1.3	-1.0	0.3	-2.8	1.5	0.6	-0.5	0.0
AT	77.6	2.8	4.0	0.3	1.2	2.5	0.8	0.1	-0.1	0.7	3.2	0.2	1.3	1.8	-1.9	-0.4	-3.2	1.7	0.5	-0.4	0.6
PL	66.3	3.0	2.0	-0.2	0.2	2.2	0.0	-0.2	-0.7	0.9	2.0	-0.1	0.9	1.2	-0.2	-2.2	-0.2	2.1	0.7	-0.6	1.0
PT	76.3	2.2	2.8	-0.1	0.8	2.3	0.1	-0.1	-0.4	0.6	2.7	-0.1	1.2	1.6	-1.3	-0.3	-3.6	2.7	0.9	-0.8	0.6
RO	61.3	-1.7	-2.0	0.1	-2.4	0.5	-2.0	0.1	-2.1	0.0	0.0	0.0	-0.4	0.4	-0.2	-1.6	-1.6	3.0	0.6	-0.5	0.3
SI	71.9	0.6	1.9	-0.1	-0.4	2.5	0.1	-0.1	-0.1	0.3	1.8	0.0	-0.3	2.2	-1.9	-0.2	-3.1	1.3	-0.5	0.4	0.6
SK	71.2	2.4	1.8	-0.1	0.0	2.0	-0.4	0.0	-0.3	-0.1	2.2	-0.1	0.2	2.1	-0.6	-2.1	-1.5	3.0	0.6	-0.5	1.0
FI	79.1	3.3	3.2	0.2	1.3	1.7	1.2	0.1	0.4	0.7	1.9	0.1	0.8	1.0	0.2	0.1	0.6	-0.5	0.3	-0.3	-0.1
SE	82.5	3.3	2.9	0.9	1.3	0.7	1.2	0.5	0.2	0.5	1.7	0.5	1.1	0.2	0.4	-0.1	2.0	-1.5	0.3	-0.3	0.0
UK	78.7	3.1	2.9	0.1	0.8	2.0	0.2	0.0	-0.2	0.4	2.7	0.0	0.9	1.7	0.1	-0.7	0.4	0.4	0.7	-0.6	0.1
NO	78.0	-0.9	-0.4	0.3	0.0	-0.8	-1.3	0.2	-0.8	-0.7	0.9	0.2	0.8	-0.1	-0.4	0.2	-1.6	1.1	-0.1	0.1	-0.1
EU27	74.1	3.5	3.9	0.4	1.0	2.6	0.7	0.2	-0.3	0.8	3.2	0.2	1.3	1.8	-0.9	-0.4	-2.2	1.6	0.6	-0.5	0.4
EA	74.5	3.6	4.6	-0.1	1.6	3.1	1.0	0.0	-0.1	1.1	3.6	-0.1	1.7	2.0	-1.5	0.1	-3.3	1.6	0.5	-0.4	0.5
EA12	74.5	3.6	4.6	-0.1	1.6	3.1	1.0	0.0	-0.1	1.1	3.6	-0.1	1.7	2.0	-1.5	0.2	-3.3	1.6	0.5	-0.4	0.5
EU15	75.6	3.7	4.4	0.1	1.5	2.9	0.9	0.0	-0.1	1.0	3.5	0.0	1.6	1.9	-1.1	0.1	-2.6	1.4	0.5	-0.4	0.4
EU10	69.0	3.7	2.8	-0.3	0.6	2.5	0.4	-0.1	-0.3	0.8	2.4	-0.1	0.9	1.6	-0.1	-1.6	-0.3	1.9	0.7	-0.5	0.8
EU25	74.8	4.0	4.5	0.2	1.4	2.9	1.0	0.1	-0.1	1.0	3.5	0.1	1.5	1.9	-1.0	-0.3	-2.2	1.5	0.6	-0.4	0.5

Source: Commission services.

Table A 129 – Contribution to the overall change in labour force, 2007-2060 (changes in %)

Participation rates in 2060		Total change in participation rates (%)	Contribution of group-specific changes in participation rates to change in overall labour supply												Demographic effect						
			Prime						Prime						Prime						
			Young	Older	Male	Young	Prime age	Female	Young	Older	Female	Young	Prime age	Older	Male	Female	Interaction effect				
BE	4960	5.6	5.0	0.3	1.3	3.4	0.4	0.2	-0.6	0.7	4.5	0.1	1.8	2.6	0.1	0.4	-1.6	1.3	1.7	0.4	0.5
BG	2045	-42.5	2.7	-0.1	1.9	1.0	0.7	0.0	0.6	0.1	2.1	0.0	1.2	0.9	-44.2	-4.7	-34.2	-5.3	-23.0	-21.4	-1.2
CZ	3803	-25.8	4.4	0.0	-0.8	5.2	0.1	0.0	-1.0	1.1	4.3	0.0	0.3	4.0	-29.1	-2.9	-22.8	-3.4	-16.4	-13.0	-1.1
DK	2808	-2.8	1.0	0.4	-1.4	2.0	-0.8	0.2	-1.4	0.5	1.8	0.2	0.1	1.5	-3.8	1.2	-4.4	-0.6	-1.3	-2.1	0.0
DE	31040	-25.4	5.3	0.2	1.4	3.7	1.0	0.1	-0.3	1.1	4.3	0.1	1.6	2.6	-29.9	-3.9	-25.0	-0.9	-15.6	-13.1	-0.8
EE	467	-29.9	0.1	0.5	-0.6	0.4	-0.8	0.1	-0.8	0.1	0.9	0.3	0.1	0.5	-30.0	-5.3	-21.7	-3.1	-14.4	-16.9	-0.1
IE	2980	39.0	5.5	-0.4	3.3	2.7	0.0	-0.2	0.2	0.0	5.5	-0.2	3.0	2.7	30.8	3.9	19.6	7.3	18.6	13.5	2.6
EL	4240	-15.8	4.5	0.0	2.7	1.9	-0.7	0.1	-0.5	-0.3	5.2	-0.2	3.2	2.1	-19.8	-1.4	-18.5	0.1	-10.4	-7.4	-0.6
ES	21978	0.3	9.7	-0.4	4.3	5.7	1.1	-0.2	0.0	1.3	8.6	-0.2	4.3	4.5	-10.0	0.0	-12.4	2.4	-4.0	-3.1	0.6
FR	29503	4.5	2.8	0.2	0.6	2.1	0.5	0.2	-0.7	1.1	2.3	0.1	1.2	1.0	1.4	0.6	-0.2	1.0	2.7	0.1	0.2
IT	22154	-9.3	9.3	0.3	1.3	8.3	3.5	0.2	-0.8	4.1	5.8	0.1	1.7	4.1	-19.1	-0.9	-18.5	0.3	-8.3	-7.4	-0.1
CY	606	53.1	5.5	-0.2	4.3	1.5	0.1	-0.1	0.1	0.0	5.4	-0.2	4.1	1.5	44.3	1.9	32.5	9.9	25.6	17.8	3.1
LV	666	-41.9	-0.3	0.2	0.2	-0.5	-0.7	-0.1	0.0	-0.7	0.4	0.3	0.0	0.1	-41.8	-7.7	-30.0	-4.1	-21.0	-21.8	0.0
LT	918	-41.9	-2.1	0.3	-2.1	-0.3	-2.2	0.1	-1.3	-1.0	0.1	0.2	-0.8	0.7	-40.5	-5.5	-32.9	-2.1	-20.5	-21.3	0.8
LU	295	37.7	4.4	0.6	1.9	1.9	0.3	0.3	0.0	0.0	4.1	0.3	2.0	1.9	31.1	3.4	22.1	5.6	20.8	16.1	2.2
HU	3138	-26.7	5.4	0.0	1.1	4.4	0.7	0.1	-0.6	1.2	4.7	0.0	1.6	3.2	-31.1	-2.9	-26.5	-1.7	-15.6	-14.5	-1.1
MT	143	-15.1	8.0	0.2	1.9	6.1	3.2	0.0	-0.4	3.6	4.9	0.2	2.4	2.3	-22.3	-7.1	-14.2	-1.0	-14.3	-7.2	-1.1
NL	7691	-11.4	3.2	0.2	2.0	1.0	-0.9	0.1	-0.4	0.1	4.2	0.1	2.4	1.6	-14.2	-1.9	-12.4	0.1	-6.5	-6.5	-0.4
AT	4014	-4.2	5.4	0.4	1.6	3.4	1.1	0.2	-0.1	1.0	4.3	0.2	1.7	2.4	-10.0	-1.7	-9.8	1.5	-3.6	-4.0	0.3
PL	10828	-36.6	3.2	-0.4	0.3	3.5	0.0	-0.2	-1.2	1.4	3.2	-0.1	1.4	1.9	-39.7	-6.9	-31.7	-1.1	-21.0	-18.3	-0.4
PT	4844	-8.3	3.8	-0.2	1.1	3.1	0.2	-0.1	-0.6	0.8	3.7	-0.1	1.6	2.2	-12.5	-1.5	-12.9	1.8	-4.7	-6.2	0.3
RO	5554	-41.4	-3.1	0.2	-3.9	0.7	-3.2	0.1	-3.4	0.1	0.1	0.1	-0.6	0.6	-39.9	-5.6	-33.1	-1.2	-21.4	-18.2	1.4
SI	688	-31.6	2.7	-0.2	-0.6	3.4	0.1	-0.2	-0.1	0.4	2.6	0.0	-0.4	3.1	-34.0	-3.5	-29.1	-1.3	-17.9	-14.3	-0.3
SK	1708	-36.1	2.6	-0.1	-0.1	2.9	-0.5	0.0	-0.5	-0.1	3.2	-0.2	0.3	3.0	-38.8	-6.0	-32.1	-0.6	-20.6	-17.5	-0.1
FI	2412	-9.3	4.2	0.3	1.7	2.2	1.6	0.1	0.6	0.9	2.5	0.2	1.1	1.3	-12.9	-1.6	-8.5	-2.7	-6.4	-6.7	-0.6
SE	5109	7.9	3.7	1.2	1.7	0.9	1.5	0.6	0.3	0.6	2.2	0.6	1.4	0.2	4.1	0.3	5.0	-1.3	2.2	1.3	0.1
UK	35409	16.0	3.8	0.1	1.1	2.7	0.2	0.0	-0.3	0.5	3.5	0.1	1.3	2.2	11.5	0.8	8.5	2.2	7.2	4.4	0.6
NO	2724	-11.9	-0.5	0.4	0.0	-1.0	-1.7	0.2	-1.0	-0.9	1.1	0.2	1.0	-0.1	12.6	2.1	6.8	3.7	6.7	6.4	-0.2
EU27	210003	-10.4	5.5	0.5	1.4	3.7	1.0	0.3	-0.4	1.1	4.5	0.3	1.8	2.5	-15.8	-2.2	-13.8	0.2	-7.4	-7.1	-0.3
EA	137548	-8.7	6.4	-0.1	2.3	4.3	1.4	0.0	-0.1	1.5	5.0	-0.1	2.4	2.8	-14.4	-1.2	-13.8	0.6	-6.4	-6.0	-0.2
EA12	136112	-8.7	6.4	-0.1	2.3	4.3	1.4	0.0	-0.1	1.5	5.1	-0.1	2.4	2.8	-14.4	-1.2	-13.8	0.6	-6.4	-6.0	-0.2
EU15	179438	-4.2	6.0	0.1	2.1	4.0	1.2	0.1	-0.2	1.3	4.8	0.0	2.2	2.6	-9.7	-0.9	-9.6	0.8	-3.9	-4.2	0.0
EU10	22965	-32.7	4.3	-0.4	1.0	3.9	0.6	-0.2	-0.4	1.3	3.7	-0.2	1.3	2.5	-35.7	-5.5	-28.7	-1.4	-18.8	-16.6	-0.8
EU25	202403	-8.6	6.3	0.3	2.0	4.1	1.4	0.2	-0.1	1.3	4.9	0.2	2.1	2.7	-14.1	-1.9	-12.6	0.4	-6.4	-6.3	-0.2

Source: Commission services.

Table A 130 – Employment rate projections 2007-2060 (15-64)

	Total (15-64)				Females (15-64)				Older workers (55-64)			
	2007	2015	2020	2060	2007	2015	2020	2060	2007	2015	2020	2060
BE	62.3	64.7	65.4	65.4	55.5	59.6	60.8	61.4	34.6	44.2	47.1	47.4
BG	62.1	66.6	67.0	66.0	57.7	62.5	63.0	62.3	43.4	45.1	45.9	47.9
CZ	66.2	70.2	70.6	70.2	57.4	62.3	63.0	64.3	46.6	54.8	55.9	65.2
DK	77.2	77.2	77.0	78.2	73.2	74.1	74.2	76.3	59.1	59.4	60.9	67.5
DE	69.6	73.1	74.2	74.9	64.0	68.3	69.5	71.8	51.4	62.0	65.0	68.7
EE	69.4	72.8	72.8	72.0	66.0	68.6	69.5	69.3	60.2	58.8	61.0	62.2
IE	69.1	71.4	71.8	72.4	60.6	65.0	66.3	68.1	53.8	60.6	63.8	67.3
EL	61.4	64.4	65.1	64.6	48.0	52.7	54.5	55.4	42.8	45.7	47.3	50.4
ES	65.6	69.5	71.0	72.5	54.8	61.3	64.1	67.2	44.7	55.1	60.5	70.5
FR	64.7	65.6	66.4	67.2	60.0	61.5	62.4	63.4	38.9	41.0	44.3	47.4
IT	58.7	62.0	62.6	63.8	46.6	51.1	52.1	52.8	33.8	47.5	52.7	61.6
CY	69.7	74.3	75.8	75.3	61.6	68.1	70.1	70.4	55.9	59.6	61.1	63.4
LV	68.5	72.4	71.6	70.6	64.5	68.7	68.1	67.3	57.7	57.8	56.4	56.0
LT	65.1	68.1	68.5	65.8	62.3	66.2	66.8	64.6	53.4	58.1	57.6	52.6
LU	63.6	64.0	63.8	63.7	55.0	57.3	57.8	58.1	32.3	38.2	39.8	40.5
HU	57.2	60.9	62.5	61.0	50.8	55.8	57.3	56.8	32.7	44.8	45.8	47.8
MT	55.8	57.4	59.1	60.4	37.0	39.8	40.8	41.6	30.5	30.9	36.6	48.0
NL	76.1	77.0	77.1	77.8	69.7	73.0	73.7	75.3	51.4	53.5	54.3	55.7
AT	71.5	72.6	72.7	74.3	64.5	67.2	67.7	69.6	38.8	44.4	48.3	54.0
PL	57.1	61.3	62.2	62.4	50.6	55.1	56.5	57.0	29.9	34.0	33.5	44.6
PT	67.8	70.8	71.4	71.6	61.9	66.2	67.5	68.2	51.0	57.8	60.5	64.5
RO	58.7	60.9	61.0	57.6	52.8	55.3	55.8	53.3	41.4	45.4	46.2	44.5
SI	67.8	69.1	69.9	68.6	62.7	65.8	66.8	65.6	33.4	41.6	47.4	47.8
SK	61.2	65.6	68.4	66.8	53.4	58.8	62.0	61.5	36.2	46.4	48.0	50.4
FI	70.5	72.5	73.8	74.6	68.8	70.7	72.4	73.4	55.6	58.8	63.2	64.3
SE	74.3	77.0	77.3	77.6	71.8	74.6	74.8	75.7	70.3	72.1	72.5	73.7
UK	71.5	72.7	73.0	74.4	65.5	67.9	68.5	70.7	57.8	60.6	62.0	68.9
NO	76.8	75.1	75.1	74.8	74.1	73.2	73.5	74.2	69.2	65.7	65.4	64.6
EU27	65.5	68.2	69.0	69.9	58.4	62.2	63.4	65.1	44.9	51.3	54.5	60.0
EA	65.5	68.6	69.5	70.1	57.8	62.0	63.4	64.9	42.6	51.2	54.8	60.3
EA12	65.5	68.6	69.5	70.1	57.8	62.0	63.4	64.9	42.6	51.2	54.9	60.3
EU15	66.7	69.5	70.3	71.2	59.4	63.4	64.6	66.4	45.9	53.0	56.2	62.3
EU10	59.9	64.4	65.6	65.2	53.3	58.4	59.9	60.2	34.8	41.8	43.0	50.4
EU25	65.6	68.7	69.5	70.5	58.4	62.6	63.8	65.7	44.1	51.2	54.3	60.7

Source: Commission services.

Table A 131 – Employment projections 2007-2060 (15-64)

	Persons (in thousands)			Charges (in thousands)			Charges (in %)			Annual growth rate	
	2007	2020	2060	2007-2020	2020-2060	2007-2060	2007-2020	2020-2060	2007-2060	2007-2020	2020-2060
BE	4346	4723	4652	378	-71	307	8.7	-1.5	7.1	0.64	-0.04
BG	3307	3148	1949	-160	-1199	-1359	-4.8	-38.1	-41.1	-0.38	-1.19
CZ	4850	4846	3632	-4	-1214	-1218	-0.1	-25.1	-25.1	-0.01	-0.72
DK	2777	2752	2717	-24	-35	-59	-0.9	-1.3	-2.1	-0.07	-0.03
DE	37971	39049	29116	1077	-9933	-8856	2.8	-25.4	-23.3	0.22	-0.73
EE	634	614	451	-20	-163	-183	-3.1	-26.6	-28.9	-0.24	-0.77
IE	2044	2548	2829	505	281	786	24.7	11.0	38.4	1.71	0.26
EL	4606	4854	3977	248	-877	-629	5.4	-18.1	-13.7	0.40	-0.50
ES	20089	24055	20615	3966	-3440	526	19.7	-14.3	2.6	1.40	-0.39
FR	25966	26841	27674	875	833	1708	3.4	3.1	6.6	0.26	0.08
IT	22925	24576	20880	1651	-3696	-2045	7.2	-15.0	-8.9	0.54	-0.41
CY	379	489	585	110	97	207	29.0	19.8	54.5	1.98	0.45
LV	1077	1019	633	-57	-386	-443	-5.3	-37.8	-41.2	-0.42	-1.18
LT	1510	1493	886	-17	-607	-624	-1.1	-40.7	-41.3	-0.09	-1.30
LU	205	235	281	30	46	76	14.8	19.5	37.1	1.07	0.45
HU	3962	4041	2944	79	-1097	-1018	2.0	-27.1	-25.7	0.15	-0.79
MT	158	164	134	6	-30	-24	3.9	-18.3	-15.1	0.29	-0.50
NL	8400	8401	7460	1	-941	-939	0.0	-11.2	-11.2	0.00	-0.30
AT	4004	4205	3842	201	-363	-162	5.0	-8.6	-4.0	0.38	-0.23
PL	15407	15834	10191	427	-5642	-5215	2.8	-35.6	-33.9	0.21	-1.10
PT	4835	5195	4544	360	-651	-291	7.4	-12.5	-6.0	0.55	-0.33
RO	8837	8624	5222	-213	-3402	-3615	-2.4	-39.4	-40.9	-0.19	-1.25
SI	956	941	656	-15	-286	-300	-1.5	-30.4	-31.4	-0.12	-0.90
SK	2376	2562	1602	186	-960	-774	7.8	-37.5	-32.6	0.58	-1.17
FI	2474	2476	2273	2	-203	-201	0.1	-8.2	-8.1	0.01	-0.21
SE	4444	4704	4805	261	101	362	5.9	2.2	8.1	0.44	0.05
UK	28875	30666	33486	1791	2820	4611	6.2	9.2	16.0	0.46	0.22
NO	2374	2484	2612	110	127	237	4.6	5.1	10.0	0.35	0.13
EU27	217411	229055	198036	11644	-31018	-19375	5.4	-13.5	-8.9	0.40	-0.36
EA	139357	148753	129518	9396	-19235	-9839	6.7	-12.9	-7.1	0.50	-0.35
EA12	137864	147158	128143	9294	-19015	-9721	6.7	-12.9	-7.1	0.50	-0.35
EU15	173959	185281	169152	11322	-16129	-4807	6.5	-8.7	-2.8	0.49	-0.23
EU10	31308	32002	21714	695	-10289	-9594	2.2	-32.1	-30.6	0.17	-0.96
EU25	205266	217283	190865	12017	-26418	-14401	5.9	-12.2	-7.0	0.44	-0.32

Source: Commission services.

Table A 132 – Employment rate projections by age and sex, 2007-2060

TOTAL	2007				2060				change 2007-2060			
	Total	Young	Prime age	Older	Total	Young	Prime age	Older	Total	Young	Prime age	Older
	(15-64)	(15-24)	(25-54)	(55-64)	(15-64)	(15-24)	(25-54)	(55-64)	(15-64)	(15-24)	(25-54)	(55-64)
BE	62.3	27.9	79.7	34.6	65.4	30.1	81.9	47.4	3.1	2.2	2.2	12.7
BG	62.1	27.3	78.8	43.4	66.0	28.5	82.5	47.9	3.9	1.2	3.6	4.5
CZ	66.2	28.6	83.4	46.6	70.2	29.0	83.2	65.2	4.0	0.4	-0.2	18.5
DK	77.2	65.2	86.3	59.1	78.2	67.9	85.0	67.5	1.0	2.7	-1.3	8.4
DE	69.6	45.4	80.9	51.4	74.9	47.9	84.5	68.7	5.3	2.5	3.5	17.3
EE	69.4	34.7	84.7	60.2	72.0	37.2	85.1	62.2	2.6	2.5	0.3	2.0
IE	69.1	50.4	78.7	53.8	72.4	48.1	81.9	67.3	3.4	-2.2	3.2	13.5
EL	61.4	25.3	75.7	42.8	64.6	27.0	80.0	50.4	3.1	1.6	4.3	7.6
ES	65.6	39.5	76.8	44.7	72.5	40.1	82.7	70.5	6.9	0.6	5.8	25.8
FR	64.7	32.1	82.2	38.9	67.2	34.4	84.1	47.4	2.5	2.3	1.9	8.5
IT	58.7	24.9	73.5	33.8	63.8	25.7	74.8	61.6	5.0	0.9	1.3	27.7
CY	69.7	39.5	83.8	55.9	75.3	39.4	89.1	63.4	5.6	-0.1	5.4	7.6
LV	68.5	38.9	82.3	57.7	70.6	40.4	83.3	56.0	2.1	1.4	1.0	-1.7
LT	65.1	26.0	82.5	53.4	65.8	27.1	80.9	52.6	0.6	1.1	-1.6	-0.8
LU	63.6	23.2	81.2	32.3	63.7	24.8	82.8	40.5	0.1	1.5	1.6	8.2
HU	57.2	21.4	74.6	32.7	61.0	22.0	76.2	47.8	3.8	0.6	1.6	15.1
MT	55.8	48.3	66.5	30.5	60.4	48.6	68.1	48.0	4.6	0.3	1.6	17.6
NL	76.1	68.4	85.5	51.4	77.8	69.8	88.0	55.7	1.7	1.4	2.6	4.3
AT	71.5	56.2	84.1	38.8	74.3	57.9	85.9	54.0	2.8	1.7	1.8	15.1
PL	57.1	26.7	75.0	29.9	62.4	28.3	77.7	44.6	5.3	1.6	2.7	14.7
PT	67.8	35.3	81.0	51.0	71.6	36.3	83.9	64.5	3.8	1.0	2.9	13.6
RO	58.7	24.5	74.5	41.4	57.6	25.3	71.0	44.5	-1.1	0.7	-3.5	3.2
SI	67.8	36.8	85.3	33.4	68.6	36.0	84.8	47.8	0.7	-0.7	-0.5	14.4
SK	61.2	27.8	78.6	36.2	66.8	30.3	82.2	50.4	5.6	2.5	3.6	14.2
FI	70.5	45.4	83.4	55.6	74.6	47.8	86.1	64.3	4.0	2.4	2.7	8.7
SE	74.3	41.9	86.1	70.3	77.6	46.5	88.3	73.7	3.3	4.7	2.2	3.4
UK	71.5	53.1	81.4	57.8	74.4	53.1	82.5	68.9	2.9	0.0	1.1	11.1
NO	76.8	54.5	85.8	69.2	74.8	53.4	84.7	64.6	-2.1	-1.1	-1.0	-4.6
EU27	65.5	37.7	79.2	44.9	69.9	40.5	81.8	60.0	4.4	2.8	2.6	15.1
EA	65.5	38.6	79.0	42.6	70.1	39.3	82.6	60.3	4.6	0.7	3.6	17.7
EA12	65.5	38.5	78.9	42.6	70.1	39.3	82.5	60.3	4.6	0.7	3.6	17.7
EU15	66.7	41.5	79.5	45.9	71.2	42.6	82.7	62.3	4.5	1.2	3.2	16.4
EU10	59.9	27.9	77.4	34.8	65.2	28.7	80.2	50.4	5.4	0.8	2.8	15.6
EU25	65.6	38.9	79.1	44.1	70.5	41.1	82.4	60.7	4.9	2.2	3.2	16.6
MALES	Total	Young	Prime age	Older	Total	Young	Prime age	Older	Total	Young	Prime age	Older
	(15-64)	(15-24)	(25-54)	(55-64)	(15-64)	(15-24)	(25-54)	(55-64)	(15-64)	(15-24)	(25-54)	(55-64)
	(15-64)	(15-24)	(25-54)	(55-64)	(15-64)	(15-24)	(25-54)	(55-64)	(15-64)	(15-24)	(25-54)	(55-64)
BE	69.0	30.4	87.0	43.2	69.3	33.0	86.8	49.2	0.4	2.6	-0.2	6.0
BG	66.7	30.5	82.2	52.7	69.6	31.8	85.2	54.3	2.9	1.3	2.9	1.6
CZ	74.9	33.0	91.7	60.4	76.0	33.5	89.9	69.3	1.1	0.6	-1.8	8.8
DK	81.0	66.1	90.2	65.4	80.0	68.8	86.9	69.7	-1.0	2.6	-3.2	4.3
DE	75.0	47.2	86.5	59.6	77.9	49.9	88.0	71.0	2.9	2.7	1.6	11.4
EE	73.0	39.0	89.6	59.4	74.5	41.2	88.7	59.7	1.5	2.3	-0.9	0.3
IE	77.3	52.8	87.7	67.9	76.6	50.4	87.7	67.9	-0.7	-2.3	0.0	0.0
EL	74.5	30.3	90.1	59.4	73.4	32.6	90.4	57.4	-1.1	2.2	0.2	-2.0
ES	76.2	44.6	87.6	60.2	77.7	45.2	89.0	72.6	1.5	0.6	1.4	12.4
FR	69.5	35.4	88.3	41.2	70.8	38.1	88.1	49.9	1.3	2.7	-0.2	8.7
IT	70.8	29.8	87.3	45.4	74.1	31.0	86.0	73.4	3.3	1.2	-1.3	28.0
CY	78.0	41.9	92.3	72.5	80.1	42.3	93.1	72.8	2.2	0.3	0.8	0.3
LV	72.7	44.5	85.6	64.3	73.8	45.0	86.6	57.7	1.1	0.6	1.0	-6.6
LT	68.1	30.5	84.3	60.9	67.0	31.2	82.0	51.5	-1.1	0.8	-2.3	-9.4
LU	72.0	26.5	91.9	37.2	69.2	28.1	91.6	37.4	-2.8	1.5	-0.3	0.1
HU	63.7	24.7	81.3	41.0	65.0	25.6	81.0	50.1	1.3	0.9	-0.4	9.1
MT	74.0	49.4	90.3	48.8	78.6	49.2	89.4	70.5	4.6	-0.2	-0.9	21.6
NL	82.4	68.9	92.1	62.2	80.2	70.2	91.3	57.0	-2.3	1.4	-0.9	-5.2
AT	78.4	60.2	90.6	49.8	78.8	61.7	90.4	59.0	0.4	1.4	-0.2	9.1
PL	63.7	30.3	81.2	41.8	67.6	31.6	81.4	55.1	3.9	1.4	0.2	13.3
PT	73.8	39.4	87.2	58.6	74.9	40.2	87.4	66.9	1.1	0.8	0.2	8.3
RO	64.7	28.4	80.5	50.3	61.8	29.3	74.4	51.0	-2.9	1.0	-6.1	0.7
SI	72.7	42.0	88.1	45.1	71.5	41.0	88.1	48.4	-1.3	-1.0	-0.1	3.3
SK	69.0	31.0	85.7	53.1	72.0	34.4	88.1	54.3	3.0	3.4	2.4	1.1
FI	72.3	46.1	86.0	55.4	75.6	48.2	88.1	62.9	3.4	2.0	2.1	7.5
SE	76.6	41.9	89.1	73.3	79.4	46.4	89.9	78.1	2.7	4.5	0.9	4.8
UK	77.4	54.5	88.2	66.6	78.0	54.4	87.4	70.5	0.6	-0.1	-0.8	3.9

	2007				2060				change 2007-2060			
	Total	Young	Prime age	Older	Total	Young	Prime age	Older	Total	Young	Prime age	Older
MALES	(15-64)	(15-24)	(25-54)	(55-64)	(15-64)	(15-24)	(25-54)	(55-64)	(15-64)	(15-24)	(25-54)	(55-64)
NO	79.5	53.0	89.1	74.0	75.3	51.7	85.7	66.0	-4.3	-1.3	-3.4	-8.0
EU27	72.6	40.8	86.8	54.2	74.6	43.6	87.0	64.2	2.0	2.8	0.2	10.0
EA	73.2	41.9	87.4	51.5	75.2	42.8	88.3	64.5	2.0	1.0	0.9	13.0
EA12	73.2	41.9	87.4	51.5	75.2	42.9	88.3	64.5	2.0	1.0	0.9	13.0
EU15	74.0	44.3	87.5	54.6	75.9	45.6	88.1	66.0	1.9	1.3	0.6	11.4
EU10	66.6	31.8	83.7	45.9	70.1	32.5	84.7	57.3	3.5	0.7	1.0	11.4
EU25	72.7	42.0	86.9	53.3	75.2	44.1	87.7	64.9	2.4	2.2	0.8	11.6
FEMALES	Total	Young	Prime age	Older	Total	Young	Prime age	Older	Total	Young	Prime age	Older
	(15-64)	(15-24)	(25-54)	(55-64)	(15-64)	(15-24)	(25-54)	(55-64)	(15-64)	(15-24)	(25-54)	(55-64)
BE	55.5	25.4	72.3	26.2	61.4	27.1	76.9	45.5	5.8	1.6	4.6	19.3
BG	57.7	24.0	75.4	35.3	62.3	25.1	79.6	41.5	4.6	1.1	4.2	6.2
CZ	57.4	24.0	74.8	34.0	64.3	24.2	76.3	61.1	7.0	0.2	1.5	27.1
DK	73.2	64.2	82.4	52.8	76.3	66.9	83.0	65.2	3.1	2.7	0.6	12.4
DE	64.0	43.5	75.2	43.4	71.8	45.8	80.8	66.3	7.7	2.4	5.6	22.9
EE	66.0	30.2	80.1	60.9	69.3	32.9	81.3	64.7	3.3	2.6	1.2	3.8
IE	60.6	47.9	69.5	39.6	68.1	45.7	75.8	66.6	7.5	-2.2	6.3	27.1
EL	48.0	19.9	60.8	27.2	55.4	21.1	69.3	43.3	7.4	1.2	8.5	16.1
ES	54.8	34.1	65.7	30.2	67.2	34.8	76.1	68.5	12.4	0.7	10.4	38.4
FR	60.0	28.7	76.2	36.6	63.4	30.6	80.0	44.9	3.4	1.9	3.8	8.3
IT	46.6	19.7	59.6	22.9	52.8	20.1	62.8	49.4	6.2	0.4	3.3	26.5
CY	61.6	37.1	75.4	40.1	70.4	36.5	85.1	53.9	8.8	-0.6	9.6	13.8
LV	64.5	33.1	79.1	52.8	67.3	35.4	80.0	54.4	2.8	2.3	0.9	1.6
LT	62.3	21.3	80.8	47.8	64.6	22.9	79.7	53.6	2.3	1.6	-1.1	5.8
LU	55.0	19.7	70.3	27.2	58.1	21.2	73.8	43.6	3.2	1.5	3.5	16.4
HU	50.8	18.0	67.9	25.9	56.8	18.3	71.4	45.5	6.1	0.3	3.5	19.6
MT	37.0	47.2	41.8	12.6	41.6	48.0	45.9	25.1	4.5	0.8	4.1	12.5
NL	69.7	67.9	78.7	40.5	75.3	69.4	84.6	54.3	5.6	1.5	5.9	13.8
AT	64.5	52.1	77.5	28.4	69.6	54.0	81.2	48.9	5.1	1.9	3.8	20.6
PL	50.6	22.9	68.8	19.6	57.0	24.7	73.8	34.2	6.5	1.8	5.1	14.6
PT	61.9	31.1	74.9	44.2	68.2	32.3	80.3	62.2	6.3	1.2	5.4	18.1
RO	52.8	20.5	68.5	33.6	53.3	21.0	67.5	38.1	0.5	0.5	-1.0	4.6
SI	62.7	31.2	82.4	21.9	65.6	31.0	81.6	47.1	2.9	-0.2	-0.8	25.2
SK	53.4	24.5	71.4	21.6	61.5	26.0	76.2	46.6	8.1	1.6	4.8	24.9
FI	68.8	44.6	80.7	55.9	73.4	47.4	84.0	65.7	4.7	2.8	3.3	9.8
SE	71.8	41.8	83.0	67.3	75.7	46.6	86.6	69.2	3.9	4.8	3.7	1.9
UK	65.5	51.6	74.6	49.2	70.7	51.8	77.4	67.3	5.2	0.2	2.8	18.1
NO	74.1	56.0	82.3	64.3	74.2	55.2	83.7	63.3	0.2	-0.8	1.4	-1.0
EU27	58.4	34.5	71.5	36.1	65.1	37.2	76.4	55.7	6.7	2.7	4.9	19.6
EA	57.8	35.1	70.4	33.9	64.9	35.5	76.6	56.0	7.1	0.4	6.2	22.1
EA12	57.8	35.1	70.3	34.0	64.9	35.5	76.5	56.1	7.1	0.4	6.2	22.1
EU15	59.4	38.5	71.4	37.5	66.4	39.5	77.1	58.5	7.0	1.0	5.7	21.0
EU10	53.3	23.9	71.1	25.3	60.2	24.8	75.5	43.6	7.0	0.9	4.5	18.4
EU25	58.4	35.7	71.3	35.4	65.7	37.8	76.9	56.6	7.3	2.1	5.6	21.2

Source: Commission services.

Table A 133 – Employment projections 2007-2060 (15-64)

Country	GDP growth in 2007-2060	Productivity (GDP per hour worked)	Due to growth in :						change in average hours worked	GDP per capita growth in 2007-2060
			TFP	Capital deepening	Labour input	Total population	Employment rate	Share of Working age population		
	1=2+5	2=3+4	3	4	5=6+7+8+9	6	7	8	9	10=1-6
BE	1.8	1.7	1.1	0.6	0.2	0.3	0.0	-0.2	-0.01	1.5
BG	1.9	2.7	1.5	1.3	-0.8	-0.6	0.1	-0.3	0.01	2.5
CZ	1.8	2.2	1.4	0.8	-0.4	-0.1	0.0	-0.3	-0.02	1.9
DK	1.7	1.7	1.1	0.6	0.0	0.2	0.0	-0.1	-0.02	1.6
DE	1.2	1.7	1.1	0.6	-0.5	-0.3	0.1	-0.3	-0.03	1.5
EE	2.1	2.6	1.5	1.2	-0.6	-0.3	0.0	-0.3	0.01	2.4
IE	2.4	1.8	1.1	0.6	0.7	0.9	0.0	-0.2	-0.03	1.5
EL	1.8	2.0	1.2	0.8	-0.2	0.0	0.1	-0.3	0.00	1.8
ES	1.9	1.8	1.1	0.7	0.1	0.3	0.2	-0.3	-0.05	1.6
FR	1.8	1.7	1.1	0.6	0.1	0.3	0.0	-0.2	-0.02	1.5
IT	1.4	1.6	1.0	0.5	-0.1	0.0	0.1	-0.3	-0.01	1.4
CY	2.8	1.9	1.2	0.7	0.8	1.0	0.0	-0.2	-0.02	1.7
LV	1.8	2.7	1.5	1.1	-0.9	-0.6	0.0	-0.3	0.00	2.3
LT	1.8	2.6	1.5	1.1	-0.8	-0.5	0.0	-0.3	0.03	2.3
LU	2.6	1.7	1.1	0.7	0.9	0.8	0.2	-0.1	-0.02	1.8
HU	1.7	2.3	1.4	0.9	-0.5	-0.3	0.0	-0.3	-0.01	2.0
MT	1.7	1.9	1.2	0.7	-0.2	0.0	0.1	-0.3	-0.04	1.7
NL	1.5	1.7	1.1	0.6	-0.2	0.0	0.0	-0.2	-0.04	1.5
AT	1.7	1.7	1.1	0.6	0.0	0.2	0.0	-0.2	-0.02	1.5
PL	1.7	2.4	1.4	1.0	-0.7	-0.4	0.1	-0.4	-0.01	2.1
PT	1.8	1.9	1.2	0.7	-0.1	0.1	0.1	-0.3	-0.02	1.7
RO	2.0	2.9	1.6	1.2	-0.8	-0.5	-0.1	-0.3	0.04	2.5
SI	1.6	2.2	1.3	1.0	-0.6	-0.2	0.0	-0.4	-0.01	1.8
SK	2.0	2.6	1.6	1.0	-0.6	-0.3	0.0	-0.4	0.01	2.3
FI	1.7	1.8	1.2	0.6	-0.1	0.1	0.1	-0.2	-0.02	1.7
SE	1.9	1.7	1.1	0.6	0.2	0.3	0.0	-0.2	0.00	1.6
UK	2.1	1.8	1.1	0.7	0.3	0.5	0.0	-0.2	-0.04	1.6
NO	2.0	1.7	1.1	0.6	0.3	0.5	0.0	-0.1	0.00	1.5
EU27	1.7	1.8	1.1	0.7	-0.1	0.1	0.1	-0.3	-0.03	1.6
EA	1.6	1.7	1.1	0.6	-0.1	0.1	0.1	-0.3	-0.02	1.5
EA12	1.6	1.7	1.1	0.6	-0.1	0.1	0.1	-0.3	-0.02	1.5
EU15	1.7	1.7	1.1	0.6	0.0	0.2	0.1	-0.2	-0.02	1.6
EU10	1.8	2.4	1.4	1.0	-0.6	-0.3	0.1	-0.3	-0.01	2.1
EU25	1.7	1.8	1.1	0.7	-0.1	0.1	0.1	-0.3	-0.03	1.6

Source: Commission services.

Table A 134 - The cost of ageing overview – Baseline scenario (as % of GDP)

	Pensions			Health care			Long-term care			Unemployment benefits			Education			Total of all available items*		
	Level	Change	2007-2035	2007-2035	2007-2060	2007-2060	Level	Change	2007-2035	2007-2035	2007-2060	2007-2060	Level	Change	2007-2035	2007-2035	2007-2060	2007-2060
BE	14.7	4.4	4.8	1.0	1.2	2.9	2.9	0.7	1.4	1.5	-0.4	-0.4	5.5	-0.1	0.0	33.4	5.6	6.9
BG	11.3	0.7	3.0	0.6	0.7	0.4	0.1	0.2	0.1	0.0	0.0	0.0	3.0	-0.5	-0.2	20.2	0.8	3.7
CZ	11.0	-0.2	3.3	1.4	2.2	0.7	0.2	0.4	0.1	0.0	0.0	0.0	3.2	-0.5	-0.3	23.4	0.9	5.5
DK	9.2	1.4	0.1	6.9	0.8	1.0	3.2	1.1	1.5	0.8	-0.2	-0.2	7.2	0.4	0.2	27.4	3.6	2.6
DE	12.8	1.4	2.3	9.2	1.4	1.8	2.4	0.7	1.4	0.6	-0.3	-0.3	3.5	-0.5	-0.4	28.4	2.6	4.8
EE	4.9	-0.2	-0.7	6.1	0.7	1.2	0.1	0.0	0.1	0.0	0.0	0.0	3.5	-0.4	-0.2	14.7	0.1	0.4
IE	11.3	2.8	6.1	7.6	0.9	1.8	2.2	0.4	1.3	0.8	0.1	0.1	4.2	-0.4	-0.3	26.2	3.7	8.9
EL	24.1	7.7	12.4	6.4	0.9	1.4	3.6	0.8	2.2	0.2	-0.1	-0.1	3.7	-0.3	0.0	37.9	9.1	15.9
ES	15.1	3.4	6.7	7.2	1.0	1.6	1.4	0.5	0.9	0.9	-0.4	-0.4	3.6	-0.3	0.1	28.3	4.3	9.0
FR	14.0	1.4	1.0	9.4	1.0	1.2	2.2	0.5	0.8	0.9	-0.3	-0.3	4.6	0.0	0.0	31.2	2.7	2.7
IT	13.6	1.2	-0.4	6.9	0.9	1.1	3.0	0.5	1.3	0.3	0.0	0.0	3.8	-0.6	-0.3	27.6	2.0	1.6
CY	17.7	5.4	11.4	3.3	0.4	0.6	0.0	0.0	0.0	0.2	-0.1	-0.1	5.0	-1.2	-1.2	26.2	4.5	10.8
LV	5.1	0.7	-0.4	4.1	0.4	0.6	0.9	0.2	0.5	0.2	0.0	0.0	3.3	-0.6	-0.3	13.6	0.6	0.4
LT	11.4	1.9	4.6	5.6	0.7	1.1	1.1	0.2	0.6	0.0	0.0	0.0	3.1	-1.0	-0.9	21.2	1.8	5.4
LU	23.9	8.0	15.2	7.0	0.9	1.2	3.4	0.7	2.0	0.4	0.0	0.0	3.3	-0.5	-0.5	38.0	9.1	18.0
HU	13.8	0.6	3.0	7.0	0.7	1.3	0.6	0.1	0.4	0.2	-0.1	-0.1	4.0	-0.7	-0.4	25.7	0.7	4.1
MT	13.4	2.5	6.2	8.0	2.2	3.3	2.6	0.9	1.6	0.3	0.0	0.0	4.0	-1.2	-1.0	28.4	4.4	10.2
NL	10.5	3.4	4.0	5.8	0.9	1.0	8.1	2.8	4.7	1.0	-0.1	-0.1	4.4	-0.2	-0.2	29.9	6.9	9.4
AT	13.6	1.2	0.9	8.0	1.2	1.5	2.5	0.6	1.2	0.6	0.0	0.0	4.3	-0.6	-0.5	29.0	2.3	3.1
PL	8.8	-2.3	-2.8	5.0	0.7	1.0	1.1	0.2	0.7	0.1	-0.1	-0.1	3.2	-1.3	-1.2	18.1	-2.7	-2.4
PT	13.4	0.9	2.1	9.1	1.0	1.9	0.2	0.0	0.1	0.8	-0.4	-0.4	4.3	-0.6	-0.3	27.8	1.1	3.4
RO	15.8	5.0	9.2	4.9	0.7	1.4	0.0	0.0	0.0	0.2	0.0	0.0	2.3	-0.6	-0.5	23.2	5.0	10.1
SI	18.6	4.9	8.8	8.5	1.4	1.9	2.9	0.9	1.8	0.2	0.0	0.0	5.6	-0.2	0.4	35.8	6.9	12.8
SK	10.2	1.0	3.4	7.2	1.5	2.3	0.6	0.1	0.4	0.1	-0.1	-0.1	2.3	-1.0	-0.8	20.4	1.6	5.2
FI	13.4	3.9	3.3	6.5	0.9	1.0	4.4	1.7	2.6	1.0	-0.2	-0.2	5.4	-0.2	-0.3	30.5	6.1	6.3
SE	9.4	-0.1	-0.1	8.0	0.6	0.8	5.8	1.3	2.3	0.9	-0.1	-0.1	5.8	-0.3	-0.3	29.7	1.5	2.6
UK	9.3	1.3	2.7	9.4	1.2	1.9	1.3	0.3	0.5	0.2	0.0	0.0	3.8	0.0	-0.1	24.0	2.7	5.1
NO	13.6	4.3	4.7	7.0	1.0	1.3	4.9	1.2	2.7	0.4	0.2	0.2	8.1	0.1	0.1	33.9	6.8	9.0
EA12	13.9	2.1	2.8	8.1	1.0	1.4	2.7	0.7	1.4	0.8	-0.2	-0.2	4.1	-0.3	-0.2	29.5	3.3	5.2
EU27	12.6	1.7	2.4	8.2	1.0	1.5	2.4	0.6	1.1	0.6	-0.2	-0.2	4.1	-0.3	-0.2	27.8	2.7	4.7
EU15	12.7	1.8	2.4	8.4	1.0	1.5	2.5	0.6	1.2	0.6	-0.2	-0.2	4.1	-0.3	-0.1	28.3	3.0	4.8
EU10	10.7	-0.5	1.0	6.2	0.9	1.4	0.9	0.2	0.6	0.1	0.0	0.0	3.4	-1.0	-0.8	21.4	-0.4	2.1
EU25	12.5	1.6	2.3	8.3	1.0	1.5	2.4	0.6	1.2	0.6	-0.2	-0.2	4.1	-0.3	-0.2	27.9	2.7	4.7
EA16	13.9	2.1	2.8	8.1	1.0	1.4	2.7	0.7	1.4	0.8	-0.2	-0.2	4.1	-0.3	-0.2	29.5	3.2	5.2
EU12	11.5	0.4	2.3	6.0	0.8	1.3	0.8	0.2	0.5	0.1	0.0	0.0	3.2	-0.9	-0.7	21.6	0.4	3.4

Source: Commission services.

Table A 135 - The cost of ageing overview – High life expectancy (1 year) scenario – Difference with Baseline (as % of GDP)

	Pensions			Health care			Long-term care			Unemployment benefits			Education			Total of all available items*		
	Level	Change	2007-2035	Level	Change	2007-2060	Level	Change	2007-2060	Level	Change	2007-2060	Level	Change	2007-2035	Level	Change	2007-2035
	2060	2007-2035	2007-2060	2060	2007-2035	2007-2060	2060	2007-2035	2007-2060	2060	2007-2035	2007-2060	2060	2007-2035	2007-2060	2060	2007-2035	2007-2060
BE	0.4	0.0	0.4	0.5	0.1	0.5	-0.3	-0.3	-0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.5	-0.2	0.5
BG	0.3	0.0	0.3	0.3	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.1	0.6
CZ	0.3	0.0	0.3	0.5	0.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.1	0.7
DK	0.2	0.0	0.2	0.4	0.1	0.4	-0.3	-0.4	-0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.2	-0.3	0.2
DE	0.2	0.0	0.2	0.5	0.1	0.5	-0.1	-0.2	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.6
EE	0.1	-0.1	0.1	0.5	0.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.5
IE	0.2	0.0	0.2	0.4	0.1	0.4	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.5
EL	0.3	-0.1	0.3	0.3	0.1	0.3	-0.3	-0.3	-0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.3	-0.3	0.3
ES	0.3	0.0	0.3	0.3	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.1	0.7
FR	0.4	0.0	0.4	0.4	0.1	0.4	-0.2	-0.2	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.6	-0.1	0.6
IT	0.1	0.0	0.1	0.3	0.1	0.3	-0.3	-0.3	-0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.1	-0.2	0.2
CY	0.2	0.0	0.2	0.3	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.1	0.5
LV	0.1	0.0	0.1	0.3	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3
LT	0.3	0.0	0.3	0.4	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.1	0.7
LU	0.4	0.0	0.4	0.4	0.1	0.4	-0.2	-0.2	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.6	-0.1	0.6
HU	0.3	0.0	0.3	0.7	0.4	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.4	1.2
MT	0.4	0.0	0.4	0.6	0.2	0.8	-0.3	-0.2	-0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.8
NL	0.3	0.0	0.3	0.3	0.1	0.3	-0.8	-0.7	-0.8	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.6	-0.2
AT	0.4	0.3	0.4	0.4	0.1	0.4	-0.2	-0.2	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.1	0.6
PL	0.1	0.0	0.1	0.6	0.1	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.1	0.7
PT	0.4	0.0	0.4	0.6	0.1	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.1	0.9
RO	0.5	0.0	0.5	0.4	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.2	0.9
SI	0.6	0.0	0.6	0.4	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.1	1.0
SK	0.3	0.0	0.3	0.4	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.1	0.7
FI	0.1	0.0	0.1	0.5	0.1	0.5	0.0	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.7
SE	0.2	0.0	0.2	0.4	0.1	0.4	-0.6	-0.6	-0.6	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.5	-0.1
UK	0.4	0.0	0.4	0.6	0.1	0.6	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.9
NO	0.2	0.2	0.2	0.7	0.2	0.6	-0.2	-0.2	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.1	0.7
EA12	0.3	0.0	0.3	0.4	0.1	0.4	-0.2	-0.2	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.5	-0.1	0.5
EU27	0.3	0.0	0.3	0.5	0.1	0.5	-0.2	-0.2	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.6	-0.1	0.6
EU15	0.3	0.0	0.3	0.5	0.1	0.5	-0.2	-0.2	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.6	-0.1	0.6
EU10	0.2	0.0	0.2	0.6	0.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.2	0.8
EU25	0.3	0.0	0.3	0.5	0.1	0.5	-0.2	-0.2	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.6	-0.1	0.6
EA16	0.3	0.0	0.3	0.4	0.1	0.4	-0.2	-0.2	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.5	-0.1	0.5
EU12	0.3	0.0	0.3	0.5	0.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.2	0.8

Source: Commission services.

Table A 136 – The cost of ageing overview – Zero migration scenario – Difference with Baseline (as % of GDP)

	Pensions			Health care			Long-term care			Unemployment benefits			Education			Total of all available items*		
	Level	Change	2007-2035	2007-2035	2007-2035	2007-2035	Level	Change	2007-2035	2007-2035	2007-2035	2007-2035	Level	Change	2007-2035	Level	Change	2007-2035
	2060	2007-2060	2007-2060	2007-2060	2007-2060	2007-2060	2060	2007-2060	2007-2060	2007-2060	2007-2060	2007-2060	2060	2007-2060	2007-2060	2060	2007-2060	2007-2060
BE	2.1	0.7	2.1	0.3	1.2	0.1	0.1	-0.2	0.1	0.0	0.0	0.0	-0.1	0.0	-0.1	3.3	0.8	3.3
BG	0.2	0.0	0.2	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	-0.1	0.5	0.1	0.5
CZ	1.5	0.2	1.5	0.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	-0.1	2.5	0.4	2.5
DK	0.9	0.2	0.9	0.7	0.1	0.7	-0.1	-0.3	-0.1	0.0	0.0	0.0	-0.2	-0.1	-0.2	1.4	-0.1	1.4
DE	1.9	0.2	1.9	0.3	1.6	0.3	0.3	-0.2	0.3	0.0	0.0	0.0	-0.2	-0.1	-0.2	3.5	0.3	3.5
EE	0.1	0.0	0.1	0.5	0.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	-0.1	0.5	0.1	0.5
IE	1.7	0.5	1.7	0.8	0.2	0.8	0.1	0.0	0.1	0.0	0.0	0.0	-0.2	-0.1	-0.2	2.4	0.6	2.4
EL	3.6	0.3	3.7	1.2	0.2	1.2	0.4	-0.2	0.4	0.0	0.0	0.0	-0.2	-0.1	-0.2	5.0	0.2	5.0
ES	3.0	0.9	3.0	0.2	1.2	0.3	0.1	0.3	0.1	0.0	0.0	0.0	-0.2	-0.2	-0.2	4.3	1.1	4.3
FR	0.9	0.3	0.9	0.7	0.2	0.7	-0.1	-0.2	-0.1	0.0	0.0	0.0	-0.1	0.0	-0.1	1.4	0.3	1.4
IT	2.1	0.9	2.1	1.1	0.3	1.1	0.3	-0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	3.5	1.0	3.6
CY	9.5	1.2	9.5	1.1	0.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.4	-0.2	-0.4	10.3	1.2	10.3
LV	0.1	0.0	0.1	0.3	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3
LT	-0.2	0.0	-0.2	0.2	0.1	0.2	-0.1	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	0.0	-0.2
LU	11.3	1.4	11.3	0.4	2.1	1.6	0.0	0.0	1.6	0.0	0.0	0.0	-0.3	-0.1	-0.3	14.6	1.7	14.6
HU	1.4	0.3	1.4	1.2	0.5	1.3	0.1	0.0	0.1	0.0	0.0	0.0	-0.1	0.0	-0.1	2.5	0.7	2.6
MT	2.3	0.3	2.3	1.5	0.3	1.6	0.0	-0.2	0.0	0.0	0.0	0.0	-0.1	0.0	-0.1	3.6	0.4	3.8
NL	1.0	0.1	1.0	0.6	0.1	0.6	-0.2	-0.6	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	1.4	-0.4	1.4
AT	5.3	0.8	5.3	2.1	0.4	2.1	0.5	-0.1	0.5	0.0	0.0	0.0	-0.3	-0.2	-0.3	7.5	0.8	7.5
PL	0.2	0.0	0.2	0.7	0.1	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.1	0.8
PT	2.9	0.6	2.9	1.8	0.3	1.8	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.1	-0.2	4.5	0.7	4.5
RO	0.5	0.0	0.5	0.5	0.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.2	0.9
SI	3.0	0.3	3.0	1.2	0.1	1.2	0.2	0.0	0.2	0.0	0.0	0.0	-0.5	-0.2	-0.5	3.9	0.2	3.9
SK	0.5	0.0	0.5	0.4	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.1	0.9
FI	0.6	0.3	0.6	0.6	0.2	0.6	-0.1	-0.2	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.3	1.1
SE	0.7	0.4	0.7	0.8	0.2	0.8	0.1	-0.5	0.1	0.0	0.0	0.0	-0.1	-0.1	-0.1	1.5	0.1	1.5
UK	2.3	0.4	2.3	2.0	0.4	2.0	0.2	0.0	0.2	0.0	0.0	0.0	-0.1	0.0	-0.1	4.5	0.8	4.5
NO	1.3	0.7	1.3	0.4	0.1	0.4	0.3	-0.2	0.3	0.0	0.0	0.0	-0.2	-0.1	-0.2	1.7	0.6	1.7
EA12	1.8	0.5	1.8	1.1	0.2	1.1	0.2	-0.2	0.2	0.0	0.0	0.0	-0.1	0.0	-0.1	3.1	0.6	3.1
EU27	1.8	0.5	1.8	1.2	0.3	1.2	0.2	-0.1	0.2	0.0	0.0	0.0	-0.1	0.0	-0.1	3.1	0.5	3.1
EU15	1.9	0.5	1.9	1.3	0.3	1.3	0.2	-0.2	0.2	0.0	0.0	0.0	-0.1	0.0	-0.1	3.3	0.6	3.3
EU10	0.6	0.1	0.6	0.7	0.2	0.7	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	-0.1	1.2	0.3	1.3
EU25	1.8	0.5	1.8	1.2	0.3	1.3	0.2	-0.1	0.2	0.0	0.0	0.0	-0.1	0.0	-0.1	3.1	0.5	3.1
EA16	1.8	0.5	1.8	1.1	0.2	1.1	0.2	-0.2	0.2	0.0	0.0	0.0	-0.1	0.0	-0.1	3.1	0.6	3.1
EU12	0.7	0.1	0.7	0.6	0.2	0.7	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	-0.1	1.2	0.2	1.2

Source: Commission services.

Table A 137 - The cost of ageing overview – Higher employment rate (+1 p.p.) scenario – Difference with Baseline (as % of GDP)

	Pensions			Health care			Long-term care			Unemployment benefits			Education			Total of all available items*		
	Level	Change	2007-2035	Level	Change	2007-2060	Level	Change	2007-2035	Level	Change	2007-2060	Level	Change	2007-2035	Level	Change	2007-2060
	2060	2007-2035	2007-2060	2060	2007-2035	2007-2060	2060	2007-2035	2007-2060	2060	2007-2035	2007-2060	2060	2007-2035	2007-2060	2060	2007-2035	2007-2060
BE	-0.2	-0.2	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	-0.6	-0.5	-0.6
BG	-0.3	-0.2	-0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-0.3	-0.3
CZ	0.2	-0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.3	-0.2	0.3
DK	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-0.3	-0.3	-0.1	-0.1	-0.1	-0.5	-0.6	-0.5
DE	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	0.0	0.0	0.0	-0.3	-0.3	-0.3
EE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0
IE	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	-0.4	-0.4	-0.4
EL	-0.3	-0.3	-0.2	0.0	0.0	0.0	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	-0.1	-0.4	-0.4	-0.4
ES	-0.2	-0.1	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.2	-0.2	0.0	0.0	0.0	-0.5	-0.5	-0.5
FR	-0.2	-0.2	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	-0.5	-0.5	-0.5
IT	0.0	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.3	-0.2
CY	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.3	-0.3	-0.3
LV	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	0.0	0.0	0.0	-0.1	-0.1	-0.1
LT	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.2	-0.2
LU	0.0	-0.2	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	-0.1	-0.1	-0.1	0.0	0.0	0.0	-0.3	-0.4	-0.3
HU	0.0	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.3	-0.2
MT	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.3	-0.2
NL	-0.1	-0.1	-0.1	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.4	-0.4	-0.4	-0.1	-0.1	-0.1	-0.7	-0.6	-0.7
AT	-0.3	-0.3	-0.3	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	-0.5	-0.5	-0.5
PL	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.2	-0.1
PT	-0.2	-0.1	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	-0.4	-0.4	-0.4
RO	-0.3	-0.1	-0.3	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	0.0	0.0	0.0	-0.3	-0.2	-0.3
SI	-0.2	-0.1	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.4	-0.3	-0.4
SK	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1
FI	-0.1	-0.2	-0.1	0.0	0.0	0.0	-0.1	0.0	0.0	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	-0.5	-0.5	-0.5
SE	-0.1	-0.1	-0.1	0.0	0.0	0.0	-0.1	0.0	0.0	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	-0.4	-0.4	-0.4
UK	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	0.0	0.0	0.0	-0.2	-0.2	-0.2
NO	-0.3	-0.1	-0.3	0.0	0.0	0.0	-0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.6	-0.4	-0.6
EA12	-0.1	-0.2	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	-0.4	-0.4	-0.4
EU27	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.3	-0.4	-0.3
EU15	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	-0.4	-0.4	-0.4
EU10	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.2	-0.1
EU25	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1	-0.3	-0.4	-0.3
EA16	-0.1	-0.2	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	-0.4	-0.4	-0.4
EU12	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.2	-0.1

Source: Commission services.

Table A 138 - The cost of ageing overview – Higher employment rate (+5p.p.) for older workers scenario – Difference with Baseline (as % of GDP)

	Pensions			Health care			Long-term care			Unemployment benefits			Education			Total of all available items*		
	Level	Change	2007-2035	2007-2035	2007-2060	Level	Change	2007-2035	2007-2060	Level	Change	2007-2060	Level	Change	2007-2035	2007-2060	Level	Change
BE	-0.4	-0.4	0.0	0.01	0.01	-0.04	-0.02	0.00	-0.04	0.00	0.00	0.00	-0.08	-0.08	-0.08	-0.49	-0.46	-0.49
BG	0.2	-0.1	0.2	0.01	0.01	-0.01	0.00	0.00	-0.01	0.00	0.00	0.00	-0.04	-0.04	-0.04	0.12	-0.16	0.12
CZ	1.0	0.0	1.0	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.02	-0.03	-0.02	0.99	-0.04	0.99
DK	-0.1	-0.1	-0.1	0.01	0.01	-0.04	-0.03	-0.04	-0.04	-0.01	-0.01	-0.01	-0.09	-0.10	-0.09	-0.24	-0.26	-0.24
DE	-0.1	-0.1	-0.1	0.01	0.01	-0.03	-0.02	-0.02	-0.03	-0.01	-0.01	-0.01	-0.05	-0.05	-0.05	-0.14	-0.18	-0.14
EE	0.0	0.0	0.0	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.04	-0.04	-0.04	-0.01	-0.05	-0.01
IE	-0.1	-0.1	-0.1	0.01	0.01	-0.02	-0.01	-0.01	-0.02	-0.01	-0.01	-0.01	-0.05	-0.04	-0.05	-0.21	-0.12	-0.21
EL	-0.3	-0.3	-0.3	0.01	0.01	-0.05	-0.03	-0.03	-0.05	0.00	0.00	0.00	-0.06	-0.05	-0.06	-0.41	-0.39	-0.37
ES	0.0	-0.2	0.0	0.01	0.01	-0.02	-0.01	-0.02	-0.02	-0.01	-0.02	-0.01	-0.05	-0.05	-0.05	-0.10	-0.30	-0.10
FR	-0.4	-0.5	-0.4	0.01	0.01	-0.03	-0.02	-0.02	-0.03	-0.01	-0.01	-0.01	-0.06	-0.07	-0.06	-0.53	-0.60	-0.53
IT	0.1	-0.3	0.1	0.01	0.01	-0.05	-0.03	-0.03	-0.05	-0.04	0.00	0.00	-0.06	-0.06	-0.06	-0.07	-0.40	-0.04
CY	-0.1	-0.1	-0.1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.06	-0.05	-0.06	-0.11	-0.12	-0.11
LV	0.0	0.0	0.0	0.00	0.00	-0.01	-0.01	-0.01	-0.01	0.00	0.00	0.00	-0.04	-0.04	-0.04	-0.06	-0.08	-0.06
LT	-0.1	-0.1	-0.1	0.01	0.01	-0.02	-0.01	-0.02	-0.02	0.00	0.00	0.00	-0.05	-0.04	-0.05	-0.20	-0.13	-0.20
LU	-0.1	-0.2	-0.1	0.01	0.01	-0.05	-0.02	-0.02	-0.05	-0.01	-0.01	-0.01	-0.05	-0.05	-0.05	-0.24	-0.26	-0.23
HU	-0.2	-0.2	-0.2	0.01	0.01	-0.01	0.00	0.00	-0.01	0.00	0.00	0.00	-0.06	-0.06	-0.06	-0.24	-0.27	-0.24
MT	-0.1	-0.1	-0.1	0.01	0.01	-0.04	-0.02	-0.02	-0.04	-0.01	-0.01	-0.01	-0.07	-0.06	-0.07	-0.18	-0.22	-0.18
NL	-0.1	-0.1	-0.1	0.01	0.01	-0.10	-0.05	-0.10	-0.10	-0.01	-0.01	-0.01	-0.05	-0.06	-0.05	-0.29	-0.21	-0.29
AT	-0.5	-0.3	-0.5	0.01	0.01	-0.03	-0.02	-0.02	-0.03	-0.01	-0.01	-0.01	-0.05	-0.06	-0.05	-0.57	-0.35	-0.57
PL	-0.1	-0.1	-0.1	0.01	0.01	-0.02	-0.01	-0.02	-0.02	0.00	0.00	0.00	-0.05	-0.04	-0.05	-0.12	-0.16	-0.12
PT	-0.2	-0.1	-0.2	0.01	0.01	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.06	-0.05	-0.06	-0.23	-0.18	-0.23
RO	-0.4	-0.2	-0.4	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.04	-0.03	-0.04	-0.45	-0.20	-0.45
SI	0.1	-0.1	0.1	0.01	0.01	-0.02	-0.01	-0.02	-0.02	0.00	0.00	0.00	-0.07	-0.07	-0.07	0.06	-0.19	0.06
SK	-0.1	-0.1	-0.1	0.01	0.01	-0.01	0.00	-0.01	-0.01	0.00	0.00	0.00	-0.03	-0.03	-0.03	-0.11	-0.10	-0.11
FI	-0.1	-0.2	-0.1	0.01	0.01	-0.05	-0.03	-0.03	-0.05	-0.01	-0.01	-0.01	-0.06	-0.07	-0.06	-0.25	-0.33	-0.25
SE	-0.2	-0.1	-0.2	0.01	0.01	-0.06	-0.04	-0.04	-0.06	-0.01	-0.01	-0.01	-0.06	-0.06	-0.06	-0.29	-0.21	-0.29
UK	-0.1	-0.1	-0.1	0.01	0.01	-0.01	-0.01	-0.01	-0.01	0.00	0.00	0.00	-0.04	-0.04	-0.04	-0.15	-0.13	-0.15
NO	;	;	;	0.01	0.01	-0.06	-0.03	-0.03	-0.06	-0.01	0.00	-0.01	-0.10	-0.09	-0.10	;	;	;
EA12	-0.2	-0.3	-0.2	0.01	0.01	-0.04	-0.02	-0.02	-0.04	-0.02	-0.01	-0.01	-0.06	-0.06	-0.06	-0.29	-0.33	-0.28
EU27	-0.2	-0.2	-0.2	0.01	0.01	-0.03	-0.02	-0.02	-0.03	-0.01	-0.01	-0.01	-0.05	-0.05	-0.05	-0.24	-0.28	-0.23
EU15	-0.2	-0.2	-0.2	0.01	0.01	-0.03	-0.02	-0.02	-0.03	-0.01	-0.01	-0.01	-0.05	-0.05	-0.05	-0.26	-0.29	-0.25
EU10	0.1	-0.1	0.1	0.00	0.00	0.00	-0.01	-0.01	-0.01	0.00	0.00	0.00	-0.05	-0.04	-0.05	0.07	-0.14	0.07
EU25	-0.2	-0.2	-0.2	0.01	0.01	-0.03	-0.02	-0.02	-0.03	-0.01	-0.01	-0.01	-0.05	-0.05	-0.05	-0.24	-0.28	-0.23
EA16	-0.2	-0.2	-0.2	0.01	0.01	-0.04	-0.02	-0.02	-0.04	-0.01	-0.01	-0.01	-0.06	-0.06	-0.06	-0.29	-0.33	-0.28
EU12	0.0	-0.1	0.0	0.00	0.00	-0.01	0.00	0.00	-0.01	0.00	0.00	0.00	-0.04	-0.04	-0.04	-0.01	-0.15	-0.01

Source: Commission services.

Table A 139 – The cost of ageing overview – Higher labour productivity (+0.25p.p.) scenario – Difference with Baseline (as % of GDP)

	Pensions			Health care			Long-term care			Unemployment benefits			Education			Total of all available items*		
	Level	Change	2007-2035	2007-2060	Level	Change	2007-2035	2007-2060	Level	Change	2007-2035	2007-2060	Level	Change	2007-2035	2007-2060	Level	Change
	2060	2007-2035	2007-2060	2007-2060	2060	2007-2035	2007-2060	2007-2060	2060	2007-2035	2007-2060	2007-2060	2060	2007-2035	2007-2060	2060	2007-2035	2007-2060
BE	-0.9	-0.1	-0.9	0.04	0.04	0.01	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.87	-0.10	-0.87
BG	-0.3	-0.1	-0.3	0.03	0.01	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.25	-0.06	-0.25
CZ	-0.2	0.0	-0.2	0.04	0.01	0.01	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.16	-0.04	-0.16
DK	0.0	0.0	0.0	0.03	0.01	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.02
DE	0.0	0.0	0.0	0.05	0.01	0.01	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.05	0.09
EE	-0.1	0.0	-0.1	0.03	0.01	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.09	-0.02	-0.09
IE	0.0	0.0	0.0	0.04	0.01	0.01	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.01	0.04
EL	-2.1	-0.3	-2.0	0.03	0.01	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-2.04	-0.25	-2.00
ES	-1.0	-0.1	-1.0	0.03	0.01	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.93	-0.13	-0.93
FR	-0.8	-0.2	-0.8	0.05	0.01	0.01	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.74	-0.17	-0.74
IT	-0.5	-0.2	-0.5	0.03	0.01	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.47	-0.16	-0.47
CY	-0.7	-0.3	-0.7	0.02	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.66	-0.31	-0.66
LV	-0.2	0.0	-0.2	0.02	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.20	-0.04	-0.20
LT	0.0	0.0	0.0	0.03	0.01	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01
LU	-0.1	-0.1	-0.1	0.03	0.01	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.09	-0.06	-0.09
HU	-0.4	-0.1	-0.4	0.04	0.01	0.01	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.33	-0.07	-0.33
MT	-0.7	-0.1	-0.7	0.04	0.01	0.01	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.69	-0.09	-0.69
NL	0.0	0.0	0.0	0.03	0.01	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01
AT	-1.1	-0.2	-1.1	0.04	0.01	0.01	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-1.10	-0.15	-1.10
PL	-0.4	-0.1	-0.4	0.02	0.01	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.39	-0.09	-0.39
PT	-0.7	-0.1	-0.7	0.04	0.01	0.01	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.69	-0.13	-0.69
RO	0.0	0.0	0.0	0.02	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SI	0.2	0.1	0.2	0.04	0.01	0.01	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.14	0.25
SK	-0.1	0.0	-0.1	0.04	0.01	0.01	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.09	-0.04	-0.09
FI	-0.4	-0.1	-0.4	0.03	0.01	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.41	-0.11	-0.41
SE	-0.1	0.0	-0.1	0.04	0.01	0.01	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.11	-0.02	-0.11
UK	-0.1	0.0	-0.1	0.05	0.01	0.01	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.02	0.04	-0.02
NO	0.0	0.0	0.0	0.03	0.01	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	-0.01	0.02
EA12	-0.5	-0.1	-0.5	0.04	0.01	0.01	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.51	-0.09	-0.51
EU27	-0.4	-0.1	-0.4	0.04	0.01	0.01	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.37	-0.06	-0.37
EU15	-0.4	-0.1	-0.4	0.04	0.01	0.01	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.38	-0.06	-0.38
EU10	-0.3	-0.1	-0.3	0.03	0.01	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.27	-0.06	-0.27
EU25	-0.4	-0.1	-0.4	0.04	0.01	0.01	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.37	-0.06	-0.37
EA16	-0.5	-0.1	-0.5	0.04	0.01	0.01	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.50	-0.08	-0.50
EU12	-0.3	-0.1	-0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.1	-0.2

Source: Commission services.

STATISTICAL ANNEX – COUNTRY FICHES

BELGIUM

EC-EPC (AWG) 2009 PROJECTIONS

Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.0	1.75	1.76	1.76	1.77	1.78	1.78	1.79
Life expectancy at birth								
males	7.8	76.7	77.9	78.7	80.2	81.7	83.1	84.4
females	6.6	82.3	83.3	84.0	85.4	86.6	87.8	88.9
Life expectancy at 65								
males	5.2	16.5	17.2	17.7	18.8	19.8	20.7	21.7
females	5.0	20.1	20.8	21.4	22.3	23.3	24.2	25.1
Net migration (thousand)	-27.4	50.7	41.0	36.2	31.4	27.1	25.2	23.3
Net migration as % of population	-0.3	0.5	0.4	0.3	0.3	0.2	0.2	0.2
Population (million)	1.6	10.7	11.1	11.3	11.7	12.0	12.2	12.3
Children population (0-14) as % of total population	-1.3	16.9	16.7	16.7	16.3	15.8	15.7	15.6
Prime age population (25-54) as % of total population	-6.4	42.0	40.4	39.1	37.0	36.4	35.8	35.6
Working age population (15-64) as % of total population	-8.2	66.1	65.0	63.8	60.9	59.2	58.6	57.8
Elderly population (65 and over) as % of total population	9.5	17.0	18.3	19.5	22.9	25.0	25.7	26.5
Very elderly population (80 and over) as % of total population	5.6	4.7	5.4	5.6	6.5	8.4	10.0	10.2
Very elderly population (80 and over) as % of elderly population	11.2	27.5	29.5	28.6	28.2	33.5	38.7	38.6
Very elderly population (80 and over) as % of working age population	10.6	7.1	8.3	8.8	10.6	14.2	17.0	17.7
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	1.8	2.5	2.3	1.9	1.6	1.8	1.7	1.7
Employment (growth rate)	0.2	1.3	0.6	0.2	-0.1	0.1	0.0	0.0
Labour input : hours worked (growth rate)	0.2	1.2	0.6	0.1	-0.1	0.1	0.0	0.0
Labour productivity per hour (growth rate)	1.7	1.3	1.7	1.8	1.7	1.7	1.7	1.7
TFP (growth rate)	1.1	0.8	1.1	1.1	1.1	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.6	0.5	0.6	0.7	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	1.5	1.8	1.8	1.5	1.3	1.6	1.6	1.6
GDP per worker (growth rate)	1.7	1.2	1.7	1.7	1.7	1.7	1.7	1.7
GDP in 2007 prices (in millions euros)		330.8	400.0	443.1	521.6	617.6	731.4	863.4
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	135	6977	7193	7218	7147	7126	7144	7112
Population growth (working age:15-64)	-1.0	1.0	0.1	0.0	-0.2	0.1	0.0	0.0
Labour force 15-64 (thousands)	262	4698	4998	5036	4960	4970	4977	4960
Participation rate (15-64)	2.4	67.3	69.5	69.8	69.4	69.7	69.7	69.7
young (15-24)	1.2	34.4	36.7	35.9	35.7	35.7	35.8	35.6
prime-age (25-54)	1.4	85.3	86.5	86.6	86.6	86.7	86.7	86.7
older (55-64)	13.0	36.2	46.0	48.9	48.8	49.5	49.4	49.1
Participation rate (15-64) - FEMALES	5.2	60.7	64.5	65.3	65.6	65.9	65.9	65.9
young (15-24)	0.6	32.1	33.8	33.1	32.9	32.8	32.9	32.7
prime-age (25-54)	3.9	78.1	80.9	81.5	81.8	81.9	82.0	81.9
older (55-64)	19.9	27.7	41.3	45.2	47.0	47.8	47.9	47.6
Participation rate (15-64) - MALES	-0.5	73.9	74.4	74.2	73.2	73.5	73.3	73.4
young (15-24)	1.8	36.6	39.5	38.6	38.4	38.5	38.5	38.4
prime-age (25-54)	-1.2	92.5	92.0	91.6	91.4	91.3	91.4	91.3
older (55-64)	5.8	44.8	50.8	52.7	50.7	51.1	50.9	50.6
Employment rate (15-64)	3.1	62.3	64.7	65.4	65.1	65.4	65.4	65.4
Employment rate (20-64)	3.4	67.9	70.2	70.9	70.9	71.3	71.1	71.3
Employment rate (15-71)	1.3	57.2	58.9	59.2	58.1	58.7	58.8	58.5
Unemployment rate (15-64)	-1.3	7.5	6.8	6.2	6.2	6.2	6.2	6.2
Employment (15-64) (in millions)	0.3	4.3	4.7	4.7	4.7	4.7	4.7	4.7
share of young (15-24)	0%	8%	9%	8%	9%	9%	9%	9%
share of prime-age (25-54)	-5%	82%	78%	77%	76%	77%	77%	77%
share of older (55-64)	4%	10%	13%	15%	15%	14%	15%	14%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	1.7	18.0	19.7	21.1	20.6	19.7	20.5	19.7
Old-age dependency ratio (2)	20	26	28	31	38	42	44	46
Total dependency ratio (3)	21	51	54	57	64	69	71	73
Total economic dependency ratio (4)	19	143	137	138	150	156	159	162
Economic old-age dependency ratio (15-64) (5)	27	41	42	45	56	63	65	68
Pension expenditure projections								
BASELINE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	4.8	10.0	10.9	11.8	13.9	14.6	14.7	14.7
Old-age and early pensions, gross	4.8	9.2	10.1	11.0	13.1	13.9	14.0	14.0
Of which : earnings-related pensions, gross	4.9	9.1	10.0	10.9	13.0	13.8	13.9	14.0
Other pensions (disability, survivors), gross	-0.1	0.8	0.8	0.8	0.8	0.7	0.7	0.7
Occupational pensions, gross	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

BELGIUM

EC-EPC (AWG) 2009 PROJECTIONS

Social security pensions, net	:	:	:	:	:	:	:	:
Social security pensions, contributions	:	:	:	:	:	:	:	:
Social security pensions, assets	-4.7	4.7	13.1	20.8	15.5	0.0	0.0	0.0
ADDITIONAL INDICATORS	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	:	:	:	:	:	:	:	:
Pensioners (social security, in 1000 persons)	1755	2548	2870	3126	3655	3992	4180	4303
Pensioners aged 65+ (1000 pers)	1704.0	1875	2139	2348	2896	3266	3430	3579
Share of pensioners below age 65 as % of all pensioners	-10%	26%	25%	25%	21%	18%	18%	17%
Average gross pension (social security - € 1000 in 2007 prices)	16.6	13.0	15.2	16.8	19.8	22.6	25.8	29.6
Benefit ratio (Social security pensions)	-1.6	44.8	47.5	48.2	47.9	46.3	44.6	43.2
Gross replacement rate at retirement (social security pensions)	-3.0	44.7	45.0	45.5	44.2	42.8	42.4	41.7
Contributors (social security pensions, in 1000 persons)	374	4406	4742	4817	4785	4783	4786	4780
Support ratio (contributors/100 pensioners, social security pensions)	-61.8	173	165	154	131	120	114	111
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.4	0.0	0.0	0.0	0.1	0.2	0.3	0.4
Old-age and early pensions, gross	0.3	0.0	0.0	0.0	0.1	0.2	0.3	0.3
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.9	0.0	0.0	-0.1	-0.3	-0.6	-0.7	-0.9
Old-age and early pensions, gross	-0.9	0.0	0.0	-0.1	-0.3	-0.5	-0.7	-0.9
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	2.1	0.0	0.4	0.7	1.6	2.3	2.4	2.1
Old-age and early pensions, gross	2.1	0.0	0.3	0.7	1.5	2.2	2.3	2.1
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.2	0.0	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2
Old-age and early pensions, gross	-0.2	0.0	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2
HIGH OLDER WORKERS EMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.4	0.0	-0.2	-0.4	-0.4	-0.4	-0.4	-0.4
Old-age and early pensions, gross	-0.4	0.0	-0.2	-0.3	-0.4	-0.3	-0.4	-0.4
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	Ch 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	4.7	10.1	10.9	11.8	13.9	14.6	14.7	14.7
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		0.1	0.9	1.8	3.9	4.6	4.8	4.8
Dependency ratio	7.4	-0.1	0.9	1.8	4.5	6.2	6.7	7.4
Coverage ratio	-1.0	0.1	0.1	0.1	-0.4	-0.8	-0.7	-0.9
Employment effect	-0.5	0.0	-0.4	-0.5	-0.4	-0.5	-0.5	-0.5
Benefit ratio	-1.0	0.0	0.4	0.5	0.4	0.0	-0.6	-1.0
Interaction effect (residual)	-0.3	0.0	0.0	-0.1	-0.2	-0.2	-0.2	-0.3
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	4.8	0.89	0.94	0.90	0.20	0.05	-0.05	
Dependency ratio	7.4	0.86	0.93	1.45	0.64	0.29	0.37	
Coverage ratio	-0.9	0.06	0.00	-0.36	-0.12	0.02	-0.13	
Employment effect	-0.5	-0.38	-0.12	-0.01	-0.04	0.01	-0.04	
Benefit ratio	-1.0	0.39	0.15	-0.11	-0.28	-0.26	-0.23	
Interaction effect (residual)	-0.25	-0.04	-0.02	-0.08	0.00	-0.02	-0.02	
Health care								
HEALTH CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.2	7.6	7.9	8.1	8.4	8.7	8.8	8.8
Pure ageing scenario	1.5	7.6	7.9	8.0	8.5	8.8	9.0	9.1
Labour intensity scenario	2.1	7.6	7.6	7.9	8.7	9.2	9.5	9.7
Constant health scenario	0.3	7.6	7.7	7.7	7.9	8.1	8.0	7.9
Fast cost growth scenario	2.1	7.6	8.4	8.6	9.1	9.5	9.6	9.7
Cost convergence scenario	:	:	:	:	:	:	:	:
Death-related cost scenario	1.2	7.6	7.7	7.8	8.2	8.6	8.7	8.8
Income elasticity scenario	1.8	7.6	8.0	8.2	8.7	9.1	9.4	9.5
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.4	1.5	1.6	1.7	2.0	2.5	2.8	2.9
Pure demographic scenario	1.6	1.5	1.6	1.7	2.0	2.6	2.9	3.0
GDP per capita scenario	1.3	1.5	1.7	1.7	2.0	2.4	2.7	2.8
Constant disability scenario	1.2	1.5	1.6	1.6	1.9	2.3	2.6	2.7
GDP per worker fast growth scenario	1.9	1.5	1.8	1.9	2.2	2.8	3.2	3.4
Shift 1% of dependents from informal to home care scenario	1.8	1.5	1.7	1.8	2.2	2.8	3.1	3.3
Shift 1% of dependents from informal to institutional care scenario	2.2	1.5	1.9	2.1	2.5	3.1	3.5	3.7
Shift 1% of dependents from informal to home/institutional care scenario	2.0	1.5	1.8	1.9	2.4	2.9	3.3	3.5

BELGIUM

EC-EPC (AWG) 2009 PROJECTIONS

NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)	% Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	103%	455	523	556	667	800	887	922
of which: receiving formal care	152%	248	300	322	384	494	585	624
relying on informal or no care	44%	207	223	234	283	306	301	298
Pure demographic scenario	115%	455	528	565	686	835	933	978
of which: receiving formal care	165%	248	303	327	395	513	612	656
relying on informal or no care	55%	207	225	238	291	321	321	321
Constant disability scenario	90%	455	517	548	647	765	841	866
of which: receiving formal care	139%	248	297	318	373	474	559	591
relying on informal or no care	32%	207	220	230	274	291	282	275
Shift 1% of dependents from informal to home scenario	115%	455	528	565	686	835	933	978
of which: receiving formal care	205%	248	345	383	463	597	705	754
relying on informal or no care	8%	207	183	181	223	238	227	223

Education

EDUCATION SPENDING AS % OF GDP - BASELINE	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Total	-0.04	5.5	5.2	5.1	5.4	5.4	5.4	5.5
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (6%) - Staff (80%) - Other (15%)</i>								
Primary	0.01	1.3	1.3	1.3	1.3	1.3	1.3	1.3
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (1%) - Staff (86%) - Other (13%)</i>								
Low secondary	:	:	:	:	:	:	:	:
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (-%) - Staff (-%) - Other (-%)</i>								
Upper secondary	-0.01	2.9	2.6	2.6	2.8	2.8	2.8	2.9
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (3%) - Staff (84%) - Other (13%)</i>								
Tertiary education	-0.04	1.3	1.2	1.2	1.2	1.3	1.3	1.3
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (15%) - Staff (64%) - Other (21%)</i>								
Number of students (in thousands)								
Total	170	2404	2418	2450	2533	2545	2550	2574
as % of population 5-24	1%	97%	95%	97%	97%	97%	98%	98%
Primary	61	734	763	776	794	778	789	794
Low secondary	31	428	425	444	452	453	455	459
Upper secondary	60	842	822	830	874	892	890	902
Tertiary education	18	400	407	400	413	421	416	418
Number of teachers (in thousands)								
Total	13	183	184	187	193	194	195	197
Primary	5	58	60	61	63	62	62	63
Low secondary	3	38	38	39	40	40	40	41
Upper secondary	5	69	67	68	72	73	73	74
Tertiary education	1	18	19	18	19	19	19	19
EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)								
Total	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
	0.25	-0.2	0.0	0.0	0.1	0.1	0.1	0.1
EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/ STUDENTS (DIFF. FROM BASELINE)								
Total	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
	0.76	-0.2	0.2	0.4	0.5	0.5	0.5	0.5
EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)								
Total	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
	0.08	0.1	0.2	0.2	0.2	0.2	0.2	0.2

Unemployment benefit

UNEMPLOYMENT BENEFIT - BASELINE	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Unemployment benefit spending as % of GDP	-0.4	1.9	1.7	1.5	1.5	1.5	1.5	1.5

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

BULGARIA

EC-EPC (AWG) 2009 PROJECTIONS

Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.2	1.38	1.41	1.42	1.46	1.49	1.52	1.55
Life expectancy at birth								
males	11.9	69.7	71.6	72.8	75.3	77.5	79.6	81.6
females	9.8	76.7	78.2	79.3	81.3	83.1	84.9	86.5
Life expectancy at 65								
males	6.9	13.1	14.1	14.8	16.1	17.5	18.8	20.0
females	7.0	16.1	17.1	17.8	19.2	20.5	21.8	23.1
Net migration (thousand)	0.2	-1.4	1.7	0.2	-0.5	2.5	1.6	-1.2
Net migration as % of population	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Population (million)	-2.2	7.6	7.4	7.2	6.8	6.3	5.9	5.5
Children population (0-14) as % of total population	-1.4	13.4	14.2	14.3	12.6	12.0	12.3	12.0
Prime age population (25-54) as % of total population	-9.4	42.8	43.3	42.8	39.3	35.9	33.2	33.4
Working age population (15-64) as % of total population	-15.4	69.3	67.0	65.4	64.2	61.3	56.4	53.8
Elderly population (65 and over) as % of total population	16.9	17.3	18.9	20.3	23.3	26.7	31.3	34.2
Very elderly population (80 and over) as % of total population	9.3	3.6	4.4	4.6	6.1	8.0	9.6	12.8
Very elderly population (80 and over) as % of elderly population	16.9	20.6	23.1	22.5	26.2	29.9	30.7	37.5
Very elderly population (80 and over) as % of working age population	18.7	5.1	6.5	7.0	9.5	13.0	17.0	23.8
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	1.9	6.4	3.0	2.4	1.7	1.4	0.3	0.8
Employment (growth rate)	-0.8	2.3	-0.5	-0.9	-1.0	-1.3	-1.4	-0.9
Labour input : hours worked (growth rate)	-0.8	2.4	-0.5	-0.9	-1.0	-1.3	-1.4	-0.9
Labour productivity per hour (growth rate)	2.7	4.0	3.6	3.3	2.7	2.7	1.7	1.7
TFP (growth rate)	1.5	1.2	1.5	1.7	1.7	1.7	1.1	1.1
Capital deepening (contribution to labour productivity growth)	1.3	2.7	2.1	1.6	1.0	1.0	0.6	0.6
GDP per capita (growth rate)	2.5	7.0	3.5	2.9	2.4	2.0	1.0	1.6
GDP per worker (growth rate)	2.7	4.0	3.6	3.3	2.7	2.7	1.7	1.7
GDP in 2007 prices (in millions euros)		28.9	40.1	45.6	55.5	64.5	69.3	73.9
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	-2370	5323	4943	4701	4332	3878	3341	2953
Population growth (working age:15-64)	-0.4	-0.4	-1.1	-0.9	-0.8	-1.5	-1.4	-0.8
Labour force 15-64 (thousands)	-1511	3557	3457	3304	2989	2638	2267	2045
Participation rate (15-64)	2.4	66.8	69.9	70.3	69.0	68.0	67.9	69.3
young (15-24)	-0.3	32.0	34.9	30.6	31.7	33.0	31.6	31.7
prime-age (25-54)	2.1	84.0	85.1	85.7	86.0	85.7	86.2	86.1
older (55-64)	3.6	46.6	47.4	48.2	49.8	49.0	47.6	50.2
Participation rate (15-64) - FEMALES	3.3	62.3	65.8	66.3	65.1	64.0	63.8	65.6
young (15-24)	-0.3	28.4	30.9	27.2	28.1	29.2	28.0	28.0
prime-age (25-54)	2.7	80.7	82.0	82.6	83.3	82.9	83.5	83.4
older (55-64)	5.6	38.1	41.3	42.2	43.0	42.3	41.0	43.8
Participation rate (15-64) - MALES	1.4	71.4	74.1	74.3	72.9	72.0	71.8	72.9
young (15-24)	-0.2	35.4	38.7	33.9	35.1	36.6	35.1	35.2
prime-age (25-54)	1.4	87.3	88.3	88.7	88.7	88.4	88.9	88.7
older (55-64)	0.5	56.3	54.3	54.9	57.0	55.9	54.5	56.8
Employment rate (15-64)	3.9	62.1	66.6	67.0	65.7	64.8	64.7	66.0
Employment rate (20-64)	3.6	67.9	70.9	71.7	71.0	69.4	69.5	71.5
Employment rate (15-71)	1.1	57.0	60.7	60.6	59.6	57.7	56.6	58.0
Unemployment rate (15-64)	-2.3	7.0	4.7	4.7	4.7	4.7	4.7	4.7
Employment (15-64) (in millions)	-1.4	3.3	3.3	3.1	2.8	2.5	2.2	1.9
share of young (15-24)	-1%	8%	7%	6%	7%	7%	7%	7%
share of prime-age (25-54)	-1%	78%	79%	80%	77%	74%	75%	77%
share of older (55-64)	2%	13%	14%	14%	16%	19%	18%	15%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	1.4	19.4	20.3	20.4	22.2	25.9	25.6	20.8
Old-age dependency ratio (2)	39	25	28	31	36	44	55	64
Total dependency ratio (3)	41	44	49	53	56	63	77	86
Total economic dependency ratio (4)	48	128	122	125	134	147	169	176
Economic old-age dependency ratio (15-64) (5)	53	38	40	43	52	63	80	91
Pension expenditure projections								
BASELINE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	3.0	8.3	8.6	8.4	8.6	9.5	10.8	11.3
Old-age and early pensions, gross	3.1	6.8	7.0	6.9	7.1	8.1	9.4	10.0
Of which : earnings-related pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other pensions (disability, survivors), gross	-0.1	1.4	1.6	1.5	1.5	1.4	1.4	1.3
Occupational pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Private mandatory pensions, gross	1.7	0.0	0.0	0.0	0.3	0.8	1.4	1.7

BULGARIA**EC-EPC (AWG) 2009 PROJECTIONS**

Social security pensions, net	3.0	8.3	8.6	8.4	8.6	9.5	10.8	11.3
Social security pensions, contributions	2.4	5.0	7.5	7.5	7.4	7.3	7.3	7.4
Social security pensions, assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ADDITIONAL INDICATORS	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	0.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Pensioners (social security, in 1000 persons)	37	2234	2182	2160	2205	2346	2412	2271
Pensioners aged 65+ (1000 pers)	491.3	1366	1376	1426	1535	1687	1848	1857
Share of pensioners below age 65 as % of all pensioners	-21%	39%	37%	34%	30%	28%	23%	18%
Average gross pension (social security - € 1000 in 2007 prices)	2.6	1.1	1.6	1.8	2.2	2.6	3.1	3.7
Benefit ratio (Social security pensions)	-8.8	44.4	47.1	44.3	40.3	37.3	35.6	35.6
Gross replacement rate at retirement (social security pensions)	35.8	0.0	42.3	41.8	38.3	37.0	36.2	35.8
Contributors (social security pensions, in 1000 persons)	-1006	2864	2927	2837	2622	2389	2121	1857
Support ratio (contributors/100 pensioners, social security pensions)	-46.4	128	134	131	119	102	88	82
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.3	0.0	0.0	0.0	0.0	0.1	0.2	0.3
Old-age and early pensions, gross	0.3	0.0	0.0	0.0	0.0	0.1	0.2	0.3
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.3	0.0	0.0	-0.1	-0.1	-0.2	-0.2	-0.3
Old-age and early pensions, gross	-0.2	0.0	0.0	-0.1	-0.1	-0.1	-0.2	-0.2
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.2	0.0	0.0	0.0	0.0	0.1	0.2	0.2
Old-age and early pensions, gross	0.2	0.0	0.0	0.0	0.0	0.1	0.2	0.2
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.3	0.0	-0.1	-0.2	-0.2	-0.3	-0.3	-0.3
Old-age and early pensions, gross	-0.2	0.0	-0.1	-0.2	-0.2	-0.2	-0.3	-0.2
HIGH OLDER WORKERS EMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.2	0.0	0.0	-0.1	-0.3	-0.3	-0.1	0.2
Old-age and early pensions, gross	0.1	0.0	-0.1	-0.3	-0.4	-0.4	-0.2	0.1
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	Ch 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	2.5	8.8	8.6	8.4	8.6	9.5	10.8	11.3
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		0.5	0.3	0.1	0.3	1.2	2.5	3.0
Dependency ratio	9.0	0.0	1.1	2.0	3.3	5.0	7.5	9.1
Coverage ratio	-3.0	0.0	-0.6	-1.1	-1.5	-1.6	-2.2	-3.0
Employment effect	-0.4	-0.1	-0.6	-0.6	-0.4	-0.3	-0.3	-0.5
Benefit ratio	-2.4	0.6	0.6	0.1	-0.7	-1.3	-1.8	-1.8
Interaction effect (residual)	-0.8	0.0	-0.2	-0.3	-0.4	-0.6	-0.7	-0.8
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	3.0	0.34	-0.24	0.16	0.50	0.71	0.06	
Dependency ratio	9.1	1.09	0.90	0.63	1.03	1.16	0.40	
Coverage ratio	-3.0	-0.58	-0.49	-0.14	-0.14	-0.27	-0.30	
Employment effect	-0.5	-0.56	-0.04	0.08	0.05	0.03	-0.11	
Benefit ratio	-1.8	0.62	-0.50	-0.37	-0.34	-0.15	0.02	
Interaction effect (residual)	-0.77	-0.24	-0.10	-0.04	-0.09	-0.06	0.05	
Health care								
HEALTH CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	0.7	4.7	4.9	5.0	5.1	5.4	5.5	5.4
Pure ageing scenario	0.7	4.7	4.8	4.9	5.0	5.3	5.4	5.4
Labour intensity scenario	1.6	4.7	4.5	4.6	5.0	5.5	6.1	6.3
Constant health scenario	0.0	4.7	4.7	4.7	4.6	4.7	4.8	4.7
Fast cost growth scenario	1.1	4.7	5.2	5.2	5.4	5.7	5.8	5.8
Cost convergence scenario	4.2	4.7	5.1	5.3	5.9	6.8	7.7	8.9
Death-related cost scenario	0.6	4.7	4.7	4.8	5.0	5.2	5.3	5.3
Income elasticity scenario	1.2	4.7	5.0	5.1	5.4	5.7	5.8	5.9
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4
Pure demographic scenario	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4
GDP per capita scenario	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3
Constant disability scenario	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4
GDP per worker fast growth scenario	0.3	0.2	0.2	0.2	0.3	0.3	0.4	0.4
Shift 1% of dependents from informal to home care scenario	0.3	0.2	0.2	0.2	0.3	0.3	0.4	0.5
Shift 1% of dependents from informal to institutional care scenario	0.3	0.2	0.2	0.3	0.3	0.4	0.4	0.5
Shift 1% of dependents from informal to home/institutional care scenario	0.3	0.2	0.2	0.2	0.3	0.3	0.4	0.5

BULGARIA**EC-EPC (AWG) 2009 PROJECTIONS**

NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)	% CH 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	42%	841	883	925	999	1074	1175	1196
of which: receiving formal care	88%	97	105	112	128	146	164	182
relying on informal or no care	36%	744	777	813	871	927	1011	1013
Pure demographic scenario	44%	841	884	927	1003	1080	1185	1207
of which: receiving formal care	90%	97	106	112	129	147	166	184
relying on informal or no care	38%	744	778	815	875	933	1019	1023
Constant disability scenario	41%	841	882	923	995	1067	1165	1184
of which: receiving formal care	87%	97	105	112	128	145	163	181
relying on informal or no care	35%	744	776	811	867	922	1002	1003
Shift 1% of dependents from informal to home scenario	44%	841	884	927	1003	1080	1185	1207
of which: receiving formal care	215%	97	176	205	229	255	284	305
relying on informal or no care	21%	744	708	722	774	825	900	903
Education								
EDUCATION SPENDING AS % OF GDP - BASELINE	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Total	-0.25	3.3	2.7	2.8	2.9	2.7	2.9	3.0
Expenditure decomposition (broadly constant) : Transfers (16%) - Staff (52%) - Other (32%)								
Primary	0.09	0.8	0.9	0.9	0.8	0.8	0.9	0.9
Expenditure decomposition (broadly constant) : Transfers (15%) - Staff (51%) - Other (34%)								
Low secondary	0.00	0.8	0.7	0.7	0.7	0.7	0.8	0.8
Expenditure decomposition (broadly constant) : Transfers (16%) - Staff (53%) - Other (31%)								
Upper secondary	-0.18	1.0	0.7	0.7	0.8	0.7	0.8	0.8
Expenditure decomposition (broadly constant) : Transfers (20%) - Staff (54%) - Other (26%)								
Tertiary education	-0.16	0.7	0.5	0.5	0.5	0.5	0.5	0.5
Expenditure decomposition (broadly constant) : Transfers (11%) - Staff (48%) - Other (41%)								
Number of students (in thousands)								
Total	-486	1150	979	981	900	759	714	664
as % of population 5-24	2%	67%	68%	71%	69%	68%	70%	69%
Primary	-83	271	302	302	245	214	211	188
Low secondary	-105	280	250	270	237	194	190	175
Upper secondary	-176	363	244	257	261	210	194	187
Tertiary education	-121	235	184	152	158	140	119	114
Number of teachers (in thousands)								
Total	-37	86	72	73	67	56	53	49
Primary	-5	17	19	19	16	14	13	12
Low secondary	-8	22	20	22	19	16	15	14
Upper secondary	-15	30	20	21	22	17	16	16
Tertiary education	-8	16	13	11	11	10	8	8
EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)								
CH 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.12	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/ STUDENTS (DIFF. FROM BASELINE)								
CH 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.30	0.1	0.2	0.3	0.3	0.3	0.3	0.4
EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)								
CH 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.13	0.3	0.4	0.3	0.4	0.4	0.4	0.4
Unemployment benefit								
UNEMPLOYMENT BENEFIT - BASELINE								
CH 07-60	2007	2015	2020	2030	2040	2050	2060	
Unemployment benefit spending as % of GDP	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

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EC-EPC (AWG) 2009 PROJECTIONS

Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.2	1.33	1.36	1.38	1.41	1.45	1.49	1.52
Life expectancy at birth								
males	9.3	73.9	75.3	76.3	78.1	79.9	81.6	83.2
females	7.7	80.2	81.3	82.1	83.7	85.1	86.5	87.8
Life expectancy at 65								
males	6.1	14.7	15.6	16.2	17.4	18.6	19.7	20.8
females	6.0	18.1	18.9	19.5	20.7	21.9	23.0	24.0
Net migration (thousand)	-7.4	24.0	27.7	24.7	22.9	27.3	21.9	16.7
Net migration as % of population	-0.1	0.2	0.3	0.2	0.2	0.3	0.2	0.2
Population (million)	-0.8	10.3	10.5	10.5	10.4	10.2	9.9	9.5
Children population (0-14) as % of total population	-2.0	14.3	14.6	14.7	12.8	12.1	12.6	12.3
Prime age population (25-54) as % of total population	-10.2	44.1	43.6	43.6	39.7	36.1	33.9	33.9
Working age population (15-64) as % of total population	-16.7	71.1	67.5	65.1	64.3	61.6	56.5	54.4
Elderly population (65 and over) as % of total population	18.7	14.6	17.9	20.2	22.9	26.3	30.9	33.4
Very elderly population (80 and over) as % of total population	10.0	3.4	3.9	4.1	6.6	8.4	9.3	13.4
Very elderly population (80 and over) as % of elderly population	17.1	23.0	22.1	20.3	28.9	31.9	30.1	40.1
Very elderly population (80 and over) as % of working age population	19.9	4.7	5.8	6.3	10.3	13.6	16.5	24.6
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	1.8	5.2	3.0	2.5	1.4	0.9	0.7	1.1
Employment (growth rate)	-0.4	1.1	0.0	-0.4	-0.3	-0.8	-1.0	-0.5
Labour input : hours worked (growth rate)	-0.4	1.0	0.0	-0.4	-0.3	-0.8	-1.0	-0.5
Labour productivity per hour (growth rate)	2.2	4.1	3.0	2.9	1.8	1.7	1.7	1.7
TFP (growth rate)	1.4	3.1	1.8	1.8	1.2	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.8	1.0	1.2	1.2	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	1.9	4.8	2.9	2.5	1.7	1.1	1.1	1.6
GDP per worker (growth rate)	2.2	4.0	3.0	2.9	1.7	1.7	1.7	1.7
GDP in 2007 prices (in millions euros)		128.1	174.5	199.5	236.2	264.2	286.9	315.3
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	-2154	7325	7086	6863	6695	6260	5584	5171
Population growth (working age:15-64)	-0.9	0.4	-0.7	-0.5	-0.5	-1.3	-0.9	-0.5
Labour force 15-64 (thousands)	-1322	5126	5206	5075	4855	4525	4104	3803
Participation rate (15-64)	3.6	70.0	73.5	73.9	72.5	72.3	73.5	73.5
young (15-24)	-0.1	32.0	35.8	31.6	32.5	33.3	32.3	31.9
prime-age (25-54)	-0.9	87.7	87.6	87.4	87.3	86.5	86.7	86.9
older (55-64)	18.6	48.9	56.8	58.1	60.8	63.4	66.8	67.5
Participation rate (15-64) - FEMALES	6.5	61.6	66.1	66.7	66.0	66.0	67.8	68.1
young (15-24)	-0.1	26.9	30.1	26.6	27.3	27.9	27.2	26.8
prime-age (25-54)	0.7	80.2	80.7	80.6	81.4	80.2	80.4	80.9
older (55-64)	27.5	35.7	47.6	48.5	51.9	56.6	62.5	63.2
Participation rate (15-64) - MALES	0.6	78.3	80.7	81.0	78.8	78.5	79.0	78.9
young (15-24)	0.1	36.8	41.3	36.5	37.6	38.4	37.3	36.9
prime-age (25-54)	-2.3	95.0	94.3	93.9	93.1	92.7	92.9	92.8
older (55-64)	8.6	63.3	66.6	67.9	69.6	70.3	71.1	71.9
Employment rate (15-64)	4.0	66.2	70.2	70.6	69.2	69.0	70.2	70.2
Employment rate (20-64)	4.0	72.2	74.7	75.6	74.7	74.0	75.4	76.2
Employment rate (15-71)	1.6	61.8	63.9	64.5	63.9	62.4	62.9	63.4
Unemployment rate (15-64)	-0.9	5.4	4.5	4.5	4.5	4.5	4.5	4.5
Employment (15-64) (in millions)	-1.2	4.9	5.0	4.8	4.6	4.3	3.9	3.6
share of young (15-24)	-1%	8%	7%	6%	7%	7%	6%	7%
share of prime-age (25-54)	-4%	78%	77%	79%	75%	70%	71%	74%
share of older (55-64)	5%	14%	16%	15%	18%	23%	23%	19%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	0.7	19.8	19.8	19.0	21.8	25.9	24.5	20.5
Old-age dependency ratio (2)	41	21	26	31	36	43	55	61
Total dependency ratio (3)	43	41	48	54	56	62	77	84
Total economic dependency ratio (4)	45	110	109	114	121	130	146	155
Economic old-age dependency ratio (15-64) (5)	51	30	35	40	48	57	72	81
Pension expenditure projections								
BASELINE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	3.3	7.8	6.9	6.9	7.1	8.4	10.2	11.0
Old-age and early pensions, gross	3.4	7.1	6.3	6.3	6.6	7.9	9.7	10.5
Of which : earnings-related pensions, gross	3.4	7.1	6.3	6.3	6.6	7.9	9.7	10.5
Other pensions (disability, survivors), gross	-0.1	0.7	0.5	0.5	0.6	0.5	0.5	0.6
Occupational pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Private mandatory pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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Social security pensions, net	3.3	7.8	6.9	6.9	7.1	8.4	10.2	11.0
Social security pensions, contributions	0.0	8.3	8.3	8.3	8.3	8.3	8.3	8.3
Social security pensions, assets	23.8	0.4	9.8	17.1	32.6	45.0	42.3	24.2
ADDITIONAL INDICATORS	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	0.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Pensioners (social security, in 1000 persons)	908	2729	2908	3015	3119	3375	3619	3637
Pensioners aged 65+ (1000 pers)	1516.3	1488	1831	2066	2274	2508	2885	3004
Share of pensioners below age 65 as % of all pensioners	-28%	45%	37%	31%	27%	26%	20%	17%
Average gross pension (social security - € 1000 in 2007 prices)	5.9	3.6	4.1	4.5	5.4	6.6	8.1	9.6
Benefit ratio (Social security pensions)	-7.5	45.2	38.7	36.8	35.4	36.5	37.6	37.6
Gross replacement rate at retirement (social security pensions)	-5.7	32.7	28.1	28.2	25.0	29.0	28.0	27.0
Contributors (social security pensions, in 1000 persons)	-1005	4878	5107	5045	4814	4546	4178	3873
Support ratio (contributors/100 pensioners, social security pensions)	-72.2	179	176	167	154	135	115	106
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.3	0.0	0.0	0.0	0.1	0.1	0.2	0.3
Old-age and early pensions, gross	0.3	0.0	0.0	0.0	0.1	0.1	0.2	0.3
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.2	0.0	0.0	0.0	-0.1	-0.1	-0.2	-0.2
Old-age and early pensions, gross	-0.2	0.0	0.0	0.0	-0.1	-0.1	-0.2	-0.2
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	1.5	0.0	0.1	0.2	0.4	0.7	1.2	1.5
Old-age and early pensions, gross	1.5	0.0	0.1	0.2	0.4	0.8	1.3	1.5
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Old-age and early pensions, gross	-0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
HIGH OLDER WORKERS EMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	1.0	0.0	0.0	0.0	0.1	0.3	0.7	1.0
Old-age and early pensions, gross	1.0	0.0	0.0	0.0	0.1	0.3	0.6	1.0
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	Ch 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	3.6	7.4	6.9	6.9	7.1	8.4	10.2	11.0
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		-0.3	-0.9	-0.9	-0.6	0.7	2.4	3.3
Dependency ratio	9.4	0.1	2.4	3.6	4.6	6.0	8.3	9.5
Coverage ratio	-3.3	-0.2	-1.2	-1.8	-2.4	-2.6	-3.2	-3.5
Employment effect	-0.4	0.0	-0.4	-0.5	-0.3	-0.3	-0.5	-0.5
Benefit ratio	-1.0	-0.2	-1.1	-1.4	-1.7	-1.5	-1.2	-1.2
Interaction effect (residual)	-1.1	0.0	-0.6	-0.8	-0.8	-0.9	-1.1	-1.1
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	3.3	-0.90	-0.01	0.19	0.86	0.76	0.26	
Dependency ratio	9.5	2.40	1.19	0.40	0.99	0.87	0.48	
Coverage ratio	-3.5	-1.23	-0.60	-0.19	-0.21	-0.16	-0.16	
Employment effect	-0.5	-0.44	-0.04	0.04	0.04	-0.02	-0.04	
Benefit ratio	-1.2	-1.08	-0.34	-0.06	0.16	0.07	-0.01	
Interaction effect (residual)	-1.08	-0.55	-0.21	0.01	-0.11	0.01	0.00	
Health care								
HEALTH CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	2.2	6.2	6.7	6.9	7.4	7.8	8.1	8.4
Pure ageing scenario	2.3	6.2	6.6	6.8	7.3	7.8	8.2	8.5
Labour intensity scenario	3.8	6.2	6.5	6.8	7.6	8.4	9.4	10.0
Constant health scenario	1.1	6.2	6.4	6.5	6.8	7.0	7.2	7.3
Fast cost growth scenario	2.9	6.2	7.0	7.3	7.9	8.4	8.8	9.1
Cost convergence scenario	2.9	6.2	6.6	6.9	7.5	8.1	8.6	9.1
Death-related cost scenario	2.0	6.2	6.4	6.6	7.1	7.6	7.9	8.2
Income elasticity scenario	2.8	6.2	6.7	7.1	7.7	8.3	8.7	9.0
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	0.4	0.2	0.3	0.3	0.4	0.5	0.5	0.7
Pure demographic scenario	0.5	0.2	0.3	0.3	0.4	0.5	0.6	0.7
GDP per capita scenario	0.4	0.2	0.3	0.3	0.4	0.4	0.5	0.6
Constant disability scenario	0.4	0.2	0.3	0.3	0.4	0.4	0.5	0.6
GDP per worker fast growth scenario	0.5	0.2	0.3	0.3	0.4	0.5	0.6	0.8
Shift 1% of dependents from informal to home care scenario	0.5	0.2	0.3	0.3	0.4	0.5	0.6	0.7
Shift 1% of dependents from informal to institutional care scenario	0.7	0.2	0.3	0.4	0.5	0.6	0.7	0.9
Shift 1% of dependents from informal to home/institutional care scenario	0.6	0.2	0.3	0.3	0.4	0.5	0.7	0.8

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NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)	% Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	147%	256	313	350	434	497	554	632
of which: receiving formal care	168%	123	155	176	215	259	291	330
relying on informal or no care	127%	133	158	174	219	238	263	302
Pure demographic scenario	168%	256	317	357	451	522	593	687
of which: receiving formal care	187%	123	156	179	222	270	309	354
relying on informal or no care	150%	133	160	178	228	251	284	333
Constant disability scenario	126%	256	309	343	417	473	516	578
of which: receiving formal care	149%	123	153	173	207	248	274	307
relying on informal or no care	104%	133	156	170	209	224	242	271
Shift 1% of dependents from informal to home scenario	168%	256	317	357	451	522	593	687
of which: receiving formal care	243%	123	182	215	267	322	368	423
relying on informal or no care	98%	133	135	142	183	199	225	264
Education								
EDUCATION SPENDING AS % OF GDP - BASELINE	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Total	-0.30	3.5	3.0	3.0	3.1	2.9	3.0	3.2
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (5%) - Staff (53%) - Other (42%)</i>								
Primary	0.07	0.5	0.6	0.6	0.6	0.5	0.6	0.6
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (1%) - Staff (58%) - Other (40%)</i>								
Low secondary	-0.07	1.0	0.7	0.9	0.8	0.8	0.8	0.9
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (1%) - Staff (58%) - Other (41%)</i>								
Upper secondary	-0.17	1.1	0.8	0.8	0.9	0.9	0.9	1.0
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (10%) - Staff (50%) - Other (40%)</i>								
Tertiary education	-0.13	0.9	0.8	0.7	0.7	0.7	0.7	0.7
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (6%) - Staff (48%) - Other (46%)</i>								
Number of students (in thousands)								
Total	-497	1851	1657	1677	1616	1421	1377	1354
as % of population 5-24	1%	79%	78%	82%	79%	79%	81%	80%
Primary	-58	460	537	540	466	408	430	402
Low secondary	-128	462	372	434	397	335	336	334
Upper secondary	-194	580	432	437	470	413	376	386
Tertiary education	-117	348	316	266	283	266	235	232
Number of teachers (in thousands)								
Total	-35	126	110	114	110	96	93	92
Primary	-3	27	31	31	27	24	25	23
Low secondary	-10	38	30	35	32	27	27	27
Upper secondary	-15	45	33	34	36	32	29	30
Tertiary education	-6	17	16	13	14	13	12	12
EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)								
Total	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
	0.17	-0.2	0.0	0.0	0.0	0.0	0.0	0.0
EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/ STUDENTS (DIFF. FROM BASELINE)								
Total	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
	0.33	0.2	0.3	0.4	0.5	0.4	0.5	0.5
EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)								
Total	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
	0.26	0.3	0.6	0.5	0.6	0.6	0.5	0.6
Unemployment benefit								
UNEMPLOYMENT BENEFIT - BASELINE	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Unemployment benefit spending as % of GDP	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

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EC-EPC (AWG) 2009 PROJECTIONS

Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.0	1.85	1.85	1.85	1.85	1.85	1.85	1.85
Life expectancy at birth								
males	7.8	76.4	77.6	78.4	80.0	81.5	82.9	84.3
females	7.4	81.0	82.2	83.0	84.5	85.9	87.2	88.4
Life expectancy at 65								
males	5.4	16.1	16.8	17.4	18.4	19.5	20.5	21.4
females	5.7	19.0	19.8	20.4	21.6	22.6	23.7	24.6
Net migration (thousand)	-3.5	9.7	8.5	8.1	8.7	6.5	5.7	6.2
Net migration as % of population	-0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1
Population (million)	0.4	5.5	5.6	5.7	5.8	5.9	5.9	5.9
Children population (0-14) as % of total population	-2.2	18.4	17.3	16.7	16.9	17.0	16.3	16.3
Prime age population (25-54) as % of total population	-5.4	41.0	39.0	38.1	36.1	36.4	35.9	35.6
Working age population (15-64) as % of total population	-7.3	66.0	64.1	63.1	60.3	58.2	59.2	58.7
Elderly population (65 and over) as % of total population	9.5	15.6	18.6	20.1	22.8	24.8	24.5	25.0
Very elderly population (80 and over) as % of total population	5.9	4.1	4.2	4.7	7.1	8.1	9.7	10.0
Very elderly population (80 and over) as % of elderly population	13.7	26.4	22.7	23.3	31.0	32.8	39.8	40.1
Very elderly population (80 and over) as % of working age population	10.9	6.2	6.6	7.4	11.7	14.0	16.4	17.1
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	1.7	2.3	1.7	1.6	1.5	1.7	1.9	1.6
Employment (growth rate)	0.0	0.5	-0.1	-0.2	-0.2	0.0	0.2	-0.1
Labour input : hours worked (growth rate)	0.0	0.3	-0.2	-0.1	-0.2	0.0	0.2	-0.1
Labour productivity per hour (growth rate)	1.7	2.0	1.8	1.8	1.7	1.7	1.7	1.7
TFP (growth rate)	1.1	1.0	1.1	1.1	1.1	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.6	0.9	0.7	0.7	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	1.6	1.9	1.4	1.4	1.2	1.6	1.9	1.5
GDP per worker (growth rate)	1.7	1.7	1.8	1.8	1.7	1.7	1.7	1.7
GDP in 2007 prices (in millions euros)		227.7	262.1	283.9	334.4	394.7	476.5	565.7
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	-123	3598	3584	3575	3502	3421	3493	3475
Population growth (working age:15-64)	-0.5	0.3	0.0	0.0	-0.4	0.0	0.3	-0.3
Labour force 15-64 (thousands)	-80	2888	2859	2845	2786	2757	2828	2808
Participation rate (15-64)	0.6	80.3	79.8	79.6	79.6	80.6	81.0	80.8
young (15-24)	1.7	70.8	72.5	72.6	72.7	72.1	72.4	72.5
prime-age (25-54)	-1.7	89.0	88.1	87.5	87.2	87.3	87.2	87.3
older (55-64)	8.1	61.3	61.1	62.6	64.0	66.6	70.3	69.3
Participation rate (15-64) - FEMALES	2.6	76.5	76.8	77.0	77.5	78.8	79.3	79.1
young (15-24)	1.8	69.4	71.3	71.4	71.4	70.9	71.2	71.3
prime-age (25-54)	0.2	85.4	85.2	85.1	85.3	85.6	85.5	85.6
older (55-64)	12.2	55.1	56.2	58.3	61.0	63.9	68.2	67.2
Participation rate (15-64) - MALES	-1.5	84.0	82.7	82.2	81.6	82.4	82.6	82.5
young (15-24)	1.5	72.2	73.7	73.8	73.8	73.2	73.6	73.7
prime-age (25-54)	-3.7	92.5	90.8	89.9	89.1	88.9	88.8	88.9
older (55-64)	3.9	67.5	66.1	67.0	67.1	69.3	72.4	71.4
Employment rate (15-64)	1.0	77.2	77.2	77.0	77.0	78.0	78.3	78.2
Employment rate (20-64)	1.1	79.2	79.3	79.0	78.9	80.2	80.6	80.3
Employment rate (15-71)	0.5	71.5	69.4	69.6	69.8	71.2	72.9	72.0
Unemployment rate (15-64)	-0.6	3.9	3.2	3.2	3.2	3.2	3.2	3.2
Employment (15-64) (in millions)	-0.1	2.8	2.8	2.8	2.7	2.7	2.7	2.7
share of young (15-24)	2%	15%	17%	17%	17%	17%	17%	17%
share of prime-age (25-54)	-4%	70%	68%	67%	66%	68%	66%	66%
share of older (55-64)	2%	15%	15%	16%	17%	15%	17%	17%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	0.0	20.2	19.3	20.3	21.3	18.0	19.5	20.2
Old-age dependency ratio (2)	19	24	29	32	38	43	41	43
Total dependency ratio (3)	19	52	56	58	66	72	69	70
Total economic dependency ratio (4)	19	94	100	104	112	117	112	113
Economic old-age dependency ratio (15-64) (5)	21	29	35	40	46	51	49	50
Pension expenditure projections								
BASILENE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.1	9.1	10.2	10.6	10.6	10.4	9.6	9.2
Old-age and early pensions, gross	-0.4	7.0	8.2	8.6	8.3	8.1	7.3	6.7
Of which : earnings-related pensions, gross	:	:	:	:	:	:	:	:
Other pensions (disability, survivors), gross	0.5	2.0	2.0	2.0	2.3	2.3	2.3	2.5
Occupational pensions, gross	3.3	5.6	5.9	5.8	5.4	7.1	8.1	8.9
Private mandatory pensions, gross	:	:	:	:	:	:	:	:

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Social security pensions, net	0.2	6.6	7.5	7.9	7.8	7.8	7.2	6.9
Social security pensions, contributions	:	:	:	:	:	:	:	:
Social security pensions, assets	:	:	:	:	:	:	:	:
ADDITIONAL INDICATORS	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	1.8	73.1	73.5	73.8	74.0	74.6	74.9	74.9
Pensioners (social security, in 1000 persons)	94	1334	1529	1607	1585	1584	1500	1428
Pensioners aged 65+ (1000 pers)	260.9	954	1174	1265	1336	1378	1288	1215
Share of pensioners below age 65 as % of all pensioners	-14%	28%	23%	21%	16%	13%	14%	15%
Average gross pension (social security - € 1000 in 2007 prices)	20.9	15.5	17.5	18.8	22.3	25.9	30.4	36.4
Benefit ratio (Social security pensions)	-1.6	39.4	38.9	38.3	38.3	37.7	37.5	37.8
Gross replacement rate at retirement (social security pensions)	0.0	33.4	33.4	33.4	33.4	33.4	33.4	33.4
Contributors (social security pensions, in 1000 persons)	22	2822	2827	2798	2779	2774	2838	2844
Support ratio (contributors/100 pensioners, social security pensions)	-12.3	211	185	174	175	175	189	199
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.2	0.0	0.0	0.0	0.1	0.0	0.2	0.2
Old-age and early pensions, gross	0.1	0.0	0.0	0.0	0.1	0.0	0.2	0.1
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Old-age and early pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.9	0.0	0.1	0.2	0.5	0.8	1.0	0.9
Old-age and early pensions, gross	0.9	0.0	0.1	0.2	0.4	0.7	0.9	0.9
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Old-age and early pensions, gross	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
HIGH OLDER WORKERS EMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Old-age and early pensions, gross	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	Ch 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	0.0	9.2	10.2	10.6	10.6	10.4	9.6	9.2
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		0.1	1.1	1.6	1.5	1.3	0.5	0.1
Dependency ratio	6.3	0.2	2.3	3.3	5.2	6.5	6.2	6.5
Coverage ratio	-4.9	-0.1	-0.7	-1.1	-2.8	-3.8	-4.2	-4.9
Employment effect	-0.1	0.0	0.0	0.0	0.0	-0.1	-0.2	-0.1
Benefit ratio	-0.5	0.0	-0.2	-0.4	-0.4	-0.6	-0.6	-0.5
Interaction effect (residual)	-0.7	0.0	-0.2	-0.2	-0.5	-0.7	-0.6	-0.7
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	0.1	1.12	0.46	0.09	-0.10	-0.46	-0.10	
Dependency ratio	6.5	2.30	0.97	1.02	0.41	-0.33	0.34	
Coverage ratio	-4.9	-0.75	-0.39	-0.87	-0.35	-0.19	-0.41	
Employment effect	-0.1	0.00	0.03	0.00	-0.02	0.02	-0.01	
Benefit ratio	-0.5	-0.24	-0.14	0.11	-0.11	0.01	0.06	
Interaction effect (residual)	-0.73	-0.19	0.00	-0.17	-0.02	0.03	-0.07	
Health care								
HEALTH CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.0	5.9	6.2	6.4	6.7	6.8	6.9	6.9
Pure ageing scenario	1.2	5.9	6.2	6.4	6.8	6.9	7.1	7.1
Labour intensity scenario	1.7	5.9	6.3	6.7	7.3	7.6	7.6	7.7
Constant health scenario	0.3	5.9	6.0	6.1	6.3	6.3	6.3	6.2
Fast cost growth scenario	1.7	5.9	6.6	6.8	7.2	7.4	7.6	7.6
Cost convergence scenario	:	:	:	:	:	:	:	:
Death-related cost scenario	0.9	5.9	6.0	6.2	6.6	6.7	6.8	6.9
Income elasticity scenario	1.5	5.9	6.3	6.5	6.9	7.2	7.3	7.4
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.5	1.7	1.9	2.1	2.6	3.0	3.2	3.2
Pure demographic scenario	1.7	1.7	1.9	2.1	2.7	3.1	3.4	3.5
GDP per capita scenario	1.4	1.7	1.9	2.0	2.5	2.8	3.1	3.2
Constant disability scenario	1.3	1.7	1.9	2.1	2.5	2.8	3.0	3.0
GDP per worker fast growth scenario	2.1	1.7	2.1	2.4	3.0	3.4	3.7	3.8
Shift 1% of dependents from informal to home care scenario	2.1	1.7	2.1	2.3	3.0	3.4	3.7	3.8
Shift 1% of dependents from informal to institutional care scenario	1.7	1.7	1.9	2.1	2.7	3.1	3.4	3.5
Shift 1% of dependents from informal to home/institutional care scenario	1.9	1.7	2.0	2.2	2.9	3.3	3.5	3.6

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NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)	% CH 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	106%	164	184	204	263	302	327	337
of which: receiving formal care	127%	171	191	212	279	332	367	387
relying on informal or no care	0%	0	0	0	0	0	0	0
Pure demographic scenario	122%	164	187	209	274	319	350	362
of which: receiving formal care	142%	171	193	217	289	349	390	413
relying on informal or no care	0%	0	0	0	0	0	0	0
Constant disability scenario	90%	164	182	199	252	285	304	312
of which: receiving formal care	112%	171	188	207	268	316	344	362
relying on informal or no care	0%	0	0	0	0	0	0	0
Shift 1% of dependents from informal to home scenario	122%	164	187	209	274	319	350	362
of which: receiving formal care	163%	171	208	238	317	381	425	449
relying on informal or no care	0%	0	0	0	0	0	0	0
Education								
EDUCATION SPENDING AS % OF GDP - BASELINE	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Total	0.18	7.1	7.4	7.4	7.4	7.5	7.4	7.2
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (17%) - Staff (60%) - Other (22%)</i>								
Primary	-0.15	1.9	1.8	1.8	1.8	1.9	1.8	1.7
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (1%) - Staff (72%) - Other (27%)</i>								
Low secondary	-0.08	1.1	1.1	1.1	1.0	1.1	1.1	1.0
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (1%) - Staff (73%) - Other (26%)</i>								
Upper secondary	0.12	2.0	2.2	2.1	2.1	2.1	2.1	2.1
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (28%) - Staff (52%) - Other (19%)</i>								
Tertiary education	0.30	2.1	2.3	2.5	2.5	2.4	2.4	2.4
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (31%) - Staff (51%) - Other (18%)</i>								
Number of students (in thousands)								
Total	-5	1140	1159	1150	1129	1167	1160	1135
as % of population 5-24	0%	87%	85%	86%	87%	87%	86%	87%
Primary	-34	412	390	380	382	403	384	379
Low secondary	-18	240	235	231	216	237	233	222
Upper secondary	17	275	303	296	288	293	302	292
Tertiary education	30	212	231	243	243	234	241	242
Number of teachers (in thousands)								
Total	-9	121	116	114	110	119	115	111
Primary	-5	61	58	57	57	60	57	56
Low secondary	-4	59	58	57	53	58	58	55
Upper secondary	0	0	0	0	0	0	0	0
Tertiary education	0	0	0	0	0	0	0	0
EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)								
Total	0.20	-0.1	0.0	0.1	0.1	0.1	0.1	0.1
EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/ STUDENTS (DIFF. FROM BASELINE)								
Total	0.83	0.2	0.7	1.0	1.1	1.1	1.1	1.0
EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)								
Total	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unemployment benefit								
UNEMPLOYMENT BENEFIT - BASELINE								
Unemployment benefit spending as % of GDP	-0.2	1.0	0.8	0.8	0.8	0.8	0.8	0.8

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

GERMANY

EC-EPC (AWG) 2009 PROJECTIONS

Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.2	1.34	1.36	1.38	1.42	1.45	1.49	1.53
Life expectancy at birth								
males	7.6	77.3	78.5	79.3	80.8	82.3	83.6	84.9
females	6.5	82.6	83.6	84.3	85.6	86.8	88.0	89.1
Life expectancy at 65								
males	5.2	16.8	17.6	18.1	19.1	20.1	21.1	22.0
females	5.0	20.1	20.8	21.4	22.4	23.3	24.3	25.1
Net migration (thousand)	-43.9	159.8	166.3	173.1	187.0	131.6	135.7	115.9
Net migration as % of population	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Population (million)	-11.4	82.2	81.9	81.5	80.2	77.8	74.5	70.8
Children population (0-14) as % of total population	-1.2	13.7	12.8	12.6	12.7	12.2	12.1	12.6
Prime age population (25-54) as % of total population	-9.6	43.1	41.8	39.4	36.2	35.1	33.7	33.5
Working age population (15-64) as % of total population	-11.3	66.2	65.9	64.6	59.7	56.7	56.2	55.0
Elderly population (65 and over) as % of total population	12.4	20.1	21.2	22.8	27.6	31.1	31.7	32.5
Very elderly population (80 and over) as % of total population	8.5	4.7	5.7	7.1	8.0	10.3	14.0	13.2
Very elderly population (80 and over) as % of elderly population	17.0	23.6	26.7	31.1	28.9	33.1	44.1	40.6
Very elderly population (80 and over) as % of working age population	16.9	7.2	8.6	11.0	13.4	18.1	24.9	24.0
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	1.2	1.4	1.9	1.5	1.3	1.1	1.0	1.0
Employment (growth rate)	-0.4	0.2	0.3	-0.2	-0.4	-0.6	-0.7	-0.7
Labour input : hours worked (growth rate)	-0.5	-0.1	0.2	-0.2	-0.4	-0.6	-0.7	-0.7
Labour productivity per hour (growth rate)	1.7	1.5	1.6	1.7	1.7	1.7	1.7	1.7
TFP (growth rate)	1.1	1.0	1.1	1.1	1.1	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	1.5	1.6	1.9	1.6	1.5	1.5	1.5	1.5
GDP per worker (growth rate)	1.7	1.2	1.6	1.7	1.7	1.7	1.7	1.7
GDP in 2007 prices (in millions euros)		2423.8	2808.1	3047.6	3369.8	3720.8	4161.6	4596.7
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	-15682	54574	53981	52639	47873	44160	41857	38892
Population growth (working age:15-64)	0.1	-0.6	-0.4	-0.6	-1.2	-0.3	-0.6	-0.5
Labour force 15-64 (thousands)	-10550	41590	42477	41630	37963	35404	33371	31040
Participation rate (15-64)	3.6	76.2	78.7	79.1	79.3	80.2	79.7	79.8
young (15-24)	0.8	51.5	52.7	52.9	52.1	52.2	52.5	52.2
prime-age (25-54)	1.6	87.9	88.9	89.2	89.6	89.6	89.4	89.5
older (55-64)	16.5	57.3	67.6	69.9	70.5	74.7	73.9	73.9
Participation rate (15-64) - FEMALES	6.3	70.2	73.5	74.1	75.3	77.0	76.5	76.5
young (15-24)	0.8	48.9	50.1	50.3	49.6	49.6	50.0	49.7
prime-age (25-54)	3.9	81.8	84.1	84.8	85.7	85.8	85.6	85.6
older (55-64)	22.8	48.8	59.5	62.1	65.0	72.2	71.6	71.6
Participation rate (15-64) - MALES	0.9	82.1	83.8	83.9	83.2	83.3	82.9	83.0
young (15-24)	0.7	54.0	55.2	55.4	54.5	54.6	55.0	54.7
prime-age (25-54)	-0.6	93.8	93.5	93.5	93.4	93.2	93.2	93.2
older (55-64)	10.1	66.0	75.7	77.7	75.9	77.0	76.1	76.1
Employment rate (15-64)	5.3	69.6	73.1	74.2	74.4	75.2	74.8	74.9
Employment rate (20-64)	5.3	73.6	76.8	77.7	78.0	79.2	78.7	78.9
Employment rate (15-71)	5.2	62.1	67.0	67.3	66.0	67.8	67.9	67.3
Unemployment rate (15-64)	-2.5	8.7	7.1	6.2	6.2	6.2	6.2	6.2
Employment (15-64) (in millions)	-8.9	38.0	39.5	39.0	35.6	33.2	31.3	29.1
share of young (15-24)	-1%	11%	10%	10%	10%	10%	11%	11%
share of prime-age (25-54)	-7%	76%	72%	69%	69%	70%	68%	69%
share of older (55-64)	8%	13%	18%	21%	21%	20%	22%	21%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	4.9	17.5	20.7	23.9	24.1	21.7	23.6	22.5
Old-age dependency ratio (2)	29	30	32	35	46	55	56	59
Total dependency ratio (3)	31	51	52	55	67	76	78	82
Total economic dependency ratio (4)	24	113	106	106	120	129	132	137
Economic old-age dependency ratio (15-64) (5)	31	42	42	45	57	67	70	73
Pension expenditure projections								
BASILENE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	2.3	10.4	10.1	10.5	11.5	12.1	12.3	12.8
Old-age and early pensions, gross	2.3	10.4	10.1	10.5	11.5	12.1	12.3	12.8
Of which : earnings-related pensions, gross	2.3	10.4	10.1	10.5	11.5	12.1	12.3	12.8
Other pensions (disability, survivors), gross	:	:	:	:	:	:	:	:
Occupational pensions, gross	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	:	:	:	:	:	:	:	:

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Social security pensions, net	1.6	8.8	8.4	8.7	9.5	9.9	10.0	10.4
Social security pensions, contributions	1.4	7.2	6.7	6.9	7.8	8.3	8.4	8.6
Social security pensions, assets	-0.5	0.6	1.3	0.5	0.2	0.2	0.2	0.2
ADDITIONAL INDICATORS	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	-2.9	84.1	83.4	83.4	82.6	81.7	81.2	81.2
Pensioners (social security, in 1000 persons)	3634	19822	20732	21502	23861	24929	24251	23456
Pensioners aged 65+ (1000 pers)	5110.2	16281	17568	18521	21107	22723	21958	21391
Share of pensioners below age 65 as % of all pensioners	-9%	18%	15%	14%	12%	9%	9%	9%
Average gross pension (social security - € 1000 in 2007 prices)	12.3	12.8	13.7	14.8	16.3	18.0	21.1	25.0
Benefit ratio (Social security pensions)	-8.9	51.4	49.7	49.7	45.9	42.9	42.5	42.5
Gross replacement rate at retirement (social security pensions)	:	:	:	:	:	:	:	:
Contributors (social security pensions, in 1000 persons)	-6135	31816	33347	33499	31201	29158	27549	25681
Support ratio (contributors/100 pensioners, social security pensions)	-51.0	161	161	156	131	117	114	109
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.2	0.0	0.0	0.0	0.1	0.1	0.2	0.2
Old-age and early pensions, gross	0.2	0.0	0.0	0.0	0.1	0.1	0.2	0.2
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.0
Old-age and early pensions, gross	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.0
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	1.9	0.0	0.1	0.2	0.6	1.1	1.6	1.9
Old-age and early pensions, gross	1.9	0.0	0.1	0.2	0.6	1.1	1.6	1.9
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Old-age and early pensions, gross	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
HIGH OLDER WORKERS EMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Old-age and early pensions, gross	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	Ch 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	2.4	10.3	10.1	10.5	11.5	12.1	12.3	12.8
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		-0.1	-0.4	0.0	1.1	1.6	1.9	2.3
Dependency ratio	7.8	0.1	0.8	1.8	4.9	7.0	7.3	7.9
Coverage ratio	-1.9	0.0	-0.2	-0.5	-1.3	-1.8	-1.8	-1.9
Employment effect	-0.6	-0.1	-0.5	-0.7	-0.7	-0.8	-0.7	-0.8
Benefit ratio	-2.1	-0.1	-0.4	-0.5	-1.3	-2.1	-2.2	-2.2
Interaction effect (residual)	-0.8	0.0	0.0	-0.2	-0.6	-0.7	-0.7	-0.8
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	2.3	-0.36	0.38	0.55	0.20	0.15	0.22	
Dependency ratio	7.9	0.82	0.96	1.86	0.44	0.29	0.18	
Coverage ratio	-1.9	-0.21	-0.29	-0.51	-0.07	-0.04	0.00	
Employment effect	-0.8	-0.51	-0.15	-0.07	-0.01	0.02	-0.01	
Benefit ratio	-2.2	-0.43	-0.02	-0.45	-0.25	-0.07	0.03	
Interaction effect (residual)	-0.77	-0.04	-0.13	-0.29	0.10	-0.05	0.03	
Health care								
HEALTH CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.8	7.4	7.9	8.1	8.5	9.0	9.2	9.2
Pure ageing scenario	2.0	7.4	7.8	8.1	8.6	9.1	9.4	9.4
Labour intensity scenario	2.8	7.4	7.5	7.8	8.7	9.6	10.0	10.2
Constant health scenario	0.9	7.4	7.7	7.8	8.0	8.3	8.5	8.3
Fast cost growth scenario	2.7	7.4	8.4	8.7	9.2	9.7	10.0	10.1
Cost convergence scenario	:	:	:	:	:	:	:	:
Death-related cost scenario	1.5	7.4	7.6	7.9	8.3	8.8	9.0	8.9
Income elasticity scenario	2.4	7.4	7.9	8.3	8.8	9.4	9.7	9.8
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.4	0.9	1.1	1.2	1.4	1.8	2.2	2.4
Pure demographic scenario	1.5	0.9	1.1	1.2	1.5	1.8	2.3	2.5
GDP per capita scenario	1.3	0.9	1.1	1.2	1.5	1.7	2.1	2.2
Constant disability scenario	1.3	0.9	1.0	1.1	1.4	1.7	2.1	2.2
GDP per worker fast growth scenario	1.8	0.9	1.2	1.3	1.6	2.0	2.5	2.7
Shift 1% of dependents from informal to home care scenario	1.7	0.9	1.1	1.2	1.6	1.9	2.4	2.6
Shift 1% of dependents from informal to institutional care scenario	2.0	0.9	1.2	1.4	1.8	2.2	2.7	2.9
Shift 1% of dependents from informal to home/institutional care scenario	1.8	0.9	1.2	1.3	1.7	2.1	2.6	2.8

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NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)	% Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	75%	3201	3690	4078	4647	5390	5954	5613
of which: receiving formal care	120%	1589	1908	2117	2542	2935	3483	3490
relying on informal or no care	32%	1612	1782	1961	2105	2455	2471	2123
Pure demographic scenario	89%	3201	3743	4174	4825	5704	6345	6036
of which: receiving formal care	131%	1589	1932	2159	2621	3070	3657	3677
relying on informal or no care	46%	1612	1811	2016	2204	2633	2688	2359
Constant disability scenario	62%	3201	3637	3982	4469	5076	5563	5190
of which: receiving formal care	108%	1589	1884	2075	2463	2800	3309	3303
relying on informal or no care	17%	1612	1753	1907	2006	2276	2253	1887
Shift 1% of dependents from informal to home scenario	89%	3201	3743	4174	4825	5704	6345	6036
of which: receiving formal care	169%	1589	2232	2576	3103	3641	4292	4280
relying on informal or no care	9%	1612	1511	1598	1722	2063	2054	1755
Education								
EDUCATION SPENDING AS % OF GDP - BASELINE	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Total	-0.38	3.9	3.4	3.2	3.3	3.4	3.4	3.5
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (9%) - Staff (68%) - Other (23%)</i>								
Primary	-0.02	0.6	0.5	0.5	0.6	0.6	0.6	0.6
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (0%) - Staff (77%) - Other (23%)</i>								
Low secondary	-0.09	1.2	1.0	1.0	1.0	1.1	1.0	1.1
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (0%) - Staff (80%) - Other (20%)</i>								
Upper secondary	-0.16	1.0	0.8	0.7	0.7	0.8	0.8	0.8
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (14%) - Staff (65%) - Other (21%)</i>								
Tertiary education	-0.10	1.1	1.0	1.0	0.9	1.0	1.0	1.0
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (19%) - Staff (52%) - Other (29%)</i>								
Number of students (in thousands)								
Total	-4059	14023	12531	11863	11406	11012	10328	9964
as % of population 5-24	0%	80%	80%	80%	80%	80%	80%	80%
Primary	-815	3311	2897	2840	2876	2666	2513	2496
Low secondary	-1423	5119	4617	4287	4250	4109	3803	3696
Upper secondary	-1189	3382	2880	2724	2475	2493	2325	2193
Tertiary education	-632	2211	2137	2013	1805	1743	1687	1579
Number of teachers (in thousands)								
Total	-243	846	761	719	690	666	625	603
Primary	-44	177	155	152	154	142	134	133
Low secondary	-92	331	298	277	275	266	246	239
Upper secondary	-58	165	140	132	120	121	113	107
Tertiary education	-50	173	168	158	142	137	132	124
EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)								
Total	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
	0.06	0.0	0.0	0.1	0.1	0.1	0.1	0.1
EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/ STUDENTS (DIFF. FROM BASELINE)								
Total	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
	0.44	0.0	0.3	0.4	0.4	0.5	0.5	0.5
EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)								
Total	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
	0.37	0.3	0.7	0.7	0.7	0.7	0.7	0.7
Unemployment benefit								
UNEMPLOYMENT BENEFIT - BASELINE	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Unemployment benefit spending as % of GDP	-0.3	0.9	0.8	0.6	0.6	0.6	0.6	0.6

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

ESTONIA

EC-EPC (AWG) 2009 PROJECTIONS

Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.1	1.55	1.56	1.57	1.60	1.62	1.64	1.66
Life expectancy at birth								
males	12.8	68.0	70.0	71.4	74.0	76.5	78.8	80.8
females	8.8	78.7	80.1	81.1	82.9	84.5	86.1	87.5
Life expectancy at 65								
males	6.9	13.0	14.0	14.7	16.0	17.3	18.6	19.9
females	6.1	18.1	19.0	19.6	20.8	22.0	23.1	24.2
Net migration (thousand)	0.2	-0.6	0.0	-0.1	-0.3	0.1	0.3	-0.3
Net migration as % of population	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Population (million)	-0.2	1.3	1.3	1.3	1.3	1.2	1.2	1.1
Children population (0-14) as % of total population	-0.8	14.8	16.3	16.9	15.1	13.8	14.5	14.0
Prime age population (25-54) as % of total population	-6.8	41.6	42.6	41.8	38.8	37.0	34.4	34.9
Working age population (15-64) as % of total population	-12.7	68.0	66.1	64.3	63.2	62.1	58.1	55.3
Elderly population (65 and over) as % of total population	13.6	17.2	17.7	18.8	21.7	24.2	27.4	30.7
Very elderly population (80 and over) as % of total population	7.1	3.6	4.5	5.2	5.9	7.8	9.0	10.7
Very elderly population (80 and over) as % of elderly population	13.8	21.2	25.7	27.8	27.0	32.3	33.0	35.0
Very elderly population (80 and over) as % of working age population	14.1	5.3	6.9	8.1	9.3	12.6	15.6	19.4
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	2.1	7.8	3.2	2.6	2.2	1.0	0.6	1.2
Employment (growth rate)	-0.6	1.5	-0.7	-0.7	-0.5	-0.7	-1.1	-0.5
Labour input : hours worked (growth rate)	-0.6	1.6	-0.7	-0.7	-0.5	-0.7	-1.1	-0.5
Labour productivity per hour (growth rate)	2.6	6.0	3.9	3.3	2.7	1.7	1.7	1.7
TFP (growth rate)	1.5	2.7	1.8	1.8	1.8	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	1.2	3.3	2.1	1.6	0.9	0.6	0.6	0.6
GDP per capita (growth rate)	2.4	8.0	3.4	2.8	2.6	1.4	1.0	1.7
GDP per worker (growth rate)	2.7	6.2	4.0	3.3	2.7	1.7	1.7	1.7
GDP in 2007 prices (in millions euros)		15.5	22.5	25.8	32.4	37.1	40.0	43.6
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	-287	913	875	843	801	758	686	626
Population growth (working age:15-64)	0.2	-0.4	-0.9	-0.7	-0.4	-0.7	-1.2	-0.2
Labour force 15-64 (thousands)	-199	666	659	636	595	562	506	467
Participation rate (15-64)	1.6	72.9	75.4	75.4	74.3	74.1	73.7	74.5
young (15-24)	1.5	38.5	45.0	39.5	40.1	42.3	40.8	40.0
prime-age (25-54)	-0.7	88.4	87.5	87.6	87.8	87.3	87.8	87.8
older (55-64)	1.7	62.4	60.6	62.8	64.6	64.5	61.9	64.1
Participation rate (15-64) - FEMALES	2.6	68.8	70.7	71.5	71.1	71.0	70.6	71.4
young (15-24)	2.1	32.5	39.2	34.1	34.6	36.6	35.4	34.6
prime-age (25-54)	0.2	83.7	82.8	83.1	83.9	83.5	83.5	83.9
older (55-64)	3.7	61.4	57.1	62.3	65.3	64.9	63.1	65.1
Participation rate (15-64) - MALES	0.3	77.3	80.4	79.5	77.5	77.3	76.8	77.7
young (15-24)	0.9	44.3	50.6	44.6	45.3	47.7	46.0	45.2
prime-age (25-54)	-2.1	93.5	92.4	92.3	91.8	91.2	91.9	91.5
older (55-64)	-0.6	63.7	65.0	63.5	63.8	64.0	60.7	63.0
Employment rate (15-64)	2.6	69.4	72.8	72.8	71.7	71.5	71.2	72.0
Employment rate (20-64)	1.4	76.8	77.4	78.0	78.0	77.0	76.4	78.2
Employment rate (15-71)	-1.0	64.8	67.9	66.7	65.3	65.0	63.5	63.8
Unemployment rate (15-64)	-1.3	4.8	3.5	3.5	3.5	3.5	3.5	3.5
Employment (15-64) (in millions)	-0.2	0.6	0.6	0.6	0.6	0.5	0.5	0.5
share of young (15-24)	-2%	11%	9%	8%	10%	10%	9%	10%
share of prime-age (25-54)	0%	75%	75%	76%	73%	70%	71%	74%
share of older (55-64)	2%	14%	15%	17%	17%	20%	21%	16%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	1.9	16.5	19.1	20.0	19.7	22.5	24.4	18.4
Old-age dependency ratio (2)	30	25	27	29	34	39	47	56
Total dependency ratio (3)	34	47	51	55	58	61	72	81
Total economic dependency ratio (4)	41	106	105	111	117	122	137	147
Economic old-age dependency ratio (15-64) (5)	41	32	34	37	45	51	62	73
Pension expenditure projections								
BASELINE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.7	5.6	6.2	5.9	5.6	5.4	5.3	4.9
Old-age and early pensions, gross	-0.5	4.9	5.2	5.0	4.8	4.7	4.7	4.3
Of which : earnings-related pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other pensions (disability, survivors), gross	-0.2	0.7	0.9	0.8	0.8	0.7	0.6	0.6
Occupational pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Private mandatory pensions, gross	1.8	0.0	0.0	0.1	0.3	0.7	1.4	1.8

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Social security pensions, net	-0.7	5.6	6.2	5.9	5.6	5.4	5.3	4.9
Social security pensions, contributions	-0.5	6.1	6.0	5.9	5.7	5.6	5.6	5.6
Social security pensions, assets	4.3	2.5	0.0	0.0	0.2	1.3	3.3	6.8
ADDITIONAL INDICATORS	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	0.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Pensioners (social security, in 1000 persons)	46	367	362	362	380	394	414	413
Pensioners aged 65+ (1000 pers)	98.6	230	233	243	267	283	307	328
Share of pensioners below age 65 as % of all pensioners	-17%	37%	35%	33%	30%	28%	26%	21%
Average gross pension (social security - € 1000 in 2007 prices)	2.8	2.4	3.8	4.2	4.7	5.1	5.1	5.2
Benefit ratio (Social security pensions)	-10.6	26.5	31.8	29.2	24.8	21.9	18.5	15.8
Gross replacement rate at retirement (social security pensions)	-0.1	0.3	0.3	0.3	0.3	0.2	0.2	0.2
Contributors (social security pensions, in 1000 persons)	-189	659	654	631	593	562	511	470
Support ratio (contributors/100 pensioners, social security pensions)	-65.6	179	181	174	156	143	123	114
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.1	0.0	-0.1	-0.1	0.0	0.0	0.1	0.1
Old-age and early pensions, gross	0.1	0.0	-0.1	-0.1	0.0	0.0	0.1	0.1
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1
Old-age and early pensions, gross	-0.1	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1
Old-age and early pensions, gross	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Old-age and early pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HIGH OLDER WORKERS EMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Old-age and early pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	Ch 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	-1.4	6.3	6.2	5.9	5.6	5.4	5.3	4.9
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		0.7	0.5	0.3	0.0	-0.2	-0.3	-0.7
Dependency ratio	4.6	0.0	0.4	0.9	1.9	2.6	3.7	4.6
Coverage ratio	-1.7	0.0	-0.2	-0.5	-0.9	-1.0	-1.3	-1.6
Employment effect	-0.2	0.0	-0.3	-0.3	-0.2	-0.2	-0.1	-0.2
Benefit ratio	-3.8	0.7	0.6	0.1	-0.8	-1.5	-2.3	-3.1
Interaction effect (residual)	-0.4	0.0	0.0	0.0	-0.1	-0.2	-0.3	-0.4
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	-0.7	0.55	-0.29	-0.20	-0.06	-0.06	-0.27	
Dependency ratio	4.6	0.36	0.57	0.46	0.43	0.64	0.18	
Coverage ratio	-1.6	-0.19	-0.31	-0.18	-0.13	-0.15	-0.13	
Employment effect	-0.2	-0.26	0.00	0.03	-0.01	0.02	-0.03	
Benefit ratio	-3.1	0.60	-0.50	-0.46	-0.31	-0.48	-0.33	
Interaction effect (residual)	-0.37	0.03	-0.06	-0.04	-0.04	-0.10	0.04	
Health care								
HEALTH CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.2	4.9	5.2	5.3	5.5	5.8	6.0	6.1
Pure ageing scenario	1.2	4.9	5.1	5.2	5.4	5.7	6.0	6.2
Labour intensity scenario	2.3	4.9	5.0	5.2	5.6	6.0	6.7	7.2
Constant health scenario	0.4	4.9	5.0	5.0	5.0	5.1	5.2	5.3
Fast cost growth scenario	1.6	4.9	5.5	5.5	5.7	6.1	6.4	6.6
Cost convergence scenario	3.4	4.9	5.3	5.5	6.0	6.7	7.5	8.3
Death-related cost scenario	1.0	4.9	5.0	5.1	5.2	5.5	5.8	6.0
Income elasticity scenario	1.7	4.9	5.3	5.4	5.7	6.1	6.4	6.6
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Pure demographic scenario	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
GDP per capita scenario	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Constant disability scenario	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
GDP per worker fast growth scenario	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Shift 1% of dependents from informal to home care scenario	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Shift 1% of dependents from informal to institutional care scenario	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.3
Shift 1% of dependents from informal to home/institutional care scenario	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2

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EC-EPC (AWG) 2009 PROJECTIONS

NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)	% CH 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	61%	81	86	90	100	110	120	130
of which: receiving formal care	109%	10	11	12	13	16	18	20
relying on informal or no care	55%	71	75	78	86	95	102	110
Pure demographic scenario	70%	81	86	91	102	114	125	137
of which: receiving formal care	117%	10	11	12	14	16	18	21
relying on informal or no care	64%	71	76	79	88	98	107	117
Constant disability scenario	52%	81	85	89	97	106	115	123
of which: receiving formal care	100%	10	11	12	13	15	17	19
relying on informal or no care	46%	71	74	77	84	91	98	104
Shift 1% of dependents from informal to home scenario	70%	81	86	91	102	114	125	137
of which: receiving formal care	260%	10	18	21	24	27	31	34
relying on informal or no care	45%	71	69	70	78	87	95	103
Education								
EDUCATION SPENDING AS % OF GDP - BASELINE	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Total	-0.19	3.7	3.0	3.3	3.4	3.1	3.2	3.5
Expenditure decomposition (broadly constant) : Transfers (7%) - Staff (52%) - Other (41%)								
Primary	0.21	1.0	1.2	1.3	1.2	1.1	1.2	1.3
Expenditure decomposition (broadly constant) : Transfers (3%) - Staff (57%) - Other (40%)								
Low secondary	-0.03	0.8	0.6	0.7	0.8	0.7	0.7	0.8
Expenditure decomposition (broadly constant) : Transfers (4%) - Staff (57%) - Other (40%)								
Upper secondary	-0.25	1.1	0.7	0.8	0.9	0.8	0.8	0.9
Expenditure decomposition (broadly constant) : Transfers (5%) - Staff (53%) - Other (42%)								
Tertiary education	-0.13	0.7	0.6	0.5	0.5	0.5	0.5	0.5
Expenditure decomposition (broadly constant) : Transfers (21%) - Staff (38%) - Other (42%)								
Number of students (in thousands)								
Total	-84	270	230	235	231	200	190	186
as % of population 5-24	3%	80%	81%	85%	81%	81%	83%	83%
Primary	-10	77	87	93	83	68	71	67
Low secondary	-16	53	41	46	48	38	37	38
Upper secondary	-29	69	43	44	50	43	38	39
Tertiary education	-29	71	60	52	50	50	44	42
Number of teachers (in thousands)								
Total	-5	17	15	16	15	13	13	12
Primary	-1	5	6	7	6	5	5	5
Low secondary	-1	4	3	4	4	3	3	3
Upper secondary	-1	3	2	2	2	2	2	2
Tertiary education	-2	5	4	3	3	3	3	3
EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)								
CH 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.15	-0.1	0.0	0.0	0.1	0.1	0.0	0.1
EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/ STUDENTS (DIFF. FROM BASELINE)								
CH 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.36	0.1	0.3	0.4	0.5	0.4	0.4	0.5
EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)								
CH 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.13	0.2	0.3	0.3	0.3	0.3	0.3	0.3
Unemployment benefit								
UNEMPLOYMENT BENEFIT - BASELINE								
CH 07-60	2007	2015	2020	2030	2040	2050	2060	
Unemployment benefit spending as % of GDP	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

IRELAND

EC-EPC (AWG) 2009 PROJECTIONS

Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.0	1.90	1.90	1.90	1.89	1.89	1.88	1.88
Life expectancy at birth								
males	7.7	77.5	78.7	79.5	81.1	82.5	83.9	85.2
females	7.3	81.9	83.0	83.8	85.3	86.7	88.0	89.2
Life expectancy at 65								
males	5.5	16.8	17.5	18.1	19.2	20.3	21.3	22.2
females	5.6	19.7	20.6	21.2	22.3	23.4	24.4	25.4
Net migration (thousand)	-54.4	63.1	34.5	21.7	8.7	6.0	7.4	8.6
Net migration as % of population	-1.3	1.4	0.7	0.4	0.1	0.1	0.1	0.1
Population (million)	2.3	4.4	5.1	5.4	5.9	6.2	6.5	6.8
Children population (0-14) as % of total population	-3.4	20.4	21.1	21.1	18.9	17.4	17.5	17.0
Prime age population (25-54) as % of total population	-8.6	44.3	44.1	42.8	40.2	37.1	36.3	35.8
Working age population (15-64) as % of total population	-10.6	68.4	66.6	65.6	65.1	63.3	58.8	57.8
Elderly population (65 and over) as % of total population	14.0	11.2	12.2	13.3	16.0	19.4	23.7	25.2
Very elderly population (80 and over) as % of total population	6.8	2.8	2.9	3.1	4.3	5.7	7.3	9.6
Very elderly population (80 and over) as % of elderly population	13.2	24.8	23.9	23.6	26.6	29.3	30.6	38.0
Very elderly population (80 and over) as % of working age population	12.5	4.0	4.4	4.8	6.6	9.0	12.4	16.6
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	2.4	5.2	3.4	2.9	2.3	1.8	1.6	2.0
Employment (growth rate)	0.7	3.3	1.5	1.1	0.7	0.1	-0.1	0.3
Labour input : hours worked (growth rate)	0.7	2.9	1.5	1.0	0.7	0.1	-0.1	0.3
Labour productivity per hour (growth rate)	1.8	2.2	1.8	1.8	1.7	1.7	1.7	1.7
TFP (growth rate)	1.1	1.4	1.1	1.1	1.1	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.6	0.8	0.7	0.7	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	1.5	2.6	1.7	1.7	1.7	1.3	1.1	1.7
GDP per worker (growth rate)	1.7	1.8	1.8	1.8	1.7	1.7	1.7	1.7
GDP in 2007 prices (in millions euros)		185.6	249.0	289.6	373.5	458.0	536.4	640.0
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	947	2959	3366	3548	3826	3936	3838	3905
Population growth (working age:15-64)	-2.4	2.8	1.2	1.0	0.6	0.0	-0.2	0.4
Labour force 15-64 (thousands)	836	2144	2531	2684	2897	2989	2928	2980
Participation rate (15-64)	3.9	72.5	75.2	75.7	75.7	76.0	76.3	76.3
young (15-24)	-1.5	55.4	54.5	53.4	53.5	55.3	54.3	53.9
prime-age (25-54)	3.7	82.0	84.0	84.6	85.3	85.7	85.7	85.7
older (55-64)	14.0	55.1	62.3	65.6	68.1	68.6	68.3	69.1
Participation rate (15-64) - FEMALES	8.0	63.3	68.1	69.4	70.7	71.2	71.3	71.3
young (15-24)	-1.6	52.1	51.2	50.0	50.2	51.8	50.9	50.6
prime-age (25-54)	6.9	72.1	76.0	77.2	78.8	79.1	78.9	79.0
older (55-64)	27.8	40.4	54.8	61.0	66.2	67.7	67.3	68.2
Participation rate (15-64) - MALES	-0.3	81.4	82.1	81.8	80.6	80.5	81.2	81.1
young (15-24)	-1.4	58.6	57.7	56.6	56.6	58.6	57.5	57.2
prime-age (25-54)	0.5	91.6	91.8	91.8	91.7	92.1	92.3	92.1
older (55-64)	0.3	69.7	69.9	70.3	69.9	69.5	69.2	70.0
Employment rate (15-64)	3.4	69.1	71.4	71.8	71.9	72.1	72.5	72.4
Employment rate (20-64)	4.0	73.8	76.2	76.9	77.4	77.1	77.5	77.8
Employment rate (15-71)	1.3	65.8	67.4	67.7	67.5	67.0	65.9	67.1
Unemployment rate (15-64)	0.4	4.7	5.1	5.1	5.1	5.1	5.1	5.1
Employment (15-64) (in millions)	0.8	2.0	2.4	2.5	2.8	2.8	2.8	2.8
share of young (15-24)	-2%	16%	13%	13%	14%	14%	13%	13%
share of prime-age (25-54)	-3%	73%	74%	73%	70%	67%	70%	70%
share of older (55-64)	6%	11%	13%	14%	16%	20%	17%	17%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	3.7	14.3	14.9	15.6	17.5	21.3	19.0	18.0
Old-age dependency ratio (2)	27	16	18	20	25	31	40	44
Total dependency ratio (3)	27	46	50	52	54	58	70	73
Total economic dependency ratio (4)	25	108	108	109	110	115	129	134
Economic old-age dependency ratio (15-64) (5)	33	21	23	25	30	38	50	55
Pension expenditure projections								
BASILENE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	4.6	4.0	4.3	4.6	5.4	6.4	8.0	8.6
Old-age and early pensions, gross	4.6	2.6	2.9	3.2	4.0	5.0	6.6	7.2
Of which : earnings-related pensions, gross	:	:	:	:	:	:	:	:
Other pensions (disability, survivors), gross	0.0	1.4	1.4	1.4	1.4	1.5	1.4	1.4
Occupational pensions, gross	1.5	1.2	1.6	1.8	2.1	2.2	2.5	2.7
Private mandatory pensions, gross	:	:	:	:	:	:	:	:

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Social security pensions, net	:	:	:	:	:	:	:	:
Social security pensions, contributions	-0.1	4.6	4.5	4.5	4.5	4.5	4.5	4.5
Social security pensions, assets	-1.7	10.8	16.7	20.9	29.0	31.5	25.1	9.1
ADDITIONAL INDICATORS	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	:	:	:	:	:	:	:	:
Pensioners (social security, in 1000 persons)	1254	759	918	1023	1270	1541	1863	2013
Pensioners aged 65+ (1000 pers)	:	:	:	:	:	:	:	:
Share of pensioners below age 65 as % of all pensioners	:	:	:	:	:	:	:	:
Average gross pension (social security - € 1000 in 2007 prices)	17.5	9.7	11.7	13.0	15.8	19.1	23.0	27.3
Benefit ratio (Social security pensions)	4.3	27.3	29.1	29.7	30.4	31.0	31.5	31.6
Gross replacement rate at retirement (social security pensions)	:	:	:	:	:	:	:	:
Contributors (social security pensions, in 1000 persons)	1059	2715	3197	3392	3667	3789	3717	3775
Support ratio (contributors/100 pensioners, social security pensions)	-170.3	358	348	332	289	246	199	188
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.2	0.0	0.0	0.0	0.0	0.1	0.1	0.2
Old-age and early pensions, gross	0.2	0.0	0.0	0.0	0.0	0.1	0.1	0.2
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Old-age and early pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.9	0.0	0.2	0.3	0.6	0.8	1.1	0.9
Old-age and early pensions, gross	0.8	0.0	0.2	0.3	0.5	0.8	1.1	0.8
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
Old-age and early pensions, gross	-0.1	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1
HIGH OLDER WORKERS EMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1
Old-age and early pensions, gross	-0.1	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	Ch 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	4.5	4.0	4.3	4.6	5.4	6.4	8.0	8.6
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		0.1	0.3	0.6	1.4	2.4	4.0	4.6
Dependency ratio	5.9	0.0	0.6	1.0	2.0	3.3	5.3	5.9
Coverage ratio	-1.5	0.0	-0.3	-0.4	-0.7	-1.0	-1.4	-1.5
Employment effect	-0.2	0.0	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2
Benefit ratio	0.6	0.1	0.2	0.3	0.4	0.5	0.6	0.7
Interaction effect (residual)	-0.3	0.0	-0.1	-0.1	-0.1	-0.2	-0.3	-0.3
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	4.6	0.33	0.29	0.42	0.57	0.83	0.16	
Dependency ratio	5.9	0.55	0.44	0.53	0.73	1.04	0.13	
Coverage ratio	-1.5	-0.26	-0.17	-0.14	-0.16	-0.18	-0.03	
Employment effect	-0.2	-0.13	-0.03	0.00	-0.01	-0.03	0.00	
Benefit ratio	0.7	0.23	0.08	0.06	0.05	0.06	0.02	
Interaction effect (residual)	-0.25	-0.06	-0.02	-0.02	-0.04	-0.06	0.03	
Health care								
HEALTH CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.8	5.8	6.0	6.1	6.5	6.9	7.3	7.6
Pure ageing scenario	2.0	5.8	6.0	6.1	6.5	7.0	7.5	7.8
Labour intensity scenario	2.9	5.8	6.0	6.1	6.6	7.2	8.1	8.7
Constant health scenario	1.0	5.8	5.8	5.9	6.1	6.4	6.6	6.8
Fast cost growth scenario	2.5	5.8	6.4	6.6	7.0	7.5	8.0	8.4
Cost convergence scenario	:	:	:	:	:	:	:	:
Death-related cost scenario	1.7	5.8	5.9	6.0	6.4	6.8	7.2	7.5
Income elasticity scenario	2.3	5.8	6.1	6.2	6.7	7.3	7.8	8.1
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.3	0.8	0.9	0.9	1.1	1.4	1.8	2.2
Pure demographic scenario	1.4	0.8	0.9	0.9	1.1	1.4	1.8	2.3
GDP per capita scenario	1.1	0.8	0.9	0.9	1.1	1.4	1.6	2.0
Constant disability scenario	1.2	0.8	0.9	0.9	1.1	1.3	1.7	2.1
GDP per worker fast growth scenario	1.6	0.8	1.0	1.0	1.2	1.6	2.0	2.5
Shift 1% of dependents from informal to home care scenario	1.5	0.8	0.9	1.0	1.2	1.5	1.9	2.4
Shift 1% of dependents from informal to institutional care scenario	1.8	0.8	1.0	1.1	1.3	1.7	2.2	2.7
Shift 1% of dependents from informal to home/institutional care scenario	1.7	0.8	1.0	1.1	1.3	1.6	2.1	2.5

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NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)	% Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	290%	93	117	135	180	236	306	361
of which: receiving formal care	360%	62	78	90	124	170	225	286
relying on informal or no care	146%	30	39	45	56	66	81	75
Pure demographic scenario	314%	93	118	137	186	245	321	383
of which: receiving formal care	384%	62	79	91	128	176	235	301
relying on informal or no care	172%	30	39	45	58	69	86	83
Constant disability scenario	266%	93	116	133	175	227	291	338
of which: receiving formal care	337%	62	78	89	121	164	215	271
relying on informal or no care	121%	30	38	44	54	63	75	67
Shift 1% of dependents from informal to home scenario	314%	93	118	137	186	245	321	383
of which: receiving formal care	446%	62	88	105	146	201	267	339
relying on informal or no care	46%	30	30	32	39	45	54	44
Education								
EDUCATION SPENDING AS % OF GDP - BASELINE	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Total	-0.31	4.5	4.4	4.4	4.4	4.0	4.1	4.2
Expenditure decomposition (broadly constant) : Transfers (10%) - Staff (66%) - Other (24%)								
Primary	-0.04	1.5	1.6	1.7	1.5	1.4	1.5	1.5
Expenditure decomposition (broadly constant) : Transfers (1%) - Staff (78%) - Other (21%)								
Low secondary	0.03	0.8	0.8	0.8	0.8	0.7	0.7	0.8
Expenditure decomposition (broadly constant) : Transfers (3%) - Staff (73%) - Other (24%)								
Upper secondary	-0.08	1.1	1.0	1.0	1.1	1.0	1.0	1.0
Expenditure decomposition (broadly constant) : Transfers (25%) - Staff (51%) - Other (23%)								
Tertiary education	-0.22	1.2	1.0	0.9	1.0	1.0	0.9	0.9
Expenditure decomposition (broadly constant) : Transfers (15%) - Staff (59%) - Other (27%)								
Number of students (in thousands)								
Total	319	1039	1183	1275	1345	1286	1315	1358
as % of population 5-24	0%	87%	89%	89%	86%	86%	88%	87%
Primary	163	467	579	629	613	583	624	630
Low secondary	75	173	200	225	251	228	233	248
Upper secondary	60	212	219	237	275	263	255	272
Tertiary education	21	186	185	184	206	212	202	208
Number of teachers (in thousands)								
Total	17	60	66	71	76	73	74	76
Primary	8	24	30	33	32	30	32	33
Low secondary	0	0	0	0	0	0	0	0
Upper secondary	7	26	26	29	33	32	31	33
Tertiary education	1	10	10	10	11	11	11	11
EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)								
Ch 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.18	-0.1	-0.1	0.0	0.1	0.1	0.0	0.0
EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/ STUDENTS (DIFF. FROM BASELINE)								
Ch 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.52	-0.1	0.2	0.4	0.4	0.4	0.4	0.4
EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)								
Ch 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.04	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Unemployment benefit								
UNEMPLOYMENT BENEFIT - BASELINE								
Ch 07-60	2007	2015	2020	2030	2040	2050	2060	
Unemployment benefit spending as % of GDP	0.1	0.8	0.9	0.9	0.9	0.8	0.8	0.8

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

GREECE

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Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.2	1.41	1.43	1.45	1.48	1.51	1.54	1.57
Life expectancy at birth								
males	7.4	77.4	78.6	79.4	80.9	82.3	83.6	84.8
females	6.1	82.6	83.5	84.1	85.3	86.5	87.6	88.7
Life expectancy at 65								
males	4.8	17.2	17.9	18.4	19.3	20.2	21.1	22.0
females	4.9	19.6	20.3	20.8	21.8	22.7	23.7	24.5
Net migration (thousand)	-12.9	39.7	39.9	38.2	37.2	36.6	31.0	26.8
Net migration as % of population	-0.1	0.4	0.3	0.3	0.3	0.3	0.3	0.2
Population (million)	-0.1	11.2	11.5	11.6	11.6	11.6	11.4	11.1
Children population (0-14) as % of total population	-1.3	14.3	14.5	14.4	13.0	12.7	13.1	12.9
Prime age population (25-54) as % of total population	-10.1	44.2	42.9	41.5	37.5	34.9	34.2	34.1
Working age population (15-64) as % of total population	-11.7	67.1	65.5	64.5	62.8	58.9	55.3	55.4
Elderly population (65 and over) as % of total population	13.0	18.6	20.0	21.1	24.2	28.4	31.5	31.7
Very elderly population (80 and over) as % of total population	9.4	4.1	5.8	6.5	7.1	8.9	11.2	13.5
Very elderly population (80 and over) as % of elderly population	20.6	22.0	29.1	30.7	29.4	31.4	35.6	42.6
Very elderly population (80 and over) as % of working age population	18.2	6.1	8.9	10.1	11.3	15.2	20.3	24.3
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	1.8	3.8	2.7	2.9	1.3	1.0	1.2	1.4
Employment (growth rate)	-0.2	1.1	0.3	0.0	-0.4	-0.7	-0.5	-0.3
Labour input : hours worked (growth rate)	-0.2	1.3	0.3	0.0	-0.5	-0.7	-0.5	-0.3
Labour productivity per hour (growth rate)	2.0	2.5	2.4	2.9	1.8	1.7	1.7	1.7
TFP (growth rate)	1.2	1.3	1.3	1.7	1.2	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.8	1.2	1.1	1.1	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	1.8	3.4	2.5	2.8	1.3	1.1	1.4	1.8
GDP per worker (growth rate)	2.0	2.7	2.4	2.9	1.8	1.7	1.7	1.7
GDP in 2007 prices (in millions euros)		228.9	291.2	331.1	396.8	444.2	494.7	565.0
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	-1340	7501	7513	7453	7273	6809	6335	6161
Population growth (working age:15-64)	-0.6	0.4	0.0	-0.2	-0.4	-0.8	-0.5	-0.2
Labour force 15-64 (thousands)	-797	5036	5208	5175	4964	4657	4376	4240
Participation rate (15-64)	1.7	67.1	69.3	69.4	68.3	68.4	69.1	68.8
young (15-24)	-0.1	32.8	33.7	32.7	33.0	33.6	32.8	32.7
prime-age (25-54)	2.8	82.1	84.1	84.7	85.0	84.9	85.1	84.9
older (55-64)	7.5	44.3	47.1	48.7	50.9	51.5	51.3	51.7
Participation rate (15-64) - FEMALES	5.7	55.2	59.1	60.1	60.0	60.6	61.2	61.0
young (15-24)	-1.2	29.3	28.9	28.2	28.4	29.0	28.2	28.1
prime-age (25-54)	6.7	69.2	73.5	74.8	76.0	75.8	76.0	75.9
older (55-64)	16.3	28.4	35.0	38.5	42.5	44.6	44.4	44.7
Participation rate (15-64) - MALES	-2.4	78.8	79.3	78.5	76.2	75.9	76.7	76.4
young (15-24)	1.1	36.0	38.2	37.0	37.5	38.1	37.2	37.1
prime-age (25-54)	-1.0	94.6	94.3	94.0	93.5	93.6	93.8	93.6
older (55-64)	-2.5	61.2	59.9	59.3	59.3	58.1	58.0	58.7
Employment rate (15-64)	3.1	61.4	64.4	65.1	64.0	64.1	64.8	64.6
Employment rate (20-64)	3.8	66.0	68.8	69.7	68.9	68.8	69.8	69.8
Employment rate (15-71)	1.3	56.2	58.8	59.2	57.3	56.3	56.6	57.5
Unemployment rate (15-64)	-2.3	8.5	7.1	6.2	6.2	6.2	6.2	6.2
Employment (15-64) (in millions)	-0.6	4.6	4.8	4.9	4.7	4.4	4.1	4.0
share of young (15-24)	0%	7%	6%	6%	7%	7%	7%	7%
share of prime-age (25-54)	-5%	81%	80%	79%	75%	74%	76%	76%
share of older (55-64)	4%	12%	14%	15%	18%	19%	17%	16%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	3.6	17.4	19.2	20.4	23.5	24.6	21.6	21.0
Old-age dependency ratio (2)	29	28	31	33	38	48	57	57
Total dependency ratio (3)	31	49	53	55	59	70	81	80
Total economic dependency ratio (4)	37	140	136	136	146	162	176	177
Economic old-age dependency ratio (15-64) (5)	43	43	46	48	58	72	85	86
Pension expenditure projections								
BASELINE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	12.4	11.7	12.2	13.2	17.1	21.4	24.0	24.1
Old-age and early pensions, gross	9.0	8.8	9.1	9.9	13.1	16.3	17.9	17.7
Of which : earnings-related pensions, gross	9.9	7.6	8.3	9.3	12.7	16.0	17.6	17.5
Other pensions (disability, survivors), gross	3.5	2.9	3.1	3.3	4.0	5.1	6.1	6.4
Occupational pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Private mandatory pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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Social security pensions, net	:	:	:	:	:	:	:	:
Social security pensions, contributions	0.0	8.5	9.0	9.1	9.4	8.3	8.3	8.5
Social security pensions, assets	:	:	:	:	:	:	:	:
ADDITIONAL INDICATORS	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	:	:	:	:	:	:	:	:
Pensioners (social security, in 1000 persons)	1557	2635	2751	2871	3262	3804	4158	4192
Pensioners aged 65+ (1000 pers)	1507.2	2091	2131	2205	2510	3033	3492	3599
Share of pensioners below age 65 as % of all pensioners	-6%	21%	23%	23%	23%	20%	16%	14%
Average gross pension (social security - € 1000 in 2007 prices)	22.3	10.1	12.9	15.2	20.8	25.0	28.5	32.5
Benefit ratio (Social security pensions)	7.4	73.1	74.7	77.9	85.6	86.9	83.7	80.5
Gross replacement rate at retirement (social security pensions)	5.9	60.6	66.7	67.9	70.7	67.8	70.0	66.5
Contributors (social security pensions, in 1000 persons)	-500	4608	4829	4856	4691	4443	4210	4107
Support ratio (contributors/100 pensioners, social security pensions)	-76.9	175	176	169	144	117	101	98
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.3	0.0	-0.1	-0.1	-0.2	-0.1	0.1	0.3
Old-age and early pensions, gross	0.6	-0.1	-0.1	-0.1	-0.2	0.0	0.3	0.5
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-2.0	0.0	-0.1	-0.3	-0.7	-1.2	-1.7	-2.1
Old-age and early pensions, gross	-1.3	-0.1	-0.1	-0.3	-0.6	-0.9	-1.2	-1.4
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	3.7	0.0	0.1	0.3	0.7	1.8	3.2	3.6
Old-age and early pensions, gross	2.8	-0.1	0.1	0.1	0.5	1.3	2.4	2.7
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.2	0.0	-0.2	-0.4	-0.5	-0.6	-0.4	-0.3
Old-age and early pensions, gross	0.1	-0.1	-0.2	-0.3	-0.5	-0.4	-0.2	0.0
HIGH OLDER WORKERS EMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.3	0.0	-0.2	-0.4	-0.6	-0.6	-0.5	-0.3
Old-age and early pensions, gross	0.0	-0.1	-0.2	-0.3	-0.5	-0.5	-0.3	0.0
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	Ch 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	12.5	11.6	12.2	13.2	17.1	21.4	24.0	24.1
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		-0.1	0.5	1.5	5.4	9.7	12.3	12.4
Dependency ratio	12.7	0.1	1.2	2.1	4.5	8.8	12.7	12.7
Coverage ratio	-0.3	-0.1	-0.7	-0.9	-1.0	-1.1	-1.2	-0.4
Employment effect	-0.6	-0.1	-0.5	-0.7	-0.4	-0.5	-0.7	-0.6
Benefit ratio	0.8	0.0	0.5	1.0	2.4	2.6	1.8	0.8
Interaction effect (residual)	-0.1	0.0	-0.1	-0.1	0.0	-0.1	-0.2	-0.1
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	12.4	0.49	1.00	2.26	2.01	0.98	-0.20	
Dependency ratio	12.7	1.24	0.87	1.30	2.27	1.63	-0.20	
Coverage ratio	-0.4	-0.67	-0.22	0.01	-0.03	-0.03	0.39	
Employment effect	-0.6	-0.54	-0.14	0.12	-0.03	-0.14	0.06	
Benefit ratio	0.8	0.52	0.50	0.76	-0.15	-0.46	-0.46	
Interaction effect (residual)	-0.10	-0.06	-0.01	0.07	-0.06	-0.02	0.01	
Health care								
HEALTH CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.4	5.0	5.3	5.4	5.7	6.0	6.3	6.4
Pure ageing scenario	1.5	5.0	5.2	5.3	5.6	6.0	6.3	6.4
Labour intensity scenario	2.4	5.0	5.1	5.2	5.7	6.5	7.1	7.3
Constant health scenario	0.7	5.0	5.1	5.2	5.3	5.5	5.7	5.7
Fast cost growth scenario	1.9	5.0	5.6	5.7	6.0	6.4	6.7	6.9
Cost convergence scenario	:	:	:	:	:	:	:	:
Death-related cost scenario	1.2	5.0	5.1	5.2	5.5	5.8	6.1	6.2
Income elasticity scenario	1.8	5.0	5.3	5.5	5.9	6.3	6.6	6.8
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	2.2	1.4	1.7	1.8	2.0	2.5	3.1	3.6
Pure demographic scenario	2.4	1.4	1.7	1.8	2.1	2.6	3.3	3.8
GDP per capita scenario	2.0	1.4	1.7	1.9	2.1	2.5	2.9	3.4
Constant disability scenario	2.0	1.4	1.6	1.8	2.0	2.4	3.0	3.4
GDP per worker fast growth scenario	2.8	1.4	1.8	2.0	2.3	2.9	3.7	4.2
Shift 1% of dependents from informal to home care scenario	2.6	1.4	1.7	1.9	2.2	2.8	3.5	4.0
Shift 1% of dependents from informal to institutional care scenario	3.0	1.4	1.9	2.1	2.4	3.1	3.9	4.4
Shift 1% of dependents from informal to home/institutional care scenario	2.8	1.4	1.8	2.0	2.3	2.9	3.7	4.2

GREECE

EC-EPC (AWG) 2009 PROJECTIONS

NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)								
AWG reference scenario	% CH 07-60	2007	2015	2020	2030	2040	2050	2060
	123%	338	425	460	511	607	704	753
of which: receiving formal care	158%	239	310	343	386	465	553	615
relying on informal or no care	38%	100	115	116	125	142	150	138
Pure demographic scenario	142%	338	431	470	532	644	759	820
of which: receiving formal care	176%	239	314	350	399	489	589	660
relying on informal or no care	61%	100	117	120	132	155	169	160
Constant disability scenario	103%	338	419	449	490	570	649	686
of which: receiving formal care	139%	239	306	336	372	441	517	571
relying on informal or no care	16%	100	113	113	118	129	131	115
Shift 1% of dependents from informal to home scenario	142%	338	431	470	532	644	759	820
of which: receiving formal care	211%	239	348	397	453	553	665	742
relying on informal or no care	-22%	100	82	73	79	90	93	78
Education								
EDUCATION SPENDING AS % OF GDP - BASELINE	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Total	-0.05	3.7	3.3	3.3	3.4	3.4	3.5	3.7
Expenditure decomposition (broadly constant) : Transfers (1%) - Staff (69%) - Other (31%)								
Primary	0.07	1.1	1.1	1.1	1.0	1.1	1.2	1.2
Expenditure decomposition (broadly constant) : Transfers (0%) - Staff (83%) - Other (17%)								
Low secondary	:	:	:	:	:	:	:	:
Expenditure decomposition (broadly constant) : Transfers (-%) - Staff (-%) - Other (-%)								
Upper secondary	0.01	1.3	1.1	1.1	1.2	1.2	1.2	1.3
Expenditure decomposition (broadly constant) : Transfers (0%) - Staff (80%) - Other (20%)								
Tertiary education	-0.12	1.3	1.1	1.1	1.2	1.2	1.2	1.2
Expenditure decomposition (broadly constant) : Transfers (1%) - Staff (46%) - Other (53%)								
Number of students (in thousands)								
Total	-254	2015	1946	1969	1915	1790	1779	1761
as % of population 5-24	0%	86%	86%	86%	85%	86%	86%	86%
Primary	-44	636	690	701	618	597	620	592
Low secondary	-28	336	325	353	332	302	310	308
Upper secondary	-49	399	361	373	390	348	343	351
Tertiary education	-133	644	569	542	575	542	506	510
Number of teachers (in thousands)								
Total	-18	174	170	175	168	156	157	155
Primary	-4	60	65	66	59	57	59	56
Low secondary	-3	41	40	43	41	37	38	38
Upper secondary	-6	49	44	45	48	42	42	43
Tertiary education	-5	23	20	19	21	19	18	18
EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)								
CH 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.14	-0.1	0.0	0.0	0.1	0.1	0.1	0.1
EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/ STUDENTS (DIFF. FROM BASELINE)								
CH 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.51	0.2	0.4	0.6	0.7	0.7	0.7	0.7
EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)								
CH 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.02	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Unemployment benefit								
UNEMPLOYMENT BENEFIT - BASELINE								
CH 07-60	2007	2015	2020	2030	2040	2050	2060	
Unemployment benefit spending as % of GDP	-0.1	0.3	0.3	0.2	0.2	0.2	0.2	0.2

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

SPAIN

EC-EPC (AWG) 2009 PROJECTIONS

Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.2	1.39	1.41	1.43	1.46	1.49	1.52	1.56
Life expectancy at birth								
males	7.5	77.4	78.6	79.4	80.9	82.3	83.7	84.9
females	5.7	83.9	84.7	85.4	86.5	87.6	88.6	89.6
Life expectancy at 65								
males	5.0	17.1	17.8	18.3	19.3	20.3	21.2	22.1
females	4.5	21.0	21.6	22.1	23.0	23.9	24.7	25.5
Net migration (thousand)	-493.6	623.4	375.8	263.1	160.8	150.5	135.2	129.9
Net migration as % of population	-1.1	1.4	0.8	0.5	0.3	0.3	0.3	0.3
Population (million)	6.6	45.3	49.4	51.1	52.7	53.3	53.2	51.9
Children population (0-14) as % of total population	-1.7	14.6	15.7	15.5	13.4	12.7	13.2	12.9
Prime age population (25-54) as % of total population	-13.2	46.9	45.5	43.4	38.4	34.8	33.9	33.7
Working age population (15-64) as % of total population	-14.0	68.8	67.0	66.3	64.5	59.6	54.7	54.7
Elderly population (65 and over) as % of total population	15.7	16.6	17.3	18.2	22.1	27.7	32.1	32.3
Very elderly population (80 and over) as % of total population	9.9	4.6	5.3	5.4	6.4	8.3	11.3	14.5
Very elderly population (80 and over) as % of elderly population	17.1	27.7	30.7	29.8	28.8	30.0	35.1	44.8
Very elderly population (80 and over) as % of working age population	19.8	6.7	7.9	8.2	9.9	13.9	20.6	26.5
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	1.9	3.7	3.1	3.4	1.8	0.9	1.1	1.6
Employment (growth rate)	0.2	3.3	1.2	0.8	-0.1	-0.8	-0.6	-0.1
Labour input : hours worked (growth rate)	0.1	2.7	1.2	0.8	-0.1	-0.8	-0.6	-0.1
Labour productivity per hour (growth rate)	1.8	1.0	1.9	2.7	1.9	1.7	1.7	1.7
TFP (growth rate)	1.1	0.3	1.1	1.7	1.3	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.7	0.8	0.7	0.9	0.7	0.6	0.6	0.6
GDP per capita (growth rate)	1.6	2.1	2.1	2.9	1.7	0.8	1.2	1.9
GDP per worker (growth rate)	1.8	0.4	1.8	2.6	1.9	1.8	1.7	1.7
GDP in 2007 prices (in millions euros)		1049.8	1323.8	1546.8	1969.4	2242.3	2453.6	2810.3
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	-2188	30609	33071	33892	33964	31774	29120	28421
Population growth (working age:15-64)	-1.7	1.7	0.6	0.4	-0.3	-0.9	-0.5	-0.1
Labour force 15-64 (thousands)	65	21913	24856	25645	25932	24524	22598	21978
Participation rate (15-64)	5.7	71.6	75.2	75.7	76.4	77.2	77.6	77.3
young (15-24)	-1.6	48.2	47.6	45.7	46.9	48.0	46.8	46.6
prime-age (25-54)	4.5	82.9	85.5	86.2	87.1	87.4	87.5	87.4
older (55-64)	26.4	47.5	58.4	63.5	70.9	72.7	73.1	74.0
Participation rate (15-64) - FEMALES	11.4	61.5	67.9	69.6	71.5	72.9	73.2	72.9
young (15-24)	-1.7	43.6	42.9	41.1	42.1	43.2	42.0	41.9
prime-age (25-54)	9.2	72.7	78.0	79.8	81.7	81.9	81.9	82.0
older (55-64)	40.0	32.7	50.6	58.5	67.7	71.5	72.0	72.6
Participation rate (15-64) - MALES	0.2	81.5	82.2	81.5	81.0	81.3	81.9	81.6
young (15-24)	-1.4	52.6	52.2	50.2	51.4	52.6	51.3	51.2
prime-age (25-54)	0.0	92.6	92.6	92.4	92.3	92.7	92.9	92.6
older (55-64)	12.0	63.3	66.6	68.8	74.0	73.8	74.2	75.3
Employment rate (15-64)	6.9	65.6	69.5	71.0	71.6	72.4	72.8	72.5
Employment rate (20-64)	8.2	69.5	73.5	75.4	76.5	76.9	77.6	77.7
Employment rate (15-71)	4.0	60.8	64.0	65.2	64.4	63.6	63.4	64.8
Unemployment rate (15-64)	-2.1	8.3	7.5	6.2	6.2	6.2	6.2	6.2
Employment (15-64) (in millions)	0.5	20.1	23.0	24.1	24.3	23.0	21.2	20.6
share of young (15-24)	0%	10%	9%	8%	10%	9%	9%	10%
share of prime-age (25-54)	-9%	79%	78%	75%	68%	67%	70%	70%
share of older (55-64)	9%	11%	14%	16%	22%	24%	20%	20%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	5.0	15.5	17.1	19.2	23.1	25.1	21.4	20.5
Old-age dependency ratio (2)	35	24	26	27	34	46	59	59
Total dependency ratio (3)	37	45	49	51	55	68	83	83
Total economic dependency ratio (4)	29	120	114	111	114	129	148	149
Economic old-age dependency ratio (15-64) (5)	43	36	36	37	46	61	77	79
Pension expenditure projections								
BASELINE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	6.7	8.4	9.2	9.5	10.8	13.2	15.5	15.1
Old-age and early pensions, gross	6.6	5.6	6.3	6.6	7.8	10.0	12.3	12.1
Of which : earnings-related pensions, gross	:	:	:	:	:	:	:	:
Other pensions (disability, survivors), gross	0.1	2.9	2.9	2.9	3.0	3.2	3.2	3.0
Occupational pensions, gross	0.2	0.4	0.5	0.5	0.6	0.7	0.7	0.7
Private mandatory pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SPAIN

EC-EPC (AWG) 2009 PROJECTIONS

Social security pensions, net	6.4	8.0	8.8	9.1	10.3	12.6	14.8	14.5
Social security pensions, contributions	-0.3	10.7	10.7	10.7	10.7	10.6	10.5	10.4
Social security pensions, assets	:	4.4	:	:	:	:	:	:
ADDITIONAL INDICATORS	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	0.4	95.3	95.3	95.3	95.4	95.5	95.6	95.6
Pensioners (social security, in 1000 persons)	8730	8075	8969	9775	12080	15017	17002	16805
Pensioners aged 65+ (1000 pers)	:	:	:	:	:	:	:	:
Share of pensioners below age 65 as % of all pensioners	:	:	:	:	:	:	:	:
Average gross pension (social security - € 1000 in 2007 prices)	14.3	11.0	13.6	15.0	17.6	19.8	22.3	25.3
Benefit ratio (Social security pensions)	-5.6	57.8	65.9	65.2	61.0	57.2	54.5	52.2
Gross replacement rate at retirement (social security pensions)	:	:	:	:	:	:	:	:
Contributors (social security pensions, in 1000 persons)	402	21510	24504	25326	25769	24544	22630	21911
Support ratio (contributors/100 pensioners, social security pensions)	-136.0	266	273	259	213	163	133	130
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.3	0.0	0.0	0.0	0.0	0.1	0.2	0.3
Old-age and early pensions, gross	0.3	0.0	0.0	0.0	0.1	0.1	0.2	0.3
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-1.0	0.0	0.0	-0.1	-0.4	-0.6	-0.9	-1.0
Old-age and early pensions, gross	-0.8	0.0	0.0	-0.1	-0.3	-0.5	-0.7	-0.8
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	3.0	0.0	0.6	0.9	1.5	2.5	3.6	3.0
Old-age and early pensions, gross	2.5	0.0	0.4	0.7	1.1	2.0	3.1	2.5
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.2	0.0	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2
Old-age and early pensions, gross	-0.2	0.0	0.0	-0.1	-0.1	-0.1	-0.2	-0.2
HIGH OLDER WORKERS EMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.0	0.0	-0.2	-0.3	-0.3	-0.2	0.0	0.0
Old-age and early pensions, gross	0.0	0.0	-0.2	-0.3	-0.3	-0.2	0.0	0.0
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	Ch 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	6.6	8.6	9.2	9.5	10.8	13.2	15.5	15.1
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		0.1	0.8	1.1	2.4	4.8	7.0	6.7
Dependency ratio	10.7	0.0	0.6	1.1	3.5	7.2	10.6	10.7
Coverage ratio	-0.8	0.0	-0.3	-0.3	-0.4	-0.6	-1.0	-0.9
Employment effect	-0.9	0.0	-0.5	-0.7	-0.8	-0.9	-0.9	-0.9
Benefit ratio	-2.0	0.2	1.1	1.0	0.3	-0.4	-1.1	-1.7
Interaction effect (residual)	-0.5	0.0	-0.1	-0.1	-0.2	-0.5	-0.6	-0.5
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	6.7	0.80	0.27	0.73	1.37	0.82	-0.43	
Dependency ratio	10.7	0.56	0.57	1.38	1.99	1.31	-0.24	
Coverage ratio	-0.9	-0.31	0.01	-0.11	-0.10	-0.09	0.06	
Employment effect	-0.9	-0.47	-0.19	-0.08	-0.03	-0.03	0.02	
Benefit ratio	-1.7	1.10	-0.12	-0.37	-0.36	-0.35	-0.30	
Interaction effect (residual)	-0.54	-0.08	-0.01	-0.09	-0.13	-0.01	0.03	
Health care								
HEALTH CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.6	5.5	5.7	5.9	6.3	6.8	7.1	7.2
Pure ageing scenario	1.8	5.5	5.7	5.8	6.3	6.9	7.2	7.3
Labour intensity scenario	2.6	5.5	5.5	5.5	6.1	7.0	8.0	8.1
Constant health scenario	1.0	5.5	5.6	5.6	5.9	6.3	6.5	6.5
Fast cost growth scenario	2.3	5.5	6.1	6.2	6.7	7.3	7.7	7.8
Cost convergence scenario	:	:	:	:	:	:	:	:
Death-related cost scenario	1.5	5.5	5.6	5.7	6.1	6.6	7.0	7.0
Income elasticity scenario	2.1	5.5	5.8	6.0	6.5	7.1	7.5	7.6
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	0.9	0.5	0.9	0.9	1.0	1.1	1.3	1.4
Pure demographic scenario	0.9	0.5	0.9	0.9	1.0	1.1	1.4	1.5
GDP per capita scenario	0.8	0.5	0.9	0.9	1.0	1.1	1.2	1.3
Constant disability scenario	0.8	0.5	0.9	0.9	1.0	1.1	1.3	1.3
GDP per worker fast growth scenario	1.0	0.5	0.9	1.0	1.0	1.2	1.5	1.6
Shift 1% of dependents from informal to home care scenario	1.0	0.5	0.9	0.9	1.0	1.2	1.4	1.5
Shift 1% of dependents from informal to institutional care scenario	2.8	0.5	1.4	1.6	1.8	2.3	3.0	3.3
Shift 1% of dependents from informal to home/institutional care scenario	1.5	0.5	1.1	1.1	1.3	1.5	1.9	2.0

SPAIN

EC-EPC (AWG) 2009 PROJECTIONS

NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)	% Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	155%	1728	2016	2158	2615	3317	4063	4403
of which: receiving formal care	548%	362	1144	1235	1508	1898	2252	2346
relying on informal or no care	51%	1366	872	923	1107	1419	1810	2057
Pure demographic scenario	173%	1728	2041	2199	2708	3486	4326	4721
of which: receiving formal care	592%	362	1157	1257	1557	1988	2390	2506
relying on informal or no care	62%	1366	884	941	1150	1498	1935	2215
Constant disability scenario	136%	1728	1992	2117	2523	3147	3799	4086
of which: receiving formal care	504%	362	1131	1213	1458	1808	2114	2186
relying on informal or no care	39%	1366	861	904	1064	1339	1685	1900
Shift 1% of dependents from informal to home scenario	173%	1680	1984	2137	2631	3387	4204	4592
of which: receiving formal care	983%	362	1646	1916	2369	3033	3687	3920
relying on informal or no care	-49%	1318	338	221	262	354	518	672
Education								
EDUCATION SPENDING AS % OF GDP - BASELINE	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Total	0.13	3.5	3.4	3.5	3.4	3.2	3.5	3.6
Expenditure decomposition (broadly constant) : Transfers (3%) - Staff (71%) - Other (26%)								
Primary	0.10	1.1	1.2	1.2	1.0	1.0	1.2	1.2
Expenditure decomposition (broadly constant) : Transfers (1%) - Staff (76%) - Other (23%)								
Low secondary	0.16	1.6	1.5	1.7	1.6	1.5	1.6	1.7
Expenditure decomposition (broadly constant) : Transfers (2%) - Staff (73%) - Other (25%)								
Upper secondary	:	:	:	:	:	:	:	:
Expenditure decomposition (broadly constant) : Transfers (-%) - Staff (-%) - Other (-%)								
Tertiary education	-0.13	0.9	0.7	0.7	0.7	0.7	0.7	0.7
Expenditure decomposition (broadly constant) : Transfers (8%) - Staff (61%) - Other (31%)								
Number of students (in thousands)								
Total	407	7524	8280	8839	8663	7899	7940	7932
as % of population 5-24	1%	81%	82%	83%	80%	81%	82%	82%
Primary	320	2693	3420	3616	3149	2973	3147	3013
Low secondary	256	1962	2197	2468	2456	2127	2166	2218
Upper secondary	50	1103	1088	1196	1315	1147	1104	1153
Tertiary education	-218	1765	1575	1559	1742	1652	1523	1548
Number of teachers (in thousands)								
Total	30	562	613	656	649	589	590	592
Primary	21	180	229	242	211	199	210	201
Low secondary	19	148	165	186	185	160	163	167
Upper secondary	5	111	110	121	133	116	111	116
Tertiary education	-15	123	109	108	121	115	106	108
EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)								
Ch 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.15	-0.1	-0.1	0.0	0.1	0.1	0.0	0.1
EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/ STUDENTS (DIFF. FROM BASELINE)								
Ch 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.49	0.0	0.3	0.5	0.5	0.5	0.5	0.5
EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)								
Ch 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unemployment benefit								
UNEMPLOYMENT BENEFIT - BASELINE								
Ch 07-60	2007	2015	2020	2030	2040	2050	2060	
Unemployment benefit spending as % of GDP	-0.4	1.3	1.2	0.9	0.9	0.9	0.9	0.9

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

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EC-EPC (AWG) 2009 PROJECTIONS

Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.0	1.98	1.98	1.97	1.96	1.95	1.94	1.93
Life expectancy at birth								
males	7.7	77.5	78.7	79.5	81.0	82.5	83.9	85.1
females	5.8	84.3	85.2	85.8	87.0	88.1	89.1	90.1
Life expectancy at 65								
males	4.8	17.7	18.4	18.9	19.9	20.8	21.7	22.5
females	4.1	22.0	22.7	23.1	23.9	24.7	25.5	26.2
Net migration (thousand)	-36.4	99.3	97.4	92.5	86.5	76.9	69.9	62.9
Net migration as % of population	-0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1
Population (million)	9.9	61.9	64.2	65.6	68.0	69.9	71.0	71.8
Children population (0-14) as % of total population	-1.7	18.3	18.4	18.2	17.4	17.0	17.0	16.7
Prime age population (25-54) as % of total population	-5.7	40.6	38.8	37.4	35.3	35.2	35.0	34.9
Working age population (15-64) as % of total population	-7.8	65.2	63.1	61.6	59.4	57.6	57.3	57.4
Elderly population (65 and over) as % of total population	9.4	16.5	18.5	20.2	23.2	25.3	25.6	25.9
Very elderly population (80 and over) as % of total population	5.8	5.0	5.9	6.0	7.3	9.3	10.5	10.8
Very elderly population (80 and over) as % of elderly population	11.2	30.4	31.8	29.9	31.5	36.9	40.9	41.6
Very elderly population (80 and over) as % of working age population	11.1	7.7	9.3	9.8	12.3	16.2	18.3	18.8
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	1.8	2.1	2.0	1.9	1.7	1.8	1.8	1.8
Employment (growth rate)	0.2	1.0	0.3	0.1	0.0	0.1	0.1	0.1
Labour input : hours worked (growth rate)	0.1	0.6	0.3	0.1	0.0	0.1	0.1	0.1
Labour productivity per hour (growth rate)	1.7	1.5	1.7	1.7	1.7	1.7	1.7	1.7
TFP (growth rate)	1.1	0.9	1.1	1.1	1.1	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	1.5	1.5	1.5	1.5	1.4	1.6	1.7	1.7
GDP per worker (growth rate)	1.7	1.1	1.7	1.7	1.7	1.7	1.7	1.7
GDP in 2007 prices (in millions euros)		1892.2	2212.8	2437.9	2900.1	3463.3	4129.6	4944.9
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	1070	40132	40498	40426	40415	40268	40737	41202
Population growth (working age:15-64)	-0.5	0.7	-0.1	0.0	-0.1	0.0	0.1	0.2
Labour force 15-64 (thousands)	1279	28224	28578	28615	28648	28870	29129	29503
Participation rate (15-64)	1.3	70.3	70.6	70.8	70.9	71.7	71.5	71.6
young (15-24)	0.8	39.4	40.5	39.7	40.2	40.4	40.1	40.2
prime-age (25-54)	0.6	88.3	88.6	88.8	88.9	88.9	89.0	88.9
older (55-64)	8.3	41.0	42.9	46.1	48.8	49.4	48.4	49.3
Participation rate (15-64) - FEMALES	2.3	65.6	66.5	66.8	67.0	67.9	67.7	67.9
young (15-24)	0.4	35.6	36.4	35.5	36.1	36.3	35.9	36.0
prime-age (25-54)	2.6	82.5	84.0	84.5	85.0	85.0	85.1	85.1
older (55-64)	8.1	38.5	40.6	43.6	45.4	46.6	45.5	46.6
Participation rate (15-64) - MALES	0.1	75.1	74.7	74.8	74.8	75.4	75.2	75.2
young (15-24)	1.1	43.0	44.4	43.7	44.1	44.4	44.0	44.1
prime-age (25-54)	-1.6	94.2	93.3	93.1	92.8	92.7	92.7	92.6
older (55-64)	8.5	43.6	45.4	48.9	52.4	52.3	51.4	52.0
Employment rate (15-64)	2.5	64.7	65.6	66.4	66.5	67.3	67.1	67.2
Employment rate (20-64)	2.8	70.4	71.0	72.1	72.4	73.2	73.0	73.1
Employment rate (15-71)	0.8	59.8	59.6	59.6	59.6	60.3	60.5	60.6
Unemployment rate (15-64)	-1.8	8.0	7.0	6.2	6.2	6.2	6.2	6.2
Employment (15-64) (in millions)	1.7	26.0	26.6	26.8	26.9	27.1	27.3	27.7
share of young (15-24)	1%	10%	10%	10%	10%	10%	10%	10%
share of prime-age (25-54)	-3%	80%	78%	77%	75%	76%	77%	76%
share of older (55-64)	3%	11%	12%	13%	14%	13%	13%	13%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	0.7	18.4	19.8	20.1	20.4	18.9	19.2	19.1
Old-age dependency ratio (2)	20	25	29	33	39	44	45	45
Total dependency ratio (3)	21	53	59	62	68	74	74	74
Total economic dependency ratio (4)	21	137	140	143	151	156	158	158
Economic old-age dependency ratio (15-64) (5)	27	39	43	48	57	64	65	66
Pension expenditure projections								
BASELINE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	1.0	13.0	13.5	13.6	14.2	14.4	14.2	14.0
Old-age and early pensions, gross	1.0	13.0	13.5	13.6	14.2	14.4	14.2	14.0
Of which : earnings-related pensions, gross	:	:	:	:	:	:	:	:
Other pensions (disability, survivors), gross	:	:	:	:	:	:	:	:
Occupational pensions, gross	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	:	:	:	:	:	:	:	:

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EC-EPC (AWG) 2009 PROJECTIONS

Social security pensions, net	0.9	11.9	12.4	12.5	13.0	13.2	13.0	12.9
Social security pensions, contributions	0.0	12.6	12.7	12.7	12.7	12.7	12.7	12.7
Social security pensions, assets	-1.8	1.8	2.9	3.9	2.8	1.5	0.0	0.0
ADDITIONAL INDICATORS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	0.0	91.6	91.6	91.6	91.6	91.6	91.6	91.6
Pensioners (social security, in 1000 persons)	7925	14048	15931	17075	19382	20908	21595	21973
Pensioners aged 65+ (1000 pers)	:	:	:	:	:	:	:	:
Share of pensioners below age 65 as % of all pensioners	:	:	:	:	:	:	:	:
Average gross pension (social security - € 1000 in 2007 prices)	14.0	17.6	18.8	19.5	21.2	23.9	27.2	31.6
Benefit ratio (Social security pensions)	-15.8	63.3	60.6	57.7	52.9	50.3	48.3	47.5
Gross replacement rate at retirement (social security pensions)	:	:	:	:	:	:	:	:
Contributors (social security pensions, in 1000 persons)	2127	25399	26332	26637	26719	26969	27182	27525
Support ratio (contributors/100 pensioners, social security pensions)	-55.5	181	165	156	138	129	126	125
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.4	0.0	0.0	0.0	0.1	0.2	0.3	0.4
Old-age and early pensions, gross	0.4	0.0	0.0	0.0	0.1	0.2	0.3	0.4
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.8	0.0	-0.1	-0.2	-0.4	-0.6	-0.7	-0.8
Old-age and early pensions, gross	-0.8	0.0	-0.1	-0.2	-0.4	-0.6	-0.7	-0.8
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.9	0.0	0.2	0.3	0.6	0.9	1.0	0.9
Old-age and early pensions, gross	0.9	0.0	0.2	0.3	0.6	0.9	1.0	0.9
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.2	0.0	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2
Old-age and early pensions, gross	-0.2	0.0	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2
HIGH OLDER WORKERS EMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.4	0.0	-0.3	-0.5	-0.5	-0.4	-0.4	-0.4
Old-age and early pensions, gross	-0.4	0.0	-0.3	-0.5	-0.5	-0.4	-0.4	-0.4
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	0.8	13.3	13.5	13.6	14.2	14.4	14.2	14.0
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		0.2	0.5	0.6	1.2	1.4	1.2	1.0
Dependency ratio	8.3	0.1	2.1	3.7	6.2	8.0	8.2	8.4
Coverage ratio	-2.4	0.2	-0.4	-1.0	-1.6	-2.2	-2.1	-2.2
Employment effect	-0.5	0.0	-0.2	-0.3	-0.4	-0.5	-0.5	-0.5
Benefit ratio	-4.0	0.0	-0.7	-1.4	-2.5	-3.2	-3.8	-4.0
Interaction effect (residual)	-0.7	0.0	-0.3	-0.4	-0.6	-0.7	-0.7	-0.7
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	1.0	0.51	0.10	0.34	-0.05	-0.11	-0.07	
Dependency ratio	8.4	2.12	1.61	1.23	0.78	0.16	0.01	
Coverage ratio	-2.2	-0.44	-0.54	-0.28	-0.30	-0.04	0.02	
Employment effect	-0.5	-0.18	-0.16	-0.03	-0.12	0.01	0.00	
Benefit ratio	-4.0	-0.73	-0.68	-0.51	-0.39	-0.22	-0.09	
Interaction effect (residual)	-0.66	-0.27	-0.13	-0.06	-0.03	-0.02	0.01	
Health care								
HEALTH CARE SPENDING AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.2	8.1	8.4	8.6	8.9	9.2	9.3	9.4
Pure ageing scenario	1.4	8.1	8.4	8.6	9.0	9.3	9.5	9.5
Labour intensity scenario	2.1	8.1	8.4	8.7	9.4	10.0	10.2	10.3
Constant health scenario	0.4	8.1	8.2	8.3	8.5	8.6	8.6	8.5
Fast cost growth scenario	2.1	8.1	9.0	9.2	9.6	10.0	10.1	10.2
Cost convergence scenario	:	:	:	:	:	:	:	:
Death-related cost scenario	1.1	8.1	8.2	8.4	8.7	9.0	9.2	9.2
Income elasticity scenario	1.8	8.1	8.5	8.7	9.2	9.6	9.8	9.9
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	0.8	1.4	1.5	1.6	1.8	2.0	2.2	2.2
Pure demographic scenario	0.9	1.4	1.5	1.6	1.8	2.1	2.2	2.3
GDP per capita scenario	0.7	1.4	1.5	1.5	1.7	1.9	2.1	2.1
Constant disability scenario	0.7	1.4	1.5	1.6	1.7	2.0	2.1	2.1
GDP per worker fast growth scenario	1.1	1.4	1.7	1.7	2.0	2.3	2.5	2.5
Shift 1% of dependents from informal to home care scenario	1.0	1.4	1.6	1.6	1.8	2.2	2.3	2.3
Shift 1% of dependents from informal to institutional care scenario	1.3	1.4	1.7	1.8	2.1	2.5	2.6	2.7
Shift 1% of dependents from informal to home/institutional care scenario	1.1	1.4	1.6	1.7	2.0	2.3	2.5	2.5

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EC-EPC (AWG) 2009 PROJECTIONS

NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)	% CH 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	101%	2263	2651	2836	3459	4159	4458	4541
of which: receiving formal care	121%	1505	1807	1941	2338	2939	3215	3330
relying on informal or no care	60%	758	844	895	1121	1220	1244	1212
Pure demographic scenario	114%	2263	2676	2884	3581	4342	4704	4833
of which: receiving formal care	133%	1505	1821	1970	2411	3049	3363	3506
relying on informal or no care	75%	758	855	915	1170	1293	1341	1327
Constant disability scenario	88%	2263	2626	2788	3336	3976	4212	4250
of which: receiving formal care	109%	1505	1792	1913	2265	2828	3066	3153
relying on informal or no care	45%	758	834	875	1071	1148	1146	1097
Shift 1% of dependents from informal to home scenario	114%	2263	2676	2884	3581	4342	4704	4833
of which: receiving formal care	165%	1505	2036	2258	2769	3484	3834	3989
relying on informal or no care	11%	758	641	626	811	859	870	843
Education								
EDUCATION SPENDING AS % OF GDP - BASELINE	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Total	-0.04	4.7	4.6	4.6	4.7	4.6	4.7	4.6
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (4%) - Staff (70%) - Other (26%)</i>								
Primary	0.00	1.1	1.1	1.2	1.1	1.1	1.1	1.1
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (3%) - Staff (69%) - Other (28%)</i>								
Low secondary	0.04	1.2	1.3	1.3	1.3	1.3	1.3	1.3
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (3%) - Staff (72%) - Other (25%)</i>								
Upper secondary	-0.03	1.2	1.2	1.2	1.2	1.2	1.2	1.2
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (4%) - Staff (71%) - Other (25%)</i>								
Tertiary education	-0.04	1.1	1.0	1.0	1.0	1.0	1.0	1.0
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (8%) - Staff (66%) - Other (26%)</i>								
Number of students (in thousands)								
Total	812	11961	12172	12472	12604	12521	12733	12773
as % of population 5-24	0%	78%	79%	79%	78%	78%	79%	78%
Primary	278	3957	4179	4244	4172	4195	4296	4236
Low secondary	335	3218	3415	3492	3505	3450	3549	3553
Upper secondary	131	2720	2605	2725	2817	2769	2800	2851
Tertiary education	68	2066	1972	2011	2111	2107	2087	2134
Number of teachers (in thousands)								
Total	53	768	779	800	810	803	817	821
Primary	15	210	222	225	221	223	228	225
Low secondary	24	227	241	246	247	243	250	251
Upper secondary	11	229	219	229	237	233	236	240
Tertiary education	3	102	97	99	104	104	103	105
EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)								
Total	CH 07-60	2007	2015	2020	2030	2040	2050	2060
	0.09	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0
EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/ STUDENTS (DIFF. FROM BASELINE)								
Total	CH 07-60	2007	2015	2020	2030	2040	2050	2060
	0.57	-0.2	0.1	0.3	0.4	0.4	0.4	0.4
EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)								
Total	CH 07-60	2007	2015	2020	2030	2040	2050	2060
	0.04	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Unemployment benefit								
UNEMPLOYMENT BENEFIT - BASELINE	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Unemployment benefit spending as % of GDP	-0.3	1.2	1.1	0.9	0.9	0.9	0.9	0.9

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

ITALY

EC-EPC (AWG) 2009 PROJECTIONS

Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.2	1.38	1.41	1.42	1.46	1.49	1.52	1.55
Life expectancy at birth								
males	6.9	78.5	79.6	80.3	81.7	83.1	84.3	85.5
females	5.8	84.2	85.1	85.7	86.9	88.0	89.0	90.0
Life expectancy at 65								
males	4.9	17.5	18.2	18.7	19.7	20.6	21.5	22.4
females	4.5	21.4	22.1	22.5	23.4	24.3	25.1	25.9
Net migration (thousand)	-85.3	259.5	248.6	240.8	248.7	229.5	193.4	174.3
Net migration as % of population	-0.1	0.4	0.4	0.4	0.4	0.4	0.3	0.3
Population (million)	-0.1	59.5	60.9	61.4	61.9	62.0	61.2	59.4
Children population (0-14) as % of total population	-1.9	14.0	13.9	13.4	12.2	12.2	12.3	12.1
Prime age population (25-54) as % of total population	-9.9	43.7	42.3	40.5	36.3	34.9	34.1	33.7
Working age population (15-64) as % of total population	-10.8	65.9	64.5	63.9	61.6	57.0	55.1	55.1
Elderly population (65 and over) as % of total population	12.6	20.1	21.7	22.7	26.2	30.8	32.6	32.7
Very elderly population (80 and over) as % of total population	9.4	5.5	6.6	7.3	8.5	10.0	13.1	14.9
Very elderly population (80 and over) as % of elderly population	18.2	27.4	30.6	32.3	32.5	32.4	40.2	45.6
Very elderly population (80 and over) as % of working age population	18.7	8.3	10.3	11.4	13.8	17.5	23.8	27.0
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	1.4	1.5	2.1	1.9	1.4	1.0	1.3	1.4
Employment (growth rate)	-0.1	1.3	0.5	0.2	-0.3	-0.7	-0.4	-0.3
Labour input : hours worked (growth rate)	-0.1	1.2	0.5	0.2	-0.3	-0.6	-0.4	-0.3
Labour productivity per hour (growth rate)	1.6	0.3	1.5	1.6	1.7	1.7	1.7	1.7
TFP (growth rate)	1.0	0.1	1.1	1.1	1.1	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.5	0.2	0.4	0.5	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	1.4	0.9	1.8	1.7	1.3	1.1	1.5	1.8
GDP per worker (growth rate)	1.5	0.2	1.5	1.6	1.7	1.7	1.7	1.7
GDP in 2007 prices (in millions euros)		1535.5	1751.6	1925.5	2264.6	2525.0	2846.9	3258.6
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	-6288	39036	39281	39273	38118	35337	33727	32749
Population growth (working age:15-64)	-0.7	0.4	-0.1	0.0	-0.7	-0.8	-0.3	-0.3
Labour force 15-64 (thousands)	-2281	24435	25821	26076	25688	23932	22912	22154
Participation rate (15-64)	5.1	62.6	65.7	66.4	67.4	67.7	67.9	67.7
young (15-24)	1.1	31.2	32.7	31.9	32.7	32.7	32.1	32.3
prime-age (25-54)	1.2	77.6	78.4	78.8	78.9	78.8	78.9	78.8
older (55-64)	28.4	34.7	48.7	54.0	62.3	61.9	62.8	63.1
Participation rate (15-64) - FEMALES	6.2	50.7	55.0	56.0	56.9	57.0	57.1	56.8
young (15-24)	0.6	25.6	26.6	25.9	26.6	26.6	26.1	26.3
prime-age (25-54)	3.3	64.1	66.7	67.7	67.9	67.4	67.5	67.4
older (55-64)	27.1	23.4	37.6	42.7	50.0	49.9	50.3	50.5
Participation rate (15-64) - MALES	3.4	74.5	76.4	76.6	77.7	78.1	78.3	77.9
young (15-24)	1.5	36.5	38.3	37.5	38.5	38.3	37.8	37.9
prime-age (25-54)	-1.4	91.0	89.9	89.7	89.5	89.6	89.7	89.6
older (55-64)	28.8	46.6	60.4	65.8	75.0	74.3	75.3	75.4
Employment rate (15-64)	5.0	58.7	62.0	62.6	63.5	63.8	64.0	63.8
Employment rate (20-64)	5.7	62.9	66.1	67.0	68.0	68.3	68.7	68.6
Employment rate (15-71)	3.7	53.3	56.1	56.7	56.7	56.1	57.1	57.0
Unemployment rate (15-64)	-0.4	6.2	5.8	5.8	5.8	5.8	5.8	5.8
Employment (15-64) (in millions)	-2.0	22.9	24.3	24.6	24.2	22.6	21.6	20.9
share of young (15-24)	0%	7%	6%	6%	6%	6%	6%	7%
share of prime-age (25-54)	-11%	83%	79%	76%	69%	72%	72%	72%
share of older (55-64)	11%	10%	15%	18%	24%	22%	21%	22%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	4.0	18.3	19.3	21.6	25.3	23.3	22.1	22.4
Old-age dependency ratio (2)	29	30	34	35	42	54	59	59
Total dependency ratio (3)	30	52	55	56	62	75	82	81
Total economic dependency ratio (4)	25	156	149	148	152	171	180	181
Economic old-age dependency ratio (15-64) (5)	39	50	53	55	64	80	89	89
Pension expenditure projections								
BASILINE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.4	14.0	14.0	14.1	14.8	15.6	14.7	13.6
Old-age and early pensions, gross	-0.2	13.5	13.5	13.6	14.4	15.2	14.4	13.3
Of which : earnings-related pensions, gross	-0.5	13.2	13.3	13.3	13.9	14.7	13.9	12.7
Other pensions (disability, survivors), gross	-0.2	0.5	0.5	0.5	0.4	0.3	0.3	0.3
Occupational pensions, gross	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	:	:	:	:	:	:	:	:

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EC-EPC (AWG) 2009 PROJECTIONS

Social security pensions, net	-0.4	11.9	12.0	12.1	12.7	13.5	12.7	11.5
Social security pensions, contributions	0.2	10.4	10.6	10.6	10.6	10.5	10.6	10.6
Social security pensions, assets	:	:	:	:	:	:	:	:
ADDITIONAL INDICATORS	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	-0.4	85.3	85.3	85.4	86.1	86.8	86.1	84.9
Pensioners (social security, in 1000 persons)	4995	15807	16116	16819	19299	21335	21304	20802
Pensioners aged 65+ (1000 pers)	6698.3	11811	12902	13529	15791	18566	19153	18509
Share of pensioners below age 65 as % of all pensioners	-14%	25%	20%	20%	18%	13%	10%	11%
Average gross pension (social security - € 1000 in 2007 prices)	7.7	13.6	15.2	16.2	17.4	18.4	19.7	21.3
Benefit ratio (Social security pensions)	-21.2	68.5	71.9	70.5	64.1	57.3	51.7	47.3
Gross replacement rate at retirement (social security pensions)	-17.3	66.8	73.3	65.5	57.6	56.0	51.0	49.4
Contributors (social security pensions, in 1000 persons)	-1628	23550	25003	25404	25304	23835	22687	21922
Support ratio (contributors/100 pensioners, social security pensions)	-43.6	149	155	151	131	112	106	105
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1
Old-age and early pensions, gross	0.2	0.0	0.0	0.0	0.1	0.1	0.1	0.2
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.5	0.0	-0.1	-0.2	-0.4	-0.5	-0.6	-0.5
Old-age and early pensions, gross	-0.5	0.0	-0.1	-0.2	-0.4	-0.5	-0.5	-0.5
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	2.1	0.0	0.5	0.9	1.8	2.8	2.9	2.1
Old-age and early pensions, gross	2.1	0.0	0.5	0.9	1.7	2.7	2.9	2.1
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.0	0.0	-0.1	-0.2	-0.2	-0.1	-0.1	0.0
Old-age and early pensions, gross	0.0	0.0	-0.1	-0.2	-0.2	-0.1	-0.1	0.0
HIGH OLDER WORKERS EMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.1	0.0	-0.2	-0.3	-0.2	0.0	0.1	0.1
Old-age and early pensions, gross	0.1	0.0	-0.2	-0.3	-0.2	0.0	0.1	0.1
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	Ch 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	-0.5	14.1	14.0	14.1	14.8	15.6	14.7	13.6
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		0.1	0.0	0.1	0.8	1.6	0.7	-0.4
Dependency ratio	10.3	0.1	1.6	2.4	5.1	8.9	10.4	10.4
Coverage ratio	-3.0	-0.2	-1.3	-1.4	-1.6	-2.6	-3.3	-3.2
Employment effect	-1.1	0.0	-0.7	-0.9	-1.1	-1.2	-1.2	-1.1
Benefit ratio	-5.7	0.2	0.6	0.3	-1.0	-2.7	-4.2	-5.5
Interaction effect (residual)	-1.0	0.0	-0.1	-0.2	-0.5	-1.0	-1.0	-1.0
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	-0.4	0.01	0.10	0.48	0.33	-0.67	-0.57	
Dependency ratio	10.4	1.60	0.78	1.69	1.83	0.36	-0.03	
Coverage ratio	-3.2	-1.27	-0.16	-0.19	-0.51	-0.26	0.00	
Employment effect	-1.1	-0.73	-0.14	-0.10	-0.03	0.00	0.01	
Benefit ratio	-5.5	0.56	-0.28	-0.72	-0.78	-0.81	-0.54	
Interaction effect (residual)	-0.98	-0.15	-0.10	-0.20	-0.18	0.04	-0.01	
Health care								
HEALTH CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.1	5.9	6.1	6.2	6.5	6.9	7.0	6.9
Pure ageing scenario	1.2	5.9	6.1	6.2	6.6	6.9	7.1	7.1
Labour intensity scenario	1.8	5.9	5.9	6.0	6.4	7.2	7.7	7.7
Constant health scenario	0.5	5.9	5.9	6.0	6.2	6.4	6.5	6.3
Fast cost growth scenario	1.7	5.9	6.5	6.7	7.0	7.4	7.6	7.6
Cost convergence scenario	:	:	:	:	:	:	:	:
Death-related cost scenario	1.0	5.9	5.9	6.1	6.4	6.7	6.9	6.9
Income elasticity scenario	1.5	5.9	6.1	6.3	6.7	7.1	7.3	7.3
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.3	1.7	1.8	1.8	2.0	2.3	2.8	3.0
Pure demographic scenario	1.4	1.7	1.8	1.8	2.0	2.4	2.9	3.1
GDP per capita scenario	1.2	1.7	1.8	1.9	2.1	2.3	2.7	2.8
Constant disability scenario	1.1	1.7	1.8	1.8	1.9	2.3	2.6	2.8
GDP per worker fast growth scenario	1.7	1.7	1.9	2.0	2.2	2.7	3.2	3.4
Shift 1% of dependents from informal to home care scenario	1.9	1.7	2.0	2.1	2.3	2.8	3.3	3.6
Shift 1% of dependents from informal to institutional care scenario	2.5	1.7	2.2	2.4	2.7	3.2	3.9	4.2
Shift 1% of dependents from informal to home/institutional care scenario	2.2	1.7	2.1	2.2	2.5	3.0	3.6	3.9

ITALY

EC-EPC (AWG) 2009 PROJECTIONS

NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)	% CH 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	89%	2515	2904	3097	3503	4109	4698	4749
of which: receiving formal care	96%	524	612	652	746	877	1011	1028
relying on informal or no care	87%	1992	2292	2445	2757	3232	3686	3721
Pure demographic scenario	102%	2515	2942	3170	3643	4345	5016	5092
of which: receiving formal care	109%	524	619	665	772	920	1072	1094
relying on informal or no care	101%	1992	2323	2505	2871	3425	3944	3998
Constant disability scenario	75%	2515	2865	3024	3362	3873	4379	4407
of which: receiving formal care	84%	524	605	638	720	833	950	962
relying on informal or no care	73%	1992	2260	2386	2642	3040	3429	3445
Shift 1% of dependents from informal to home scenario	102%	2515	2942	3170	3643	4345	5016	5092
of which: receiving formal care	206%	524	854	982	1136	1355	1574	1603
relying on informal or no care	75%	1992	2088	2188	2507	2990	3443	3489
Education								
EDUCATION SPENDING AS % OF GDP - BASELINE	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Total	-0.33	4.1	3.9	3.8	3.6	3.6	3.8	3.8
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (5%) - Staff (69%) - Other (27%)</i>								
Primary	-0.08	1.1	1.1	1.1	0.9	1.0	1.1	1.0
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (2%) - Staff (73%) - Other (25%)</i>								
Low secondary	-0.04	0.8	0.8	0.8	0.7	0.7	0.8	0.8
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (1%) - Staff (77%) - Other (22%)</i>								
Upper secondary	-0.10	1.3	1.2	1.2	1.2	1.2	1.2	1.2
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (2%) - Staff (72%) - Other (26%)</i>								
Tertiary education	-0.10	0.9	0.8	0.7	0.8	0.7	0.7	0.8
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (16%) - Staff (49%) - Other (35%)</i>								
Number of students (in thousands)								
Total	-1195	9534	9492	9494	8969	8567	8550	8339
as % of population 5-24	-1%	82%	81%	82%	80%	81%	82%	81%
Primary	-338	2821	2972	2890	2597	2596	2620	2483
Low secondary	-175	1773	1814	1874	1680	1625	1654	1598
Upper secondary	-337	2865	2757	2826	2736	2532	2543	2529
Tertiary education	-346	2075	1949	1905	1956	1814	1733	1729
Number of teachers (in thousands)								
Total	-150	789	729	731	683	656	657	639
Primary	-50	265	257	250	225	225	227	215
Low secondary	-29	173	163	169	151	146	149	144
Upper secondary	-46	249	220	226	219	203	203	202
Tertiary education	-24	102	88	86	88	82	78	78
EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)								
Total	0.03	0.0	-0.1	0.0	0.0	0.0	0.0	0.0
EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/ STUDENTS (DIFF. FROM BASELINE)								
Total	0.12	0.0	-0.1	0.0	0.1	0.1	0.1	0.1
EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)								
Total	0.10	0.0	0.0	0.0	0.1	0.1	0.1	0.1
Unemployment benefit								
UNEMPLOYMENT BENEFIT - BASELINE	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Unemployment benefit spending as % of GDP	0.0	0.4	0.3	0.3	0.3	0.3	0.3	0.3

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

CYPRUS

EC-EPC (AWG) 2009 PROJECTIONS

Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.1	1.45	1.47	1.49	1.52	1.54	1.57	1.60
Life expectancy at birth								
males	7.0	78.2	79.3	80.0	81.5	82.8	84.0	85.2
females	7.0	81.7	82.8	83.5	84.9	86.2	87.5	88.7
Life expectancy at 65								
males	4.8	17.1	17.8	18.3	19.3	20.2	21.1	22.0
females	5.6	19.0	19.8	20.3	21.5	22.5	23.6	24.6
Net migration (thousand)	-3.4	9.3	8.8	8.5	7.8	7.2	6.6	5.9
Net migration as % of population	-0.7	1.2	1.0	0.9	0.7	0.6	0.5	0.4
Population (million)	0.5	0.8	0.9	1.0	1.1	1.2	1.3	1.3
Children population (0-14) as % of total population	-2.5	17.5	16.9	17.4	16.6	15.1	15.1	15.0
Prime age population (25-54) as % of total population	-7.0	43.9	44.7	44.3	42.6	40.0	37.8	37.0
Working age population (15-64) as % of total population	-11.2	70.1	69.3	67.5	65.4	64.9	61.7	58.8
Elderly population (65 and over) as % of total population	13.8	12.4	13.8	15.0	17.9	20.0	23.2	26.2
Very elderly population (80 and over) as % of total population	5.8	2.8	3.0	3.4	4.6	6.1	7.3	8.6
Very elderly population (80 and over) as % of elderly population	10.5	22.4	21.9	22.6	25.5	30.5	31.3	33.0
Very elderly population (80 and over) as % of working age population	10.7	4.0	4.3	5.0	7.0	9.4	11.8	14.7
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	2.8	3.6	3.8	3.9	2.9	2.3	1.8	1.8
Employment (growth rate)	0.9	2.1	1.7	1.2	0.9	0.6	0.1	0.2
Labour input : hours worked (growth rate)	0.8	1.9	1.7	1.1	0.8	0.6	0.1	0.2
Labour productivity per hour (growth rate)	1.9	1.7	2.1	2.7	2.0	1.8	1.7	1.7
TFP (growth rate)	1.2	0.7	1.3	1.7	1.3	1.2	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.7	1.0	0.8	1.0	0.7	0.6	0.6	0.6
GDP per capita (growth rate)	1.7	2.0	2.2	2.4	1.8	1.6	1.2	1.4
GDP per worker (growth rate)	1.9	1.4	2.1	2.7	2.0	1.8	1.7	1.7
GDP in 2007 prices (in millions euros)		15.6	20.9	25.2	34.6	44.6	54.5	65.0
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	234	543	615	644	701	758	772	777
Population growth (working age:15-64)	-1.8	1.9	1.0	0.9	0.9	0.6	-0.1	0.1
Labour force 15-64 (thousands)	210	396	474	506	549	591	602	606
Participation rate (15-64)	5.1	72.9	76.9	78.5	78.4	78.0	78.0	78.0
young (15-24)	-0.8	44.2	46.3	46.0	42.7	44.4	44.6	43.4
prime-age (25-54)	5.0	86.7	90.1	91.1	91.7	91.7	91.7	91.8
older (55-64)	7.4	57.6	61.1	62.7	64.6	66.6	65.4	65.1
Participation rate (15-64) - FEMALES	8.4	64.7	70.7	72.9	73.4	73.1	73.0	73.2
young (15-24)	-1.3	41.0	42.5	42.4	39.1	40.8	40.9	39.8
prime-age (25-54)	9.5	78.7	85.0	86.9	88.1	88.0	88.2	88.2
older (55-64)	13.8	41.5	47.4	50.3	54.2	56.9	55.5	55.3
Participation rate (15-64) - MALES	1.5	81.2	83.2	84.1	83.3	82.8	82.8	82.7
young (15-24)	-0.4	47.4	50.0	49.6	46.3	48.0	48.1	47.0
prime-age (25-54)	0.3	95.0	95.2	95.3	95.3	95.2	95.2	95.3
older (55-64)	0.0	74.8	75.3	75.8	75.7	76.3	75.1	74.7
Employment rate (15-64)	5.6	69.7	74.3	75.8	75.7	75.3	75.3	75.3
Employment rate (20-64)	5.1	76.2	80.0	81.0	81.8	81.2	80.8	81.3
Employment rate (15-71)	2.9	65.9	70.1	71.1	70.4	70.3	68.9	68.9
Unemployment rate (15-64)	-0.9	4.4	3.4	3.4	3.4	3.4	3.4	3.4
Employment (15-64) (in millions)	0.2	0.4	0.5	0.5	0.5	0.6	0.6	0.6
share of young (15-24)	-3%	13%	11%	9%	9%	10%	9%	9%
share of prime-age (25-54)	-1%	75%	76%	77%	77%	73%	73%	74%
share of older (55-64)	4%	12%	13%	14%	14%	17%	18%	16%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	4.1	15.2	16.4	17.4	17.1	20.3	21.5	19.4
Old-age dependency ratio (2)	27	18	20	22	27	31	38	44
Total dependency ratio (3)	27	43	44	48	53	54	62	70
Total economic dependency ratio (4)	21	99	91	92	98	100	110	120
Economic old-age dependency ratio (15-64) (5)	31	23	24	26	32	37	44	53
Pension expenditure projections								
BASILENE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	11.4	6.3	7.8	8.9	10.8	12.8	15.5	17.7
Old-age and early pensions, gross	9.4	4.8	5.9	6.7	8.2	10.0	12.4	14.2
Of which : earnings-related pensions, gross	9.4	4.8	5.9	6.7	8.2	10.0	12.4	14.2
Other pensions (disability, survivors), gross	2.0	1.4	1.9	2.2	2.6	2.8	3.1	3.5
Occupational pensions, gross	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	:	:	:	:	:	:	:	:

CYPRUS

EC-EPC (AWG) 2009 PROJECTIONS

Social security pensions, net	:	:	:	:	:	:	:	:
Social security pensions, contributions	0.5	4.2	4.4	4.5	4.5	4.6	4.6	4.7
Social security pensions, assets	-203.4	36.9	37.3	32.3	9.9	-24.1	-79.4	-166.5
ADDITIONAL INDICATORS	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	:	:	:	:	:	:	:	:
Pensioners (social security, in 1000 persons)	402	118	168	201	279	347	439	520
Pensioners aged 65+ (1000 pers)	:	:	:	:	:	:	:	:
Share of pensioners below age 65 as % of all pensioners	:	:	:	:	:	:	:	:
Average gross pension (social security - € 1000 in 2007 prices)	13.8	8.3	9.7	11.1	13.3	16.5	19.3	22.1
Benefit ratio (Social security pensions)	2.9	53.7	59.1	60.0	57.4	59.2	58.4	56.5
Gross replacement rate at retirement (social security pensions)	:	:	:	:	:	:	:	:
Contributors (social security pensions, in 1000 persons)	215	392	476	509	551	591	603	607
Support ratio (contributors/100 pensioners, social security pensions)	-215.7	332	283	253	198	170	137	117
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.2	0.0	0.0	0.0	0.1	0.1	0.2	0.2
Old-age and early pensions, gross	0.2	0.0	0.0	0.0	0.1	0.1	0.2	0.2
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.7	0.0	-0.2	-0.3	-0.4	-0.4	-0.5	-0.7
Old-age and early pensions, gross	-0.5	0.0	-0.1	-0.2	-0.3	-0.3	-0.4	-0.5
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	9.5	0.0	0.6	1.2	3.0	5.3	8.0	9.5
Old-age and early pensions, gross	7.6	0.0	0.4	0.9	2.3	4.2	6.5	7.6
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Old-age and early pensions, gross	-0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
HIGH OLDER WORKERS EMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	0.0	-0.1	0.0	0.0	0.0	-0.1
Old-age and early pensions, gross	-0.1	0.0	0.0	-0.1	0.0	0.0	-0.1	-0.1
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	Ch 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	11.1	6.5	7.8	8.9	10.8	12.8	15.5	17.7
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		0.3	1.5	2.6	4.5	6.5	9.2	11.4
Dependency ratio	10.8	0.0	0.8	1.7	3.8	5.1	8.0	10.8
Coverage ratio	1.4	0.2	0.7	0.9	1.2	1.5	1.6	1.6
Employment effect	-0.4	-0.1	-0.4	-0.5	-0.5	-0.5	-0.5	-0.5
Benefit ratio	-0.4	0.1	0.4	0.5	0.1	0.4	0.2	-0.3
Interaction effect (residual)	-0.2	0.0	0.0	0.0	-0.1	0.0	-0.2	-0.2
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	11.4	1.55	1.03	0.96	1.13	1.52	0.92	
Dependency ratio	10.8	0.80	0.95	0.98	0.70	1.82	1.25	
Coverage ratio	1.6	0.74	0.13	0.11	0.07	-0.01	-0.02	
Employment effect	-0.5	-0.39	-0.16	0.03	0.03	-0.03	0.00	
Benefit ratio	-0.3	0.37	0.12	-0.14	0.32	-0.13	-0.29	
Interaction effect (residual)	-0.24	0.03	-0.01	-0.03	0.01	-0.13	-0.02	
Health care								
HEALTH CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	0.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3
Pure ageing scenario	0.9	2.7	2.8	2.9	3.1	3.2	3.4	3.6
Labour intensity scenario	1.2	2.7	2.7	2.8	3.1	3.3	3.6	3.9
Constant health scenario	0.1	2.7	2.7	2.7	2.7	2.7	2.8	2.8
Fast cost growth scenario	1.1	2.7	3.0	3.1	3.3	3.5	3.7	3.8
Cost convergence scenario	4.9	2.7	3.1	3.5	4.2	5.1	6.3	7.6
Death-related cost scenario	0.7	2.7	2.8	2.8	3.0	3.1	3.3	3.5
Income elasticity scenario	1.1	2.7	2.9	3.0	3.2	3.4	3.6	3.8
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pure demographic scenario	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GDP per capita scenario	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Constant disability scenario	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GDP per worker fast growth scenario	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shift 1% of dependents from informal to home care scenario	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shift 1% of dependents from informal to institutional care scenario	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shift 1% of dependents from informal to home/institutional care scenario	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

CYPRUS

EC-EPC (AWG) 2009 PROJECTIONS

NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)	% CH 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	272%	35	44	51	70	87	107	128
of which: receiving formal care	324%	3	3	4	6	7	9	11
relying on informal or no care	268%	32	40	47	64	79	98	117
Pure demographic scenario	288%	35	44	52	71	89	110	134
of which: receiving formal care	340%	3	3	4	6	7	9	12
relying on informal or no care	284%	32	41	48	65	81	101	122
Constant disability scenario	256%	35	43	51	68	84	104	123
of which: receiving formal care	309%	3	3	4	5	7	9	11
relying on informal or no care	252%	32	40	47	63	77	95	112
Shift 1% of dependents from informal to home scenario	288%	35	44	52	71	89	110	134
of which: receiving formal care	843%	3	7	9	13	16	21	25
relying on informal or no care	242%	32	37	43	58	73	90	109

Education

EDUCATION SPENDING AS % OF GDP - BASELINE	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Total	-1.16	6.1	4.9	4.8	5.0	4.8	4.7	5.0
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (15%) - Staff (63%) - Other (22%)</i>								
Primary	-0.11	1.7	1.5	1.6	1.6	1.4	1.5	1.6
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (0%) - Staff (77%) - Other (23%)</i>								
Low secondary	-0.27	1.3	1.0	1.0	1.1	1.0	1.0	1.1
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (0%) - Staff (83%) - Other (17%)</i>								
Upper secondary	-0.30	1.6	1.2	1.1	1.3	1.2	1.2	1.3
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (0%) - Staff (75%) - Other (25%)</i>								
Tertiary education	-0.48	1.6	1.3	1.1	1.1	1.1	1.1	1.1
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (57%) - Staff (18%) - Other (25%)</i>								
Number of students (in thousands)								
Total	40	144	136	146	168	168	172	184
as % of population 5-24	2%	65%	63%	67%	68%	66%	66%	67%
Primary	24	57	59	68	75	72	77	82
Low secondary	7	32	27	30	37	36	36	39
Upper secondary	7	33	30	29	37	38	37	40
Tertiary education	1	21	20	19	20	22	22	22
Number of teachers (in thousands)								
Total	3	10	10	10	12	12	12	13
Primary	1	3	4	4	4	4	5	5
Low secondary	1	3	2	3	3	3	3	3
Upper secondary	1	3	2	2	3	3	3	3
Tertiary education	0	1	1	1	1	2	1	2
EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)								
Total	0.14	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0
EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/ STUDENTS (DIFF. FROM BASELINE)								
Total	0.61	0.1	0.4	0.6	0.7	0.7	0.7	0.7
EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)								
Total	0.04	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Unemployment benefit

UNEMPLOYMENT BENEFIT - BASELINE	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Unemployment benefit spending as % of GDP	-0.1	0.3	0.3	0.3	0.2	0.2	0.2	0.2

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

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EC-EPC (AWG) 2009 PROJECTIONS

Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.2	1.36	1.38	1.40	1.43	1.47	1.50	1.54
Life expectancy at birth								
males	14.5	66.0	68.2	69.8	72.8	75.6	78.1	80.5
females	10.1	76.7	78.3	79.4	81.5	83.4	85.2	86.8
Life expectancy at 65								
males	7.5	12.7	13.7	14.5	16.0	17.4	18.8	20.1
females	6.6	17.1	18.1	18.8	20.1	21.4	22.6	23.8
Net migration (thousand)	0.4	-1.0	-0.3	-0.3	-0.6	0.1	0.7	-0.6
Net migration as % of population	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Population (million)	-0.6	2.3	2.2	2.2	2.0	1.9	1.8	1.7
Children population (0-14) as % of total population	-1.4	13.7	14.7	15.3	13.6	12.1	12.6	12.3
Prime age population (25-54) as % of total population	-8.6	42.4	44.1	43.5	40.0	37.3	33.3	33.8
Working age population (15-64) as % of total population	-15.7	69.0	67.6	66.1	64.2	62.4	57.8	53.3
Elderly population (65 and over) as % of total population	17.1	17.3	17.7	18.6	22.2	25.4	29.6	34.4
Very elderly population (80 and over) as % of total population	8.3	3.6	4.5	5.2	5.9	7.9	9.9	11.9
Very elderly population (80 and over) as % of elderly population	14.0	20.6	25.3	28.1	26.7	31.1	33.4	34.6
Very elderly population (80 and over) as % of working age population	17.1	5.2	6.6	7.9	9.2	12.7	17.1	22.3
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	1.8	8.6	3.0	2.1	1.8	0.7	-0.1	1.1
Employment (growth rate)	-0.9	2.1	-1.0	-1.2	-0.9	-1.0	-1.9	-0.6
Labour input : hours worked (growth rate)	-0.9	2.0	-1.0	-1.2	-0.9	-1.0	-1.9	-0.6
Labour productivity per hour (growth rate)	2.7	6.4	3.9	3.3	2.7	1.7	1.7	1.7
TFP (growth rate)	1.5	3.1	1.9	1.8	1.8	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	1.1	3.3	2.0	1.6	1.0	0.6	0.6	0.6
GDP per capita (growth rate)	2.4	9.2	3.4	2.6	2.5	1.3	0.5	1.9
GDP per worker (growth rate)	2.7	6.3	4.0	3.4	2.7	1.7	1.8	1.7
GDP in 2007 prices (in millions euros)		19.9	28.8	32.5	39.3	43.6	44.3	46.7
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	-675	1573	1486	1423	1304	1194	1042	897
Population growth (working age:15-64)	-0.3	-0.5	-1.0	-0.9	-0.7	-1.1	-1.7	-0.7
Labour force 15-64 (thousands)	-481	1147	1131	1071	964	880	751	666
Participation rate (15-64)	1.3	72.9	76.1	75.3	73.9	73.7	72.0	74.2
young (15-24)	0.7	43.4	50.9	43.4	43.9	46.5	45.2	44.1
prime-age (25-54)	0.2	87.1	86.9	87.1	87.1	87.1	87.5	87.3
older (55-64)	-2.3	60.4	60.0	58.5	58.6	58.8	54.4	58.1
Participation rate (15-64) - FEMALES	2.1	68.3	71.9	71.3	70.2	69.8	68.1	70.4
young (15-24)	1.7	36.8	44.8	37.8	38.4	40.6	39.5	38.5
prime-age (25-54)	0.1	83.5	82.8	83.1	83.6	83.3	83.4	83.6
older (55-64)	1.1	54.9	58.2	56.2	56.2	56.5	52.1	56.0
Participation rate (15-64) - MALES	0.1	77.8	80.5	79.5	77.7	77.6	76.0	77.9
young (15-24)	-0.5	49.9	56.8	48.7	49.1	52.1	50.6	49.4
prime-age (25-54)	0.0	90.9	91.1	91.2	90.7	90.9	91.4	91.0
older (55-64)	-7.3	67.6	62.4	61.4	61.5	61.4	56.9	60.3
Employment rate (15-64)	2.1	68.5	72.4	71.6	70.3	70.1	68.5	70.6
Employment rate (20-64)	0.6	75.4	76.4	76.1	75.7	74.8	72.9	76.0
Employment rate (15-71)	-3.3	63.8	67.2	65.4	62.9	62.5	59.5	60.5
Unemployment rate (15-64)	-1.2	6.1	4.8	4.8	4.8	4.8	4.8	4.8
Employment (15-64) (in millions)	-0.4	1.1	1.1	1.0	0.9	0.8	0.7	0.6
share of young (15-24)	-3%	13%	10%	8%	10%	10%	9%	10%
share of prime-age (25-54)	1%	74%	75%	76%	74%	71%	70%	75%
share of older (55-64)	2%	14%	15%	16%	16%	19%	21%	15%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	3.4	16.0	18.6	20.4	20.5	23.7	27.3	19.4
Old-age dependency ratio (2)	39	25	26	28	35	41	51	64
Total dependency ratio (3)	43	45	48	51	56	60	73	87
Total economic dependency ratio (4)	57	106	102	110	120	126	150	163
Economic old-age dependency ratio (15-64) (5)	56	32	34	38	47	56	72	88
Pension expenditure projections								
BASILENE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.4	5.4	4.8	5.2	5.9	6.1	5.8	5.1
Old-age and early pensions, gross	0.0	4.8	4.5	4.8	5.5	5.8	5.5	4.8
Of which : earnings-related pensions, gross	0.0	4.8	4.5	4.8	5.5	5.8	5.5	4.8
Other pensions (disability, survivors), gross	-0.3	0.6	0.3	0.3	0.4	0.4	0.3	0.3
Occupational pensions, gross	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	4.9	0.0	0.0	0.1	0.4	1.3	3.1	4.9

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EC-EPC (AWG) 2009 PROJECTIONS

Social security pensions, net	-0.3	5.4	4.8	5.1	5.8	6.1	5.7	5.0
Social security pensions, contributions	-1.0	6.8	6.0	6.0	5.8	5.8	5.7	5.8
Social security pensions, assets	-13.0	3.9	7.0	8.4	5.0	-1.8	-7.1	-9.0
ADDITIONAL INDICATORS	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	0.0	99.1	99.1	99.1	99.1	99.1	99.1	99.1
Pensioners (social security, in 1000 persons)	64	576	509	519	573	602	645	640
Pensioners aged 65+ (1000 pers)	185.5	383	384	393	443	478	524	568
Share of pensioners below age 65 as % of all pensioners	-22%	34%	25%	24%	23%	21%	19%	11%
Average gross pension (social security - € 1000 in 2007 prices)	1.8	1.9	2.7	3.2	4.0	4.4	4.0	3.7
Benefit ratio (Social security pensions)	-11.4	24.0	25.3	25.2	23.4	21.3	16.1	12.6
Gross replacement rate at retirement (social security pensions)	-10.9	32.5	32.1	29.0	23.8	22.5	22.5	21.7
Contributors (social security pensions, in 1000 persons)	-496	1202	1199	1113	997	916	787	707
Support ratio (contributors/100 pensioners, social security pensions)	-98.3	209	236	214	174	152	122	110
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Old-age and early pensions, gross	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.2	0.0	0.0	0.0	-0.1	-0.2	-0.2	-0.2
Old-age and early pensions, gross	-0.2	0.0	0.0	0.0	-0.1	-0.2	-0.2	-0.2
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Old-age and early pensions, gross	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Old-age and early pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HIGH OLDER WORKERS EMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Old-age and early pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	Ch 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	-0.1	5.2	4.8	5.2	5.9	6.1	5.8	5.1
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		-0.2	-0.6	-0.3	0.4	0.7	0.4	-0.4
Dependency ratio	5.7	0.0	0.3	0.7	1.8	2.9	4.3	5.7
Coverage ratio	-1.5	-0.1	-0.6	-0.7	-0.8	-0.9	-1.1	-1.6
Employment effect	-0.1	0.0	-0.3	-0.2	-0.1	-0.1	0.0	-0.2
Benefit ratio	-3.8	-0.1	-0.1	-0.1	-0.5	-1.1	-2.6	-3.9
Interaction effect (residual)	-0.4	0.0	0.1	0.1	0.0	0.0	-0.3	-0.4
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	-0.4	-0.63	0.36	0.23	0.03	-0.14	-0.49	
Dependency ratio	5.7	0.32	0.34	0.62	0.60	0.86	0.42	
Coverage ratio	-1.6	-0.63	-0.02	-0.14	-0.12	-0.08	-0.25	
Employment effect	-0.2	-0.30	0.05	0.01	-0.02	0.10	-0.14	
Benefit ratio	-3.9	-0.09	-0.02	-0.21	-0.38	-0.86	-0.51	
Interaction effect (residual)	-0.43	0.07	0.02	-0.04	-0.05	-0.15	0.00	
Health care								
HEALTH CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	0.6	3.5	3.6	3.7	3.8	3.9	4.0	4.1
Pure ageing scenario	0.7	3.5	3.5	3.6	3.7	3.9	4.0	4.1
Labour intensity scenario	1.6	3.5	3.4	3.6	3.8	4.2	4.7	5.1
Constant health scenario	0.1	3.5	3.4	3.4	3.4	3.4	3.5	3.5
Fast cost growth scenario	0.9	3.5	3.8	3.8	4.0	4.2	4.3	4.4
Cost convergence scenario	5.1	3.5	3.8	4.1	4.8	5.8	7.0	8.6
Death-related cost scenario	0.6	3.5	3.5	3.5	3.6	3.8	4.0	4.0
Income elasticity scenario	1.0	3.5	3.7	3.8	3.9	4.2	4.3	4.4
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	0.5	0.4	0.4	0.4	0.5	0.6	0.7	0.9
Pure demographic scenario	0.5	0.4	0.4	0.4	0.5	0.6	0.8	0.9
GDP per capita scenario	0.4	0.4	0.4	0.4	0.5	0.6	0.7	0.7
Constant disability scenario	0.5	0.4	0.4	0.4	0.5	0.6	0.7	0.9
GDP per worker fast growth scenario	0.6	0.4	0.4	0.5	0.6	0.7	0.8	1.0
Shift 1% of dependents from informal to home care scenario	0.6	0.4	0.4	0.5	0.5	0.7	0.8	1.0
Shift 1% of dependents from informal to institutional care scenario	1.5	0.4	0.7	0.9	1.0	1.2	1.6	1.9
Shift 1% of dependents from informal to home/institutional care scenario	1.1	0.4	0.6	0.7	0.8	0.9	1.2	1.5

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NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)	% Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	54%	123	127	130	145	159	175	189
of which: receiving formal care	80%	13	14	14	16	18	21	23
relying on informal or no care	51%	110	113	116	129	141	154	167
Pure demographic scenario	60%	123	128	131	147	163	180	197
of which: receiving formal care	86%	13	14	14	16	18	21	23
relying on informal or no care	58%	110	114	117	131	144	159	173
Constant disability scenario	48%	123	126	129	143	155	170	182
of which: receiving formal care	75%	13	13	14	16	18	20	22
relying on informal or no care	45%	110	112	115	127	137	149	160
Shift 1% of dependents from informal to home scenario	60%	123	128	131	147	163	180	197
of which: receiving formal care	242%	13	24	28	31	35	39	43
relying on informal or no care	40%	110	104	104	116	128	141	154
Education								
EDUCATION SPENDING AS % OF GDP - BASELINE	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Total	-0.33	3.7	2.8	3.0	3.2	2.9	3.1	3.3
Expenditure decomposition (broadly constant) : Transfers (7%) - Staff (60%) - Other (32%)								
Primary	0.16	0.7	0.8	0.8	0.8	0.7	0.8	0.8
Expenditure decomposition (broadly constant) : Transfers (1%) - Staff (66%) - Other (33%)								
Low secondary	-0.09	1.2	0.8	1.0	1.1	0.9	1.0	1.1
Expenditure decomposition (broadly constant) : Transfers (1%) - Staff (66%) - Other (33%)								
Upper secondary	-0.31	1.1	0.6	0.6	0.8	0.7	0.7	0.8
Expenditure decomposition (broadly constant) : Transfers (17%) - Staff (55%) - Other (28%)								
Tertiary education	-0.10	0.8	0.6	0.6	0.6	0.6	0.6	0.7
Expenditure decomposition (broadly constant) : Transfers (10%) - Staff (54%) - Other (36%)								
Number of students (in thousands)								
Total	-200	445	350	348	337	281	256	245
as % of population 5-24	4%	78%	78%	83%	80%	80%	82%	82%
Primary	-19	76	88	91	78	62	63	57
Low secondary	-61	137	99	110	110	84	77	76
Upper secondary	-61	107	58	59	67	56	45	46
Tertiary education	-60	125	105	88	82	80	71	66
Number of teachers (in thousands)								
Total	-14	33	25	26	25	21	19	18
Primary	-2	6	7	8	7	5	5	5
Low secondary	-6	13	9	10	10	8	7	7
Upper secondary	-5	9	5	5	6	5	4	4
Tertiary education	-2	4	4	3	3	3	2	2
EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)								
Ch 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.10	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0
EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/ STUDENTS (DIFF. FROM BASELINE)								
Ch 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.39	0.1	0.3	0.4	0.5	0.4	0.5	0.5
EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)								
Ch 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.43	0.4	0.7	0.7	0.7	0.7	0.8	0.8
Unemployment benefit								
UNEMPLOYMENT BENEFIT - BASELINE								
Ch 07-60	2007	2015	2020	2030	2040	2050	2060	
Unemployment benefit spending as % of GDP	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

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EC-EPC (AWG) 2009 PROJECTIONS

Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.2	1.35	1.37	1.39	1.43	1.47	1.51	1.54
Life expectancy at birth								
males	14.6	65.9	68.2	69.8	72.8	75.6	78.1	80.4
females	9.4	77.4	78.9	80.0	81.9	83.7	85.3	86.9
Life expectancy at 65								
males	7.1	13.1	14.1	14.9	16.3	17.7	19.0	20.3
females	6.2	17.5	18.4	19.0	20.3	21.5	22.6	23.7
Net migration (thousand)	2.1	-2.2	-0.7	-0.2	-0.3	-0.2	1.2	-0.1
Net migration as % of population	0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
Population (million)	-0.8	3.4	3.3	3.2	3.1	2.9	2.7	2.5
Children population (0-14) as % of total population	-2.9	15.3	14.3	14.8	14.1	12.1	12.2	12.4
Prime age population (25-54) as % of total population	-10.0	42.5	44.0	43.5	40.1	37.4	33.1	32.6
Working age population (15-64) as % of total population	-15.9	68.8	69.1	67.6	63.8	61.5	58.1	52.9
Elderly population (65 and over) as % of total population	18.9	15.8	16.6	17.6	22.1	26.3	29.7	34.7
Very elderly population (80 and over) as % of total population	8.7	3.3	4.4	4.9	5.6	7.8	10.7	12.0
Very elderly population (80 and over) as % of elderly population	13.9	20.7	26.2	27.9	25.3	29.8	35.9	34.5
Very elderly population (80 and over) as % of working age population	17.9	4.8	6.3	7.3	8.8	12.8	18.4	22.7
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	1.8	8.0	3.6	2.5	1.5	0.8	0.2	0.4
Employment (growth rate)	-0.9	1.8	-0.1	-0.9	-1.2	-0.9	-1.5	-1.3
Labour input : hours worked (growth rate)	-0.8	2.4	-0.1	-0.9	-1.2	-0.9	-1.5	-1.3
Labour productivity per hour (growth rate)	2.6	5.4	3.7	3.3	2.7	1.7	1.7	1.7
TFP (growth rate)	1.5	2.8	1.8	1.8	1.8	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	1.1	2.6	1.9	1.6	1.0	0.6	0.6	0.6
GDP per capita (growth rate)	2.3	8.6	3.9	2.8	2.0	1.4	0.9	1.2
GDP per worker (growth rate)	2.7	6.1	3.7	3.4	2.7	1.7	1.7	1.7
GDP in 2007 prices (in millions euros)		28.0	41.0	47.4	56.7	61.9	64.7	66.4
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	-972	2319	2264	2178	1966	1792	1589	1347
Population growth (working age:15-64)	-1.0	-0.1	-0.6	-0.8	-1.0	-0.9	-1.6	-1.1
Labour force 15-64 (thousands)	-661	1580	1598	1547	1359	1224	1074	918
Participation rate (15-64)	0.1	68.1	70.6	71.0	69.1	68.3	67.6	68.2
young (15-24)	0.8	28.3	33.4	31.8	28.2	30.3	30.8	29.1
prime-age (25-54)	-2.3	86.0	84.4	84.0	83.8	83.1	83.7	83.7
older (55-64)	-1.4	55.5	59.9	59.4	56.0	56.9	54.8	54.1
Participation rate (15-64) - FEMALES	1.8	65.2	68.6	69.2	67.8	67.1	66.3	66.9
young (15-24)	1.3	23.6	28.7	27.3	24.2	26.0	26.4	24.9
prime-age (25-54)	-1.7	84.2	82.6	82.4	82.9	81.9	82.3	82.5
older (55-64)	5.4	49.6	59.9	59.2	56.6	57.7	55.6	55.0
Participation rate (15-64) - MALES	-1.8	71.2	72.7	73.0	70.4	69.6	68.9	69.4
young (15-24)	0.4	32.8	37.9	36.3	32.1	34.6	35.1	33.2
prime-age (25-54)	-3.0	87.9	86.3	85.6	84.8	84.3	85.1	84.9
older (55-64)	-10.3	63.4	59.9	59.7	55.2	56.0	53.9	53.2
Employment rate (15-64)	0.6	65.1	68.1	68.5	66.7	65.9	65.2	65.8
Employment rate (20-64)	-1.7	73.0	73.6	73.3	72.2	71.3	69.9	71.3
Employment rate (15-71)	-2.7	60.3	64.1	64.1	60.7	59.9	58.6	57.6
Unemployment rate (15-64)	-0.9	4.4	3.5	3.5	3.5	3.5	3.5	3.5
Employment (15-64) (in millions)	-0.6	1.5	1.5	1.5	1.3	1.2	1.0	0.9
share of young (15-24)	-2%	9%	9%	7%	6%	7%	7%	7%
share of prime-age (25-54)	-3%	78%	76%	76%	76%	74%	71%	76%
share of older (55-64)	5%	12%	15%	17%	17%	19%	23%	17%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	6.7	15.1	17.7	20.5	21.3	22.3	27.9	21.8
Old-age dependency ratio (2)	43	23	24	26	35	43	51	66
Total dependency ratio (3)	44	45	45	48	57	63	72	89
Total economic dependency ratio (4)	60	120	110	112	130	141	158	180
Economic old-age dependency ratio (15-64) (5)	59	33	32	34	47	60	72	92
Pension expenditure projections								
BASELINE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	4.6	6.8	6.5	6.9	8.2	9.1	10.4	11.4
Old-age and early pensions, gross	4.7	5.6	5.4	5.8	7.1	7.9	9.3	10.3
Of which : earnings-related pensions, gross	3.9	5.1	5.0	5.4	6.5	7.1	8.1	9.1
Other pensions (disability, survivors), gross	-0.1	1.2	1.1	1.1	1.1	1.2	1.1	1.0
Occupational pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Private mandatory pensions, gross	2.0	0.0	0.1	0.3	0.6	1.1	2.4	2.0

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Social security pensions, net	4.6	6.8	6.5	6.9	8.2	9.1	10.4	11.4
Social security pensions, contributions	-0.2	6.6	6.6	6.5	6.4	6.4	6.3	6.4
Social security pensions, assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ADDITIONAL INDICATORS	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	0.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Pensioners (social security, in 1000 persons)	244	912	934	974	1065	1108	1166	1157
Pensioners aged 65+ (1000 pers)	:	:	:	:	:	:	:	:
Share of pensioners below age 65 as % of all pensioners	:	:	:	:	:	:	:	:
Average gross pension (social security - € 1000 in 2007 prices)	4.4	2.1	2.9	3.4	4.4	5.1	5.8	6.5
Benefit ratio (Social security pensions)	-5.4	33.1	33.2	32.7	31.6	30.3	29.0	27.7
Gross replacement rate at retirement (social security pensions)	-3.3	32.3	35.9	35.3	33.4	31.0	30.0	29.1
Contributors (social security pensions, in 1000 persons)	-527	1467	1512	1477	1330	1212	1076	940
Support ratio (contributors/100 pensioners, social security pensions)	-79.6	161	162	152	125	109	92	81
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.3	0.0	0.0	0.0	0.1	0.1	0.2	0.3
Old-age and early pensions, gross	0.3	0.0	0.0	0.0	0.1	0.1	0.2	0.3
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Old-age and early pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.2	0.0	0.0	0.0	-0.1	-0.2	-0.2	-0.2
Old-age and early pensions, gross	-0.2	0.0	0.0	0.0	-0.1	-0.2	-0.2	-0.2
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
Old-age and early pensions, gross	-0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
HIGH OLDER WORKERS EMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.2	-0.1
Old-age and early pensions, gross	-0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.2	-0.1
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	Ch 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	4.7	6.6	6.5	6.9	8.2	9.1	10.4	11.4
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		-0.2	-0.3	0.1	1.4	2.3	3.6	4.6
Dependency ratio	9.6	0.1	0.4	0.9	3.2	5.1	6.8	9.6
Coverage ratio	-2.4	-0.1	-0.1	0.0	-0.7	-1.4	-1.4	-2.4
Employment effect	0.0	0.0	-0.3	-0.3	-0.1	0.0	0.1	0.0
Benefit ratio	-1.7	-0.1	-0.2	-0.3	-0.6	-0.9	-1.3	-1.8
Interaction effect (residual)	-0.8	0.0	-0.1	-0.1	-0.3	-0.4	-0.5	-0.8
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	4.6	-0.26	0.37	0.62	0.34	0.80	0.33	
Dependency ratio	9.6	0.39	0.53	1.28	0.90	1.07	1.23	
Coverage ratio	-2.4	-0.05	0.02	-0.49	-0.31	-0.06	-0.53	
Employment effect	0.0	-0.30	-0.04	0.11	0.00	0.07	-0.09	
Benefit ratio	-1.8	-0.24	-0.09	-0.14	-0.20	-0.20	-0.20	
Interaction effect (residual)	-0.80	-0.06	-0.04	-0.14	-0.04	-0.09	-0.08	
Health care								
HEALTH CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.1	4.5	4.7	4.9	5.1	5.3	5.5	5.6
Pure ageing scenario	1.2	4.5	4.7	4.8	5.0	5.3	5.5	5.7
Labour intensity scenario	2.5	4.5	4.4	4.5	5.1	5.7	6.3	6.9
Constant health scenario	0.3	4.5	4.5	4.5	4.5	4.7	4.8	4.8
Fast cost growth scenario	1.6	4.5	5.0	5.1	5.3	5.7	5.9	6.1
Cost convergence scenario	4.2	4.5	4.9	5.1	5.8	6.7	7.6	8.7
Death-related cost scenario	1.0	4.5	4.6	4.7	4.9	5.2	5.4	5.5
Income elasticity scenario	1.6	4.5	4.8	5.0	5.3	5.7	6.0	6.1
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	0.6	0.5	0.5	0.5	0.6	0.7	0.9	1.1
Pure demographic scenario	0.6	0.5	0.5	0.5	0.6	0.7	0.9	1.1
GDP per capita scenario	0.4	0.5	0.5	0.5	0.6	0.7	0.8	0.9
Constant disability scenario	0.5	0.5	0.5	0.5	0.6	0.7	0.9	1.0
GDP per worker fast growth scenario	0.7	0.5	0.5	0.6	0.7	0.8	1.0	1.2
Shift 1% of dependents from informal to home care scenario	0.7	0.5	0.5	0.5	0.6	0.8	1.0	1.2
Shift 1% of dependents from informal to institutional care scenario	0.9	0.5	0.6	0.6	0.8	0.9	1.2	1.4
Shift 1% of dependents from informal to home/institutional care scenario	0.8	0.5	0.5	0.6	0.7	0.9	1.1	1.3

LITHUANIA

EC-EPC (AWG) 2009 PROJECTIONS

NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)	% CH 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	79%	191	207	216	251	292	322	343
of which: receiving formal care	103%	39	44	47	54	64	74	78
relying on informal or no care	74%	152	163	170	197	228	248	264
Pure demographic scenario	90%	191	209	220	257	305	337	364
of which: receiving formal care	113%	39	45	47	55	66	77	82
relying on informal or no care	85%	152	165	172	202	238	261	281
Constant disability scenario	69%	191	205	213	245	280	306	322
of which: receiving formal care	93%	39	44	46	53	62	71	75
relying on informal or no care	62%	152	162	167	192	218	235	247
Shift 1% of dependents from informal to home scenario	90%	191	209	220	257	305	337	364
of which: receiving formal care	207%	39	61	69	81	97	110	119
relying on informal or no care	61%	152	148	150	177	208	227	245
Education								
EDUCATION SPENDING AS % OF GDP - BASELINE	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Total	-0.87	4.0	2.9	2.8	3.0	2.9	2.8	3.1
<i>Expenditure decomposition (broadly constant) : Transfers (10%)</i>								
<i>- Staff (66%) - Other (24%)</i>								
Primary	-0.03	0.7	0.5	0.6	0.6	0.5	0.6	0.6
<i>Expenditure decomposition (broadly constant) : Transfers (8%)</i>								
<i>- Staff (68%) - Other (24%)</i>								
Low secondary	-0.39	1.6	1.0	1.0	1.2	1.1	1.0	1.2
<i>Expenditure decomposition (broadly constant) : Transfers (7%)</i>								
<i>- Staff (74%) - Other (20%)</i>								
Upper secondary	-0.22	0.7	0.5	0.4	0.5	0.5	0.4	0.5
<i>Expenditure decomposition (broadly constant) : Transfers (8%)</i>								
<i>- Staff (69%) - Other (23%)</i>								
Tertiary education	-0.22	1.0	0.9	0.8	0.7	0.8	0.8	0.8
<i>Expenditure decomposition (broadly constant) : Transfers (17%)</i>								
<i>- Staff (53%) - Other (30%)</i>								
Number of students (in thousands)								
Total	-388	766	596	548	525	456	396	378
as % of population 5-24	2%	83%	82%	85%	85%	84%	85%	86%
Primary	-59	146	121	128	122	94	90	87
Low secondary	-155	294	200	186	199	164	138	139
Upper secondary	-71	124	91	75	75	70	56	53
Tertiary education	-103	202	184	159	130	128	112	99
Number of teachers (in thousands)								
Total	-34	68	51	48	48	40	35	34
Primary	-5	14	11	12	11	9	8	8
Low secondary	-23	44	30	28	30	25	21	21
Upper secondary	0	1	1	0	0	0	0	0
Tertiary education	-5	10	9	8	6	6	5	5
EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)								
Total	0.21	-0.2	0.0	0.0	0.0	0.1	0.0	0.0
EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/STUDENTS (DIFF. FROM BASELINE)								
Total	0.38	0.0	0.2	0.3	0.4	0.4	0.4	0.4
EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)								
Total	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unemployment benefit								
UNEMPLOYMENT BENEFIT - BASELINE								
Unemployment benefit spending as % of GDP	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

LUXEMBOURG

EC-EPC (AWG) 2009 PROJECTIONS

Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.1	1.65	1.66	1.67	1.68	1.70	1.71	1.72
Life expectancy at birth								
males	8.2	76.3	77.6	78.5	80.2	81.7	83.2	84.5
females	7.3	81.2	82.4	83.2	84.6	86.0	87.3	88.5
Life expectancy at 65								
males	5.1	16.8	17.5	18.0	19.1	20.1	21.0	21.9
females	5.0	19.7	20.5	21.0	22.0	23.0	23.9	24.8
Net migration (thousand)	-1.6	4.4	4.1	4.0	3.7	3.4	3.1	2.8
Net migration as % of population	-0.5	0.9	0.8	0.7	0.6	0.5	0.4	0.4
Population (million)	0.2	0.5	0.5	0.6	0.6	0.7	0.7	0.7
Children population (0-14) as % of total population	-2.0	18.2	17.3	16.9	16.9	16.7	16.2	16.2
Prime age population (25-54) as % of total population	-8.0	45.3	43.2	41.6	39.5	38.5	37.9	37.3
Working age population (15-64) as % of total population	-7.4	67.7	67.6	66.9	63.5	61.1	60.8	60.3
Elderly population (65 and over) as % of total population	9.4	14.2	15.1	16.2	19.6	22.2	23.0	23.6
Very elderly population (80 and over) as % of total population	5.4	3.5	4.1	4.3	5.0	6.7	8.6	8.9
Very elderly population (80 and over) as % of elderly population	13.1	24.7	27.4	26.5	25.5	30.2	37.4	37.8
Very elderly population (80 and over) as % of working age population	9.6	5.2	6.1	6.4	7.9	11.0	14.1	14.8
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	2.7	4.5	4.0	2.7	2.1	2.2	2.2	2.0
Employment (growth rate)	0.9	3.1	2.1	0.7	0.4	0.5	0.5	0.3
Labour input : hours worked (growth rate)	0.9	2.7	2.1	0.7	0.4	0.5	0.5	0.3
Labour productivity per hour (growth rate)	1.7	1.7	1.9	2.0	1.7	1.7	1.7	1.7
TFP (growth rate)	1.1	0.8	1.1	1.1	1.1	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.7	0.9	0.8	0.9	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	1.8	2.9	2.9	1.6	1.2	1.5	1.6	1.5
GDP per worker (growth rate)	1.7	1.4	1.9	2.0	1.7	1.7	1.7	1.7
GDP in 2007 prices (in millions euros)		36.1	51.4	60.0	75.3	93.2	115.8	141.9
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	119	322	354	368	386	401	424	441
Population growth (working age:15-64)	-1.5	1.7	1.0	0.7	0.2	0.6	0.5	0.3
Labour force 15-64 (thousands)	81	214	237	246	258	270	284	295
Participation rate (15-64)	0.4	66.4	67.1	66.9	66.9	67.3	67.1	66.8
young (15-24)	2.1	27.4	29.0	29.6	29.3	29.2	29.4	29.5
prime-age (25-54)	1.9	84.2	85.9	86.1	86.2	86.1	86.0	86.1
older (55-64)	8.4	33.0	39.0	40.6	40.4	41.9	42.3	41.3
Participation rate (15-64) - FEMALES	3.5	57.9	60.5	61.1	61.9	62.0	61.7	61.4
young (15-24)	2.1	23.7	25.1	26.1	25.7	25.5	25.7	25.8
prime-age (25-54)	3.9	73.5	76.9	77.7	77.9	77.4	77.4	77.4
older (55-64)	16.7	27.7	38.1	40.8	43.4	45.4	45.3	44.4
Participation rate (15-64) - MALES	-2.6	74.7	73.6	72.7	71.8	72.5	72.4	72.1
young (15-24)	2.1	30.9	32.7	33.1	32.7	32.6	32.9	33.0
prime-age (25-54)	-0.1	94.7	94.7	94.5	94.6	94.7	94.6	94.6
older (55-64)	0.2	38.1	39.9	40.5	37.3	38.4	39.1	38.2
Employment rate (15-64)	0.1	63.6	64.0	63.8	63.8	64.2	64.0	63.7
Employment rate (20-64)	0.4	69.0	69.8	69.4	69.3	70.1	69.8	69.4
Employment rate (15-71)	-2.0	58.9	58.9	58.1	56.9	57.3	57.5	56.9
Unemployment rate (15-64)	0.4	4.2	4.6	4.6	4.6	4.6	4.6	4.6
Employment (15-64) (in millions)	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3
share of young (15-24)	1%	6%	7%	7%	7%	7%	7%	7%
share of prime-age (25-54)	-6%	86%	82%	81%	81%	81%	81%	80%
share of older (55-64)	5%	8%	11%	12%	12%	12%	12%	12%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	3.8	15.7	17.7	19.3	19.8	18.4	18.7	19.5
Old-age dependency ratio (2)	18	21	22	24	31	36	38	39
Total dependency ratio (3)	18	48	48	50	57	64	64	66
Total economic dependency ratio (4)	28	132	131	134	146	154	157	160
Economic old-age dependency ratio (15-64) (5)	28	33	35	38	48	56	59	61
Pension expenditure projections								
BASILENE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	15.2	8.7	8.9	9.9	14.2	18.4	22.1	23.9
Old-age and early pensions, gross	14.2	5.8	6.1	7.0	10.9	14.9	18.3	20.1
Of which : earnings-related pensions, gross	14.3	5.8	6.1	7.0	10.9	14.9	18.3	20.1
Other pensions (disability, survivors), gross	1.0	2.9	2.7	2.9	3.3	3.6	3.8	3.9
Occupational pensions, gross	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	:	:	:	:	:	:	:	:

LUXEMBOURG

EC-EPC (AWG) 2009 PROJECTIONS

Social security pensions, net	13.3	7.7	7.8	8.7	12.5	16.2	19.4	21.0
Social security pensions, contributions	0.3	9.6	9.6	9.8	9.9	9.8	9.8	9.9
Social security pensions, assets	-280.2	21.8	37.5	46.0	39.3	-14.4	-116.0	-258.4
ADDITIONAL INDICATORS	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	-0.6	88.3	88.3	88.2	88.0	87.9	87.8	87.7
Pensioners (social security, in 1000 persons)	405	146	191	226	320	417	504	551
Pensioners aged 65+ (1000 pers)	325.0	98	124	146	211	299	372	423
Share of pensioners below age 65 as % of all pensioners	-10%	33%	35%	36%	34%	28%	26%	23%
Average gross pension (social security - € 1000 in 2007 prices)	40.1	21.5	23.9	26.2	33.3	41.2	50.7	61.6
Benefit ratio (Social security pensions)	-1.7	45.8	38.0	37.0	39.3	41.1	42.9	44.1
Gross replacement rate at retirement (social security pensions)	9.0	53.0	53.0	55.0	56.0	61.0	62.0	62.0
Contributors (social security pensions, in 1000 persons)	194	342	423	447	468	491	517	536
Support ratio (contributors/100 pensioners, social security pensions)	-137.0	234	221	198	146	118	103	97
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.4	0.0	0.0	0.0	0.0	0.1	0.2	0.4
Old-age and early pensions, gross	0.5	0.0	0.0	0.0	0.1	0.2	0.4	0.5
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
Old-age and early pensions, gross	-0.1	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	11.3	0.0	0.7	1.4	4.0	7.9	10.5	11.3
Old-age and early pensions, gross	9.2	0.0	0.5	1.0	3.2	6.5	8.8	9.2
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.0	0.0	-0.1	-0.2	-0.2	-0.2	-0.1	0.0
Old-age and early pensions, gross	0.0	0.0	-0.1	-0.1	-0.2	-0.2	-0.1	0.0
HIGH OLDER WORKERS EMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	-0.1	-0.2	-0.3	-0.3	-0.2	-0.1
Old-age and early pensions, gross	0.0	0.0	-0.1	-0.1	-0.2	-0.2	-0.1	0.0
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	Ch 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	15.3	8.6	8.9	9.9	14.2	18.4	22.1	23.9
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		0.0	0.2	1.2	5.5	9.7	13.4	15.2
Dependency ratio	8.3	0.1	0.6	1.4	4.2	6.8	7.6	8.4
Coverage ratio	5.1	0.1	0.9	1.3	2.0	3.0	4.9	5.2
Employment effect	0.1	0.0	-0.1	0.0	0.0	-0.1	0.0	0.0
Benefit ratio	1.5	-0.2	-1.2	-1.4	-0.8	-0.2	0.6	1.2
Interaction effect (residual)	0.3	0.0	-0.1	-0.1	0.1	0.2	0.3	0.3
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	15.2	0.21	0.97	2.07	1.78	1.37	0.26	
Dependency ratio	8.4	0.65	0.77	1.66	0.94	0.32	0.60	
Coverage ratio	5.2	0.95	0.40	0.33	0.67	0.96	-0.23	
Employment effect	0.0	-0.05	0.02	-0.01	0.00	0.02	0.02	
Benefit ratio	1.2	-1.20	-0.24	0.05	0.12	0.05	-0.11	
Interaction effect (residual)	0.32	-0.14	0.01	0.05	0.05	0.02	-0.02	
Health care								
HEALTH CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.2	5.8	6.1	6.2	6.5	6.8	7.0	7.0
Pure ageing scenario	1.3	5.8	6.0	6.1	6.5	6.8	7.0	7.1
Labour intensity scenario	1.1	5.8	5.2	5.4	6.0	6.5	6.7	6.9
Constant health scenario	0.4	5.8	5.8	5.9	6.1	6.2	6.3	6.2
Fast cost growth scenario	1.8	5.8	6.4	6.6	7.0	7.3	7.5	7.6
Cost convergence scenario	:	:	:	:	:	:	:	:
Death-related cost scenario	1.0	5.8	5.8	6.0	6.3	6.6	6.7	6.8
Income elasticity scenario	1.7	5.8	6.1	6.3	6.8	7.2	7.4	7.5
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	2.0	1.4	1.4	1.5	1.8	2.4	3.0	3.4
Pure demographic scenario	2.2	1.4	1.4	1.5	1.8	2.4	3.1	3.6
GDP per capita scenario	2.2	1.4	1.6	1.7	2.0	2.5	3.2	3.6
Constant disability scenario	1.9	1.4	1.4	1.5	1.8	2.3	2.9	3.3
GDP per worker fast growth scenario	2.5	1.4	1.5	1.7	2.0	2.7	3.4	3.9
Shift 1% of dependents from informal to home care scenario	2.4	1.4	1.5	1.6	2.0	2.6	3.3	3.8
Shift 1% of dependents from informal to institutional care scenario	2.9	1.4	1.7	1.9	2.3	3.0	3.8	4.3
Shift 1% of dependents from informal to home/institutional care scenario	2.7	1.4	1.6	1.8	2.1	2.8	3.6	4.0

LUXEMBOURG

EC-EPC (AWG) 2009 PROJECTIONS

NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)	% CH 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	207%	14	18	20	25	33	40	44
of which: receiving formal care	282%	8	10	11	14	19	25	29
relying on informal or no care	126%	7	8	9	12	14	15	16
Pure demographic scenario	225%	14	18	20	26	35	42	47
of which: receiving formal care	301%	8	10	11	14	20	26	30
relying on informal or no care	142%	7	8	9	12	15	16	17
Constant disability scenario	190%	14	17	20	25	32	38	42
of which: receiving formal care	262%	8	10	11	14	19	24	27
relying on informal or no care	110%	7	8	9	11	13	14	14
Shift 1% of dependents from informal to home scenario	225%	14	18	20	26	35	42	47
of which: receiving formal care	363%	8	11	13	17	23	30	35
relying on informal or no care	73%	7	7	7	9	11	12	12

Education

EDUCATION SPENDING AS % OF GDP - BASELINE	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Total	-0.49	3.8	3.2	3.1	3.2	3.3	3.3	3.3
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (2%) - Staff (71%) - Other (26%)</i>								
Primary	-0.31	2.0	1.6	1.6	1.7	1.7	1.7	1.7
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (2%) - Staff (69%) - Other (29%)</i>								
Low secondary	-0.11	0.8	0.7	0.7	0.7	0.7	0.7	0.7
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (2%) - Staff (74%) - Other (24%)</i>								
Upper secondary	-0.07	0.9	0.8	0.8	0.8	0.8	0.9	0.8
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (-%) - Staff (-%) - Other (-%)</i>								
Tertiary education	:	:	:	:	:	:	:	:
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (-%) - Staff (-%) - Other (-%)</i>								
Number of students (in thousands)								
Total	28	75	81	82	88	96	100	103
as % of population 5-24	-2%	65%	64%	63%	64%	64%	64%	64%
Primary	12	36	36	37	41	44	45	47
Low secondary	7	19	20	20	22	24	25	25
Upper secondary	9	21	24	25	26	28	30	30
Tertiary education	0	0	0	0	0	0	0	0
Number of teachers (in thousands)								
Total	3	7	7	8	8	9	9	9
Primary	1	3	3	3	4	4	4	4
Low secondary	0	0	0	0	0	0	0	0
Upper secondary	2	4	4	4	4	5	5	5
Tertiary education	:	:	:	:	:	:	:	:
EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)								
Total	0.22	-0.3	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/ STUDENTS (DIFF. FROM BASELINE)								
Total	0.44	0.0	0.3	0.4	0.5	0.5	0.5	0.5
EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)								
Total	0.07	-0.9	-0.8	-0.8	-0.8	-0.8	-0.9	-0.8

Unemployment benefit

UNEMPLOYMENT BENEFIT - BASELINE	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Unemployment benefit spending as % of GDP	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

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EC-EPC (AWG) 2009 PROJECTIONS

Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.2	1.35	1.37	1.39	1.42	1.46	1.50	1.53
Life expectancy at birth								
males	12.2	69.7	71.6	72.9	75.4	77.7	79.9	81.9
females	9.2	78.1	79.5	80.5	82.4	84.2	85.8	87.3
Life expectancy at 65								
males	7.0	13.6	14.6	15.3	16.7	18.1	19.4	20.6
females	6.5	17.5	18.4	19.1	20.4	21.7	22.9	24.0
Net migration (thousand)	-4.8	19.6	22.1	22.4	17.3	22.3	17.9	14.9
Net migration as % of population	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Population (million)	-1.3	10.0	10.0	9.9	9.7	9.4	9.1	8.7
Children population (0-14) as % of total population	-2.3	15.0	14.8	14.8	13.6	12.8	12.9	12.7
Prime age population (25-54) as % of total population	-9.4	43.6	42.4	43.0	40.4	36.9	34.9	34.1
Working age population (15-64) as % of total population	-13.4	68.8	67.4	65.4	64.5	62.2	57.7	55.4
Elderly population (65 and over) as % of total population	15.8	16.2	17.7	19.8	22.0	25.0	29.3	31.9
Very elderly population (80 and over) as % of total population	8.9	3.7	4.4	4.8	6.2	8.4	9.1	12.6
Very elderly population (80 and over) as % of elderly population	16.6	22.9	24.9	24.0	28.2	33.7	31.1	39.6
Very elderly population (80 and over) as % of working age population	17.4	5.4	6.6	7.3	9.6	13.5	15.8	22.8
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	1.7	2.9	2.8	2.4	2.1	1.1	0.8	1.0
Employment (growth rate)	-0.5	-0.1	0.3	-0.2	-0.6	-1.0	-0.9	-0.7
Labour input : hours worked (growth rate)	-0.5	-0.3	0.3	-0.2	-0.6	-1.0	-0.9	-0.7
Labour productivity per hour (growth rate)	2.3	3.2	2.6	2.6	2.7	2.1	1.7	1.7
TFP (growth rate)	1.4	1.5	1.4	1.5	1.7	1.3	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.9	1.8	1.1	1.1	0.9	0.7	0.6	0.6
GDP per capita (growth rate)	2.0	4.0	2.9	2.6	2.4	1.4	1.1	1.5
GDP per worker (growth rate)	2.3	3.0	2.6	2.6	2.7	2.1	1.7	1.7
GDP in 2007 prices (in millions euros)		101.1	127.8	145.0	178.4	206.6	226.7	248.4
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	-2103	6931	6718	6468	6221	5822	5232	4829
Population growth (working age:15-64)	-0.7	0.0	-0.7	-1.0	-0.3	-1.2	-0.8	-0.7
Labour force 15-64 (thousands)	-1141	4279	4395	4308	4099	3744	3395	3138
Participation rate (15-64)	3.2	61.7	65.4	66.6	65.9	64.3	64.9	65.0
young (15-24)	0.1	26.1	28.3	27.0	26.2	27.0	26.7	26.2
prime-age (25-54)	1.0	80.0	81.5	81.5	81.3	80.9	81.1	81.1
older (55-64)	15.2	34.1	46.4	47.2	50.8	48.8	49.4	49.3
Participation rate (15-64) - FEMALES	5.7	55.0	60.0	61.2	61.1	60.0	60.5	60.7
young (15-24)	-0.2	22.1	23.8	22.6	21.9	22.6	22.3	21.9
prime-age (25-54)	3.0	73.2	75.0	75.6	76.4	75.9	76.0	76.2
older (55-64)	19.9	26.9	44.7	44.0	46.4	46.2	46.8	46.8
Participation rate (15-64) - MALES	0.5	68.7	70.9	72.1	70.7	68.6	69.3	69.2
young (15-24)	0.4	29.9	32.6	31.2	30.3	31.2	30.9	30.3
prime-age (25-54)	-1.1	87.0	87.9	87.3	86.1	85.8	86.0	85.8
older (55-64)	9.0	42.9	48.4	51.0	55.6	51.5	52.1	52.0
Employment rate (15-64)	3.8	57.2	60.9	62.5	61.8	60.3	60.9	61.0
Employment rate (20-64)	3.7	62.5	65.6	67.3	67.0	65.1	65.7	66.2
Employment rate (15-71)	1.3	52.5	55.6	56.4	56.7	54.1	53.6	53.8
Unemployment rate (15-64)	-1.2	7.4	7.0	6.2	6.2	6.2	6.2	6.2
Employment (15-64) (in millions)	-1.0	4.0	4.1	4.0	3.8	3.5	3.2	2.9
share of young (15-24)	-1%	7%	6%	6%	6%	6%	6%	6%
share of prime-age (25-54)	-6%	83%	79%	81%	78%	75%	76%	77%
share of older (55-64)	6%	10%	15%	14%	17%	19%	19%	17%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	3.2	18.3	20.3	18.5	20.7	24.6	23.7	21.5
Old-age dependency ratio (2)	34	24	26	30	34	40	51	58
Total dependency ratio (3)	35	45	48	53	55	61	73	81
Total economic dependency ratio (4)	41	152	142	143	149	163	181	193
Economic old-age dependency ratio (15-64) (5)	51	40	42	46	53	64	80	91
Pension expenditure projections								
BASILENE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	3.0	10.9	10.9	11.0	11.0	12.2	13.2	13.8
Old-age and early pensions, gross	3.7	9.0	9.6	9.9	9.8	11.0	12.1	12.7
Of which : earnings-related pensions, gross	3.5	8.8	9.4	9.7	9.6	10.7	11.7	12.3
Other pensions (disability, survivors), gross	-0.8	1.9	1.4	1.1	1.2	1.2	1.2	1.1
Occupational pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Private mandatory pensions, gross	2.2	0.0	0.0	0.1	0.4	1.0	1.6	2.2

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EC-EPC (AWG) 2009 PROJECTIONS

Social security pensions, net	2.3	10.9	10.8	10.7	10.6	11.6	12.6	13.2
Social security pensions, contributions	0.0	8.6	8.7	8.6	8.6	8.7	8.6	8.6
Social security pensions, assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ADDITIONAL INDICATORS	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	-5.0	100.0	99.0	97.4	96.1	95.2	95.0	95.0
Pensioners (social security, in 1000 persons)	202	3049	3014	3050	3087	3242	3285	3252
Pensioners aged 65+ (1000 pers)	1097.7	1596	1766	1947	2017	2243	2542	2694
Share of pensioners below age 65 as % of all pensioners	-23%	48%	41%	36%	36%	34%	28%	25%
Average gross pension (social security - € 1000 in 2007 prices)	7.0	3.6	4.6	5.2	6.4	7.8	9.1	10.6
Benefit ratio (Social security pensions)	-3.1	38.9	41.6	41.3	38.8	37.7	36.6	35.8
Gross replacement rate at retirement (social security pensions)	-0.1	0.5	0.5	0.5	0.4	0.4	0.4	0.4
Contributors (social security pensions, in 1000 persons)	-951	3987	4140	4129	3923	3615	3286	3036
Support ratio (contributors/100 pensioners, social security pensions)	-37.4	131	137	135	127	111	100	93
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.3	0.0	0.0	0.0	0.1	0.2	0.3	0.3
Old-age and early pensions, gross	0.3	0.0	0.0	0.0	0.1	0.2	0.3	0.3
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.4	0.0	0.0	-0.1	-0.2	-0.2	-0.3	-0.4
Old-age and early pensions, gross	-0.3	0.0	0.0	-0.1	-0.2	-0.2	-0.3	-0.3
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	1.4	0.0	0.1	0.3	0.5	0.8	1.2	1.4
Old-age and early pensions, gross	1.4	0.0	0.1	0.2	0.4	0.8	1.1	1.4
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.0	0.0	-0.1	-0.2	-0.2	-0.1	-0.1	0.0
Old-age and early pensions, gross	0.0	0.0	-0.1	-0.2	-0.2	-0.1	-0.1	0.0
HIGH OLDER WORKERS EMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.2	0.0	-0.1	-0.2	-0.2	-0.3	-0.2	-0.2
Old-age and early pensions, gross	-0.2	0.0	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	Ch 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	2.7	11.2	10.9	11.0	11.0	12.2	13.2	13.8
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		0.3	0.1	0.2	0.2	1.3	2.4	3.0
Dependency ratio	11.1	0.2	1.5	3.1	4.5	6.4	9.5	11.3
Coverage ratio	-5.3	-0.1	-1.1	-2.1	-2.8	-3.3	-4.7	-5.4
Employment effect	-0.6	-0.1	-0.7	-0.9	-0.8	-0.6	-0.7	-0.7
Benefit ratio	-1.5	0.4	0.6	0.5	-0.2	-0.5	-0.8	-1.1
Interaction effect (residual)	-1.0	0.0	-0.2	-0.5	-0.6	-0.7	-1.0	-1.0
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	3.0	0.06	0.09	0.09	0.74	0.49	0.17	
Dependency ratio	11.3	1.48	1.66	0.26	1.23	1.13	0.79	
Coverage ratio	-5.4	-1.11	-0.96	0.02	-0.38	-0.43	-0.39	
Employment effect	-0.7	-0.66	-0.28	0.15	0.13	-0.02	-0.04	
Benefit ratio	-1.1	0.59	-0.07	-0.36	-0.13	-0.19	-0.15	
Interaction effect (residual)	-1.02	-0.23	-0.27	0.02	-0.10	0.00	-0.03	
Health care								
HEALTH CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.3	5.8	5.9	6.0	6.4	6.7	6.9	7.0
Pure ageing scenario	1.7	5.8	5.9	6.1	6.5	7.0	7.3	7.5
Labour intensity scenario	3.0	5.8	5.8	5.9	6.5	7.3	8.1	8.8
Constant health scenario	0.2	5.8	5.6	5.6	5.7	5.8	6.0	6.0
Fast cost growth scenario	2.3	5.8	6.3	6.5	7.0	7.4	7.8	8.1
Cost convergence scenario	3.1	5.8	6.0	6.3	6.9	7.6	8.2	8.8
Death-related cost scenario	1.3	5.8	5.7	5.9	6.3	6.6	6.9	7.1
Income elasticity scenario	2.2	5.8	6.0	6.3	6.8	7.3	7.7	8.0
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	0.4	0.3	0.3	0.3	0.4	0.4	0.5	0.6
Pure demographic scenario	0.4	0.3	0.3	0.3	0.4	0.4	0.5	0.6
GDP per capita scenario	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.6
Constant disability scenario	0.4	0.3	0.3	0.3	0.4	0.4	0.5	0.6
GDP per worker fast growth scenario	0.5	0.3	0.3	0.3	0.4	0.5	0.6	0.7
Shift 1% of dependents from informal to home care scenario	0.6	0.3	0.3	0.4	0.5	0.6	0.7	0.9
Shift 1% of dependents from informal to institutional care scenario	0.8	0.3	0.4	0.5	0.6	0.7	0.9	1.0
Shift 1% of dependents from informal to home/institutional care scenario	0.7	0.3	0.4	0.4	0.5	0.6	0.8	1.0

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EC-EPC (AWG) 2009 PROJECTIONS

NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)	% CH 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	80%	594	652	721	794	884	996	1068
of which: receiving formal care	113%	86	96	106	124	142	161	183
relying on informal or no care	74%	508	555	615	670	741	835	885
Pure demographic scenario	85%	594	655	726	805	899	1019	1098
of which: receiving formal care	119%	86	97	107	126	145	165	188
relying on informal or no care	79%	508	558	619	679	754	854	910
Constant disability scenario	75%	594	649	716	783	869	973	1038
of which: receiving formal care	107%	86	96	105	122	140	157	178
relying on informal or no care	69%	508	553	611	660	729	816	860
Shift 1% of dependents from informal to home scenario	85%	594	655	726	805	899	1019	1098
of which: receiving formal care	246%	86	149	179	207	235	267	298
relying on informal or no care	57%	508	505	547	599	664	753	800

Education

EDUCATION SPENDING AS % OF GDP - BASELINE	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Total	-0.43	4.4	3.8	3.8	3.7	3.7	3.8	4.0
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (7%) - Staff (66%) - Other (27%)</i>								
Primary	0.01	1.0	1.0	1.0	1.0	0.9	1.0	1.0
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (4%) - Staff (71%) - Other (25%)</i>								
Low secondary	-0.11	1.1	0.9	0.9	0.9	0.9	0.9	1.0
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (4%) - Staff (73%) - Other (22%)</i>								
Upper secondary	-0.18	1.2	1.0	1.0	1.0	1.0	1.0	1.1
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (5%) - Staff (69%) - Other (26%)</i>								
Tertiary education	-0.14	1.0	0.9	0.8	0.8	0.9	0.9	0.9
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (16%) - Staff (51%) - Other (33%)</i>								
Number of students (in thousands)								
Total	-621	1928	1714	1678	1593	1438	1354	1307
as % of population 5-24	1%	83%	81%	83%	82%	82%	83%	83%
Primary	-96	402	405	412	365	326	324	306
Low secondary	-149	464	394	409	383	337	323	315
Upper secondary	-221	622	512	493	498	445	406	400
Tertiary education	-154	441	403	364	347	330	302	286
Number of teachers (in thousands)								
Total	-48	152	135	134	127	113	108	104
Primary	-9	39	39	40	35	31	31	29
Low secondary	-15	45	39	40	38	33	32	31
Upper secondary	-17	47	39	37	38	34	31	30
Tertiary education	-7	21	19	17	16	16	14	13

EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Total	0.16	0.1	0.2	0.2	0.3	0.3	0.2	0.3

EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/ STUDENTS (DIFF. FROM BASELINE)	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Total	0.49	0.1	0.3	0.5	0.5	0.5	0.5	0.6

EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Total	0.27	0.2	0.5	0.5	0.5	0.5	0.5	0.5

Unemployment benefit

UNEMPLOYMENT BENEFIT - BASELINE	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Unemployment benefit spending as % of GDP	-0.1	0.3	0.3	0.2	0.2	0.2	0.2	0.2

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

MALTA

EC-EPC (AWG) 2009 PROJECTIONS

Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.2	1.38	1.41	1.42	1.46	1.49	1.52	1.55
Life expectancy at birth								
males	8.3	76.0	77.3	78.2	79.9	81.5	83.0	84.3
females	7.6	81.1	82.3	83.1	84.6	86.1	87.4	88.6
Life expectancy at 65								
males	5.5	15.9	16.7	17.2	18.3	19.4	20.4	21.4
females	5.7	19.1	20.0	20.5	21.7	22.8	23.8	24.8
Net migration (thousand)	-0.2	1.0	1.1	1.0	0.9	0.9	0.9	0.8
Net migration as % of population	0.0	0.2	0.3	0.2	0.2	0.2	0.2	0.2
Population (million)	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Children population (0-14) as % of total population	-3.6	16.3	14.6	14.6	14.0	12.7	12.6	12.7
Prime age population (25-54) as % of total population	-8.1	41.8	41.1	40.9	40.1	37.0	34.6	33.6
Working age population (15-64) as % of total population	-15.0	69.9	67.4	65.1	61.8	61.6	58.4	54.9
Elderly population (65 and over) as % of total population	18.6	13.8	18.0	20.3	24.2	25.7	29.1	32.4
Very elderly population (80 and over) as % of total population	8.7	3.2	3.9	4.5	7.1	9.3	9.9	11.8
Very elderly population (80 and over) as % of elderly population	13.6	22.9	21.6	22.4	29.2	36.3	33.9	36.5
Very elderly population (80 and over) as % of working age population	17.0	4.5	5.8	7.0	11.4	15.1	16.9	21.5
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	1.7	2.9	2.7	2.7	1.7	1.2	0.8	1.0
Employment (growth rate)	-0.2	2.0	0.2	0.0	-0.1	-0.5	-0.9	-0.7
Labour input : hours worked (growth rate)	-0.2	1.4	0.2	0.0	-0.1	-0.5	-0.9	-0.7
Labour productivity per hour (growth rate)	1.9	1.5	2.5	2.7	1.8	1.7	1.7	1.7
TFP (growth rate)	1.2	1.0	1.6	1.7	1.2	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.7	0.5	0.9	0.9	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	1.7	2.2	2.4	2.4	1.7	1.4	1.1	1.3
GDP per worker (growth rate)	1.9	0.9	2.5	2.7	1.8	1.7	1.7	1.7
GDP in 2007 prices (in millions euros)		5.4	6.6	7.6	9.3	10.7	11.8	12.9
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	-61	283	284	278	267	261	242	222
Population growth (working age:15-64)	-2.0	1.3	-0.4	-0.4	-0.2	-0.5	-0.9	-0.7
Labour force 15-64 (thousands)	-26	169	174	175	174	168	156	143
Participation rate (15-64)	4.9	59.5	61.2	63.0	65.1	64.4	64.4	64.4
young (15-24)	0.6	55.4	58.0	58.2	55.7	56.5	57.0	56.0
prime-age (25-54)	1.9	69.9	71.9	72.4	71.7	71.6	71.9	71.8
older (55-64)	18.7	31.6	32.0	38.1	50.6	51.6	51.1	50.3
Participation rate (15-64) - FEMALES	5.2	39.9	42.9	44.1	45.5	45.0	45.0	45.1
young (15-24)	1.1	52.7	55.7	55.7	53.5	54.2	54.7	53.7
prime-age (25-54)	4.8	44.5	48.9	49.9	49.0	49.0	49.5	49.3
older (55-64)	14.1	13.3	14.0	17.7	26.9	28.3	27.9	27.4
Participation rate (15-64) - MALES	4.5	78.5	78.9	81.2	84.0	83.0	83.0	83.0
young (15-24)	0.1	58.1	60.1	60.6	57.9	58.6	59.1	58.2
prime-age (25-54)	-0.8	94.3	93.8	93.8	93.4	93.2	93.4	93.5
older (55-64)	22.3	50.4	50.3	58.5	73.8	73.9	73.6	72.7
Employment rate (15-64)	4.6	55.8	57.4	59.1	61.1	60.4	60.4	60.4
Employment rate (20-64)	4.3	59.4	60.5	62.0	64.4	63.6	63.4	63.7
Employment rate (15-71)	0.5	51.7	50.9	52.2	54.3	54.3	52.7	52.2
Unemployment rate (15-64)	0.0	6.2	6.2	6.2	6.2	6.2	6.2	6.2
Employment (15-64) (in millions)	0.0	0.2	0.2	0.2	0.2	0.2	0.1	0.1
share of young (15-24)	-5%	18%	16%	14%	13%	13%	13%	13%
share of prime-age (25-54)	-3%	72%	73%	73%	72%	68%	67%	69%
share of older (55-64)	7%	11%	11%	13%	15%	19%	20%	18%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	2.2	20.1	20.3	20.5	19.0	23.4	24.8	22.3
Old-age dependency ratio (2)	39	20	27	31	39	42	50	59
Total dependency ratio (3)	39	43	48	54	62	62	71	82
Total economic dependency ratio (4)	41	158	158	160	163	167	181	199
Economic old-age dependency ratio (15-64) (5)	60	35	46	53	63	67	80	95
Pension expenditure projections								
BASELINE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	6.2	7.2	9.1	9.3	9.3	10.5	12.0	13.4
Old-age and early pensions, gross	6.9	4.2	6.2	6.4	6.7	8.0	9.6	11.1
Of which : earnings-related pensions, gross	:	:	:	:	:	:	:	:
Other pensions (disability, survivors), gross	-0.8	3.0	2.9	2.8	2.6	2.5	2.3	2.3
Occupational pensions, gross	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	:	:	:	:	:	:	:	:

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Social security pensions, net	:	:	:	:	:	:	:	:
Social security pensions, contributions	-0.1	5.9	6.0	6.0	6.0	6.0	5.9	5.8
Social security pensions, assets	:	:	:	:	:	:	:	:
ADDITIONAL INDICATORS	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	:	:	:	:	:	:	:	:
Pensioners (social security, in 1000 persons)	48	68	89	97	105	107	110	117
Pensioners aged 65+ (1000 pers)	61.7	44	67	77	92	93	98	106
Share of pensioners below age 65 as % of all pensioners	-26%	35%	25%	21%	13%	13%	11%	9%
Average gross pension (social security - € 1000 in 2007 prices)	9.1	5.7	6.7	7.2	8.3	10.5	12.8	14.8
Benefit ratio (Social security pensions)	-2.3	42.3	42.3	39.8	37.4	39.9	41.0	40.0
Gross replacement rate at retirement (social security pensions)	:	:	:	:	:	:	:	:
Contributors (social security pensions, in 1000 persons)	-13	159	165	169	172	170	159	146
Support ratio (contributors/100 pensioners, social security pensions)	-107.3	233	184	173	165	159	144	125
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.4	0.0	0.0	0.0	0.1	0.2	0.3	0.4
Old-age and early pensions, gross	0.3	0.0	0.0	0.0	0.1	0.1	0.2	0.3
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.7	0.0	0.0	-0.1	-0.3	-0.4	-0.5	-0.7
Old-age and early pensions, gross	-0.6	0.0	0.0	-0.1	-0.2	-0.2	-0.4	-0.6
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	2.3	0.0	0.2	0.3	0.7	1.1	1.7	2.3
Old-age and early pensions, gross	1.9	0.0	0.1	0.2	0.5	0.9	1.4	1.9
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Old-age and early pensions, gross	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	0.0
HIGH OLDER WORKERS EMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Old-age and early pensions, gross	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	0.0
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	Ch 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	5.6	7.7	9.1	9.3	9.3	10.5	12.0	13.4
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		0.6	1.9	2.1	2.1	3.3	4.8	6.2
Dependency ratio	11.2	0.2	2.7	4.3	6.5	7.1	9.1	11.3
Coverage ratio	-3.4	0.3	-0.4	-0.8	-1.8	-2.0	-2.8	-3.1
Employment effect	-0.7	0.1	-0.2	-0.5	-0.8	-0.7	-0.7	-0.7
Benefit ratio	-0.6	0.1	0.0	-0.6	-1.1	-0.5	-0.2	-0.5
Interaction effect (residual)	-0.8	0.0	-0.2	-0.3	-0.6	-0.6	-0.7	-0.8
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	6.2	1.93	0.15	0.23	0.79	0.64	0.65	
Dependency ratio	11.3	2.71	1.56	0.83	0.42	1.10	1.08	
Coverage ratio	-3.1	-0.35	-0.46	-0.46	-0.15	-0.43	-0.18	
Employment effect	-0.7	-0.20	-0.26	-0.14	0.06	0.00	-0.03	
Benefit ratio	-0.5	-0.05	-0.53	0.09	0.47	0.02	-0.19	
Interaction effect (residual)	-0.78	-0.18	-0.14	-0.09	-0.01	-0.05	-0.03	
Health care								
HEALTH CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	3.3	4.7	5.3	5.6	6.4	7.2	7.6	8.0
Pure ageing scenario	3.8	4.7	5.3	5.7	6.5	7.4	7.9	8.5
Labour intensity scenario	5.0	4.7	5.2	5.7	6.6	7.5	8.4	9.7
Constant health scenario	2.2	4.7	5.1	5.3	5.9	6.4	6.6	6.9
Fast cost growth scenario	4.4	4.7	5.6	6.1	7.0	7.9	8.4	9.1
Cost convergence scenario	5.4	4.7	5.5	6.0	7.2	8.3	9.1	10.1
Death-related cost scenario	2.6	4.7	5.0	5.4	6.1	6.5	6.8	7.3
Income elasticity scenario	4.2	4.7	5.4	5.8	6.8	7.7	8.2	8.9
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.6	1.0	1.1	1.2	1.6	2.0	2.2	2.6
Pure demographic scenario	1.9	1.0	1.1	1.3	1.7	2.1	2.3	2.8
GDP per capita scenario	1.5	1.0	1.1	1.3	1.7	2.0	2.1	2.5
Constant disability scenario	1.4	1.0	1.1	1.2	1.6	1.9	2.1	2.4
GDP per worker fast growth scenario	2.1	1.0	1.2	1.4	1.9	2.3	2.6	3.1
Shift 1% of dependents from informal to home care scenario	1.9	1.0	1.2	1.3	1.7	2.1	2.3	2.8
Shift 1% of dependents from informal to institutional care scenario	2.5	1.0	1.3	1.5	2.1	2.5	2.9	3.5
Shift 1% of dependents from informal to home/institutional care scenario	2.2	1.0	1.2	1.4	1.9	2.3	2.6	3.1

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NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)	% CH 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	165%	9	12	14	19	21	23	25
of which: receiving formal care	169%	11	14	17	22	25	27	30
relying on informal or no care	0%	0	0	0	0	0	0	0
Pure demographic scenario	186%	9	13	15	19	23	24	27
of which: receiving formal care	192%	11	14	17	23	27	29	32
relying on informal or no care	0%	0	0	0	0	0	0	0
Constant disability scenario	143%	9	12	14	18	20	21	23
of which: receiving formal care	147%	11	14	16	21	24	25	27
relying on informal or no care	0%	0	0	0	0	0	0	0
Shift 1% of dependents from informal to home scenario	186%	9	13	15	19	23	24	27
of which: receiving formal care	216%	11	15	18	25	29	31	35
relying on informal or no care	0%	0	0	0	0	0	0	0
Education								
EDUCATION SPENDING AS % OF GDP - BASELINE	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Total	-1.01	5.0	4.2	4.0	3.9	3.7	3.7	4.0
Expenditure decomposition (broadly constant) : Transfers (0%) - Staff (65%) - Other (35%)								
Primary	-0.17	1.3	1.1	1.1	1.1	1.0	1.0	1.1
Expenditure decomposition (broadly constant) : Transfers (0%) - Staff (69%) - Other (31%)								
Low secondary	-0.50	2.1	1.6	1.5	1.6	1.5	1.4	1.6
Expenditure decomposition (broadly constant) : Transfers (0%) - Staff (71%) - Other (29%)								
Upper secondary	-0.17	0.6	0.5	0.5	0.4	0.4	0.4	0.4
Expenditure decomposition (broadly constant) : Transfers (0%) - Staff (51%) - Other (49%)								
Tertiary education	-0.18	1.0	1.0	0.9	0.8	0.8	0.8	0.8
Expenditure decomposition (broadly constant) : Transfers (0%) - Staff (54%) - Other (46%)								
Number of students (in thousands)								
Total	-23	76	66	63	63	58	54	53
as % of population 5-24	3%	71%	70%	72%	74%	72%	73%	74%
Primary	-7	28	25	26	25	22	22	21
Low secondary	-9	27	21	20	21	20	18	18
Upper secondary	-4	11	10	9	9	8	7	7
Tertiary education	-3	9	9	8	7	8	7	7
Number of teachers (in thousands)								
Total	-2	6	5	5	5	5	4	4
Primary	-1	2	2	2	2	2	2	2
Low secondary	-1	3	2	2	2	2	2	2
Upper secondary	0	1	1	0	0	0	0	0
Tertiary education	0	1	1	1	1	1	1	1
EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)								
CH 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.15	-0.1	0.0	0.1	0.1	0.1	0.1	0.1
EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/ STUDENTS (DIFF. FROM BASELINE)								
CH 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.47	-0.1	0.2	0.4	0.4	0.4	0.4	0.4
EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)								
CH 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.37	0.4	0.9	0.8	0.8	0.8	0.8	0.8
Unemployment benefit								
UNEMPLOYMENT BENEFIT - BASELINE								
CH 07-60	2007	2015	2020	2030	2040	2050	2060	
Unemployment benefit spending as % of GDP	0.0	0.4	0.4	0.3	0.3	0.3	0.3	0.3

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

NETHERLANDS

EC-EPC (AWG) 2009 PROJECTIONS

Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.0	1.72	1.73	1.73	1.74	1.75	1.76	1.77
Life expectancy at birth								
males	7.0	77.9	79.0	79.7	81.1	82.5	83.7	84.9
females	6.7	82.2	83.2	83.9	85.3	86.6	87.8	88.9
Life expectancy at 65								
males	5.1	16.5	17.3	17.8	18.8	19.8	20.8	21.7
females	5.1	19.9	20.7	21.2	22.2	23.2	24.1	25.0
Net migration (thousand)	0.5	7.8	8.2	10.6	13.7	6.5	7.2	8.4
Net migration as % of population	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1
Population (million)	0.2	16.4	16.7	16.9	17.2	17.2	16.9	16.6
Children population (0-14) as % of total population	-2.9	17.9	16.6	15.7	15.7	15.6	14.9	15.0
Prime age population (25-54) as % of total population	-7.7	42.6	40.4	38.8	36.4	36.2	35.5	34.9
Working age population (15-64) as % of total population	-9.6	67.4	65.6	64.5	60.2	57.5	58.4	57.8
Elderly population (65 and over) as % of total population	12.5	14.7	17.8	19.8	24.1	26.9	26.6	27.3
Very elderly population (80 and over) as % of total population	7.1	3.8	4.3	4.7	6.9	9.0	11.1	10.9
Very elderly population (80 and over) as % of elderly population	14.5	25.5	24.1	23.8	28.8	33.3	41.6	39.9
Very elderly population (80 and over) as % of working age population	13.3	5.6	6.5	7.3	11.5	15.6	19.0	18.8
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	1.5	2.1	1.7	1.5	1.2	1.5	1.5	1.3
Employment (growth rate)	-0.2	0.8	0.1	-0.2	-0.5	-0.2	-0.2	-0.4
Labour input : hours worked (growth rate)	-0.2	0.5	0.0	-0.3	-0.5	-0.2	-0.2	-0.4
Labour productivity per hour (growth rate)	1.7	1.6	1.7	1.8	1.7	1.7	1.7	1.7
TFP (growth rate)	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	1.5	2.0	1.5	1.3	1.1	1.6	1.7	1.5
GDP per worker (growth rate)	1.7	1.3	1.7	1.7	1.7	1.7	1.7	1.7
GDP in 2007 prices (in millions euros)		559.5	649.2	702.9	800.9	920.8	1072.9	1235.2
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	-1444	11031	10972	10901	10366	9907	9879	9587
Population growth (working age:15-64)	-0.5	0.1	-0.1	-0.2	-0.7	-0.1	-0.1	-0.4
Labour force 15-64 (thousands)	-986	8678	8716	8662	8262	8021	7942	7691
Participation rate (15-64)	1.6	78.7	79.4	79.5	79.7	81.0	80.4	80.2
young (15-24)	1.1	72.7	73.6	73.5	73.8	73.3	73.6	73.8
prime-age (25-54)	2.5	87.7	89.0	89.6	90.1	90.2	90.1	90.2
older (55-64)	4.2	53.3	55.3	56.1	55.8	57.5	57.8	57.6
Participation rate (15-64) - FEMALES	5.6	72.4	75.5	76.3	77.2	78.7	78.2	78.0
young (15-24)	1.2	72.4	73.4	73.3	73.6	73.2	73.4	73.5
prime-age (25-54)	5.9	81.2	84.8	86.1	87.0	87.2	87.2	87.1
older (55-64)	14.1	41.8	49.2	51.4	53.5	55.7	56.2	55.9
Participation rate (15-64) - MALES	-2.4	84.8	83.3	82.6	82.1	83.2	82.5	82.4
young (15-24)	1.0	73.0	73.8	73.7	74.0	73.5	73.8	74.0
prime-age (25-54)	-1.0	94.0	93.2	93.0	93.1	93.0	92.9	93.0
older (55-64)	-5.5	64.7	61.4	60.9	58.1	59.4	59.5	59.1
Employment rate (15-64)	1.7	76.1	77.0	77.1	77.3	78.5	78.0	77.8
Employment rate (20-64)	1.7	78.0	78.9	78.9	79.0	80.6	80.0	79.7
Employment rate (15-71)	-0.8	70.8	70.3	70.0	69.2	70.3	71.0	70.0
Unemployment rate (15-64)	-0.2	3.2	3.0	3.0	3.0	3.0	3.0	3.0
Employment (15-64) (in millions)	-0.9	8.4	8.5	8.4	8.0	7.8	7.7	7.5
share of young (15-24)	0%	16%	17%	17%	16%	16%	17%	16%
share of prime-age (25-54)	-3%	72%	69%	68%	69%	71%	69%	68%
share of older (55-64)	3%	12%	14%	15%	15%	13%	15%	15%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	2.5	18.9	19.9	21.4	22.1	18.7	20.6	21.3
Old-age dependency ratio (2)	25	22	27	31	40	47	46	47
Total dependency ratio (3)	25	48	52	55	66	74	71	73
Total economic dependency ratio (4)	26	93	95	98	111	118	116	119
Economic old-age dependency ratio (15-64) (5)	30	27	33	37	48	56	55	57
Pension expenditure projections								
BASELINE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	4.0	6.6	7.2	7.8	9.3	10.3	10.3	10.5
Old-age and early pensions, gross	4.5	4.5	5.3	5.9	7.6	8.8	8.7	9.0
Of which : earnings-related pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other pensions (disability, survivors), gross	-0.5	2.1	1.9	1.9	1.7	1.6	1.6	1.6
Occupational pensions, gross	6.9	5.2	5.9	6.7	9.0	10.8	11.1	12.1
Private mandatory pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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Social security pensions, net	3.5	5.4	5.9	6.4	7.8	8.7	8.7	8.9
Social security pensions, contributions	:	:	:	:	:	:	:	:
Social security pensions, assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ADDITIONAL INDICATORS	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	2.8	81.5	82.2	82.7	83.6	84.2	84.2	84.2
Pensioners (social security, in 1000 persons)	1856	3302	3856	4201	4903	5301	5158	5158
Pensioners aged 65+ (1000 pers)	2154.8	2368	2973	3346	4147	4633	4506	4523
Share of pensioners below age 65 as % of all pensioners	-14%	32%	28%	25%	21%	19%	19%	18%
Average gross pension (social security - € 1000 in 2007 prices)	14.1	11.1	12.1	13.0	15.2	18.0	21.4	25.3
Benefit ratio (Social security pensions)	-3.2	43.8	41.6	41.1	40.4	40.4	40.7	40.5
Gross replacement rate at retirement (social security pensions)	:	:	:	:	:	:	:	:
Contributors (social security pensions, in 1000 persons)	1278	10981	11761	12015	12464	12725	12463	12259
Support ratio (contributors/100 pensioners, social security pensions)	-94.9	333	305	286	254	240	242	238
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.3	0.0	0.0	0.0	0.1	0.2	0.2	0.3
Old-age and early pensions, gross	0.3	0.0	0.0	0.0	0.1	0.2	0.2	0.3
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Old-age and early pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	1.0	0.0	0.0	0.1	0.4	0.9	1.1	1.0
Old-age and early pensions, gross	1.0	0.0	0.0	0.1	0.4	0.8	1.1	1.0
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
Old-age and early pensions, gross	-0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
HIGH OLDER WORKERS EMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
Old-age and early pensions, gross	-0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	Ch 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	4.2	6.3	7.2	7.8	9.3	10.3	10.3	10.5
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		-0.2	0.6	1.2	2.7	3.8	3.7	4.0
Dependency ratio	6.5	0.1	1.7	2.7	5.0	6.5	6.3	6.6
Coverage ratio	-1.4	-0.1	-0.5	-0.7	-1.2	-1.5	-1.5	-1.5
Employment effect	-0.2	0.0	-0.1	-0.1	-0.1	-0.3	-0.2	-0.2
Benefit ratio	-0.3	-0.3	-0.4	-0.5	-0.6	-0.6	-0.5	-0.6
Interaction effect (residual)	-0.4	0.0	-0.2	-0.2	-0.4	-0.4	-0.4	-0.4
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	4.0	0.61	0.59	0.85	0.34	-0.05	0.17	
Dependency ratio	6.6	1.72	0.95	1.22	0.51	-0.12	0.28	
Coverage ratio	-1.5	-0.46	-0.23	-0.23	-0.11	0.00	-0.04	
Employment effect	-0.2	-0.08	0.00	-0.03	-0.09	0.05	-0.01	
Benefit ratio	-0.6	-0.36	-0.10	-0.03	0.02	0.02	-0.04	
Interaction effect (residual)	-0.41	-0.21	-0.03	-0.08	0.01	0.00	-0.03	
Health care								
HEALTH CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.0	4.8	5.1	5.3	5.6	5.8	5.9	5.8
Pure ageing scenario	1.1	4.8	5.1	5.3	5.6	5.8	5.9	6.0
Labour intensity scenario	1.8	4.8	5.0	5.3	6.0	6.5	6.5	6.6
Constant health scenario	0.4	4.8	5.0	5.1	5.3	5.4	5.4	5.3
Fast cost growth scenario	1.5	4.8	5.4	5.6	6.0	6.2	6.4	6.4
Cost convergence scenario	:	:	:	:	:	:	:	:
Death-related cost scenario	0.9	4.8	5.0	5.1	5.5	5.7	5.7	5.8
Income elasticity scenario	1.3	4.8	5.1	5.3	5.7	6.0	6.2	6.2
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	4.7	3.4	3.8	4.1	5.4	6.8	7.7	8.1
Pure demographic scenario	5.2	3.4	3.8	4.2	5.6	7.1	8.2	8.5
GDP per capita scenario	4.2	3.4	3.8	4.1	5.1	6.3	7.3	7.6
Constant disability scenario	4.2	3.4	3.7	4.0	5.2	6.5	7.3	7.6
GDP per worker fast growth scenario	6.1	3.4	4.1	4.6	6.1	7.9	9.0	9.4
Shift 1% of dependents from informal to home care scenario	5.4	3.4	3.9	4.3	5.7	7.3	8.4	8.8
Shift 1% of dependents from informal to institutional care scenario	6.2	3.4	4.1	4.7	6.3	8.0	9.2	9.6
Shift 1% of dependents from informal to home/institutional care scenario	5.8	3.4	4.0	4.5	6.0	7.7	8.8	9.2

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NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)	% CH 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	136%	387	461	515	684	839	922	913
of which: receiving formal care	137%	622	733	824	1089	1350	1483	1473
relying on informal or no care	0%	0	0	0	0	0	0	0
Pure demographic scenario	155%	387	467	527	714	889	988	984
of which: receiving formal care	155%	622	744	845	1137	1431	1588	1587
relying on informal or no care	0%	0	0	0	0	0	0	0
Constant disability scenario	118%	387	454	502	654	789	856	842
of which: receiving formal care	118%	622	722	804	1040	1269	1377	1358
relying on informal or no care	0%	0	0	0	0	0	0	0
Shift 1% of dependents from informal to home scenario	155%	387	467	527	714	889	988	984
of which: receiving formal care	171%	622	781	897	1209	1520	1687	1685
relying on informal or no care	0%	0	0	0	0	0	0	0

Education

EDUCATION SPENDING AS % OF GDP - BASELINE	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Total	-0.19	4.6	4.5	4.4	4.4	4.5	4.5	4.4
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (12%) - Staff (65%) - Other (23%)</i>								
Primary	-0.10	1.3	1.2	1.2	1.2	1.3	1.2	1.2
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (0%) - Staff (72%) - Other (28%)</i>								
Low secondary	-0.10	1.1	1.1	1.0	1.0	1.1	1.1	1.0
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (3%) - Staff (74%) - Other (22%)</i>								
Upper secondary	-0.03	0.9	0.9	0.9	0.8	0.9	0.9	0.9
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (19%) - Staff (60%) - Other (21%)</i>								
Tertiary education	0.03	1.3	1.3	1.3	1.3	1.3	1.3	1.3
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (28%) - Staff (51%) - Other (21%)</i>								
Number of students (in thousands)								
Total	-479	3234	3168	3049	2922	2971	2881	2754
as % of population 5-24	-1%	82%	81%	81%	81%	82%	81%	81%
Primary	-216	1281	1209	1131	1155	1172	1092	1066
Low secondary	-140	782	784	727	677	709	689	643
Upper secondary	-82	632	627	638	570	584	586	549
Tertiary education	-42	539	548	552	519	506	515	497
Number of teachers (in thousands)								
Total	-31	221	215	210	201	203	198	190
Primary	-18	105	99	93	94	96	89	87
Low secondary	0	0	0	0	0	0	0	0
Upper secondary	-11	82	82	83	74	76	76	72
Tertiary education	-3	33	34	34	32	31	32	31

EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Total	0.06	0.0	0.0	0.1	0.1	0.1	0.1	0.1

EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/ STUDENTS (DIFF. FROM BASELINE)	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Total	0.52	0.0	0.3	0.5	0.5	0.5	0.5	0.5

EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Total	0.06	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Unemployment benefit

UNEMPLOYMENT BENEFIT - BASELINE	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Unemployment benefit spending as % of GDP	-0.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

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Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.2	1.41	1.43	1.45	1.48	1.51	1.54	1.57
Life expectancy at birth								
males	7.5	77.4	78.6	79.4	80.9	82.3	83.6	84.9
females	6.3	82.9	83.9	84.6	85.8	87.0	88.1	89.2
Life expectancy at 65								
males	5.0	17.1	17.8	18.3	19.3	20.2	21.2	22.0
females	4.9	20.3	21.0	21.5	22.5	23.4	24.3	25.2
Net migration (thousand)	-10.7	33.1	31.4	30.5	31.2	26.0	24.7	22.3
Net migration as % of population	-0.1	0.4	0.4	0.3	0.3	0.3	0.3	0.2
Population (million)	0.7	8.3	8.6	8.7	9.0	9.1	9.1	9.0
Children population (0-14) as % of total population	-1.5	15.3	14.4	14.3	14.1	13.6	13.5	13.8
Prime age population (25-54) as % of total population	-8.9	44.1	43.0	41.2	37.8	36.7	35.5	35.2
Working age population (15-64) as % of total population	-10.3	67.5	67.2	66.3	62.2	59.2	58.3	57.2
Elderly population (65 and over) as % of total population	11.8	17.2	18.4	19.4	23.7	27.2	28.2	29.0
Very elderly population (80 and over) as % of total population	6.7	4.6	4.9	5.2	6.7	8.4	11.5	11.4
Very elderly population (80 and over) as % of elderly population	12.3	26.9	26.4	26.8	28.2	30.8	40.7	39.2
Very elderly population (80 and over) as % of working age population	13.0	6.8	7.2	7.8	10.8	14.2	19.6	19.8
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	1.7	2.2	1.9	1.9	1.5	1.5	1.5	1.5
Employment (growth rate)	0.0	0.7	0.2	0.2	-0.2	-0.2	-0.2	-0.2
Labour input : hours worked (growth rate)	0.0	0.6	0.2	0.2	-0.2	-0.2	-0.2	-0.2
Labour productivity per hour (growth rate)	1.7	1.6	1.7	1.7	1.7	1.7	1.7	1.7
TFP (growth rate)	1.1	1.0	1.1	1.1	1.1	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	1.5	1.8	1.6	1.6	1.2	1.5	1.5	1.6
GDP per worker (growth rate)	1.7	1.5	1.7	1.7	1.7	1.7	1.7	1.7
GDP in 2007 prices (in millions euros)		272.7	322.7	354.9	415.5	485.6	563.4	650.9
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	-429	5601	5756	5786	5591	5396	5322	5172
Population growth (working age:15-64)	-0.5	0.2	0.1	0.1	-0.6	-0.1	-0.2	-0.3
Labour force 15-64 (thousands)	-178	4192	4364	4393	4271	4205	4125	4014
Participation rate (15-64)	2.8	74.8	75.8	75.9	76.4	77.9	77.5	77.6
young (15-24)	1.7	61.5	64.1	63.7	63.2	63.3	63.5	63.3
prime-age (25-54)	1.9	87.4	87.7	88.2	89.0	89.2	89.2	89.3
older (55-64)	15.4	40.0	45.7	49.6	52.1	56.1	56.0	55.4
Participation rate (15-64) - FEMALES	5.1	68.0	70.6	71.0	71.5	73.4	73.0	73.1
young (15-24)	2.0	57.2	60.1	59.7	59.3	59.3	59.4	59.2
prime-age (25-54)	3.9	81.1	82.8	83.6	84.4	85.0	84.9	84.9
older (55-64)	21.0	29.3	39.1	43.9	46.4	50.8	50.9	50.3
Participation rate (15-64) - MALES	0.3	81.7	81.0	80.8	81.2	82.3	81.9	82.0
young (15-24)	1.4	65.7	68.0	67.6	67.1	67.2	67.3	67.1
prime-age (25-54)	-0.2	93.7	92.5	92.8	93.5	93.4	93.4	93.5
older (55-64)	9.2	51.3	52.6	55.6	57.9	61.4	61.1	60.5
Employment rate (15-64)	2.8	71.5	72.6	72.7	73.1	74.6	74.2	74.3
Employment rate (20-64)	2.9	74.4	75.2	75.3	75.9	77.6	77.1	77.3
Employment rate (15-71)	1.6	65.6	66.6	66.7	65.6	67.4	67.6	67.2
Unemployment rate (15-64)	-0.2	4.5	4.3	4.3	4.3	4.3	4.3	4.3
Employment (15-64) (in millions)	-0.2	4.0	4.2	4.2	4.1	4.0	3.9	3.8
share of young (15-24)	-1%	14%	14%	13%	13%	14%	14%	14%
share of prime-age (25-54)	-6%	77%	75%	73%	71%	71%	70%	71%
share of older (55-64)	6%	9%	11%	14%	16%	15%	16%	15%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	4.3	16.6	18.4	21.5	22.6	20.4	21.8	20.9
Old-age dependency ratio (2)	25	25	27	29	38	46	48	51
Total dependency ratio (3)	27	48	49	51	61	69	72	75
Total economic dependency ratio (4)	25	105	104	106	116	122	127	130
Economic old-age dependency ratio (15-64) (5)	29	34	36	38	48	57	61	63
Pension expenditure projections								
BASELINE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.9	12.8	12.8	13.0	13.8	13.9	14.0	13.6
Old-age and early pensions, gross	1.4	9.5	9.7	10.1	10.9	11.1	11.1	11.0
Of which : earnings-related pensions, gross	1.4	9.5	9.7	10.1	10.9	11.1	11.1	11.0
Other pensions (disability, survivors), gross	-0.6	3.2	3.0	2.9	2.8	2.8	2.9	2.7
Occupational pensions, gross	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	:	:	:	:	:	:	:	:

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Social security pensions, net	1.5	10.8	10.8	11.0	11.9	12.3	12.5	12.3
Social security pensions, contributions	0.1	9.0	9.0	9.0	9.0	9.1	9.1	9.1
Social security pensions, assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ADDITIONAL INDICATORS	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	5.6	84.4	84.3	84.9	86.3	88.2	89.4	90.0
Pensioners (social security, in 1000 persons)	1256	2423	2654	2799	3071	3275	3494	3680
Pensioners aged 65+ (1000 pers)	:	:	:	:	:	:	:	:
Share of pensioners below age 65 as % of all pensioners	:	:	:	:	:	:	:	:
Average gross pension (social security - € 1000 in 2007 prices)	9.7	14.4	15.5	16.5	18.6	20.7	22.6	24.1
Benefit ratio (Social security pensions)	-16.4	54.9	53.0	51.8	49.4	46.3	42.7	38.5
Gross replacement rate at retirement (social security pensions)	-10.8	49.2	52.1	48.7	45.9	45.4	43.6	38.5
Contributors (social security pensions, in 1000 persons)	387	3705	4298	4352	4311	4269	4186	4092
Support ratio (contributors/100 pensioners, social security pensions)	-41.7	153	162	155	140	130	120	111
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.4	0.0	0.2	0.3	0.4	0.6	0.5	0.4
Old-age and early pensions, gross	0.4	0.0	0.2	0.2	0.4	0.5	0.5	0.4
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-1.1	0.0	0.0	-0.2	-0.5	-0.8	-1.0	-1.1
Old-age and early pensions, gross	-0.9	0.0	0.0	-0.1	-0.4	-0.6	-0.8	-0.9
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	5.3	0.0	0.4	0.8	1.8	3.0	4.3	5.3
Old-age and early pensions, gross	4.9	0.0	0.3	0.6	1.5	2.7	3.8	4.9
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.3	0.0	-0.1	-0.3	-0.4	-0.4	-0.4	-0.3
Old-age and early pensions, gross	-0.3	0.0	-0.1	-0.1	-0.2	-0.2	-0.3	-0.3
HIGH OLDER WORKERS EMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.5	0.0	-0.1	-0.3	-0.3	-0.4	-0.5	-0.5
Old-age and early pensions, gross	-0.3	0.0	-0.1	-0.2	-0.2	-0.3	-0.3	-0.3
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	Ch 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	0.9	12.7	12.8	13.0	13.8	13.9	14.0	13.6
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		-0.1	0.0	0.3	1.0	1.2	1.2	0.9
Dependency ratio	9.7	0.2	1.2	2.0	5.8	8.6	9.3	9.9
Coverage ratio	-2.5	-0.1	-0.3	-0.5	-2.3	-3.5	-3.1	-2.6
Employment effect	-0.5	0.0	-0.2	-0.2	-0.3	-0.6	-0.5	-0.5
Benefit ratio	-4.8	-0.1	-0.6	-0.9	-1.6	-2.4	-3.6	-5.0
Interaction effect (residual)	-1.0	0.0	-0.1	-0.1	-0.6	-0.9	-0.9	-1.0
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	0.9	0.02	0.24	0.41	0.02	-0.01	-0.27	
Dependency ratio	9.9	1.20	0.84	2.20	0.84	0.46	0.37	
Coverage ratio	-2.6	-0.33	-0.20	-1.09	-0.25	0.16	0.20	
Employment effect	-0.5	-0.19	-0.02	-0.12	-0.08	0.01	-0.04	
Benefit ratio	-5.0	-0.61	-0.32	-0.33	-0.48	-0.58	-0.74	
Interaction effect (residual)	-0.99	-0.05	-0.07	-0.26	-0.02	-0.06	-0.05	
Health care								
HEALTH CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.5	6.5	6.8	7.0	7.4	7.8	8.1	8.0
Pure ageing scenario	1.7	6.5	6.8	7.0	7.5	7.9	8.2	8.2
Labour intensity scenario	2.6	6.5	6.7	7.0	7.8	8.5	8.9	9.1
Constant health scenario	0.7	6.5	6.7	6.8	7.0	7.2	7.4	7.2
Fast cost growth scenario	2.3	6.5	7.3	7.5	8.0	8.5	8.8	8.8
Cost convergence scenario	:	:	:	:	:	:	:	:
Death-related cost scenario	1.4	6.5	6.7	6.9	7.3	7.7	7.9	7.8
Income elasticity scenario	2.1	6.5	6.9	7.2	7.7	8.2	8.5	8.5
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.2	1.3	1.3	1.4	1.7	2.0	2.4	2.5
Pure demographic scenario	1.3	1.3	1.3	1.4	1.7	2.1	2.5	2.6
GDP per capita scenario	1.1	1.3	1.3	1.4	1.6	1.9	2.3	2.3
Constant disability scenario	1.1	1.3	1.3	1.4	1.6	1.9	2.2	2.3
GDP per worker fast growth scenario	1.6	1.3	1.5	1.6	1.9	2.3	2.7	2.9
Shift 1% of dependents from informal to home care scenario	1.5	1.3	1.4	1.5	1.8	2.2	2.6	2.8
Shift 1% of dependents from informal to institutional care scenario	1.4	1.3	1.4	1.5	1.8	2.2	2.6	2.7
Shift 1% of dependents from informal to home/institutional care scenario	1.5	1.3	1.4	1.5	1.8	2.2	2.6	2.7

AUSTRIA

EC-EPC (AWG) 2009 PROJECTIONS

NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)	% Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	111%	268	299	320	398	483	560	567
of which: receiving formal care	146%	186	212	228	287	356	435	456
relying on informal or no care	34%	83	87	91	111	127	125	111
Pure demographic scenario	126%	268	303	327	413	510	596	607
of which: receiving formal care	160%	186	214	233	296	373	458	482
relying on informal or no care	51%	83	88	94	117	137	137	125
Constant disability scenario	96%	268	295	312	384	457	524	527
of which: receiving formal care	132%	186	209	224	278	339	411	430
relying on informal or no care	18%	83	86	89	106	118	113	97
Shift 1% of dependents from informal to home scenario	126%	268	303	327	413	510	596	607
of which: receiving formal care	193%	186	238	266	338	424	518	543
relying on informal or no care	-22%	83	64	61	75	86	78	64
Education								
EDUCATION SPENDING AS % OF GDP - BASELINE	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Total	-0.46	4.8	4.3	4.1	4.2	4.2	4.2	4.3
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (6%) - Staff (64%) - Other (29%)</i>								
Primary	0.00	0.9	0.9	0.9	0.9	0.9	0.9	1.0
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (1%) - Staff (69%) - Other (30%)</i>								
Low secondary	-0.10	1.2	1.0	1.0	1.1	1.1	1.1	1.1
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (1%) - Staff (75%) - Other (24%)</i>								
Upper secondary	-0.12	1.2	1.1	1.0	1.0	1.1	1.0	1.1
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (1%) - Staff (75%) - Other (24%)</i>								
Tertiary education	-0.23	1.4	1.3	1.2	1.2	1.2	1.2	1.2
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (19%) - Staff (44%) - Other (37%)</i>								
Number of students (in thousands)								
Total	-148	1427	1317	1295	1308	1303	1277	1279
as % of population 5-24	-1%	74%	71%	72%	73%	73%	73%	73%
Primary	-8	346	334	337	346	336	334	338
Low secondary	-42	389	346	345	356	353	344	347
Upper secondary	-57	458	423	407	410	416	403	401
Tertiary education	-42	234	214	205	196	198	196	192
Number of teachers (in thousands)								
Total	-12	111	102	100	101	101	99	99
Primary	-1	25	24	24	25	24	24	24
Low secondary	-4	38	33	33	34	34	33	33
Upper secondary	-4	30	28	27	27	27	26	26
Tertiary education	-3	18	17	16	15	15	15	15
EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)								
Total	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
	0.05	0.0	0.0	0.0	0.0	0.1	0.1	0.0
EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/ STUDENTS (DIFF. FROM BASELINE)								
Total	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
	0.53	0.2	0.4	0.6	0.7	0.7	0.7	0.7
EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)								
Total	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
	0.50	0.4	0.9	0.9	0.9	0.9	0.9	0.9
Unemployment benefit								
UNEMPLOYMENT BENEFIT - BASELINE	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Unemployment benefit spending as % of GDP	0.0	0.7	0.6	0.6	0.6	0.6	0.6	0.6

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

POLAND

EC-EPC (AWG) 2009 PROJECTIONS

Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.2	1.27	1.30	1.32	1.36	1.40	1.44	1.49
Life expectancy at birth								
males	11.1	71.4	73.1	74.3	76.6	78.8	80.7	82.5
females	8.1	79.9	81.2	82.1	83.7	85.3	86.7	88.0
Life expectancy at 65								
males	6.5	14.5	15.4	16.0	17.3	18.6	19.8	20.9
females	5.9	18.6	19.4	20.0	21.2	22.3	23.4	24.4
Net migration (thousand)	23.7	-15.5	8.5	14.0	-1.3	17.1	26.4	8.2
Net migration as % of population	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Population (million)	-7.0	38.1	38.1	38.0	37.0	35.2	33.3	31.1
Children population (0-14) as % of total population	-4.1	15.5	14.6	14.8	13.1	11.4	11.6	11.4
Prime age population (25-54) as % of total population	-11.5	43.9	43.5	43.5	41.4	36.6	33.2	32.4
Working age population (15-64) as % of total population	-18.6	71.1	70.0	67.0	63.9	62.7	56.8	52.5
Elderly population (65 and over) as % of total population	22.7	13.5	15.3	18.2	23.0	25.9	31.6	36.2
Very elderly population (80 and over) as % of total population	10.1	3.0	4.0	4.4	5.7	9.4	10.1	13.1
Very elderly population (80 and over) as % of elderly population	13.9	22.2	25.9	23.9	24.7	36.4	31.8	36.1
Very elderly population (80 and over) as % of working age population	20.7	4.2	5.7	6.5	8.9	15.0	17.7	24.9
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	1.7	5.9	3.1	2.5	2.0	0.5	0.3	0.5
Employment (growth rate)	-0.6	2.8	-0.3	-0.6	-0.6	-1.1	-1.5	-1.2
Labour input : hours worked (growth rate)	-0.7	2.8	-0.3	-0.6	-0.7	-1.2	-1.4	-1.2
Labour productivity per hour (growth rate)	2.4	3.0	3.4	3.1	2.7	1.7	1.7	1.7
TFP (growth rate)	1.4	1.7	1.6	1.7	1.7	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	1.0	1.3	1.8	1.4	0.9	0.6	0.6	0.6
GDP per capita (growth rate)	2.1	6.7	3.1	2.6	2.4	1.1	0.9	1.3
GDP per worker (growth rate)	2.4	3.0	3.4	3.1	2.7	1.7	1.7	1.7
GDP in 2007 prices (in millions euros)		307.3	427.0	488.0	613.9	678.7	702.6	727.6
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	-10652	26987	26660	25436	23624	22087	18900	16335
Population growth (working age:15-64)	-1.5	0.4	-0.7	-1.0	-0.5	-1.1	-1.9	-1.1
Labour force 15-64 (thousands)	-6256	17085	17355	16823	15961	14434	12384	10828
Participation rate (15-64)	3.0	63.3	65.1	66.1	67.6	65.4	65.5	66.3
young (15-24)	-1.0	33.9	36.0	34.9	32.5	34.6	34.2	32.9
prime-age (25-54)	0.3	81.8	83.0	83.0	82.0	81.4	82.2	82.1
older (55-64)	14.4	32.1	35.5	34.9	48.1	47.9	46.2	46.5
Participation rate (15-64) - FEMALES	4.3	56.6	58.8	60.4	62.3	59.6	59.6	60.9
young (15-24)	-0.7	30.0	32.1	31.1	28.9	30.8	30.4	29.3
prime-age (25-54)	2.8	75.6	77.8	78.4	78.4	77.6	78.3	78.4
older (55-64)	14.7	20.8	25.6	25.4	36.4	37.1	35.2	35.4
Participation rate (15-64) - MALES	1.4	70.1	71.5	72.0	72.8	71.1	71.4	71.6
young (15-24)	-1.3	37.8	39.8	38.5	35.9	38.2	37.8	36.4
prime-age (25-54)	-2.4	88.0	88.1	87.6	85.6	85.1	86.0	85.6
older (55-64)	12.6	45.1	46.8	45.5	60.7	59.2	57.6	57.7
Employment rate (15-64)	5.3	57.1	61.3	62.2	63.6	61.5	61.7	62.4
Employment rate (20-64)	4.3	63.0	65.8	66.4	68.6	65.8	65.8	67.2
Employment rate (15-71)	1.1	53.6	56.9	56.1	57.5	56.1	53.9	54.7
Unemployment rate (15-64)	-3.9	9.8	5.9	5.9	5.9	5.9	5.9	5.9
Employment (15-64) (in millions)	-5.2	15.4	16.3	15.8	15.0	13.6	11.7	10.2
share of young (15-24)	-3%	11%	9%	7%	7%	8%	7%	7%
share of prime-age (25-54)	-4%	81%	80%	82%	79%	73%	74%	77%
share of older (55-64)	8%	8%	11%	11%	14%	19%	19%	16%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	5.8	16.4	20.7	20.0	19.1	26.0	26.8	22.2
Old-age dependency ratio (2)	50	19	22	27	36	41	56	69
Total dependency ratio (3)	50	41	43	49	57	59	76	91
Total economic dependency ratio (4)	60	141	132	138	144	156	180	201
Economic old-age dependency ratio (15-64) (5)	74	31	34	42	54	64	85	106
Pension expenditure projections								
BASELINE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-2.8	11.6	9.6	9.7	9.4	9.2	9.1	8.8
Old-age and early pensions, gross	-2.0	9.8	8.4	8.7	8.4	8.1	8.1	7.9
Of which : earnings-related pensions, gross	:	:	:	:	:	:	:	:
Other pensions (disability, survivors), gross	-0.8	1.7	1.2	1.0	1.0	1.1	1.0	0.9
Occupational pensions, gross	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	1.9	0.0	0.0	0.1	0.2	0.7	1.4	1.9

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EC-EPC (AWG) 2009 PROJECTIONS

Social security pensions, net	-2.3	9.6	8.0	8.2	7.9	7.7	7.6	7.3
Social security pensions, contributions	-1.8	6.9	5.6	5.4	5.1	5.1	5.0	5.1
Social security pensions, assets	0.5	0.3	0.4	0.4	0.4	0.5	0.6	0.8
ADDITIONAL INDICATORS	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	0.2	83.0	83.9	84.0	83.9	83.6	83.4	83.2
Pensioners (social security, in 1000 persons)	1307	9968	9069	9415	9941	10599	11325	11275
Pensioners aged 65+ (1000 pers)	4252.1	5104	5643	6359	7222	7634	8813	9356
Share of pensioners below age 65 as % of all pensioners	-32%	49%	38%	32%	27%	28%	22%	17%
Average gross pension (social security - € 1000 in 2007 prices)	2.1	3.6	4.5	5.0	5.8	5.9	5.6	5.7
Benefit ratio (Social security pensions)	-30.4	56.2	54.1	51.7	45.1	37.9	30.6	25.8
Gross replacement rate at retirement (social security pensions)	:	:	:	:	:	:	:	:
Contributors (social security pensions, in 1000 persons)	-4814	15333	16825	16373	15196	13828	11939	10518
Support ratio (contributors/100 pensioners, social security pensions)	-60.5	154	186	174	153	130	105	93
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Old-age and early pensions, gross	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.4	0.0	0.0	-0.1	-0.2	-0.3	-0.4	-0.4
Old-age and early pensions, gross	-0.4	0.0	0.0	-0.1	-0.2	-0.3	-0.3	-0.4
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.2	0.0	0.0	0.0	0.0	0.1	0.2	0.2
Old-age and early pensions, gross	0.2	0.0	0.0	0.0	0.0	0.1	0.1	0.2
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Old-age and early pensions, gross	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
HIGH OLDER WORKERS EMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Old-age and early pensions, gross	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	Ch 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	-3.1	11.8	9.6	9.7	9.4	9.2	9.1	8.8
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		0.2	-2.0	-1.8	-2.2	-2.4	-2.5	-2.8
Dependency ratio	13.4	0.0	1.8	4.1	7.0	8.4	11.3	13.4
Coverage ratio	-5.9	-0.4	-2.3	-3.5	-4.9	-5.0	-5.7	-6.3
Employment effect	-0.8	-0.2	-0.8	-0.9	-1.1	-0.8	-0.9	-1.0
Benefit ratio	-7.9	0.9	-0.4	-0.8	-2.2	-3.8	-5.6	-7.1
Interaction effect (residual)	-1.8	0.0	-0.2	-0.6	-1.0	-1.2	-1.7	-1.8
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	-2.8	-2.00	0.16	-0.27	-0.07	-0.05	-0.23	
Dependency ratio	13.4	1.78	2.32	0.92	0.83	1.65	0.78	
Coverage ratio	-6.3	-2.34	-1.19	-0.38	-0.06	-0.45	-0.27	
Employment effect	-1.0	-0.79	-0.15	0.00	0.13	-0.06	-0.04	
Benefit ratio	-7.1	-0.42	-0.43	-0.75	-0.85	-0.91	-0.67	
Interaction effect (residual)	-1.83	-0.24	-0.39	-0.06	-0.12	-0.27	-0.03	
Health care								
HEALTH CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.0	4.0	4.3	4.4	4.6	4.8	4.9	5.0
Pure ageing scenario	1.3	4.0	4.2	4.4	4.7	5.0	5.2	5.4
Labour intensity scenario	2.4	4.0	4.0	4.2	4.6	5.1	5.8	6.4
Constant health scenario	-0.6	4.0	4.0	4.0	3.9	3.8	3.6	3.5
Fast cost growth scenario	1.7	4.0	4.5	4.7	5.0	5.3	5.6	5.7
Cost convergence scenario	4.9	4.0	4.5	4.8	5.6	6.5	7.6	8.9
Death-related cost scenario	1.2	4.0	4.1	4.3	4.6	4.8	5.1	5.2
Income elasticity scenario	1.7	4.0	4.4	4.5	5.0	5.3	5.6	5.7
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	0.7	0.4	0.4	0.5	0.6	0.7	0.9	1.1
Pure demographic scenario	0.7	0.4	0.4	0.5	0.6	0.7	0.9	1.1
GDP per capita scenario	0.5	0.4	0.4	0.5	0.6	0.7	0.8	0.9
Constant disability scenario	0.7	0.4	0.4	0.5	0.6	0.7	0.9	1.1
GDP per worker fast growth scenario	0.8	0.4	0.5	0.5	0.7	0.8	1.0	1.2
Shift 1% of dependents from informal to home care scenario	1.0	0.4	0.5	0.6	0.7	0.9	1.1	1.4
Shift 1% of dependents from informal to institutional care scenario	0.8	0.4	0.4	0.5	0.6	0.8	0.9	1.2
Shift 1% of dependents from informal to home/institutional care scenario	0.9	0.4	0.5	0.5	0.7	0.8	1.0	1.3

POLAND

EC-EPC (AWG) 2009 PROJECTIONS

NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)	% CH 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	131%	1485	1721	1982	2480	2806	3148	3433
of which: receiving formal care	167%	251	298	338	440	535	600	669
relying on informal or no care	124%	1235	1423	1644	2040	2272	2548	2764
Pure demographic scenario	141%	1485	1731	1997	2528	2874	3243	3582
of which: receiving formal care	179%	251	300	341	449	548	618	698
relying on informal or no care	134%	1235	1431	1656	2078	2326	2625	2884
Constant disability scenario	121%	1485	1712	1967	2433	2738	3053	3285
of which: receiving formal care	156%	251	296	335	432	521	581	641
relying on informal or no care	114%	1235	1416	1632	2001	2217	2472	2644
Shift 1% of dependents from informal to home scenario	141%	1485	1731	1997	2528	2874	3243	3582
of which: receiving formal care	322%	251	438	540	702	835	942	1056
relying on informal or no care	105%	1235	1293	1457	1826	2039	2301	2526
Education								
EDUCATION SPENDING AS % OF GDP - BASELINE	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Total	-1.21	4.4	3.3	3.2	3.2	2.9	2.9	3.2
Expenditure decomposition (broadly constant) : Transfers (2%) - Staff (62%) - Other (36%)								
Primary	-0.20	1.4	1.2	1.3	1.2	1.0	1.1	1.2
Expenditure decomposition (broadly constant) : Transfers (2%) - Staff (67%) - Other (31%)								
Low secondary	-0.21	0.8	0.5	0.5	0.6	0.5	0.5	0.6
Expenditure decomposition (broadly constant) : Transfers (2%) - Staff (67%) - Other (31%)								
Upper secondary	-0.33	1.0	0.7	0.6	0.7	0.6	0.6	0.7
Expenditure decomposition (broadly constant) : Transfers (1%) - Staff (64%) - Other (34%)								
Tertiary education	-0.47	1.2	0.9	0.8	0.7	0.7	0.7	0.7
Expenditure decomposition (broadly constant) : Transfers (2%) - Staff (52%) - Other (47%)								
Number of students (in thousands)								
Total	-4209	8311	6579	6169	5868	4956	4325	4102
as % of population 5-24	0%	81%	80%	81%	81%	80%	81%	81%
Primary	-1032	2498	2159	2280	2057	1616	1550	1466
Low secondary	-765	1548	1134	1100	1142	909	790	784
Upper secondary	-1238	2273	1695	1457	1508	1313	1066	1034
Tertiary education	-1174	1992	1592	1331	1160	1117	918	818
Number of teachers (in thousands)								
Total	-297	601	478	456	434	362	319	304
Primary	-91	219	189	200	181	142	136	129
Low secondary	-61	123	90	87	91	72	63	62
Upper secondary	-85	155	116	100	103	90	73	71
Tertiary education	-61	104	83	69	60	58	48	43
EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)								
CH 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.20	-0.1	0.0	0.1	0.1	0.1	0.1	0.1
EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/ STUDENTS (DIFF. FROM BASELINE)								
CH 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.36	0.1	0.3	0.4	0.4	0.4	0.4	0.4
EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)								
CH 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.06	0.3	0.4	0.4	0.3	0.4	0.3	0.3
Unemployment benefit								
UNEMPLOYMENT BENEFIT - BASELINE								
CH 07-60	2007	2015	2020	2030	2040	2050	2060	
Unemployment benefit spending as % of GDP	-0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

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Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.2	1.36	1.39	1.40	1.44	1.47	1.51	1.54
Life expectancy at birth								
males	8.3	75.8	77.1	78.0	79.7	81.2	82.7	84.1
females	6.4	82.4	83.4	84.1	85.4	86.6	87.7	88.8
Life expectancy at 65								
males	5.2	16.3	17.1	17.6	18.7	19.7	20.7	21.6
females	4.9	19.9	20.6	21.1	22.1	23.0	23.9	24.8
Net migration (thousand)	-17.3	51.8	49.2	47.6	46.1	45.3	38.8	34.5
Net migration as % of population	-0.2	0.5	0.4	0.4	0.4	0.4	0.3	0.3
Population (million)	0.6	10.6	10.9	11.1	11.3	11.5	11.4	11.3
Children population (0-14) as % of total population	-2.5	15.3	15.1	14.5	13.3	13.0	13.0	12.8
Prime age population (25-54) as % of total population	-9.5	43.9	43.1	41.7	39.1	36.2	35.2	34.4
Working age population (15-64) as % of total population	-10.9	67.2	66.1	65.5	63.5	60.2	56.9	56.3
Elderly population (65 and over) as % of total population	13.4	17.4	18.9	20.1	23.3	26.8	30.1	30.9
Very elderly population (80 and over) as % of total population	8.6	4.2	5.2	5.8	6.8	8.4	10.5	12.8
Very elderly population (80 and over) as % of elderly population	17.3	24.1	27.8	28.9	29.1	31.5	34.7	41.4
Very elderly population (80 and over) as % of working age population	16.4	6.3	7.9	8.9	10.7	14.0	18.4	22.7
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	1.8	1.3	2.1	2.1	2.5	1.8	1.2	1.4
Employment (growth rate)	-0.1	0.3	0.6	0.3	-0.1	-0.4	-0.5	-0.3
Labour input : hours worked (growth rate)	-0.1	0.2	0.6	0.3	-0.1	-0.4	-0.5	-0.3
Labour productivity per hour (growth rate)	1.9	1.1	1.5	1.8	2.7	2.2	1.7	1.7
TFP (growth rate)	1.2	0.5	1.0	1.2	1.7	1.4	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.7	0.6	0.5	0.6	0.9	0.8	0.6	0.6
GDP per capita (growth rate)	1.7	1.0	1.7	1.8	2.4	1.7	1.3	1.6
GDP per worker (growth rate)	1.9	1.0	1.4	1.7	2.7	2.2	1.7	1.7
GDP in 2007 prices (in millions euros)		162.8	189.1	209.3	258.3	319.7	370.8	423.0
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	-785	7133	7231	7273	7185	6890	6512	6347
Population growth (working age:15-64)	-0.4	0.2	0.2	0.1	-0.3	-0.6	-0.4	-0.2
Labour force 15-64 (thousands)	-439	5283	5503	5538	5488	5265	4986	4844
Participation rate (15-64)	2.2	74.1	76.1	76.1	76.4	76.4	76.6	76.3
young (15-24)	-0.8	42.3	41.7	40.8	41.7	42.1	41.4	41.6
prime-age (25-54)	1.2	87.8	88.9	89.1	89.0	89.1	89.1	89.0
older (55-64)	13.3	54.5	61.1	63.5	67.0	67.4	67.5	67.8
Participation rate (15-64) - FEMALES	4.6	68.9	72.1	72.8	73.4	73.6	73.8	73.5
young (15-24)	-0.8	39.0	38.4	37.6	38.4	38.7	38.1	38.2
prime-age (25-54)	3.5	82.9	85.3	86.0	86.3	86.4	86.5	86.4
older (55-64)	18.1	46.9	55.4	59.4	63.6	64.5	64.7	65.0
Participation rate (15-64) - MALES	-0.3	79.3	80.1	79.5	79.4	79.2	79.3	79.0
young (15-24)	-0.7	45.5	44.9	44.0	45.0	45.3	44.6	44.8
prime-age (25-54)	-1.3	92.9	92.4	92.2	91.6	91.6	91.7	91.6
older (55-64)	7.5	63.0	67.5	68.0	70.5	70.4	70.2	70.5
Employment rate (15-64)	3.8	67.8	70.8	71.4	71.6	71.7	71.8	71.6
Employment rate (20-64)	4.1	72.7	75.6	76.5	76.6	76.4	76.9	76.7
Employment rate (15-71)	3.5	63.8	66.7	67.2	67.4	67.2	67.1	67.3
Unemployment rate (15-64)	-2.3	8.5	6.9	6.2	6.2	6.2	6.2	6.2
Employment (15-64) (in millions)	-0.3	4.8	5.1	5.2	5.1	4.9	4.7	4.5
share of young (15-24)	-1%	9%	8%	8%	8%	8%	8%	9%
share of prime-age (25-54)	-6%	78%	77%	75%	72%	70%	72%	72%
share of older (55-64)	7%	13%	15%	17%	20%	21%	19%	20%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	4.6	17.4	18.7	19.9	22.0	23.9	21.6	22.0
Old-age dependency ratio (2)	29	26	29	31	37	45	53	55
Total dependency ratio (3)	29	49	51	53	58	66	76	77
Total economic dependency ratio (4)	26	112	109	108	112	122	134	139
Economic old-age dependency ratio (15-64) (5)	34	33	35	37	43	53	63	67
Pension expenditure projections								
BASELINE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	2.1	11.4	12.1	12.4	12.6	12.5	13.3	13.4
Old-age and early pensions, gross	1.7	9.1	9.9	10.2	10.4	10.2	10.8	10.8
Of which : earnings-related pensions, gross	2.1	8.5	9.5	9.9	10.2	10.0	10.6	10.6
Other pensions (disability, survivors), gross	0.4	2.3	2.2	2.2	2.2	2.3	2.6	2.7
Occupational pensions, gross	-0.1	0.6	0.6	0.6	0.6	0.6	0.5	0.5
Private mandatory pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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Social security pensions, net	1.9	10.5	11.2	11.5	11.7	11.6	12.3	12.4
Social security pensions, contributions	-1.3	9.9	10.1	9.7	9.0	8.7	8.6	8.5
Social security pensions, assets	-4.5	4.5	10.2	12.3	12.9	9.1	0.0	0.0
ADDITIONAL INDICATORS	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	0.0	92.6	92.6	92.6	92.6	92.6	92.6	92.6
Pensioners (social security, in 1000 persons)	2098	3196	3520	3755	4302	4783	5156	5293
Pensioners aged 65+ (1000 pers)	:	:	:	:	:	:	:	:
Share of pensioners below age 65 as % of all pensioners	:	:	:	:	:	:	:	:
Average gross pension (social security - € 1000 in 2007 prices)	4.9	5.8	6.5	6.9	7.6	8.4	9.6	10.7
Benefit ratio (Social security pensions)	-13.6	46.3	48.2	47.2	42.3	36.7	34.5	32.7
Gross replacement rate at retirement (social security pensions)	-2.0	57.9	55.3	53.1	49.0	52.7	53.8	55.9
Contributors (social security pensions, in 1000 persons)	-800	4296	4340	4315	4127	3879	3633	3496
Support ratio (contributors/100 pensioners, social security pensions)	-68.4	134	123	115	96	81	70	66
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.4	0.0	0.0	0.0	0.1	0.2	0.3	0.4
Old-age and early pensions, gross	0.3	0.0	0.0	0.0	0.1	0.2	0.2	0.3
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.7	0.0	0.0	-0.1	-0.4	-0.5	-0.7	-0.7
Old-age and early pensions, gross	-0.6	0.0	0.0	-0.1	-0.3	-0.4	-0.6	-0.6
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	2.9	0.0	0.3	0.6	1.2	1.9	2.8	2.9
Old-age and early pensions, gross	2.3	0.0	0.3	0.5	1.0	1.6	2.4	2.3
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.2	0.0	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2
Old-age and early pensions, gross	-0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
HIGH OLDER WORKERS EMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.2	0.0	0.0	-0.1	-0.1	-0.2	-0.2	-0.2
Old-age and early pensions, gross	-0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	Ch 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	1.6	11.8	12.1	12.4	12.6	12.5	13.3	13.4
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		0.4	0.7	1.0	1.2	1.1	2.0	2.1
Dependency ratio	9.7	0.1	1.3	2.2	4.5	7.1	9.4	9.8
Coverage ratio	-1.6	0.0	-0.3	-0.4	-0.8	-1.4	-1.9	-1.7
Employment effect	-0.5	-0.1	-0.5	-0.6	-0.6	-0.6	-0.7	-0.6
Benefit ratio	-5.0	0.4	0.3	0.0	-1.4	-3.1	-3.8	-4.5
Interaction effect (residual)	-0.9	0.0	-0.1	-0.2	-0.5	-0.8	-1.0	-0.9
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	2.1	0.73	0.27	0.03	0.19	0.48	0.29	
Dependency ratio	9.8	1.29	0.89	1.30	1.36	0.90	0.13	
Coverage ratio	-1.7	-0.28	-0.15	-0.19	-0.34	-0.15	0.13	
Employment effect	-0.6	-0.49	-0.10	-0.02	0.01	-0.01	0.02	
Benefit ratio	-4.5	0.30	-0.28	-0.87	-0.65	-0.26	-0.02	
Interaction effect (residual)	-0.93	-0.10	-0.09	-0.19	-0.19	0.00	0.03	
Health care								
HEALTH CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.9	7.2	7.5	7.6	8.0	8.5	8.9	9.1
Pure ageing scenario	2.2	7.2	7.5	7.7	8.1	8.6	9.1	9.4
Labour intensity scenario	3.1	7.2	7.4	7.5	8.0	8.9	9.8	10.3
Constant health scenario	0.9	7.2	7.3	7.3	7.5	7.8	8.0	8.1
Fast cost growth scenario	2.8	7.2	8.0	8.2	8.7	9.2	9.7	10.0
Cost convergence scenario	:	:	:	:	:	:	:	:
Death-related cost scenario	1.7	7.2	7.3	7.4	7.8	8.3	8.7	8.9
Income elasticity scenario	2.6	7.2	7.6	7.8	8.3	9.0	9.5	9.8
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
Pure demographic scenario	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
GDP per capita scenario	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Constant disability scenario	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
GDP per worker fast growth scenario	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
Shift 1% of dependents from informal to home care scenario	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
Shift 1% of dependents from informal to institutional care scenario	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.3
Shift 1% of dependents from informal to home/institutional care scenario	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2

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NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)	% Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	106%	698	806	869	1022	1205	1373	1436
of which: receiving formal care	173%	227	281	311	372	456	548	621
relying on informal or no care	73%	471	525	557	651	750	825	814
Pure demographic scenario	114%	698	811	877	1041	1237	1419	1494
of which: receiving formal care	182%	227	282	314	377	466	563	641
relying on informal or no care	81%	471	528	563	663	771	856	853
Constant disability scenario	97%	698	801	860	1004	1174	1326	1377
of which: receiving formal care	165%	227	279	308	366	446	533	602
relying on informal or no care	65%	471	522	552	639	728	793	776
Shift 1% of dependents from informal to home scenario	114%	698	811	877	1041	1237	1419	1494
of which: receiving formal care	248%	227	347	402	481	590	705	790
relying on informal or no care	49%	471	463	475	559	647	714	703
Education								
EDUCATION SPENDING AS % OF GDP - BASELINE	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Total	-0.30	4.6	4.4	4.3	4.1	4.0	4.2	4.3
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (3%) - Staff (85%) - Other (12%)</i>								
Primary	-0.06	1.5	1.6	1.5	1.4	1.4	1.5	1.5
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (1%) - Staff (94%) - Other (5%)</i>								
Low secondary	-0.06	1.2	1.1	1.1	1.0	1.0	1.1	1.1
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (2%) - Staff (91%) - Other (7%)</i>								
Upper secondary	-0.08	1.0	0.9	0.9	0.9	0.8	0.9	0.9
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (1%) - Staff (89%) - Other (10%)</i>								
Tertiary education	-0.11	0.9	0.8	0.8	0.8	0.8	0.8	0.8
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (9%) - Staff (57%) - Other (34%)</i>								
Number of students (in thousands)								
Total	-164	1492	1479	1479	1421	1351	1350	1328
as % of population 5-24	1%	63%	65%	64%	64%	64%	65%	65%
Primary	-32	396	422	414	382	371	377	364
Low secondary	-35	387	399	396	377	354	359	352
Upper secondary	-42	350	332	346	336	312	310	309
Tertiary education	-56	358	325	323	326	314	303	302
Number of teachers (in thousands)								
Total	-20	192	193	193	183	175	175	172
Primary	-6	71	75	74	68	66	67	65
Low secondary	-4	46	48	47	45	43	43	42
Upper secondary	-6	47	44	46	45	42	41	41
Tertiary education	-4	28	26	25	26	25	24	24
EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)								
Total	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
	0.13	-0.1	0.0	0.0	0.1	0.1	0.1	0.1
EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/ STUDENTS (DIFF. FROM BASELINE)								
Total	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
	0.70	0.2	0.6	0.8	0.8	0.8	0.9	0.9
EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)								
Total	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
	0.33	0.4	0.7	0.7	0.7	0.7	0.7	0.7
Unemployment benefit								
UNEMPLOYMENT BENEFIT - BASELINE	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Unemployment benefit spending as % of GDP	-0.4	1.2	1.0	0.9	0.8	0.8	0.8	0.8

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

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Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.2	1.32	1.35	1.37	1.41	1.44	1.48	1.52
Life expectancy at birth								
males	12.1	69.8	71.7	73.0	75.5	77.8	79.9	81.9
females	10.0	76.6	78.2	79.3	81.3	83.2	85.0	86.6
Life expectancy at 65								
males	6.8	13.6	14.5	15.2	16.6	17.9	19.2	20.4
females	6.9	16.3	17.3	18.0	19.4	20.7	22.0	23.2
Net migration (thousand)	9.5	-5.6	4.0	6.3	-0.8	12.9	12.7	3.9
Net migration as % of population	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Population (million)	-4.5	21.4	21.1	20.8	20.0	19.2	18.1	16.9
Children population (0-14) as % of total population	-3.7	15.2	14.9	14.7	13.0	11.8	11.8	11.5
Prime age population (25-54) as % of total population	-11.3	44.2	45.1	45.6	41.4	37.2	33.6	32.8
Working age population (15-64) as % of total population	-16.3	69.9	69.4	67.9	66.8	62.6	57.3	53.6
Elderly population (65 and over) as % of total population	20.0	14.9	15.6	17.4	20.3	25.5	30.9	35.0
Very elderly population (80 and over) as % of total population	10.3	2.8	3.6	4.2	4.9	7.4	9.4	13.1
Very elderly population (80 and over) as % of elderly population	18.8	18.6	23.3	24.2	24.3	29.1	30.5	37.5
Very elderly population (80 and over) as % of working age population	20.5	4.0	5.2	6.2	7.4	11.9	16.5	24.4
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	2.0	6.4	3.9	2.9	1.6	1.1	0.3	0.3
Employment (growth rate)	-0.9	0.2	-0.1	-0.5	-1.1	-1.6	-1.4	-1.4
Labour input : hours worked (growth rate)	-0.8	1.0	-0.1	-0.5	-1.1	-1.6	-1.4	-1.4
Labour productivity per hour (growth rate)	2.9	5.4	4.0	3.4	2.7	2.7	1.7	1.7
TFP (growth rate)	1.6	2.5	1.9	1.8	1.8	1.8	1.1	1.1
Capital deepening (contribution to labour productivity growth)	1.2	2.9	2.1	1.6	1.0	1.0	0.6	0.6
GDP per capita (growth rate)	2.5	7.5	4.1	3.2	2.1	1.6	0.9	1.2
GDP per worker (growth rate)	2.9	6.2	4.0	3.4	2.7	2.8	1.7	1.7
GDP in 2007 prices (in millions euros)		121.3	178.6	209.5	257.5	303.2	321.2	335.8
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	-5979	15043	14649	14145	13392	12001	10394	9064
Population growth (working age:15-64)	-0.8	-0.1	-0.7	-0.8	-0.3	-1.4	-1.4	-0.9
Labour force 15-64 (thousands)	-3924	9478	9485	9172	8351	7299	6288	5554
Participation rate (15-64)	-1.7	63.0	64.7	64.8	62.4	60.8	60.5	61.3
young (15-24)	0.6	30.6	32.4	31.3	31.2	32.1	31.5	31.3
prime-age (25-54)	-3.9	78.9	78.1	77.1	75.3	74.7	75.2	75.1
older (55-64)	3.1	42.4	46.3	47.1	48.2	45.6	44.2	45.4
Participation rate (15-64) - FEMALES	0.1	56.0	58.2	58.8	56.6	55.5	55.2	56.1
young (15-24)	0.3	25.2	26.7	25.7	25.5	26.3	25.7	25.5
prime-age (25-54)	-1.2	72.0	72.6	71.9	70.9	70.3	70.9	70.8
older (55-64)	4.6	33.8	36.8	38.5	39.4	38.3	37.4	38.4
Participation rate (15-64) - MALES	-3.7	70.1	71.3	70.9	68.0	66.1	65.7	66.3
young (15-24)	0.8	35.9	37.9	36.8	36.6	37.6	36.9	36.7
prime-age (25-54)	-6.7	85.9	83.5	82.3	79.7	78.9	79.3	79.2
older (55-64)	0.4	52.1	57.2	56.7	57.6	53.1	51.2	52.6
Employment rate (15-64)	-1.1	58.7	60.9	61.0	58.6	57.2	56.9	57.6
Employment rate (20-64)	-2.7	64.5	65.0	65.1	62.7	60.9	60.6	61.8
Employment rate (15-71)	-2.9	56.1	58.0	57.6	56.0	53.4	52.6	53.2
Unemployment rate (15-64)	-0.8	6.8	6.0	6.0	6.0	6.0	6.0	6.0
Employment (15-64) (in millions)	-3.6	8.8	8.9	8.6	7.9	6.9	5.9	5.2
share of young (15-24)	-2%	9%	7%	6%	7%	7%	7%	7%
share of prime-age (25-54)	-5%	80%	79%	80%	75%	73%	73%	76%
share of older (55-64)	7%	11%	14%	13%	18%	20%	20%	17%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	6.6	15.9	18.9	17.7	22.3	25.3	26.3	22.5
Old-age dependency ratio (2)	44	21	23	26	30	41	54	65
Total dependency ratio (3)	44	43	44	47	50	60	75	87
Total economic dependency ratio (4)	74	135	131	135	147	167	193	210
Economic old-age dependency ratio (15-64) (5)	69	30	32	35	43	59	81	99
Pension expenditure projections								
BASELINE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	9.2	6.6	8.5	8.8	10.4	12.6	14.8	15.8
Old-age and early pensions, gross	8.9	5.3	7.1	7.4	8.8	11.1	13.4	14.2
Of which : earnings-related pensions, gross	9.0	4.2	6.2	6.7	8.1	10.3	12.5	13.3
Other pensions (disability, survivors), gross	0.3	1.3	1.5	1.5	1.6	1.5	1.5	1.6
Occupational pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Private mandatory pensions, gross	1.9	0.0	0.0	0.0	0.0	0.4	1.3	1.9

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Social security pensions, net	9.2	6.6	8.5	8.8	10.4	12.6	14.8	15.8
Social security pensions, contributions	0.5	6.7	6.1	6.2	6.4	6.6	6.9	7.2
Social security pensions, assets	:	:	:	:	:	:	:	:
ADDITIONAL INDICATORS	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	0.0	99.9	99.9	99.9	99.9	99.9	99.9	99.9
Pensioners (social security, in 1000 persons)	735	5710	5305	5271	5652	6307	6736	6445
Pensioners aged 65+ (1000 pers)	1776.0	3073	2960	3069	3331	4008	4600	4849
Share of pensioners below age 65 as % of all pensioners	-21%	46%	44%	42%	41%	36%	32%	25%
Average gross pension (social security - € 1000 in 2007 prices)	6.8	1.4	2.9	3.5	4.8	6.0	7.1	8.2
Benefit ratio (Social security pensions)	7.6	29.4	39.2	40.1	40.5	39.3	37.7	37.0
Gross replacement rate at retirement (social security pensions)	7.1	36.5	48.4	48.4	48.2	46.8	44.6	43.6
Contributors (social security pensions, in 1000 persons)	-839	6136	6536	6630	6464	6185	5689	5297
Support ratio (contributors/100 pensioners, social security pensions)	-25.3	107	123	126	114	98	84	82
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.5	0.0	0.0	0.0	0.1	0.2	0.3	0.5
Old-age and early pensions, gross	0.4	0.0	0.0	0.0	0.1	0.2	0.3	0.4
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Old-age and early pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.5	0.0	0.0	0.0	0.0	0.1	0.3	0.5
Old-age and early pensions, gross	0.5	0.0	0.0	0.0	0.0	0.1	0.3	0.5
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.3	0.0	-0.1	-0.1	-0.2	-0.2	-0.2	-0.3
Old-age and early pensions, gross	-0.2	0.0	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2
HIGH OLDER WORKERS EMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.4	0.0	-0.1	-0.2	-0.3	-0.3	-0.4	-0.4
Old-age and early pensions, gross	-0.3	0.0	-0.1	-0.1	-0.2	-0.3	-0.3	-0.3
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	Ch 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	8.2	7.6	8.5	8.8	10.4	12.6	14.8	15.8
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		1.0	1.9	2.3	3.9	6.0	8.3	9.2
Dependency ratio	13.6	0.0	0.4	1.6	3.1	6.6	10.6	13.6
Coverage ratio	-4.9	0.0	-0.6	-1.5	-1.8	-2.6	-3.5	-4.9
Employment effect	0.3	-0.1	-0.2	-0.2	0.1	0.4	0.5	0.3
Benefit ratio	0.6	1.1	2.6	2.8	2.9	2.6	2.0	1.7
Interaction effect (residual)	-1.5	0.0	-0.2	-0.4	-0.5	-1.0	-1.3	-1.5
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	9.2	1.95	0.31	1.05	1.06	1.12	0.47	
Dependency ratio	13.6	0.38	1.18	0.39	1.75	1.79	0.64	
Coverage ratio	-4.9	-0.65	-0.82	0.37	-0.34	-0.33	-0.28	
Employment effect	0.3	-0.23	-0.01	0.28	0.12	0.03	-0.01	
Benefit ratio	1.7	2.63	0.21	-0.06	-0.25	-0.28	-0.06	
Interaction effect (residual)	-1.46	-0.19	-0.25	0.08	-0.22	-0.09	0.17	
Health care								
HEALTH CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.4	3.5	3.7	3.8	4.1	4.4	4.7	4.9
Pure ageing scenario	1.4	3.5	3.6	3.7	4.0	4.4	4.7	4.9
Labour intensity scenario	2.7	3.5	3.6	3.7	4.2	4.8	5.6	6.2
Constant health scenario	0.7	3.5	3.5	3.5	3.7	3.8	4.0	4.2
Fast cost growth scenario	1.7	3.5	3.9	4.0	4.3	4.7	5.0	5.2
Cost convergence scenario	5.3	3.5	3.9	4.3	5.1	6.2	7.4	8.8
Death-related cost scenario	1.2	3.5	3.5	3.6	3.9	4.3	4.5	4.7
Income elasticity scenario	1.8	3.5	3.8	3.9	4.3	4.7	5.0	5.3
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pure demographic scenario	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
GDP per capita scenario	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Constant disability scenario	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GDP per worker fast growth scenario	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Shift 1% of dependents from informal to home care scenario	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Shift 1% of dependents from informal to institutional care scenario	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Shift 1% of dependents from informal to home/institutional care scenario	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1

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NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)	% CH 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	114%	971	1058	1141	1302	1584	1842	2082
of which: receiving formal care	137%	229	253	274	321	394	467	542
relying on informal or no care	107%	743	805	867	981	1191	1376	1540
Pure demographic scenario	130%	971	1070	1160	1349	1651	1953	2237
of which: receiving formal care	153%	229	256	278	332	410	493	579
relying on informal or no care	123%	743	815	882	1017	1241	1461	1658
Constant disability scenario	98%	971	1045	1123	1256	1518	1731	1928
of which: receiving formal care	121%	229	250	269	310	378	440	505
relying on informal or no care	92%	743	795	853	946	1140	1291	1423
Shift 1% of dependents from informal to home scenario	130%	971	1070	1160	1349	1651	1953	2237
of which: receiving formal care	251%	229	341	394	467	575	688	803
relying on informal or no care	93%	743	729	766	882	1076	1265	1434
Education								
EDUCATION SPENDING AS % OF GDP - BASELINE	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Total	-0.48	2.8	2.4	2.3	2.2	2.1	2.2	2.3
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (5%) - Staff (59%) - Other (36%)</i>								
Primary	-0.08	1.3	1.2	1.2	1.1	1.1	1.2	1.2
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (5%) - Staff (72%) - Other (23%)</i>								
Low secondary	:	:	:	:	:	:	:	:
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (-%) - Staff (-%) - Other (-%)</i>								
Upper secondary	-0.19	0.7	0.5	0.5	0.5	0.5	0.5	0.5
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (5%) - Staff (66%) - Other (29%)</i>								
Tertiary education	-0.20	0.8	0.6	0.6	0.5	0.5	0.5	0.6
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (7%) - Staff (29%) - Other (64%)</i>								
Number of students (in thousands)								
Total	-1766	3751	3171	3053	2763	2350	2143	1985
as % of population 5-24	2%	69%	71%	72%	71%	70%	71%	71%
Primary	-379	935	896	888	750	640	615	556
Low secondary	-379	922	825	831	757	620	581	542
Upper secondary	-546	1030	738	702	688	574	506	483
Tertiary education	-461	864	713	633	567	516	442	403
Number of teachers (in thousands)								
Total	-103	223	190	185	167	141	130	120
Primary	-22	55	52	52	44	37	36	33
Low secondary	-31	75	67	68	62	51	47	44
Upper secondary	-32	61	44	41	41	34	30	29
Tertiary education	-17	32	27	24	21	19	16	15
EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)								
Total	CH 07-60	2007	2015	2020	2030	2040	2050	2060
	0.24	-0.3	-0.1	-0.1	0.0	0.0	0.0	0.0
EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/ STUDENTS (DIFF. FROM BASELINE)								
Total	CH 07-60	2007	2015	2020	2030	2040	2050	2060
	0.26	0.0	0.2	0.3	0.3	0.3	0.3	0.3
EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)								
Total	CH 07-60	2007	2015	2020	2030	2040	2050	2060
	0.19	0.3	0.5	0.5	0.4	0.5	0.4	0.5
Unemployment benefit								
UNEMPLOYMENT BENEFIT - BASELINE	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Unemployment benefit spending as % of GDP	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

SLOVENIA

EC-EPC (AWG) 2009 PROJECTIONS

Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.2	1.32	1.35	1.37	1.40	1.44	1.48	1.52
Life expectancy at birth								
males	9.0	74.7	76.1	77.1	78.9	80.6	82.2	83.7
females	6.9	81.9	83.0	83.7	85.1	86.4	87.6	88.8
Life expectancy at 65								
males	5.7	15.7	16.5	17.1	18.2	19.3	20.4	21.4
females	5.3	19.6	20.4	20.9	22.0	23.0	24.0	24.9
Net migration (thousand)	-3.6	5.9	5.0	4.4	3.4	3.3	3.0	2.3
Net migration as % of population	-0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.1
Population (million)	-0.2	2.0	2.1	2.1	2.0	2.0	1.9	1.8
Children population (0-14) as % of total population	-1.1	13.9	14.0	14.2	12.8	12.1	12.8	12.8
Prime age population (25-54) as % of total population	-12.5	45.7	43.7	41.7	37.7	34.3	33.0	33.2
Working age population (15-64) as % of total population	-16.3	70.0	68.1	65.4	61.9	58.9	54.7	53.8
Elderly population (65 and over) as % of total population	17.4	16.1	17.9	20.4	25.3	29.1	32.5	33.4
Very elderly population (80 and over) as % of total population	10.3	3.5	4.8	5.4	6.7	9.9	12.0	13.9
Very elderly population (80 and over) as % of elderly population	19.5	21.9	27.0	26.5	26.4	34.0	36.8	41.4
Very elderly population (80 and over) as % of working age population	20.7	5.0	7.1	8.3	10.8	16.8	21.9	25.8
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	1.6	4.9	3.2	2.6	0.8	0.7	0.8	1.1
Employment (growth rate)	-0.6	1.2	0.0	-0.5	-0.9	-1.0	-0.9	-0.6
Labour input : hours worked (growth rate)	-0.6	1.2	0.0	-0.5	-0.9	-1.0	-0.9	-0.6
Labour productivity per hour (growth rate)	2.2	3.6	3.2	3.1	1.8	1.7	1.7	1.7
TFP (growth rate)	1.3	1.5	1.6	1.7	1.2	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	1.0	2.1	1.5	1.4	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	1.8	4.5	3.0	2.6	1.1	1.1	1.3	1.7
GDP per worker (growth rate)	2.2	3.6	3.1	3.1	1.8	1.7	1.7	1.7
GDP in 2007 prices (in millions euros)		33.5	44.5	51.0	58.8	63.4	68.3	75.1
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	-453	1410	1398	1346	1253	1153	1028	956
Population growth (working age:15-64)	-0.6	0.2	-0.5	-0.8	-0.7	-0.9	-1.0	-0.4
Labour force 15-64 (thousands)	-318	1006	1013	988	898	816	736	688
Participation rate (15-64)	0.6	71.4	72.5	73.4	71.7	70.8	71.6	71.9
young (15-24)	-0.8	40.9	41.9	40.8	40.1	41.4	40.6	40.1
prime-age (25-54)	-0.6	89.3	89.2	89.1	88.5	88.4	89.0	88.7
older (55-64)	14.6	34.5	42.9	48.8	49.5	49.3	48.3	49.1
Participation rate (15-64) - FEMALES	2.8	66.7	69.8	70.8	69.1	68.4	69.3	69.5
young (15-24)	-0.2	35.1	36.7	35.5	34.9	36.1	35.5	34.9
prime-age (25-54)	-1.0	87.3	86.9	86.9	86.1	85.9	86.5	86.2
older (55-64)	25.8	22.8	41.7	48.2	49.0	48.8	47.9	48.6
Participation rate (15-64) - MALES	-1.5	75.8	75.1	75.8	74.2	73.0	73.9	74.3
young (15-24)	-1.2	46.3	46.9	45.8	45.3	46.6	45.7	45.1
prime-age (25-54)	-0.2	91.3	91.4	91.3	90.8	90.8	91.4	91.1
older (55-64)	3.1	46.5	44.1	49.5	49.9	49.7	48.7	49.6
Employment rate (15-64)	0.7	67.8	69.1	69.9	68.3	67.5	68.3	68.6
Employment rate (20-64)	1.0	72.6	73.0	74.0	73.0	71.7	72.7	73.6
Employment rate (15-71)	-1.9	63.1	63.4	63.1	61.5	60.5	60.0	61.2
Unemployment rate (15-64)	-0.3	4.9	4.7	4.7	4.7	4.7	4.7	4.7
Employment (15-64) (in millions)	-0.3	1.0	1.0	0.9	0.9	0.8	0.7	0.7
share of young (15-24)	-1%	10%	8%	8%	9%	9%	9%	9%
share of prime-age (25-54)	-6%	82%	79%	78%	75%	73%	75%	76%
share of older (55-64)	6%	8%	13%	15%	16%	18%	16%	14%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	3.6	17.1	21.0	21.9	22.7	25.4	23.5	20.6
Old-age dependency ratio (2)	39	23	26	31	41	49	59	62
Total dependency ratio (3)	43	43	47	53	61	70	83	86
Total economic dependency ratio (4)	60	107	111	116	133	148	163	168
Economic old-age dependency ratio (15-64) (5)	56	32	37	42	56	69	83	87
Pension expenditure projections								
BASILENE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	8.8	9.9	10.6	11.1	13.3	16.1	18.2	18.6
Old-age and early pensions, gross	8.0	7.0	7.9	8.4	10.4	12.9	14.7	15.0
Of which : earnings-related pensions, gross	8.0	7.0	7.9	8.4	10.4	12.9	14.7	15.0
Other pensions (disability, survivors), gross	0.7	2.8	2.7	2.7	2.8	3.2	3.5	3.6
Occupational pensions, gross	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	:	:	:	:	:	:	:	:

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EC-EPC (AWG) 2009 PROJECTIONS

Social security pensions, net	8.8	9.9	10.6	11.1	13.3	16.1	18.2	18.6
Social security pensions, contributions	-0.2	8.7	8.3	8.5	8.6	8.6	8.6	8.5
Social security pensions, assets	7.8	6.9	6.6	6.6	7.7	9.7	12.1	14.7
ADDITIONAL INDICATORS	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	0.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Pensioners (social security, in 1000 persons)	211	519	578	610	688	754	769	730
Pensioners aged 65+ (1000 pers)	272.7	325	377	411	500	566	610	598
Share of pensioners below age 65 as % of all pensioners	-19%	37%	35%	33%	27%	25%	21%	18%
Average gross pension (social security - € 1000 in 2007 prices)	12.8	6.4	8.2	9.3	11.3	13.6	16.1	19.2
Benefit ratio (Social security pensions)	-2.3	40.9	39.9	39.0	38.1	38.4	38.6	38.6
Gross replacement rate at retirement (social security pensions)	:	:	:	:	:	:	:	:
Contributors (social security pensions, in 1000 persons)	-258	878	887	875	806	734	666	620
Support ratio (contributors/100 pensioners, social security pensions)	-84.3	169	153	144	117	97	87	85
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.6	0.0	0.0	0.0	0.1	0.2	0.4	0.6
Old-age and early pensions, gross	0.5	0.0	0.0	0.0	0.1	0.2	0.3	0.5
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.2	0.0	0.1	0.1	0.2	0.2	0.2	0.2
Old-age and early pensions, gross	0.2	0.0	0.1	0.1	0.1	0.2	0.2	0.2
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	3.0	0.0	0.1	0.3	0.7	1.5	2.4	3.0
Old-age and early pensions, gross	2.5	0.0	0.1	0.2	0.6	1.2	2.0	2.5
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.2	0.0	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2
Old-age and early pensions, gross	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
HIGH OLDER WORKERS EEMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.1	0.0	-0.1	-0.1	0.0	0.0	0.1	0.1
Old-age and early pensions, gross	0.2	0.0	-0.1	-0.1	0.1	0.1	0.2	0.2
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	Ch 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	8.6	10.0	10.6	11.1	13.3	16.1	18.2	18.6
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		0.1	0.7	1.2	3.4	6.3	8.3	8.8
Dependency ratio	13.6	0.1	1.6	3.6	6.9	9.6	12.9	13.7
Coverage ratio	-3.5	0.0	-0.3	-1.1	-2.0	-2.2	-3.0	-3.5
Employment effect	-0.1	0.0	-0.2	-0.3	0.0	0.1	-0.1	-0.1
Benefit ratio	-0.7	0.0	-0.3	-0.6	-0.9	-0.8	-0.7	-0.7
Interaction effect (residual)	-0.7	0.0	0.0	-0.3	-0.6	-0.5	-0.7	-0.7
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	8.8	0.75	0.50	1.31	1.42	0.86	0.04	
Dependency ratio	13.7	1.55	2.01	1.55	1.29	1.51	-0.03	
Coverage ratio	-3.5	-0.30	-0.83	-0.27	-0.04	-0.46	-0.08	
Employment effect	-0.1	-0.18	-0.13	0.15	0.09	-0.14	0.02	
Benefit ratio	-0.7	-0.32	-0.26	-0.07	0.08	0.03	0.03	
Interaction effect (residual)	-0.66	-0.01	-0.29	-0.05	0.01	-0.08	0.09	
Health care								
HEALTH CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.9	6.6	7.1	7.3	7.8	8.2	8.4	8.5
Pure ageing scenario	1.9	6.6	7.0	7.2	7.7	8.2	8.4	8.6
Labour intensity scenario	4.1	6.6	7.0	7.4	8.4	9.5	10.4	10.7
Constant health scenario	1.0	6.6	6.8	6.9	7.2	7.5	7.6	7.6
Fast cost growth scenario	2.5	6.6	7.5	7.7	8.2	8.7	9.0	9.2
Cost convergence scenario	2.6	6.6	7.0	7.3	7.8	8.4	8.9	9.2
Death-related cost scenario	1.6	6.6	6.8	7.0	7.5	7.9	8.1	8.2
Income elasticity scenario	2.4	6.6	7.1	7.4	8.0	8.6	8.9	9.0
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.8	1.1	1.3	1.4	1.8	2.2	2.6	2.9
Pure demographic scenario	1.8	1.1	1.3	1.4	1.8	2.2	2.7	2.9
GDP per capita scenario	1.2	1.1	1.3	1.4	1.6	1.9	2.2	2.3
Constant disability scenario	1.7	1.1	1.3	1.4	1.7	2.2	2.6	2.8
GDP per worker fast growth scenario	2.1	1.1	1.4	1.5	2.0	2.5	2.9	3.2
Shift 1% of dependents from informal to home care scenario	2.1	1.1	1.3	1.5	1.9	2.4	2.9	3.2
Shift 1% of dependents from informal to institutional care scenario	2.4	1.1	1.4	1.7	2.1	2.7	3.2	3.5
Shift 1% of dependents from informal to home/institutional care scenario	2.2	1.1	1.4	1.6	2.0	2.6	3.1	3.4

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EC-EPC (AWG) 2009 PROJECTIONS

NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)	% CH 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	101%	76	89	101	123	141	153	153
of which: receiving formal care	147%	24	31	34	43	52	58	60
relying on informal or no care	79%	52	58	67	81	90	95	92
Pure demographic scenario	107%	76	89	102	125	144	157	157
of which: receiving formal care	154%	24	31	35	43	53	59	62
relying on informal or no care	85%	52	59	67	82	91	97	95
Constant disability scenario	95%	76	89	101	122	139	150	148
of which: receiving formal care	140%	24	30	34	42	51	57	59
relying on informal or no care	74%	52	58	66	80	88	93	90
Shift 1% of dependents from informal to home scenario	107%	76	89	102	125	144	157	157
of which: receiving formal care	218%	24	38	45	56	67	75	78
relying on informal or no care	54%	52	51	57	69	77	82	79
Education								
EDUCATION SPENDING AS % OF GDP - BASELINE	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Total	0.44	5.1	4.8	4.9	5.0	5.0	5.3	5.6
Expenditure decomposition (broadly constant) : Transfers (9%) - Staff (64%) - Other (27%)								
Primary	0.47	2.6	2.7	2.8	2.7	2.6	3.0	3.0
Expenditure decomposition (broadly constant) : Transfers (0%) - Staff (74%) - Other (26%)								
Low secondary	:	:	:	:	:	:	:	:
Expenditure decomposition (broadly constant) : Transfers (-%) - Staff (-%) - Other (-%)								
Upper secondary	0.03	1.3	1.0	1.0	1.2	1.2	1.2	1.3
Expenditure decomposition (broadly constant) : Transfers (16%) - Staff (61%) - Other (24%)								
Tertiary education	-0.07	1.3	1.1	1.0	1.1	1.2	1.2	1.2
Expenditure decomposition (broadly constant) : Transfers (22%) - Staff (47%) - Other (30%)								
Number of students (in thousands)								
Total	-94	380	348	348	337	302	290	286
as % of population 5-24	2%	85%	87%	88%	87%	87%	88%	88%
Primary	-15	93	98	101	88	78	82	77
Low secondary	-14	75	69	75	72	61	61	61
Upper secondary	-28	101	84	82	88	76	70	72
Tertiary education	-37	112	98	90	89	86	78	75
Number of teachers (in thousands)								
Total	-6	24	22	23	22	19	19	19
Primary	-1	6	7	7	6	5	5	5
Low secondary	-1	7	7	7	7	6	6	6
Upper secondary	-2	7	6	6	6	6	5	5
Tertiary education	-1	3	3	3	3	3	2	2
EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)								
CH 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.29	-0.1	0.0	0.1	0.2	0.2	0.2	0.2
EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/ STUDENTS (DIFF. FROM BASELINE)								
CH 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.70	0.1	0.4	0.7	0.7	0.7	0.8	0.8
EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)								
CH 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.12	0.1	0.2	0.2	0.2	0.2	0.2	0.2
Unemployment benefit								
UNEMPLOYMENT BENEFIT - BASELINE								
CH 07-60	2007	2015	2020	2030	2040	2050	2060	
Unemployment benefit spending as % of GDP	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

SLOVAK REPUBLIC

EC-EPC (AWG) 2009 PROJECTIONS

Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.2	1.25	1.28	1.30	1.34	1.38	1.43	1.47
Life expectancy at birth								
males	11.1	70.9	72.6	73.8	76.0	78.2	80.2	82.0
females	8.6	78.7	80.0	81.0	82.7	84.4	85.9	87.4
Life expectancy at 65								
males	6.9	13.3	14.3	15.0	16.3	17.7	19.0	20.2
females	6.6	17.1	18.1	18.8	20.1	21.3	22.6	23.7
Net migration (thousand)	0.1	3.6	5.0	5.0	3.9	6.1	6.1	3.7
Net migration as % of population	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Population (million)	-0.9	5.4	5.4	5.4	5.3	5.1	4.9	4.5
Children population (0-14) as % of total population	-4.6	15.8	14.7	14.6	12.9	11.3	11.3	11.1
Prime age population (25-54) as % of total population	-13.2	45.6	45.7	45.4	42.3	37.0	33.3	32.4
Working age population (15-64) as % of total population	-19.5	72.3	71.5	69.0	65.9	63.4	57.0	52.7
Elderly population (65 and over) as % of total population	24.1	12.0	13.8	16.4	21.3	25.3	31.6	36.1
Very elderly population (80 and over) as % of total population	10.6	2.6	3.0	3.2	4.7	7.8	9.3	13.2
Very elderly population (80 and over) as % of elderly population	14.9	21.6	22.0	19.7	22.3	30.7	29.5	36.5
Very elderly population (80 and over) as % of working age population	21.4	3.6	4.2	4.7	7.2	12.3	16.4	25.0
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	2.0	6.5	4.2	3.4	2.0	0.5	0.2	0.5
Employment (growth rate)	-0.6	0.8	0.7	0.3	-0.6	-1.2	-1.5	-1.2
Labour input : hours worked (growth rate)	-0.6	1.0	0.7	0.3	-0.7	-1.2	-1.5	-1.2
Labour productivity per hour (growth rate)	2.6	5.3	3.5	3.1	2.7	1.7	1.7	1.7
TFP (growth rate)	1.6	3.5	2.0	1.8	1.8	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	1.0	1.8	1.5	1.3	0.9	0.6	0.6	0.6
GDP per capita (growth rate)	2.3	6.5	4.1	3.4	2.3	1.0	0.8	1.3
GDP per worker (growth rate)	2.6	5.7	3.5	3.0	2.7	1.7	1.7	1.7
GDP in 2007 prices (in millions euros)		54.8	83.2	99.8	125.1	136.7	140.9	146.1
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	-1485	3883	3881	3746	3512	3241	2771	2398
Population growth (working age:15-64)	-1.7	0.5	-0.4	-0.7	-0.7	-1.3	-1.6	-1.1
Labour force 15-64 (thousands)	-965	2673	2788	2731	2558	2286	1951	1708
Participation rate (15-64)	2.4	68.8	71.8	72.9	72.8	70.5	70.4	71.2
young (15-24)	-0.4	34.8	37.7	35.9	34.3	35.9	35.4	34.5
prime-age (25-54)	-0.1	87.5	87.6	87.9	87.8	87.1	87.3	87.5
older (55-64)	13.4	39.4	49.6	50.3	55.1	53.8	52.6	52.8
Participation rate (15-64) - FEMALES	4.9	61.2	65.2	66.7	67.5	65.3	65.2	66.1
young (15-24)	-1.0	30.6	32.4	30.8	29.4	30.8	30.4	29.6
prime-age (25-54)	0.8	81.1	81.2	81.7	82.2	81.4	81.5	81.9
older (55-64)	25.3	23.8	41.9	44.0	50.5	49.5	48.8	49.1
Participation rate (15-64) - MALES	-0.4	76.6	78.5	79.1	78.2	75.7	75.5	76.2
young (15-24)	0.3	38.9	42.8	40.8	38.9	40.8	40.3	39.2
prime-age (25-54)	-1.0	93.9	93.8	93.9	93.2	92.6	93.0	92.9
older (55-64)	-1.0	57.6	58.1	57.2	60.1	58.2	56.4	56.6
Employment rate (15-64)	5.6	61.2	65.6	68.4	68.3	66.2	66.0	66.8
Employment rate (20-64)	4.3	67.7	70.6	73.1	73.6	70.8	70.5	72.0
Employment rate (15-71)	2.1	57.3	61.3	63.6	63.1	60.8	58.8	59.4
Unemployment rate (15-64)	-4.9	11.1	8.6	6.2	6.2	6.2	6.2	6.2
Employment (15-64) (in millions)	-0.8	2.4	2.5	2.6	2.4	2.1	1.8	1.6
share of young (15-24)	-3%	10%	8%	7%	7%	7%	7%	7%
share of prime-age (25-54)	-6%	81%	78%	80%	78%	72%	73%	76%
share of older (55-64)	8%	9%	13%	14%	16%	21%	21%	17%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	7.1	15.7	19.1	19.3	20.3	26.5	27.1	22.8
Old-age dependency ratio (2)	52	17	19	24	32	40	55	68
Total dependency ratio (3)	51	38	40	45	52	58	75	90
Total economic dependency ratio (4)	51	126	111	108	118	133	158	177
Economic old-age dependency ratio (15-64) (5)	69	27	28	31	43	55	77	96
Pension expenditure projections								
BASILINE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	3.4	6.8	6.3	6.3	7.3	8.3	9.4	10.2
Old-age and early pensions, gross	1.9	4.3	3.6	3.6	4.1	4.8	5.6	6.2
Of which : earnings-related pensions, gross	:	:	:	:	:	:	:	:
Other pensions (disability, survivors), gross	1.5	2.5	2.7	2.7	3.2	3.5	3.8	4.1
Occupational pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Private mandatory pensions, gross	2.2	0.0	0.0	0.1	0.5	1.0	1.7	2.2

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Social security pensions, net	3.4	6.8	6.3	6.3	7.3	8.3	9.4	10.2
Social security pensions, contributions	-0.4	4.6	4.7	4.6	4.5	4.4	4.3	4.2
Social security pensions, assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ADDITIONAL INDICATORS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	0.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Pensioners (social security, in 1000 persons)	566	1189	1224	1287	1475	1633	1751	1754
Pensioners aged 65+ (1000 pers)	777.7	613	696	784	995	1103	1282	1391
Share of pensioners below age 65 as % of all pensioners	-28%	48%	43%	39%	33%	32%	27%	21%
Average gross pension (social security - € 1000 in 2007 prices)	5.4	3.1	4.3	4.9	6.2	6.9	7.6	8.5
Benefit ratio (Social security pensions)	-12.0	45.2	44.5	43.3	41.0	37.9	34.9	33.1
Gross replacement rate at retirement (social security pensions)	:	:	:	:	:	:	:	:
Contributors (social security pensions, in 1000 persons)	-671	2386	2593	2662	2501	2260	1964	1715
Support ratio (contributors/100 pensioners, social security pensions)	-103.0	201	212	207	170	138	112	98
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.3	0.0	0.0	0.0	0.1	0.1	0.2	0.3
Old-age and early pensions, gross	0.2	0.0	0.0	0.0	0.0	0.1	0.1	0.2
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1
Old-age and early pensions, gross	-0.1	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.5	0.0	0.0	0.0	0.1	0.2	0.3	0.5
Old-age and early pensions, gross	0.4	0.0	0.0	0.0	0.1	0.1	0.2	0.4
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
Old-age and early pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HIGH OLDER WORKERS EMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
Old-age and early pensions, gross	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	3.5	6.8	6.3	6.3	7.3	8.3	9.4	10.2
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		0.0	-0.5	-0.5	0.5	1.5	2.6	3.4
Dependency ratio	11.6	0.0	1.1	2.7	4.8	6.5	9.6	11.7
Coverage ratio	-3.8	-0.1	-0.8	-1.6	-2.2	-2.5	-3.3	-3.9
Employment effect	-0.6	0.0	-0.5	-0.7	-0.7	-0.5	-0.4	-0.6
Benefit ratio	-2.5	0.0	-0.1	-0.3	-0.7	-1.3	-1.9	-2.4
Interaction effect (residual)	-1.4	0.0	-0.2	-0.6	-0.7	-0.9	-1.3	-1.4
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	3.4	-0.48	-0.02	0.42	0.48	0.67	0.33	
Dependency ratio	11.7	1.14	1.52	0.92	1.05	1.45	0.88	
Coverage ratio	-3.9	-0.80	-0.77	-0.28	-0.19	-0.37	-0.28	
Employment effect	-0.6	-0.46	-0.25	0.05	0.12	-0.01	-0.07	
Benefit ratio	-2.4	-0.14	-0.18	-0.20	-0.37	-0.28	-0.18	
Interaction effect (residual)	-1.35	-0.22	-0.34	-0.07	-0.12	-0.13	-0.01	
Health care								
HEALTH CARE SPENDING AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	2.3	5.0	5.4	5.7	6.2	6.7	7.1	7.2
Pure ageing scenario	2.3	5.0	5.3	5.6	6.1	6.6	7.1	7.3
Labour intensity scenario	3.7	5.0	5.0	5.1	5.8	6.7	7.8	8.6
Constant health scenario	1.2	5.0	5.2	5.3	5.6	5.8	6.1	6.2
Fast cost growth scenario	2.8	5.0	5.7	6.0	6.5	7.1	7.5	7.7
Cost convergence scenario	4.1	5.0	5.4	5.8	6.5	7.4	8.2	9.1
Death-related cost scenario	2.0	5.0	5.2	5.4	5.9	6.4	6.8	7.0
Income elasticity scenario	2.9	5.0	5.5	5.9	6.5	7.1	7.6	7.8
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	0.4	0.2	0.2	0.2	0.3	0.4	0.5	0.6
Pure demographic scenario	0.4	0.2	0.2	0.2	0.3	0.4	0.5	0.6
GDP per capita scenario	0.3	0.2	0.2	0.2	0.3	0.4	0.4	0.5
Constant disability scenario	0.4	0.2	0.2	0.2	0.3	0.4	0.5	0.6
GDP per worker fast growth scenario	0.5	0.2	0.2	0.2	0.3	0.4	0.5	0.7
Shift 1% of dependents from informal to home care scenario	0.6	0.2	0.2	0.3	0.4	0.5	0.6	0.8
Shift 1% of dependents from informal to institutional care scenario	0.4	0.2	0.2	0.2	0.3	0.4	0.5	0.6
Shift 1% of dependents from informal to home/institutional care scenario	0.5	0.2	0.2	0.3	0.3	0.4	0.6	0.7

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NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)	% CH 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	165%	239	275	323	418	492	575	633
of which: receiving formal care	213%	31	36	41	56	70	83	96
relying on informal or no care	158%	208	239	282	362	422	491	537
Pure demographic scenario	177%	239	277	326	427	506	595	662
of which: receiving formal care	226%	31	36	41	57	72	86	100
relying on informal or no care	170%	208	241	284	370	434	509	562
Constant disability scenario	153%	239	273	319	409	478	554	604
of which: receiving formal care	200%	31	35	41	54	68	81	92
relying on informal or no care	146%	208	238	279	355	410	474	512
Shift 1% of dependents from informal to home scenario	177%	239	277	326	427	506	595	662
of which: receiving formal care	442%	31	58	74	100	122	146	166
relying on informal or no care	138%	208	219	252	328	383	450	495
Education								
EDUCATION SPENDING AS % OF GDP - BASELINE	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Total	-0.82	3.1	2.4	2.2	2.2	2.1	2.1	2.3
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (6%) - Staff (57%) - Other (37%)</i>								
Primary	-0.09	0.6	0.5	0.5	0.5	0.4	0.5	0.5
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (0%) - Staff (61%) - Other (38%)</i>								
Low secondary	-0.19	0.7	0.5	0.5	0.5	0.5	0.5	0.5
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (0%) - Staff (64%) - Other (36%)</i>								
Upper secondary	-0.31	0.9	0.7	0.6	0.6	0.6	0.6	0.6
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (7%) - Staff (64%) - Other (29%)</i>								
Tertiary education	-0.24	0.8	0.7	0.6	0.6	0.6	0.6	0.6
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (14%) - Staff (42%) - Other (44%)</i>								
Number of students (in thousands)								
Total	-502	1062	866	829	778	658	591	560
as % of population 5-24	4%	73%	73%	76%	76%	75%	76%	77%
Primary	-91	229	217	219	189	154	150	138
Low secondary	-154	329	252	260	247	199	181	174
Upper secondary	-160	306	227	203	209	178	150	146
Tertiary education	-96	198	170	147	133	127	111	102
Number of teachers (in thousands)								
Total	-33	69	55	53	50	42	38	36
Primary	-5	12	12	12	10	8	8	7
Low secondary	-11	24	18	19	18	15	13	13
Upper secondary	-11	21	16	14	14	12	10	10
Tertiary education	-6	11	10	9	8	7	6	6
EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)								
Total	0.16	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/STUDENTS (DIFF. FROM BASELINE)								
Total	0.24	0.0	0.2	0.2	0.3	0.2	0.2	0.3
EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)								
Total	0.16	0.3	0.5	0.5	0.5	0.5	0.5	0.5
Unemployment benefit								
UNEMPLOYMENT BENEFIT - BASELINE								
Unemployment benefit spending as % of GDP	-0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

FINLAND

EC-EPC (AWG) 2009 PROJECTIONS

Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.0	1.84	1.84	1.84	1.84	1.84	1.84	1.84
Life expectancy at birth								
males	8.2	76.1	77.4	78.3	79.9	81.5	83.0	84.3
females	6.2	83.0	84.0	84.7	85.9	87.1	88.2	89.3
Life expectancy at 65								
males	5.2	16.6	17.4	17.9	18.9	19.9	20.9	21.8
females	4.7	20.7	21.3	21.8	22.8	23.7	24.5	25.4
Net migration (thousand)	-5.2	9.7	9.5	7.8	5.8	4.8	4.9	4.5
Net migration as % of population	-0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1
Population (million)	0.1	5.3	5.4	5.5	5.6	5.5	5.4	5.4
Children population (0-14) as % of total population	-1.1	16.9	16.4	16.6	16.3	15.6	15.7	15.7
Prime age population (25-54) as % of total population	-5.3	40.0	37.9	36.9	35.6	34.9	34.6	34.6
Working age population (15-64) as % of total population	-10.2	66.6	63.4	61.0	58.2	58.2	57.5	56.4
Elderly population (65 and over) as % of total population	11.3	16.5	20.1	22.4	25.5	26.2	26.8	27.8
Very elderly population (80 and over) as % of total population	6.5	4.3	5.1	5.6	8.2	10.1	10.8	10.8
Very elderly population (80 and over) as % of elderly population	12.6	26.2	25.4	25.2	32.0	38.7	40.2	38.8
Very elderly population (80 and over) as % of working age population	12.6	6.5	8.1	9.3	14.1	17.4	18.7	19.1
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	1.7	3.4	1.9	1.7	1.5	1.6	1.5	1.5
Employment (growth rate)	-0.1	1.2	-0.1	-0.1	-0.2	-0.1	-0.2	-0.2
Labour input : hours worked (growth rate)	-0.1	0.8	-0.1	-0.1	-0.2	-0.1	-0.2	-0.2
Labour productivity per hour (growth rate)	1.8	2.5	2.0	1.8	1.7	1.7	1.7	1.7
TFP (growth rate)	1.2	2.0	1.2	1.1	1.1	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.6	0.5	0.8	0.7	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	1.7	3.0	1.6	1.5	1.4	1.7	1.6	1.6
GDP per worker (growth rate)	1.8	2.2	2.0	1.8	1.7	1.7	1.7	1.7
GDP in 2007 prices (in millions euros)		178.8	217.5	238.1	276.0	322.8	375.8	433.8
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	-458	3507	3444	3354	3239	3211	3133	3049
Population growth (working age:15-64)	-0.3	0.0	-0.6	-0.5	-0.3	-0.1	-0.3	-0.3
Labour force 15-64 (thousands)	-247	2660	2652	2628	2545	2531	2479	2412
Participation rate (15-64)	3.3	75.8	77.0	78.4	78.6	78.8	79.1	79.1
young (15-24)	1.1	54.4	56.8	56.0	55.3	55.7	56.0	55.5
prime-age (25-54)	2.1	88.1	88.8	89.2	89.8	90.1	90.1	90.1
older (55-64)	8.3	59.4	61.9	66.5	66.1	67.8	68.5	67.7
Participation rate (15-64) - FEMALES	4.0	74.1	75.2	77.1	77.4	77.8	78.1	78.1
young (15-24)	1.5	53.6	56.3	55.6	55.0	55.3	55.6	55.1
prime-age (25-54)	2.7	85.6	86.2	86.7	87.8	88.3	88.2	88.3
older (55-64)	9.5	59.4	61.5	67.9	66.5	68.6	69.8	68.9
Participation rate (15-64) - MALES	2.6	77.5	78.8	79.6	79.7	79.7	80.0	80.1
young (15-24)	0.7	55.2	57.3	56.4	55.6	56.1	56.4	55.8
prime-age (25-54)	1.5	90.4	91.2	91.5	91.7	91.8	91.9	91.9
older (55-64)	7.0	59.5	62.4	65.1	65.6	66.9	67.3	66.5
Employment rate (15-64)	4.0	70.5	72.5	73.8	74.0	74.2	74.5	74.6
Employment rate (20-64)	4.3	75.0	76.8	78.2	78.8	79.1	79.2	79.4
Employment rate (15-71)	2.1	65.0	64.8	65.8	66.7	67.7	67.3	67.1
Unemployment rate (15-64)	-1.2	7.0	5.8	5.8	5.8	5.8	5.8	5.8
Employment (15-64) (in millions)	-0.2	2.5	2.5	2.5	2.4	2.4	2.3	2.3
share of young (15-24)	0%	12%	13%	12%	12%	13%	12%	12%
share of prime-age (25-54)	-1%	72%	70%	70%	71%	70%	69%	71%
share of older (55-64)	1%	16%	18%	18%	17%	18%	18%	17%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	-1.6	21.3	21.6	21.5	19.7	20.6	21.1	19.7
Old-age dependency ratio (2)	25	25	32	37	44	45	47	49
Total dependency ratio (3)	27	50	58	64	72	72	74	77
Total economic dependency ratio (4)	24	110	115	120	129	129	130	134
Economic old-age dependency ratio (15-64) (5)	29	34	42	47	56	58	59	63
Pension expenditure projections								
BASILENE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	3.3	10.0	11.8	12.6	13.9	13.6	13.3	13.4
Old-age and early pensions, gross	4.5	7.5	9.5	10.5	12.1	11.9	11.7	12.0
Of which : earnings-related pensions, gross	4.7	6.6	8.8	9.8	11.4	11.3	11.1	11.3
Other pensions (disability, survivors), gross	-1.2	2.5	2.3	2.1	1.9	1.7	1.6	1.4
Occupational pensions, gross	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	:	:	:	:	:	:	:	:

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Social security pensions, net	2.7	8.2	9.7	10.4	11.4	11.2	10.9	11.0
Social security pensions, contributions	2.2	9.3	10.1	10.5	11.3	11.4	11.4	11.5
Social security pensions, assets	-5.2	67.9	72.7	75.9	73.8	68.1	65.2	62.7
ADDITIONAL INDICATORS	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	0.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0
Pensioners (social security, in 1000 persons)	417	1331	1503	1609	1742	1735	1724	1748
Pensioners aged 65+ (1000 pers)	604.7	866	1093	1219	1393	1406	1422	1471
Share of pensioners below age 65 as % of all pensioners	-19%	35%	27%	24%	20%	19%	18%	16%
Average gross pension (social security - € 1000 in 2007 prices)	19.7	13.5	17.0	18.7	22.1	25.4	28.9	33.2
Benefit ratio (Social security pensions)	-2.3	49.1	52.0	52.1	51.7	50.2	48.3	46.9
Gross replacement rate at retirement (social security pensions)	:	:	:	:	:	:	:	:
Contributors (social security pensions, in 1000 persons)	-142	2376	2438	2427	2355	2331	2295	2233
Support ratio (contributors/100 pensioners, social security pensions)	-50.7	178	162	151	135	134	133	128
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.1
Old-age and early pensions, gross	0.2	0.0	0.0	0.0	0.1	0.2	0.2	0.2
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.4	0.0	0.0	-0.1	-0.3	-0.4	-0.4	-0.4
Old-age and early pensions, gross	-0.4	0.0	0.0	-0.1	-0.2	-0.3	-0.4	-0.4
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.6	0.0	0.2	0.3	0.6	0.7	0.7	0.6
Old-age and early pensions, gross	0.5	0.0	0.1	0.3	0.5	0.6	0.6	0.5
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	-0.1	-0.2	-0.2	-0.1	-0.1	-0.1
Old-age and early pensions, gross	0.0	0.0	-0.1	-0.1	-0.1	-0.1	0.0	0.0
HIGH OLDER WORKERS EMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	-0.1	-0.2	-0.2	-0.1	-0.1	-0.1
Old-age and early pensions, gross	0.0	0.0	-0.1	-0.1	-0.1	-0.1	0.0	0.0
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	Ch 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	3.2	10.2	11.8	12.6	13.9	13.6	13.3	13.4
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		0.2	1.7	2.6	3.9	3.6	3.2	3.3
Dependency ratio	8.7	0.0	2.8	4.7	7.1	7.5	7.9	8.7
Coverage ratio	-3.2	0.1	-1.0	-1.6	-2.4	-2.7	-2.9	-3.1
Employment effect	-0.5	-0.1	-0.3	-0.5	-0.5	-0.6	-0.6	-0.6
Benefit ratio	-1.0	0.2	0.5	0.6	0.4	0.0	-0.5	-0.9
Interaction effect (residual)	-0.8	0.0	-0.3	-0.5	-0.7	-0.6	-0.7	-0.7
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	3.3	1.73	0.87	0.52	-0.31	-0.11	0.08	
Dependency ratio	8.7	2.82	1.86	1.07	-0.19	0.32	0.50	
Coverage ratio	-3.1	-1.03	-0.60	-0.39	0.04	-0.12	-0.17	
Employment effect	-0.6	-0.28	-0.20	-0.02	0.03	-0.03	-0.03	
Benefit ratio	-0.9	0.53	0.02	-0.10	-0.24	-0.25	-0.18	
Interaction effect (residual)	-0.74	-0.32	-0.21	-0.05	0.06	-0.03	-0.03	
Health care								
HEALTH CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.0	5.5	5.8	6.0	6.3	6.5	6.5	6.5
Pure ageing scenario	1.4	5.5	5.8	6.0	6.5	6.7	6.8	6.9
Labour intensity scenario	2.0	5.5	5.9	6.2	6.9	7.2	7.3	7.5
Constant health scenario	0.2	5.5	5.6	5.7	5.8	5.9	5.8	5.7
Fast cost growth scenario	1.8	5.5	6.2	6.5	6.9	7.2	7.3	7.3
Cost convergence scenario	:	:	:	:	:	:	:	:
Death-related cost scenario	1.1	5.5	5.7	5.9	6.3	6.5	6.5	6.6
Income elasticity scenario	1.7	5.5	5.9	6.2	6.7	7.0	7.1	7.2
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	2.6	1.8	2.2	2.4	3.1	3.9	4.2	4.4
Pure demographic scenario	2.7	1.8	2.2	2.4	3.1	4.0	4.2	4.5
GDP per capita scenario	2.3	1.8	2.1	2.3	2.9	3.7	3.9	4.1
Constant disability scenario	2.5	1.8	2.2	2.4	3.0	3.8	4.1	4.2
GDP per worker fast growth scenario	3.1	1.8	2.3	2.7	3.4	4.4	4.7	4.9
Shift 1% of dependents from informal to home care scenario	2.9	1.8	2.3	2.6	3.3	4.2	4.5	4.7
Shift 1% of dependents from informal to institutional care scenario	3.8	1.8	2.7	3.1	4.0	5.0	5.3	5.6
Shift 1% of dependents from informal to home/institutional care scenario	3.3	1.8	2.5	2.8	3.7	4.6	4.9	5.1

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NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)	% CH 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	84%	274	338	378	458	492	495	505
of which: receiving formal care	141%	107	133	151	198	244	254	257
relying on informal or no care	48%	168	204	227	261	248	242	248
Pure demographic scenario	91%	274	340	381	467	505	511	525
of which: receiving formal care	149%	107	134	152	201	249	260	265
relying on informal or no care	55%	168	206	229	266	256	251	260
Constant disability scenario	77%	274	336	374	449	479	480	484
of which: receiving formal care	134%	107	133	149	194	239	248	249
relying on informal or no care	40%	168	203	225	255	240	232	235
Shift 1% of dependents from informal to home scenario	91%	274	340	381	467	505	511	525
of which: receiving formal care	198%	107	161	190	248	300	311	318
relying on informal or no care	24%	168	179	191	220	206	200	208
Education								
EDUCATION SPENDING AS % OF GDP - BASELINE	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Total	-0.27	5.7	5.3	5.2	5.4	5.4	5.3	5.4
Expenditure decomposition (broadly constant) : Transfers (8%) - Staff (56%) - Other (37%)								
Primary	0.01	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Expenditure decomposition (broadly constant) : Transfers (0%) - Staff (61%) - Other (39%)								
Low secondary	-0.08	1.1	0.9	1.0	1.0	1.0	1.0	1.0
Expenditure decomposition (broadly constant) : Transfers (0%) - Staff (62%) - Other (38%)								
Upper secondary	-0.02	1.5	1.4	1.4	1.5	1.5	1.4	1.5
Expenditure decomposition (broadly constant) : Transfers (8%) - Staff (53%) - Other (39%)								
Tertiary education	-0.18	1.9	1.7	1.7	1.7	1.7	1.7	1.7
Expenditure decomposition (broadly constant) : Transfers (17%) - Staff (51%) - Other (32%)								
Number of students (in thousands)								
Total	-122	1218	1150	1143	1160	1136	1101	1096
as % of population 5-24	-1%	96%	93%	95%	94%	94%	95%	95%
Primary	-22	365	352	364	369	347	341	343
Low secondary	-27	203	178	183	190	185	174	177
Upper secondary	-28	354	341	329	341	341	328	326
Tertiary education	-46	296	280	267	259	263	258	250
Number of teachers (in thousands)								
Total	-8	81	76	76	78	76	73	73
Primary	-1	24	23	24	25	23	23	23
Low secondary	-3	21	18	19	20	19	18	18
Upper secondary	-2	22	22	21	22	22	21	21
Tertiary education	-2	14	13	12	12	12	12	12
EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)								
CH 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.08	0.0	0.0	0.1	0.1	0.1	0.1	0.1
EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/ STUDENTS (DIFF. FROM BASELINE)								
CH 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.58	0.0	0.3	0.5	0.6	0.6	0.6	0.6
EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)								
CH 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.27	0.2	0.5	0.5	0.5	0.5	0.5	0.5
Unemployment benefit								
UNEMPLOYMENT BENEFIT - BASELINE								
CH 07-60	2007	2015	2020	2030	2040	2050	2060	
Unemployment benefit spending as % of GDP	-0.2	1.2	1.0	1.0	1.0	1.0	1.0	1.0

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

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Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.0	1.85	1.85	1.85	1.85	1.85	1.85	1.85
Life expectancy at birth								
males	6.5	79.0	79.9	80.6	81.9	83.1	84.3	85.4
females	6.2	83.1	84.1	84.7	86.0	87.2	88.3	89.3
Life expectancy at 65								
males	4.7	17.4	18.1	18.6	19.5	20.4	21.3	22.2
females	4.8	20.5	21.2	21.7	22.6	23.6	24.4	25.3
Net migration (thousand)	-31.1	46.8	33.3	26.9	20.2	17.2	16.7	15.8
Net migration as % of population	-0.4	0.5	0.3	0.3	0.2	0.2	0.2	0.1
Population (million)	1.7	9.2	9.6	9.9	10.3	10.5	10.7	10.9
Children population (0-14) as % of total population	-0.3	16.8	17.0	17.4	17.3	16.2	16.3	16.5
Prime age population (25-54) as % of total population	-3.8	39.4	39.1	39.2	36.5	36.5	35.2	35.6
Working age population (15-64) as % of total population	-8.7	65.7	63.1	61.8	60.2	59.5	59.0	56.9
Elderly population (65 and over) as % of total population	9.1	17.5	19.9	20.8	22.5	24.3	24.7	26.6
Very elderly population (80 and over) as % of total population	4.7	5.3	5.2	5.4	7.6	8.4	9.5	10.0
Very elderly population (80 and over) as % of elderly population	7.2	30.5	26.2	26.0	33.9	34.6	38.5	37.8
Very elderly population (80 and over) as % of working age population	9.5	8.1	8.3	8.8	12.7	14.1	16.2	17.6
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	1.9	3.5	2.2	1.9	1.7	1.9	1.7	1.7
Employment (growth rate)	0.2	1.7	0.4	0.1	0.1	0.2	0.0	0.0
Labour input : hours worked (growth rate)	0.2	1.6	0.4	0.1	0.0	0.2	0.0	0.0
Labour productivity per hour (growth rate)	1.7	1.8	1.8	1.8	1.7	1.7	1.7	1.7
TFP (growth rate)	1.1	1.6	1.1	1.1	1.1	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.6	0.3	0.7	0.7	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	1.6	2.8	1.6	1.4	1.4	1.7	1.5	1.5
GDP per worker (growth rate)	1.7	1.8	1.8	1.8	1.7	1.7	1.7	1.7
GDP in 2007 prices (in millions euros)		332.0	403.3	445.4	534.9	639.4	765.9	899.7
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	211	5982	6053	6085	6180	6230	6294	6193
Population growth (working age:15-64)	-1.1	1.0	-0.1	0.2	-0.1	0.1	0.0	0.0
Labour force 15-64 (thousands)	372	4737	4957	5001	5059	5109	5187	5109
Participation rate (15-64)	3.3	79.2	81.9	82.2	81.9	82.0	82.4	82.5
young (15-24)	4.7	51.8	60.1	56.3	56.6	56.7	57.4	56.5
prime-age (25-54)	2.2	90.0	90.7	91.3	91.9	92.1	92.2	92.2
older (55-64)	3.4	73.2	75.0	75.5	75.5	76.0	77.1	76.6
Participation rate (15-64) - FEMALES	4.0	76.8	79.5	79.8	79.7	80.2	80.5	80.8
young (15-24)	4.9	52.2	60.4	56.9	57.2	57.2	57.9	57.0
prime-age (25-54)	3.7	87.1	88.2	89.1	90.2	90.6	90.7	90.8
older (55-64)	1.9	69.8	70.4	69.8	69.6	70.5	72.2	71.7
Participation rate (15-64) - MALES	2.7	81.5	84.2	84.5	83.9	83.8	84.2	84.1
young (15-24)	4.5	51.4	59.9	55.8	56.1	56.1	57.0	55.9
prime-age (25-54)	0.7	92.9	93.2	93.3	93.6	93.5	93.6	93.6
older (55-64)	4.9	76.6	79.5	81.1	81.3	81.4	81.8	81.5
Employment rate (15-64)	3.3	74.3	77.0	77.3	77.0	77.1	77.5	77.6
Employment rate (20-64)	3.1	80.2	81.8	82.4	82.5	83.0	82.8	83.3
Employment rate (15-71)	1.4	68.8	70.2	71.1	70.9	70.7	71.4	70.3
Unemployment rate (15-64)	-0.3	6.2	5.9	5.9	5.9	5.9	5.9	5.9
Employment (15-64) (in millions)	0.4	4.4	4.7	4.7	4.8	4.8	4.9	4.8
share of young (15-24)	1%	11%	13%	10%	12%	12%	11%	12%
share of prime-age (25-54)	1%	70%	70%	72%	69%	70%	68%	71%
share of older (55-64)	-2%	19%	18%	18%	19%	18%	21%	17%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	-1.9	20.2	18.7	19.1	20.2	18.7	21.5	18.3
Old-age dependency ratio (2)	20	27	32	34	37	41	42	47
Total dependency ratio (3)	23	52	58	62	66	68	70	76
Total economic dependency ratio (4)	20	102	102	106	112	114	115	122
Economic old-age dependency ratio (15-64) (5)	22	34	37	40	45	49	50	56
Pension expenditure projections								
BASELINE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	9.5	9.5	9.4	9.5	9.4	9.0	9.4
Old-age and early pensions, gross	1.2	7.0	7.3	7.3	7.6	7.8	7.6	8.2
Of which : earnings-related pensions, gross	0.2	6.0	6.6	6.5	6.5	6.4	6.0	6.2
Other pensions (disability, survivors), gross	-1.3	2.6	2.2	2.1	1.9	1.6	1.5	1.2
Occupational pensions, gross	0.9	2.4	2.9	3.1	3.5	3.5	3.2	3.3
Private mandatory pensions, gross	1.4	0.0	0.2	0.3	0.7	1.1	1.3	1.4

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Social security pensions, net	-0.1	6.9	6.8	6.8	6.9	6.8	6.6	6.9
Social security pensions, contributions	-0.3	6.3	6.1	6.1	6.1	6.0	6.0	6.0
Social security pensions, assets	11.2	29.3	30.0	30.0	31.0	31.5	35.4	40.5
ADDITIONAL INDICATORS	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	0.4	72.5	72.1	72.5	72.9	73.2	73.2	73.0
Pensioners (social security, in 1000 persons)	1640	2167	2494	2716	3117	3400	3552	3807
Pensioners aged 65+ (1000 pers)	1754.7	1715	2095	2322	2731	3035	3177	3470
Share of pensioners below age 65 as % of all pensioners	-12%	21%	16%	15%	12%	11%	11%	9%
Average gross pension (social security - € 1000 in 2007 prices)	7.6	14.6	15.3	15.4	16.3	17.6	19.5	22.2
Benefit ratio (Social security pensions)	-19.1	49.3	44.7	41.0	36.6	33.5	31.4	30.1
Gross replacement rate at retirement (social security pensions)	-17.9	49.1	40.4	37.0	35.8	33.1	31.6	31.2
Contributors (social security pensions, in 1000 persons)	279	5569	5692	5693	5761	5801	5923	5849
Support ratio (contributors/100 pensioners, social security pensions)	-103.3	257	228	210	185	171	167	154
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.2	0.0	0.0	0.0	0.0	0.1	0.1	0.2
Old-age and early pensions, gross	0.2	0.0	0.0	0.0	0.0	0.1	0.1	0.2
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1
Old-age and early pensions, gross	-0.1	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.7	0.0	0.3	0.4	0.7	1.0	0.9	0.7
Old-age and early pensions, gross	0.8	0.0	0.2	0.3	0.6	1.0	0.9	0.8
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
Old-age and early pensions, gross	-0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
HIGH OLDER WORKERS EMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.2	0.0	0.0	-0.1	-0.1	-0.1	-0.2	-0.2
Old-age and early pensions, gross	-0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	Ch 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	-0.2	9.6	9.5	9.4	9.5	9.4	9.0	9.4
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		0.0	0.0	-0.1	0.0	-0.2	-0.5	-0.1
Dependency ratio	5.5	0.1	1.8	2.5	3.5	4.3	4.6	5.6
Coverage ratio	-0.3	0.0	-0.4	-0.3	-0.2	-0.2	-0.2	-0.4
Employment effect	-0.4	-0.1	-0.3	-0.4	-0.3	-0.4	-0.4	-0.4
Benefit ratio	-4.4	0.0	-0.7	-1.5	-2.6	-3.4	-4.0	-4.3
Interaction effect (residual)	-0.6	0.0	-0.4	-0.4	-0.5	-0.5	-0.5	-0.6
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	-0.1	-0.04	-0.08	0.06	-0.10	-0.09	0.16	
Dependency ratio	5.6	1.82	0.66	0.52	0.28	0.18	0.57	
Coverage ratio	-0.4	-0.44	0.12	0.07	0.03	0.03	-0.20	
Employment effect	-0.4	-0.34	-0.04	0.01	-0.01	-0.01	-0.03	
Benefit ratio	-4.3	-0.73	-0.76	-0.51	-0.40	-0.28	-0.14	
Interaction effect (residual)	-0.63	-0.36	-0.07	-0.04	0.00	-0.01	-0.05	
Health care								
HEALTH CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	0.8	7.2	7.4	7.5	7.7	7.9	8.0	8.0
Pure ageing scenario	0.9	7.2	7.4	7.5	7.7	7.9	8.0	8.1
Labour intensity scenario	1.7	7.2	7.4	7.6	8.1	8.4	8.6	8.9
Constant health scenario	0.0	7.2	7.2	7.2	7.3	7.3	7.3	7.2
Fast cost growth scenario	1.5	7.2	7.9	8.0	8.3	8.5	8.6	8.7
Cost convergence scenario	:	:	:	:	:	:	:	:
Death-related cost scenario	0.7	7.2	7.2	7.3	7.5	7.7	7.8	7.9
Income elasticity scenario	1.3	7.2	7.5	7.6	7.9	8.2	8.4	8.5
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	2.3	3.5	3.5	3.7	4.4	5.0	5.3	5.8
Pure demographic scenario	2.6	3.5	3.5	3.7	4.6	5.1	5.5	6.0
GDP per capita scenario	2.0	3.5	3.5	3.6	4.3	4.8	5.2	5.5
Constant disability scenario	2.0	3.5	3.5	3.6	4.3	4.8	5.1	5.5
GDP per worker fast growth scenario	3.2	3.5	3.8	4.1	5.0	5.6	6.1	6.7
Shift 1% of dependents from informal to home care scenario	2.8	3.5	3.7	3.9	4.8	5.3	5.8	6.3
Shift 1% of dependents from informal to institutional care scenario	3.4	3.5	3.9	4.2	5.2	5.8	6.3	6.9
Shift 1% of dependents from informal to home/institutional care scenario	3.1	3.5	3.8	4.0	5.0	5.6	6.1	6.6

SWEDEN

EC-EPC (AWG) 2009 PROJECTIONS

NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)	% CH 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	89%	312	340	368	453	508	548	589
of which: receiving formal care	101%	318	341	368	469	536	588	638
relying on informal or no care	0%	0	0	0	0	0	0	0
Pure demographic scenario	105%	312	345	377	473	536	587	639
of which: receiving formal care	113%	318	345	375	484	558	619	677
relying on informal or no care	0%	0	0	2	0	0	0	0
Constant disability scenario	73%	312	335	359	434	479	508	539
of which: receiving formal care	88%	318	338	362	454	515	557	599
relying on informal or no care	0%	0	0	0	0	0	0	0
Shift 1% of dependents from informal to home scenario	105%	312	345	377	473	536	587	639
of which: receiving formal care	133%	318	373	413	532	612	678	741
relying on informal or no care	0%	0	0	0	0	0	0	0
Education								
EDUCATION SPENDING AS % OF GDP - BASELINE	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Total	-0.28	6.0	5.5	5.5	5.7	5.7	5.6	5.8
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (12%) - Staff (56%) - Other (32%)</i>								
Primary	0.17	1.6	1.7	1.7	1.8	1.7	1.7	1.8
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (0%) - Staff (67%) - Other (33%)</i>								
Low secondary	-0.12	1.1	0.8	0.9	1.0	1.0	0.9	1.0
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (2%) - Staff (65%) - Other (33%)</i>								
Upper secondary	-0.15	1.5	1.3	1.3	1.4	1.4	1.3	1.4
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (16%) - Staff (51%) - Other (33%)</i>								
Tertiary education	-0.19	1.8	1.7	1.5	1.5	1.6	1.6	1.6
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (26%) - Staff (44%) - Other (29%)</i>								
Number of students (in thousands)								
Total	100	2055	1945	1994	2104	2119	2089	2155
as % of population 5-24	-3%	93%	87%	91%	88%	89%	90%	90%
Primary	132	667	723	756	800	757	768	799
Low secondary	-12	415	333	374	396	403	382	402
Upper secondary	-9	569	493	496	539	569	542	560
Tertiary education	-11	404	397	369	370	389	396	394
Number of teachers (in thousands)								
Total	8	155	147	151	159	160	158	163
Primary	11	54	59	62	65	62	63	65
Low secondary	-1	35	28	31	33	34	32	34
Upper secondary	-1	35	30	31	33	35	33	34
Tertiary education	-1	30	30	28	28	29	30	30
EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)								
Total	0.06	0.0	0.0	0.0	0.0	0.1	0.0	0.0
EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/ STUDENTS (DIFF. FROM BASELINE)								
Total	0.61	0.0	0.3	0.6	0.6	0.6	0.6	0.6
EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)								
Total	0.11	0.1	0.2	0.2	0.2	0.2	0.2	0.2
Unemployment benefit								
UNEMPLOYMENT BENEFIT - BASELINE								
Unemployment benefit spending as % of GDP	-0.1	0.9	0.9	0.9	0.9	0.9	0.9	0.9

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

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EC-EPC (AWG) 2009 PROJECTIONS

Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.0	1.84	1.84	1.84	1.84	1.84	1.84	1.84
Life expectancy at birth								
males	7.7	77.4	78.6	79.4	80.9	82.4	83.8	85.0
females	7.4	81.5	82.7	83.5	85.0	86.4	87.7	88.9
Life expectancy at 65								
males	5.3	16.9	17.6	18.2	19.2	20.3	21.2	22.1
females	5.6	19.5	20.3	20.9	22.1	23.1	24.1	25.1
Net migration (thousand)	-74.6	188.2	174.3	165.7	150.9	138.0	126.3	113.6
Net migration as % of population	-0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.1
Population (million)	15.4	61.3	63.8	65.7	69.2	72.0	74.5	76.7
Children population (0-14) as % of total population	-1.0	17.5	17.3	17.7	17.6	16.8	16.6	16.6
Prime age population (25-54) as % of total population	-4.5	41.1	41.2	40.4	38.2	38.1	36.8	36.7
Working age population (15-64) as % of total population	-7.7	66.4	65.1	64.0	61.8	60.8	60.5	58.7
Elderly population (65 and over) as % of total population	8.6	16.1	17.6	18.3	20.5	22.4	23.0	24.7
Very elderly population (80 and over) as % of total population	4.5	4.5	4.8	5.0	6.3	7.3	8.9	9.0
Very elderly population (80 and over) as % of elderly population	8.2	28.1	27.0	27.2	30.5	32.4	38.9	36.3
Very elderly population (80 and over) as % of working age population	8.5	6.8	7.3	7.8	10.1	11.9	14.8	15.3
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	2.1	2.7	2.4	2.0	2.1	2.1	1.9	1.8
Employment (growth rate)	0.3	0.7	0.5	0.2	0.4	0.5	0.2	0.1
Labour input : hours worked (growth rate)	0.3	0.2	0.5	0.2	0.4	0.5	0.2	0.1
Labour productivity per hour (growth rate)	1.8	2.5	1.9	1.8	1.7	1.7	1.7	1.7
TFP (growth rate)	1.1	1.4	1.1	1.1	1.1	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.7	1.1	0.8	0.7	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	1.6	1.2	1.8	1.4	1.6	1.8	1.6	1.5
GDP per worker (growth rate)	1.8	2.0	1.9	1.8	1.7	1.7	1.7	1.7
GDP in 2007 prices (in millions euros)		2018.8	2461.5	2738.2	3351.7	4121.4	5056.1	6028.1
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	4602	40409	41508	42025	42811	43778	45047	45011
Population growth (working age:15-64)	-1.0	1.1	0.2	0.3	0.0	0.4	0.0	0.1
Labour force 15-64 (thousands)	4873	30536	31931	32427	33159	34362	35386	35409
Participation rate (15-64)	3.1	75.6	76.9	77.2	77.5	78.5	78.6	78.7
young (15-24)	0.4	62.0	63.8	63.1	62.4	62.6	62.8	62.4
prime-age (25-54)	1.3	84.5	84.9	85.1	85.7	85.8	85.8	85.9
older (55-64)	11.4	59.7	62.6	64.1	65.8	70.3	71.3	71.1
Participation rate (15-64) - FEMALES	5.4	69.0	71.5	72.2	73.3	74.4	74.4	74.4
young (15-24)	0.4	59.0	60.8	60.2	59.6	59.7	59.9	59.5
prime-age (25-54)	3.0	77.6	78.7	79.2	80.3	80.7	80.6	80.6
older (55-64)	18.5	50.4	57.1	60.1	64.6	68.4	69.1	68.9
Participation rate (15-64) - MALES	0.6	82.1	82.4	82.2	81.6	82.5	82.6	82.8
young (15-24)	0.3	64.8	66.7	65.9	65.1	65.3	65.6	65.0
prime-age (25-54)	-0.7	91.6	91.1	91.0	91.0	90.8	91.0	90.9
older (55-64)	4.1	69.4	68.3	68.4	67.2	72.1	73.4	73.4
Employment rate (15-64)	2.9	71.5	72.7	73.0	73.2	74.2	74.3	74.4
Employment rate (20-64)	3.0	75.3	76.2	76.3	77.0	78.2	78.1	78.3
Employment rate (15-71)	2.4	66.6	66.9	67.3	67.3	68.8	69.5	69.0
Unemployment rate (15-64)	0.0	5.4	5.4	5.4	5.4	5.4	5.4	5.4
Employment (15-64) (in millions)	4.6	28.9	30.2	30.7	31.4	32.5	33.5	33.5
share of young (15-24)	-1%	15%	14%	13%	14%	14%	14%	14%
share of prime-age (25-54)	-1%	71%	71%	71%	69%	70%	68%	69%
share of older (55-64)	3%	14%	15%	16%	17%	16%	19%	17%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	0.6	17.9	17.5	19.0	19.3	17.7	20.2	18.5
Old-age dependency ratio (2)	18	24	27	29	33	37	38	42
Total dependency ratio (3)	20	51	54	56	62	64	65	70
Total economic dependency ratio (4)	15	108	109	112	117	118	118	123
Economic old-age dependency ratio (15-64) (5)	19	32	35	36	42	46	46	51
Pension expenditure projections								
BASILENE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	2.7	6.6	6.8	6.9	7.6	8.0	8.1	9.3
Old-age and early pensions, gross	3.3	5.8	6.2	6.5	7.3	7.8	7.9	9.1
Of which : earnings-related pensions, gross	2.0	2.3	2.7	2.9	3.2	3.4	3.6	4.3
Other pensions (disability, survivors), gross	:	:	:	:	:	:	:	:
Occupational pensions, gross	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	:	:	:	:	:	:	:	:

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EC-EPC (AWG) 2009 PROJECTIONS

Social security pensions, net	:	:	:	:	:	:	:	:
Social security pensions, contributions	:	:	:	:	:	:	:	:
Social security pensions, assets	:	:	:	:	:	:	:	:
ADDITIONAL INDICATORS	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	:	:	:	:	:	:	:	:
Pensioners (social security, in 1000 persons)	7124	12139	13288	13575	15632	17329	17251	19263
Pensioners aged 65+ (1000 pers)	:	:	:	:	:	:	:	:
Share of pensioners below age 65 as % of all pensioners	:	:	:	:	:	:	:	:
Average gross pension (social security - € 1000 in 2007 prices)	18.1	10.9	12.6	14.0	16.3	19.1	23.6	29.0
Benefit ratio (Social security pensions)	2.5	34.6	34.5	34.9	34.5	34.2	35.8	37.1
Gross replacement rate at retirement (social security pensions)	:	:	:	:	:	:	:	:
Contributors (social security pensions, in 1000 persons)	:	:	:	:	:	:	:	:
Support ratio (contributors/100 pensioners, social security pensions)	:	:	:	:	:	:	:	:
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.4	0.0	0.0	0.0	0.1	0.2	0.3	0.4
Old-age and early pensions, gross	0.4	0.0	0.0	0.0	0.1	0.2	0.3	0.4
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.1
Old-age and early pensions, gross	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.1
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	2.3	0.0	0.2	0.4	0.9	1.6	2.2	2.3
Old-age and early pensions, gross	2.3	0.0	0.2	0.4	0.9	1.6	2.1	2.3
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
Old-age and early pensions, gross	-0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
HIGH OLDER WORKERS EMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
Old-age and early pensions, gross	-0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	Ch 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	2.6	6.7	6.8	6.9	7.6	8.0	8.1	9.3
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		0.1	0.2	0.3	1.0	1.5	1.5	2.7
Dependency ratio	4.2	0.0	0.8	1.2	2.3	3.1	3.4	4.2
Coverage ratio	-1.5	0.0	-0.3	-0.6	-0.8	-1.0	-1.5	-1.4
Employment effect	-0.3	0.0	-0.1	-0.1	-0.2	-0.3	-0.3	-0.3
Benefit ratio	0.5	0.0	-0.1	0.0	-0.1	-0.2	0.2	0.5
Interaction effect (residual)	-0.3	0.0	-0.1	-0.1	-0.2	-0.2	-0.3	-0.3
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	2.7	0.20	0.14	0.43	0.21	0.18	0.66	
Dependency ratio	4.2	0.83	0.37	0.68	0.23	0.27	0.41	
Coverage ratio	-1.4	-0.35	-0.29	-0.02	0.01	-0.22	0.12	
Employment effect	-0.3	-0.12	-0.02	-0.04	-0.05	0.00	-0.01	
Benefit ratio	0.5	-0.08	0.09	-0.13	0.01	0.19	0.14	
Interaction effect (residual)	-0.34	-0.08	-0.01	-0.06	0.00	-0.06	0.00	
Health care								
HEALTH CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.9	7.5	7.8	8.0	8.4	8.9	9.2	9.4
Pure ageing scenario	2.2	7.5	7.8	7.9	8.4	9.0	9.4	9.7
Labour intensity scenario	2.8	7.5	7.8	8.1	8.8	9.3	9.7	10.3
Constant health scenario	1.0	7.5	7.6	7.6	7.8	8.2	8.4	8.5
Fast cost growth scenario	2.9	7.5	8.4	8.5	9.0	9.6	10.0	10.4
Cost convergence scenario	:	:	:	:	:	:	:	:
Death-related cost scenario	1.1	7.5	7.5	7.6	8.0	8.4	8.6	8.6
Income elasticity scenario	2.6	7.5	7.9	8.1	8.7	9.3	9.8	10.1
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	0.5	0.8	0.9	0.9	1.0	1.1	1.2	1.3
Pure demographic scenario	0.5	0.8	0.9	0.9	1.1	1.2	1.3	1.4
GDP per capita scenario	0.4	0.8	0.9	0.9	1.0	1.1	1.2	1.3
Constant disability scenario	0.4	0.8	0.9	0.9	1.0	1.1	1.2	1.3
GDP per worker fast growth scenario	0.7	0.8	0.9	1.0	1.2	1.3	1.4	1.5
Shift 1% of dependents from informal to home care scenario	0.6	0.8	0.9	0.9	1.1	1.2	1.3	1.4
Shift 1% of dependents from informal to institutional care scenario	0.7	0.8	0.9	1.0	1.1	1.3	1.4	1.5
Shift 1% of dependents from informal to home/institutional care scenario	0.6	0.8	0.9	1.0	1.1	1.2	1.3	1.4

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EC-EPC (AWG) 2009 PROJECTIONS

NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)	% Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	99%	3094	3478	3721	4445	5157	5655	6156
of which: receiving formal care	136%	1352	1521	1635	2011	2469	2896	3194
relying on informal or no care	70%	1741	1957	2087	2433	2689	2759	2962
Pure demographic scenario	109%	3094	3508	3776	4555	5342	5892	6465
of which: receiving formal care	145%	1352	1532	1654	2054	2540	2993	3314
relying on informal or no care	81%	1741	1976	2122	2502	2802	2899	3151
Constant disability scenario	89%	3094	3448	3667	4334	4973	5418	5847
of which: receiving formal care	127%	1352	1510	1615	1969	2397	2800	3074
relying on informal or no care	59%	1741	1938	2052	2365	2576	2618	2774
Shift 1% of dependents from informal to home scenario	109%	3094	3508	3776	4555	5342	5892	6465
of which: receiving formal care	193%	1352	1813	2032	2509	3074	3582	3960
relying on informal or no care	44%	1741	1695	1744	2046	2268	2310	2504
Education								
EDUCATION SPENDING AS % OF GDP - BASELINE	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Total	-0.06	3.8	3.7	3.8	3.9	3.8	3.7	3.8
Expenditure decomposition (broadly constant) : Transfers (10%) - Staff (55%) - Other (35%)								
Primary	0.06	1.3	1.3	1.4	1.4	1.3	1.3	1.4
Expenditure decomposition (broadly constant) : Transfers (2%) - Staff (61%) - Other (37%)								
Low secondary	-0.01	0.6	0.5	0.6	0.6	0.6	0.5	0.6
Expenditure decomposition (broadly constant) : Transfers (2%) - Staff (62%) - Other (36%)								
Upper secondary	-0.06	0.8	0.7	0.7	0.7	0.7	0.7	0.7
Expenditure decomposition (broadly constant) : Transfers (1%) - Staff (64%) - Other (35%)								
Tertiary education	-0.05	1.2	1.2	1.1	1.2	1.2	1.1	1.2
Expenditure decomposition (broadly constant) : Transfers (27%) - Staff (41%) - Other (33%)								
Number of students (in thousands)								
Total	1870	12706	12530	12897	13803	13998	14115	14575
as % of population 5-24	3%	83%	83%	85%	85%	84%	85%	86%
Primary	985	4402	4713	4892	5198	5070	5224	5387
Low secondary	315	2238	2051	2281	2443	2453	2440	2553
Upper secondary	270	3627	3303	3310	3646	3818	3757	3897
Tertiary education	299	2439	2464	2415	2516	2657	2695	2738
Number of teachers (in thousands)								
Total	102	731	713	735	789	802	806	833
Primary	50	223	239	248	264	257	265	274
Low secondary	19	134	123	137	147	147	147	153
Upper secondary	20	267	243	244	268	281	277	287
Tertiary education	13	107	108	105	110	116	118	120
EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)								
Ch 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.15	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/ STUDENTS (DIFF. FROM BASELINE)								
Ch 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.46	0.6	0.8	1.0	1.1	1.1	1.1	1.1
EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)								
Ch 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.18	0.2	0.4	0.4	0.4	0.4	0.4	0.4
Unemployment benefit								
UNEMPLOYMENT BENEFIT - BASELINE								
Ch 07-60	2007	2015	2020	2030	2040	2050	2060	
Unemployment benefit spending as % of GDP	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

NORWAY

EC-EPC (AWG) 2009 PROJECTIONS

Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.0	1.90	1.90	1.90	1.89	1.89	1.89	1.88
Life expectancy at birth								
males	6.8	78.4	79.4	80.1	81.5	82.8	84.1	85.2
females	6.3	82.9	83.8	84.5	85.8	87.0	88.1	89.2
Life expectancy at 65								
males	4.8	17.3	18.0	18.5	19.5	20.4	21.3	22.1
females	4.9	20.4	21.1	21.6	22.6	23.5	24.4	25.2
Net migration (thousand)	-12.8	22.4	17.5	15.2	12.4	11.0	10.3	9.6
Net migration as % of population	-0.3	0.5	0.4	0.3	0.2	0.2	0.2	0.2
Population (million)	1.3	4.7	5.0	5.2	5.5	5.7	5.9	6.0
Children population (0-14) as % of total population	-2.4	19.2	18.2	18.0	17.8	17.2	16.7	16.7
Prime age population (25-54) as % of total population	-6.1	41.5	40.2	39.6	37.0	36.4	35.7	35.4
Working age population (15-64) as % of total population	-8.3	66.2	65.1	63.9	61.2	59.0	58.9	57.9
Elderly population (65 and over) as % of total population	10.8	14.6	16.7	18.1	21.0	23.8	24.4	25.4
Very elderly population (80 and over) as % of total population	5.4	4.6	4.4	4.4	6.3	7.8	9.3	10.0
Very elderly population (80 and over) as % of elderly population	7.7	31.5	26.4	24.3	29.9	32.9	38.1	39.2
Very elderly population (80 and over) as % of working age population	10.3	7.0	6.8	6.9	10.2	13.2	15.8	17.2
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	2.0	6.0	2.1	2.0	1.7	1.9	1.9	1.8
Employment (growth rate)	0.3	3.8	0.4	0.3	0.1	0.2	0.2	0.1
Labour input : hours worked (growth rate)	0.3	3.9	0.4	0.3	0.0	0.2	0.2	0.1
Labour productivity per hour (growth rate)	1.7	1.6	1.6	1.7	1.7	1.7	1.7	1.7
TFP (growth rate)	1.1	2.1	1.1	1.1	1.1	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.6	-0.5	0.5	0.6	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	1.5	5.1	1.3	1.3	1.2	1.5	1.6	1.5
GDP per worker (growth rate)	1.7	2.2	1.6	1.7	1.7	1.7	1.7	1.7
GDP in 2007 prices (in millions euros)		214.1	253.9	280.4	336.4	400.6	483.8	577.5
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	404	3090	3254	3309	3371	3386	3472	3494
Population growth (working age:15-64)	-1.2	1.3	0.4	0.3	0.1	0.1	0.2	0.0
Labour force 15-64 (thousands)	289	2436	2548	2591	2626	2641	2709	2724
Participation rate (15-64)	-0.9	78.8	78.3	78.3	77.9	78.0	78.0	78.0
young (15-24)	1.6	58.8	60.8	61.0	60.5	60.2	60.7	60.5
prime-age (25-54)	0.0	87.4	87.4	87.3	87.3	87.4	87.4	87.5
older (55-64)	-4.2	69.9	66.7	66.4	66.3	65.6	66.5	65.6
Participation rate (15-64) - FEMALES	1.4	75.9	76.3	76.6	76.8	77.3	77.4	77.3
young (15-24)	1.6	60.0	62.0	62.0	61.6	61.4	61.8	61.6
prime-age (25-54)	2.6	83.9	84.8	85.3	86.1	86.5	86.5	86.5
older (55-64)	-0.7	64.8	63.1	62.8	63.2	63.5	64.9	64.1
Participation rate (15-64) - MALES	-3.0	81.6	80.3	80.0	79.0	78.7	78.7	78.6
young (15-24)	1.7	57.8	59.7	59.9	59.3	59.1	59.6	59.4
prime-age (25-54)	-2.4	90.8	89.8	89.3	88.5	88.4	88.3	88.4
older (55-64)	-7.7	74.8	70.1	69.8	69.3	67.7	68.0	67.1
Employment rate (15-64)	-2.1	76.8	75.1	75.1	74.7	74.8	74.8	74.8
Employment rate (20-64)	-2.3	81.0	79.1	78.9	78.6	78.9	78.8	78.7
Employment rate (15-71)	-4.8	72.6	69.2	69.1	68.3	67.8	68.5	67.8
Unemployment rate (15-64)	1.6	2.5	4.1	4.1	4.1	4.1	4.1	4.1
Employment (15-64) (in millions)	0.2	2.4	2.4	2.5	2.5	2.5	2.6	2.6
share of young (15-24)	0%	13%	14%	14%	13%	14%	14%	14%
share of prime-age (25-54)	-1%	70%	70%	70%	68%	70%	69%	69%
share of older (55-64)	1%	16%	16%	17%	18%	16%	17%	17%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	1.4	18.2	18.4	19.0	20.7	18.7	19.9	19.6
Old-age dependency ratio (2)	22	22	26	28	34	40	41	44
Total dependency ratio (3)	22	51	54	56	63	69	70	73
Total economic dependency ratio (4)	29	98	102	105	115	123	124	128
Economic old-age dependency ratio (15-64) (5)	28	27	31	35	43	50	52	55
Pension expenditure projections								
BASELINE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	4.7	8.9	10.8	11.5	12.7	13.4	13.3	13.6
Old-age and early pensions, gross	4.7	5.7	7.6	8.2	9.4	10.3	10.2	10.4
Of which : earnings-related pensions, gross	:	:	:	:	:	:	:	:
Other pensions (disability, survivors), gross	0.0	3.2	3.2	3.2	3.3	3.1	3.2	3.2
Occupational pensions, gross	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	:	:	:	:	:	:	:	:

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EC-EPC (AWG) 2009 PROJECTIONS

Social security pensions, net	3.6	7.2	8.8	9.3	10.2	10.7	10.7	10.9
Social security pensions, contributions	:	:	:	:	:	:	:	:
Social security pensions, assets	:	:	:	:	:	:	:	:
ADDITIONAL INDICATORS	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	-1.7	81.8	81.1	81.0	80.1	80.0	80.0	80.0
Pensioners (social security, in 1000 persons)	970	939	1176	1286	1504	1683	1783	1909
Pensioners aged 65+ (1000 pers)	:	:	:	:	:	:	:	:
Share of pensioners below age 65 as % of all pensioners	:	:	:	:	:	:	:	:
Average gross pension (social security - € 1000 in 2007 prices)	20.9	20.1	23.4	25.0	28.4	31.9	36.2	41.1
Benefit ratio (Social security pensions)	-3.6	50.3	56.4	55.4	53.3	50.6	48.6	46.7
Gross replacement rate at retirement (social security pensions)	:	:	:	:	:	:	:	:
Contributors (social security pensions, in 1000 persons)	:	:	:	:	:	:	:	:
Support ratio (contributors/100 pensioners, social security pensions)	:	:	:	:	:	:	:	:
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.2	0.0	0.1	0.2	0.3	0.3	0.3	0.2
Old-age and early pensions, gross	0.2	0.0	0.1	0.2	0.3	0.3	0.2	0.2
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Old-age and early pensions, gross	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	1.3	0.0	0.3	0.7	1.3	1.7	1.6	1.3
Old-age and early pensions, gross	1.2	0.0	0.2	0.6	1.1	1.6	1.5	1.2
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.3	0.0	-0.1	-0.1	-0.2	-0.2	-0.2	-0.3
Old-age and early pensions, gross	-0.2	0.0	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2
HIGH OLDER WORKERS EMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	:	:	:	:	:	:	:	:
Old-age and early pensions, gross	:	:	:	:	:	:	:	:
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	Ch 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	4.8	8.8	10.8	11.5	12.7	13.4	13.3	13.6
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		-0.1	2.0	2.6	3.9	4.6	4.5	4.7
Dependency ratio	8.2	0.0	1.4	2.5	4.9	7.0	7.4	8.2
Coverage ratio	-1.2	0.0	0.2	0.0	-0.6	-1.3	-1.3	-1.2
Employment effect	0.1	0.2	0.2	0.2	0.3	0.3	0.2	0.3
Benefit ratio	-2.1	-0.2	0.1	-0.1	-0.5	-1.2	-1.7	-2.3
Interaction effect (residual)	-0.1	-0.1	0.1	0.0	-0.1	-0.2	-0.2	-0.2
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	4.7	2.00	0.63	0.65	0.16	-0.07	0.12	
Dependency ratio	8.2	1.38	1.12	1.15	0.88	0.16	0.49	
Coverage ratio	-1.2	0.25	-0.28	-0.25	-0.37	0.01	-0.05	
Employment effect	0.3	0.21	0.00	0.04	-0.04	0.00	-0.01	
Benefit ratio	-2.3	0.11	-0.18	-0.25	-0.30	-0.25	-0.27	
Interaction effect (residual)	-0.22	0.05	-0.04	-0.04	-0.02	0.00	-0.04	
Health care								
HEALTH CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.3	5.6	5.8	6.0	6.5	6.8	6.9	7.0
Pure ageing scenario	1.6	5.6	5.8	6.1	6.6	6.9	7.2	7.3
Labour intensity scenario	2.6	5.6	5.9	6.2	7.1	7.7	8.0	8.3
Constant health scenario	0.6	5.6	5.7	5.8	6.1	6.2	6.3	6.3
Fast cost growth scenario	2.2	5.6	6.3	6.5	7.0	7.4	7.7	7.8
Cost convergence scenario	:	:	:	:	:	:	:	:
Death-related cost scenario	1.4	5.6	5.7	5.9	6.4	6.7	6.9	7.0
Income elasticity scenario	1.9	5.6	5.9	6.2	6.7	7.1	7.4	7.5
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	2.7	2.2	2.2	2.3	2.9	3.8	4.3	4.9
Pure demographic scenario	2.9	2.2	2.3	2.3	2.9	3.9	4.5	5.1
GDP per capita scenario	2.3	2.2	2.2	2.3	2.7	3.5	4.0	4.5
Constant disability scenario	2.5	2.2	2.2	2.3	2.8	3.7	4.2	4.7
GDP per worker fast growth scenario	3.4	2.2	2.4	2.6	3.2	4.3	4.9	5.6
Shift 1% of dependents from informal to home care scenario	3.0	2.2	2.3	2.4	3.0	4.0	4.6	5.2
Shift 1% of dependents from informal to institutional care scenario	3.9	2.2	2.6	2.8	3.5	4.6	5.3	6.0
Shift 1% of dependents from informal to home/institutional care scenario	3.4	2.2	2.4	2.6	3.3	4.3	5.0	5.6

NORWAY

EC-EPC (AWG) 2009 PROJECTIONS

NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)	% CH 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	137%	155	176	192	245	302	336	367
of which: receiving formal care	157%	162	174	187	249	322	375	415
relying on informal or no care	0%	0	2	5	0	0	0	0
Pure demographic scenario	149%	155	177	195	251	313	351	385
of which: receiving formal care	169%	162	176	189	255	332	390	435
relying on informal or no care	0%	0	2	5	0	0	0	0
Constant disability scenario	125%	155	174	190	239	292	322	348
of which: receiving formal care	144%	162	173	184	243	311	359	395
relying on informal or no care	0%	0	2	5	0	0	0	0
Shift 1% of dependents from informal to home scenario	149%	155	177	195	251	313	351	385
of which: receiving formal care	193%	162	190	209	280	363	426	474
relying on informal or no care	0%	0	0	0	0	0	0	0

Education

EDUCATION SPENDING AS % OF GDP - BASELINE	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Total	0.12	7.9	7.7	7.7	7.8	8.1	8.0	8.1
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (20%) - Staff (54%) - Other (26%)</i>								
Primary	-0.08	2.2	2.0	2.0	2.1	2.1	2.1	2.1
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (0%) - Staff (70%) - Other (30%)</i>								
Low secondary	-0.06	1.0	1.0	0.9	1.0	1.0	1.0	1.0
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (0%) - Staff (70%) - Other (30%)</i>								
Upper secondary	-0.03	1.9	1.9	1.8	1.9	2.0	1.9	1.9
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (19%) - Staff (57%) - Other (24%)</i>								
Tertiary education	0.29	2.8	2.8	2.9	2.9	3.0	3.1	3.1
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (43%) - Staff (33%) - Other (24%)</i>								
Number of students (in thousands)								
Total	129	1058	1074	1081	1125	1166	1171	1188
as % of population 5-24	0%	88%	86%	86%	87%	88%	88%	88%
Primary	39	430	422	431	455	461	458	469
Low secondary	12	187	183	183	189	200	197	199
Upper secondary	26	231	240	233	241	255	256	256
Tertiary education	53	211	228	234	240	250	261	263
Number of teachers (in thousands)								
Total	11	93	94	94	98	102	102	103
Primary	4	38	38	39	41	41	41	42
Low secondary	1	18	18	18	18	19	19	19
Upper secondary	2	21	22	21	22	23	24	24
Tertiary education	4	15	16	17	17	18	19	19

EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Total	0.15	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1

EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/ STUDENTS (DIFF. FROM BASELINE)	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Total	0.83	0.2	0.6	0.9	1.0	1.0	1.0	1.0

EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Total	0.45	0.3	0.6	0.7	0.7	0.7	0.7	0.7

Unemployment benefit

UNEMPLOYMENT BENEFIT - BASELINE	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Unemployment benefit spending as % of GDP	0.2	0.2	0.4	0.4	0.4	0.4	0.4	0.4

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

EUROPEAN UNION

EC-EPC (AWG) 2009 PROJECTIONS

Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.1	1.52	1.53	1.55	1.57	1.59	1.62	1.64
Life expectancy at birth								
males	8.5	76.0	77.4	78.3	80.0	81.6	83.1	84.5
females	6.9	82.1	83.2	83.9	85.3	86.7	87.9	89.0
Life expectancy at 65								
males	5.4	16.5	17.3	17.8	18.9	19.9	20.9	21.8
females	5.2	20.0	20.7	21.2	22.3	23.3	24.3	25.1
Net migration (thousand)	-880.4	1683.9	1404.8	1252.8	1093.1	1005.5	924.3	803.5
Net migration as % of population	-0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2
Population (million)	10.3	495.4	507.7	513.8	519.9	520.1	515.3	505.7
Children population (0-14) as % of total population	-1.6	15.7	15.5	15.4	14.5	14.0	14.1	14.0
Prime age population (25-54) as % of total population	-8.6	43.0	42.1	40.8	37.7	36.0	34.7	34.4
Working age population (15-64) as % of total population	-11.3	67.3	65.9	64.6	61.9	59.2	57.1	56.0
Elderly population (65 and over) as % of total population	12.9	17.1	18.6	20.1	23.6	26.8	28.8	30.0
Very elderly population (80 and over) as % of total population	7.7	4.4	5.2	5.7	6.9	8.9	11.0	12.1
Very elderly population (80 and over) as % of elderly population	14.7	25.8	27.8	28.4	29.4	33.0	38.2	40.5
Very elderly population (80 and over) as % of working age population	15.1	6.5	7.9	8.8	11.2	15.0	19.2	21.7
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	1.7	2.7	2.3	2.1	1.7	1.4	1.3	1.4
Employment (growth rate)	-0.1	1.2	0.4	0.0	-0.2	-0.4	-0.4	-0.3
Labour input : hours worked (growth rate)	-0.1	1.0	0.3	0.0	-0.2	-0.4	-0.4	-0.3
Labour productivity per hour (growth rate)	1.8	1.7	2.0	2.1	1.9	1.8	1.7	1.7
TFP (growth rate)	1.1	1.0	1.2	1.3	1.2	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.7	0.7	0.8	0.8	0.7	0.6	0.6	0.6
GDP per capita (growth rate)	1.7	2.2	2.0	1.9	1.6	1.4	1.5	1.7
GDP per worker (growth rate)	1.8	1.5	2.0	2.1	1.9	1.8	1.8	1.7
GDP in 2007 prices (in millions euros)		12294.8	14891.5	16561.9	19692.0	22678.1	25837.0	29524.6
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	-48613	331906	334662	331887	321944	307848	294442	283293
Population growth (working age:15-64)	-0.7	0.4	-0.1	-0.2	-0.4	-0.4	-0.4	-0.2
Labour force 15-64 (thousands)	-24386	234388	243419	242937	236229	227033	217723	210003
Participation rate (15-64)	3.5	70.6	72.7	73.2	73.4	73.7	73.9	74.1
young (15-24)	2.0	44.6	46.9	46.0	45.7	46.8	46.9	46.6
prime-age (25-54)	1.6	84.5	85.3	85.5	85.7	85.8	86.0	86.0
older (55-64)	15.1	47.5	53.9	56.9	60.8	61.8	62.0	62.5
Participation rate (15-64) - FEMALES	5.9	63.4	66.7	67.5	68.3	68.9	69.1	69.4
young (15-24)	2.0	41.0	43.1	42.3	42.0	43.1	43.2	42.9
prime-age (25-54)	4.0	76.9	79.1	79.8	80.6	80.6	80.8	80.8
older (55-64)	19.9	38.2	46.7	50.4	55.0	57.0	57.4	58.1
Participation rate (15-64) - MALES	1.0	77.8	78.8	78.8	78.4	78.5	78.6	78.8
young (15-24)	2.0	48.1	50.4	49.5	49.3	50.3	50.4	50.1
prime-age (25-54)	-0.9	91.9	91.4	91.2	90.8	90.8	91.0	91.0
older (55-64)	9.7	57.3	61.5	63.8	66.8	66.6	66.6	67.0
Employment rate (15-64)	4.4	65.5	68.2	69.0	69.2	69.5	69.7	69.9
Employment rate (20-64)	4.5	70.1	72.4	73.2	73.7	74.0	74.2	74.6
Employment rate (15-71)	2.8	60.3	62.6	62.9	62.6	62.7	62.9	63.1
Unemployment rate (15-64)	-1.5	7.2	6.2	5.7	5.7	5.7	5.7	5.7
Employment (15-64) (in millions)	-19.4	217.4	228.4	229.1	222.7	214.1	205.3	198.0
share of young (15-24)	0%	11%	10%	9%	10%	10%	10%	10%
share of prime-age (25-54)	-5%	77%	75%	74%	72%	71%	71%	72%
share of older (55-64)	6%	12%	14%	16%	18%	19%	19%	18%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	3.0	17.6	19.2	20.5	21.9	21.8	22.0	20.6
Old-age dependency ratio (2)	28	25	28	31	38	45	50	53
Total dependency ratio (3)	30	49	52	55	62	69	75	79
Total economic dependency ratio (4)	27	124	120	122	130	139	146	151
Economic old-age dependency ratio (15-64) (5)	35	37	39	42	51	61	68	72
Pension expenditure projections								
BASELINE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	2.4	10.1	10.3	10.5	11.4	12.1	12.3	12.5
Old-age and early pensions, gross	2.5	9.1	9.3	9.6	10.4	11.1	11.4	11.6
Of which : earnings-related pensions, gross	:	:	:	:	:	:	:	:
Other pensions (disability, survivors), gross	:	:	:	:	:	:	:	:
Occupational pensions, gross	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	:	:	:	:	:	:	:	:

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Social security pensions, net	:	:	:	:	:	:	:	:
Social security pensions, contributions	:	:	:	:	:	:	:	:
Social security pensions, assets	:	:	:	:	:	:	:	:
ADDITIONAL INDICATORS	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	:	:	:	:	:	:	:	:
Pensioners (social security, in 1000 persons)	49512	117171	123664	129641	146048	160165	165361	166683
Pensioners aged 65+ (1000 pers)	:	:	:	:	:	:	:	:
Share of pensioners below age 65 as % of all pensioners	:	:	:	:	:	:	:	:
Average gross pension (social security - € 1000 in 2007 prices)	12.0	10.6	12.3	13.3	15.2	17.1	19.5	22.7
Benefit ratio (Social security pensions)	-9.5	49.7	50.5	49.7	46.8	43.8	41.4	40.1
Gross replacement rate at retirement (social security pensions)	:	:	:	:	:	:	:	:
Contributors (social security pensions, in 1000 persons)	:	:	:	:	:	:	:	:
Support ratio (contributors/100 pensioners, social security pensions)	:	:	:	:	:	:	:	:
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.3	0.0	0.0	0.0	0.1	0.1	0.2	0.3
Old-age and early pensions, gross	0.3	0.0	0.0	0.0	0.1	0.1	0.2	0.3
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.4	0.0	0.0	-0.1	-0.2	-0.3	-0.4	-0.4
Old-age and early pensions, gross	-0.4	0.0	0.0	-0.1	-0.2	-0.3	-0.3	-0.4
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	1.8	0.0	0.3	0.5	0.9	1.4	1.8	1.8
Old-age and early pensions, gross	1.7	0.0	0.2	0.4	0.9	1.4	1.7	1.7
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Old-age and early pensions, gross	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
HIGH OLDER WORKERS EMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	-0.1	-0.2	-0.2	-0.2	-0.1	-0.1
Old-age and early pensions, gross	-0.1	0.0	-0.1	-0.2	-0.2	-0.1	-0.1	-0.1
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	Ch 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	2.3	10.2	10.3	10.5	11.4	12.1	12.3	12.5
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		0.1	0.1	0.4	1.2	2.0	2.2	2.4
Dependency ratio	8.6	0.1	1.2	2.2	4.5	6.7	8.0	8.7
Coverage ratio	-2.5	-0.1	-0.7	-1.1	-1.6	-2.1	-2.4	-2.6
Employment effect	-0.6	-0.1	-0.4	-0.5	-0.5	-0.6	-0.6	-0.7
Benefit ratio	-2.6	0.1	0.1	-0.1	-0.7	-1.5	-2.1	-2.5
Interaction effect (residual)	-0.6	0.0	-0.1	-0.2	-0.4	-0.6	-0.6	-0.6
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	2.4	0.12	0.24	0.49	0.32	0.10	0.07	
Dependency ratio	8.7	1.23	1.01	1.21	0.92	0.62	0.24	
Coverage ratio	-2.6	-0.68	-0.39	-0.25	-0.17	-0.16	-0.04	
Employment effect	-0.7	-0.41	-0.12	-0.02	-0.03	-0.02	-0.02	
Benefit ratio	-2.5	0.09	-0.17	-0.35	-0.37	-0.31	-0.13	
Interaction effect (residual)	-0.63	-0.13	-0.09	-0.10	-0.04	-0.03	0.01	
Health care								
HEALTH CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.7	6.7	6.9	7.1	7.4	7.9	8.2	8.4
Pure ageing scenario	1.9	6.7	6.9	7.1	7.5	8.0	8.4	8.6
Labour intensity scenario	2.7	6.7	6.8	7.0	7.6	8.4	9.0	9.4
Constant health scenario	0.8	6.7	6.8	6.8	7.0	7.3	7.5	7.6
Fast cost growth scenario	2.5	6.7	7.4	7.6	8.0	8.5	9.0	9.2
Cost convergence scenario	2.0	6.7	6.8	7.0	7.4	8.0	8.4	8.7
Death-related cost scenario	1.4	6.7	6.7	6.9	7.2	7.7	8.0	8.1
Income elasticity scenario	2.3	6.7	7.0	7.2	7.7	8.3	8.7	9.0
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.2	1.2	1.3	1.4	1.6	1.9	2.3	2.4
Pure demographic scenario	1.3	1.2	1.3	1.4	1.7	2.0	2.4	2.5
GDP per capita scenario	1.1	1.2	1.3	1.4	1.6	1.9	2.2	2.3
Constant disability scenario	1.1	1.2	1.3	1.4	1.6	1.9	2.2	2.3
GDP per worker fast growth scenario	1.6	1.2	1.4	1.6	1.8	2.2	2.6	2.8
Shift 1% of dependents from informal to home care scenario	1.5	1.2	1.4	1.5	1.8	2.1	2.5	2.7
Shift 1% of dependents from informal to institutional care scenario	2.0	1.2	1.6	1.7	2.1	2.5	2.9	3.2
Shift 1% of dependents from informal to home/institutional care scenario	1.7	1.2	1.5	1.6	1.9	2.3	2.7	2.9

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NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)	% Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	102%	20705	23716	25759	30465	35786	40179	41901
of which: receiving formal care	149%	8433	10640	11615	14184	17268	19895	21000
relying on informal or no care	70%	12272	13076	14144	16282	18517	20284	20901
Pure demographic scenario	115%	20705	23961	26197	31408	37341	42311	44473
of which: receiving formal care	163%	8433	10748	11808	14608	17972	20868	22145
relying on informal or no care	82%	12272	13212	14390	16800	19369	21443	22328
Constant disability scenario	90%	20705	23472	25321	29523	34231	38047	39331
of which: receiving formal care	135%	8433	10533	11422	13760	16565	18922	19855
relying on informal or no care	59%	12272	12939	13899	15764	17666	19125	19476
Shift 1% of dependents from informal to home scenario	115%	20705	23961	26197	31408	37341	42311	44473
of which: receiving formal care	232%	8433	13148	15078	18550	22738	26381	27992
relying on informal or no care	34%	12272	10812	11119	12857	14602	15931	16481
Education								
EDUCATION SPENDING AS % OF GDP - BASELINE	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Total	-0.18	4.3	4.0	3.9	3.9	3.9	4.0	4.1
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (7%) - Staff (66%) - Other (27%)</i>								
Primary	0.03	1.1	1.1	1.1	1.1	1.1	1.1	1.1
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (2%) - Staff (71%) - Other (28%)</i>								
Low secondary	:	:	:	:	:	:	:	:
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (-%) - Staff (-%) - Other (-%)</i>								
Upper secondary	:	:	:	:	:	:	:	:
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (-%) - Staff (-%) - Other (-%)</i>								
Tertiary education	:	:	:	:	:	:	:	:
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (-%) - Staff (-%) - Other (-%)</i>								
Number of students (in thousands)								
Total	-11507	91703	87282	87268	86286	82564	80895	80196
as % of population 5-24	:	:	:	:	:	:	:	:
Primary	-1381	27798	28671	29156	28035	26645	26858	26417
Low secondary	-2808	22305	21024	21471	21253	20008	19583	19497
Upper secondary	-3909	23361	20678	20539	20931	20173	19411	19452
Tertiary education	-3408	18239	16909	16103	16066	15738	15043	14830
Number of teachers (in thousands)								
Total	-874	6414	6041	6068	5983	5701	5591	5540
Primary	-160	1948	1979	2007	1914	1816	1825	1787
Low secondary	-245	1693	1572	1610	1587	1487	1456	1448
Upper secondary	-265	1766	1564	1569	1606	1542	1492	1501
Tertiary education	:	:	:	:	:	:	:	:
EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Total	0.10	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/ STUDENTS (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Total	0.48	0.1	0.3	0.5	0.5	0.6	0.6	0.6
EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Total	0.14	0.2	0.3	0.3	0.3	0.3	0.3	0.3
Unemployment benefit								
UNEMPLOYMENT BENEFIT - BASELINE	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Unemployment benefit spending as % of GDP	-0.2	0.8	0.7	0.6	0.6	0.6	0.6	0.6

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

EURO-AREA

EC-EPC (AWG) 2009 PROJECTIONS

Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.1	1.53	1.55	1.56	1.58	1.61	1.63	1.65
Life expectancy at birth								
males	7.9	76.6	77.8	78.7	80.3	81.8	83.2	84.5
females	6.7	82.3	83.3	84.0	85.4	86.7	87.9	89.0
Life expectancy at 65								
males	5.3	16.6	17.3	17.8	18.9	19.9	20.9	21.8
females	5.1	20.0	20.7	21.2	22.2	23.2	24.2	25.1
Net migration (thousand)	-795.3	1421.9	1125.8	985.1	876.8	761.8	693.1	626.6
Net migration as % of population	-0.3	0.4	0.3	0.3	0.3	0.2	0.2	0.2
Population (million)	10.2	324.9	334.9	339.5	344.4	345.5	342.2	335.1
Children population (0-14) as % of total population	-1.6	15.4	15.2	15.0	14.2	13.8	13.9	13.9
Prime age population (25-54) as % of total population	-9.1	43.3	41.9	40.1	36.8	35.3	34.4	34.2
Working age population (15-64) as % of total population	-10.7	66.6	65.3	64.2	61.3	58.1	56.4	55.9
Elderly population (65 and over) as % of total population	12.3	18.0	19.4	20.8	24.5	28.1	29.8	30.2
Very elderly population (80 and over) as % of total population	8.0	4.7	5.6	6.2	7.4	9.3	11.8	12.8
Very elderly population (80 and over) as % of elderly population	15.9	26.4	28.9	29.9	30.0	33.0	39.7	42.2
Very elderly population (80 and over) as % of working age population	15.7	7.1	8.6	9.7	12.0	16.0	21.0	22.8
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	1.6	2.3	2.2	2.1	1.6	1.3	1.3	1.4
Employment (growth rate)	-0.1	1.2	0.5	0.2	-0.2	-0.4	-0.4	-0.3
Labour input : hours worked (growth rate)	-0.1	0.9	0.5	0.2	-0.2	-0.4	-0.4	-0.3
Labour productivity per hour (growth rate)	1.7	1.3	1.7	1.9	1.8	1.7	1.7	1.7
TFP (growth rate)	1.1	0.8	1.1	1.2	1.1	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	1.5	1.7	1.9	1.8	1.5	1.3	1.5	1.7
GDP per worker (growth rate)	1.7	1.1	1.7	1.9	1.8	1.7	1.7	1.7
GDP in 2007 prices (in millions euros)		9020.8	10735.9	11921.2	14039.8	16003.0	18154.7	20794.0
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	-28111	215502	218837	218145	211115	200628	192839	187391
Population growth (working age:15-64)	-0.6	0.4	0.0	-0.1	-0.6	-0.4	-0.3	-0.2
Labour force 15-64 (thousands)	-14055	153311	160387	160727	156055	149500	143552	139256
Participation rate (15-64)	3.6	70.8	73.3	73.8	74.3	74.8	74.7	74.4
young (15-24)	-0.4	45.1	46.1	44.9	44.9	45.6	45.1	44.8
prime-age (25-54)	2.5	84.6	86.2	87.1	87.1	87.1	87.0	87.1
older (55-64)	17.7	45.3	54.0	57.5	62.7	63.9	63.5	63.0
Participation rate (15-64) - FEMALES	6.3	63.1	67.0	67.9	68.9	69.8	69.6	69.4
young (15-24)	-0.6	41.5	42.3	41.1	41.0	41.7	41.2	40.9
prime-age (25-54)	5.1	76.4	79.6	81.0	81.5	81.5	81.4	81.5
older (55-64)	22.5	36.2	46.9	51.1	56.9	59.5	59.2	58.7
Participation rate (15-64) - MALES	0.9	78.4	79.6	79.6	79.6	79.7	79.5	79.3
young (15-24)	-0.1	48.6	49.8	48.5	48.5	49.3	48.7	48.5
prime-age (25-54)	-0.2	92.7	92.8	93.1	92.6	92.5	92.4	92.5
older (55-64)	12.5	54.8	61.3	64.1	68.7	68.2	67.8	67.2
Employment rate (15-64)	4.6	65.5	68.5	69.5	70.0	70.4	70.3	70.1
Employment rate (20-64)	4.7	70.1	72.7	73.7	74.2	74.7	74.8	74.8
Employment rate (15-71)	3.3	59.9	62.5	63.1	62.6	63.0	63.1	63.2
Unemployment rate (15-64)	-1.7	7.6	6.6	5.9	5.9	5.9	5.8	5.8
Employment (15-64) (in millions)	-10.6	141.7	149.9	151.3	146.9	140.8	135.2	131.1
share of young (15-24)	0%	10%	10%	9%	10%	10%	10%	10%
share of prime-age (25-54)	-6%	78%	76%	74%	71%	71%	72%	72%
share of older (55-64)	7%	11%	15%	17%	19%	19%	18%	18%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	3.4	17.6	19.4	21.2	22.8	21.9	21.5	21.0
Old-age dependency ratio (2)	27	27	30	32	40	48	53	54
Total dependency ratio (3)	29	50	53	56	63	72	77	79
Total economic dependency ratio (4)	26	126	122	122	131	142	149	152
Economic old-age dependency ratio (15-64) (5)	34	40	42	44	54	65	71	73
Pension expenditure projections								
BASELINE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	2.8	11.0	11.2	11.5	12.6	13.5	13.9	13.8
Old-age and early pensions, gross	2.6	10.1	10.3	10.6	11.6	12.5	12.8	12.8
Of which : earnings-related pensions, gross	:	:	:	:	:	:	:	:
Other pensions (disability, survivors), gross	:	:	:	:	:	:	:	:
Occupational pensions, gross	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	:	:	:	:	:	:	:	:

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EC-EPC (AWG) 2009 PROJECTIONS

Social security pensions, net	:	:	:	:	:	:	:	:
Social security pensions, contributions	:	:	:	:	:	:	:	:
Social security pensions, assets	:	:	:	:	:	:	:	:
ADDITIONAL INDICATORS	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	:	:	:	:	:	:	:	:
Pensioners (social security, in 1000 persons)	37112	75985	82069	86976	99692	109880	113459	113096
Pensioners aged 65+ (1000 pers)	:	:	:	:	:	:	:	:
Share of pensioners below age 65 as % of all pensioners	:	:	:	:	:	:	:	:
Average gross pension (social security - € 1000 in 2007 prices)	12.4	13.0	14.5	15.6	17.5	19.5	22.2	25.4
Benefit ratio (Social security pensions)	-11.4	56.7	57.1	56.2	52.5	49.2	46.9	45.3
Gross replacement rate at retirement (social security pensions)	:	:	:	:	:	:	:	:
Contributors (social security pensions, in 1000 persons)	-4112	139518	149334	151701	149892	144971	139246	135405
Support ratio (contributors/100 pensioners, social security pensions)	-63.9	184	182	174	150	132	123	120
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.3	0.0	0.0	0.0	0.1	0.1	0.2	0.3
Old-age and early pensions, gross	0.3	0.0	0.0	0.0	0.1	0.1	0.2	0.3
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.5	0.0	0.0	-0.1	-0.3	-0.4	-0.5	-0.5
Old-age and early pensions, gross	-0.5	0.0	0.0	-0.1	-0.2	-0.3	-0.4	-0.5
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	1.8	0.0	0.3	0.5	1.0	1.6	1.9	1.8
Old-age and early pensions, gross	1.7	0.0	0.3	0.5	1.0	1.5	1.9	1.7
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	-0.1	-0.2	-0.2	-0.2	-0.2	-0.1
Old-age and early pensions, gross	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
HIGH OLDER WORKERS EMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.2	0.0	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2
Old-age and early pensions, gross	-0.1	0.0	-0.1	-0.2	-0.2	-0.2	-0.1	-0.1
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	Ch 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	2.7	11.1	11.2	11.5	12.6	13.5	13.9	13.8
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		0.0	0.2	0.5	1.5	2.5	2.8	2.8
Dependency ratio	8.9	0.1	1.2	2.2	4.9	7.5	8.7	9.0
Coverage ratio	-1.9	0.0	-0.5	-0.7	-1.3	-1.8	-2.0	-2.0
Employment effect	-0.6	0.0	-0.4	-0.6	-0.6	-0.7	-0.7	-0.7
Benefit ratio	-2.9	0.0	0.0	-0.2	-1.0	-1.8	-2.5	-2.9
Interaction effect (residual)	-0.7	0.0	-0.1	-0.2	-0.5	-0.6	-0.7	-0.7
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	2.8	0.19	0.29	0.59	0.40	0.10	-0.09	
Dependency ratio	9.0	1.24	0.99	1.51	1.07	0.50	0.06	
Coverage ratio	-2.0	-0.48	-0.26	-0.32	-0.21	-0.08	0.03	
Employment effect	-0.7	-0.44	-0.14	-0.05	-0.04	0.01	0.01	
Benefit ratio	-2.9	-0.01	-0.20	-0.41	-0.39	-0.31	-0.19	
Interaction effect (residual)	-0.66	-0.11	-0.09	-0.16	-0.03	-0.02	0.01	
Health care								
HEALTH CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.5	6.7	6.9	7.1	7.4	7.8	8.1	8.1
Pure ageing scenario	1.6	6.7	6.9	7.1	7.5	7.9	8.2	8.3
Labour intensity scenario	2.4	6.7	6.8	6.9	7.6	8.3	8.9	9.1
Constant health scenario	0.7	6.7	6.8	6.8	7.0	7.3	7.4	7.4
Fast cost growth scenario	2.2	6.7	7.4	7.6	8.0	8.5	8.8	8.9
Cost convergence scenario	1.5	6.7	6.8	6.9	7.3	7.8	8.1	8.2
Death-related cost scenario	1.3	6.7	6.7	6.9	7.2	7.7	7.9	8.0
Income elasticity scenario	2.0	6.7	7.0	7.2	7.7	8.2	8.5	8.7
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.4	1.3	1.4	1.5	1.8	2.1	2.5	2.7
Pure demographic scenario	1.5	1.3	1.4	1.5	1.8	2.2	2.6	2.8
GDP per capita scenario	1.2	1.3	1.5	1.5	1.8	2.1	2.4	2.5
Constant disability scenario	1.3	1.3	1.4	1.5	1.7	2.1	2.4	2.5
GDP per worker fast growth scenario	1.8	1.3	1.6	1.7	2.0	2.4	2.9	3.1
Shift 1% of dependents from informal to home care scenario	1.7	1.3	1.5	1.6	1.9	2.4	2.8	3.0
Shift 1% of dependents from informal to institutional care scenario	2.3	1.3	1.7	1.9	2.3	2.8	3.4	3.6
Shift 1% of dependents from informal to home/institutional care scenario	2.0	1.3	1.6	1.8	2.1	2.6	3.1	3.3

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EC-EPC (AWG) 2009 PROJECTIONS

NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)	% CH 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	104%	12594	14666	15910	18799	22412	25317	25746
of which: receiving formal care	157%	5746	7611	8322	10112	12357	14248	14752
relying on informal or no care	61%	6848	7055	7588	8687	10055	11069	10994
Pure demographic scenario	118%	12594	14839	16226	19463	23537	26847	27499
of which: receiving formal care	172%	5746	7694	8471	10437	12904	14999	15611
relying on informal or no care	74%	6848	7145	7755	9026	10633	11847	11888
Constant disability scenario	91%	12594	14493	15594	18135	21287	23787	23994
of which: receiving formal care	142%	5746	7529	8173	9787	11810	13496	13893
relying on informal or no care	48%	6848	6965	7421	8348	9477	10291	10101
Shift 1% of dependents from informal to home scenario	118%	12594	14839	16226	19463	23537	26847	27499
of which: receiving formal care	244%	5746	9365	10744	13185	16290	18965	19761
relying on informal or no care	13%	6848	5475	5482	6278	7247	7881	7738
Education								
EDUCATION SPENDING AS % OF GDP - BASELINE	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Total	-0.16	4.2	4.0	3.9	3.9	3.9	4.0	4.1
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (6%) - Staff (69%) - Other (25%)</i>								
Primary	0.02	1.0	1.0	1.0	1.0	1.0	1.0	1.0
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (1%) - Staff (74%) - Other (24%)</i>								
Low secondary	:	:	:	:	:	:	:	:
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (-%) - Staff (-%) - Other (-%)</i>								
Upper secondary	:	:	:	:	:	:	:	:
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (-%) - Staff (-%) - Other (-%)</i>								
Tertiary education	:	:	:	:	:	:	:	:
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (-%) - Staff (-%) - Other (-%)</i>								
Number of students (in thousands)								
Total	-5222	57331	56370	56537	55417	53419	52774	52108
as % of population 5-24	:	:	:	:	:	:	:	:
Primary	-730	17452	18251	18393	17490	16987	17127	16722
Low secondary	-1335	15252	15091	15199	14924	14234	14056	13917
Upper secondary	-1650	13723	12766	12913	12843	12368	12124	12073
Tertiary education	-1507	10904	10261	10032	10159	9830	9468	9396
Number of teachers (in thousands)								
Total	-403	4101	3988	4017	3930	3779	3743	3698
Primary	-78	1226	1267	1272	1202	1170	1180	1149
Low secondary	-103	1099	1075	1091	1068	1013	1004	996
Upper secondary	-115	1114	1032	1055	1058	1013	998	999
Tertiary education	:	:	:	:	:	:	:	:
EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)								
Total	0.08	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/ STUDENTS (DIFF. FROM BASELINE)								
Total	0.45	0.0	0.2	0.4	0.4	0.4	0.4	0.4
EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)								
Total	0.13	0.1	0.3	0.3	0.3	0.3	0.3	0.3
Unemployment benefit								
UNEMPLOYMENT BENEFIT - BASELINE								
Unemployment benefit spending as % of GDP	-0.2	1.0	0.8	0.7	0.7	0.7	0.7	0.7

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

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EC-EPC (AWG) 2009 PROJECTIONS

Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.1	1.64	1.66	1.66	1.68	1.69	1.71	1.72
Life expectancy at birth								
males	7.6	77.2	78.4	79.2	80.8	82.2	83.6	84.8
females	6.5	82.6	83.6	84.3	85.6	86.9	88.0	89.1
Life expectancy at 65								
males	5.1	16.9	17.6	18.1	19.2	20.1	21.1	22.0
females	5.0	20.2	21.0	21.5	22.5	23.4	24.3	25.2
Net migration (thousand)	-897.3	1646.9	1322.1	1166.8	1040.7	905.9	825.1	749.5
Net migration as % of population	-0.2	0.4	0.3	0.3	0.2	0.2	0.2	0.2
Population (million)	28.3	392.2	405.1	411.9	420.9	425.2	424.9	420.5
Children population (0-14) as % of total population	-1.3	15.8	15.6	15.5	14.9	14.4	14.5	14.5
Prime age population (25-54) as % of total population	-8.1	42.8	41.6	40.0	36.9	35.8	34.9	34.7
Working age population (15-64) as % of total population	-9.9	66.5	65.1	64.1	61.3	58.5	57.2	56.5
Elderly population (65 and over) as % of total population	11.3	17.7	19.2	20.4	23.9	27.1	28.4	29.0
Very elderly population (80 and over) as % of total population	7.2	4.7	5.5	6.0	7.2	8.9	11.3	12.0
Very elderly population (80 and over) as % of elderly population	14.5	26.8	28.6	29.5	30.3	33.0	39.7	41.3
Very elderly population (80 and over) as % of working age population	14.0	7.1	8.4	9.4	11.8	15.3	19.7	21.2
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	1.7	2.3	2.2	2.0	1.6	1.5	1.5	1.5
Employment (growth rate)	0.0	1.1	0.5	0.2	-0.1	-0.2	-0.2	-0.2
Labour input : hours worked (growth rate)	0.0	0.8	0.5	0.2	-0.1	-0.2	-0.2	-0.2
Labour productivity per hour (growth rate)	1.7	1.5	1.7	1.9	1.7	1.7	1.7	1.7
TFP (growth rate)	1.1	0.9	1.1	1.2	1.1	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	1.6	1.6	1.8	1.7	1.5	1.4	1.5	1.7
GDP per worker (growth rate)	1.7	1.2	1.7	1.9	1.7	1.7	1.7	1.7
GDP in 2007 prices (in millions euros)		11435.1	13602.6	15085.5	17895.1	20750.4	24015.0	27836.2
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	-21655	259372	263805	263815	257876	248644	242860	237717
Population growth (working age:15-64)	-0.6	0.5	0.0	0.0	-0.4	-0.3	-0.2	-0.1
Labour force 15-64 (thousands)	-7790	187228	195686	196601	192879	187867	183509	179438
Participation rate (15-64)	3.7	71.8	74.2	74.6	75.1	75.7	75.7	75.6
young (15-24)	0.4	48.7	50.3	48.8	48.8	49.7	49.5	49.1
prime-age (25-54)	2.3	84.6	86.0	86.9	86.9	86.9	86.9	86.9
older (55-64)	16.4	48.6	55.8	58.8	63.9	65.2	65.6	65.0
Participation rate (15-64) - FEMALES	6.3	64.5	68.1	68.9	70.1	71.0	71.0	70.8
young (15-24)	0.2	45.3	46.8	45.3	45.3	46.2	45.9	45.5
prime-age (25-54)	4.9	76.7	79.6	80.9	81.5	81.6	81.5	81.6
older (55-64)	21.3	39.8	49.1	52.8	58.7	61.2	61.7	61.1
Participation rate (15-64) - MALES	1.0	79.1	80.2	80.1	80.1	80.3	80.3	80.1
young (15-24)	0.5	51.9	53.7	52.1	52.1	53.0	52.8	52.4
prime-age (25-54)	-0.4	92.5	92.4	92.8	92.2	92.1	92.1	92.1
older (55-64)	11.1	57.8	62.8	65.0	69.2	69.1	69.4	68.9
Employment rate (15-64)	4.5	66.7	69.5	70.3	70.8	71.4	71.4	71.2
Employment rate (20-64)	4.5	71.3	73.5	74.4	74.9	75.7	75.7	75.8
Employment rate (15-71)	3.4	61.2	63.4	64.0	63.6	64.3	64.7	64.6
Unemployment rate (15-64)	-1.4	7.1	6.3	5.8	5.8	5.7	5.7	5.7
Employment (15-64) (in millions)	-4.8	174.0	183.4	185.3	181.8	177.1	173.0	169.2
share of young (15-24)	0%	11%	11%	10%	11%	11%	11%	11%
share of prime-age (25-54)	-5%	77%	75%	73%	70%	71%	71%	71%
share of older (55-64)	6%	12%	15%	17%	19%	18%	19%	18%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	2.7	17.7	19.1	20.8	22.2	21.0	21.2	20.4
Old-age dependency ratio (2)	25	27	30	32	39	46	50	51
Total dependency ratio (3)	26	50	54	56	63	71	75	77
Total economic dependency ratio (4)	22	122	119	120	128	136	142	144
Economic old-age dependency ratio (15-64) (5)	30	38	41	43	52	61	66	68
Pension expenditure projections								
BASELINE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	2.4	10.2	10.4	10.7	11.6	12.3	12.4	12.6
Old-age and early pensions, gross	2.5	9.3	9.5	9.8	10.6	11.4	11.6	11.7
Of which : earnings-related pensions, gross	:	:	:	:	:	:	:	:
Other pensions (disability, survivors), gross	:	:	:	:	:	:	:	:
Occupational pensions, gross	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	:	:	:	:	:	:	:	:

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EC-EPC (AWG) 2009 PROJECTIONS

Social security pensions, net	:	:	:	:	:	:	:	:
Social security pensions, contributions	:	:	:	:	:	:	:	:
Social security pensions, assets	:	:	:	:	:	:	:	:
ADDITIONAL INDICATORS	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	:	:	:	:	:	:	:	:
Pensioners (social security, in 1000 persons)	44742	89731	97321	102678	117480	129350	132692	134474
Pensioners aged 65+ (1000 pers)	:	:	:	:	:	:	:	:
Share of pensioners below age 65 as % of all pensioners	:	:	:	:	:	:	:	:
Average gross pension (social security - € 1000 in 2007 prices)	13.3	13.0	14.5	15.6	17.6	19.7	22.6	26.3
Benefit ratio (Social security pensions)	-9.5	51.7	51.7	51.0	47.8	45.0	43.3	42.3
Gross replacement rate at retirement (social security pensions)	:	:	:	:	:	:	:	:
Contributors (social security pensions, in 1000 persons)	-4112	139518	149334	151701	149892	144971	139246	135405
Support ratio (contributors/100 pensioners, social security pensions)	-63.9	184	182	174	150	132	123	120
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.3	0.0	0.0	0.0	0.1	0.1	0.2	0.3
Old-age and early pensions, gross	0.3	0.0	0.0	0.0	0.1	0.1	0.2	0.3
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.5	0.0	0.0	-0.1	-0.3	-0.4	-0.5	-0.5
Old-age and early pensions, gross	-0.5	0.0	0.0	-0.1	-0.2	-0.3	-0.4	-0.5
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	1.8	0.0	0.3	0.5	1.0	1.6	1.9	1.8
Old-age and early pensions, gross	1.7	0.0	0.3	0.5	1.0	1.5	1.9	1.7
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	-0.1	-0.2	-0.2	-0.2	-0.2	-0.1
Old-age and early pensions, gross	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
HIGH OLDER WORKERS EMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.2	0.0	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2
Old-age and early pensions, gross	-0.1	0.0	-0.1	-0.2	-0.2	-0.2	-0.1	-0.1
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	Ch 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	2.7	11.1	11.2	11.5	12.6	13.5	13.9	13.8
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		0.0	0.2	0.5	1.5	2.5	2.8	2.8
Dependency ratio	8.9	0.1	1.2	2.2	4.9	7.5	8.7	9.0
Coverage ratio	-1.9	0.0	-0.5	-0.7	-1.3	-1.8	-2.0	-2.0
Employment effect	-0.6	0.0	-0.4	-0.6	-0.6	-0.7	-0.7	-0.7
Benefit ratio	-2.9	0.0	0.0	-0.2	-1.0	-1.8	-2.5	-2.9
Interaction effect (residual)	-0.7	0.0	-0.1	-0.2	-0.5	-0.6	-0.7	-0.7
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	2.8	0.19	0.29	0.59	0.40	0.10	-0.09	
Dependency ratio	9.0	1.24	0.99	1.51	1.07	0.50	0.06	
Coverage ratio	-2.0	-0.48	-0.26	-0.32	-0.21	-0.08	0.03	
Employment effect	-0.7	-0.44	-0.14	-0.05	-0.04	0.01	0.01	
Benefit ratio	-2.9	-0.01	-0.20	-0.41	-0.39	-0.31	-0.19	
Interaction effect (residual)	-0.66	-0.11	-0.09	-0.16	-0.03	-0.02	0.01	
Health care								
HEALTH CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.6	6.9	7.2	7.3	7.7	8.1	8.4	8.5
Pure ageing scenario	1.8	6.9	7.1	7.3	7.7	8.2	8.5	8.7
Labour intensity scenario	2.5	6.9	7.0	7.2	7.9	8.6	9.1	9.4
Constant health scenario	0.8	6.9	7.0	7.0	7.2	7.5	7.7	7.6
Fast cost growth scenario	2.4	6.9	7.6	7.8	8.2	8.8	9.1	9.3
Cost convergence scenario	:	:	:	:	:	:	:	:
Death-related cost scenario	1.3	6.9	7.0	7.1	7.5	7.9	8.1	8.2
Income elasticity scenario	2.1	6.9	7.2	7.4	7.9	8.5	8.8	9.0
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.2	1.3	1.4	1.5	1.8	2.1	2.4	2.5
Pure demographic scenario	1.3	1.3	1.4	1.5	1.8	2.1	2.5	2.6
GDP per capita scenario	1.1	1.3	1.4	1.5	1.7	2.0	2.3	2.4
Constant disability scenario	1.1	1.3	1.4	1.5	1.7	2.0	2.3	2.4
GDP per worker fast growth scenario	1.6	1.3	1.6	1.7	2.0	2.4	2.7	2.9
Shift 1% of dependents from informal to home care scenario	1.5	1.3	1.5	1.6	1.9	2.3	2.6	2.8
Shift 1% of dependents from informal to institutional care scenario	2.0	1.3	1.7	1.9	2.2	2.7	3.1	3.3
Shift 1% of dependents from informal to home/institutional care scenario	1.8	1.3	1.6	1.7	2.1	2.5	2.9	3.0

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EC-EPC (AWG) 2009 PROJECTIONS

NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)	% Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	102%	15804	18249	19715	23331	27638	30988	31889
of which: receiving formal care	150%	7519	9581	10440	12746	15540	17922	18774
relying on informal or no care	58%	8285	8668	9274	10585	12098	13067	13116
Pure demographic scenario	115%	15804	18458	20095	24122	28973	32788	33985
of which: receiving formal care	163%	7519	9680	10620	13136	16192	18817	19809
relying on informal or no care	71%	8285	8777	9475	10987	12780	13971	14176
Constant disability scenario	89%	15804	18041	19334	22539	26303	29189	29793
of which: receiving formal care	136%	7519	9481	10261	12355	14887	17026	17738
relying on informal or no care	46%	8285	8560	9073	10183	11416	12163	12055
Shift 1% of dependents from informal to home scenario	115%	15804	18458	20095	24122	28973	32788	33985
of which: receiving formal care	227%	7519	11640	13280	16350	20122	23378	24607
relying on informal or no care	13%	8285	6818	6815	7773	8851	9410	9378
Education								
EDUCATION SPENDING AS % OF GDP - BASELINE	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Total	-0.14	4.3	4.0	4.0	4.0	4.0	4.1	4.1
Expenditure decomposition (broadly constant) : Transfers (7%) - Staff (66%) - Other (27%)								
Primary	0.04	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Expenditure decomposition (broadly constant) : Transfers (1%) - Staff (71%) - Other (27%)								
Low secondary	:	:	:	:	:	:	:	:
Expenditure decomposition (broadly constant) : Transfers (-%) - Staff (-%) - Other (-%)								
Upper secondary	:	:	:	:	:	:	:	:
Expenditure decomposition (broadly constant) : Transfers (-%) - Staff (-%) - Other (-%)								
Tertiary education	:	:	:	:	:	:	:	:
Expenditure decomposition (broadly constant) : Transfers (-%) - Staff (-%) - Other (-%)								
Number of students (in thousands)								
Total	-2678	71569	70588	71193	71108	69517	69031	68891
as % of population 5-24	:	:	:	:	:	:	:	:
Primary	443	22525	23679	24007	23492	22890	23174	22969
Low secondary	-880	17682	17339	17698	17603	17012	16816	16802
Upper secondary	-1187	17744	16514	16692	16973	16747	16459	16557
Tertiary education	-1054	13618	13055	12795	13040	12868	12582	12564
Number of teachers (in thousands)								
Total	-264	4998	4872	4925	4899	4780	4748	4734
Primary	-17	1542	1599	1614	1565	1529	1545	1525
Low secondary	-76	1291	1254	1285	1271	1227	1216	1214
Upper secondary	-83	1384	1281	1306	1335	1308	1289	1301
Tertiary education	:	:	:	:	:	:	:	:
EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)								
Ch 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.09	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/ STUDENTS (DIFF. FROM BASELINE)								
Ch 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.49	0.1	0.3	0.5	0.6	0.6	0.6	0.6
EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)								
Ch 07-60	2007	2015	2020	2030	2040	2050	2060	
Total	0.14	0.1	0.3	0.3	0.3	0.3	0.3	0.3
Unemployment benefit								
UNEMPLOYMENT BENEFIT - BASELINE								
Ch 07-60	2007	2015	2020	2030	2040	2050	2060	
Unemployment benefit spending as % of GDP	-0.2	0.8	0.7	0.7	0.7	0.6	0.6	0.6

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

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EC-EPC (AWG) 2009 PROJECTIONS

Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.2	1.36	1.38	1.40	1.44	1.47	1.51	1.54
Life expectancy at birth								
males	11.2	71.2	72.9	74.1	76.4	78.5	80.5	82.3
females	8.6	79.0	80.3	81.2	83.0	84.6	86.2	87.6
Life expectancy at 65								
males	6.5	14.2	15.1	15.8	17.0	18.3	19.5	20.7
females	6.2	17.8	18.7	19.4	20.6	21.8	23.0	24.0
Net migration (thousand)	16.9	37.1	82.7	86.0	52.4	99.6	99.3	54.0
Net migration as % of population	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
Population (million)	-18.0	103.2	102.6	102.0	99.1	94.9	90.4	85.2
Children population (0-14) as % of total population	-3.2	15.1	14.7	14.8	13.1	11.9	12.1	11.8
Prime age population (25-54) as % of total population	-10.8	43.9	43.9	43.9	40.9	36.7	33.6	33.1
Working age population (15-64) as % of total population	-16.8	70.3	69.1	66.8	64.7	62.4	57.0	53.5
Elderly population (65 and over) as % of total population	20.1	14.6	16.2	18.5	22.2	25.8	30.9	34.7
Very elderly population (80 and over) as % of total population	9.8	3.1	4.0	4.4	5.7	8.5	9.7	12.9
Very elderly population (80 and over) as % of elderly population	15.9	21.3	24.4	23.5	25.6	33.0	31.4	37.2
Very elderly population (80 and over) as % of working age population	19.7	4.4	5.7	6.5	8.8	13.6	17.0	24.1
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	1.8	5.7	3.3	2.6	1.8	0.8	0.4	0.7
Employment (growth rate)	-0.7	1.5	-0.1	-0.5	-0.7	-1.1	-1.3	-1.0
Labour input : hours worked (growth rate)	-0.7	1.7	-0.1	-0.5	-0.7	-1.2	-1.3	-1.0
Labour productivity per hour (growth rate)	2.5	3.8	3.4	3.1	2.5	2.0	1.7	1.7
TFP (growth rate)	1.4	2.1	1.7	1.7	1.6	1.3	1.1	1.1
Capital deepening (contribution to labour productivity growth)	1.0	1.7	1.7	1.4	0.9	0.7	0.6	0.6
GDP per capita (growth rate)	2.2	6.1	3.3	2.8	2.2	1.3	0.9	1.4
GDP per worker (growth rate)	2.5	4.1	3.4	3.1	2.6	2.0	1.8	1.7
GDP in 2007 prices (in millions euros)		859.6	1196.6	1375.3	1691.6	1904.6	2014.4	2133.9
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	-26959	72534	70857	68072	64068	59204	51583	45576
Population growth (working age:15-64)	-1.0	0.2	-0.7	-0.8	-0.5	-1.2	-1.5	-0.9
Labour force 15-64 (thousands)	-16595	47160	47734	46336	43350	39166	34214	30565
Participation rate (15-64)	2.6	65.0	67.9	68.6	68.0	67.0	67.3	67.6
young (15-24)	-0.9	33.4	36.4	33.6	32.3	34.4	33.5	32.5
prime-age (25-54)	0.3	82.7	83.0	83.2	83.4	82.9	82.9	82.9
older (55-64)	12.3	38.5	44.5	45.8	49.8	50.5	51.2	50.8
Participation rate (15-64) - FEMALES	4.3	58.3	61.8	63.0	62.8	61.7	62.1	62.6
young (15-24)	-0.8	28.8	31.6	29.0	27.8	29.7	28.9	28.0
prime-age (25-54)	2.1	76.6	77.7	78.2	79.1	78.5	78.5	78.7
older (55-64)	14.9	28.7	36.6	38.1	41.8	43.0	43.9	43.7
Participation rate (15-64) - MALES	0.7	71.7	73.9	74.3	73.1	72.2	72.5	72.4
young (15-24)	-1.0	37.8	41.1	37.9	36.6	38.9	37.9	36.8
prime-age (25-54)	-1.7	88.7	88.3	88.1	87.5	87.1	87.1	87.1
older (55-64)	8.3	49.7	53.5	54.3	58.5	58.2	58.8	58.0
Employment rate (15-64)	4.0	59.9	64.0	64.9	64.2	63.3	63.6	63.9
Employment rate (20-64)	2.6	65.8	68.0	68.7	68.9	66.9	67.0	68.4
Employment rate (15-71)	1.0	56.1	59.1	59.2	59.1	57.5	56.4	57.2
Unemployment rate (15-64)	-2.4	7.9	5.7	5.5	5.5	5.5	5.5	5.5
Employment (15-64) (in millions)	-14.6	43.5	45.0	43.8	41.0	37.0	32.3	28.9
share of young (15-24)	-2%	9%	8%	7%	7%	7%	7%	7%
share of prime-age (25-54)	-4%	80%	79%	80%	77%	73%	73%	76%
share of older (55-64)	6%	10%	13%	13%	16%	20%	20%	17%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	4.7	17.0	19.9	19.3	20.6	25.4	25.9	21.7
Old-age dependency ratio (2)	44	21	23	28	34	41	54	65
Total dependency ratio (3)	45	42	45	50	55	60	75	87
Total economic dependency ratio (4)	56	133	126	130	138	151	173	188
Economic old-age dependency ratio (15-64) (5)	63	32	34	40	50	61	80	96
Pension expenditure projections								
BASELINE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	2.3	9.2	8.6	8.8	9.2	10.1	11.1	11.5
Old-age and early pensions, gross	2.5	7.7	7.3	7.5	7.9	8.7	9.7	10.2
Of which : earnings-related pensions, gross	:	:	:	:	:	:	:	:
Other pensions (disability, survivors), gross	-0.2	1.5	1.3	1.2	1.3	1.4	1.4	1.4
Occupational pensions, gross	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	:	:	:	:	:	:	:	:

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EC-EPC (AWG) 2009 PROJECTIONS

Social security pensions, net	:	:	:	:	:	:	:	:
Social security pensions, contributions	-0.6	7.1	6.5	6.5	6.3	6.4	6.4	6.5
Social security pensions, assets	:	:	:	:	:	:	:	:
ADDITIONAL INDICATORS	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	:	:	:	:	:	:	:	:
Pensioners (social security, in 1000 persons)	4769	27440	26343	26962	28568	30815	32670	32209
Pensioners aged 65+ (1000 pers)	:	:	:	:	:	:	:	:
Share of pensioners below age 65 as % of all pensioners	:	:	:	:	:	:	:	:
Average gross pension (social security - € 1000 in 2007 prices)	4.8	2.9	3.9	4.5	5.5	6.3	6.9	7.7
Benefit ratio (Social security pensions)	-11.7	43.8	44.3	43.2	40.2	37.3	34.2	32.1
Gross replacement rate at retirement (social security pensions)	:	:	:	:	:	:	:	:
Contributors (social security pensions, in 1000 persons)	-10554	40341	43019	42449	39971	37007	32978	29787
Support ratio (contributors/100 pensioners, social security pensions)	-54.5	147	163	157	140	120	101	92
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.3	0.0	0.0	0.0	0.1	0.1	0.2	0.3
Old-age and early pensions, gross	0.3	0.0	0.0	0.0	0.1	0.1	0.2	0.3
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.3	0.0	0.0	-0.1	-0.1	-0.2	-0.2	-0.3
Old-age and early pensions, gross	-0.2	0.0	0.0	-0.1	-0.1	-0.2	-0.2	-0.2
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.7	0.0	0.0	0.1	0.2	0.3	0.5	0.7
Old-age and early pensions, gross	0.6	0.0	0.0	0.1	0.2	0.3	0.5	0.6
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Old-age and early pensions, gross	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
HIGH OLDER WORKERS EMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.0	0.0	-0.1	-0.1	-0.1	-0.1	0.0	0.0
Old-age and early pensions, gross	0.1	0.0	-0.1	-0.1	-0.1	-0.1	0.0	0.1
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	Ch 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	2.1	9.4	8.6	8.8	9.2	10.1	11.1	11.5
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		0.2	-0.6	-0.4	0.0	0.9	1.9	2.3
Dependency ratio	11.7	0.0	1.3	2.8	4.8	6.6	9.6	11.7
Coverage ratio	-4.5	-0.2	-1.2	-2.1	-2.9	-3.2	-3.9	-4.7
Employment effect	-0.4	-0.1	-0.5	-0.6	-0.6	-0.4	-0.4	-0.5
Benefit ratio	-3.5	0.5	0.1	-0.1	-0.7	-1.4	-2.3	-3.0
Interaction effect (residual)	-1.2	0.0	-0.2	-0.4	-0.6	-0.8	-1.1	-1.2
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	2.3	-0.58	0.15	0.23	0.50	0.51	0.12	
Dependency ratio	11.7	1.26	1.54	0.69	1.07	1.47	0.73	
Coverage ratio	-4.7	-1.25	-0.83	-0.16	-0.18	-0.36	-0.29	
Employment effect	-0.5	-0.52	-0.11	0.09	0.09	-0.03	-0.05	
Benefit ratio	-3.0	0.12	-0.21	-0.37	-0.36	-0.44	-0.28	
Interaction effect (residual)	-1.21	-0.18	-0.25	-0.02	-0.11	-0.14	0.02	
Health care								
HEALTH CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.4	4.7	4.9	5.1	5.4	5.7	5.9	6.0
Pure ageing scenario	1.6	4.7	4.8	5.0	5.4	5.7	6.0	6.3
Labour intensity scenario	2.8	4.7	4.7	4.9	5.4	6.0	6.9	7.5
Constant health scenario	0.3	4.7	4.7	4.7	4.8	4.8	4.9	4.9
Fast cost growth scenario	2.0	4.7	5.2	5.4	5.7	6.1	6.5	6.7
Cost convergence scenario	4.3	4.7	5.0	5.4	6.1	6.9	7.9	9.0
Death-related cost scenario	1.4	4.7	4.7	4.9	5.2	5.6	5.8	6.0
Income elasticity scenario	2.0	4.7	5.0	5.2	5.7	6.1	6.4	6.7
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	0.5	0.3	0.3	0.4	0.4	0.5	0.6	0.8
Pure demographic scenario	0.5	0.3	0.3	0.4	0.4	0.5	0.7	0.8
GDP per capita scenario	0.4	0.3	0.3	0.4	0.4	0.5	0.6	0.7
Constant disability scenario	0.4	0.3	0.3	0.4	0.4	0.5	0.6	0.8
GDP per worker fast growth scenario	0.6	0.3	0.4	0.4	0.5	0.6	0.7	0.9
Shift 1% of dependents from informal to home care scenario	0.6	0.3	0.4	0.4	0.5	0.6	0.8	0.9
Shift 1% of dependents from informal to institutional care scenario	0.7	0.3	0.4	0.4	0.5	0.6	0.8	1.0
Shift 1% of dependents from informal to home/institutional care scenario	0.6	0.3	0.4	0.4	0.5	0.6	0.8	1.0

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EC-EPC (AWG) 2009 PROJECTIONS

NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)	% CH 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	104%	4902	5467	6045	7135	8148	9191	10012
of which: receiving formal care	143%	915	1060	1174	1438	1729	1973	2226
relying on informal or no care	95%	3987	4407	4870	5697	6419	7218	7786
Pure demographic scenario	114%	4902	5503	6103	7285	8368	9523	10488
of which: receiving formal care	155%	915	1068	1188	1472	1780	2051	2336
relying on informal or no care	104%	3987	4435	4915	5813	6588	7473	8152
Constant disability scenario	95%	4902	5431	5987	6984	7928	8858	9537
of which: receiving formal care	131%	915	1051	1161	1404	1677	1896	2117
relying on informal or no care	86%	3987	4380	4826	5580	6251	6963	7421
Shift 1% of dependents from informal to home scenario	114%	4902	5503	6103	7285	8368	9523	10488
of which: receiving formal care	270%	915	1508	1798	2201	2616	3003	3385
relying on informal or no care	78%	3987	3995	4304	5085	5752	6520	7103
Education								
EDUCATION SPENDING AS % OF GDP - BASELINE	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Total	-0.71	3.9	3.1	3.1	3.1	2.9	3.0	3.2
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (5%) - Staff (61%) - Other (34%)</i>								
Primary	-0.06	1.2	1.1	1.1	1.0	0.9	1.0	1.1
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (3%) - Staff (68%) - Other (30%)</i>								
Low secondary	:	:	:	:	:	:	:	:
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (-%) - Staff (-%) - Other (-%)</i>								
Upper secondary	-0.24	1.0	0.7	0.7	0.8	0.7	0.7	0.8
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (6%) - Staff (62%) - Other (32%)</i>								
Tertiary education	-0.28	1.0	0.8	0.7	0.7	0.7	0.7	0.7
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (9%) - Staff (47%) - Other (44%)</i>								
Number of students (in thousands)								
Total	-8829	20134	16695	16075	15178	13047	11864	11305
as % of population 5-24	:	:	:	:	:	:	:	:
Primary	-1824	5273	4992	5148	4543	3755	3684	3448
Low secondary	-1929	4624	3685	3772	3650	2996	2767	2695
Upper secondary	-2722	5617	4164	3846	3958	3426	2952	2895
Tertiary education	-2354	4620	3854	3308	3026	2870	2460	2266
Number of teachers (in thousands)								
Total	-610	1416	1170	1142	1083	921	842	806
Primary	-143	406	380	393	349	286	280	263
Low secondary	-168	402	318	325	316	260	239	233
Upper secondary	-183	382	283	263	271	235	203	199
Tertiary education	-115	226	188	161	148	140	120	111
EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)								
Total	0.19	-0.1	0.0	0.0	0.1	0.1	0.1	0.1
EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/ STUDENTS (DIFF. FROM BASELINE)								
Total	0.37	0.1	0.3	0.4	0.4	0.4	0.4	0.4
EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)								
Total	0.15	0.3	0.4	0.4	0.4	0.4	0.4	0.4
Unemployment benefit								
UNEMPLOYMENT BENEFIT - BASELINE								
Unemployment benefit spending as % of GDP	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

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EC-EPC (AWG) 2009 PROJECTIONS

Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.1	1.53	1.55	1.56	1.58	1.60	1.63	1.65
Life expectancy at birth								
males	8.9	74.9	76.3	77.3	79.1	80.8	82.4	83.9
females	7.2	81.3	82.5	83.2	84.7	86.1	87.4	88.6
Life expectancy at 65								
males	5.6	15.9	16.7	17.2	18.4	19.5	20.5	21.5
females	5.4	19.4	20.2	20.7	21.8	22.9	23.9	24.8
Net migration (thousand)	-890.2	1690.9	1399.1	1246.2	1094.4	990.1	910.1	800.8
Net migration as % of population	-0.2	0.4	0.3	0.3	0.2	0.2	0.2	0.2
Population (million)	17.0	466.3	479.2	485.8	493.1	494.6	491.2	483.3
Children population (0-14) as % of total population	-1.6	15.7	15.5	15.4	14.6	14.1	14.2	14.1
Prime age population (25-54) as % of total population	-8.5	43.0	41.9	40.5	37.5	35.9	34.7	34.5
Working age population (15-64) as % of total population	-11.0	67.1	65.7	64.4	61.7	59.0	57.1	56.1
Elderly population (65 and over) as % of total population	12.6	17.2	18.8	20.2	23.7	26.9	28.7	29.7
Very elderly population (80 and over) as % of total population	7.6	4.5	5.3	5.8	7.0	8.9	11.1	12.1
Very elderly population (80 and over) as % of elderly population	14.5	26.2	28.1	28.7	29.6	33.2	38.6	40.7
Very elderly population (80 and over) as % of working age population	14.8	6.7	8.0	9.0	11.4	15.1	19.4	21.5
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	1.7	2.6	2.3	2.1	1.7	1.4	1.4	1.5
Employment (growth rate)	-0.1	1.2	0.4	0.1	-0.2	-0.3	-0.4	-0.3
Labour input : hours worked (growth rate)	-0.1	1.0	0.4	0.1	-0.2	-0.4	-0.4	-0.3
Labour productivity per hour (growth rate)	1.8	1.6	1.9	2.0	1.8	1.7	1.7	1.7
TFP (growth rate)	1.1	1.0	1.2	1.2	1.2	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.7	0.7	0.7	0.8	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	1.6	2.0	2.0	1.8	1.6	1.4	1.5	1.7
GDP per worker (growth rate)	1.8	1.4	1.9	2.0	1.8	1.7	1.7	1.7
GDP in 2007 prices (in millions euros)		12144.5	14655.0	16291.6	19384.9	22343.7	25548.5	29295.8
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	-40264	311540	315071	313041	304220	291969	280708	271276
Population growth (working age:15-64)	-0.7	0.5	-0.1	-0.2	-0.4	-0.4	-0.4	-0.2
Labour force 15-64 (thousands)	-18950	221353	230478	230460	224890	217097	209168	202403
Participation rate (15-64)	4.0	70.7	73.2	73.8	74.2	74.6	74.8	74.8
young (15-24)	1.3	45.9	48.3	46.8	46.5	47.7	47.7	47.2
prime-age (25-54)	2.2	84.4	85.8	86.5	86.6	86.6	86.6	86.6
older (55-64)	16.7	46.7	53.8	56.8	62.0	62.8	63.6	63.4
Participation rate (15-64) - FEMALES	6.5	63.5	67.1	68.1	69.2	69.8	70.0	70.0
young (15-24)	1.3	42.4	44.6	43.2	42.9	44.1	44.1	43.6
prime-age (25-54)	4.6	76.8	79.5	80.7	81.3	81.4	81.3	81.4
older (55-64)	21.5	37.6	46.8	50.5	56.4	58.2	59.1	59.0
Participation rate (15-64) - MALES	1.4	77.9	79.3	79.3	79.2	79.3	79.5	79.4
young (15-24)	1.3	49.3	51.8	50.2	49.9	51.2	51.1	50.7
prime-age (25-54)	-0.3	92.0	91.9	92.2	91.7	91.6	91.7	91.7
older (55-64)	11.3	56.4	61.1	63.4	67.8	67.5	68.1	67.7
Employment rate (15-64)	4.9	65.6	68.7	69.5	70.0	70.4	70.5	70.5
Employment rate (20-64)	4.7	70.4	72.7	73.6	74.2	74.6	74.7	75.1
Employment rate (15-71)	3.4	60.4	62.7	63.3	63.0	63.4	63.6	63.7
Unemployment rate (15-64)	-1.6	7.3	6.2	5.7	5.7	5.7	5.7	5.7
Employment (15-64) (in millions)	-14.4	205.3	216.2	217.3	212.0	204.7	197.2	190.9
share of young (15-24)	0%	11%	10%	10%	10%	10%	10%	10%
share of prime-age (25-54)	-5%	77%	75%	74%	71%	71%	71%	72%
share of older (55-64)	6%	12%	15%	16%	18%	19%	19%	18%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	2.9	17.6	19.3	20.7	21.9	21.6	21.8	20.6
Old-age dependency ratio (2)	27	26	29	31	38	46	50	53
Total dependency ratio (3)	29	49	52	55	62	69	75	78
Total economic dependency ratio (4)	25	124	120	121	129	138	145	149
Economic old-age dependency ratio (15-64) (5)	34	37	40	43	52	61	67	71
Pension expenditure projections								
BASELINE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	2.3	10.2	10.3	10.5	11.4	12.1	12.3	12.5
Old-age and early pensions, gross	2.4	9.2	9.3	9.6	10.4	11.2	11.4	11.6
Of which : earnings-related pensions, gross	:	:	:	:	:	:	:	:
Other pensions (disability, survivors), gross	:	:	:	:	:	:	:	:
Occupational pensions, gross	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	:	:	:	:	:	:	:	:

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EC-EPC (AWG) 2009 PROJECTIONS

Social security pensions, net	:	:	:	:	:	:	:	:
Social security pensions, contributions	:	:	:	:	:	:	:	:
Social security pensions, assets	:	:	:	:	:	:	:	:
ADDITIONAL INDICATORS	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	:	:	:	:	:	:	:	:
Pensioners (social security, in 1000 persons)	48740	109227	116176	122209	138191	151512	156213	157968
Pensioners aged 65+ (1000 pers)	:	:	:	:	:	:	:	:
Share of pensioners below age 65 as % of all pensioners	:	:	:	:	:	:	:	:
Average gross pension (social security - € 1000 in 2007 prices)	12.2	11.3	12.9	13.9	15.8	17.8	20.3	23.5
Benefit ratio (Social security pensions)	-9.8	50.4	50.9	50.1	47.1	44.1	41.9	40.6
Gross replacement rate at retirement (social security pensions)	:	:	:	:	:	:	:	:
Contributors (social security pensions, in 1000 persons)	:	:	:	:	:	:	:	:
Support ratio (contributors/100 pensioners, social security pensions)	:	:	:	:	:	:	:	:
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.3	0.0	0.0	0.0	0.1	0.1	0.2	0.3
Old-age and early pensions, gross	0.3	0.0	0.0	0.0	0.1	0.1	0.2	0.3
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.4	0.0	0.0	-0.1	-0.2	-0.3	-0.4	-0.4
Old-age and early pensions, gross	-0.4	0.0	0.0	-0.1	-0.2	-0.3	-0.3	-0.4
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	1.8	0.0	0.3	0.5	0.9	1.5	1.8	1.8
Old-age and early pensions, gross	1.7	0.0	0.2	0.4	0.9	1.4	1.8	1.7
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Old-age and early pensions, gross	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
HIGH OLDER WORKERS EMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	-0.1	-0.2	-0.2	-0.1	-0.1	-0.1
Old-age and early pensions, gross	-0.1	0.0	-0.1	-0.2	-0.2	-0.1	-0.1	-0.1
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	Ch 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	2.3	10.2	10.3	10.5	11.4	12.1	12.3	12.5
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		0.0	0.1	0.3	1.2	1.9	2.1	2.3
Dependency ratio	8.4	0.1	1.3	2.3	4.6	6.6	7.8	8.5
Coverage ratio	-2.4	-0.1	-0.7	-1.0	-1.6	-2.0	-2.3	-2.4
Employment effect	-0.6	-0.1	-0.4	-0.5	-0.6	-0.6	-0.7	-0.7
Benefit ratio	-2.5	0.1	0.0	-0.2	-0.8	-1.5	-2.1	-2.5
Interaction effect (residual)	-0.6	0.0	-0.1	-0.2	-0.4	-0.6	-0.6	-0.6
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	2.3	0.10	0.25	0.48	0.31	0.08	0.06	
Dependency ratio	8.5	1.26	1.00	1.24	0.88	0.57	0.23	
Coverage ratio	-2.4	-0.65	-0.36	-0.27	-0.16	-0.15	-0.02	
Employment effect	-0.7	-0.40	-0.12	-0.03	-0.03	-0.01	-0.01	
Benefit ratio	-2.5	0.03	-0.19	-0.34	-0.35	-0.28	-0.14	
Interaction effect (residual)	-0.62	-0.13	-0.09	-0.12	-0.03	-0.03	0.01	
Health care								
HEALTH CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.7	6.8	7.0	7.1	7.5	7.9	8.3	8.4
Pure ageing scenario	1.9	6.8	7.0	7.1	7.5	8.0	8.4	8.6
Labour intensity scenario	2.6	6.8	6.9	7.0	7.7	8.4	9.0	9.4
Constant health scenario	0.8	6.8	6.8	6.9	7.0	7.3	7.5	7.6
Fast cost growth scenario	2.5	6.8	7.5	7.6	8.0	8.6	9.0	9.2
Cost convergence scenario	1.9	6.8	6.9	7.0	7.5	8.0	8.4	8.7
Death-related cost scenario	1.4	6.8	6.8	6.9	7.3	7.7	8.0	8.1
Income elasticity scenario	2.2	6.8	7.1	7.3	7.7	8.3	8.7	9.0
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.2	1.2	1.4	1.4	1.7	2.0	2.3	2.4
Pure demographic scenario	1.3	1.2	1.4	1.4	1.7	2.0	2.4	2.6
GDP per capita scenario	1.1	1.2	1.4	1.4	1.6	1.9	2.2	2.3
Constant disability scenario	1.1	1.2	1.3	1.4	1.6	1.9	2.2	2.3
GDP per worker fast growth scenario	1.6	1.2	1.5	1.6	1.9	2.2	2.6	2.8
Shift 1% of dependents from informal to home care scenario	1.5	1.2	1.4	1.5	1.8	2.2	2.5	2.7
Shift 1% of dependents from informal to institutional care scenario	2.0	1.2	1.6	1.8	2.1	2.5	3.0	3.2
Shift 1% of dependents from informal to home/institutional care scenario	1.7	1.2	1.5	1.6	1.9	2.3	2.7	3.0

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EC-EPC (AWG) 2009 PROJECTIONS

NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)	% CH 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	104%	18893	21775	23693	28164	33128	37162	38624
of which: receiving formal care	150%	8108	10282	11229	13735	16728	19264	20275
relying on informal or no care	70%	10785	11493	12464	14429	16400	17898	18348
Pure demographic scenario	117%	18893	22006	24110	29056	34610	39173	41029
of which: receiving formal care	164%	8108	10387	11417	14147	17415	20209	21382
relying on informal or no care	82%	10785	11619	12693	14908	17195	18964	19647
Constant disability scenario	92%	18893	21545	23275	27272	31646	35151	36219
of which: receiving formal care	136%	8108	10177	11041	13322	16041	18318	19169
relying on informal or no care	58%	10785	11367	12234	13951	15604	16832	17050
Shift 1% of dependents from informal to home scenario	117%	18893	22006	24110	29056	34610	39173	41029
of which: receiving formal care	232%	8108	12630	14479	17854	21908	25408	26885
relying on informal or no care	31%	10785	9376	9631	11201	12702	13765	14144
Education								
EDUCATION SPENDING AS % OF GDP - BASELINE	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Total	-0.18	4.3	4.0	4.0	4.0	4.0	4.0	4.1
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (7%) - Staff (66%) - Other (27%)</i>								
Primary	0.04	1.1	1.1	1.1	1.1	1.1	1.1	1.1
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (1%) - Staff (71%) - Other (28%)</i>								
Low secondary	:	:	:	:	:	:	:	:
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (-%) - Staff (-%) - Other (-%)</i>								
Upper secondary	:	:	:	:	:	:	:	:
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (-%) - Staff (-%) - Other (-%)</i>								
Tertiary education	:	:	:	:	:	:	:	:
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (-%) - Staff (-%) - Other (-%)</i>								
Number of students (in thousands)								
Total	-9255	86802	83132	83233	82623	79455	78037	77547
as % of population 5-24	:	:	:	:	:	:	:	:
Primary	-919	26591	27474	27966	27041	25790	26032	25672
Low secondary	-2324	21103	19949	20370	20259	19195	18812	18779
Upper secondary	-3187	21968	19696	19580	19982	19389	18712	18782
Tertiary education	-2826	17139	16012	15318	15341	15081	14482	14313
Number of teachers (in thousands)								
Total	-735	6105	5779	5810	5748	5504	5408	5370
Primary	-133	1876	1907	1936	1854	1764	1776	1743
Low secondary	-205	1595	1485	1521	1506	1421	1393	1390
Upper secondary	-219	1675	1500	1506	1544	1491	1446	1456
Tertiary education	:	:	:	:	:	:	:	:
EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)								
Total	CH 07-60	2007	2015	2020	2030	2040	2050	2060
	0.10	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/ STUDENTS (DIFF. FROM BASELINE)								
Total	CH 07-60	2007	2015	2020	2030	2040	2050	2060
	0.49	0.1	0.3	0.5	0.6	0.6	0.6	0.6
EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)								
Total	CH 07-60	2007	2015	2020	2030	2040	2050	2060
	0.14	0.2	0.3	0.3	0.3	0.3	0.3	0.3
Unemployment benefit								
UNEMPLOYMENT BENEFIT - BASELINE	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Unemployment benefit spending as % of GDP	-0.2	0.8	0.7	0.6	0.6	0.6	0.6	0.6

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

EURO-AREA (12 COUNTRIES)

EC-EPC (AWG) 2009 PROJECTIONS

Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.1	1.59	1.61	1.62	1.63	1.65	1.67	1.69
Life expectancy at birth								
males	7.6	77.2	78.3	79.2	80.7	82.2	83.5	84.8
females	6.4	82.8	83.8	84.5	85.8	87.0	88.1	89.2
Life expectancy at 65								
males	5.1	16.9	17.6	18.2	19.2	20.2	21.1	22.0
females	4.9	20.4	21.1	21.6	22.6	23.5	24.4	25.2
Net migration (thousand)	-788.2	1402.2	1105.9	966.1	860.8	744.3	676.4	614.0
Net migration as % of population	-0.3	0.4	0.3	0.3	0.3	0.2	0.2	0.2
Population (million)	10.8	316.3	326.2	330.7	335.6	336.8	333.8	327.1
Children population (0-14) as % of total population	-1.5	15.4	15.3	15.0	14.2	13.8	13.9	13.9
Prime age population (25-54) as % of total population	-9.0	43.3	41.8	40.0	36.7	35.2	34.4	34.2
Working age population (15-64) as % of total population	-10.5	66.5	65.2	64.2	61.2	58.0	56.3	56.0
Elderly population (65 and over) as % of total population	12.1	18.1	19.5	20.9	24.6	28.2	29.8	30.1
Very elderly population (80 and over) as % of total population	8.0	4.8	5.7	6.3	7.4	9.3	11.9	12.8
Very elderly population (80 and over) as % of elderly population	15.9	26.4	29.0	30.1	30.1	33.1	39.9	42.4
Very elderly population (80 and over) as % of working age population	15.6	7.2	8.7	9.8	12.1	16.1	21.1	22.8
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	1.6	2.2	2.2	2.0	1.5	1.3	1.4	1.5
Employment (growth rate)	-0.1	1.2	0.5	0.2	-0.2	-0.4	-0.4	-0.2
Labour input : hours worked (growth rate)	-0.1	0.9	0.5	0.2	-0.2	-0.4	-0.4	-0.2
Labour productivity per hour (growth rate)	1.7	1.3	1.7	1.9	1.8	1.7	1.7	1.7
TFP (growth rate)	1.1	0.7	1.1	1.2	1.1	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	0.6	0.5	0.6	0.7	0.6	0.6	0.6	0.6
GDP per capita (growth rate)	1.5	1.6	1.8	1.8	1.5	1.3	1.5	1.7
GDP per worker (growth rate)	1.7	1.0	1.7	1.9	1.8	1.7	1.7	1.7
GDP in 2007 prices (in millions euros)		8856.7	10479.9	11622.5	13696.0	15658.7	17840.2	20515.1
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	-26345	209382	212660	212131	205382	195216	188026	183037
Population growth (working age:15-64)	-0.6	0.4	0.0	-0.1	-0.6	-0.4	-0.3	-0.2
Labour force 15-64 (thousands)	-12956	149067	155939	156328	151875	145638	140108	136112
Participation rate (15-64)	3.6	70.9	73.3	73.8	74.4	74.9	74.7	74.5
young (15-24)	-0.4	45.4	46.2	45.0	45.1	45.7	45.2	44.9
prime-age (25-54)	2.5	84.5	86.2	87.1	87.1	87.0	87.0	87.1
older (55-64)	17.7	45.5	54.2	57.7	63.0	64.2	63.8	63.2
Participation rate (15-64) - FEMALES	6.3	63.2	67.0	67.9	69.0	69.9	69.7	69.5
young (15-24)	-0.7	41.8	42.4	41.3	41.2	41.9	41.4	41.0
prime-age (25-54)	5.2	76.2	79.5	80.9	81.5	81.4	81.4	81.5
older (55-64)	22.4	36.6	47.1	51.2	57.1	59.8	59.5	58.9
Participation rate (15-64) - MALES	0.9	78.5	79.6	79.6	79.6	79.8	79.6	79.3
young (15-24)	-0.2	48.8	49.9	48.6	48.7	49.4	48.8	48.6
prime-age (25-54)	-0.3	92.7	92.7	93.1	92.5	92.4	92.4	92.4
older (55-64)	12.6	54.8	61.5	64.3	68.9	68.5	68.0	67.4
Employment rate (15-64)	4.6	65.5	68.6	69.5	70.0	70.5	70.4	70.1
Employment rate (20-64)	4.7	70.1	72.7	73.7	74.2	74.8	74.8	74.9
Employment rate (15-71)	3.3	59.9	62.5	63.1	62.5	63.1	63.2	63.2
Unemployment rate (15-64)	-1.7	7.5	6.5	5.9	5.9	5.9	5.9	5.9
Employment (15-64) (in millions)	-9.7	137.9	145.7	147.2	143.0	137.1	131.9	128.1
share of young (15-24)	0%	10%	10%	9%	10%	10%	10%	10%
share of prime-age (25-54)	-6%	78%	76%	74%	71%	71%	72%	72%
share of older (55-64)	7%	11%	15%	17%	20%	19%	18%	18%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	3.3	17.6	19.4	21.3	22.9	21.8	21.4	21.0
Old-age dependency ratio (2)	27	27	30	33	40	49	53	54
Total dependency ratio (3)	28	50	53	56	63	73	78	79
Total economic dependency ratio (4)	25	126	122	122	131	142	149	151
Economic old-age dependency ratio (15-64) (5)	33	40	42	45	54	65	71	73
Pension expenditure projections								
BASELINE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	2.7	11.1	11.3	11.6	12.6	13.6	13.9	13.8
Old-age and early pensions, gross	2.6	10.2	10.4	10.7	11.7	12.5	12.9	12.8
Of which : earnings-related pensions, gross	:	:	:	:	:	:	:	:
Other pensions (disability, survivors), gross	:	:	:	:	:	:	:	:
Occupational pensions, gross	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	:	:	:	:	:	:	:	:

EURO-AREA (12 COUNTRIES)

EC-EPC (AWG) 2009 PROJECTIONS

Social security pensions, net	:	:	:	:	:	:	:	:
Social security pensions, contributions	:	:	:	:	:	:	:	:
Social security pensions, assets	:	:	:	:	:	:	:	:
ADDITIONAL INDICATORS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	:	:	:	:	:	:	:	:
Pensioners (social security, in 1000 persons)	35885	74091	80010	84781	97146	107037	110389	109975
Pensioners aged 65+ (1000 pers)	:	:	:	:	:	:	:	:
Share of pensioners below age 65 as % of all pensioners	:	:	:	:	:	:	:	:
Average gross pension (social security - € 1000 in 2007 prices)	12.5	13.3	14.8	15.8	17.7	19.8	22.5	25.8
Benefit ratio (Social security pensions)	-11.3	56.8	57.2	56.3	52.6	49.3	47.0	45.5
Gross replacement rate at retirement (social security pensions)	:	:	:	:	:	:	:	:
Contributors (social security pensions, in 1000 persons)	-3385	135702	145214	147487	145862	141216	135854	132317
Support ratio (contributors/100 pensioners, social security pensions)	-62.8	183	181	174	150	132	123	120
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.3	0.0	0.0	0.0	0.1	0.1	0.2	0.3
Old-age and early pensions, gross	0.3	0.0	0.0	0.0	0.1	0.1	0.2	0.3
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.5	0.0	0.0	-0.1	-0.3	-0.4	-0.5	-0.5
Old-age and early pensions, gross	-0.5	0.0	0.0	-0.1	-0.2	-0.4	-0.4	-0.5
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	1.8	0.0	0.3	0.5	1.0	1.6	1.9	1.8
Old-age and early pensions, gross	1.8	0.0	0.3	0.5	1.0	1.5	1.9	1.7
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	-0.1	-0.2	-0.2	-0.2	-0.2	-0.1
Old-age and early pensions, gross	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
HIGH OLDER WORKERS EMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.2	0.0	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2
Old-age and early pensions, gross	-0.1	0.0	-0.1	-0.2	-0.2	-0.2	-0.1	-0.1
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	2.7	11.1	11.3	11.6	12.6	13.6	13.9	13.8
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		0.0	0.2	0.5	1.6	2.5	2.8	2.7
Dependency ratio	8.8	0.1	1.2	2.2	4.8	7.4	8.6	8.8
Coverage ratio	-1.9	0.0	-0.5	-0.7	-1.2	-1.8	-2.0	-1.9
Employment effect	-0.6	0.0	-0.4	-0.6	-0.6	-0.7	-0.7	-0.7
Benefit ratio	-2.9	0.0	0.0	-0.2	-1.0	-1.8	-2.4	-2.9
Interaction effect (residual)	-0.7	0.0	-0.1	-0.2	-0.5	-0.6	-0.7	-0.7
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	2.7	0.20	0.30	0.59	0.40	0.08	-0.10	
Dependency ratio	8.8	1.23	0.96	1.52	1.07	0.47	0.04	
Coverage ratio	-1.9	-0.47	-0.24	-0.32	-0.21	-0.08	0.04	
Employment effect	-0.7	-0.44	-0.14	-0.05	-0.05	0.01	0.01	
Benefit ratio	-2.9	-0.01	-0.20	-0.41	-0.39	-0.30	-0.19	
Interaction effect (residual)	-0.66	-0.11	-0.09	-0.16	-0.03	-0.01	0.01	
Health care								
HEALTH CARE SPENDING AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.4	6.7	7.0	7.2	7.5	7.9	8.1	8.2
Pure ageing scenario	1.6	6.7	7.0	7.2	7.5	8.0	8.3	8.3
Labour intensity scenario	2.3	6.7	6.9	7.0	7.6	8.4	8.9	9.1
Constant health scenario	0.7	6.7	6.8	6.9	7.1	7.3	7.5	7.4
Fast cost growth scenario	2.2	6.7	7.5	7.7	8.1	8.5	8.8	8.9
Cost convergence scenario	1.5	6.7	6.9	7.0	7.4	7.8	8.1	8.2
Death-related cost scenario	1.3	6.7	6.8	7.0	7.3	7.7	8.0	8.0
Income elasticity scenario	1.9	6.7	7.1	7.3	7.8	8.3	8.6	8.7
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.4	1.3	1.5	1.5	1.8	2.2	2.5	2.7
Pure demographic scenario	1.5	1.3	1.5	1.6	1.8	2.3	2.6	2.8
GDP per capita scenario	1.2	1.3	1.5	1.6	1.8	2.1	2.4	2.6
Constant disability scenario	1.3	1.3	1.5	1.5	1.8	2.1	2.4	2.6
GDP per worker fast growth scenario	1.8	1.3	1.6	1.7	2.0	2.5	2.9	3.1
Shift 1% of dependents from informal to home care scenario	1.7	1.3	1.5	1.7	2.0	2.4	2.8	3.0
Shift 1% of dependents from informal to institutional care scenario	2.3	1.3	1.8	2.0	2.3	2.9	3.4	3.6
Shift 1% of dependents from informal to home/institutional care scenario	2.0	1.3	1.7	1.8	2.1	2.6	3.1	3.3

EURO-AREA (12 COUNTRIES)

EC-EPC (AWG) 2009 PROJECTIONS

NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)	% CH 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	103%	12235	14246	15421	18170	21670	24459	24807
of which: receiving formal care	156%	5677	7528	8226	9986	12203	14070	14554
relying on informal or no care	56%	6558	6719	7195	8183	9468	10389	10253
Pure demographic scenario	117%	12235	14417	15732	18821	22776	25959	26519
of which: receiving formal care	171%	5677	7610	8373	10309	12746	14815	15405
relying on informal or no care	69%	6558	6807	7359	8512	10030	11144	11114
Constant disability scenario	89%	12235	14076	15109	17518	20565	22958	23095
of which: receiving formal care	141%	5677	7446	8078	9664	11660	13324	13704
relying on informal or no care	43%	6558	6630	7032	7854	8905	9634	9391
Shift 1% of dependents from informal to home scenario	117%	12235	14417	15732	18821	22776	25959	26519
of which: receiving formal care	243%	5677	9246	10597	12992	16055	18693	19456
relying on informal or no care	8%	6558	5171	5135	5829	6721	7267	7062
Education								
EDUCATION SPENDING AS % OF GDP - BASELINE	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Total	-0.15	4.2	4.0	3.9	3.9	3.9	4.0	4.1
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (6%) - Staff (69%) - Other (25%)</i>								
Primary	0.02	1.0	1.0	1.0	1.0	1.0	1.0	1.0
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (1%) - Staff (74%) - Other (24%)</i>								
Low secondary	:	:	:	:	:	:	:	:
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (-%) - Staff (-%) - Other (-%)</i>								
Upper secondary	:	:	:	:	:	:	:	:
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (-%) - Staff (-%) - Other (-%)</i>								
Tertiary education	:	:	:	:	:	:	:	:
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (-%) - Staff (-%) - Other (-%)</i>								
Number of students (in thousands)								
Total	-4643	55669	54954	55151	54071	52233	51667	51026
as % of population 5-24	:	:	:	:	:	:	:	:
Primary	-641	17044	17853	17980	17113	16660	16797	16404
Low secondary	-1165	14789	14721	14813	14547	13918	13761	13624
Upper secondary	-1465	13272	12416	12590	12501	12067	11859	11808
Tertiary education	-1372	10563	9964	9768	9911	9587	9250	9191
Number of teachers (in thousands)								
Total	-365	3991	3895	3926	3841	3700	3670	3626
Primary	-73	1202	1243	1247	1179	1150	1160	1130
Low secondary	-90	1062	1045	1060	1038	988	980	972
Upper secondary	-102	1082	1007	1032	1033	991	979	980
Tertiary education	:	:	:	:	:	:	:	:
EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)								
Total	CH 07-60	2007	2015	2020	2030	2040	2050	2060
	0.08	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/ STUDENTS (DIFF. FROM BASELINE)								
Total	CH 07-60	2007	2015	2020	2030	2040	2050	2060
	0.45	0.0	0.2	0.4	0.4	0.4	0.4	0.4
EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)								
Total	CH 07-60	2007	2015	2020	2030	2040	2050	2060
	0.13	0.1	0.3	0.3	0.3	0.3	0.3	0.3
Unemployment benefit								
UNEMPLOYMENT BENEFIT - BASELINE	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Unemployment benefit spending as % of GDP	-0.2	1.0	0.8	0.7	0.7	0.7	0.7	0.7

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

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EC-EPC (AWG) 2009 PROJECTIONS

Main demographic and macroeconomic assumptions								
DEMOGRAPHIC PROJECTIONS - EUROPOP2008 (EUROSTAT)	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Fertility rate	0.2	1.36	1.39	1.40	1.44	1.47	1.51	1.54
Life expectancy at birth								
males	11.0	71.5	73.2	74.3	76.6	78.7	80.7	82.5
females	8.3	79.4	80.7	81.6	83.3	84.9	86.4	87.8
Life expectancy at 65								
males	6.4	14.4	15.3	15.9	17.2	18.4	19.6	20.8
females	6.1	18.2	19.0	19.7	20.9	22.0	23.2	24.2
Net migration (thousand)	7.2	44.1	77.0	79.4	53.7	84.2	85.0	51.2
Net migration as % of population	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Population (million)	-11.3	74.1	74.1	74.0	72.3	69.4	66.4	62.8
Children population (0-14) as % of total population	-3.3	15.2	14.7	14.8	13.3	11.9	12.1	11.9
Prime age population (25-54) as % of total population	-10.8	43.9	43.6	43.5	40.9	36.7	33.7	33.1
Working age population (15-64) as % of total population	-17.1	70.6	69.2	66.6	64.1	62.4	57.0	53.5
Elderly population (65 and over) as % of total population	20.4	14.2	16.1	18.6	22.6	25.8	30.9	34.6
Very elderly population (80 and over) as % of total population	9.7	3.2	4.0	4.4	5.8	8.8	9.8	12.9
Very elderly population (80 and over) as % of elderly population	14.9	22.2	24.8	23.5	25.8	34.3	31.7	37.2
Very elderly population (80 and over) as % of working age population	19.6	4.5	5.8	6.6	9.1	14.2	17.1	24.1
MACROECONOMIC ASSUMPTIONS*	AVG 07-60	2007	2015	2020	2030	2040	2050	2060
Potential GDP (growth rate)	1.8	5.5	3.2	2.6	1.9	0.7	0.5	0.8
Employment (growth rate)	-0.6	1.9	-0.1	-0.5	-0.6	-1.0	-1.3	-0.9
Labour input : hours worked (growth rate)	-0.6	1.9	-0.1	-0.5	-0.6	-1.0	-1.2	-0.9
Labour productivity per hour (growth rate)	2.4	3.6	3.2	3.0	2.5	1.8	1.7	1.7
TFP (growth rate)	1.4	2.1	1.7	1.7	1.6	1.1	1.1	1.1
Capital deepening (contribution to labour productivity growth)	1.0	1.4	1.6	1.3	0.9	0.6	0.6	0.6
GDP per capita (growth rate)	2.1	5.7	3.2	2.7	2.2	1.2	0.9	1.4
GDP per worker (growth rate)	2.4	3.6	3.3	3.1	2.5	1.8	1.7	1.7
GDP in 2007 prices (in millions euros)		709.4	978.5	1121.6	1384.0	1544.4	1633.3	1734.8
LABOUR FORCE ASSUMPTIONS	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Working age population (15-64) (in thousands)	-18609	52169	51266	49226	46344	43325	37848	33559
Population growth (working age:15-64)	-1.2	0.3	-0.7	-0.9	-0.5	-1.1	-1.5	-0.9
Labour force 15-64 (thousands)	-11160	34125	34792	33860	32011	29230	25659	22965
Participation rate (15-64)	3.7	65.2	68.4	69.4	69.4	68.3	68.8	69.0
young (15-24)	-1.2	34.0	37.3	34.5	32.6	34.9	34.1	32.8
prime-age (25-54)	1.0	83.4	84.3	84.6	84.9	84.4	84.5	84.4
older (55-64)	15.5	36.9	43.6	44.7	51.0	51.9	52.9	52.4
Participation rate (15-64) - FEMALES	5.5	58.5	62.3	63.7	64.2	62.9	63.4	64.0
young (15-24)	-1.0	29.6	32.6	30.2	28.4	30.5	29.8	28.6
prime-age (25-54)	2.8	77.3	78.8	79.5	80.6	80.0	79.9	80.1
older (55-64)	18.6	26.6	35.9	37.2	42.9	44.3	45.5	45.1
Participation rate (15-64) - MALES	1.8	72.1	74.5	75.1	74.5	73.6	74.1	73.9
young (15-24)	-1.4	38.3	41.7	38.6	36.6	39.2	38.3	36.9
prime-age (25-54)	-0.8	89.5	89.6	89.6	89.1	88.8	88.9	88.7
older (55-64)	10.9	48.8	52.2	53.1	59.7	59.8	60.6	59.7
Employment rate (15-64)	5.4	59.9	64.4	65.6	65.6	64.5	65.0	65.2
Employment rate (20-64)	3.9	66.0	68.5	69.5	70.5	68.4	68.6	69.9
Employment rate (15-71)	1.9	55.9	59.2	59.4	59.8	58.3	57.2	57.8
Unemployment rate (15-64)	-2.8	8.3	5.8	5.5	5.5	5.5	5.5	5.4
Employment (15-64) (in millions)	-9.6	31.3	32.8	32.0	30.3	27.6	24.3	21.7
share of young (15-24)	-2%	10%	8%	7%	7%	7%	7%	7%
share of prime-age (25-54)	-4%	80%	79%	80%	78%	73%	73%	76%
share of older (55-64)	7%	10%	13%	13%	15%	20%	20%	17%
DEPENDENCY RATIOS:	CH 08-60	2008	2015	2020	2030	2040	2050	2060
Share of older population (55-64) (1)	4.6	17.0	20.2	19.7	20.0	25.4	25.9	21.6
Old-age dependency ratio (2)	45	20	23	28	35	41	54	65
Total dependency ratio (3)	45	42	45	50	56	60	75	87
Total economic dependency ratio (4)	52	132	124	129	136	147	168	184
Economic old-age dependency ratio (15-64) (5)	63	32	35	40	51	61	79	95
Pension expenditure projections								
BASELINE SCENARIO AS % OF GDP	CH 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	1.0	9.7	8.6	8.8	9.0	9.6	10.4	10.7
Old-age and early pensions, gross	1.3	8.1	7.4	7.6	7.7	8.3	9.0	9.4
Of which : earnings-related pensions, gross	:	:	:	:	:	:	:	:
Other pensions (disability, survivors), gross	-0.3	1.6	1.3	1.2	1.2	1.3	1.3	1.3
Occupational pensions, gross	:	:	:	:	:	:	:	:
Private mandatory pensions, gross	:	:	:	:	:	:	:	:

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Social security pensions, net	:	:	:	:	:	:	:	:
Social security pensions, contributions	-0.9	7.2	6.6	6.5	6.3	6.3	6.3	6.3
Social security pensions, assets	:	:	:	:	:	:	:	:
ADDITIONAL INDICATORS	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, net/social sec. Pensions, gross, %	:	:	:	:	:	:	:	:
Pensioners (social security, in 1000 persons)	3998	19496	18855	19531	20711	22162	23522	23494
Pensioners aged 65+ (1000 pers)	:	:	:	:	:	:	:	:
Share of pensioners below age 65 as % of all pensioners	:	:	:	:	:	:	:	:
Average gross pension (social security - € 1000 in 2007 prices)	4.4	3.5	4.5	5.0	6.0	6.7	7.2	8.0
Benefit ratio (Social security pensions)	-15.6	46.6	45.7	44.1	40.4	37.2	33.6	31.0
Gross replacement rate at retirement (social security pensions)	:	:	:	:	:	:	:	:
Contributors (social security pensions, in 1000 persons)	-8709	31342	33556	32983	30884	28433	25168	22633
Support ratio (contributors/100 pensioners, social security pensions)	-64.4	161	178	169	149	128	107	96
HIGH LIFE EXPECTANCY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.2	0.0	0.0	0.0	0.1	0.1	0.2	0.2
Old-age and early pensions, gross	0.2	0.0	0.0	0.0	0.1	0.1	0.2	0.2
HIGH LABOUR PRODUCTIVITY AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.3	0.0	0.0	-0.1	-0.2	-0.2	-0.3	-0.3
Old-age and early pensions, gross	-0.3	0.0	0.0	-0.1	-0.1	-0.2	-0.2	-0.3
ZERO MIGRATION AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.6	0.0	0.1	0.1	0.2	0.4	0.6	0.6
Old-age and early pensions, gross	0.6	0.0	0.1	0.1	0.2	0.3	0.5	0.6
HIGH EMPLOYMENT RATE (1 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Old-age and early pensions, gross	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
HIGH OLDER WORKERS EMPL. RATE (5 P.P.) AS % OF GDP (DIFF. FROM BASELINE)	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Social security pensions, gross	0.1	0.0	-0.1	-0.1	-0.1	0.0	0.0	0.1
Old-age and early pensions, gross	0.1	0.0	-0.1	-0.1	0.0	0.0	0.0	0.1
DECOMPOSITION OF THE INCREASE (IN P.P.) IN PENSION EXPENDITURE (SOCIAL SECURITY) - SELECTED YEARS	Ch 08-60	2008	2015	2020	2030	2040	2050	2060
Social security pensions, gross as % of GDP	0.9	9.8	8.6	8.8	9.0	9.6	10.4	10.7
Social security pensions, gross as % of GDP - p.p. ch. from 2007 due to :		0.1	-1.0	-0.9	-0.7	-0.1	0.7	1.0
Dependency ratio	11.7	0.1	1.6	3.3	5.5	7.0	9.8	11.8
Coverage ratio	-4.6	-0.2	-1.5	-2.4	-3.3	-3.5	-4.3	-4.9
Employment effect	-0.6	-0.1	-0.6	-0.7	-0.8	-0.6	-0.6	-0.7
Benefit ratio	-4.3	0.4	-0.3	-0.6	-1.4	-2.1	-3.1	-3.9
Interaction effect (residual)	-1.3	0.0	-0.2	-0.5	-0.7	-0.8	-1.2	-1.3
OVER SELECTED TIME PERIODS	2007-2060	2007-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060	
Social security pensions, gross as % of GDP	1.0	-1.04	0.13	0.08	0.38	0.38	0.07	
Dependency ratio	11.8	1.58	1.72	0.77	0.93	1.43	0.77	
Coverage ratio	-4.9	-1.49	-0.87	-0.28	-0.15	-0.38	-0.29	
Employment effect	-0.7	-0.60	-0.14	0.04	0.10	-0.04	-0.06	
Benefit ratio	-3.9	-0.31	-0.30	-0.41	-0.40	-0.49	-0.35	
Interaction effect (residual)	-1.28	-0.23	-0.27	-0.04	-0.10	-0.15	-0.01	
Health care								
HEALTH CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	1.4	4.9	5.1	5.3	5.6	5.9	6.1	6.3
Pure ageing scenario	1.7	4.9	5.1	5.2	5.6	6.0	6.3	6.5
Labour intensity scenario	2.9	4.9	4.9	5.1	5.7	6.3	7.1	7.8
Constant health scenario	0.2	4.9	4.9	4.9	4.9	5.0	5.0	5.1
Fast cost growth scenario	2.1	4.9	5.4	5.6	6.0	6.4	6.7	7.0
Cost convergence scenario	4.1	4.9	5.2	5.6	6.3	7.1	7.9	9.0
Death-related cost scenario	1.4	4.9	4.9	5.1	5.5	5.8	6.1	6.3
Income elasticity scenario	2.1	4.9	5.2	5.5	5.9	6.4	6.7	7.0
Long-term care								
LONG-TERM CARE SPENDING AS % OF GDP	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	0.6	0.4	0.4	0.4	0.5	0.6	0.8	0.9
Pure demographic scenario	0.6	0.4	0.4	0.4	0.5	0.7	0.8	1.0
GDP per capita scenario	0.4	0.4	0.4	0.4	0.5	0.6	0.7	0.8
Constant disability scenario	0.5	0.4	0.4	0.4	0.5	0.6	0.8	0.9
GDP per worker fast growth scenario	0.7	0.4	0.4	0.5	0.6	0.7	0.9	1.1
Shift 1% of dependents from informal to home care scenario	0.8	0.4	0.4	0.5	0.6	0.8	0.9	1.1
Shift 1% of dependents from informal to institutional care scenario	0.8	0.4	0.4	0.5	0.6	0.8	0.9	1.1
Shift 1% of dependents from informal to home/institutional care scenario	0.8	0.4	0.4	0.5	0.6	0.8	0.9	1.1

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EC-EPC (AWG) 2009 PROJECTIONS

NUMBER OF DEPENDENT PEOPLE (IN THOUSANDS)	% Ch 07-60	2007	2015	2020	2030	2040	2050	2060
AWG reference scenario	118%	3089	3526	3978	4833	5490	6174	6734
of which: receiving formal care	155%	589	701	789	989	1188	1342	1502
relying on informal or no care	109%	2500	2825	3190	3844	4302	4832	5233
Pure demographic scenario	128%	3089	3548	4016	4933	5637	6385	7044
of which: receiving formal care	167%	589	706	798	1012	1223	1392	1573
relying on informal or no care	119%	2500	2842	3218	3922	4414	4994	5471
Constant disability scenario	108%	3089	3504	3941	4734	5343	5962	6426
of which: receiving formal care	143%	589	696	780	966	1154	1292	1431
relying on informal or no care	100%	2500	2808	3161	3767	4189	4670	4995
Shift 1% of dependents from informal to home scenario	128%	3089	3548	4016	4933	5637	6385	7044
of which: receiving formal care	286%	589	990	1199	1505	1786	2030	2277
relying on informal or no care	91%	2500	2558	2817	3428	3851	4355	4766

Education

EDUCATION SPENDING AS % OF GDP - BASELINE	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Total	-0.75	4.2	3.3	3.2	3.3	3.1	3.2	3.4
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (5%) - Staff (61%) - Other (34%)</i>								
Primary	-0.06	1.1	1.0	1.1	1.0	0.9	1.0	1.1
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (2%) - Staff (67%) - Other (31%)</i>								
Low secondary	:	:	:	:	:	:	:	:
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (-%) - Staff (-%) - Other (-%)</i>								
Upper secondary	-0.25	1.1	0.8	0.7	0.8	0.8	0.7	0.8
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (6%) - Staff (62%) - Other (33%)</i>								
Tertiary education	-0.29	1.1	0.9	0.7	0.7	0.8	0.7	0.8
<i>Expenditure decomposition (broadly constant) :</i>								
<i>Transfers (9%) - Staff (49%) - Other (42%)</i>								
Number of students (in thousands)								
Total	-6578	15233	12544	12041	11515	9938	9006	8655
as % of population 5-24	:	:	:	:	:	:	:	:
Primary	-1362	4066	3795	3958	3548	2900	2858	2704
Low secondary	-1444	3422	2610	2671	2656	2183	1996	1978
Upper secondary	-1999	4225	3182	2887	3009	2642	2253	2225
Tertiary education	-1772	3521	2957	2523	2302	2214	1900	1749
Number of teachers (in thousands)								
Total	-471	1107	908	885	849	723	660	636
Primary	-116	334	308	322	289	235	231	218
Low secondary	-129	304	231	236	235	194	177	175
Upper secondary	-136	291	220	200	209	183	157	155
Tertiary education	-90	178	149	127	116	111	95	88
EDUCATION SPENDING AS % OF GDP - HIGHER COMPENSATION PER TEACHER (DIFF. FROM BASELINE)								
Total	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
	0.18	-0.1	0.0	0.1	0.1	0.1	0.1	0.1
EDUCATION SPENDING AS % OF GDP - HIGHER RATIO TEACHERS/ STUDENTS (DIFF. FROM BASELINE)								
Total	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
	0.39	0.1	0.3	0.4	0.5	0.4	0.4	0.5
EDUCATION SPENDING AS % OF GDP - HIGHER ATTAINMENT RATES IN TERTIARY EDUCATION (45% BY 2020) (DIFF. FROM BASELINE)								
Total	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
	0.14	0.3	0.4	0.4	0.4	0.4	0.4	0.4

Unemployment benefit

UNEMPLOYMENT BENEFIT - BASELINE	Ch 07-60	2007	2015	2020	2030	2040	2050	2060
Unemployment benefit spending as % of GDP	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1

LEGENDA

* The potential GDP and its components is used to estimate the rate of potential output growth, net of normal cyclical variations

(1) Share of older population = Population aged 55 to 64 as % of population aged 15-64

(2) Old-age dependency ratio = Population aged 65 and over as a percentage of the population aged 15-64

(3) Total dependency ratio = Population under 15 and over 64 as a percentage of the population aged 15-64

(4) Total economic dependency ratio = Total population less employed as % of employed population 15-64

(5) Economic old-age dependency ratio (15-64) = Inactive population aged 65+ as % of employed population 15-64

NB: = data not provided

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2008), EPC (AWG).

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